Glenair®

*RUGGEDIZED RJ45 AND USB*

# SUPERSEAL™

## CONNECTORS AND ACCESSORIES

**IAW: MIL-DTL-38999 • MIL-DTL-5015 • MIL-DTL-26482 • MIL-DTL-28840 • SR. 80 MIGHTY MOUSE**

**MAY 2016**

RUGGEDIZED
RJ45 AND USB
CONNECTORS

# SUPERSEAL™

## CONNECTORS AND ACCESSORIES

RJ45/USB SUPER SEAL™

Glenair supplies the world's most comprehensive line of ruggedized, field RJ45 Ethernet and USB connectors. The entire series is optimized for high-speed RJ45 and USB protocol applications in industrial and military environments such as rail, naval, shipboard, and soldier-system communications. SuperSeal™ enables commercial standard RJ45 and USB connectors to perform their important connectivity functions in mil-spec application environments requiring higher levels of sealing, grounding, durability, and higher-performance cable and board termination options.

### *SuperSeal™ Advantages*

- Superior sealing— IP67 unmated and IP68 when mated—for complete system protection against water, sand and dust
- Shielded/grounded receptacle connectors
- Crimp, solder-cup, PC tail, and Quadrax contact/wire termination options
- USB 2.0 standard Type A, RJ45 Cat 5e and RJ12 with plug/jack or jack/jack interface options
- The industry's widest range of packaging options including Mil-DTL Type and Glenair ultraminiature solutions

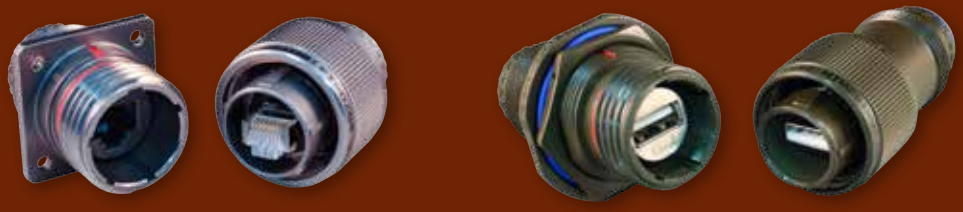
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™

## 38999 Type

## 5015 Intermountable

## 26482 Type

## 28840 Type



## Series 80 Mighty Mouse

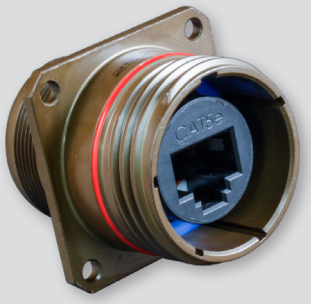
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™

RJ45/USB
SUPER SEAL™

## SUPERSEAL™

# Ruggedized RJ45, USB, HDMI, and DisplayPort connectors for applications as diverse as military ground vehicles to passenger IFE

## IP67 open-face, robust insert-to-shell grounding, complete range of wire, cable, and circuit board terminations



MIL-DTL-38999 Series III with sealed RJ45

MIL-DTL-38999 Series III with RJ45 USB cable assemblies

High-capacity, high-speed USB data stick

- **Superior sealing—IP67 unmated—for complete system protection against water, sand and dust**
- **Protocols available include: USB 2.0, 3.0, and 3.2 Gen 2; Cat 5e and 6a; HDMI 2.0; and DisplayPort 2**
- **Shielded/grounded coupler designs in both receptacle and plug connectors**
- **Crimp, solder-cup, PC tail, and Quadrax contact/wire termination options**
- **RJ45 plug and/or jack interface options MIL-DTL-38999 type versions intermateable with other RJ45 field-duty connectors**



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

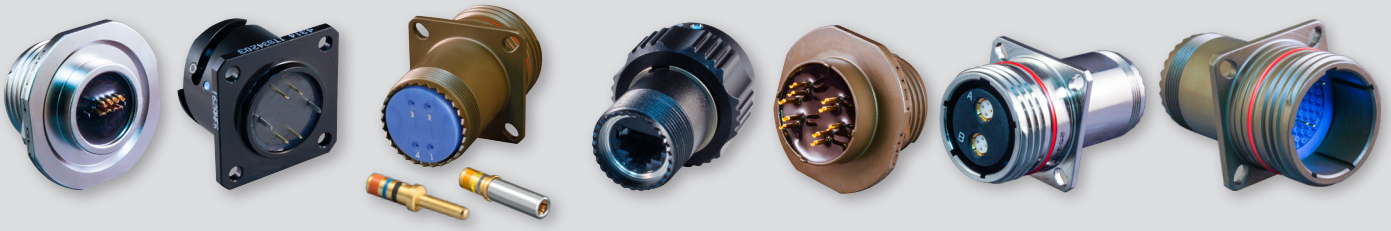
Rev. 11.14.23

# Introduction and Technical Reference

## SuperSeal connector overview



### AVAILABLE TERMINATION OPTIONS



Solder Cup | PC tail | Crimp | Jack-to-Jack | EMI Filtered | Quadrax | MIL-STD-1560 Arrangements

### EXPANDED PACKAGING OPTIONS

USB and RJ45 Cable Assemblies

IPT 26482 Type, RJ45 or USB 2.0 Plus ITS (5015 Intermountable), RJ45 Cat 5e or USB 2.0

Micro or Standard USB 2.0, 3.0, 3.2 gen 2 and RJ45 Mighty Mouse Plus 28840 RJ45 Cat 5e or USB 2.0

### ACCESSORIES AND TOOLS

Flop Lids and covers

Adapters and Backshells

Tools

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.



Rev. 11.14.23

# Introduction and Technical Reference

## Performance specifications for Cat 5e and 6A connectors



| RJ45 Cat 5e and Cat 6A Performance Specifications | | | |
|---|---|---|---|
| **Property** | **MIL-DTL-38999 Series III Type** | **Series ITS 5015 Intermountable** | **Series IPT MIL-DTL-26482 Type** |
| **Material and Finish** | | | |
| **Shell/Coupling and Plating** | Complete list of options available in the Material and Finish Options portion of this section | | |
| **Contacts** | PC tails, solder cup, and crimp contacts: copper alloy, gold plated | | |
| **RJ45 Insulator** | PPS | | |
| **Grommet, Peripheral Seal, Interfacial Seal, O-ring** | Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988 | | |
| **Shell Sizes** | 17 and 19 | 18 | 18 |
| **Shielding Sleeve** | Material: Copper alloy<br>Finish: Nickel | | |
| **Electrical Specifications** | | | |
| **Data Rate** | Cat 5e, up to one Gigabit per second (Gbps) at 100 MHz up to 100 meters / 328 feet.<br>Cat 6A, up to 10 Gigabit per second (10 Gbps) at 500 MHz up to 100 meters / 328 feet. | | |
| **Current Rating** | 1.5 Amps | | |
| **D.W.V.** | 1000 VDC (700 VAC) | | |
| **I.R.** | 500 Mega ohms @ 500 VDC | | |
| **Frequency** | 100 MHz (Cat 5e), 500 MHz (Cat 6A) | | |
| **Wiring** | Straight through | | |
| **Cabling Length** | Up to 100 meters or 100 meters max. | | |
| **Shield Continuity** | Continuous through coupler or continuous coupler to shell | | |
| **Environmental/Mechanical Performance** | | | |
| **Sealing** | IP68 mated condition, IP67 unmated condition | | |
| **Outgassing** | **Mod Code 186S** meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability<br>**Mod Code 928** meets outgassing requirements per UL 94 V-0 | | |
| **Operating Temperature** | -40°C to +120°C | | |
| **Vibration** | 20g, 3 Axis, 10 - 2000Hz | 15G sine 10Hz - 2000Hz | 10G sine 10Hz - 2000Hz |
| **Mechanical Shock** | 300 g's | 50G - 11ms | 50G - 11ms |
| **Backshell Interface** | MIL-DTL-38999, Designator H | Consult factory | |
| **Mating System** | Triple-start stub ACME | Reverse Bayonet | |
| **Mating Cycles** | 500 | | |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Introduction and Technical Reference

## Performance specifications for Cat 5e and 6A connectors



| RJ12 and RJ45 Cat 5e and Cat 6a Performance Specifications | | | |
|---|---|---|---|
| **Property** | **MIL-DTL-28840 Type (RJ12)** | **MIL-DTL-28840 Type (RJ45)** | **Series 801, 804 and 805 Mighty Mouse (RJ45)** |
| **Material and Finish** | | | |
| **Shell/Coupling and Plating** | Complete list of options available in the Material and Finish Options portion of this section | | |
| **Contacts** | PC tails, solder cup, and crimp contacts: copper alloy, gold plated | | |
| **RJ45 Insulator** | PPS | | |
| **Grommet, Peripheral Seal, Interfacial Seal, O-ring** | Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988 | | |
| **Shell Sizes** | 15 and 17 | 17 and 19 | Series 801 Shell Size 17 & 19<br>Series 804 Shell Size 15 & 16<br>Series 805 Shell Size 19 & 21 |
| **Shielding Sleeve** | Material: Copper alloy<br>Finish: Nickel | | |
| **Electrical Specifications** | | | |
| **Data Rate** | NA | Cat 5e, up to one Gigabit per second (Gbps) at 100 MHz up to 100 meters / 328 feet.<br>Cat 6A, up to 10 Gigabit per second (10 Gbps) at 500 MHz up to 100 meters / 328 feet. | |
| **Current Rating** | 1.5 Amps | | |
| **D.W.V.** | 1000 VDC (700 VAC) | | |
| **I.R.** | 500 Mega ohms @ 500 VDC | | |
| **Frequency** | 300 Hz - 3.4 KHZ | 100 MHz (Cat 5e), 500 MHz (Cat 6A) | |
| **Wiring** | Straight through | | |
| **Cabling Length** | 300 meters | Up to 100 meters or 100 meters max. | |
| **Shield Continuity** | Continuous through coupler or continuous coupler to shell | | |
| **Environmental/Mechanical Performance** | | | |
| **Sealing** | IP68 mated condition, IP67 unmated condition | | |
| **Outgassing** | **Mod Code 186S** meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability<br>**Mod Code 928** meets outgassing requirements per UL 94 V-0 | | |
| **Operating Temperature** | -40°C to +120°C | | |
| **Vibration** | NA | 20g, 3 Axis, 10 - 2000Hz | |
| **Mechanical Shock** | NA | 300g's | |
| **Backshell Interface** | Consult factory | Consult factory | Dependent on Series |
| **Mating System** | Threaded | Threaded | 801 - Double-Start Stub ACME<br>804 - Push/Pull<br>805 - Triple Start |
| **Mating Cycles** | 100 | 500 | 500 |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.



Rev. 11.14.23

# Introduction and Technical Reference

## Performance specifications for USB 2.0, 3.0 and 3.2 Gen 2 connectors



| USB 2.0/3.0/3.2 Gen 2 Performance Specifications | | | |
|---|---|---|---|
| **Property** | **MIL-DTL-38999 Series III Type** | **Series ITS 5015 Intermountable** | **Series IPT MIL-DTL-26482 Type** |
| **Material and Finish** | | | |
| **Shell/Coupling and Plating** | Complete list of options available in the Material and Finish Options portion of this section | | |
| **Contacts** | PC tails, solder cup, and crimp contacts: copper alloy, gold plated | | |
| **Grommet, Peripheral Seal, Interfacial Seal, O-ring** | Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988 | | |
| **USB Insulator** | LCP | PPS | |
| **Shell Sizes** | 15 and 17<br>Consult factory for other shell size options | 16 | 16 |
| **Electrical Specifications** | | | |
| **Power Usage** | Up to 7.5W | | |
| **Current Rating** | 1.5 Amps, | | |
| **D.W.V.** | 500 VAC (USB 2.0), 100 VAC (USB 3.0) | | |
| **I.R.** | 1000 MegOhms minimum (USB 2.0), 100 MegOhms minimum (USB 3.0) | | |
| **Shielding** | Continuous through coupler or continuous coupler to shell | | USB housing ground to shell full shielding |
| **Environmental/Mechanical Performance** | | | |
| **Sealing** | IP68 mated condition, IP67 unmated condition | | |
| **Outgassing** | **Mod Code 186S** meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability<br>**Mod Code 928** meets outgassing requirements per UL 94 V-0 | | |
| **Operating Temperature** | 40°C to 120°C (USB 2.0), -40°C to +85°C (USB 3.0) | | |
| **Vibration** | 20g's, 3 Axis, 10 - 2000Hz | 10G sine 10Hz - 2000Hz | 10G sine 10Hz - 2000Hz |
| **Mechanical Shock** | 300 g's | 50G - 11ms | 50G - 11ms |
| **Backshell Interface** | MIL-DTL-38999 Designator H | Consult Factory | Designator A |
| **Mating System** | Triple-start stub ACME | Reverse Bayonet | 3-Pin Bayonet |
| **Mating Cycles** | 500 | | |

**USB Protocol Specific Performance (regardless of connector)**

| Property | USB 2.0 | USB 3.0 | USB 3.2 Gen 2 |
|---|---|---|---|
| **Data Rate** | 480 MBps | 5 Gbps | 10 Gbps |
| **Cabling Length** | 5.0 meters max. | 3.0 meters max. | 1.0 meter max. |
| **Connector Compatibility** | Type A | Type A | Type C |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Introduction and Technical Reference

## Performance specifications for USB 2.0, 3.0 and 3.2 Gen 2 connectors



| USB 2.0/3.0/3.2 Gen 2 Performance Specifications | | |
|---|---|---|
| **Property** | **MIL-DTL-28840 Type** | **Series 801, 804 and 805 MIghty Mouse** |
| **Material and Finish** | | |
| **Shell/Coupling and Plating** | Complete list of options available in the Material and Finish Options portion of this section | |
| **Contacts** | PC tails, solder cup, and crimp contacts: copper alloy | |
| **Grommet, Peripheral Seal, Interfacial Seal, O-ring** | Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988 | |
| **USB Insulator** | PPS | LCP |
| **Shell Sizes** | 15 | **Micro USB**:<br>Series 801 & 804 Shell Size 8<br>Series 805 shell Size 10<br>**Standard USB:**<br>Series 801 Shell Size 16, Series 804 Shell Size 14, Series 805 Shell Size 18 |
| **Electrical Specifications** | | |
| **Power Usage** | Up to 7.5W | |
| **Current Rating** | 1.5 Amps (USB 2.0 and 3.0) | |
| **D.W.V.** | 500 VAC (USB 2.0), 100 VAC (USB 3.0) | 500 VAC Standard USB 2.0<br>100 VAC Micro USB 2.0 Mighty Mouse<br>100 VAC Standard USB 3.0 |
| **I.R.** | 1000 MegOhms minimum (USB 2.0), 100 MegOhms minimum (USB 3.0) | |
| **Shielding** | Continuous through coupler or continuous coupler to shell | |
| **Environmental/Mechanical Performance** | | |
| **Sealing** | IP68 mated condition, IP67 unmated condition | |
| **Outgassing** | **Mod Code 186S** meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability<br>**Mod Code 928** meets outgassing requirements per UL 94 V-0 | |
| **Operating Temperature** | -40°C to 85°C (USB 3.0)<br>-40°C to 120°C (USB 2.0) | -40° to +120°C (Standard)<br>-20°C to +85°C (Micro) |
| **Vibration** | 20g's, 3 Axis, 10 - 2000Hz | 20g, 3 axis, 10-2000 Hz (Standard)<br>37.8g, 3 axis, 50-2000 Hz (Micro) |
| **Mechanical Shock** | 300 g's | 300g (Standard and Micro) |
| **Backshell Interface** | M28840, Connector Designator G | Consult Factory |
| **Mating System** | Threaded | 801 - Double-Start Stub ACME<br>804 - Push/Pull<br>805 - Triple Start |
| **Mating Cycles** | 100 | 2,000 (801 and 804)<br>500 (805) |

**USB Protocol Specific Performance (regardless of connector)**

| Property | USB 2.0 | USB 3.0 | USB 3.2 Gen 2 |
|---|---|---|---|
| **Data Rate** | 480 MBps | 5 Gbps | 10 Gbps |
| **Cabling Length** | 5.0 meters max. | 3.0 meters max. | 1.0 meter max. |
| **Connector Compatibility** | Type A | Type A | Type C |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# HDMI performance specifications for MIL-DTL-D38999



| HDMI 2.0 Performance Specifications | |
|---|---|
| **Property** | **MIL-DTL-38999 Series III Type** |
| **Material and Finish** | |
| **Shell/Coupling and Plating** | Complete list of options available in the Material and Finish Options portion of this section |
| **Contacts** | Copper alloy/gold plate |
| **HDMI Insulator** | LCP |
| **Grommet, Peripheral Seal, Interfacial Seal, O-ring** | Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988 |
| **Shell Size** | 17<br>Consult factory for other shell size options |
| **Electrical Specifications** | |
| **Data Rate** | Up to 18 Gbps |
| **Power Usage** | +5.0 volts |
| **Current Rating** | 0.3 Amps min. |
| **D.W.V.** | 300 VAC |
| **I.R.** | 100 Mega Ohms min |
| **Cabling Length** | 10 Meters maximum (recommended) |
| **Shielding** | Continuous through coupler or continuous coupler to shell |
| **Environmental/Mechanical Performance** | |
| **Sealing** | IP67 unmated, IP68 mated |
| **Outgassing** | **Mod Code 186S** meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability<br>**Mod Code 928** meets outgassing requirements per UL 94 V-0 |
| **Operating Temperature** | -20°C to +85°C |
| **Backshell Interface** | MIL-DTL-38999 Designator H |
| **Mating System** | Triple-start stub ACME |
| **Mating Cycles** | 500 |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# DisplayPort performance specifications for MIL-DTL-D38999



| DisplayPort 1.4 Performance Specifications | |
|---|---|
| **Property** | **MIL-DTL-38999 Series III Type** |
| **Material and Finish** | |
| **Shell/Coupling and Plating** | Complete list of options available in the Material and Finish Options portion of this section |
| **Contacts** | Copper alloy/gold plate |
| **DisplayPort Insulator** | LCP |
| **Grommet, Peripheral Seal, Interfacial Seal, O-ring** | Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988 |
| **Shell Size** | 17<br>Consult factory for other shell size options |
| **Electrical Specifications** | |
| **Data Rate** | 25.92 Gbps maximum |
| **Power Usage** | +5.0 volts |
| **Current Rating** | 5 Amps |
| **D.W.V.** | 300 VAC (mated); 500 VAC (unmated) |
| **I.R.** | 100 Mega Ohms min |
| **Cabling Length** | 10 Meters max. (recommended) |
| **Shielding** | Continuous through coupler or continuous coupler to shell |
| **Environmental/Mechanical Performance** | |
| **Sealing** | IP67 unmated, IP68 mated |
| **Outgassing** | **Mod Code 186S** meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability<br>**Mod Code 928** meets outgassing requirements per UL 94 V-0 |
| **Operating Temperature** | -20°C to +85°C |
| **Backshell Interface** | MIL-DTL-38999 Designator H |
| **Mating System** | Triple-start stub ACME |
| **Mating Cycles** | 500 |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# RJ45 Cat 5e and 6A TVS diode filter connector performance specifications

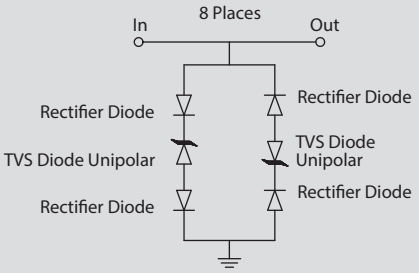


| MIL-DTL-38999 Series III, TVS Diode, RJ45 Cat 5e and 6A Performance Specifications | |
|---|---|
| **Material and Finish** | |
| **Shell/coupling Plating** | Complete list of options available in the Material and Finish Options portion of this section |
| **Contacts** | PC tails or solder cup: copper alloy, gold plated |
| **RJ45 coupler housing** | UL94V-0 compliant ABS or PPS |
| **Seals** | Fluorosilicone |
| **Shell Sizes** | 17 and 19 |
| **Environmental / Mechanical Performance** | |
| **Sealing** | IP68 mated condition, IP67 unmated condition |
| **Outgassing** | Mod Code 186S* Mod Code 928** |
| **Operating Temperature** | -20°C to +85° C LT -40 to +125° C HT |
| **Vibration** | 20g's, 3 Axis, 10 - 2000Hz |
| **Mechanical Shock** | 300 g's |
| **Backshell Interface** | MIL-DTL-38999 Designator H |
| **Mating Cycles** | 500 |

* Meets outgassing requirements per ASTM E 595 and meets NASA screening requirements for level 1 highest reliability
** Meets outgassing requirements per UL 94 V-0

| MIL-DTL-38999 Series III, TVS Diode, RJ45 Cat 5e and 6A Performance Specifications | |
|---|---|
| **RJ45 Cat 6A & 5e Electrical Specifications** | |
| **Voltage Rating** | 1000 Volts, Cat 5e |
| **Data Rate** | 10BASE-T, 100BASE-TX, 1000BASE-T/1000BASE-TX |
| **Current Rating** | 1.5 Amps |
| **D.W.V.** | 1000 VDC (700 VAC) |
| **Frequency** | 100 MHz, Cat 5e 500 MHz, Cat 6A |
| **Wiring** | Straight through |
| **Cabling Length** | 100 Meters Max |
| **Shield Continuity** | Continuous Through Coupler and Grounded to the Shell |

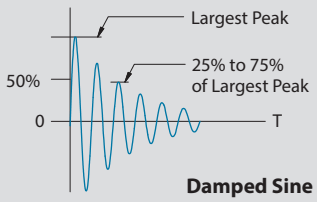
**FIGURE 1**



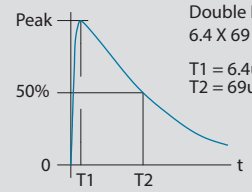

| RTCA DO-160 Indirect Lightning Waveset A Waveforms | | |
|---|---|---|
| **RTCA DO-160 Waveform** | **Level** | **Open Circuit Voltage/ Short Circuit Voltage V/A** |
| Waveform 3 | 1 | 100/4 |
| | 2 | 250/10 |
| Waveform 4 | 1 | 50/10 |
| | 2 | 125/25 |

| MIL-DTL-38999 Series III, TVS Diode, RJ45 Cat 5e and 6A Performance Specifications | |
|---|---|
| **TVS Electrical Specifications** Each signal line has TVS diode protection per the electrical schematic in figure 1. | |
| **Peak pulse power (tp = 8/20us)** | 1,200w |
| **Rated standoff voltage** | 2.8V |
| **Minimum breakdown voltage** | 3.0V @ 1mA |
| **Max clamping voltage (@ Ipp = 2A)** | 5.5V |
| **Max clamping voltage (@ Ipp = 5A)** | 8.5V |
| **Max clamping voltage (@ Ipp = 30A)** | 21.0V |
| **Max leakage current** | 2.0uA max @ 2.8V |
| **Typical junction capacitance** | 10pF @ 0v, 1Mhz |
| **Polarity** | bipolar |
| **Compatible with IEC 61000-4-2 (ESD)** | air - 15kv, contact - 8kv |
| **Compatible with IEC 61000-4-4 (EFT)** | 40A - 5/50ns |
| **Compatible with IEC 61000-4-5 (surge)** | 24A, 8/20us - level 2 (line-gnd) & level 3 (line-line) |
| Meets indirect lightning strike requirements per D0-160, section 22 pin injection waveform set A2. | |

Waveform 3




Waveform 4






© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Material and finish options for SuperSeal™ connectors



| MIL-DTL-38999 Connector and Cable Assembly Material and Finish Codes | | | | | | | |
|---|---|---|---|---|---|---|---|
| Code | Material | Finish | Finish Specification | Hrs. Salt Spray | Electrical Conductivity | Operating Temp. Range | RoHS Compliance |
| ME | Aluminum | Electroless Nickel | MIL-DTL-24308 Class K | 96 | Yes | | Yes |
| MT | Aluminum | Nickel PTFE | SAE AMS2454 | 500 | Yes | -65° to +175°C | Yes |
| NF | Aluminum | Cadmium, Olive Drab | SAE-AMS-QQ-P-416 Type II Class 2 over electroless nickel | 500 | Yes | -65° to +175°C | No |
| ZR | Aluminum | Zinc-Nickel, Black | ASTM B841 Grade 5 over electroless nickel | 500 | Yes | -65° to +175°C | Yes |
| AB | Marine Bronze | None | | 1000 | Yes | -65° to +200°C | Yes |
| XM | Composite | Electroless Nickel | AMS-C-26074 | 2000 | Yes | -65° to +175°C | Yes |
| Z1 | Stainless Steel | Passivate | SAE-AMS-SAE-AMS-QQ-P-35 Type VI | 1000 | Yes | -65° to +200°C | Yes |

| Glenair Series ITS (5015 Intermountable) Material and Finish Codes | | | | | | |
|---|---|---|---|---|---|---|
| Code | Material | Finish | Hrs. Salt Spray | Electrical Conductivity | Operating Temp. Range | RoHS Compliance |
| F6 | Aluminum | Black Epoxy Paint | 500 | No | -55° to +125°C | Yes |
| F7 | Aluminum | Black Zinc Nickel | 500 | Yes | -55° to +125°C | Yes |
| F11 | Aluminum | Electroless Nickel | 48 | Yes | -55° to +125°C | Yes |
| G3 | Aluminum | Cadmium, Olive Drab | 500 | Yes | -55° to +125°C | No |

| Glenair Series IPT (IAW MIL-DTL-26482) Material and Finish Codes | | | | | | |
|---|---|---|---|---|---|---|
| Code | Material | Finish | Hrs. Salt Spray | Electrical Conductivity | Operating Temp. Range | RoHS Compliance |
| F6 | Aluminum | Black Epoxy Paint | 500 | No | -55° to +125°C | Yes |
| F7 | Aluminum | Black Zinc Nickel | 500 | Yes | -55° to +125°C | Yes |
| F11 | Aluminum | Electroless Nickel | 48 | Yes | -55° to +125°C | Yes |
| G3 | Aluminum | Cadmium, Olive Drab | 500 | Yes | -55° to +125°C | No |

| MIL-DTL-28840 Material and Finish Options | | | | | | | |
|---|---|---|---|---|---|---|---|
| Code | Material | Finish | Finish Specification | Hrs. Salt Spray | Electrical Conductivity | Operating Temp. Range | RoHS Compliance |
| NF | Aluminum | Cadmium, Olive Drab | SAE-AMS-QQ-P-416 | 500 | Yes | -65 to +175°C | No |
| ZR | Aluminum | Zinc-Nickel, Black | ASTM B841 | 500 | Yes | -65 to +175°C | Yes |
| MT | Aluminum | Nickel-PTFE, 1000 Hour Grey™ | AMS2454 | 1000 | Yes | -65 to +175°C | Yes |
| Z1 | Stainless Steel | Passivate | SAE-AMS-QQ-P-35 | 1000 | Yes | -65 to +200°C | Yes |

| Series 80 MIghty Mouse Material and Finish Codes | | | | | | | |
|---|---|---|---|---|---|---|---|
| Code | Material | Finish | Finish Specification | Hrs. Salt Spray | Electrical Conductivity | Operating Temp. Range | RoHS Compliance |
| M | Aluminum | Electroless Nickel | AMS-C-26074 | 48 | Yes | -65 to +200°C | Yes |
| MT | Aluminum | Nickel-PTFE | SAE AMS2454 | 500 | Yes | -65 to +175°C | Yes |
| NF | Aluminum | Cadmium, Olive Drab | SAE-AMS-QQ-P-416 | 500 | Yes | -65 to +175°C | No |
| ZNU | Aluminum | Zinc-Nickel, Black | ASTM B841 | 500 | Yes | -65 to +175°C | No |
| Z1 | Stainless Steel | Passivate | SAE-AMS-QQ-P-35 | 1000 | Yes | -65 to +200°C | Yes |

**Consult Factory for Additional Material and Finish Options**

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.



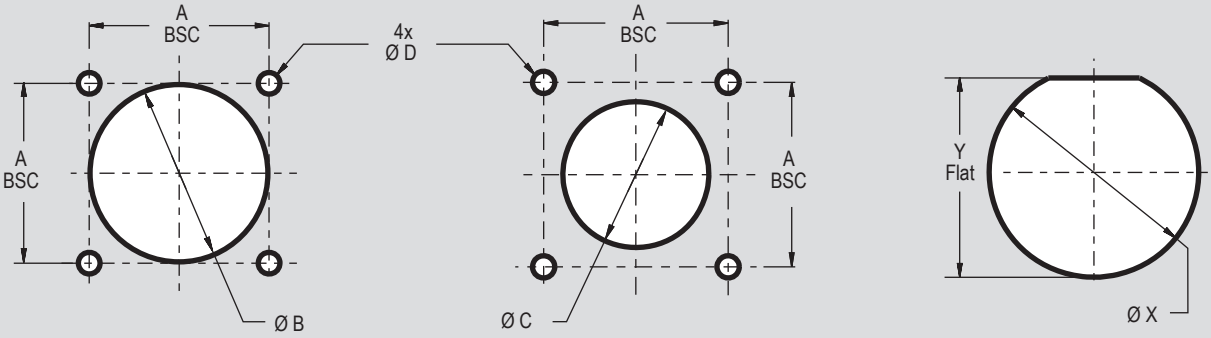
Rev. 11.14.23

# Introduction and Technical Reference

## Recommended panel cutouts for MIL-DTL-38999 Series III type connectors



### MIL-DTL-38999 TYPE RJ45 PANEL CUTOUTS FOR SHELL SIZE 17 AND 19



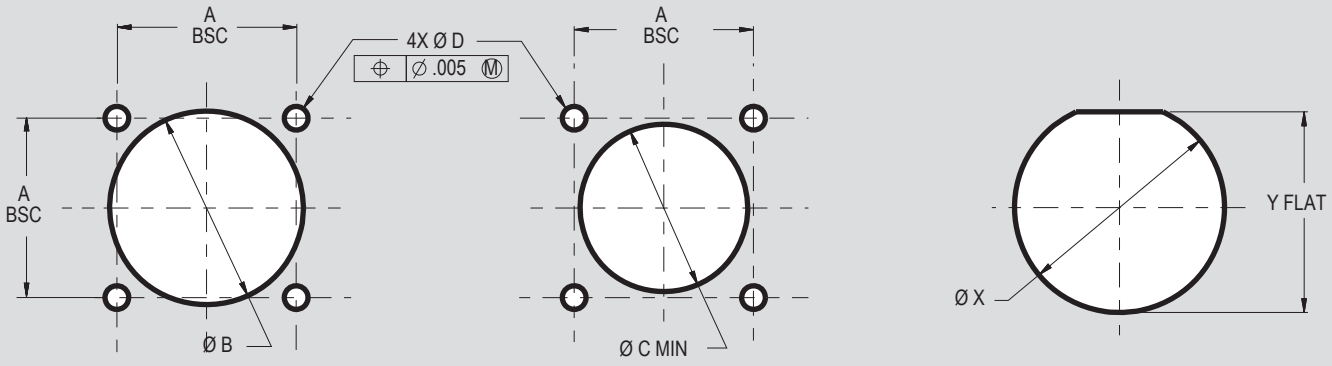

WALL MOUNT
REAR PANEL MOUNT

WALL MOUNT
FRONT PANEL MOUNT

JAM NUT MOUNT

| Panel Cut-Out Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| Shell Size | A Bsc | B Dia Min | C Dia Min | D Holes | X Dia | Y Flat |
| 17 | 1.062 (26.97) | 1.219 (30.96) | 1.016 (25.81) | .133 (3.38) .123 (3.12) | 1.270 (32.26) 1.260 (32.00) | 1.210 (30.73) 1.200 (30.48) |
| 19 | 1.156 (29.36) | 1.297 (32.94) | 1.141 (28.98) | | 1.395 (35.43) 1.385 (35.18) | 1.335 (33.91) 1.325 (33.66) |

### MIL-DTL-38999 TYPE USB AND HDMI PANEL CUTOUTS FOR SHELL SIZE 15 (USB ONLY) AND 17




WALL MOUNT
REAR PANEL MOUNT

WALL MOUNT
FRONT PANEL MOUNTING

JAM NUT MOUNT

| Panel Cut-Out Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| Shell Size | A BSC | B Dia Min | C Dia Min | D Holes | X Dia | Y Flat |
| 15 | .969 (24.61) | 1.047 (26.59) | .906 (23.01) | .133 (3.38) .123 (3.12) | 1.145 (29.08) 1.135 (28.83) | 1.085 (27.56) 1.075 (27.31) |
| 17 | 1.062 (26.97) | 1.219 (30.96) | 1.016 (25.81)* | | 1.270 (32.26) 1.260 (32.00) | 1.210 (30.73) 1.200 (30.48) |

* Available for HDMI connectors only. Front panel mounting is not available for SuperSeal 38999 Type USB connectors.

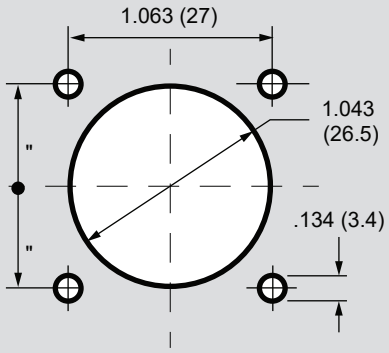


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

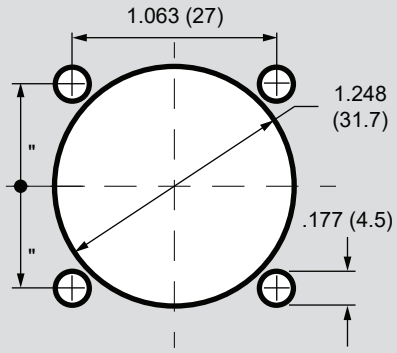
# Recommended panel cutouts for Glenair Series ITS (5015 intermountable) connectors



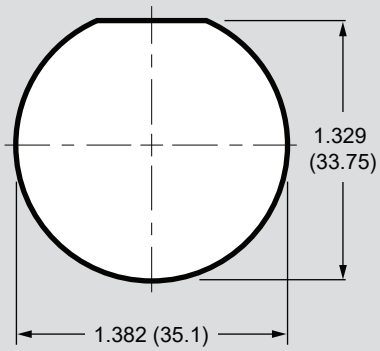
## GLENAIR SERIES ITS (MIL-DTL-5015) RJ45 PANEL CUTOUTS FOR SHELL SIZE 18




SQUARE FLANGE
FRONT PANEL MOUNTING

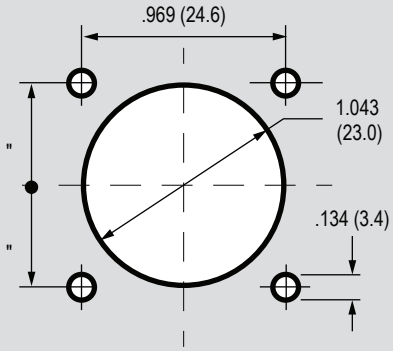



SQUARE FLANGE
REAR PANEL MOUNTING

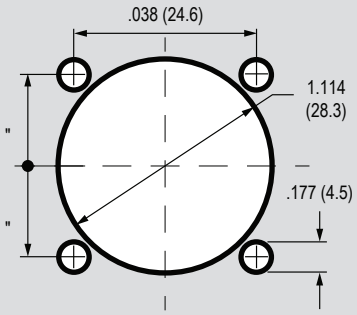



JAM NUT MOUNT

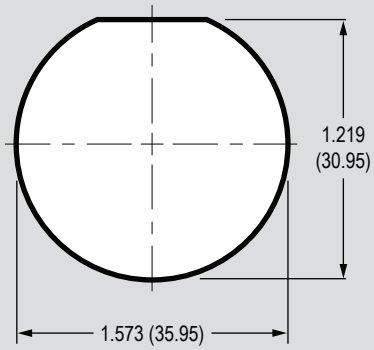
## GLENAIR SERIES ITS (MIL-DTL-5015) USB PANEL CUTOUTS FOR SHELL SIZE 16




SQUARE FLANGE
FRONT PANEL MOUNT




SQUARE FLANGE
REAR PANEL MOUNT




JAM NUT MOUNT

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

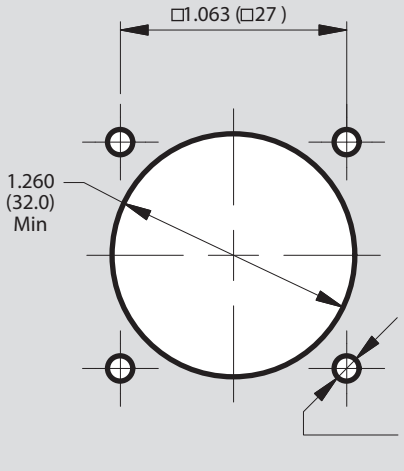


Rev. 11.14.23

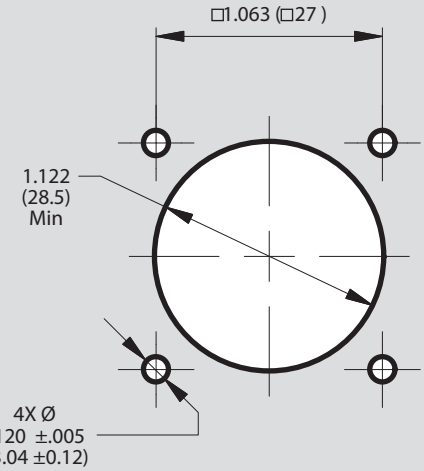
# Recommended panel cutouts for Glenair Series IPT (MIL-DTL-26482 type) connectors



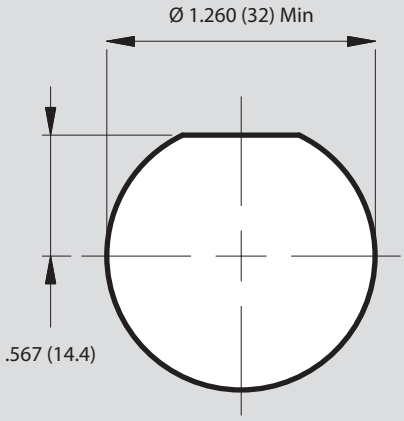
## GLENAIR SERIES IPT (MIL-DTL-26482 TYPE) RJ45 PANEL CUTOUTS FOR SHELL SIZE 18




SQUARE FLANGE REAR MOUNT
RECOMMENDED MOUNTING HOLES

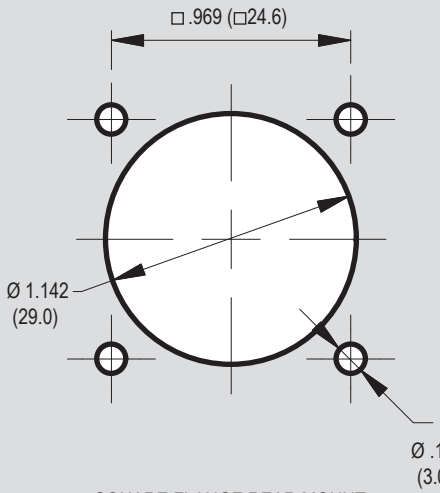



SQUARE FLANGE FRONT MOUNT
RECOMMENDED MOUNTING HOLES

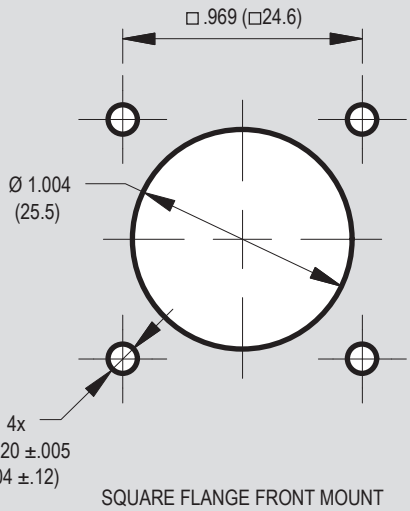



JAM NUT MOUNT
RECOMMENDED MOUNTING HOLE
PANEL THICKNESS .063-.126 (1.6 -3.2)

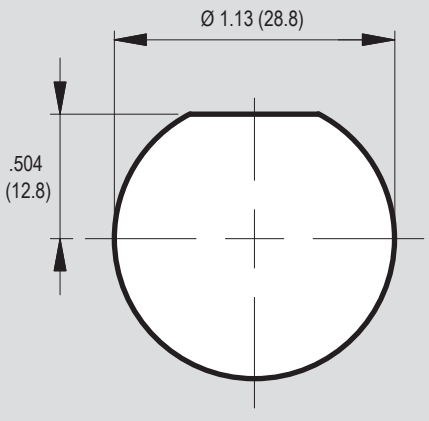
## GLENAIR SERIES IPT (MIL-DTL-26482 TYPE) USB PANEL CUTOUTS FOR SHELL SIZE 16




SQUARE FLANGE REAR MOUNT
RECOMMENDED MOUNTING HOLES




SQUARE FLANGE FRONT MOUNT
RECOMMENDED MOUNTING HOLES




JAM NUT MOUNT
RECOMMENDED MOUNTING HOLE
PANEL THICKNESS .063-.126 (1.6 -3.2)



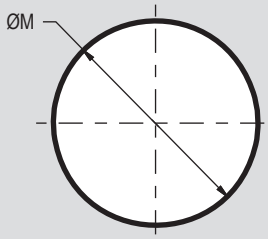
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Recommended panel cutouts for MIL-DTL-28840 type connectors

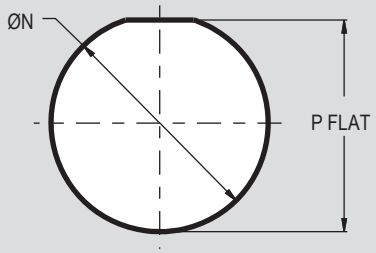


## MIL-DTL-28840 TYPE RJ12 PANEL CUTOUTS FOR SHELL SIZE 15 AND 17

| Recommended Panel Cutouts | | | |
|---|---|---|---|
| Shell Size | ØM | ØN | P Flat |
| 15 | 1.124 (28.55) | 1.203 (30.56)<br>1.193 (30.30) | 1.165 (29.59)<br>1.155 (29.34) |
| 17 | 1.187 (30.15) | 1.265 (32.13)<br>1.255 (31.88) | 1.228 (31.19)<br>1.218 (30.94) |



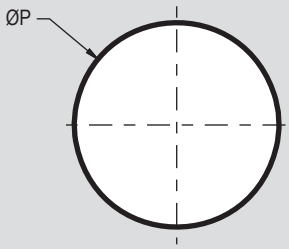

WALL MOUNT RECEPTACLE
MAX PANEL THICKNESS
.188 (4.78)



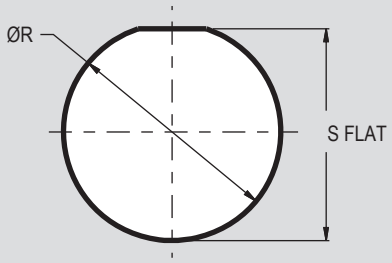

REAR PANEL MOUNT
JAM NUT RECEPTACLE
MAX PANEL THICKNESS
.188 (4.78)

## MIL-DTL-28840 TYPE RJ45 PANEL CUTOUTS FOR SHELL SIZE 17 AND 19

| Panel Cutouts | | | |
|---|---|---|---|
| Shell Size | ØP | ØR | S Flat |
| 17 | 1.187 (30.15) | 1.265 (32.13)<br>1.255 (31.88) | 1.228 (31.19)<br>1.218 (30.94) |
| 19 | 1.374<br>(34.90) | 1.453 (36.91)<br>1.443 (36.65) | 1.415 (35.94)<br>1.405 (35.69) |

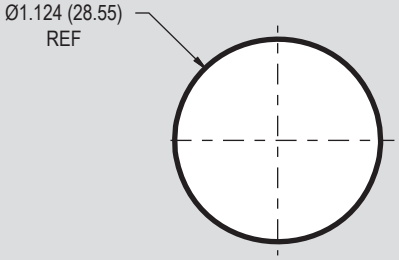



WALL MOUNT RECEPTACLE
MAX PANEL THICKNESS
.188 (4.78)

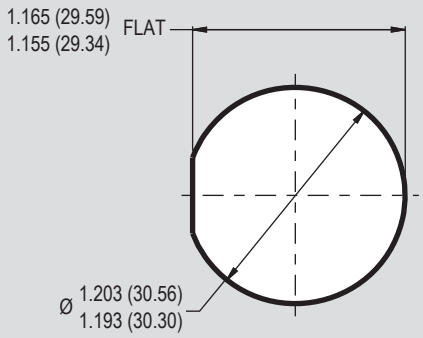



REAR PANEL MOUNT
JAM NUT RECEPTACLE
MAX PANEL THICKNESS
.188 (4.78)

## MIL-DTL-28840 TYPE USB PANEL CUTOUTS FOR SHELL SIZE 15




WALL MOUNT RECEPTACLE
MAX PANEL THICKNESS
.188 (4.78)




JAM NUT RECEPTACLE
REAR PANEL MOUNT
MAX PANEL THICKNESS
.188 (4.78) MAX

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

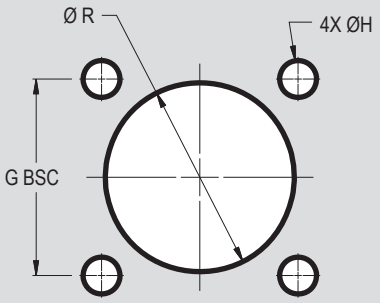


Rev. 11.14.23

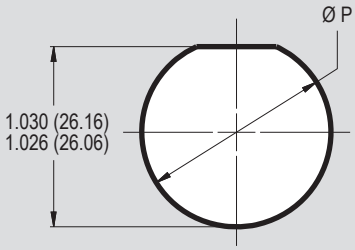
# Recommended panel cutouts for Mighty Mouse Series 801, 804 and 805 connectors



## SERIES 801 MIGHTY MOUSE RJ45 PANEL CUTOUTS FOR SHELL SIZE 17 AND 19



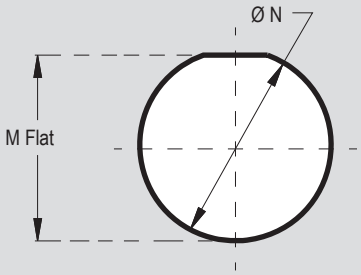

FRONT OR REAR PANEL MOUNT
SQUARE FLANGE RECEPTACLE



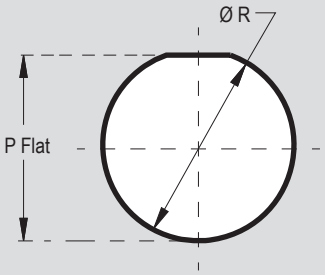

REAR PANEL MOUNT
JAM NUT RECEPTACLE

| Panel Cut-Out Dimenions | | | | | | |
|---|---|---|---|---|---|---|
| Shell Size | Mounting Style | N Flat | Ø P | G BSC | ØH Holes | Ø R |
| 17 | Jam Nut | 1.104 (28.04)<br>1.100 (27.94) | 1.135 (28.83) | - | - | - |
| | Square Flange | - | | 1.060 (26.92) | .130 (3.30)<br>.126 (3.20) | 1.078 (27.38) |
| 19 | Jam Nut | 1.235 (31.67)<br>1.231 (31.27) | 1.260 (32.00) | - | - | - |
| | Square Flange | - | - | 1.191 (30.25) | .130 (3.30)<br>.126 (3.20) | 1.203 (30.56) |

## SERIES 804 USB MIGHTY MOUSE RJ45 PANEL CUTOUTS FOR SHELL SIZE 15 AND 16



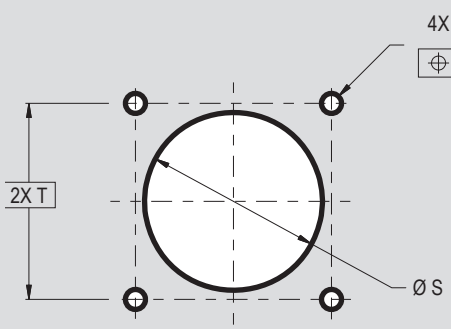

REAR PANEL MOUNT
JAM NUT RECEPTACLE



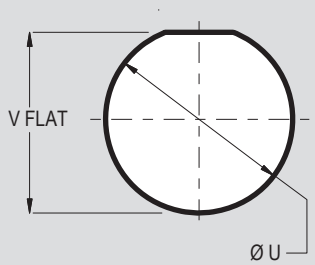

FRONT PANEL MOUNT
JAM NUT RECEPTACLE

| Panel Cut-Out Dimenions | | | | | |
|---|---|---|---|---|---|
| Shell Size | Mounting Style | M Flat | Ø N | P Flat | Ø R |
| 15 | Front Mount | - | - | 1.015 (25.78)<br>1.011 (25.68) | 1.135 (28.83) |
| | Rear Mount | 1.041 (26.44)<br>1.037 (26.34) | 1.070 (27.18) | - | - |
| 16 | Front Mount | - | | 1.157 (29.38)<br>1.153 (29.27) | 1.198 (30.43) |
| | Rear Mount | 1.102 (27.99)<br>1.098 (27.89) | 1.135 (28.83) | - | - |

## SERIES 805 USB MIGHTY MOUSE RJ45 PANEL CUTOUTS FOR SHELL SIZE 19 AND 21




FRONT OR REAR PANEL MOUNT
SQUARE FLANGE RECEPTACLE
(NOTE: -12 & -22 REAR MOUNT ONLY
-02 FRONT OR REAR MOUNT)




REAR PANEL MOUNT
JAM NUT RECEPTACLE

| Panel Cut-Out Dimenions | | | | |
|---|---|---|---|---|
| Shell Size | Ø S | T BSC | Ø U | V Flat |
| 19 | 1.203 (30.56) | 1.327 (33.71) | 1.262 (32.05)<br>1.258 (31.95) | 1.233 (31.32)<br>1.229 (31.22) |
| 21 | 1.328 (33.73) | 1.452 (36.88) | 1.387 (35.23)<br>1.383 (35.13) | 1.360 (34.54)<br>1.356 (34.44) |



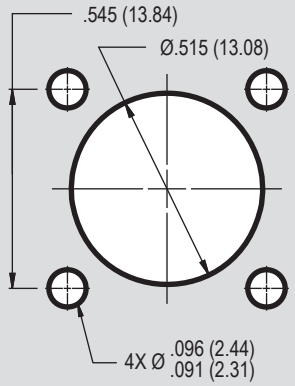
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

Rev. 11.14.23

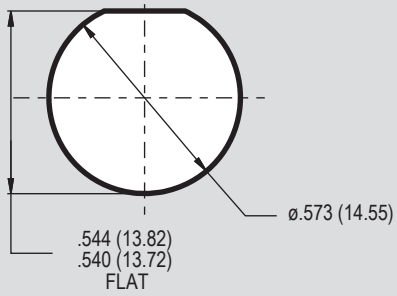
# Recommended panel cutouts for Mighty Mouse series 801 and 805 “Micro” USB connectors



## SERIES 801 MIGHTY MOUSE, MICRO USB PANEL CUTOUTS FOR SHELL SIZE 8

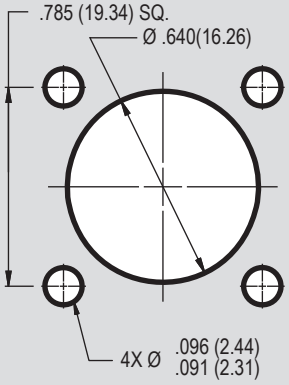



SQUARE FLANGE RECEPTACLE

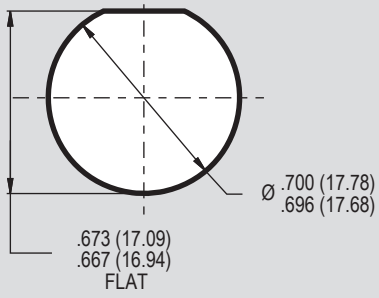



REAR PANEL MOUNT
JAM NUT RECEPTACLE

## SERIES 805 MIGHTY MOUSE, MICRO USB PANEL CUTOUTS FOR SHELL SIZE 10




SQUARE FLANGE RECEPTACLE



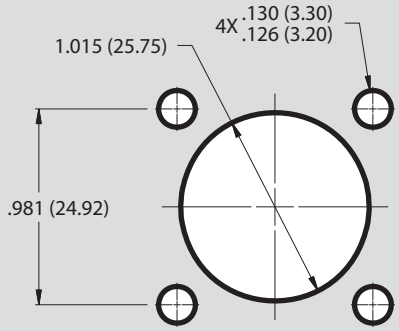

REAR PANEL MOUNT
JAM NUT RECEPTACLE

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

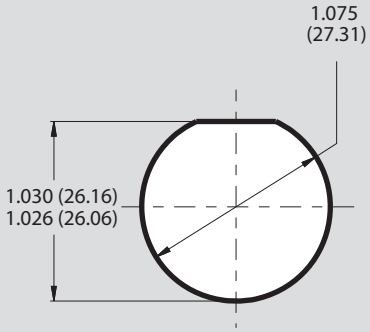
# Recommended panel cutouts for Mighty Mouse Series 801, 804 and 805 connectors



## SERIES 801 MIGHTY MOUSE, TYPE A STANDARD USB, PANEL CUTOUTS FOR SHELL SIZE 16

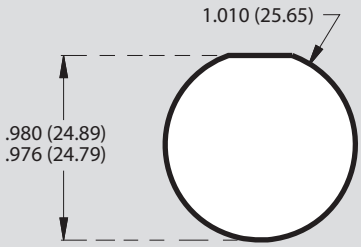



FRONT OR REAR PANEL MOUNT
SQUARE FLANGE RECEPTACLE

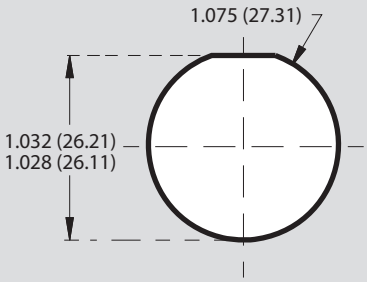



REAR PANEL MOUNT
JAM NUT RECEPTACLE

## SERIES 804 USB MIGHTY MOUSE , TYPE A STANDARD USB, PANEL CUTOUTS FOR SHELL SIZE 14

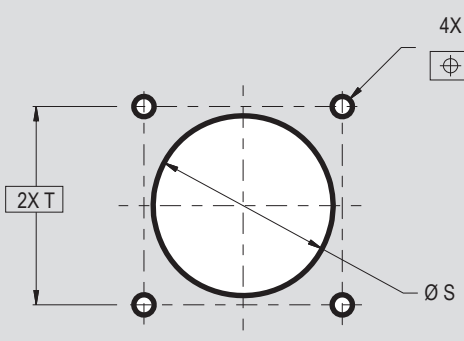



REAR PANEL MOUNT
JAM NUT RECEPTACLE

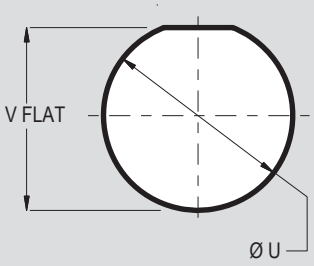



FRONT PANEL MOUNT
JAM NUT RECEPTACLE

## SERIES 805 USB MIGHTY MOUSE, TYPE A STANDARD USB, PANEL CUTOUTS FOR SHELL SIZE 18




FRONT OR REAR PANEL MOUNT
SQUARE FLANGE RECEPTACLE
(NOTE: -12 & -22 REAR MOUNT ONLY
-02 FRONT OR REAR MOUNT)




REAR PANEL MOUNT
JAM NUT RECEPTACLE



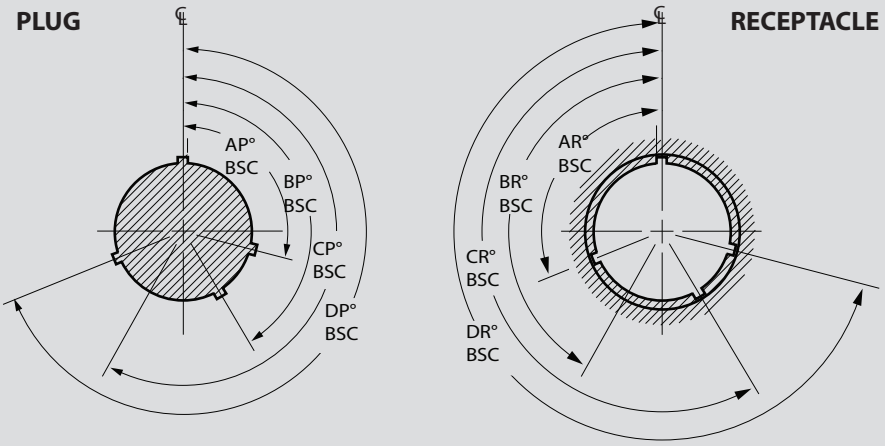
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Alternate key and keyway positions for MIL-DTL-38999 and MIL-DTL 28840 type connectors



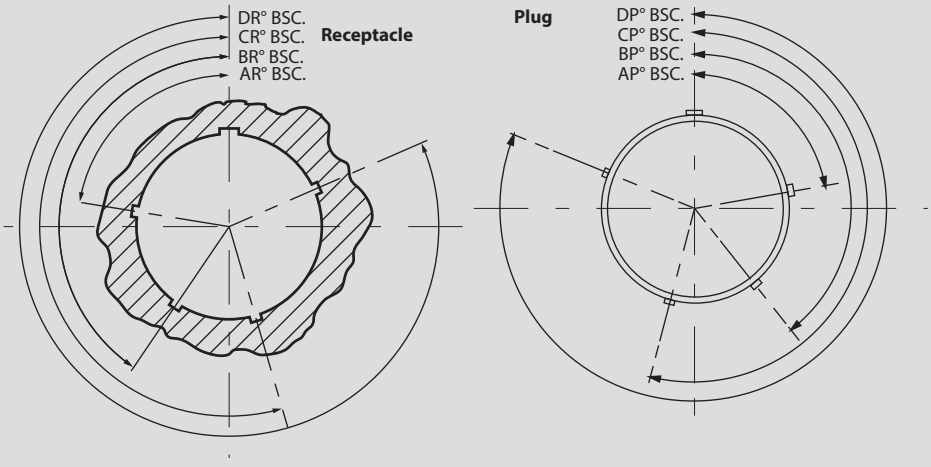
## MIL-DTL-38999 POLARIZATION KEY(PLUG) AND KEYWAY (RECEPTACLE) POSITIONS

| Alternate Key and Keyway Polarization | | | | | |
|---|---|---|---|---|---|
| Shell Size | Key and Keyway Code | AR° or AP° BSC | BR° or BP° BSC | CR° or CP° BSC | DR° or DP° BSC |
| 17<br>19 | N | 80 | 142 | 196 | 293 |
| | A | 135 | 170 | 200 | 310 |
| | B | 49 | 169 | 200 | 244 |
| | C | 66 | 140 | 200 | 257 |
| | D | 62 | 145 | 180 | 280 |
| | E | 79 | 153 | 197 | 272 |




## MIL-DTL-28840 POLARIZATION KEY AND KEYWAY ARRANGEMENTS

| Alternate Key and Keyway Polarization | | | | | |
|---|---|---|---|---|---|
| Shell Size | Key and Keyway Code | AR° or AP° BSC | BR° or BP° BSC | CR° or CP° BSC | DR° or DP° BSC |
| 15 (C)<br>17 (D) | 1 | 80 | 142 | 196 | 293 |
| | 2 | 135 | 170 | 200 | 310 |
| | 3 | 49 | 169 | 200 | 244 |
| | 4 | 66 | 140 | 200 | 257 |
| | 5 | 62 | 145 | 180 | 280 |
| | 6 | 79 | 153 | 197 | 272 |
| 19 (E) | 1 | 80 | 142 | 196 | 293 |
| | 2 | 135 | 170 | 200 | 310 |
| | 3 | 49 | 169 | 200 | 244 |
| | 4 | 66 | 140 | 200 | 257 |
| | 5 | 62 | 145 | 180 | 280 |
| | 6 | 79 | 153 | 197 | 272 |




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

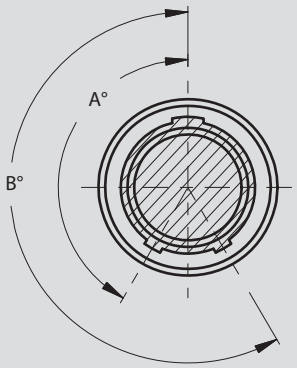
# Alternate key and keyway positions for Mighty Mouse Series 801 and 805 connectors



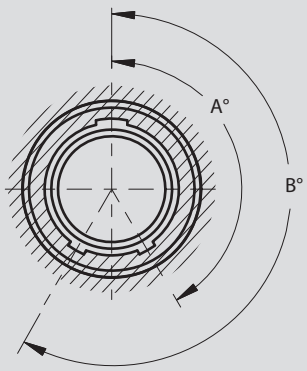
## SERIES 801 MIGHTY MOUSE ALTERNATE KEY(PLUG) KEYWAY (RECEPTACLE) POSITIONS

| Alternate Key Positions | | |
|---|---|---|
| Position | A° | B° |
| A | 150° | 210° |
| B | 75° | 210° |
| C | 95° | 230° |
| D | 140° | 275° |
| E | 75° | 275° |
| F | 95° | 210° |

PLUG



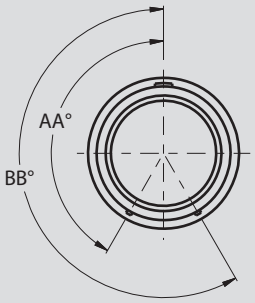

RECEPTACLE




## SERIES 805 MIGHTY MOUSE ALTERNATE KEY(PLUG) KEYWAY (RECEPTACLE) POSITIONS

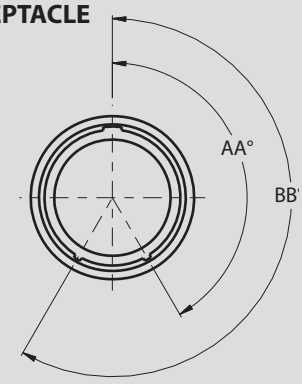
| Alternate Key and Keyway Positions | | |
|---|---|---|
| Position | AA° | BB° |
| A | 150° | 210° |
| B | 75° | 210° |
| C | 95° | 230° |
| D | 140° | 275° |
| E | 75° | 275° |
| F | 95° | 210° |

PLUG




Normal and Alternate Postion
Key Rotation (Plug)

RECEPTACLE




Normal and Alternate Postion
Keyway Rotation (Receptacle)



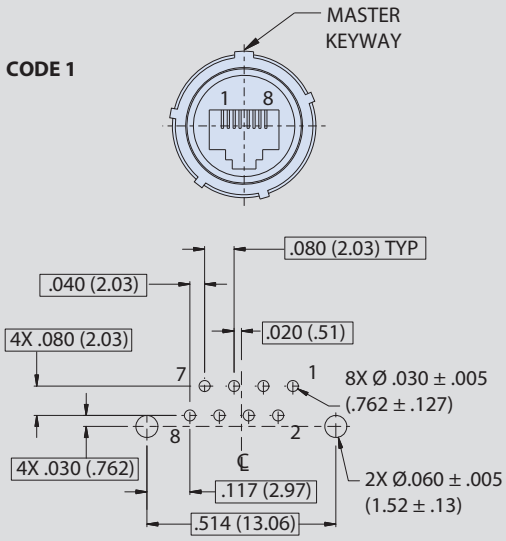
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# PCB Footprint and orientation options for SuperSeal™ PCB receptacles

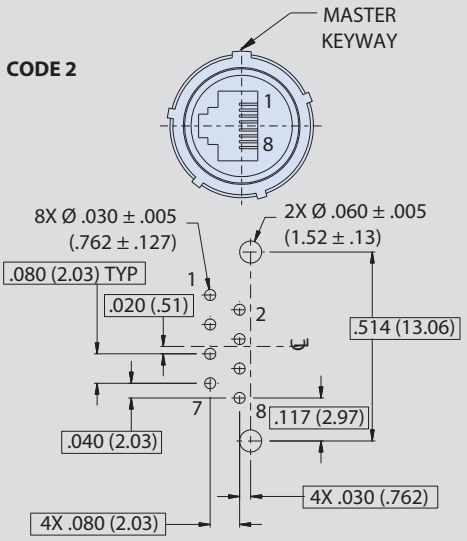


## RJ45 PCB FOOTPRINT AND ORIENTATIONS FOR MIL-DTL-38999, 5015, 26482 AND MIGHTY MOUSE SERIES 80, SHOWN FROM SOLDER SIDE (BOTTOM) OF BOARD

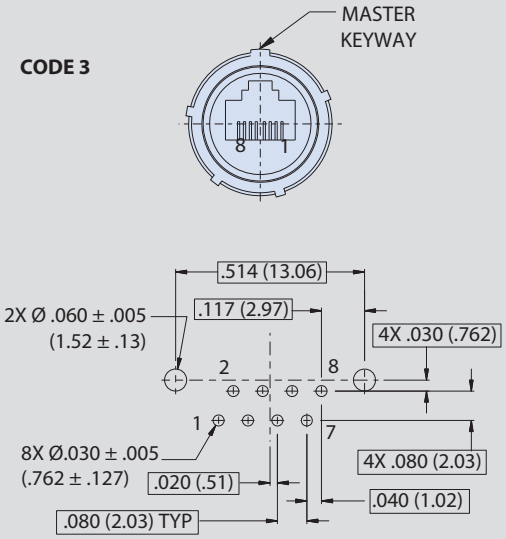
**CODE 1**



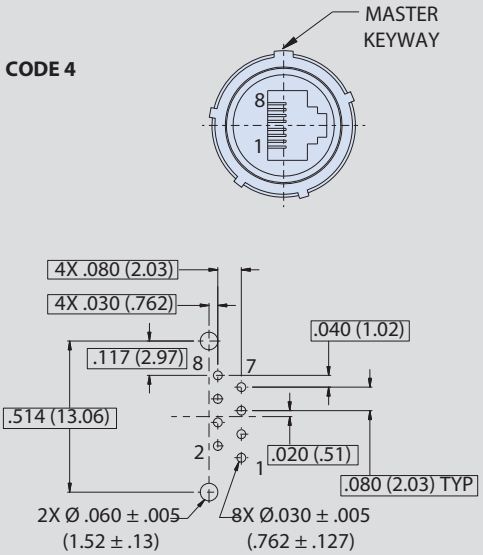

**CODE 2**




**CODE 3**




**CODE 4**




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

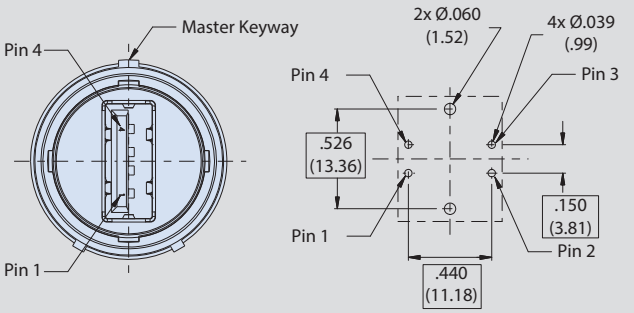
# Introduction and Technical Reference

## PCB footprint and orientation options for SuperSeal™ PCB receptacles



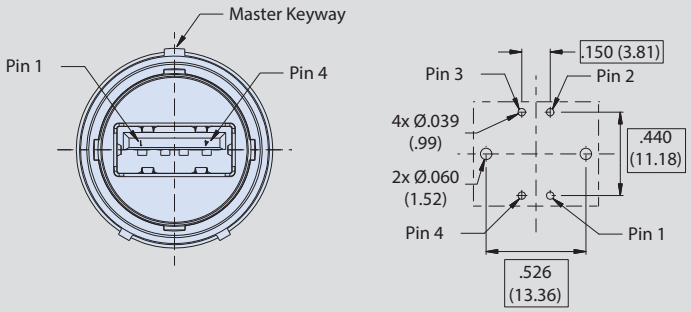
### STANDARD USB 2.0 PCB FOOTPRINTS FOR MIL-DTL-38999, 5015, 26482 AND MIGHTY MOUSE SERIES 80, SHOWN FROM SOLDER SIDE (BOTTOM) OF BOARD

V (VERTICAL)




PCB Layout (Solder Side)

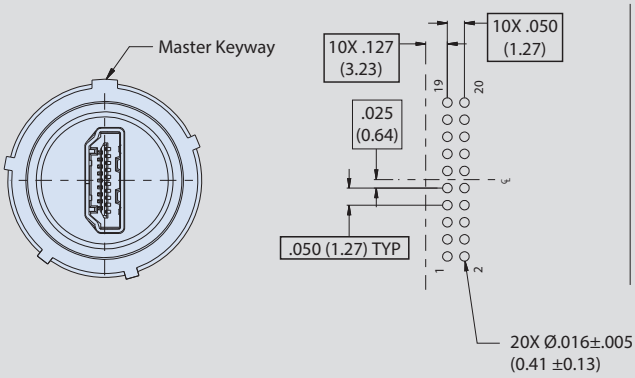
H (HORIZONTAL)




PCB Layout (Solder Side)

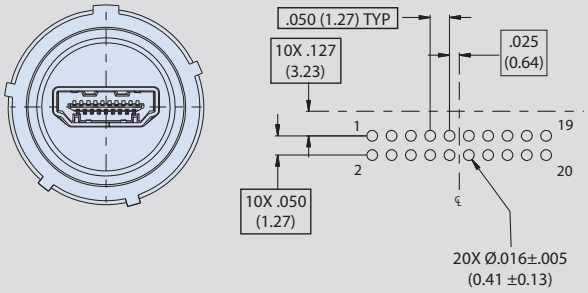
### HDMI PCB FOOTPRINT AND ORIENTATIONS FOR MIL-DTL-38999, SHOWN FROM SOLDER SIDE (BOTTOM) OF BOARD

V (VERTICAL)




PCB Layout (Solder Side)

H (HORIZONTAL)




PCB Layout (Solder Side)



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Introduction and Technical Reference

## Modification codes for SuperSeal™ connectors



### ASTM E595 Outgassing

**MOD CODE 186S**

- **SuperSeal® connectors specially processed to meet ASTM E595 outgassing requirements.**
- **Modification code specifies special outgassing bakeout processing.**
- **Meets NASA Screening Level 1 requirements**

Space flight equipment requires low-outgassing components in order to prevent degradation to optics and other sensitive instruments. The space industry has adopted a standardized test procedure, ASTM E595, to evaluate outgassing properties. In the ASTM test, material samples are heated to 125° C at a vacuum of 5 X $10^{-5}$ torr for 24 hours. The test sample is then weighed to calculate the Total Mass Loss (TML), which may not exceed 1.0% of the total initial mass. A collector plate is used to determine the Collected Volatile Condensable Material (CVCM), which may not exceed 0.1% of the total original specimen mass. SuperSeal™ connectors contain nonmetallic materials such as rubber, plastic, adhesives and potting compounds which can give off gases when subjected to a vacuum or high heat. Unless the connector is specially processed, the TML and CVCM can exceed allowable limits. Glenair is able to offer a bakeout process, 48 hour oven bakeout at 257º F, which assures all materials comply with ASTM E595

### UL 94 V-0 Flamability Standard

**MOD CODE 928**

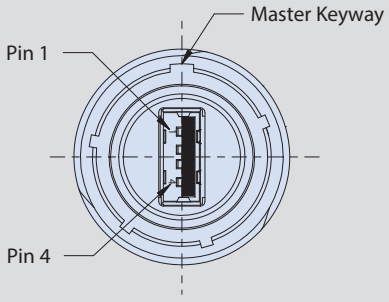
- **SuperSeal® connectors specially processed to meet UL 94 V-0 flammability standard**

UL 94, the Standard for Safety of Flammability of Plastic Materials for Parts in Devices and Appliances testing is a plastics flammability standard released by Underwriters Laboratories of the USA. The standard classifies plastics according to how they burn in various orientations and thicknesses. From lowest (least flame-retardant) to highest (most flame-retardant) V-0. Burning stops within 10 seconds on a vertical specimen; specimens may not drip flaming particles.

### Flip Vertical USB Orientation by 180 degrees

**MOD CODE 915**

Flip standard, vertically oriented USB designs 180 degrees, allowing pin 1 to be located at the 12 O'clock position.




Vertical
With Pin 1 at 12 O'clock

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.



Rev. 11.14.23

# SuperSeal™

## *USB 3.0 connectors*

The latest version of the Universal Serial Bus (USB) standard for interfacing computers and electronic devices sees a significant speed increase over the previous standard. The USB 2.0 standard offers a theoretical maximum signaling rate of 480 megabits per second, while USB 3.0 defines a maximum rate of 5 gigabits per second—more than ten times faster than USB 2.0. To achieve this, one-way communication on USB 2.0 has been dropped. USB 3.0 uses two unidirectional data paths, one to receive data and the other to transmit. USB 3.0 also provides up to 900mA of power when needed (better power management helps to conserve power when connected devices sit idle), as well as robust sealing against fluids and dust for harsh environments with 1P67-rated sealing in an unmated condition and IP68-rated when mated. Glenair connectors and cable assemblies deliver improved EMI/RFI shielding, outstanding sealing and improved shock and vibration protection. USB 3.0 is available across the following connector types: 38999, 5015 (ITS), 26482 (IPT), 28840 and Mighty Mouse. These popular connector families fill the growing need within aerospace, naval, industrial, and soldier worn, harsh-environment applications to benefit from this ubiquotous, high-speed, data transmission protocol. Military grade connector protection against water ingress, dust and debris, while maintaining signal integrity allows for USB 3.0 to be used across various applications. Glenair is committed to offering an evolving range of protocol support and termination options to meet advanced communication requirements in harsh environmental conditions.

- **USB 3.0 protocol**
- **High-speed data transmission rate of up to 5Gb/s**
- **High-sealing capability: IP67 rated in unmated condition. 1P68 rated in mated condition**
- **Available across all SuperSeal™ connector packages including D38999, 5015 (ITS), 26482 (IPT), 28840 and Mighty Mouse Series 801, 804 and 805**



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

MIL-DTL-38999 TYPE
FIELD-READY
RJ45 ETHERNET

# SUPERSEAL™

## Rugged environmental MIL-DTL-38999 type connectors with IP67 unmated sealing, robust insert-to-shell grounding, and a complete range of wire, cable, and circuit board terminations

***Features***

- **Superior sealing—IP68 when mated—for complete system protection against water, sand and dust**
- **Highly durable RJ45 design, including enhanced operating temperature, increased life-cycle, and rugged vibration and shock performance**
- **Shielded/grounded coupler designs in both receptacle and plug connectors**
- **Crimp, solder-cup, PC tail, and Quadrax contact/wire termination options**
- **RJ45 plug and/or jack interface options available in Cat 5e or Cat 6a**
- **Industry standard scoop proof, self-locking, triple-start threaded coupling design of MIL-DTL-38999 Series III type connectors**
- **Intermateable with other MIL-DTL-38999 type RJ45 field-duty connectors**

Glenair®

Glenair, Inc.
1211 Air Way
Glendale, CA 91201-2497
818-247-6000
sales@glenair.com
www.glenair.com

RJ45/USB SUPER SEAL™

*RJ45 CAT 5E/6A ETHERNET*

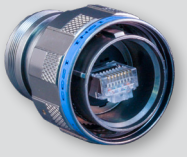
# MIL-DTL-38999 Series III Type Connectors

## Product Selection Guide

Glenair®

**233-312** E-9

SuperSeal™ CAT 6A Plug with RJ45 Male Mating Interface and Accessory Threads

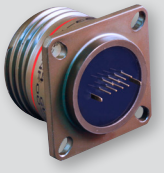


**233-300** E-10

SuperSeal D38999 Type plug with CAT 5e or 6A RJ45 Plug or D38999 Type Receptacle with CAT 5e or 6A RJ45 Jack. D38999 Type Shells with Accessory Threads

**233-301** E-12

SuperSeal™ CAT 5e Receptacle Adapter with RJ45 Mating Interface and Crimp Removable Contacts.



**233-302** E-14

SuperSeal™ CAT 5e Receptacle with RJ45 Mating Interface and PC Tail Termination.

**233-303** E-16

SuperSeal™ CAT 5e Rececptacle with RJ45 Mating Interface and Solder Cup Termination.

**233-304** E-18

SuperSeal™ CAT 5e MIL-STD-1560 Interface Receptacle Adapter with Accessory Threads and Rear RJ45 Jack.

**233-305** E-20

SuperSeal™ CAT 5e Quadrax Interface Receptacle Adapter with Accessory Threads and Rear RJ45 Jack.

**233-330** E-22

SuperSeal™ CAT 5e and 6A Feed-thru Receptacle with Jack-to-Jack RJ45.

**Cable Assemblies** E-24

SuperSeal™ CAT 5e Cable Assemblies

**Transient Voltage** E-25

**Suppression (TVS) RJ45 Connectors**

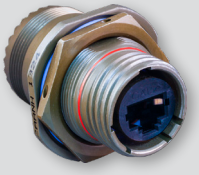
Prevents Catastrophic EMP Failure in Military and Commercial Aircraft

**244-001** E-27

SuperSeal™ CAT 5e Transient Voltage Suppression, Jam-Nut Receptacle with Standoffs and RJ45 Jack to PC Tail or Solder Cup Termination.

**244-002** E-28

SuperSeal™ CAT 5e Transient Voltage Suppression, Wall Mount Receptacle with Standoffs and RJ45 Jack, Mating Interface to PC Tail or Solder Cup.



**244-003** E-29

SuperSeal™ CAT 5e Transient Voltage Suppression Jam-Nut Receptacle with Accessory Threads and RJ45 Jack, Mating Interface to PC Tail or Solder Cup.

**244-004** E-30

SuperSeal™ CAT 5e Transient Voltage Suppression Wall Mount Receptacle with Accessory Threads and RJ45 Jack, Mating Interface to PC Tail or Solder Cup.


B

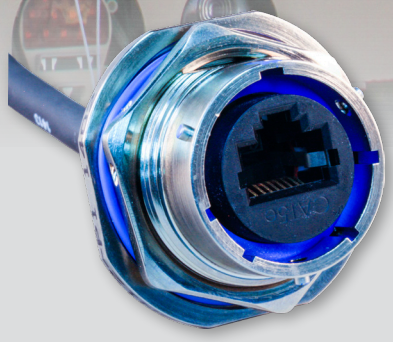
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB
SUPER SEAL™

*SERIES 23*

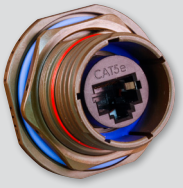
# SuperSeal™

## Performance Hardened CAT 6A and CAT 5e



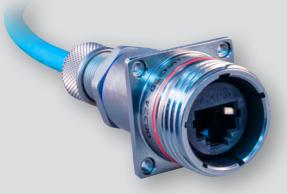
The SuperSeal family of ruggedized Cat 5e and 6A SuperNine connectors are IP68 rated in the mated condition for reliable environmental field use. SuperSeal connectors provide military grade protection and durability for operational use under harsh environmental conditions. SuperSeal connectors benefit from increased operating temperature range, longer life cycle and, significantly improved vibration and shock performance. CAT 5e and 6A RJ45 Ethernet is the standard data communication protocol for gathering, distribution and sharing of C4ISR information to and from command and field units within military, police fire and rescue organizations. SuperSeal provides key performance benefits including superior sealing, grounding, and wire termination for more flexible and reliable communications in rugged field applications.

- **CAT 5e and CAT 6A versions available**
- **IP67 unmated—for complete system protection against water, sand and dust**
- **Highly durable SuperSeal™ insert design, provides enhanced operating temperature, increased life-cycle, and rugged vibration and shock performance**
- **Crimp, solder-cup, PC tail and cable assemblies**



Jam-nut Mount

Wall Mount



Cable Assemblies



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

| RJ45 CAT 5e Performance Specifications | |
|---|---|
| **Property** | **MIL-DTL-38999 Series III Type** |
| **Material and Finish** | |
| **Shell/Coupling and Plating** | Complete list of options available in the Material and Finish Options portion of this section |
| **Contacts** | PC tails, solder cup, and crimp contacts: copper alloy, gold plated |
| **RJ45 Insulator** | PPS |
| **Grommet, Peripheral Seal, Interfacial Seal, O-ring** | Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988 |
| **Shell Sizes** | 17 and 19 |
| **Shielding Sleeve** | Material: Copper alloy<br>Finish: Nickel |
| **Electrical Specifications** | |
| **Data Rate** | CAT 5e = 10 BASE-T, 100 BASE-TX, and 1000 BASE-T/1000 BASE-TX |
| **Current Rating** | Cat 5e, 1.5 Amps |
| **D.W.V.** | 1000 VDC (700 VAC) |
| **I.R.** | 500 Mega ohms @ 500 VDC |
| **Frequency** | 100 MHz, Cat 5e |
| **Wiring** | Straight through, Cat 5e |
| **Cabling Length** | Up to 100 meters or 100 meters max. |
| **Shield Continuity** | Continuous through coupler or continuous coupler to shell |
| **Environmental/Mechanical Performance** | |
| **Sealing** | IP68 mated condition,<br>IP67 unmated condition |
| **Outgassing** | **Mod Code 186S** meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability<br>**Mod Code 928** meets outgassing requirements per UL 94 V-0 |
| **Operating Temperature** | -40°C to +120°C |
| **Vibration** | 20g, 3 Axis, 10 - 2000Hz |
| **Mechanical Shock** | 300 g's |
| **Backshell Interface** | MIL-DTL-38999, Designator H |
| **Mating System** | Triple-start stub ACME |
| **Mating Cycles** | 500 |

| RJ45 CAT 6A Performance Specifications | |
|---|---|
| **Property** | **MIL-DTL-38999 Series III Type** |
| **Material and Finish** | |
| **Shell/Coupling and Plating** | Complete list of options available in the Material and Finish Options portion of this section |
| **Contacts** | crimp contacts:<br>copper alloy, gold plated |
| **RJ45 Insulator** | PPS |
| **Grommet, Peripheral Seal, Interfacial Seal, O-ring** | Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988 |
| **Shell Sizes** | 17 and 19 |
| **Shielding Sleeve** | Material: Copper alloy<br>Finish: Nickel |
| **Electrical Specifications** | |
| **Data Rate** | CAT 6A = 10G BASE-T |
| **Current Rating** | Cat 6A, 1.5 Amps |
| **D.W.V.** | 1000 VDC (700 VAC) |
| **I.R.** | 500 Mega ohms @ 500 VDC |
| **Frequency** | 500 MHz, Cat 6A |
| **Wiring** | Straight through, Cat 6A |
| **Cabling Length** | Up to 100 meters. |
| **Shield Continuity** | Continuous through coupler or continuous coupler to shell |
| **Environmental/Mechanical Performance** | |
| **Sealing** | IP68 mated condition<br>IP67 unmated condition |
| **Outgassing** | **Mod Code 186S** meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability<br>**Mod Code 928** meets outgassing requirements per UL 94 V-0 |
| **Operating Temperature** | -40°C to +120°C |
| **Vibration** | 20g, 3 Axis, 10 - 2000Hz |
| **Mechanical Shock** | 300 g's |
| **Backshell Interface** | MIL-DTL-38999, Designator H |
| **Mating System** | Triple-start stub ACME |
| **Mating Cycles** | 500 |

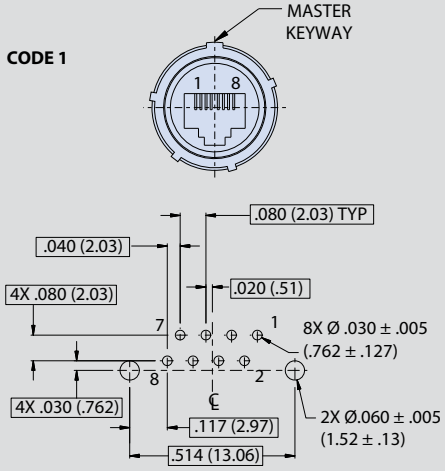


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

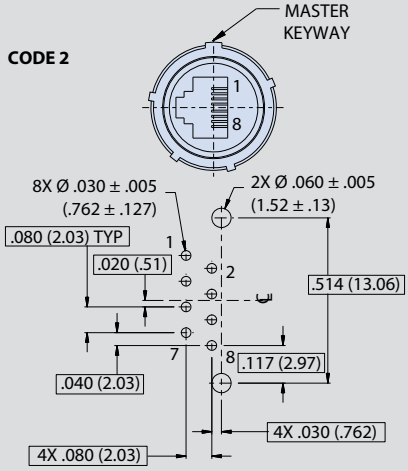
B

## MIL-DTL-38999 TYPE, SUPERSEAL RJ45 PANEL CUTOUTS FOR SHELL SIZE 17 AND 19

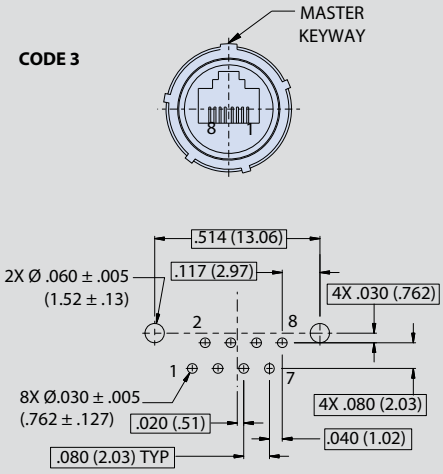
**CODE 1**



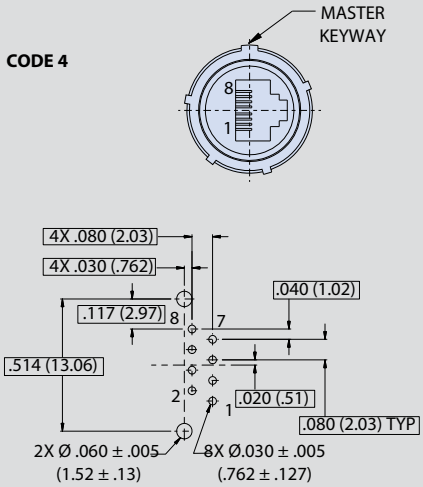

**CODE 2**




**CODE 3**



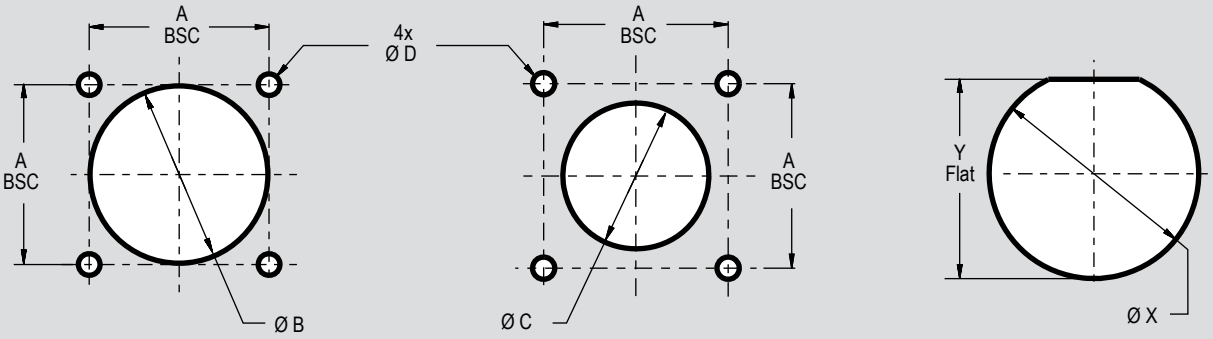

**CODE 4**





© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## MIL-DTL-38999 TYPE, SUPERSEAL RJ45 PANEL CUTOUTS FOR SHELL SIZE 17 AND 19




WALL MOUNT
REAR PANEL MOUNT

WALL MOUNT
FRONT PANEL MOUNT

JAM NUT MOUNT

| Panel Cut-Out Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| Shell Size | A Bsc | B Dia Min | C Dia Min | D Holes | X Dia | Y Flat |
| 17 | 1.062 (26.97) | 1.219 (30.96) | 1.016 (25.81) | .133 (3.38) .123 (3.12) | 1.270 (32.26) 1.260 (32.00) | 1.210 (30.73) 1.208 (30.68) |
| 19 | 1.156 (29.36) | 1.297 (32.94) | 1.141 (28.98) | | 1.395 (35.43) 1.385 (35.18) | 1.335 (33.91) 1.325 (33.66) |

B

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

B

## ASTM E595 Outgassing

### MOD CODE 186S

- **SuperSeal® connectors specially processed to meet ASTM E595 outgassing requirements.**
- **Modification code specifies special outgassing bakeout processing.**
- **Meets NASA Screening Level 1 requirements**

Space flight equipment requires low-outgassing components in order to prevent degradation to optics and other sensitive instruments. The space industry has adopted a standardized test procedure, ASTM E595, to evaluate outgassing properties. In the ASTM test, material samples are heated to 125° C at a vacuum of 5 X $10^{-5}$ torr for 24 hours. The test sample is then weighed to calculate the Total Mass Loss (TML), which may not exceed 1.0% of the total initial mass. A collector plate is used to determine the Collected Volatile Condensable Material (CVCM), which may not exceed 0.1% of the total original specimen mass. SuperSeal™ connectors contain nonmetallic materials such as rubber, plastic, adhesives and potting compounds which can give off gases when subjected to a vacuum or high heat. Unless the connector is specially processed, the TML and CVCM can exceed allowable limits. Glenair is able to offer a bakeout process, 48 hour oven bakeout at 257º F, which assures all materials comply with ASTM E595

## UL 94 V-0 Flammability Standard

### MOD CODE 928

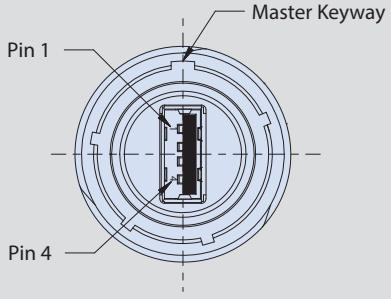
- **SuperSeal® connectors specially processed to meet UL 94 V-0 flammability standard**

UL 94, the Standard for Safety of Flammability of Plastic Materials for Parts in Devices and Appliances testing is a plastics flammability standard released by Underwriters Laboratories of the USA. The standard classifies plastics according to how they burn in various orientations and thicknesses. From lowest (least flame-retardant) to highest (most flame-retardant) V-0. Burning stops within 10 seconds on a vertical specimen; specimens may not drip flaming particles.

## Flip Vertical USB Orientation by 180 degrees

### MOD CODE 915

Flip standard, vertically oriented USB designs 180 degrees, allowing pin 1 to be located at the 12 O'clock position.




Vertical
With Pin 1 at 12 O'clock

**MIL-DTL-38999 Connector and Cable Assembly Material and Finish Codes**

| Code | Material | Finish | Finish Specification | Hrs. Salt Spray | Electrical Conductivity | Operating Temp. Range | RoHS Compliance |
|---|---|---|---|---|---|---|---|
| ME | Aluminum | Electroless Nickel | MIL-DTL-24308 Class K | 96 | Yes | | Yes |
| MT | Aluminum | Nickel PTFE | SAE AMS2454 | 500 | Yes | -65° to +175°C | Yes |
| NF | Aluminum | Cadmium, Olive Drab | SAE-AMS-QQ-P-416 Type II Class 2 over electroless nickel | 500 | Yes | -65 to +175°C | No |
| ZR | Aluminum | Zinc-Nickel, Black | ASTM B841 Grade 5 over electroless nickel | 500 | Yes | -65 to +175°C | Yes |

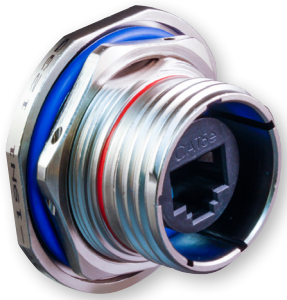

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# SuperNine MIL-DTL-38999 Series III Type

## 2330-0131 Connector Receptacle, RJ45 to Solder Cup Termination



| Part Number Development | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **2330-0131** | **NF** | **00** | **-** | **17** | **5** | **N** | **1** |
| **Series / Basic Part No.** | Series 23 SuperNine CODE RED hermetic connector | | | | | | | |
| **Material/Finish** | **ME** = Aluminum, Electroless Nickel<br>**NF** = Aluminum, Cadmium O. D. Over Electroless Nickel<br>**MA** = Aluminum, Electroless Nickel, Matte Finish<br>**ZN** = Aluminum, Zinc NI , Olive Drab<br>**ZR** = Aluminum, Zinc NI, Black (Tri- Valent CR)<br>**AB**= Marine Bronze, None (Clean Only) | | | | | | | |
| **Connector Style** | **00** = Receptacle ,wall mount, with slotted holes<br>**D0** = Receptacle, wall mount, with round holes<br>**07** = Receptacle, jam nut | | | | | | | |
| **Inline Shielded RJ45** | **G** = Inline shielded and grounded to the shell **-** = Inline shielded RJ45 | | | | | | | |
| **Shell Size** | **17**, **19** | | | | | | | |
| **RJ45 Category** | **5** = CAT 5e **6A** = CAT 6A | | | | | | | |
| **Alternate Polarization** | **A**, **B**, **C**, **D**, **E**, **N** = Normal | | | | | | | |
| **RJ45 Orientation Option** | **1**, **2**, **3**, **4** | | | | | | | |



### NOTES

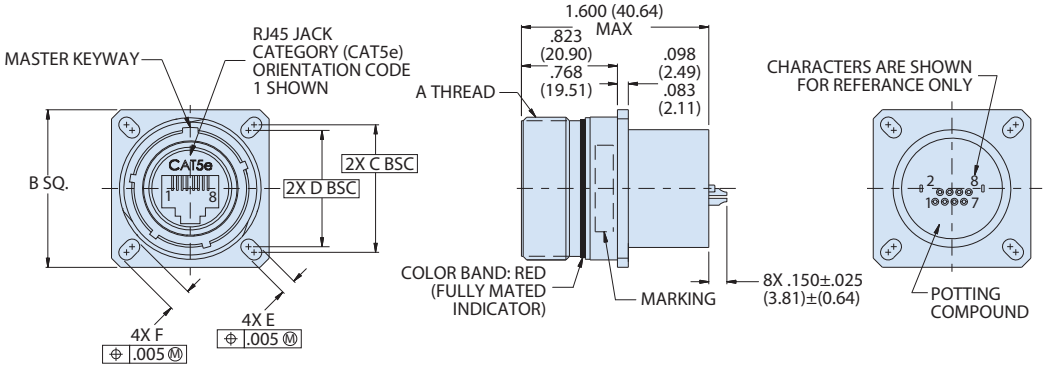
1. Material / Finish
   - Shell & Jam Nut: See Table I
   - O-Rings & Seals: Fluorosilicone
   - RJ45 Coupler Housing: UL94V-0 compliant polymer
   - Contacts: Copper alloy / gold plated
   - Sealing Compound: Polymer encapsulant
2. Performances:
   - Leak Rate: 1 X 10^-7 cc/s max helium, 1 ATM
   - Electrical: Current rating: 1.5 AMP
   - D.W.V.: 1000 VDC, 2 mA max
   - I.R.: 500 Mega ohms @ 500 VDC
   - Operating Temperature Range: -40°C to +120°C
3. Glenair connectors are designed to mate with any QPL manufacturer's MIL-DTL-38999, Series III mating plug having the same shell size and polarization, opposite gender RJ45.
4. Receptacle connector designed to meet IP68 unmated condition.
5. Flange gaskets are not included with wall mounted receptacles. If required, select gasket from Glenair drawing 239-204.



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

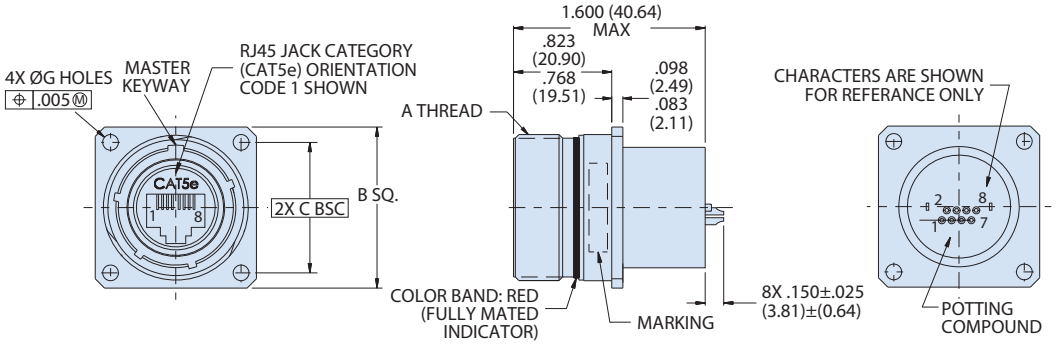
CODE RED

## 2330-0131-00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES



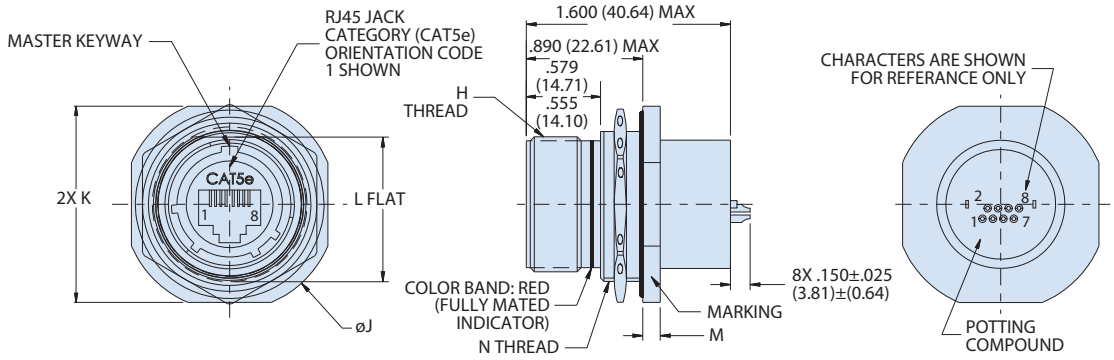

| Table II Wall Mount | | | | | | | |
|---|---|---|---|---|---|---|---|
| Shell Size | A Thread | B SQ | C BSC | D BSC | E | F | ØG HOLES |
| 17 | 1.1875-.1P-.3L-TS-2A | 1.323 (33.60)<br>1.299 (32.99) | 1.062 (26.97) | 0.969 (24.61) | 0.136 (3.45)<br>0.120 (3.05) | 0.202 (5.13)<br>0.186 (4.72) | 0.136 (3.45)<br>0.120 (3.05) |
| 19 | 1.2500-.1P-.3L-TS-2A | 1.449 (36.80)<br>1.425 (36.20) | 1.156 (29.36) | 1.062 (26.97) | 0.136 (3.45)<br>0.120 (3.05) | 0.202 (5.13)<br>0.186 (4.72) | 0.136 (3.45)<br>0.120 (3.05) |

## 2330-0131-D0 - WALL MOUNT RECEPTACLE WITH ROUND HOLES

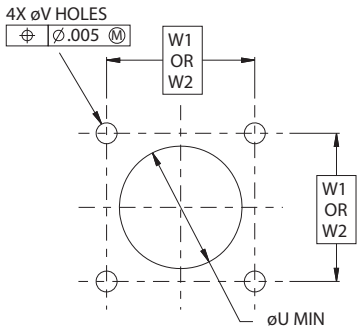


B

## 2330-0131-07 - JAM NUT MOUNT RECEPTACLE

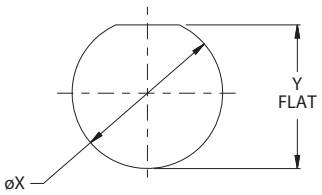



| Table III Jam Nut Mount | | | | | | |
|---|---|---|---|---|---|---|
| Shell Size | A Thread | ØJ | K | L FLAT | M | N THREAD |
| 17 | 1.1875-.1P-.3L-TS-2A | 1.764 (44.81)<br>1.740 (44.20) | 1.642 (41.71)<br>1.610 (40.89) | 1.191 (30.25)<br>1.181 (30.00) | 0.122 (3.10)<br>0.083 (2.11) | M32 X 1.0-6g 0.100R |
| 19 | 1.2500-.1P-.3L-TS-2A | 1.949 (49.50)<br>1.925 (48.90) | 1.827 (46.41)<br>1.795 (45.59) | 1.316 (33.43)<br>1.306 (33.17) | 0.153 (3.89)<br>0.114 (2.90) | M35 X 1.0-6g 0.100R |




FRONT PANEL MOUNTING

**RECOMMENDED MOUNTING HOLES**

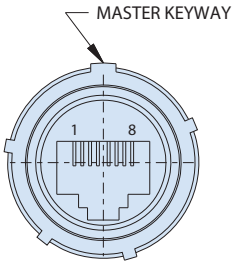



**RECOMMENDED PANEL CUT OUT**

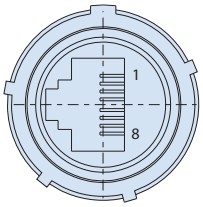
| Table IV Panel Cutout and Wall Mount | | | | | | |
|---|---|---|---|---|---|---|
| Shell Size | ØU MIN | ØV HOLES | W1 BSC | W2 BSC | ØX | Y FLAT |
| 17 | 1.016 (25.81) | 0.133 (3.38)<br>0.123 (3.12) | 1.062 (26.97) | 0.969 (24.61) | 1.270 (32.26)<br>1.260 (32.00) | 1.210 (30.73)<br>1.200 (30.48) |
| 19 | 1.141 (28.98) | | 1.156 (29.36) | 1.062 (26.97) | 1.395 (35.43)<br>1.385 (35.18) | 1.335 (33.91)<br>1.325 (33.65) |


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

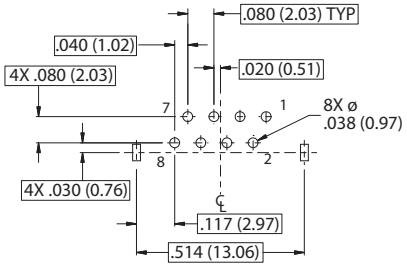
## RJ45 ORIENTATION OPTIONS (PARTIAL VIEWS SHOWN)



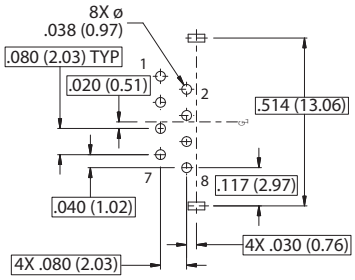

CODE 1
(FRONT)



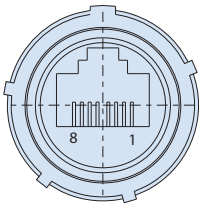

CODE 2
(FRONT)



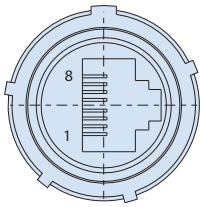

SOLDER CUP ORIENTATION
(REAR)



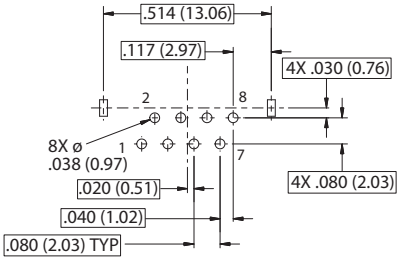

SOLDER CUP ORIENTATION
(REAR)



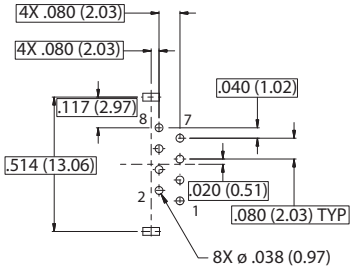

CODE 3
(FRONT)




CODE 4
(FRONT)




SOLDER CUP ORIENTATION
(REAR)




SOLDER CUP ORIENTATION
(REAR)

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

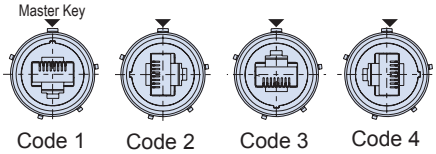
## 233-308 Coupler with integrated banding platform

| Part Number Development | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-308** | **NF** | **00** | **G** | **-17** | **5H** | **N** | **1** |
| **Basic Number** | **233-308** | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | |
| **Connector Style**[1] | See Table V | | | | | | | |
| **Insert-to-Shell Grounding** | **–** = Inline shielded RJ45<br>**G** = Inline shielded and grounded to the shell ("G" option only with receptacle) | | | | | | | |
| **Shell Size** | **17** or **19** | | | | | | | |
| **RJ45 Category** | **5H** = CAT 5e<br>**6A** = CAT 6A (CAT 6A receptacle only, for use with 233-312) | | | | | | | |
| **Alternate Key Position**[1] | Per MIL-DTL-38999 **A**, **B**, **C**, **D**, **E**, **N** = **Normal** | | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, or **4** | | | | | | | |

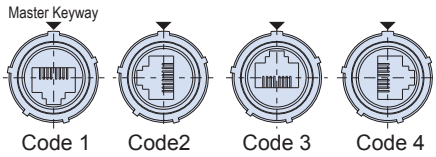
| Material and Finish | |
|---|---|
| **M** | Aluminum/Electroless Nickel |
| **NF** | Aluminum/Cadmium, Olive Drab, over Electroless Nickel (500 hour salt spray) |
| **MT** | Aluminum/Nickel PTFE |
| **ME** | Aluminum/Electroless Nickel (96 hour salt spray) |
| **MA** | Aluminum/ Electroless Nickel, Matte Finish (96 hour salt spray) |
| **TZ** | Aluminum/ Tin-Zinc, Green-Gold |
| **ZN** | Aluminum/ Zinc NI, Olive Drab |
| **ZR** | Aluminum/Black Zinc-Nickel (Tri-Valent Cr) |
| **XM** | Composite/Electroless Nickel |
| **XMT** | Composite/Nickel-PTFE |
| **XO** | Composite/No Finish |
| **XW** | Composite/Cadmium, Olive Drab, Over Electroless Nickel (500 Hour Salt Spray) |
| **Z1** | Stainless Steel/Passivate |
| **ZL** | Stainless Steel/ Electro-Deposited Nickel |
| **ZW** | Stainless Steel/Cad Olive Drab Over Nickel |
| **AB** | Marine Bronze/None (Clean Only) |

| Connector Style | |
|---|---|
| **00** | Wall mount receptacle with slotted holes[3] |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |
| **CS** | Wall Mount Receptacle with standard clinch nuts |
| **07** | rear panel mount, jam nut receptacle |
| **05** | Inline Receptacle |
| **G6** | Plug |

### RJ45 Orientation Options (Plug Face)




### RJ45 Orientation Options (Receptacle Face)

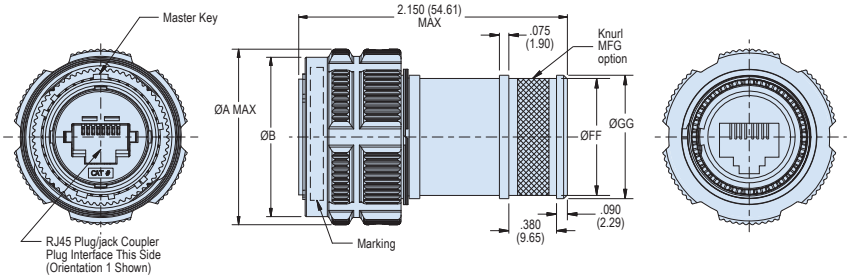



## NOTES

1. Interpret drawing per ASME y14.5m - 2009.
2. Material/finishes:
   - Shell, barrel, coupling nut, jam nut - see Table I (Composite coupling nut no plating required).
   - Insulators: High grade rigid dielectric/N.A.
   - Contacts: Copper alloy, gold plated
   - Seals: Silicone based elastomer
   - RJ45 coupler housing: UL94V-0 compliant ABS or PPS
   - Hardware: Stainless steel/passivated
3. RJ45 jack/plug specifications:
   - RJ45 coupler maintains shield continuity
   - Wiring: straight through
   - Rohs compliant
   - Electrical: current rating: 1.5 Amp
   - D.W.V.: 1000 VDC, 2 MA MAX.
   - I.R.: 500 Mega ohms @ 500 VDC
   - Operating temperature range: -40°c to +120°c
4. Receptacle connector designed to meet IP67 sealing unmated condition.

## G6 - PLUG

| G6 Plug Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shell Size | Ø A Max | | Ø B | | ØFF | | ØGG | |
| | in | mm | in | mm | in | mm | in | mm |
| **17** | 1.406 | 35.71 | 1.276<br>1.268 | 32.41<br>32.21 | .945 | 24.00 | .990 | 25.15 |
| **19** | 1.516 | 38.51 | 1.382<br>1.374 | 35.10<br>34.90 | 1.050 | 26.67 | 1.100 | 27.94 |





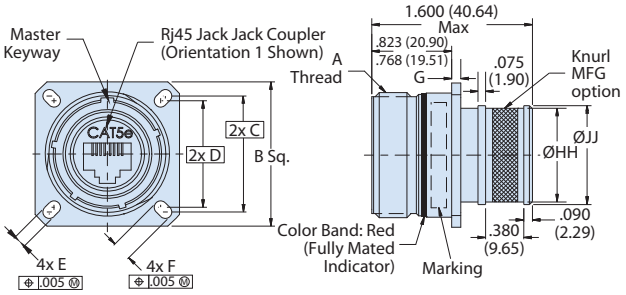

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

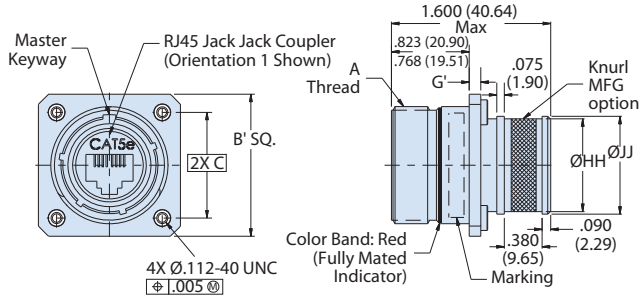
## 233-308 Coupler with integrated banding platform



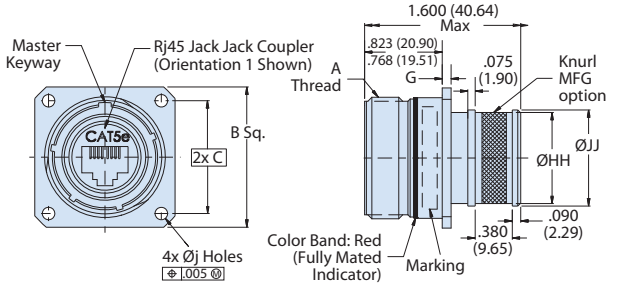
### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES



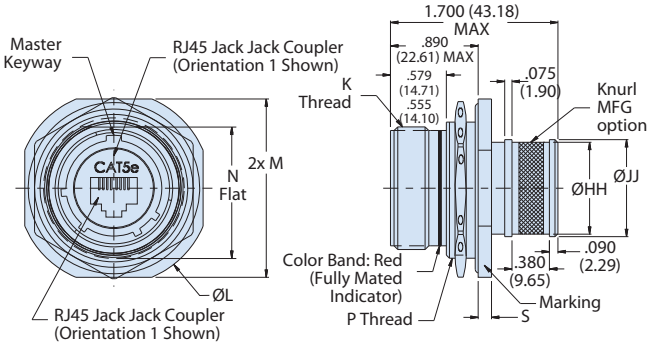

### CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS



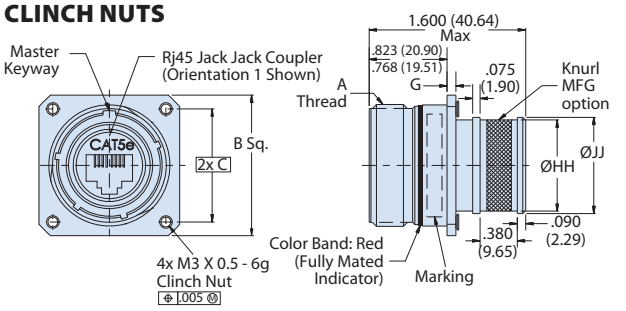

### D0 - WALL MOUNT RECEPTACLE WITH ROUND HOLES



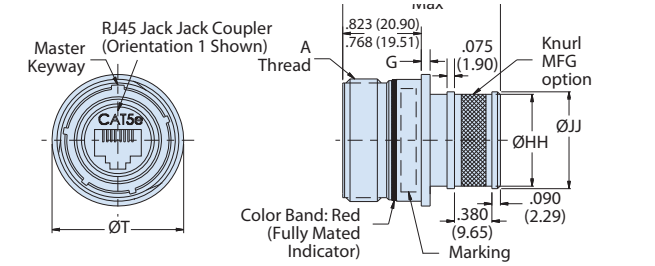

### 07 - JAM NUT MOUNT RECEPTACLE (SEE TABLE III)




### CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS



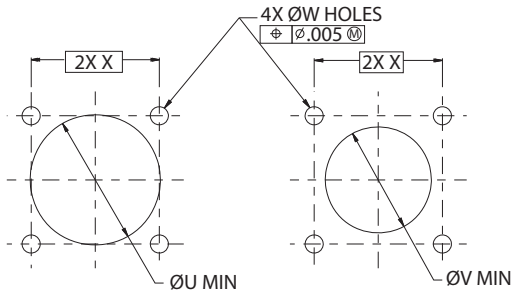

### 05 - INLINE RECEPTACLE (SEE TABLE III)




| Wall Mount Receptacle Dimensions | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | A Thread | B SQ | B' SQ | C BSC | D BSC | E | F | G | G' | Ø HH | Ø JJ | Ø J Holes |
| 17 | 1.1875-.1P-.3L-TS-2A | 1.323 (33.60)<br>1.299 (32.99) | 1.437 (36.50)<br>1.397 (35.48) | 1.062 (26.97) | 0.969 (24.61) | 0.136 (3.45) | 0.202 (5.13) | 0.098 (2.49) | 0.122<br>0.083 | 0.960 (24.38) | 1.022 (25.96) | 0.136 (3.45) |
| 19 | 1.2500-.1P-.3L-TS-2A | 1.449 (36.80)<br>1.425 (36.20) | 1.531 (38.89)<br>1.491 (37.87) | 1.156 (29.36) | 1.062 (26.97) | 0.120 (3.05) | 0.186 (4.72) | 0.083 (2.11) | 0.153<br>0.114 | 1.062 (26.97) | 1.125 (28.58) | 0.120 (3.05) |

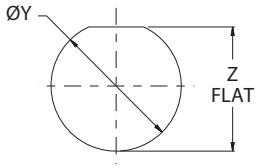
| Jam Nut Mount and Inline Receptacle Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shell Size | K Thread | Ø L | M | N Flat | P Thread | R Thread | S | Ø T Max |
| 17 | 1.1875-.1P-.3L-TS-2A | 1.764 (44.81)<br>1.740 (44.20) | 1.642 (41.71)<br>1.610 (40.89) | 1.191 (30.25)<br>1.181 (30.00) | M32 X 1.0-6g 0.100R | M25 X 1.0-6g 0.100R | 0.122 (3.10)<br>0.083 (2.11) | 1.406 (35.71) |
| 19 | 1.2500-.1P-.3L-TS-2A | 1.949 (49.50)<br>1.925 (48.90) | 1.827 (46.41)<br>1.795 (45.59) | 1.316 (33.43)<br>1.306 (33.17) | M35 X 1.0-6g 0.100R | M28 X 1.0-6g 0.100R | 0.153 (3.89)<br>0.114 (2.90) | 1.516 (38.51) |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.




Back Panel Mounting  Front Panel Mounting

**Recommended Mounting Holes**
Panel Thickness .228 Max (See Table IV)




**Recommended Panel Cut Out**
Panel Thickness .126-.062 (See Table IV)

| PANEL CUTOUT & WALL MOUNT | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | Ø U Min | | Ø V Min | | W Holes | | X BSC | | Ø Y | | Z Flat | |
| | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm |
| 17 | 1.219 | 30.96 | 1.016 | 25.81 | 0.133 | 3.38 | 1.062 | 26.97 | 1.270<br>1.260 | 32.26<br>32.00 | 1.210<br>1.200 | 30.73<br>30.48 |
| 19 | 1.297 | 32.94 | 1.141 | 28.98 | 0.123 | 3.12 | 1.156 | 29.36 | 1.395<br>1.385 | 35.43<br>35.18 | 1.335<br>1.325 | 33.91<br>33.65 |

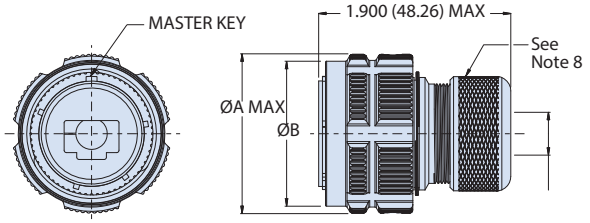

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

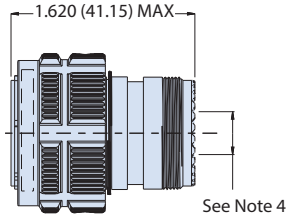
## 233-312 Plug with accessory threads



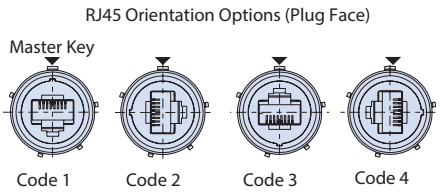
| Part Number Development | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-312** | **NF** | **G6** | **-** | **17** | **6A** | **N** | **1** | | |
| **Series / Basic Part No.** | **233-312** = Cat 6A interface for D38999 type shell | | | | | | | | | |
| **Material/Finish** | **NF** = Aluminum/cadmium olive drag<br>**MT** = Aluminum/nickel PTFE<br>**ME** = Aluminum/electroless nickel<br>**ZR** = Aluminum/zinc-nickel<br>Contact factory for additional options | | | | | | | | | |
| **Connector Style** | **G6** = Plug | | | | | | | | | |
| **Plug Options** | (-) = CAT 6A (28 AWG) **A** = CAT 6A (22-24 AWG) | | | | | | | | | |
| **Shell Size** | **17** and **19** | | | | | | | | | |
| **RJ45 Category** | **6A** = Cat 6A | | | | | | | | | |
| **Alternate Polarization** | **A**, **B**, **C**, **D**, **E**, **N** = Normal; Per MIL-DTL-38999 | | | | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, **4** | | | | | | | | | |
| **Strain Relief Style** | **A** = Accessory threads (accepts standard D38999 backshells) **T** = Shrink boot<br>**M** = Over mold **Omit** for standard | | | | | | | | | |
| **Cable OD** | **W** = Large cable OD up to .400 (10.16) **Omit** for cable OD .187/.312 (4.75/7.92) | | | | | | | | | |

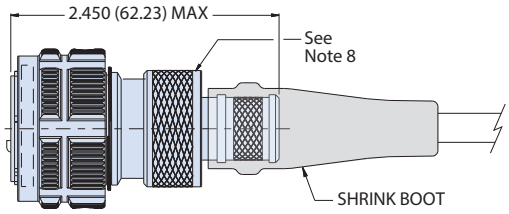



**Strain Relief Style: Standard**

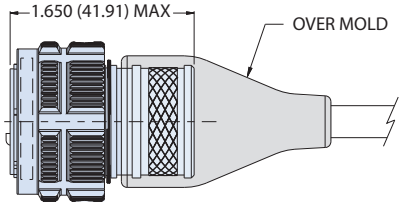



**Strain Relief Style: A - Accessory Threads**




**Strain Relief Style: T - Shrink Boot**




**STRAIN RELIEF STYLE: M - OVER MOLD**

| Dimensions | | |
|---|---|---|
| **Shell Size** | **ØA Max** | **ØB** |
| 17 | 1.406 (35.71) | 1.276 (32.41)<br>1.268 (32.21) |
| 19 | 1.516 (38.51) | 1.382 (35.10)<br>1.374 (34.90) |

## NOTES

1. Material/finish:
   - Barrel, coupling nut: see part number development. Composite coupling nut no plating required.
   - Insulators: high grade rigid dielectric/ N.A.
   - Seals: silicone based elastomer
   - Hardware: stainless steel/passivated
2. RJ45 plug specifications:
   - RJ45 plug cable maintains shield continuity
   - RoHS compliant

Electrical
- Current rating: 1 amp
- D.W.V.: 1000V DC/min
- I.R.: 500 Mega ohms minimum @ 1000V DC
- Operating temperature range: -20°C to +85°C

3. Meets IP68 in mated condition
4. Design accommodates cable outside diameter 0.187 (4.750) to 0.400 (10.16)
5. Design accommodates CAT 6A RJ45 modular plugs:
   (-) = CAT 6A, 28 AWG
   A = CAT 6A, 22-24 AWG
6. See assembly instructions AI233-312 for cable termination and connector assembly. Assembly instructions to be kitted with each shipment
7. CAT 6A modular plugs packaged loose for each plug connector.
8. Recommended torque value for different cable outside diameter.

| Cable OD (in) | .187/.225 | .225/.275 | .275/.312 | .312/.400 |
|---|---|---|---|---|
| Torque (in/lbs) | 20.6 | 18.3 | 12.6 | 10 |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-300 Coupler with accessory threads

Plug
Front View

Receptacle
Front View

Receptacle
Rear View

| Material and Finish[1] | |
|---|---|
| NF | Aluminum/Cadmium, Olive Drab |
| ME | Aluminum/Electroless Nickel |
| MT | Aluminum/Nickel PTFE |
| ZR | Aluminum/Black Zinc-Nickel |

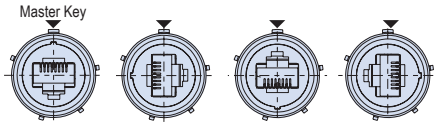
## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. G option is inline shielded and grounded to shell, available for receptacle only
3. Front panel mount only
4. Meets IP67 in unmated condition, IP68 mated
5. For shrink boot see part number 770-028
6. Receptacle has RJ45 jack. Plug has RJ45 plug to jack

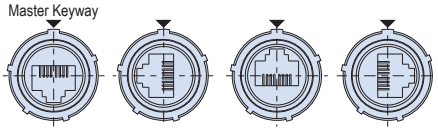
| Part Number Development | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-300** | **NF** | **00** | **G** | **17** | **5H** | **N** | **1** | **T** |
| **Basic Number** | **233-300** | | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | | |
| **Connector Style[1]** | See Connector Style table | | | | | | | | |
| **Insert-to-Shell Grounding** | **–** = Inline shielded RJ45 insert<br>**G** = Shielded and grounded to shell[2] | | | | | | | | |
| **Shell Size** | **17** or **19** | | | | | | | | |
| **RJ45 Category** | **5H** = CAT 5e<br>**6A** = CAT 6A (CAT 6A receptacle only, for use with 233-312) | | | | | | | | |
| **Alternate Key Position[1]** | Per MIL-DTL-38999 **A**, **B**, **C**, **D**, **E**, **N** = **Normal** | | | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, or **4** | | | | | | | | |
| **Shrink Boot** | **T** = Part No. 770-028; see accessory section. (Omit for None) | | | | | | | | |

| Connector Style[1] | |
|---|---|
| 00 | Wall mount receptacle with slotted holes[3] |
| 01 | Wall mount receptacle with slotted holes and metal cable gland |
| 05 | Inline Receptacle |
| 07 | rear panel mount, jam nut receptacle |
| 08 | In-line receptacle with metal cable gland |
| D0 | Wall mount receptacle with round holes |
| D1 | Wall mount receptacle with round holes and metal gland |
| CM | Wall mount receptacle with metric clinch nuts |
| CG | Wall mount receptacle with metric clinch nuts and metal gland |
| CS | Wall Mount Receptacle with standard clinch nuts |
| G6 | plug |
| G9 | Plug with metal cable gland[5] |

**RJ45 Orientation Options (Plug Face)**



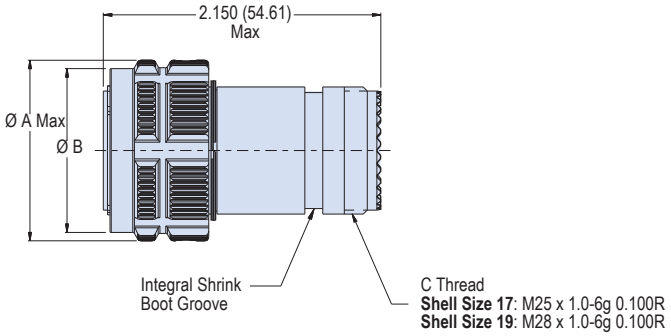

**RJ45 Orientation Options (Receptacle Face)**




***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

## G6 - PLUG WITH INTEGRAL SHRINK BOOT

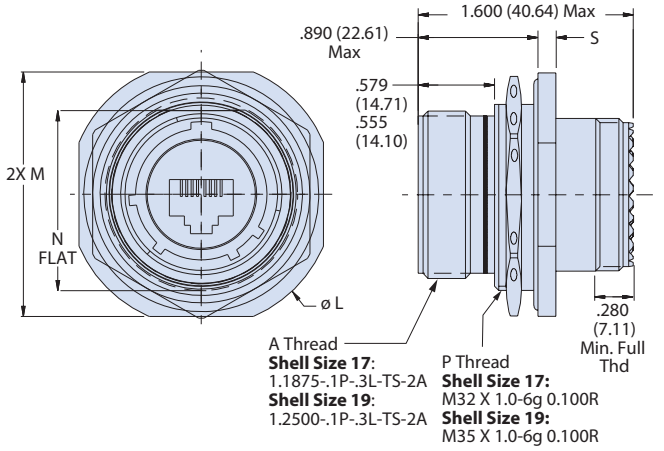
| G6 and G7 - plug Dimensions | | | | |
|---|---|---|---|---|
| Shell Size | A Dia Max | | B Dia | |
| | in | mm | in | mm |
| 17 | 1.406 | 35.71 | 1.276<br>1.268 | 32.41<br>32.21 |
| 19 | 1.516 | 38.51 | 1.382<br>1.374 | 35.10<br>34.90 |



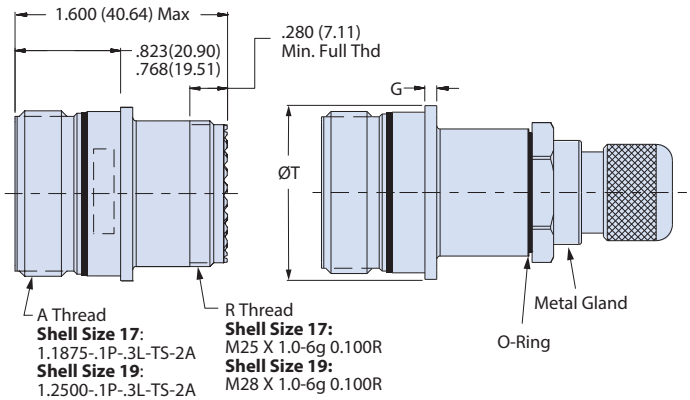



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## 07 - REAR PANEL MOUNT JAM NUT AND 05 OR 08 - INLINE RECEPTACLES



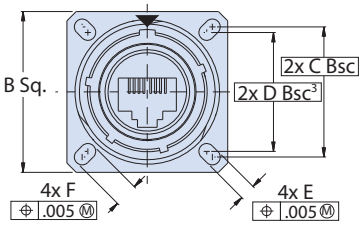

**07 Jam Nut Receptacle (mating face and side view)**



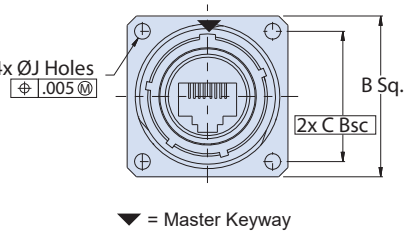

**05 Inline with Acceesory Threads and 08 Inline with Metal Gland (side view only)**

## 00, 01, DO, D1, CM AND CG - WALL MOUNT RECEPTACLES WITH ACCESSSORY THREADS OR METAL GLAND

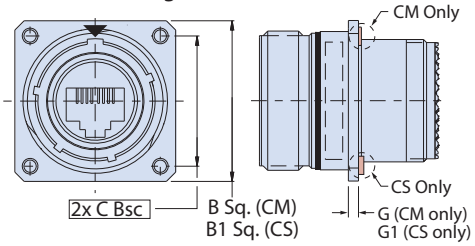
**00, 01 - Wall Mount Receptacle with Slotted Holes (Mating Face)**




**D0, D1 - Wall Mount Receptacle with Round Holes (Mating Face)**

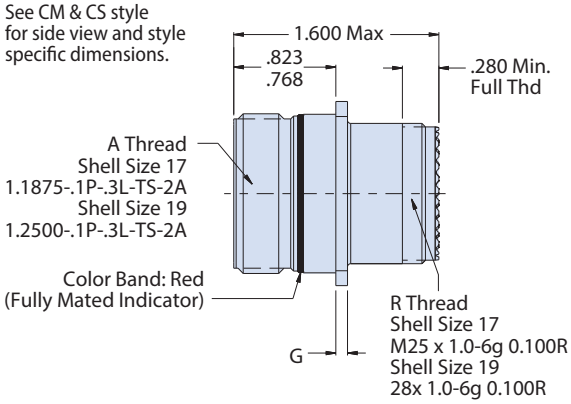



**CM Metric and CS Standard - Wall Mount Receptacles (Mating Face and Side View)**

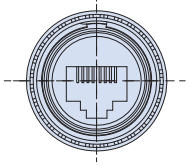



Note:
See CM & CS style for side view and style specific dimensions.

**00, D0, CM - Wall Mount Receptacle**

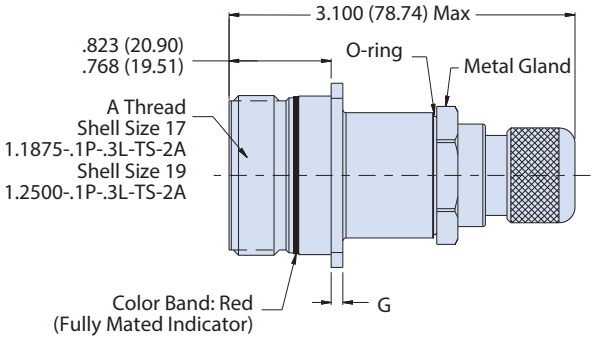



**Rear View**



For all 233-300 plug and receptacle styles. Position rotates relative to Code (Code 1 shown)

**01, D1, CG - Wall Mount Receptacle with Metal Gland**




**Jam Nut and Inline Receptacle Dimensions**

| Shell Size | ØL | M | N | S | ØT Max |
|---|---|---|---|---|---|
| 17 | 1.764 (44.81)<br>1.740 (44.20) | 1.642 (41.71)<br>1.610 (40.89) | 1.191 (30.25)<br>1.181 (30.00) | .122 (3.09)<br>.083 (2.11) | 1.275<br>(32.39) |
| 19 | 1.949 (49.50)<br>1.925 (48.90) | 1.827 (46.41)<br>1.795 (45.59) | 1.316 (33.43)<br>1.306 (33.17) | .153 (3.89)<br>.114 (2.90) | 1.337<br>(33.96) |

**Wall Mount Receptacle Dimensions**

| Shell Size | B Sq | B1 Sq | C Bsc | D Bsc[3] | E | F | G | G1 | ØJ Holes |
|---|---|---|---|---|---|---|---|---|---|
| 17 | 1.323 (33.60)<br>1.299 (32.99) | 1.437 (34.50)<br>1.397 (35.48) | 1.062 (26.97) | .969(24.61) | .136<br>(3.45) | .202<br>(5.13) | .098<br>(2.49) | .122 (3.10)<br>.083 (.58) | .136<br>(3.45) |
| 19 | 1.449 (36.80)<br>1.425 (36.20) | 1.531 (38.89)<br>1.491 (37.87) | 1.156 (29.36) | 1.062 (26.97) | .120<br>(3.05) | .186<br>(4.72) | .083<br>(2.11) | .153 (3.89)<br>.144 (3.66) | .120<br>(3.05) |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-301 Plug and Receptacles with crimp removable contacts and accessory threads

Receptacle front View

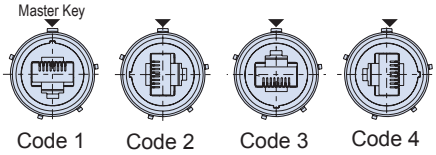
Receptacle rear View

| Part Number Development | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-301** | **NF** | **00** | **G** | **17** | **5H** | **N** | **1** | **T** |
| **Basic Number** | **233-301** | | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | | |
| **Connector Style** | See Connector Style table | | | | | | | | |
| **Insert-to-Shell Grounding** | **–** = Inline shielded RJ45 insert<br>**G** = Shielded and grounded to shell[2] | | | | | | | | |
| **Shell Size** | **17** or **19** | | | | | | | | |
| **RJ45 Category** | **5H** = CAT 5e<br>For Cat 6A applications consult factory | | | | | | | | |
| **Alternate Key Position**[1] | Per MIL-DTL-38999 **A**, **B**, **C**, **D**, **E**, **N** = Normal | | | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, or **4** | | | | | | | | |
| **Shrink Boot** | **T** = Part No. 770-028 (Omit for None) | | | | | | | | |

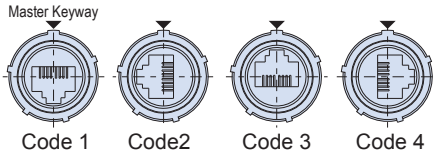
| Connector Style[1] | |
|---|---|
| **00** | Wall mount receptacle with slotted holes |
| **05** | Inline Receptacle |
| **07** | rear panel mount, jam nut receptacle |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |
| **CS** | Wall mount receptacle with metric clinch nuts |
| **G6** | plug |

| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Aluminum/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |

**RJ45 Orientation Options (Plug Face)**




**RJ45 Orientation Options (Receptacle Face)**



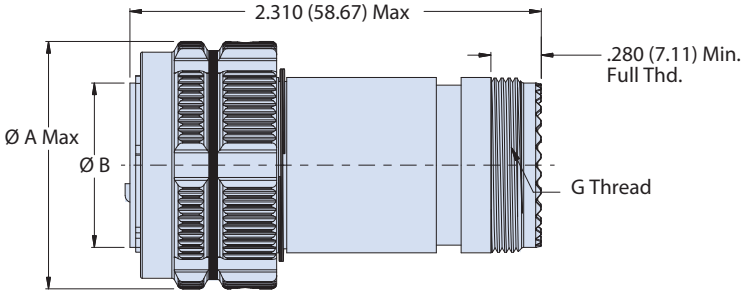

## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. G option is inline shielded and grounded to shell, available for receptacle only
3. Front panel mount only
4. Crimp removable size 22 pin contacts (M39029/58-360) supplied loose
5. Meets IP67 in unmated condition and IP68 mated condition
6. For shrink boot see part number 770-028
7. Receptacle connector has RJ45 jack

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

## G6 PLUG WITH ACCESSORY THREADS

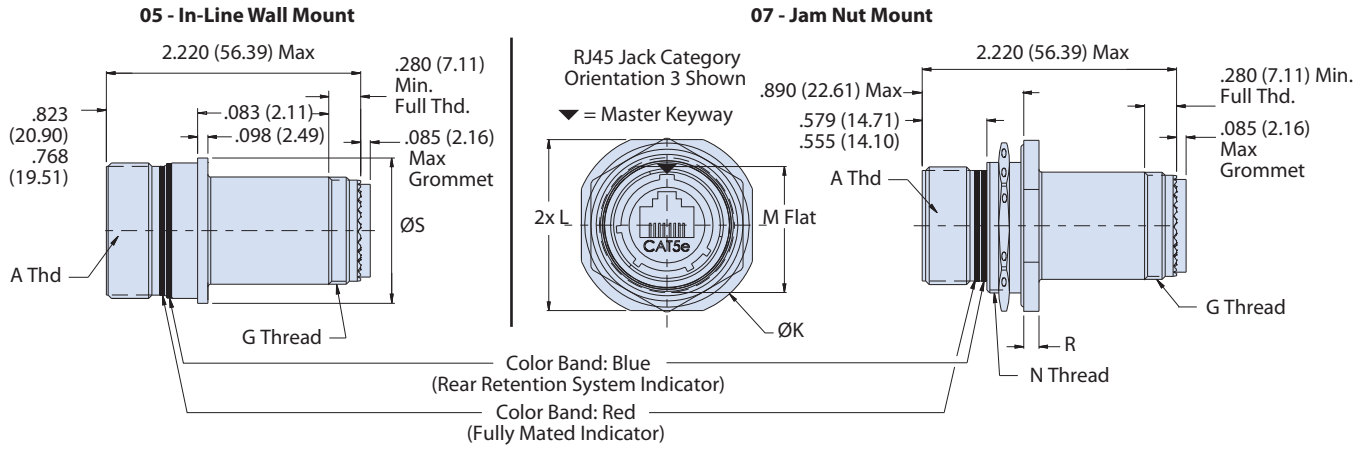
| Plug Dimensions | | | | |
|---|---|---|---|---|
| Shell Size | A Dia Max | | B Dia | |
| | in | mm | in | mm |
| **17** | 1.406 | 35.71 | .928<br>.922 | 23.57<br>23.42 |
| **19** | 1.516 | 38.51 | 1.033<br>1.027 | 26.24<br>26.09 |



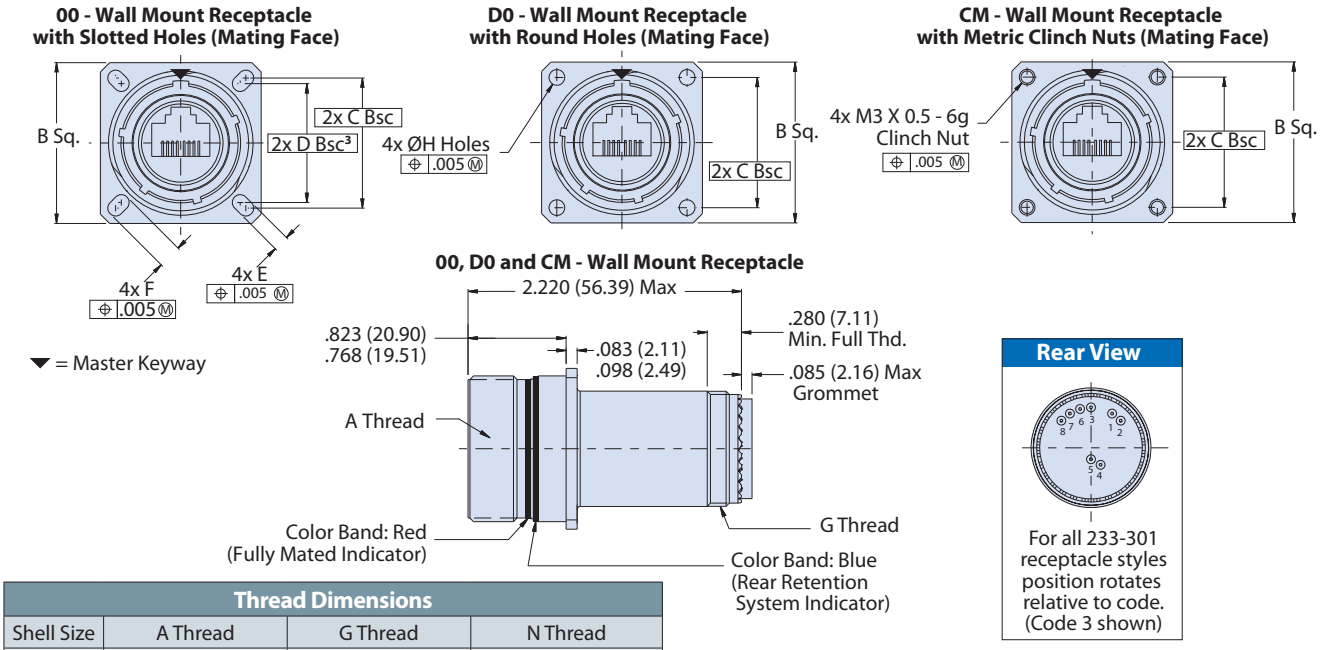



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## 05 - INLINE AND 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE WITH ACCESSORY THREADS




## 00, D0 AND CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS




| Thread Dimensions | | | |
|---|---|---|---|
| Shell Size | A Thread | G Thread | N Thread |
| 17 | 1.1875-.1P-.3L-TS-2A | M25 x 1.0-6g 0.100R | M32 x 1.0-6g 0.100R |
| 19 | 1.2500-.1P-.3L-TS-2A | M28x 1.0-6g 0.100R | M35 x 1.0-6g 0.100R |

| In-line and Jam Nut Receptacle Dimensions | | | | | |
|---|---|---|---|---|---|
| Shell Size | ØK | L | M | R | ØS |
| 17 | 1.764 (44.81)<br>1.740 (44.20) | 1.642 (41.71)<br>1.610 (40.89) | 1.191 ()<br>1.181 () | .122 (3.09)<br>.083 (2.11) | 1.275<br>(32.39) |
| 19 | 1.949 (49.50)<br>1.925 (48.90) | 1.827 (46.51)<br>1.795 (45.59) | 1.316 ()<br>1.305 () | .153 (3.89)<br>.114 (2.90) | 1.337<br>(33.96) |

| Wall Mount Receptacle Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| Shell Size | B Sq | C Bsc | D Bsc³ | E | F | Ø H Holes |
| 17 | 1.323 (33.60)<br>1.299 (32.99) | 1.062<br>(26.97) | .969<br>(24.61) | .136<br>(3.45) | .202<br>(5.13) | .136<br>(3.45) |
| 19 | 1.449 (36.80)<br>1.425 (36.20) | 1.156<br>(29.36) | 1.062<br>(26.97) | .120<br>(3.05) | .186<br>(4.72) | .120<br>(3.05) |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-314 Plug and Receptacles with crimp removable contacts and integrated banding porch

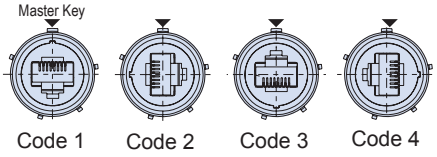


| Part Number Development | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-314** | **NF** | **00** | **G** | **17** | **5H** | **N** | **1** | **T** |
| **Basic Number** | **233-314** | | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | | |
| **Connector Style** | See Connector Style table | | | | | | | | |
| **Insert-to-Shell Grounding** | **–** = Inline shielded RJ45 insert<br>**G** = Shielded and grounded to shell[2] | | | | | | | | |
| **Shell Size** | **17** or **19** | | | | | | | | |
| **RJ45 Category** | **5H** = CAT 5e, high-temp.<br>For Cat 6A applications consult factory | | | | | | | | |
| **Alternate Key Position**[1] | Per MIL-DTL-38999 **A**, **B**, **C**, **D**, **E**, **N** = Normal | | | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, or **4** | | | | | | | | |
| **Shrink Boot** | **T** = Part No. 770-028 (Omit for None) | | | | | | | | |

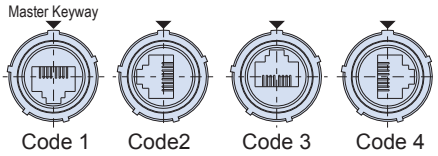
| Connector Style[1] | |
|---|---|
| **00** | Wall mount receptacle with slotted holes |
| **05** | Inline Receptacle |
| **07** | rear panel mount, jam nut receptacle |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |
| **G6** | plug |

| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Aluminum/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |

**RJ45 Orientation Options (Plug Face)**




**RJ45 Orientation Options (Receptacle Face)**



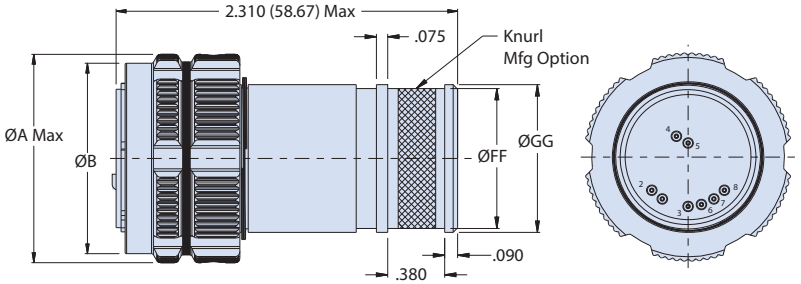

## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. G option is inline shielded and grounded to shell, available for receptacle only
3. Front panel mount only
4. Crimp removable size 22 pin contacts (M39029/58-360) supplied loose
5. Meets IP67 in unmated condition and IP68 mated condition
6. For shrink boot see part number 770-028
7. Receptacle connector has RJ45 jack

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

## G6 PLUG WITH BANDING PORCH

| Plug Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shell Size | A Dia Max | | B Dia | | FF Dia | | GG Dia | |
| | in | mm | in | mm | in | mm | in | mm |
| **17** | 1.406 | 35.71 | 1.276<br>1.268 | 32.41<br>32.21 | .945 | 24.00 | .990 | 25.15 |
| **19** | 1.516 | 38.51 | 1.382<br>1.374 | 35.10<br>34.90 | 1.050 | 26.67 | 1.100 | 27.94 |

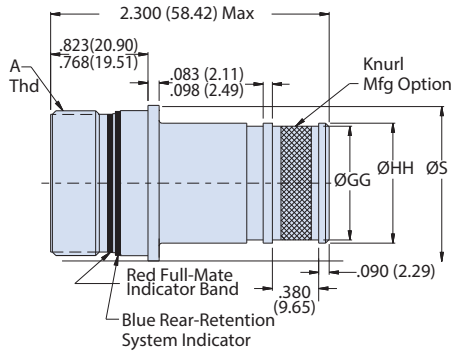


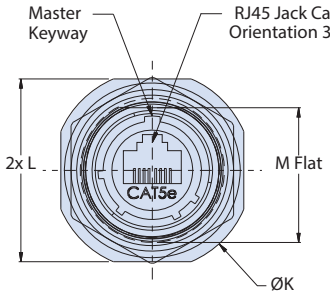



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

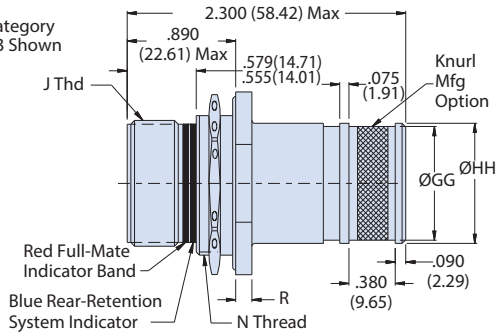
## 05 - INLINE AND 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE WITH BANDING PORCH

### 05 - In-Line Wall-Mount



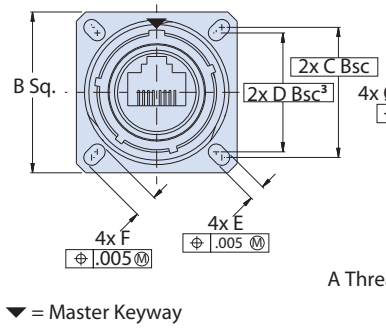




### 07 - Jam-Nut Mount

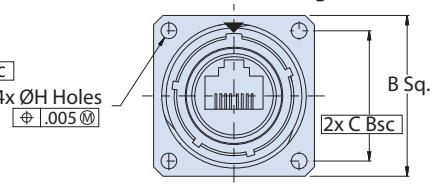



## 00, D0 AND CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS

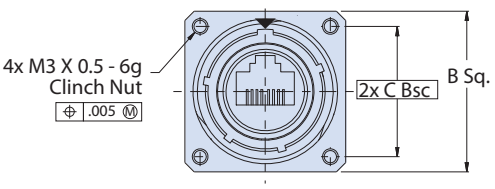
### 00 - Wall Mount Receptacle with Slotted Holes (Mating Face)



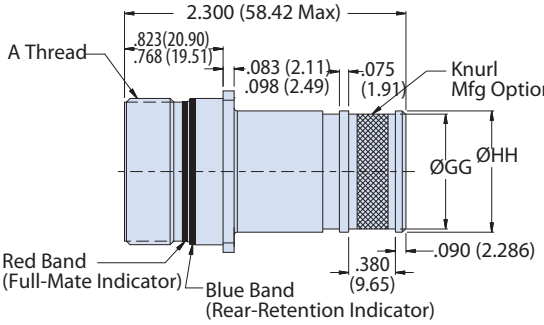

### D0 - Wall Mount Receptacle with Round Holes (Mating Face)



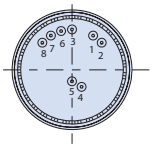

### CM - Wall Mount Receptacle with Metric Clinch Nuts (Mating Face)




### 00, D0 and CM - Wall Mount Receptacle




**Rear View**




For all 233-314 receptacle styles position rotates relative to code. (Code 3 shown)

| Wall Mount Receptacle Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shell Size | B Sq | C Bsc | D Bsc³ | E | F | ØGG | ØHH | Ø H Holes |
| 17 | 1.323 (33.60)<br>1.299 (32.99) | 1.062<br>(26.97) | .969<br>(24.61) | .136 (3.45)<br>.120 (3.05) | .202 (5.13)<br>.186 (4.72) | .960 (24.38)<br>1.062 (26.97) | 1.022 (25.96)<br>1.125 (28.58) | .136 (3.45)<br>.120 (3.05) |
| 19 | 1.449 (36.80)<br>1.425 (36.20) | 1.156<br>(29.36) | 1.062<br>(26.97) | | | | | |

| In-line and Jam Nut Receptacle Dimensions | | | | | |
|---|---|---|---|---|---|
| Shell Size | ØK | L | M Flat | R | ØS Max |
| 17 | 1.764 (44.81)<br>1.740 (44.20) | 1.642 (41.71)<br>1.610 (40.89) | 1.191 (30.25)<br>1.181 (30.00) | .122 (3.09)<br>.083 (2.11) | 1.406 (35.71) |
| 19 | 1.949 (49.50)<br>1.925 (48.90) | 1.827 (46.51)<br>1.795 (45.59) | 1.316 (33.43)<br>1.305 (33.15) | .153 (3.89)<br>.114 (2.90) | 1.516 (38.51) |

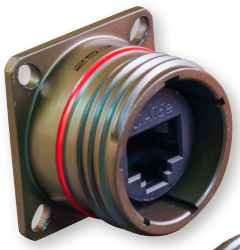
| Thread Dimensions | | |
|---|---|---|
| Shell Size | A and J Threads | N Thread |
| 17 | 1.1875-.1P-.3L-TS-2A | M32 x 1.0-6g 0.100R |
| 19 | 1.2500-.1P-.3L-TS-2A | M35 x 1.0-6g 0.100R |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-302 Receptacle with PC tails





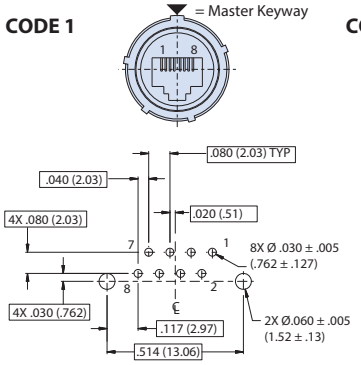
Receptacle front View

Receptacle rear View

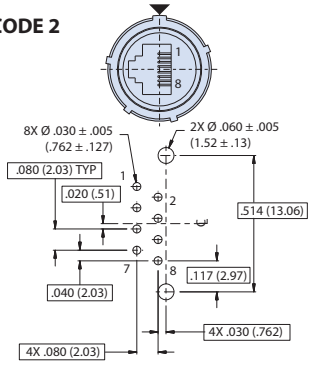
| Part Number Development | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-302** | **NF** | **00** | **G** | **17** | **5H** | **N** | **1** |
| **Basic Number** | **233-302** | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | |
| **Connector Style**[1] | See Connector Style table | | | | | | | |
| **Insert-to-Shell Grounding** | **–** = Inline shielded RJ45 insert<br>**G** = Shielded and grounded to shell[2] | | | | | | | |
| **Shell Size** | **17** or **19** | | | | | | | |
| **RJ45 Category** | **5H** = CAT 5e<br>For Cat 6A applications consult factory | | | | | | | |
| **Alternate Key Position**[1] | Per MIL-DTL-38999 **A**, **B**, **C**, **D**, **E**, **N** = Normal | | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, or **4** | | | | | | | |

## RJ45 ORIENTATION OPTIONS AND PCB LAYOUT

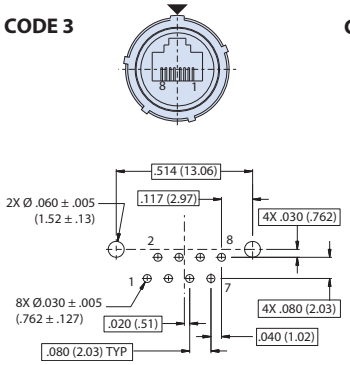
**CODE 1**



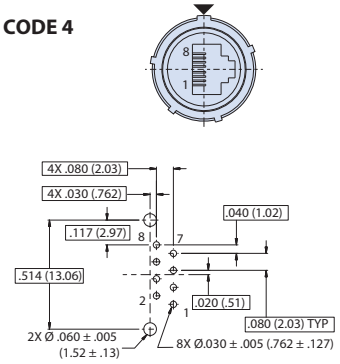

**CODE 2**




**CODE 3**




**CODE 4**




| Connector Style[1] | |
|---|---|
| **00** | Wall mount receptacle with slotted holes |
| **07** | rear panel mount, jam nut receptacle |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |

| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Aluminum/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |

| Jam Nut Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shell Size | Dia K | | L | | M Flat | | P | |
| | in | mm | in | mm | in | mm | in | mm |
| **17** | 1.764<br>1.740 | 44.81<br>44.20 | 1.642<br>1.610 | 41.71<br>40.89 | 1.191<br>1.181 | 30.25<br>30.00 | .090<br>.080 | 2.29<br>2.03 |
| **19** | 1.949<br>1.925 | 49.50<br>48.90 | 1.827<br>1.795 | 46.41<br>45.59 | 1.316<br>1.306 | 33.43<br>33.17 | .150<br>.140 | 3.81<br>3.56 |

| Wall Mount Receptacle Dimensions | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | B Sq | | C BSC | | D BSC[3] | | E | | F | | G1 | | Ø H Holes | |
| | In | mm | In | mm | In | mm | In | mm | In | mm | In | mm | In | mm |
| **17** | 1.323<br>1.299 | 33.60<br>32.99 | 1.062 | 26.97 | .969 | 24.61 | .136<br>.120 | 3.45<br>3.05 | .202<br>.186 | 5.13<br>4.72 | .122<br>.083 | 3.10<br>2.11 | 0.136 | 3.45 |
| **19** | 1.449<br>1.425 | 36.80<br>36.20 | 1.156 | 29.36 | 1.062 | 26.97 | | | | | .153<br>.114 | 3.89<br>2.90 | 0.120 | 3.05 |

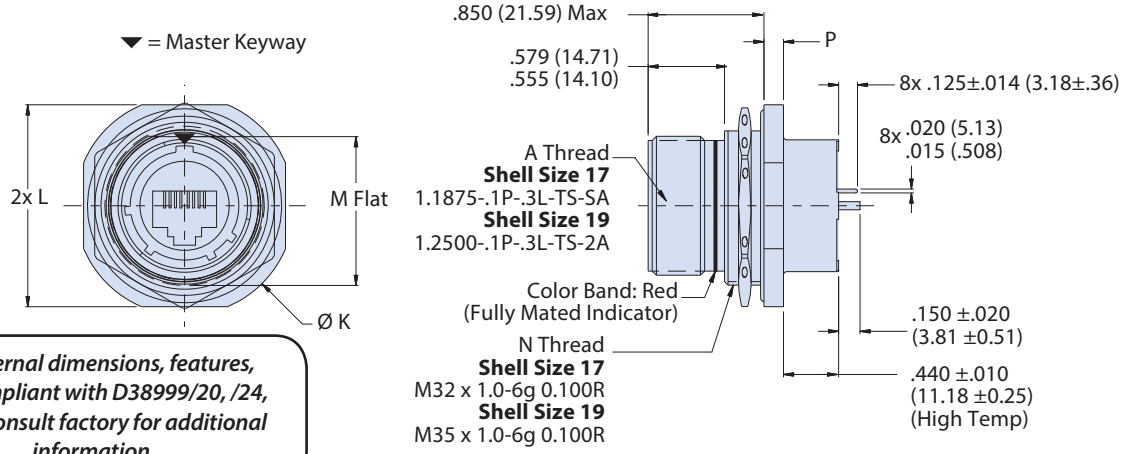
## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. G option is inline shielded and grounded to shell, available for receptacle only
3. Front panel mount only
4. Meets IP67 in unmated condition, IP68 mated
5. Receptacle connector has RJ45 jack



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

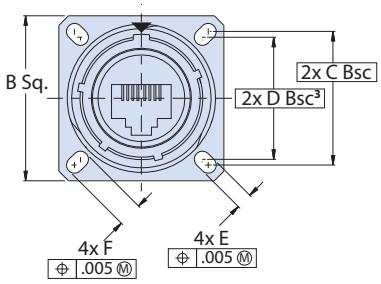
## 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE



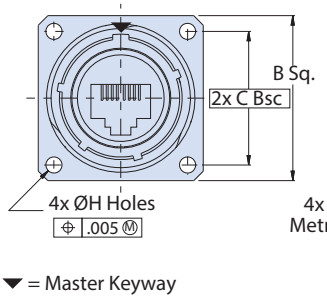

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

## 00, DO AND CM - WALL MOUNT RECEPTACLES

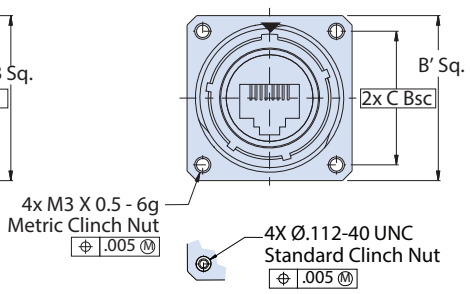
**00 - Wall Mount Receptacle with Slotted Holes (Mating Face)**



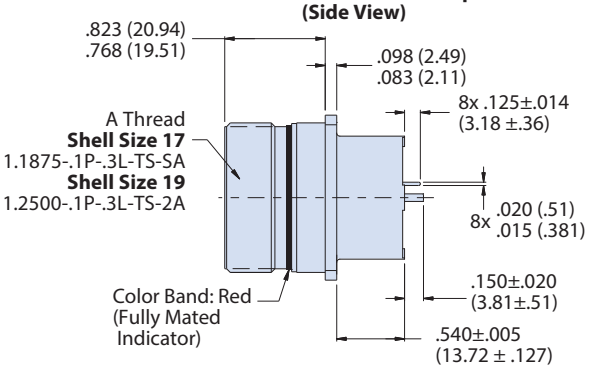

**D0 - Wall Mount Receptacle With Round Holes (Mating Face)**



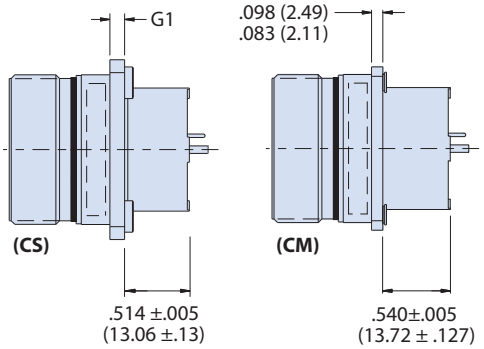

**CM & CS - Wall Mount Receptacle With Metric/Std Clinch Nuts (Mating Face)**



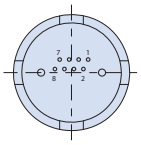

**00 and D0 - Wall Mount Receptacle (Side View)**




**CS and CM - Wall Mount Receptacle (Side View)**




**Rear View**



For all 233-302 receptacle styles position rotates relative to code (Code 1 shown)

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

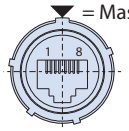
# MIL-DTL-38999 Series III Type Connectors

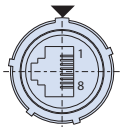
## 233-303 Receptacle with solder cups

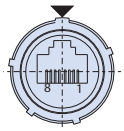
| Part Number Development | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-303** | **NF** | **00** | **G** | **17** | **5H** | **N** | **1** |

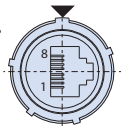
| | |
|---|---|
| **Basic Number** | **233-303** |
| **Finish** | See Material and Finish table |
| **Connector Style**[1] | See Connector Style table |
| **Insert-to-Shell Grounding** | **–** = Inline shielded RJ45 insert<br>**G** = Shielded and grounded to shell[2] |
| **Shell Size** | **17** or **19** |
| **RJ45 Category** | **5H** = CAT 5e<br>For Cat 6A applications consult factory |
| **Alternate Key Position**[1] | Per MIL-DTL-38999 **A**, **B**, **C**, **D**, **E**, **N** = Normal |
| **RJ45 Orientation** | **1**, **2**, **3**, or **4** |

## RJ45 ORIENTATION OPTIONS

**CODE 1** = Master Keyway 


**CODE 2** 


**CODE 3** 


**CODE 4** 


| Jam Nut Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shell Size | Ø J | | K | | L Flat | | M | |
| | in | mm | in | mm | in | mm | in | mm |
| **17** | 1.764<br>1.740 | 44.81<br>44.20 | 1.642<br>1.610 | 41.71<br>40.89 | 1.191<br>1.181 | 30.25<br>30.00 | .122<br>.083 | 3.10<br>2.11 |
| **19** | 1.949<br>1.925 | 49.50<br>48.90 | 1.827<br>1.795 | 46.41<br>45.59 | 1.316<br>1.306 | 33.43<br>33.17 | .153<br>.114 | 3.89<br>2.90 |

| Wall Mount Receptacle Dimensions | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | B Sq | | C Bsc | | D Bsc | | E | | F | | Ø G Holes | |
| | In | mm | In | mm | In | mm | In | mm | In | mm | In | mm |
| **17** | 1.323<br>1.299 | 33.60<br>32.99 | 1.062 | 26.97 | .969 | 24.61 | .136<br>.120 | 3.45<br>3.05 | .202<br>.186 | 5.13<br>4.72 | 0.136<br>0.120 | 3.45<br>3.05 |
| **19** | 1.449<br>1.425 | 36.80<br>36.20 | 1.156 | 29.36 | 1.062 | 26.97 | | | | | | |

| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Aluminum/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |

| Connector Style | |
|---|---|
| **00** | Wall mount receptacle with slotted holes |
| **07** | rear panel mount, jam nut receptacle |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

## NOTES

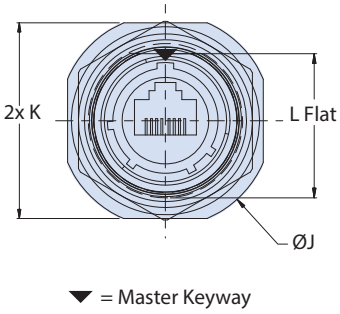
1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. G option is inline shielded and grounded to shell, available for receptacle only
3. Front panel mount only
4. Meets IP67 in unmated condition, IP68 mated
5. Receptacle connector has RJ45 jack
6. Materials and finishes
   - Shell, jam nut: Al alloy/optional
   - Seals: Silicone based elastomer
   - RJ45 coupler housing: UL94V-0 compliant ABS or PPS
   - Contacts: Copper alloy, gold plated
   - Hardware: Stainless steel/passivated

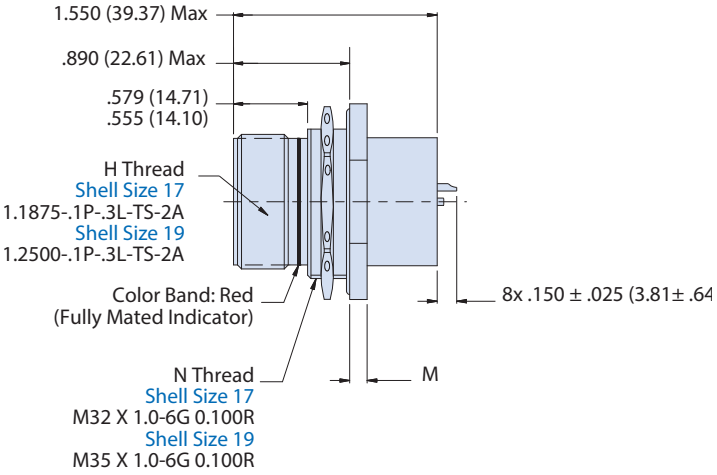


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

Rev. 01.14.22

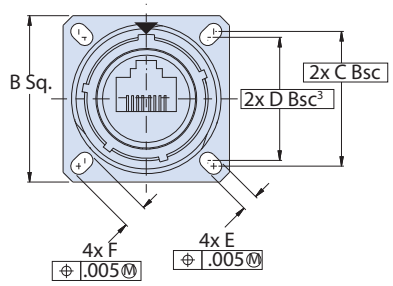
## 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE



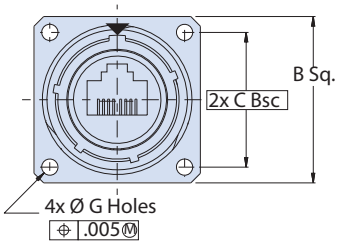




## 00, DO AND CM - WALL MOUNT RECEPTACLES

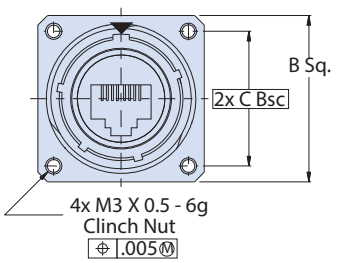
00 - Wall Mount Receptacle
with Slotted Holes (Mating Face)




D0 - Wall Mount Receptacle
with Round Holes (Mating Face)

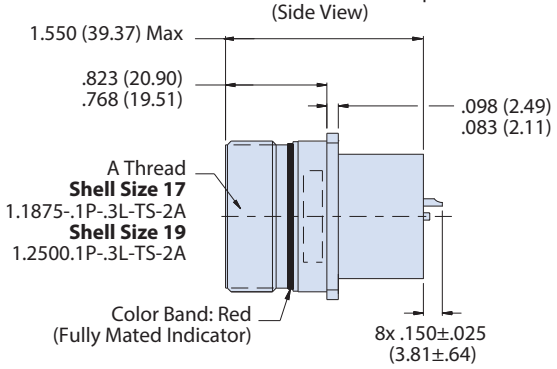



CM - Wall Mount Receptacle
with Metric Clinch Nuts (Mating Face)

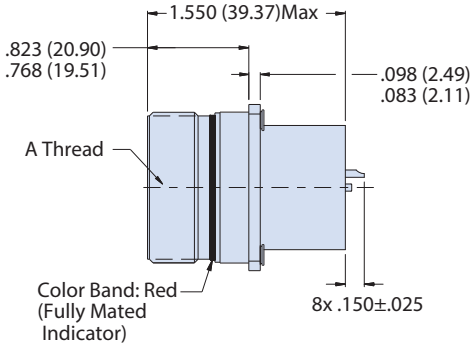



= Master Keyway

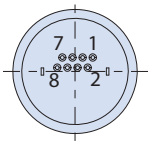
00 and D0 - Wall Mount Receptacle
(Side View)




00 and D0 - Wall Mount Receptacle
(Side View)




Rear View




For All 233-303 Receptacle Styles Position Rotates Relative To Code (Code 1 Shown)

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.



Rev. 01.14.22

# MIL-DTL-38999 Series III Type Connectors

## 233-304 Plug and receptacle adapter with accessory thread

RJ45/USB SUPER SEAL™

Glenair®

B

| Part Number Development | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-304** | **NF** | **00** | **17** | **G** | **35** | **P** | **5H** | **N** | **T** |
| **Basic Number** | **233-304** | | | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | | | |
| **Connector Style**[1] | See Connector Style table | | | | | | | | | |
| **Shell Size** | **17**[6] consult factory for other shell sizes | | | | | | | | | |
| **Insert-to-Shell Grounding**[2] | **–** = Inline shielded RJ45 insert<br>**G** = Shielded and grounded to shell | | | | | | | | | |
| **Insert Arrangement** | Per MIL-STD-1560; **17-26** or **17-35**[6] | | | | | | | | | |
| **Contact Style** | **P** = Pin **S** = Socket | | | | | | | | | |
| **RJ45 Category** | **5H** = CAT 5e<br>For Cat 6A applications consult factory | | | | | | | | | |
| **Alternate Key Position**[1] | Per MIL-DTL-38999 **A**, **B**, **C**, **D**, **E**, **N** = Normal | | | | | | | | | |
| **Shrink Boot** | **T** = Part No. 770-028 (Omit for None) | | | | | | | | | |

## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. G option is inline shielded and grounded to shell, available for receptacle only
3. Connector style 00 with slotted hole is front panel mount only
4. Meets IP67 in unmated condition, IP68 mated
5. Both plug and receptacle connectors have rear RJ45 jack
6. Consult factory for alternate insert arrangements

| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Aluminum/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |

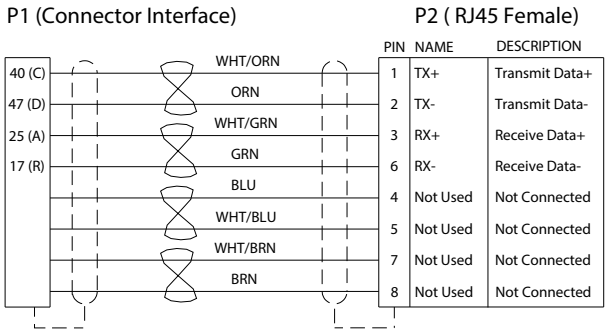
| Connector Style[1] | |
|---|---|
| **00** | Wall mount receptacle with slotted holes[3] |
| **05** | Inline Receptacle |
| **07** | rear panel mount, jam nut receptacle |
| **D0** | Wall mount receptacle with round holes |
| **G6** | plug |
| **CM** | Wall mount receptacle with metric clinch nuts |

| Thread Dimensions | | | |
|---|---|---|---|
| Shell Size | A Thread | G Thread | N Thread |
| **17** | 1.1875-.1P-.3L-TS-2A | M25 x 1.0-6g 0.100R | M32 x 1.0-6g 0.100R |
| **19** | 1.2500-.1P-.3L-TS-2A | M28x 1.0-6g 0.100R | M35 x 1.0-6g 0.100R |

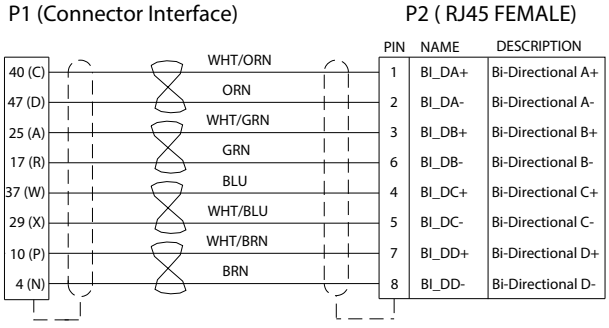
| Wall Mount Receptacle Dimensions | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | B Sq | | C BSC | | D BSC | | E | | F | | Ø H Holes | |
| | In | mm | In | mm | In | mm | In | mm | In | mm | In | mm |
| 17 | 1.323<br>1.299 | 33.60<br>32.99 | 1.062 | 26.97 | .969 | 24.61 | .136<br>.120 | 3.45<br>3.05 | .202<br>.186 | 5.13<br>4.72 | .136<br>.120 | 3.45<br>3.05 |
| 19 | 1.449<br>1.425 | 36.80<br>36.20 | 1.156 | 29.36 | 1.062 | 26.97 | | | | | | |

| Jam Nut and Inline Dimensions | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | Ø K | | L | | M Flat | | R | | S | |
| | in | mm | in | mm | in | mm | In | mm | In | mm |
| 17 | 1.764<br>1.740 | 44.81<br>44.20 | 1.642<br>1.610 | 41.71<br>40.89 | 1.191<br>1.181 | 30.25<br>30.00 | .122<br>.083 | 3.10<br>2.11 | 1.406 | 35.71 |
| 19 | 1.949<br>1.925 | 49.50<br>48.90 | 1.827<br>1.795 | 46.41<br>45.59 | 1.316<br>1.306 | 33.43<br>33.17 | .153<br>.114 | 3.89<br>2.90 | 1.516 | 38.51 |

### Wiring Diagram for Ethernet 10base-T & 100 Base-TX 17-35 or (17-26 in parenthesis) Arrangement




### Wiring Diagram for Ethernet 1000base-T (Gigabit Ethernet) 17-35 or (17-26 in parenthesis) Arrangement



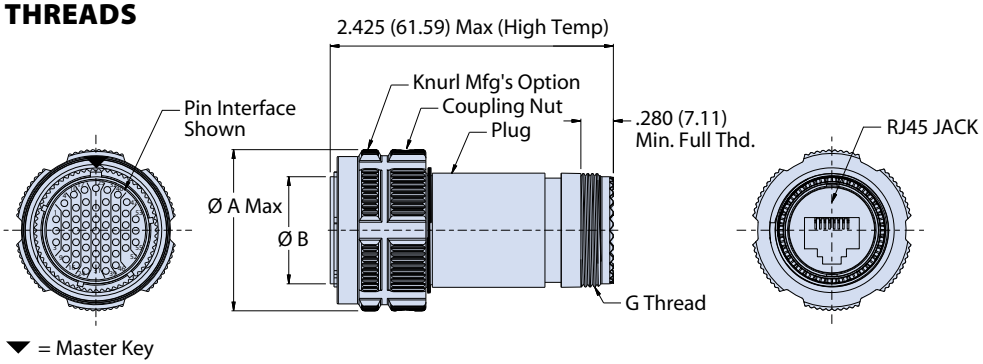

Color Codes Per EIA/TIA 568B



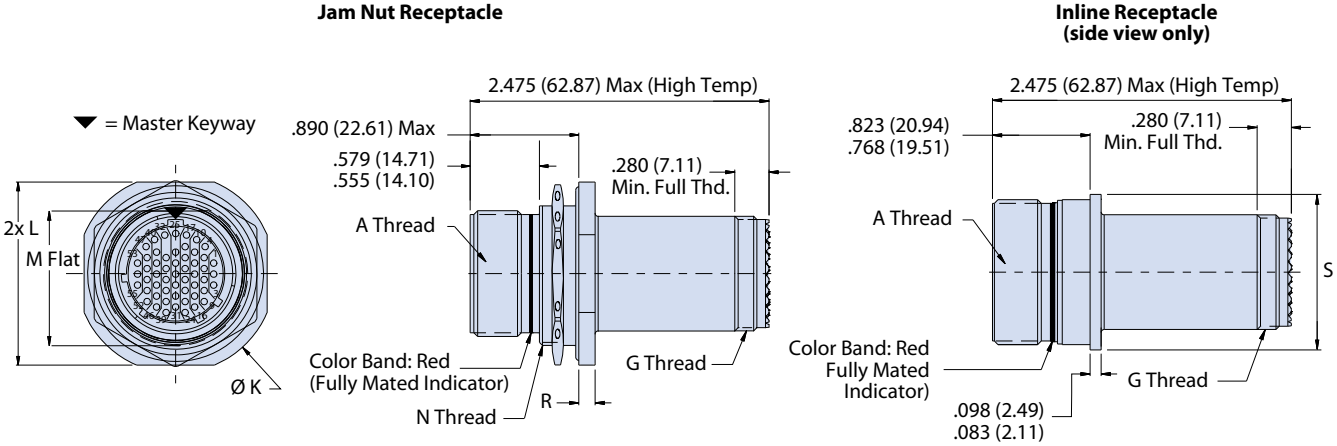
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## G6 - PLUG WITH ACCESSORY THREADS

| Plug Dimensions | | | | |
|---|---|---|---|---|
| Shell Size | Ø A | | Ø B | |
| | in | mm | in | mm |
| 17 | 1.406 | 35.71 | .928<br>.922 | 23.57<br>23.42 |
| 19 | 1.516 | 38.51 | 1.033<br>1.027 | 26.24<br>26.09 |




## 07 - REAR PANEL MOUNT, JAM NUT AND 05 - INLINE RECEPTACLE WITH ACCESSORY THREADS

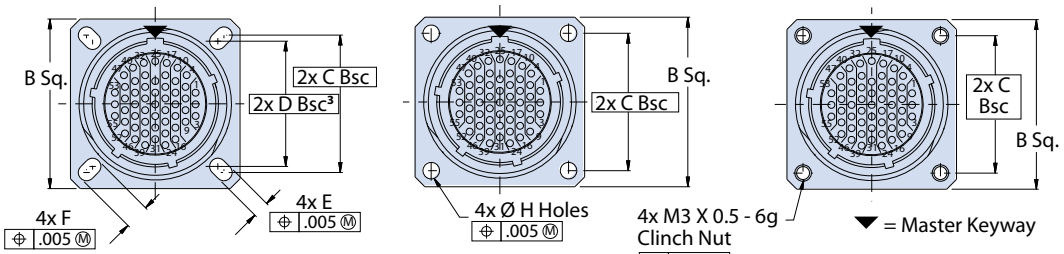



## 00, DO AND CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS

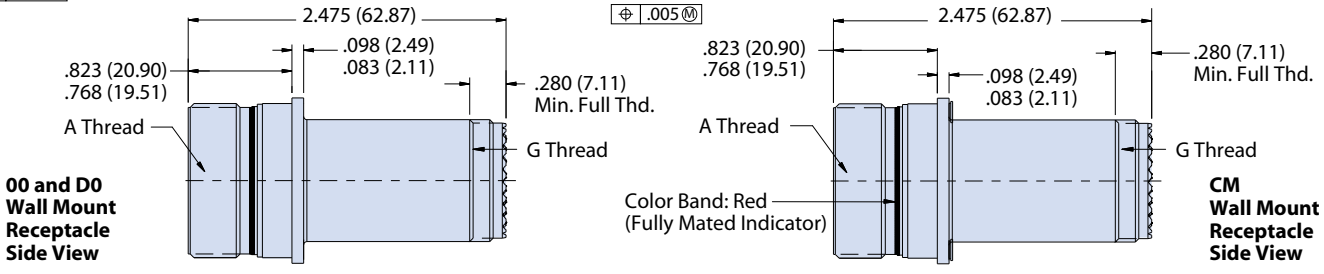
**00 - Wall Mount Receptacle with Slotted Holes (Mating Face)**

**D0 - Wall Mount Receptacle With Round Holes (Mating Face)**

**CM - Wall Mount Receptacle With Metric Clinch Nuts (Mating Face)**




*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

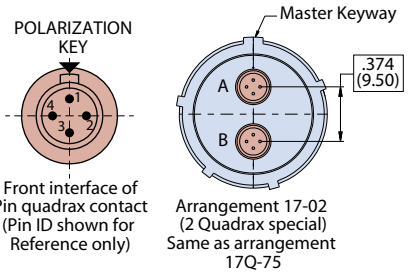
## 233-305 Quadrax interface adapter with accessory threads

Receptacle front View

Receptacle rear View

| Part Number Development | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-305** | **NF** | **00** | **-** | **17** | **5H** | **P** | **N** | **T** |
| **Basic Number** | **233-305** | | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | | |
| **Connector Style** | See Connector Style table | | | | | | | | |
| **Insert-to-Shell Grounding[2]** | **–** = Inline shielded RJ45 insert<br>**G** = Shielded and grounded to shell | | | | | | | | |
| **Shell Size** | **17** or **19** | | | | | | | | |
| **RJ45 Category** | **5H** = CAT 5e<br>For Cat 6A applications consult factory | | | | | | | | |
| **Contact Style** | **P** = Pin **S** = Socket | | | | | | | | |
| **Alternate Key Position[1]** | **A**, **B**, **C**, **D**, **E**, **N** = Normal; Per MIL-DTL-38999 | | | | | | | | |
| **Shrink Boot** | **T** = Part No. 770-028 (Omit for None) | | | | | | | | |

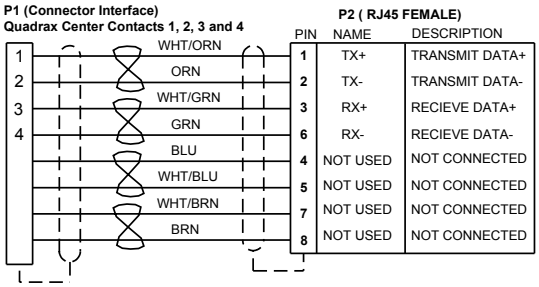
**Partial View Of Connector Quadrax Interface**



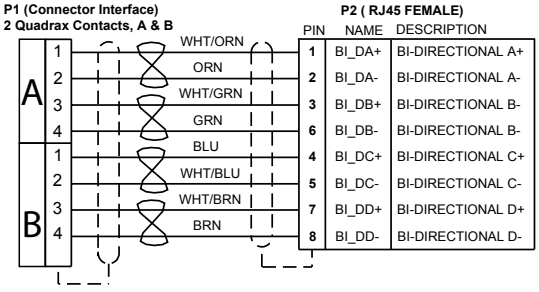

## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. G option is inline shielded and grounded to shell, available for receptacle only
3. Pin contact mates with P/N 854-002 Socket contact mates with P/N 854-001
4. Connector style 00 with slotted hole is front panel mount only
5. Meets IP67 in unmated condition, IP68 mated
6. Both plug and receptacle connectors have rear RJ45 jack

Wiring Diagram for Ethernet 10base-T & 100 Base-TX (Color Codes Per EIA/TIA 568B)




Wiring Diagram for Ethernet 1000base-T (Gigabit Ethernet) (Color Codes Per EIA/TIA 568B)




| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Aluminum/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |

| Connector Style | |
|---|---|
| **05** | Inline Receptacle |
| **07** | rear panel mount, jam nut receptacle |
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |
| **G6** | plug |

| Thread Dimensions | | | |
|---|---|---|---|
| Shell Size | A Thread | G Thread | N Thread |
| **17** | 1.1875-.1P-.3L-TS-2A | M25 x 1.0-6g 0.100R | M32 x 1.0-6g 0.100R |
| **19** | 1.2500-.1P-.3L-TS-2A | M28x 1.0-6g 0.100R | M35 x 1.0-6g 0.100R |

| Jam Nut Dimensions | | | | | |
|---|---|---|---|---|---|
| Shell Size | Ø K | L | M Flat | R | Ø S |
| **17** | 1.764 (44.81)<br>1.740 (44.20) | 1.642 (41.71)<br>1.610 (40.89) | 1.191 (30.25)<br>1.181 (30.00) | .122 (3.10)<br>.083 (2.11) | 1.275 (32.39) |
| **19** | 1.949 (49.50)<br>1.925 (48.90) | 1.827 (46.41)<br>1.795 (45.59) | 1.316 (33.43)<br>1.306 (33.17) | .153 (3.89)<br>.114 (2.90) | 1.337 (33.96) |

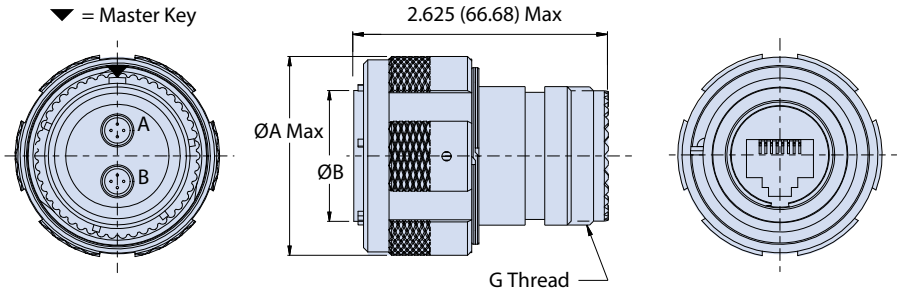
| Wall Mount Receptacle Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| Shell Size | B Sq | C BSC | D BSC | E | F | Ø H Holes |
| **17** | 1.323 (33.60)<br>1.299 (32.99) | 1.062 (26.97) | .969 (24.61) | .136 (3.45)<br>.120 (3.05) | .202 (5.13)<br>.186 (4.72) | .136 (3.45)<br>.120 (3.05) |
| **19** | 1.449 (36.80)<br>1.425 (36.20) | 1.156 (29.36) | 1.062 (26.97) | | | |



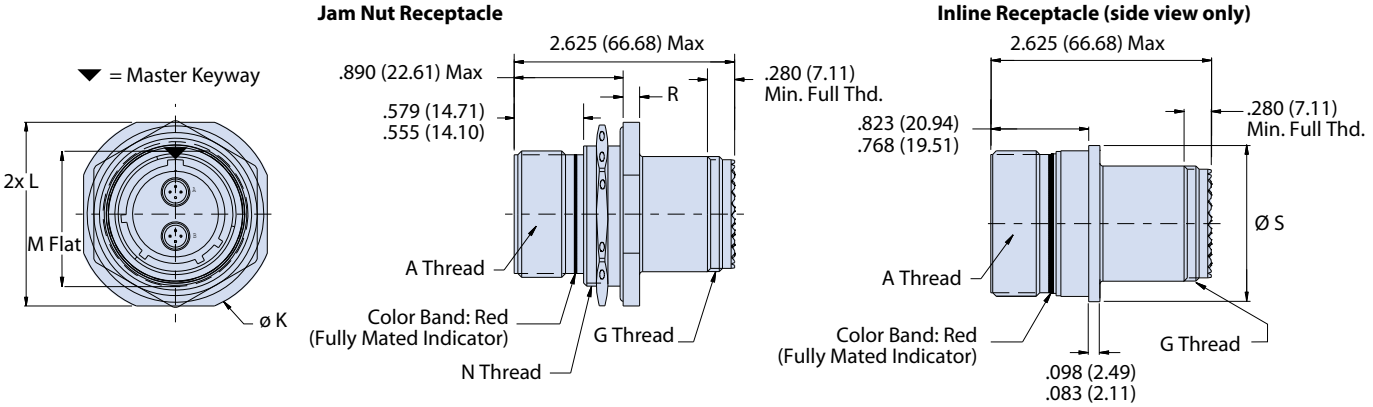
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## G6 - PLUG WITH ACCESSORY THREADS

| Plug Dimensions | | | | |
|---|---|---|---|---|
| Shell Size | Ø A | | Ø B | |
| | in | mm | in | mm |
| 17 | 1.406 | 35.71 | .928<br>.922 | 23.57<br>23.42 |
| 19 | 1.516 | 38.51 | 1.033<br>1.027 | 26.24<br>26.09 |




## 07 - REAR PANEL MOUNT, JAM NUT AND 05 - INLINE RECEPTACLE WITH ACCESSORY THREADS

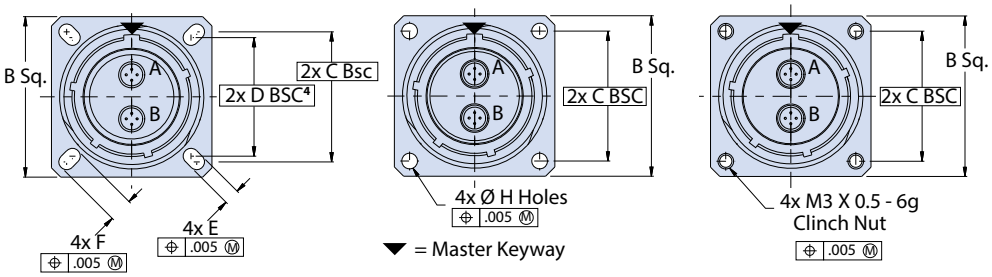



## 00, DO AND CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS

**00 - Wall Mount Receptacle with Slotted Holes (Mating Face)**

**D0 - Wall Mount Receptacle With Round Holes (Mating Face)**

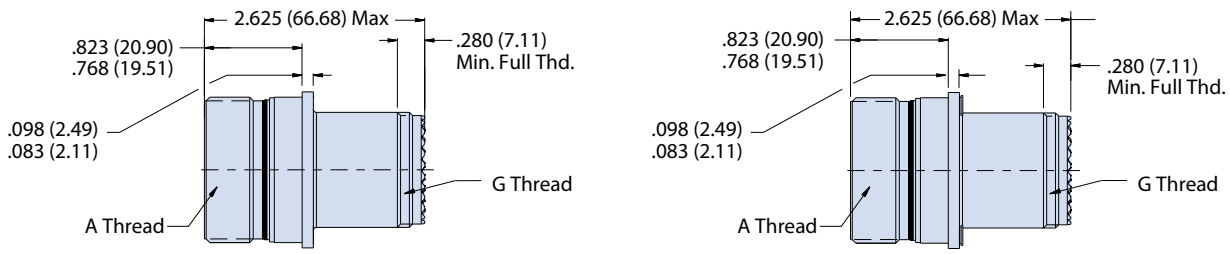
**CM - Wall Mount Receptacle With Metric Clinch Nuts (Mating Face)**




*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

**00 and D0 - Wall Mount Receptacle**

**CM - Wall Mount Receptacle**




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-330 Feed-through receptacle connector

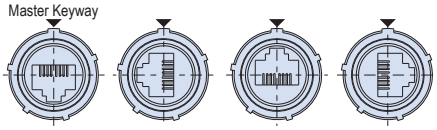
Receptacle front View

| Part Number Development | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-330** | **NF** | **00** | **-17** | **5H** | **N** | **1** |
| **Basic Number** | **233-330** | | | | | | |
| **Finish** | See Material and Finish table | | | | | | |
| **Connector Style[1]** | See Connector Style table | | | | | | |
| **Shell Size** | **17** or **19** | | | | | | |
| **RJ45 Category** | **5H** = CAT 5e<br>**6A** = CAT 6A | | | | | | |
| **Alternate Key Position[1]** | Per MIL-DTL-38999 **A**, **B**, **C**, **D**, **E**, **N** = Normal | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, or **4** | | | | | | |

| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Aluminum/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |

| Connector Style[1] | |
|---|---|
| **00** | Wall mount receptacle with slotted hole[2] |
| **07** | Jam nut, rear panel mount receptacle |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |

**RJ45 Orientation Options (Receptacle Face)**




***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

| Jam Nut Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Shell Size** | **Ø K** | | **L** | | **M Flat** | | **R** | |
| | **in** | **mm** | **in** | **mm** | **in** | **mm** | **in** | **mm** |
| **17** | 1.764<br>1.740 | 44.81<br>44.20 | 1.642<br>1.610 | 41.71<br>40.89 | 1.191<br>1.181 | 30.25<br>30.00 | .122<br>.083 | 3.10<br>2.11 |
| **19** | 1.949<br>1.925 | 49.50<br>48.90 | 1.827<br>1.795 | 46.41<br>45.59 | 1.316<br>1.306 | 33.43<br>33.17 | .153<br>.114 | 3.89<br>2.90 |

| Wall Mount Receptacle Dimensions | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Shell Size** | **B Sq** | | **C Bsc** | | **D Bsc[2]** | | **E** | | **F** | | **Ø H Holes** | |
| | **In** | **mm** | **In** | **mm** | **In** | **mm** | **In** | **mm** | **In** | **mm** | **In** | **mm** |
| **17** | 1.323<br>1.299 | 33.60<br>32.99 | 1.062 | 26.97 | .969 | 24.61 | .136<br>.120 | 3.45<br>3.05 | .202<br>.186 | 5.13<br>4.72 | 0.136<br>0.120 | 3.45<br>3.05 |
| **19** | 1.449<br>1.425 | 36.80<br>36.20 | 1.156 | 29.36 | 1.062 | 26.97 | | | | | | |

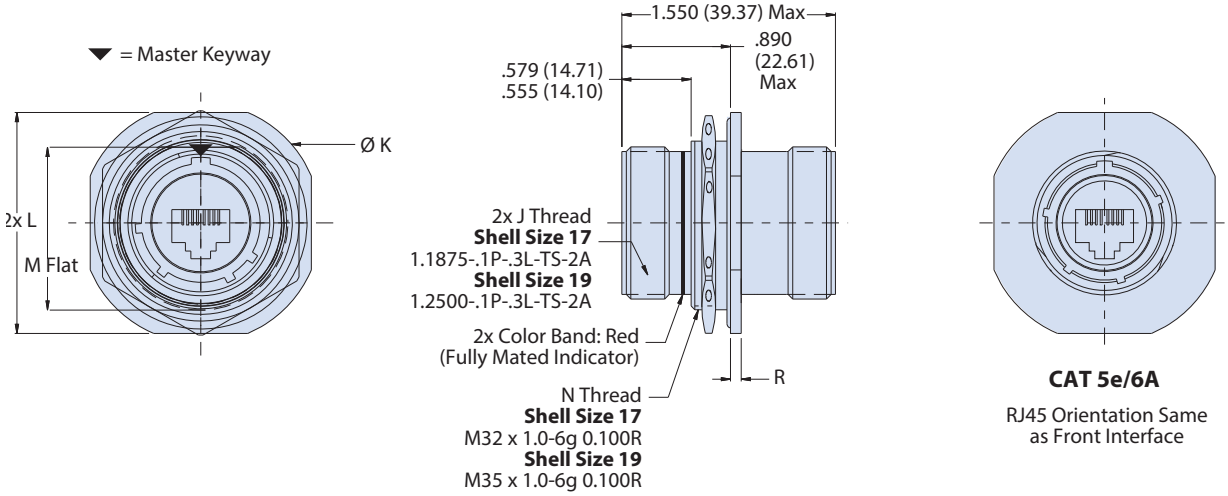
## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. front panel mount only
3. Meets IP67 in unmated condition, IP68 mated
4. Feed-thru receptacle is jack-to-jack configuration

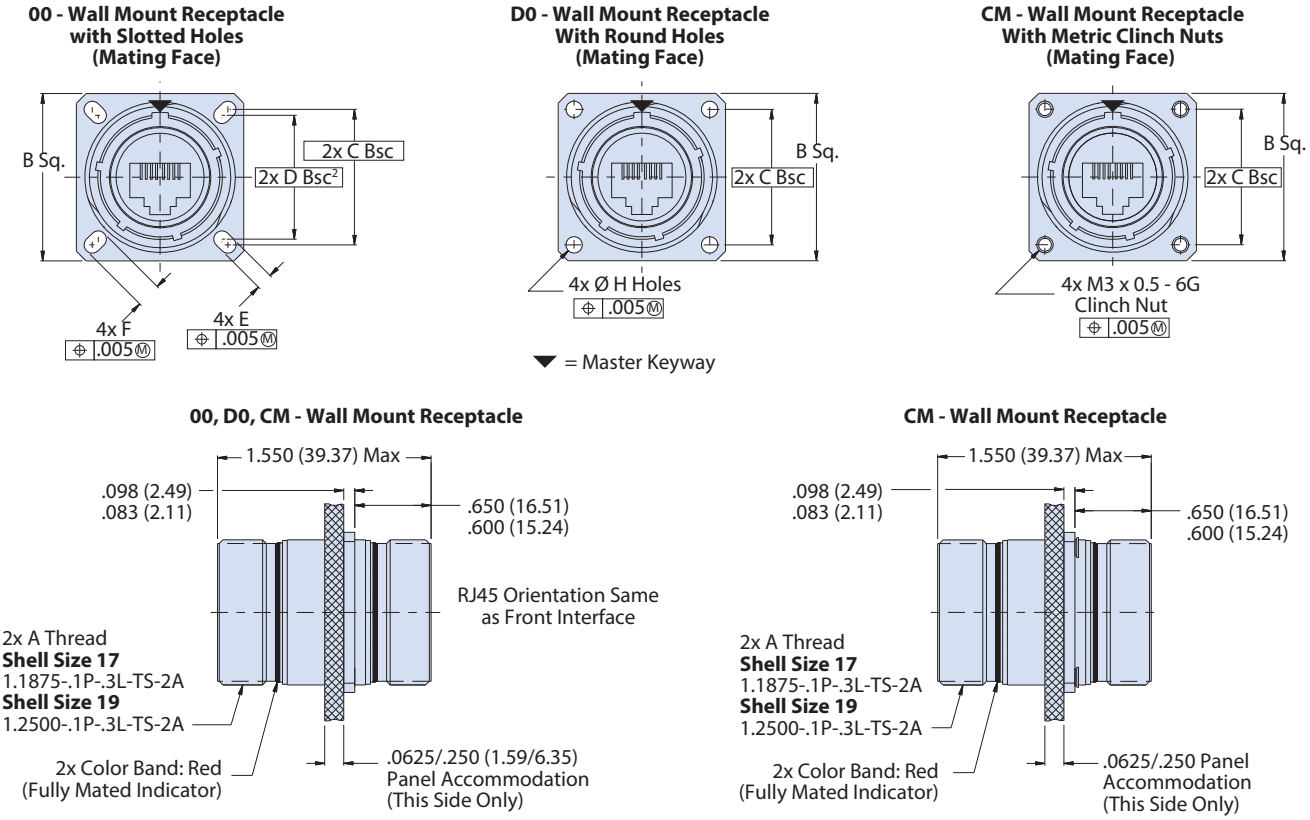


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## 07 - REAR PANEL MOUNT, JAM NUT FEED-THROUGH RECEPTACLE




## 00, DO AND CM - WALL MOUNT FEED-THRU RECEPTACLES




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

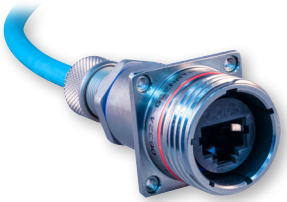
## CAT 5e cable assemblies

### 2330-0003 Glenair SuperNine RJ45 CAT 5e cable jumpers, SuperSeal to standard RJ45

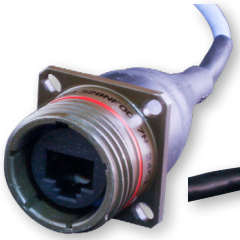
SuperSeal RJ45 connectors are IP67 open face rated and IP68 in the mated condition for complete protection in harsh environments. SuperSeal connector styles include plug, wall mount and jam-nut receptacles. Wall mount receptacles are available with slotted holes, round holes and metric clinch nuts. All SuperSeal shells offer inline shielding and receptacle shells offer optional shell grounding. Any shell can be ordered with straight or right angle cable exit. RJ45 jack can be ordered in 1 of 4 available orientations to provide further security against mis-mating and accommodate existing RJ45 orientations. RJ45 connector end may be ordered as plug, jack or with flying leads in straight or right angle configurations. Maximum overall length is 100 feet. Consult factory for ordering information.

## AVAILABLE INTERFACE OPTIONS

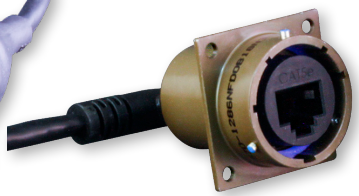
**Plug**



**Wall mount receptacle with metric clinch nuts**



**Wall Mount Receptacle with round holes**



**Wall Mount Receptacle with round holes**

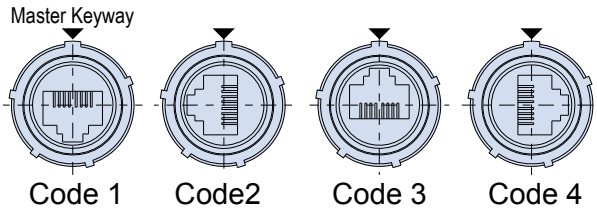
**Jam-nut mount Receptacle**

## CAT 5E PLUG OPTIONS

**CAT 5e, Straight**

**CAT 5e, 45°,**

## RJ45 ORIENTATION OPTIONS






© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

MIL-DTL-38999
TYPE HERMETIC
RJ45 ETHERNET
CONNECTOR

*SUPERSEAL™*

# Glass-sealed Hermetic RJ45 Connectors

GLASS-SEALED
Hermetic
CONNECTORS

**Helium Leak Testing**

Series 23 SuperSeal hermetic connectors are 100% tested prior to shipment. A helium leak test is performed to certify the hermetic seal. This test is conducted by inducing 1ATM of vacuum on one side of the connector. Helium gas is released on the other side, and a mass spectrometer "counts" the number of helium molecules that penetrate the connector seal. Helium leak testing takes advantage of the small size of a helium molecule compared to air or water vapor. Helium is inert, rare in our atmosphere, and is easy to detect with a mass spectrometer. Series 806 hermetic connectors are designed specifically for commercial and military aircraft zones such as engine compartments. These areas are typically exposed to fuel, oil and changes in elevation. Such conditions present the need to protect sensitive electronic equipment from the effects of caustic chemicals and moisture ingress through standard environmental connectors where high pressure leads to sealing failure. Other aircraft locations such as the fuselage require hermetic connectors to maintain passenger cabin pressure while allowing for data transmission through separated compartments of the aircraft.

***Prevents damage from moisture ingress and caustic chemicals***

- **Cat 5e and 6A**
- **1 x $10^{-7}$ sccHe/sec @ 1 Atmophere Differential**
- **Superior performance**
- **D38999 Series III type**
- **SuperSeal™ signature sealing and grounding**

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-309 Hermetic RJ45 Feed-thru Connector with Crimp Removable Contacts

RJ45/USB SUPER SEAL™

Glenair

B

| Material and Finish | |
|---|---|
| Z1 | Stainless Steel/Passivate |
| ZL | Stainless Steel/Electro-deposited Nickel |

| Connector Style[1] | |
|---|---|
| 00 | Wall mount receptacle with slotted hole[2] |
| 07 | Jam nut, rear panel mount receptacle |
| D0 | Wall mount receptacle with round holes |
| CM | Wall mount receptacle with metric clinch nuts |

### NOTES

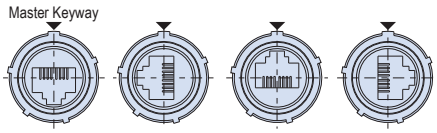
1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Front panel mount only
3. Meets IP67 in unmated condition, IP68 mated
4. Connector and contacts shall meet general requirements of MIL-DTL-38999, Series III. RJ45 connector meets TIA 568B standard.
5. RJ45 Jack Specifications:
- Shielded Cat5e RJ45 (grounded to PC board)
- Wiring: straight through
- RoHS compliant
- Electrical: current rating: 1.5 Amp
- D.W.V.: 1000 VDC (700 VAC)
- Operating temperature range: -40°C to +120°C
6. Hermeticity: <1 x 10^-7 sccHe/sec @ 1 atmosphere differential
7. Material/finishes:
- Shell, jam nut: 300 series cres / passivate or plate
- Insulator, hermetic: glass
- Insulators: high grade rigid dielectric
- Contacts: copper alloy/gold plate
- Seals: fluorosilicone
- RJ45 coupler housing: ULV94V-0 compliant ABS or PPS

| Part Number Development | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-309** | **Z1** | **00** | **-** | **17** | **5H** | **N** | **1** |
| **Basic Number** | **233-309** | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | |
| **Connector Style[1]** | See Connector Style table | | | | | | | |
| **Shielding** | **–** = Inline shielded RJ45<br>**G** = Inline shielded and grounded to the shells | | | | | | | |
| **Shell Size** | **17** and **19** | | | | | | | |
| **RJ45 Category** | **5H** = CAT 5e | | | | | | | |
| **Alternate Key Position[1]** | Per MIL-DTL-38999 **A**, **B**, **C**, **D**, **E**, **N** = Normal | | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, or **4** | | | | | | | |

| Jam Nut Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shell Size | Ø K | | L | | M Flat | | R | |
| | in | mm | in | mm | in | mm | in | mm |
| 17 | 1.764<br>1.740 | 44.81<br>44.20 | 1.642<br>1.610 | 41.71<br>40.89 | 1.191<br>1.181 | 30.25<br>30.00 | .122<br>.083 | 3.10<br>2.11 |
| 19 | 1.949<br>1.925 | 49.50<br>48.90 | 1.827<br>1.795 | 46.41<br>45.59 | 1.316<br>1.306 | 33.43<br>33.17 | .153<br>.114 | 3.89<br>2.90 |

| Wall Mount Receptacle Dimensions | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | B Sq | | C Bsc | | D Bsc[2] | | E | | F | | Ø H Holes | |
| | In | mm | In | mm | In | mm | In | mm | In | mm | In | mm |
| 17 | 1.323<br>1.299 | 33.60<br>32.99 | 1.062 | 26.97 | .969 | 24.61 | .136<br>.120 | 3.45<br>3.05 | .202<br>.186 | 5.13<br>4.72 | 0.136<br>0.120 | 3.45<br>3.05 |
| 19 | 1.449<br>1.425 | 36.80<br>36.20 | 1.156 | 29.36 | 1.062 | 26.97 | | | | | | |

**RJ45 Orientation Options (Receptacle Face)**




***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

| Jam Nut and Wall Mount Thread Dimensions | | | |
|---|---|---|---|
| Shell Size | A Thread | G Thread | N Thread (Jam-Nut Only) |
| 17 | 1.1875-.1P-.3L-TS-2A | M25 x 1.0-6g 0.100R | M32 x 1.0-6g 0.100R |
| 19 | 1.2500-.1P-.3L-TS-2A | M28x 1.0-6g 0.100R | M35 x 1.0-6g 0.100R |

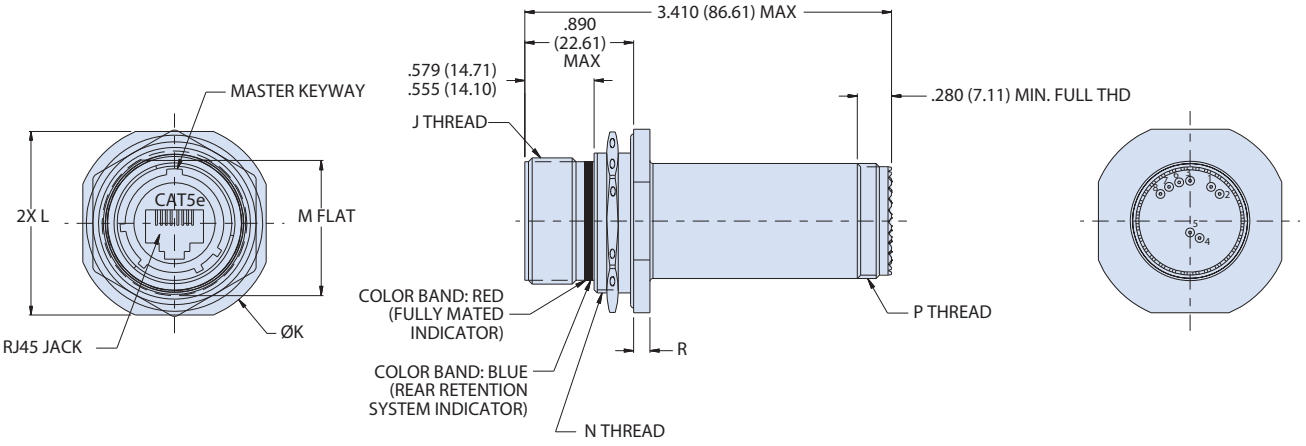
| Jam Nut Dimensions | | | | | |
|---|---|---|---|---|---|
| Shell Size | Ø K | L | M Flat | R | Ø S |
| 17 | 1.764 (44.81)<br>1.740 (44.20) | 1.642 (41.71)<br>1.610 (40.89) | 1.191 (30.25)<br>1.181 (30.00) | .122 (3.10)<br>.083 (2.11) | 1.275 (32.39) |
| 19 | 1.949 (49.50)<br>1.925 (48.90) | 1.827 (46.41)<br>1.795 (45.59) | 1.316 (33.43)<br>1.306 (33.17) | .153 (3.89)<br>.114 (2.90) | 1.337 (33.96) |

| Wall Mount Receptacle Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| Shell Size | B Sq | C BSC | D BSC | E | F | Ø H Holes |
| 17 | 1.323 (33.60)<br>1.299 (32.99) | 1.062 (26.97) | .969 (24.61) | .136 (3.45)<br>.120 (3.05) | .202 (5.13)<br>.186 (4.72) | .136 (3.45)<br>.120 (3.05) |
| 19 | 1.449 (36.80)<br>1.425 (36.20) | 1.156 (29.36) | 1.062 (26.97) | | | |



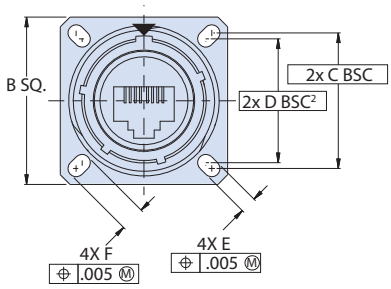
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## 07 - REAR PANEL MOUNT, JAM NUT FEED-THROUGH CONNECTORS

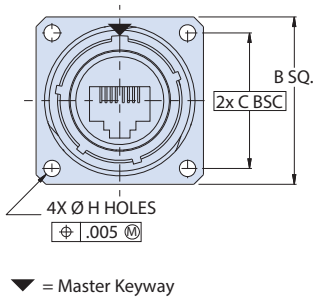



## 00, DO AND CM - WALL MOUNT FEED-THRU CONNECTORS

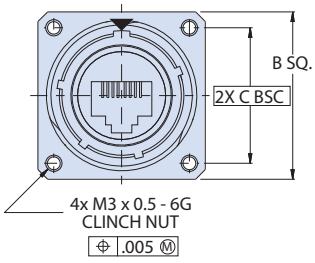
**00 - Wall Mount Receptacle with Slotted Holes (Mating Face)**



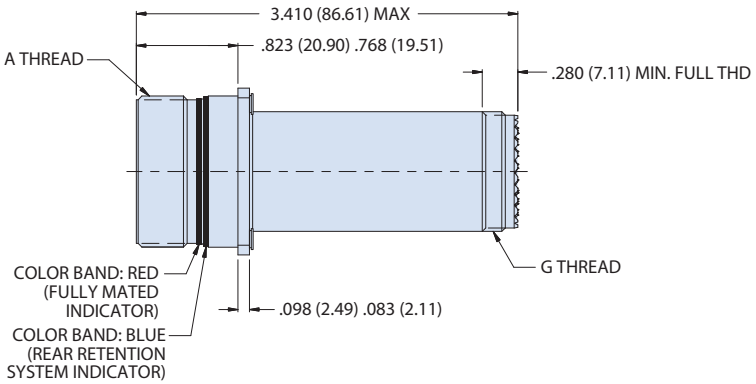

**D0 - Wall Mount Receptacle With Round Holes (Mating Face)**



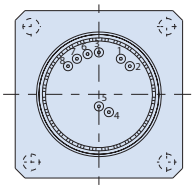

**CM - Wall Mount Receptacle With Metric Clinch Nuts (Mating Face)**




**00, D0, CM - Wall Mount Receptacle**




**D0 - Wall Mount Receptacle**
Shown for Contact Termination Positions Only



B

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

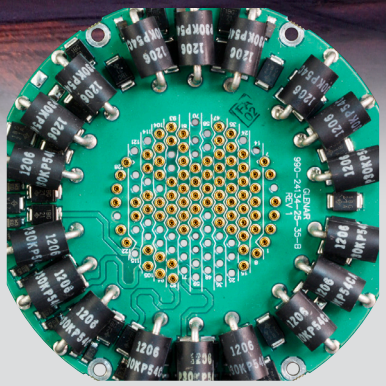
MIL-DTL-38999 TYPE
TVS FIELD-READY
RJ45 ETHERNET

RJ45/USB
SUPER SEAL™

FILTER
EMI/EMP
CONNECTORS

SUPERSEAL™

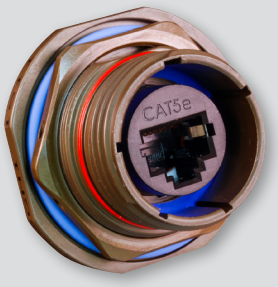
# Transient Voltage Suppression (TVS) RJ45 Connectors



Transient Voltage Suppression (TVS) technologies are designed to shunt voltage transients directly to ground before such surges can damage sensitive electronic equipment. Individual TVS diodes as well as diode modules are incorporated directly into the TVS filter connector package to provide optimal protection for either individual contacts or groups of contacts without significant increases in connector size or weight. RTCA DO-160 and other electrical performance standards define acceptable benchmarks for withstanding electromagnetic pulse, lightning strike, or other induced voltage surges in high-reliability systems. For high-speed signals, care must be taken in selecting diodes to minimize capacitance loading effects which can lead to signal loss. Glenair SuperSeal™ TVS-equipped RJ45 connectors have been engineered to transmit high-speed signals while providing indirect lightning strike protection in accordance with the RTCA DO-160 standard.

## *Prevents Catastrophic EMP Failure in Military and Commercial Aircraft*

- **Electromagnetic pulse (EMP) protection**
- **Lightning protection**
- **Saves weight and space**
- **Superior performance**
- **D38999 Series III type**
- **SuperSeal™ signature sealing and grounding**



MIL-DTL-38999 type Series III SuperNine RJ45 receptacles with transient voltage suppression technoloy

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

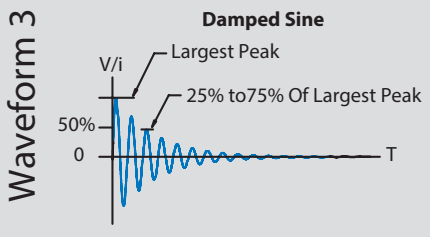
# RJ45 CAT 5e TVS connectors

## TVS diode performance specifications and power selection



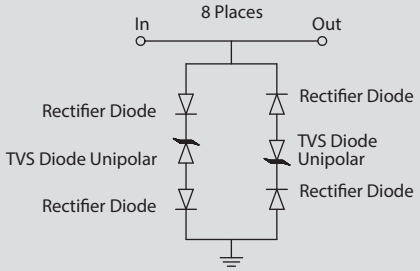
| MIL-DTL-38999 Series III, TVS Diode, RJ45 CAT 5e and 6A Performance Specifications | |
|---|---|
| **Material and Finish** | |
| **Shell/coupling Plating** | Complete list of options available in the Material and Finish Options portion of this section |
| **Contacts** | PC tails or solder cup: copper alloy, gold plated |
| **RJ45 coupler housing** | UL94V-0 compliant ABS or PPS |
| **Seals** | Fluorosilicone |
| **Shell Sizes** | 17 and 19 |
| **Environmental / Mechanical Performance** | |
| **Sealing** | IP68 mated condition, IP67 unmated condition |
| **Outgassing** | Mod Code 186S* Mod Code 928** |
| **Operating Temperature** | -20°C to +85°C |
| **Vibration** | 20g's, 3 Axis, 10 - 2000Hz |
| **Mechanical Shock** | 300 g's |
| **Backshell Interface** | MIL-DTL-38999 Designator H |
| **Mating Cycles** | 500 |

* Meets outgassing requirements per ASTM E 595 and meets NASA screening requirements for level 1 highest reliability
** Meets outgassing requirements per UL 94 V-0

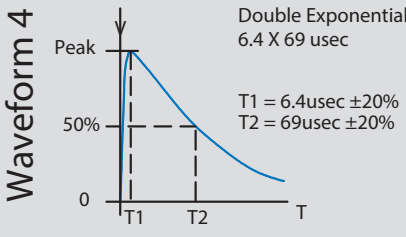



| MIL-DTL-38999 Series III, TVS Diode, RJ45 CAT 5e and 6A Performance Specifications | |
|---|---|
| **RJ45 Cat 6A & 5e Electrical Specifications** | |
| **Voltage Rating** | 1000 Volts, Cat 5e |
| **Data Rate** | 10BASE-T, 100BASE-TX, 1000BASE-T/1000BASE-TX |
| **Current Rating** | 1.5 Amps, Cat 5e |
| **D.W.V.** | 1000 VDC (700 VAC) |
| **Frequency** | 100 MHz, Cat 5e |
| **Wiring** | Straight through |
| **Cabling Length** | 100 Meters Max |
| **Shield Continuity** | Continuous Through Coupler and Grounded to the Shell |

**FIGURE 1**




| RTCA DO-160 Indirect Lightning Waveset A Waveforms | | |
|---|---|---|
| **RTCA DO-160 Waveform** | **Level** | **Open Circuit Voltage/ Short Circuit Voltage V/A** |
| Waveform 3 | 1 | 100/4 |
| | 2 | 250/10 |
| Waveform 4 | 1 | 50/10 |
| | 2 | 125/25 |



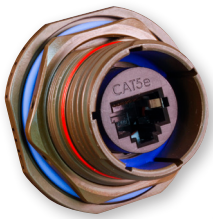

| MIL-DTL-38999 Series III, TVS Diode, RJ45 CAT 5e and 6A Performance Specifications | |
|---|---|
| **TVS Electrical Specifications Each signal line has TVS diode protection per the electrical schematic in figure 1.** | |
| **Peak pulse power (tp = 8/20us)** | 600w |
| **Rated standoff voltage** | 2.8V |
| **Minimum breakdown voltage** | 3.0V @ 1mA |
| **Max clamping voltage (@ Ipp = 2A)** | 5.5V |
| **Max clamping voltage (@ Ipp = 5A)** | 8.5V |
| **Max clamping voltage (@ Ipp = 30A)** | 21.0V |
| **Max leakage current** | 2.0uA max @ 2.8V |
| **Typical junction capacitance** | 10pF @ 0v, 1Mhz |
| **Polarity** | bipolar |
| **Compatible with IEC 61000-4-2 (ESD)** | air - 15kv, contact - 8kv |
| **Compatible with IEC 61000-4-4 (EFT)** | 40A - 5/50ns |
| **Compatible with IEC 61000-4-5 (surge)** | 24A, 8/20us - level 2 (line-gnd) & level 3 (line-line) |
| Meets indirect lightning strike requirements per D0-160, section 222 pin injection waveform set A2. | |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# RJ45 CAT 5e TVS connectors

## 244-001 Jam-nut receptacle, PC tail or solder cup
## MIL-DTL-38999 Series III Type Connectors



Receptacle Front View

Receptacle Rear View

| Material and Finish | |
|---|---|
| NF | Aluminum/Cadmium Olive Drab |
| ME | Aluminum/Electroless Nickel |
| MT | Aluminum/Nickel PTFE |
| ZR | Aluminum/Black Zinc-Nickel |

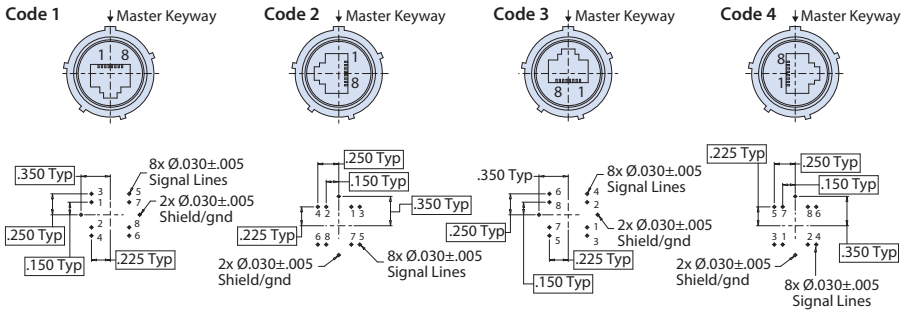
| Part Number Development | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **244-001** | **NF** | **19** | **P** | **G** | **N** | **1** |
| **Basic Number** | **244-001** with stand-offs | | | | | | |
| **Finish** | See Material and Finish Table | | | | | | |
| **Shell Size** | **17** or **19** | | | | | | |
| **Termination** | **P** = PC tail **S** = Solder cup | | | | | | |
| **Insert-to-Shell Grounding** | **G** = Shielded and grounded to shell | | | | | | |
| **Alternate Key Position**[1] | Per MIL-DTL-38999 **A**, **B**, **C**, **D**, **E**, **N** = Normal[2] | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, or **4** | | | | | | |

## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. See page B-24 for diode values

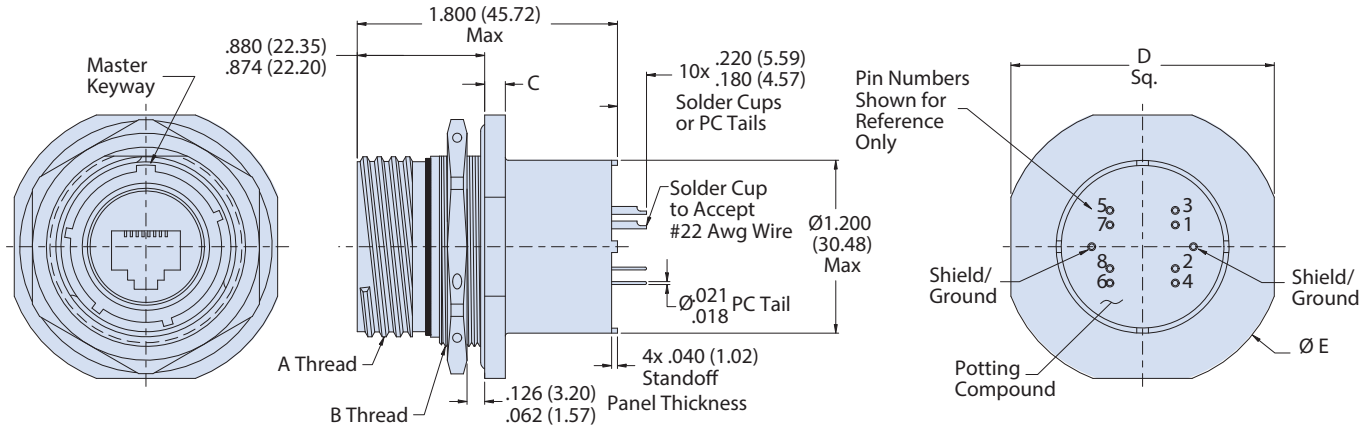
***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

## RJ45 ORIENTATION CODE AND PCB LAYOUT (PCB LAYOUT FOR PC TAIL VERSION)




**Component Mounting Side**

| Jam Nut Dimensions | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | A Thread | B Thread | C | | D Sq. | | Ø E | | Ø F | | G Flat | |
| | | | in | mm | in | mm | in | mm | in | mm | in | mm |
| 17 | 1.1875-.1P-.3L-TS-2A | M32 x 1.0-6g 0.100R | .122<br>.083 | 3.10<br>2.11 | 1.642<br>1.610 | 41.71<br>40.89 | 1.764<br>1.740 | 44.81<br>44.20 | 1.270<br>1.260 | 32.56<br>32.00 | 1.210<br>1.200 | 30.73<br>30.48 |
| 19 | 1.2500-.1P-.3L-TS-2A | M35 x 1.0-6g 0.100R | .154<br>.114 | 3.91<br>2.90 | 1.827<br>1.795 | 46.41<br>45.59 | 1.949<br>1.925 | 49.50<br>48.90 | 1.395<br>1.385 | 35.43<br>35.18 | 1.335<br>1.325 | 33.91<br>33.66 |

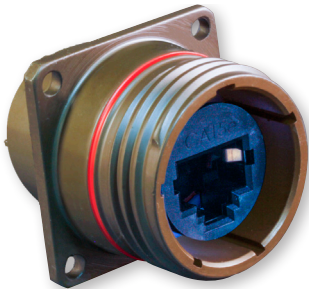



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# RJ45 CAT 5e TVS connectors

## 244-002 Wall mount receptacle, PC tail or solder cup
## MIL-DTL-38999 Series III Type Connectors





| Material and Finish[1] | |
|---|---|
| NF | Aluminum/Cadmium Olive Drab |
| ME | Aluminum/Electroless Nickel |
| MT | Aluminum/Nickel PTFE |
| ZR | Aluminum/Black Zinc-Nickel |

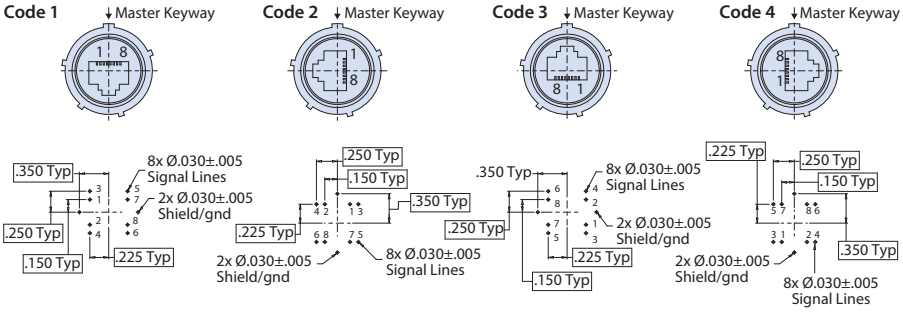
| Part Number Development | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **244-002** | **NF** | **19** | **P** | **G** | **N** | **1** |
| **Basic Number** | **244-002** with stand-offs | | | | | | |
| **Finish** | See Material and Finish Table | | | | | | |
| **Shell Size** | **17** or **19** | | | | | | |
| **Termination** | **P** = PC tail **S** = Solder cup | | | | | | |
| **Insert-to-Shell Grounding** | **G** = Shielded and grounded to shell | | | | | | |
| **Alternate Key Position[1]** | Per MIL-DTL-38999 **A**, **B**, **C**, **D**, **E**, **N** = Normal | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, or **4** | | | | | | |

## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. See page B-24 for diode values

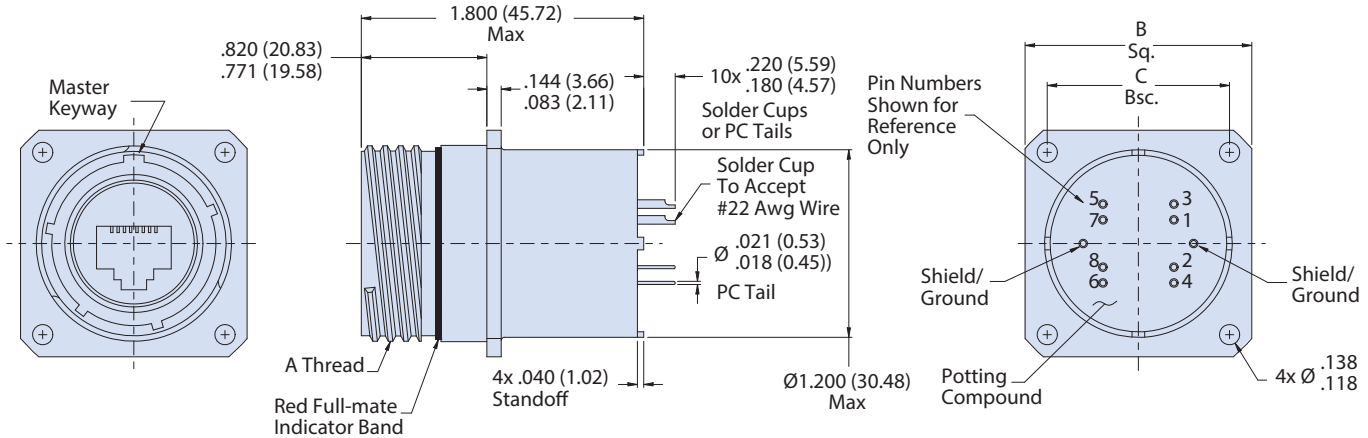
***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

## RJ45 ORIENTATION CODE AND PCB LAYOUT (PCB LAYOUT FOR PC TAIL VERSION)




**Component Mounting Side**

| Jam Nut Dimensions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | B Sq. | | C Bsc | | Ø D Min. | | E Bsc | |
| Shell Size | A Thread | in | mm | in | mm | in | mm | in | mm |
| 17 | 1.1875-.1P-.3L-TS-2A | 1.323<br>1.299 | 33.60<br>32.99 | 1.062 | 26.97 | 1.219 | 30.96 | 1.062 | 26.97 |
| 19 | 1.2500-.1P-.3L-TS-2A | 1.449<br>1.425 | 36.80<br>36.195 | 1.156 | 29.36 | 1.297 | 32.94 | 1.156 | 29.36 |






© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# RJ45 CAT 5e TVS connectors

## 244-003 Wall mount receptacle, PC tail or solder cup
## MIL-DTL-38999 Series III Type Connectors

| Material and Finish | |
|---|---|
| NF | Aluminum/Cadmium Olive Drab |
| ME | Aluminum/Electroless Nickel |
| MT | Aluminum/Nickel PTFE |
| ZR | Aluminum/Black Zinc-Nickel |

| Part Number Development | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **244-003** | **NF** | **19** | **P** | **G** | **N** | **1** |
| **Basic Number** | **244-003** with accessory thread | | | | | | |
| **Finish** | See Material and Finish Table | | | | | | |
| **Shell Size** | **17** or **19** | | | | | | |
| **Termination** | **P** = PC tail **S** = Solder cup | | | | | | |
| **Insert-to-Shell Grounding** | **G** = Shielded and grounded to shell | | | | | | |
| **Alternate Key Position**[1] | Per MIL-DTL-38999 **A**, **B**, **C**, **D**, **E**, **N** = Normal | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, or **4** | | | | | | |

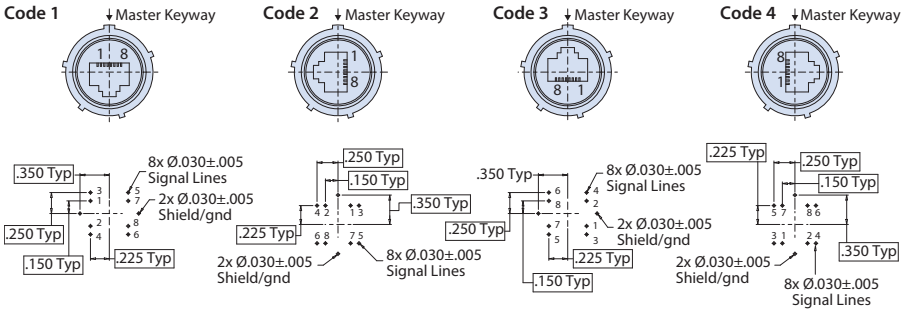
B

## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. See page B-24 for diode values

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

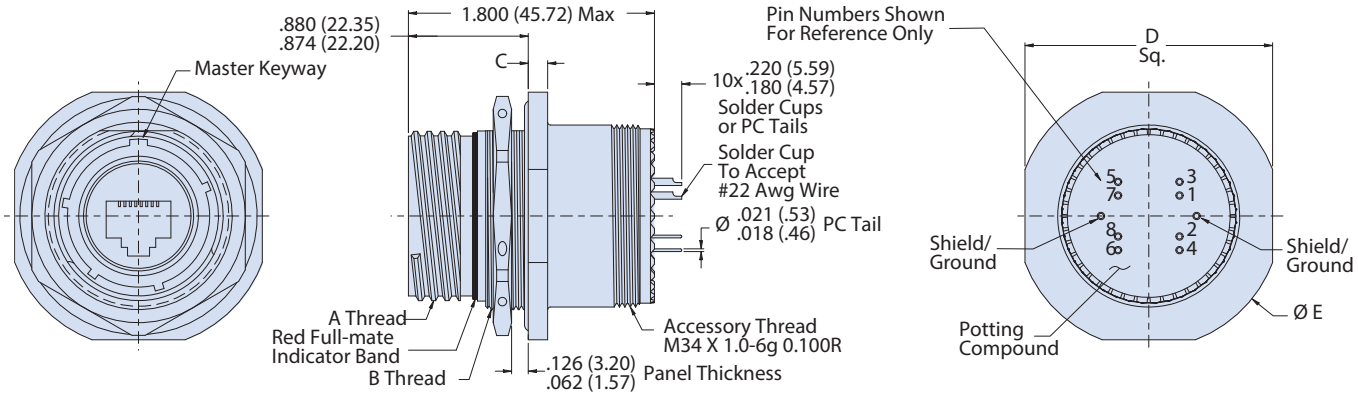
## RJ45 ORIENTATION CODE AND PCB LAYOUT (PCB LAYOUT FOR PC TAIL VERSION)




**Component Mounting Side**

| Jam Nut Dimensions | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | A Thread | B Thread | C | | D Sq. | | Ø E | | Ø F | | G Flat | |
| | | | in | mm | in | mm | in | mm | | | | |
| 17 | 1.1875-.1P-.3L-TS-2A | M32 x 1.0-6g 0.100R | .122<br>.083 | 3.10<br>2.11 | 1.642<br>1.610 | 41.71<br>40.89 | 1.764<br>1.740 | 44.81<br>44.17 | 1.270<br>1.260 | 32.26<br>32.00 | 1.210<br>1.200 | 30.73<br>30.48 |
| 19 | 1.2500-.1P-.3L-TS-2A | M35 x 1.0-6g 0.100R | .154<br>.114 | 3.91<br>2.90 | 1.827<br>1.795 | 46.41<br>45.59 | 1.949<br>1.925 | 49.50<br>48.90 | 1.395<br>1.385 | 35.43<br>35.18 | 1.35<br>1.325 | 33.91<br>33.66 |

## JAM-NUT RECEPTACLE WITH ACCESSORY THREADS




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# RJ45 CAT 5e TVS connectors

## 244-004 Wall mount receptacle, PC tail or solder cup
## MIL-DTL-38999 Series III Type Connectors

| Material and Finish | |
|---|---|
| NF | Aluminum/Cadmium Olive Drab |
| ME | Aluminum/Electroless Nickel |
| MT | Aluminum/Nickel PTFE |
| ZR | Aluminum/Black Zinc-Nickel |

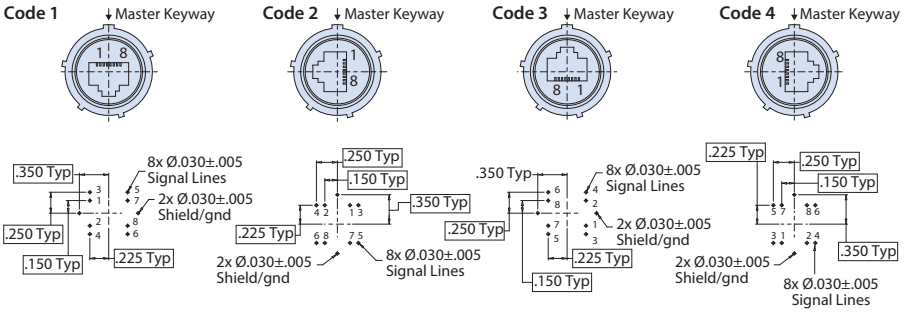
| Part Number Development | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **244-004** | **NF** | **19** | **P** | **G** | **N** | **1** |
| **Basic Number** | **244-004** with accessory thread | | | | | | |
| **Finish** | See Material and Finish Table | | | | | | |
| **Shell Size** | **17** or **19** | | | | | | |
| **Termination** | **P** = PC tail **S** = Solder cup | | | | | | |
| **Insert-to-Shell Grounding** | **G** = Shielded and grounded to shell | | | | | | |
| **Alternate Key Position** | Per MIL-DTL-38999 **A**, **B**, **C**, **D**, **E**, **N** = Normal | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, or **4** | | | | | | |

## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. See page B-24 for diode values

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

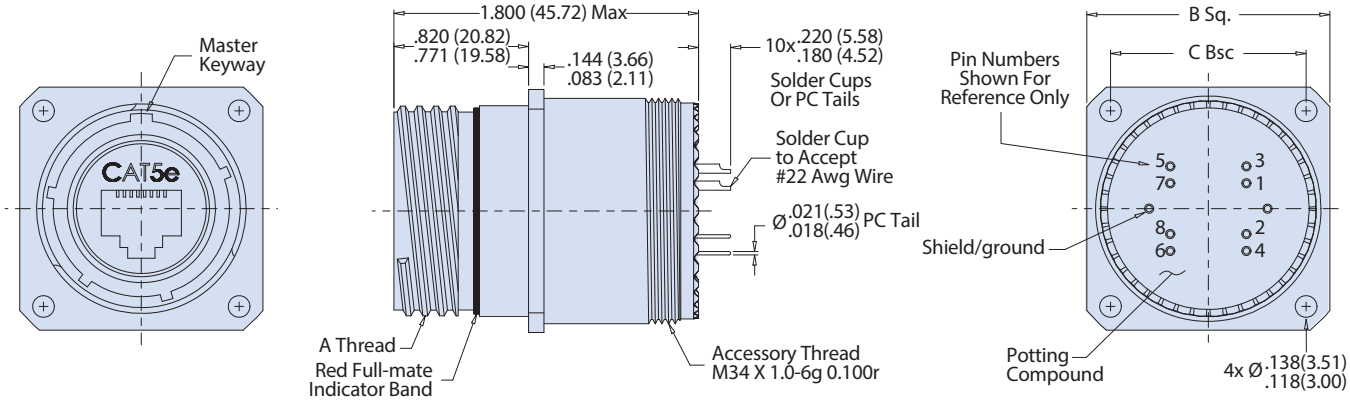
## RJ45 ORIENTATION CODE AND PCB LAYOUT (PCB LAYOUT FOR PC TAIL VERSION)




**Component Mounting Side**

| Jam Nut Dimensions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | B Sq. | | C Bsc | | Ø D Min | | E Bsc | |
| **Shell Size** | **A Thread** | **in** | **mm** | **in** | **mm** | **in** | **mm** | **in** | **mm** |
| **17** | 1.1875-.1P-.3L-TS-2A | 1.323<br>1.299 | 33.60<br>32.99 | 1.062 | 26.97 | 1.219 | 30.96 | 1.062 | 26.97 |
| **19** | 1.2500-.1P-.3L-TS-2A | 1.449<br>1.425 | 36.80<br>36.195 | 1.156 | 29.36 | 1.297 | 32.94 | 1.156 | 29.36 |

## REAR PANEL MOUNT RECEPTACLE WITH ACCESSORY THREADS






© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

**MIL-DTL-38999 TYPE**
FIELD-READY
USB 2.0

# SUPERSEAL™

## Rugged environmental MIL-DTL-38999 type connectors with IP67 open-face sealing, robust insert-to-shell grounding, and a complete range of wire, cable, and circuit board terminations

***SuperSeal™ USB 2.0 Advantages***

- **Superior sealing—IP67 open face and IP68 mated—for complete system protection against water, sand and dust**
- **Highly durable USB 2.0 design, including enhanced operating temperature, increased life-cycle, and rugged vibration and shock performance**
- **Shielded/grounded receptacle connectors**
- **Crimp, solder-cup, PC tail, contact/wire termination options**
- **Scoop-proof, self-locking, triple-start threaded coupling (MIL-DTL-38999 Series III type)**

Glenair, Inc.
1211 Air Way
Glendale, CA 91201-2497
818-247-6000
sales@glenair.com
www.glenair.com

C

*SERIES 23*

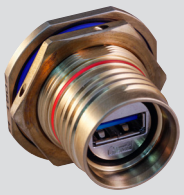
# SuperSeal™

## USB 2.0 and 3.0 and 3.2 Ruggedized solutions

38999 Type SuperSeal ruggedized connectors offer outstanding metal-to-metal grounding sealing performance for commercial, USB 2.0 and high-speed USB 3.0 interfaces in a standard 38999 type package. Both versions are IP68 rated when mated and IP67 rated in the unmated condition for complete system protection against water sand and dust. Glenair USB 2.0 and 3.0 solutions are perfectly suited for field communications where connecting external peripherals such as storage devices, printers, and standard mouse and keyboard input devices. Beyond the addition of standard USB type peripherals these protocols also offer a means to connect other protocol based hardware through the use of supported adapters, including Ethernet RJ45 and HDMI (USB 3.0 preferred). 38999 Type SuperSeal USB connectors feature polarized keys to prevent mismating and non-corrosive, conductive material and finish options. Highly durable SuperSeal™ insert design, provides enhanced operating temperature, increased life-cycle, and rugged vibration and shock performance. Simple plug-and-play connectivity and *hot-swappable* addition of external peripherals without restarting systems. Crimp, solder-cup, PC tail and cable assemblies available

**USB 2.0 AND 3.0 CONNECTOR**

**USB 2.0 connectors begin on page C-3**



**USB 3.0 connectors begin on page C-21**

**USB 3.2 connectors begin on page C-40**

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

*USB 2.0 TYPE A CONNECTORS*

# MIL-DTL-38999 Series III Type Connectors

## Product Selection Guide

Glenair®

**233-340** C-4

SuperSeal™ Coupler with Accessory Threads and USB 2.0/3.0 Male-to-Female (Plug) or Female-to-Female Receptacle

**233-341** C-6

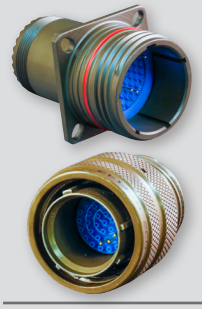
SuperSeal Receptacle with crimp removable contacts. USB 2.0 Female Interface to PC Tail Termination

**233-342** C-8

SuperSeal Receptacle with USB 2.0 Female Interface to PC Tail Termination

**233-343** C-10

SuperSeal Receptacle with USB 2.0 Female Interface to Solder Cup Termination



**233-344** C-12

SuperSeal Receptacle Adapter with Accessory Threads and Pin or Socket Contacts to USB 2.0 Female Interface

**233-345** C-14

SuperSeal Connectors with Accessory Threads and USB 2.0 Male (Plug) or Female (Receptacle) Interface to Crimp Removable Contacts

**233-370** C-16

SuperSeal Feed-thru Receptacle with USB 2.0 Female-to-Female Interface

**233-390** C-18

SuperSeal USB 2.0 Memory Stick

**233-92** C-19

SuperSeal USB 3.0 Memory Stick

**Cable Assemblies** E-20

SuperSeal USB 3.0 Cable Assemblies


C

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## Performance Specifications



| USB 2.0 Performance Specifications | |
|---|---|
| **Property** | **Description** |
| **Material and Finish** | |
| **Shell/Coupling and Plating** | Aluminum, cad/o.d., electroless nickel, nickel PTFE, black zinc nickel |
| **Contacts** | PC tails, solder cup, and crimp contacts: copper alloy, gold plated |
| **USB Insulator** | LCP |
| **Grommet, Peripheral Seal, Interfacial Seal, O-ring** | Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988 |
| **Shell Sizes** | 15<br>Consult factory for other shell size options |
| **Electrical Specifications** | |
| **Data Rate** | 480 Mbps |
| **Power Usage** | 500 milliamps (mA) |
| **Current Rating** | 1.5 Amps, |
| **D.W.V.** | 500 VAC |
| **I.R.** | 1000 MegOhms |
| **Cabling Length** | 5.0 Meters Max |
| **Shielding** | Continuous through coupler or continuous coupler to shell |
| **Environmental/Mechanical Performance** | |
| **Sealing** | IP68 mated condition,<br>IP67 unmated condition |
| **Outgassing** | **Mod Code 186S** meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability<br>**Mod Code 928** meets outgassing requirements per UL 94 V-0 |
| **Operating Temperature** | -40°C to +120°C |
| **Vibration** | 20g's, 3 Axis, 10 - 2000Hz |
| **Mechanical Shock** | 300 g's |
| **Backshell Interface** | MIL-DTL-38999 Designator H |
| **Mating System** | Triple-start stub ACME |
| **Mating Cycles** | 500 |

| USB 3.0 Performance Specifications | |
|---|---|
| **Property** | **Description** |
| **Material and Finish** | |
| **Shell/Coupling and Plating** | Aluminum, cad/o.d., electroless nickel, nickel PTFE, black zinc nickel |
| **Contacts** | PC tails, solder cup, and crimp contacts: copper alloy, gold plated |
| **USB Insulator** | LCP |
| **Grommet, Peripheral Seal, Interfacial Seal, O-ring** | Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988 |
| **Shell Sizes** | 15<br>Consult factory for other shell size options |
| **Electrical Specifications** | |
| **Data Rate** | 5.0 Gbps |
| **Power Usage** | 500 milliamps (mA) |
| **Current Rating** | 1.5 Amps, |
| **D.W.V.** | 500 VAC |
| **I.R.** | 1000 MegOhms |
| **Cabling Length** | 3.0 Meters Max |
| **Shielding** | Continuous through coupler or continuous coupler to shell |
| **Environmental/Mechanical Performance** | |
| **Sealing** | IP68 mated condition,<br>IP67 unmated condition |
| **Outgassing** | **Mod Code 186S** meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability<br>**Mod Code 928** meets outgassing requirements per UL 94 V-0 |
| **Operating Temperature** | -40°C to +85°C |
| **Vibration** | 20g's, 3 Axis, 10 - 2000Hz |
| **Mechanical Shock** | 300 g's |
| **Backshell Interface** | MIL-DTL-38999 Designator H |
| **Mating System** | Triple-start stub ACME |
| **Mating Cycles** | 500 |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-340 Couplers with accessory threads

Plug
Front View

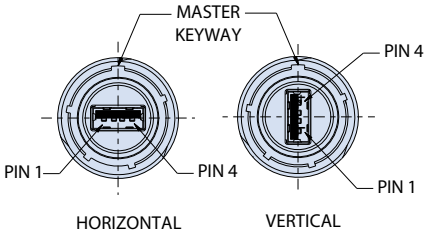
Square Flange
Receptacle
Front View

Jam Nut Receptacle
Front View

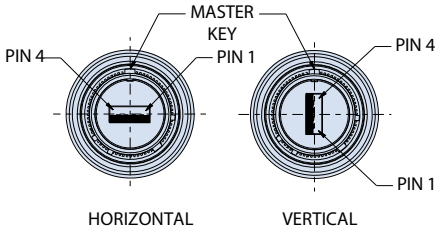
| Part Number Development | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-340** | **NF** | **00** | **-15** | **2** | **A** | **A** | **N** | **H** | **T** |

| | |
|---|---|
| **Basic Number** | **233-340** |
| **Finish** | See Material and Finish table |
| **Connector Style**[1] | See Connector Style table |
| **Shell Size** | **15** |
| **USB Performance** | **2** = USB 2.0 |
| **USB Front Interface** | **A** = Type A |
| **USB Back Interface** | **A** = Type A |
| **Alternate Key Position**[1] | **A, B, C, D, E, N** = Normal per MIL-DTL-38999 |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |
| **Shrink Boot** | **T** = Part No. 770-028 (Omit for None) |

**USB Receptacle Orientation Options**




**USB Plug Orientation Options**



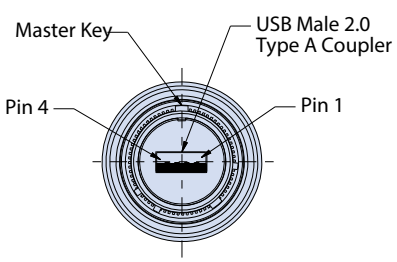

| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **M** | Aluminum/Electroless Nickel |
| **MT** | Alumimun/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |

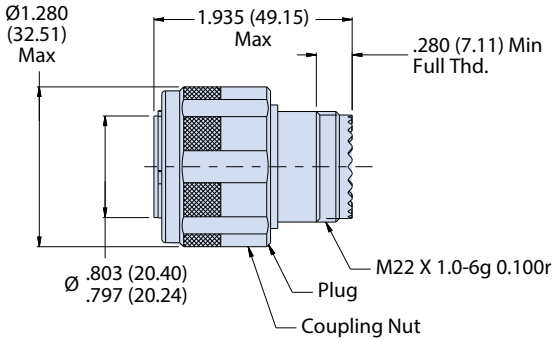
***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

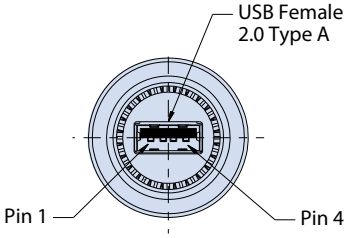
| Connector Style | |
|---|---|
| **G6** | Plug |
| **07** | Rear panel mount, jam nut receptacle |
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |

| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| **Pin** | **Name** | **Cable Color (USB)** | **Description** | **Recommended Wire Sizes (AWG)** |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

## G6 - PLUG WITH ACCESSORY THREADS



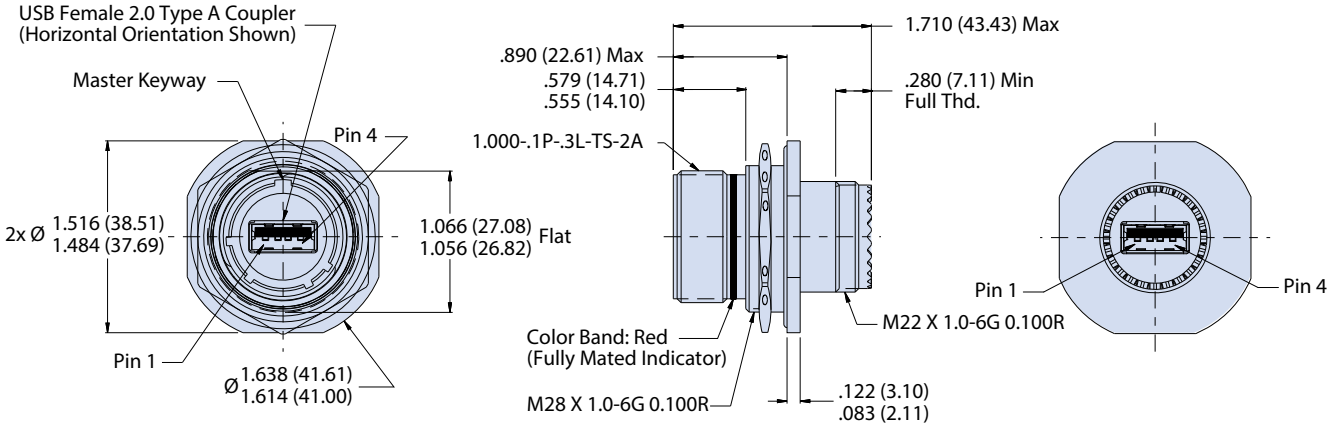





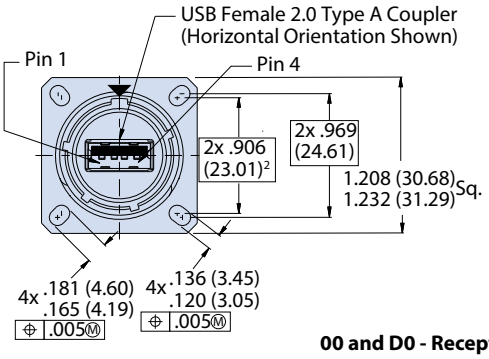

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE WITH ACCESSORY THREADS

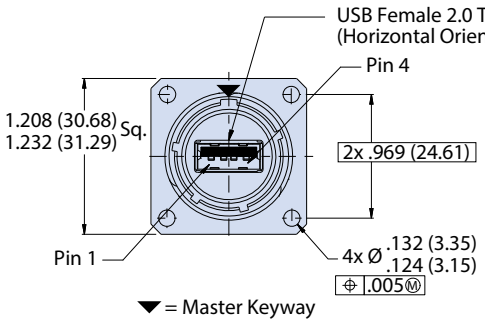



## 00, DO AND CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS

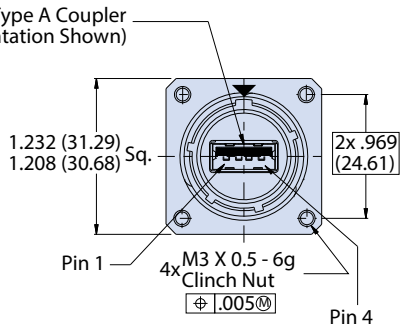
**00 - Slotted Hole Receptacle Face View**



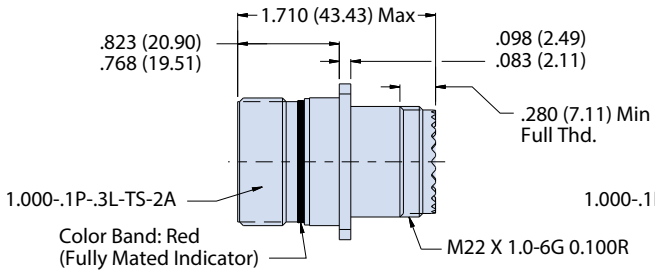

**D0 - Round Hole Receptacle Face View**



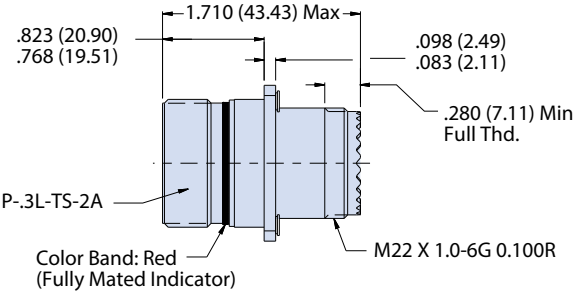

**CM - Clinch Hole Receptacle Face View**




**00 and D0 - Receptacle Side View**




**CM - Receptacle Side View**




## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. Receptacle has USB female receptacle, plug has USB male plus
4. Material and Finish
   - Shell, jam nut: al alloy
   - Insulators: high grade rigid dielectric/ n.a.
   - Contacts: copper alloy, gold plated
   - Seals: silicone based elastomer
   - USB (shell/contacts): copper alloy
   - Dielectric: hi-temp thermoplastic PA9T UL94V-0
   - Hardware: stainless steel /passivated

# MIL-DTL-38999 Series III Type Connectors

## 233-341 USB 2.0 Type A receptacle to size 22D crimp removable contacts

RJ45/USB SUPER SEAL™

Glenair

C

**Plug Front View**

**Jam Nut Receptacle Front View**

**Square Flange Receptacle Rear View**

| How to Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-341** | **NF** | **00** | **-15** | **2** | **A** | **N** | **H** | **T** |

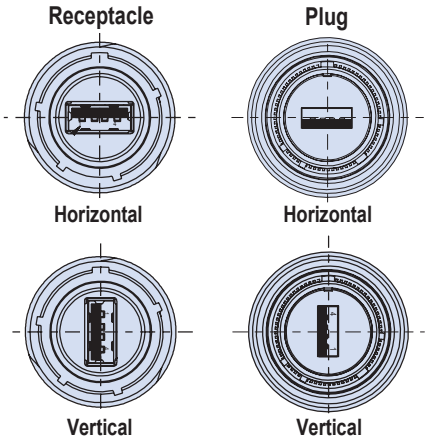
| | |
|---|---|
| **Basic Number** | **233-341** |
| **Finish**[1] | See Material and Finishes table[1] |
| **Connector Style**[1] | See connector style table |
| **Shell Size** | **15** |
| **RJ45 Category** | **2** = USB 2.0 |
| **USB Interface Type** | **A** = Type A |
| **Alternate Key Position**[1] | **A, B, C, D, E, N** = Normal; per MIL-DTL-38999 |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |
| **Shrink Boot** | **T** = Shrink Boot (Omit for None) |

**233-341 Superceded by 233-345**

| Materials and Finishes[1] | |
|---|---|
| **NF** | Cadmium olive drab |
| **M** | Electroless nickel |
| **MT** | Nickel PTFE |

| Connector Style[1] | |
|---|---|
| **00** | Square flange receptacle with slotted holes |
| **07** | Jam nut receptacle |
| **D0** | Wall mount receptacle with slotted holes |
| **CM** | Wall mount receptacle with metric clinch nuts |
| **G6** | Plug |

**USB Orientation Options (Partial Views Shown)**



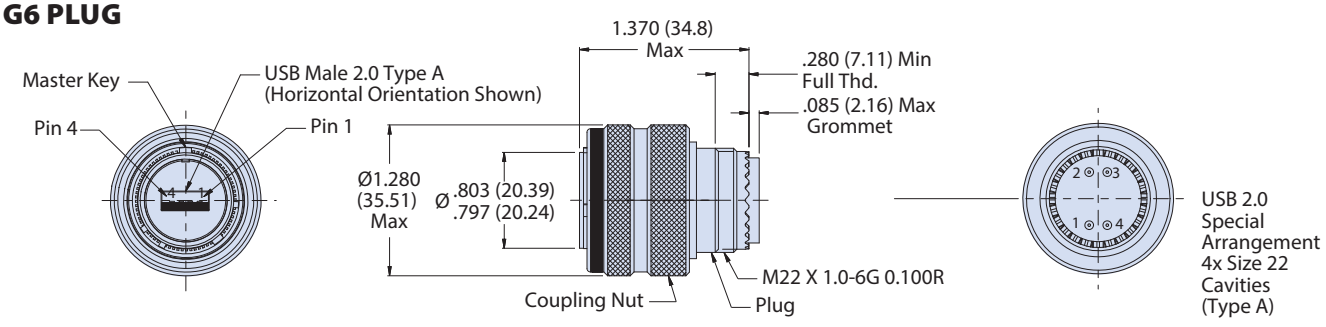

## NOTES

1. See Section A for alternate key positions, panel cutout dimensions and complete material and finish options
2. Front panel mount only
3. All external dimensions, features, etc. Compliant with D38999/20, /24 & /26. Consult factory for additional information

| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| Pin | Name | Cable Color (USB) | Description | Recommended Wire Sizes (AWG) |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

***All external dimensons, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

## G6 PLUG

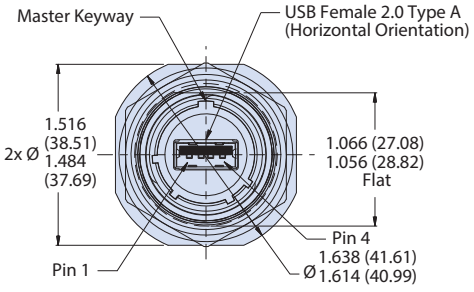


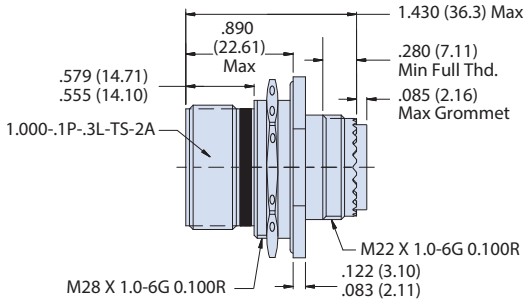


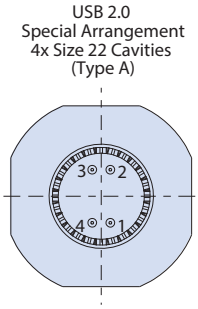

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 233-341 USB 2.0 Type A receptacle to size 22D crimp removable contacts

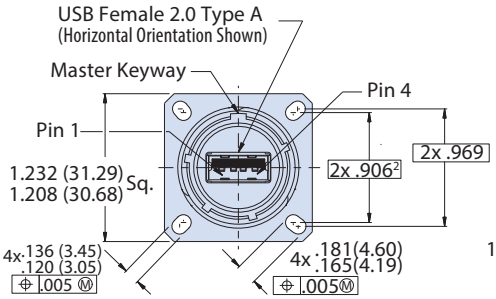
## 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE WITH ACCESSORY THREADS

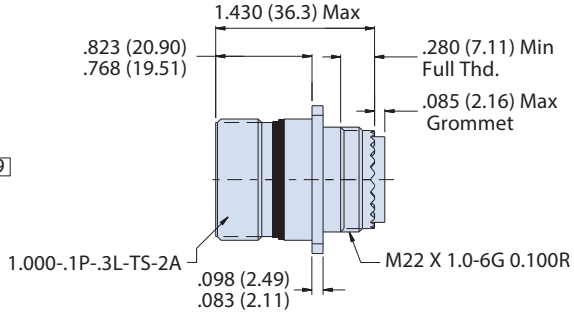


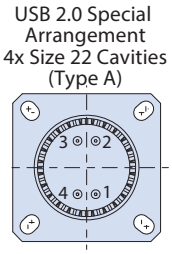



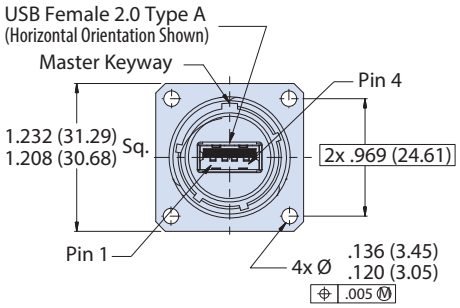

## 00 WALL MOUNT RECEPTACLE WITH ACCESSORY THREADS

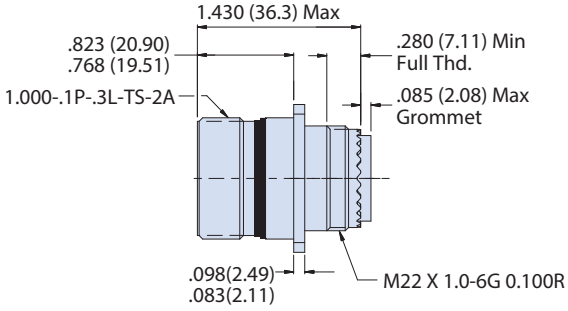


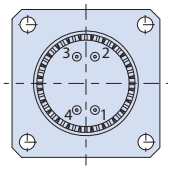



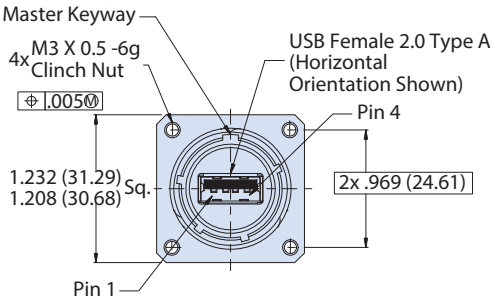

## DO - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS

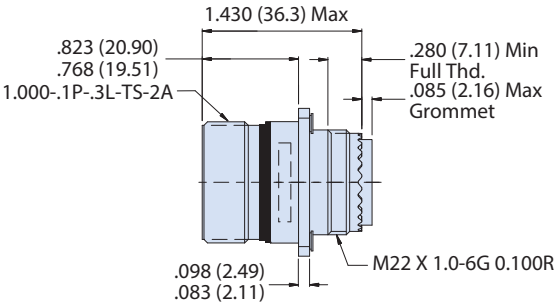


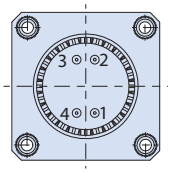




## CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS




C

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-342 Receptacle with PC tails

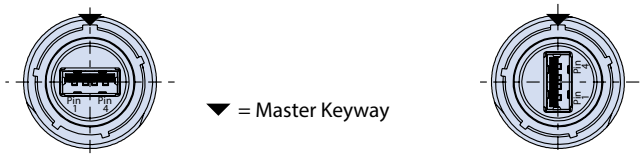
Jam Nut Receptacle
Rear View

Jam Nut Receptacle
Front View

C

| Part Number Development | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-342** | **NF** | **00** | **-15** | **2** | **A** | **N** | **H** |
| **Basic Number** | **233-342** | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | |
| **Connector Style**[1] | See Connector Style table | | | | | | | |
| **Shell Size** | **15** | | | | | | | |
| **USB Performance** | **2** = USB 2.0 | | | | | | | |
| **USB Interface Type** | **A** = Type A | | | | | | | |
| **Alternate Key Position**[1] | **A, B, C, D, E, N** = Normal; per MIL-DTL-38999 | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | |

**USB Receptacle Orientation Options (Partial Views Shown)**

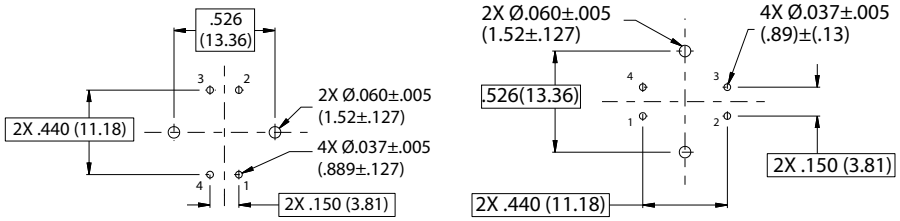



Horizontal Vertical

| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **M** | Aluminum/Electroless Nickel |
| **MT** | Alumimun/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |

| Connector Style | |
|---|---|
| **07** | Rear panel mount, jam nut receptacle |
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |

**Recommended (Solder Side)**




## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Rear panel mount only
3. Meets IP67 in unmated condition, IP68 mated
4. Receptacle has USB female receptacle
5. Material/Finishes:
   - Insulators: high grade rigid dielectric/ n.a.
   - Contacts: copper alloy, gold plated
   - Seals: silicone based elastomer
   - USB (shell/contacts): copper alloy
   - Dielectric: hi-temp thermoplastic PA9T UL94V-0
   - Hardware: stainless steel/passivated

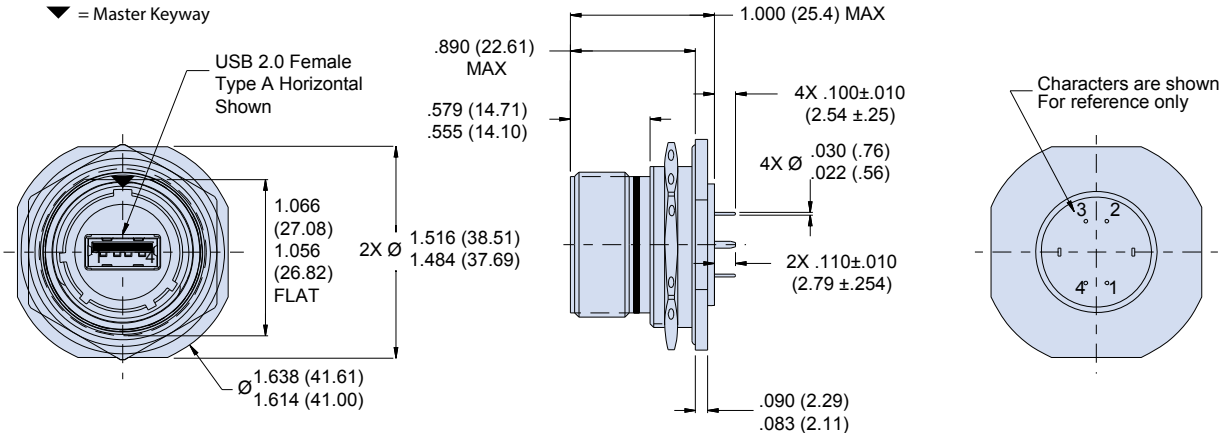
| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| Pin | Name | Cable Color (USB) | Description | Recommended Wire Sizes (AWG) |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***



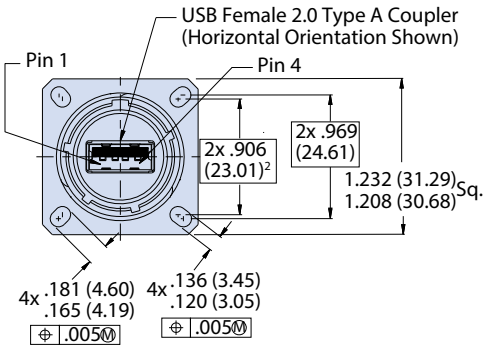
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE

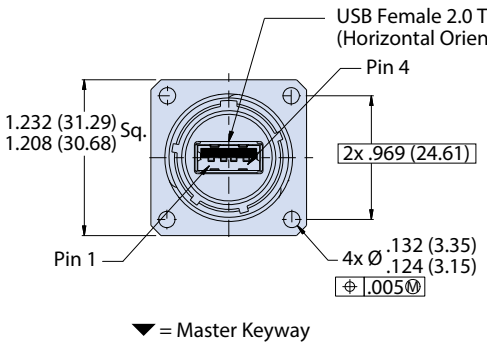



## 00, DO AND CM - WALL MOUNT RECEPTACLES

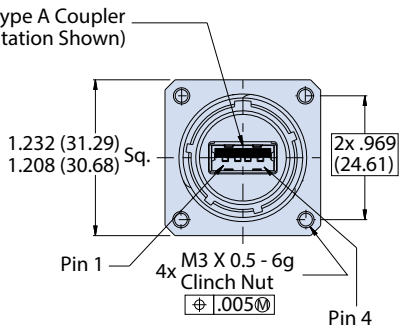
**00 - Slotted Hole Receptacle Face View**



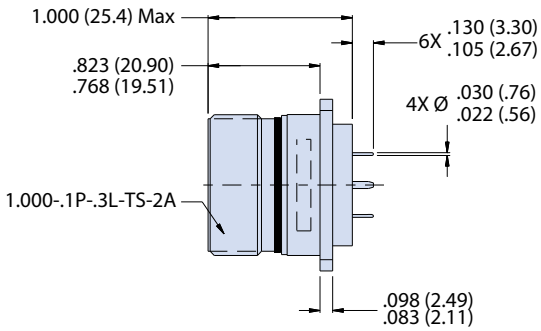

**D0 - Round Hole Receptacle Face View**



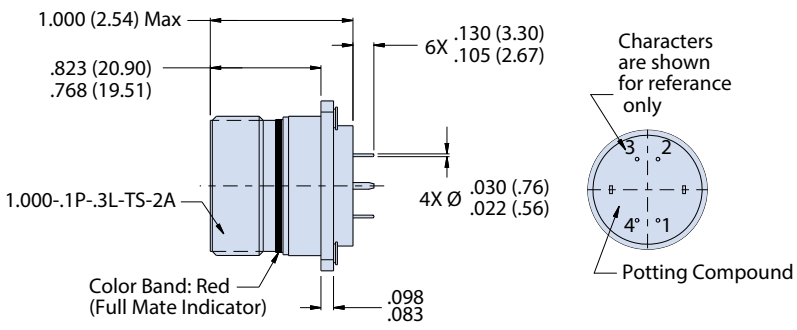

**CM - Clinch Hole Receptacle Face View**




**00 and D0 - Receptacle (Side View)**




**CM - Receptacle (Side View)**



# MIL-DTL-38999 Series III Type Connectors

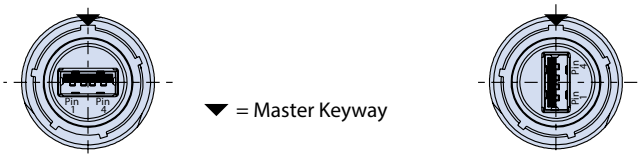
## 233-343 Receptacle with solder cup termination

Jam Nut Receptacle
Front View

Jam Nut Receptacle
Rear View

| Part Number Development | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-343** | **NF** | **00** | **-15** | **2** | **A** | **N** | **H** |
| **Basic Number** | **233-343** | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | |
| **Connector Style**[1] | See Connector Style table | | | | | | | |
| **Shell Size** | **15** | | | | | | | |
| **USB Performance** | **2** = USB 2.0 | | | | | | | |
| **USB Interface Type** | **A** = Type A | | | | | | | |
| **Alternate Key Position**[1] | **A, B, C, D, E, N** = Normal; per MIL-DTL-38999 | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | |

**USB Receptacle Orientation Options (Partial Views Shown)**




Horizontal

Vertical

| Material and Finish | |
|---|---|
| **NF** | Aluminum/cadmium, olive drab |
| **M** | Aluminum/electroless nickel |
| **MT** | Alumimun/nickel PTFE |
| **ZR** | Aluminum/black zinc-nickel |

| Connector Style | |
|---|---|
| **07** | Rear panel mount, jam nut receptacle |
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |

| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| **Pin** | **Name** | **Cable Color (USB)** | **Description** | **Recommended Wire Sizes (AWG)** |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

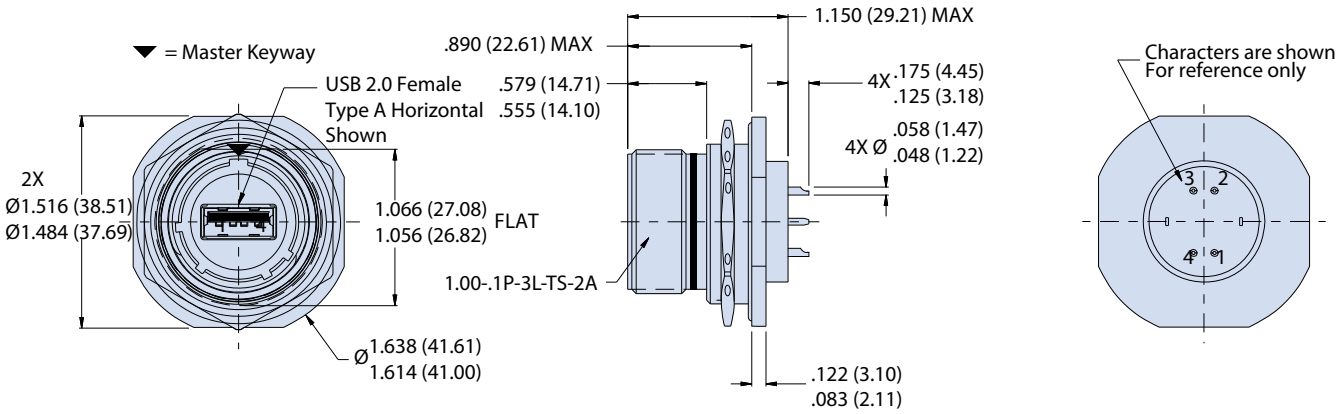
## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Front panel mount only
3. All external dimensions, features, etc. Compliant with D38999/20, /24 & /26. Consult factory for additional information
4. Meets IP67 in unmated condition, IP68 mated
5. Receptacle has USB female receptacle
6. Materials and finishes
   - Shell, jam nut: aluminum ally
   - insulators: high grade 4 rigid dielectric/n.a.
   - contacts: copper alloy, god plated
   - seals: silicone based elastomer
   - USB (shell/contacts: copper alloy
   - dielectric: hi-temp thermoplastic PA9T UL94V-0
   - Hardware: stainless steel/passivated



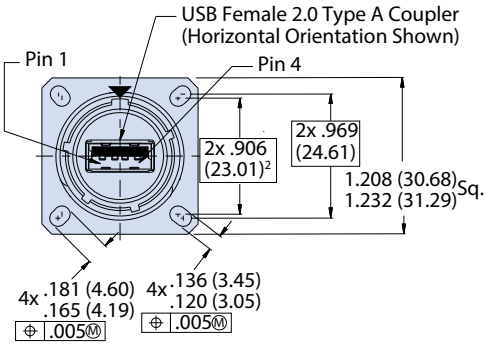
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE

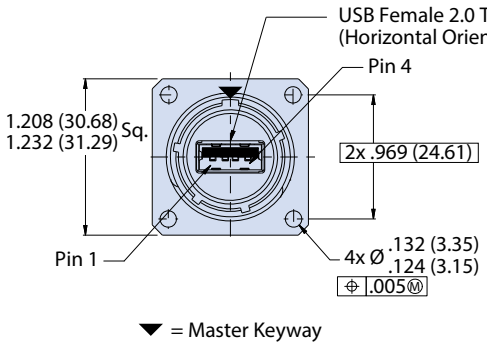



## 00, DO AND CM - WALL MOUNT RECEPTACLES

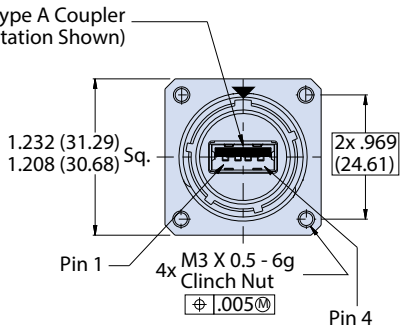
### 00 - Slotted Hole Receptacle Face View



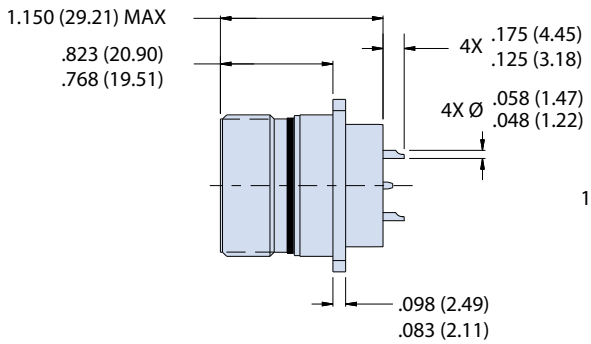

### D0 - Round Hole Receptacle Face View



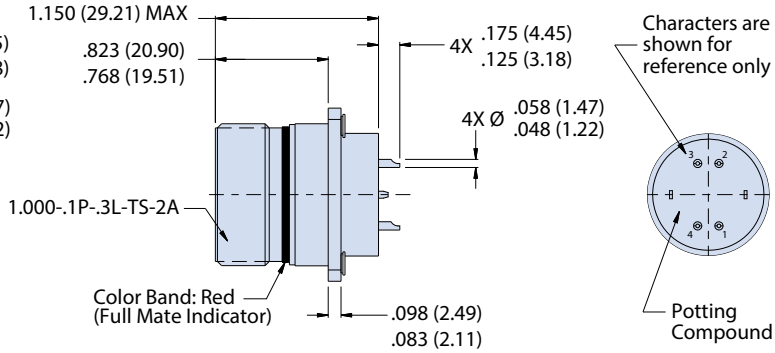

### CM - Clinch Hole Receptacle Face View




### 00 and D0 - Receptacle Side View




### CM - Receptacle Side View



# MIL-DTL-38999 Series III Type Connectors

## 233-344 Receptacle adapter with MIL-STD 1560 interface

Plug
Front View

Receptacle
Front View

| Material and Finish | |
|---|---|
| NF | Aluminum/cadmium, olive drab |
| M | Aluminum/electroless nickel |
| MT | Alumimun/nickel PTFE |
| ZR | Aluminum/black zinc-nickel |

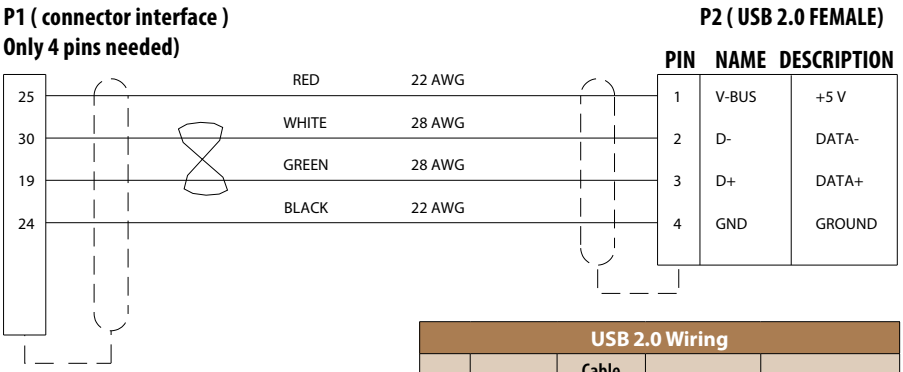
| Connector Style | |
|---|---|
| G6 | Plug |
| 07 | Rear panel mount, jam nut receptacle |
| 00 | Wall mount receptacle with slotted holes[2] |
| D0 | Wall mount receptacle with round holes |
| CM | Wall mount receptacle with metric clinch nuts |

## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Front panel mount only
3. Insert arrangement in accordance with MIL-STD-1560, 15-35. Contact factory for additional options
4. Meets IP67 in unmated condition, IP68 mated
5. For custom pin assignment consult factory
6. Both plug and receptacle shells have MIL-STD-1560 mating interface and rear USB female receptacles

| Part Number Development | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample Part Number | 233-344 | NF | 00 | 15 | -35 | 2 | A | P | N | T |
| Basic Number | 233-344 | | | | | | | | | |
| Finish | See Material and Finish table | | | | | | | | | |
| Connector Style[1] | See Connector Style table | | | | | | | | | |
| Shell Size | 15 | | | | | | | | | |
| Insert Arrangement[4] | 35 = IAW MIL-STD-1560, 15-35 | | | | | | | | | |
| USB Performance | 2 = USB 2.0 | | | | | | | | | |
| USB Rear Interface | A = Type A | | | | | | | | | |
| Contact Style | P = Pin S = Socket | | | | | | | | | |
| Alternate Polarization[1] | A, B, C, D, E, N = Normal; per MIL-DTL-38999 | | | | | | | | | |
| Shrink Boot | T = Shrink Boot; Omit for none | | | | | | | | | |

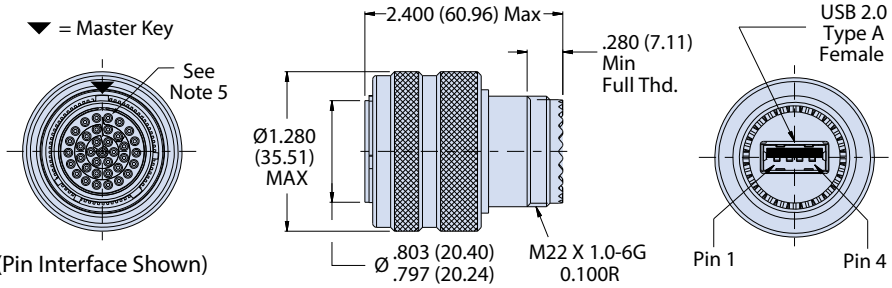
### USB 2.0 Wiring Diagram




*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| Pin | Name | Cable Color (USB) | Description | Recommended Wire Sizes (AWG) |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

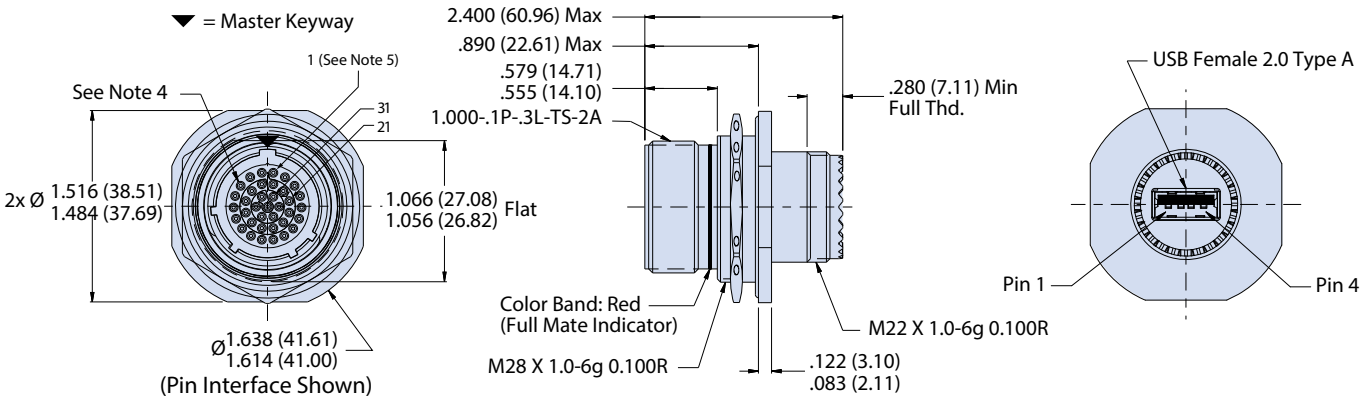
### G6 PLUG WITH ACCESSORY THREADS





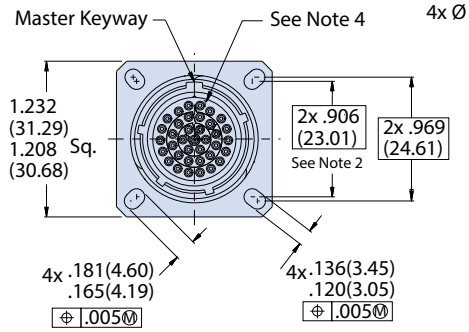

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE WITH ACCESSORY THREADS

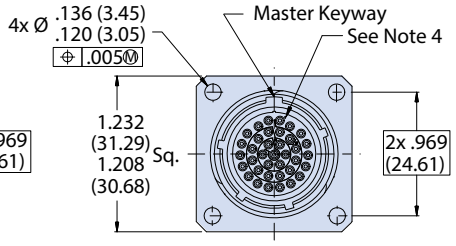



## 00, DO AND CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS

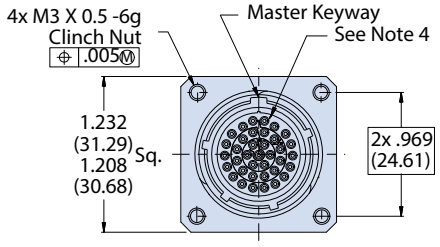
**00 - Slotted Hole Receptacle (Mating Face)**
(Pin Interface Shown)



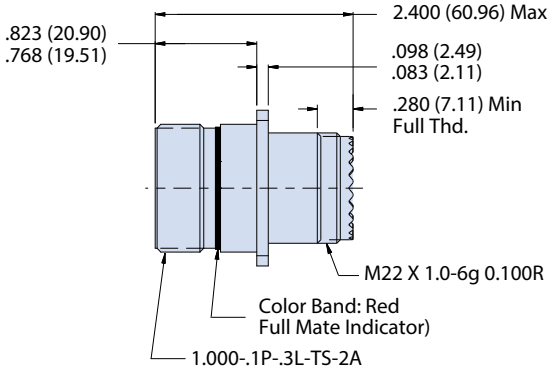

**D0 - Round Hole Receptacle (Mating Face)**
(Pin Interface Shown)



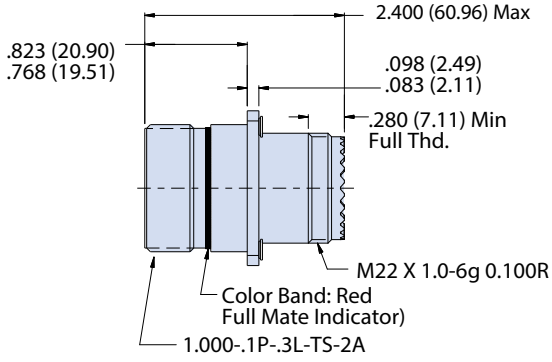

**CM - Clinch Hole Receptacle (Mating Face)**
(Pin Interface Shown)




**00 and D0 - Receptacle (Side View)**

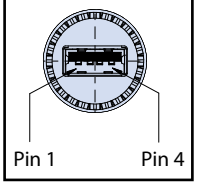



**CM - Receptacle (Side View)**




**Rear View**

USB 2.0
Female Type A
Pin locations
the same for all
wall mount
receptacles



# MIL-DTL-38999 Series III Type Connectors

## 233-345 Receptacle with crimp removable contacts

Receptacle Front View

Receptacle Rear View

| Part Number Development | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-345** | **NF** | **00** | **-15** | **2** | **A** | **N** | **H** | **T** |

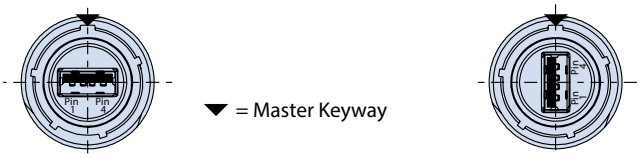
| | |
|---|---|
| **Basic Number** | **233-345** |
| **Finish** | See Material and Finish table |
| **Connector Style**[1] | See Connector Style table |
| **Shell Size** | **15** |
| **USB Performance** | **2** = USB 2.0 |
| **USB Interface Type** | **A** = Type A |
| **Alternate Polarization**[1] | **A, B, C, D, E, N** = Normal; per MIL-DTL-38999 |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |
| **Shrink Boot** | **T** = Shrink Boot; Omit for none |

| Material and Finish | |
|---|---|
| **NF** | Aluminum/cadmium, olive drab |
| **M** | Aluminum/electroless nickel |
| **MT** | Alumimun/nickel PTFE |
| **ZR** | Aluminum/black zinc-nickel |

| Connector Style | |
|---|---|
| **G6** | Plug |
| **07** | Rear panel mount, jam nut receptacle |
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |

| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| **Pin** | **Name** | **Cable Color (USB)** | **Description** | **Recommended Wire Sizes (AWG)** |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

**USB Receptacle Orientation Options (Partial Views Shown)**

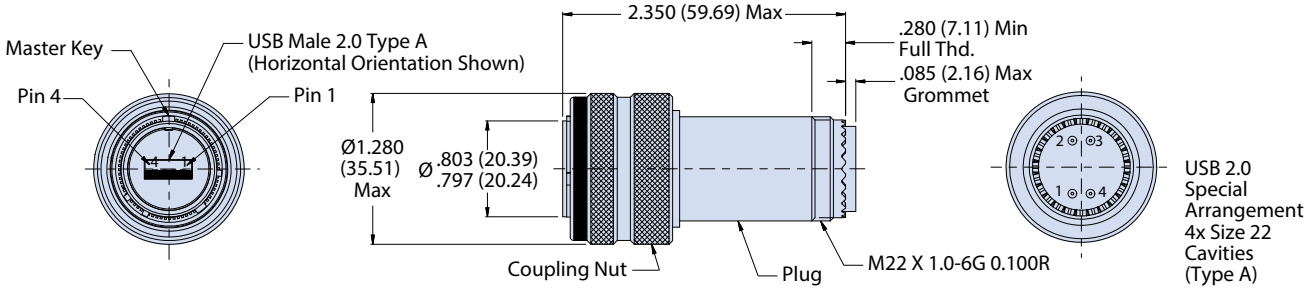



## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Front panel mount only
3. Crimp removable size 22 socket contacts (M39029/56-348) supplied loose
4. Meets IP67 in unmated condition, IP68 mated
5. Receptacle has USB female receptacle mating interface

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

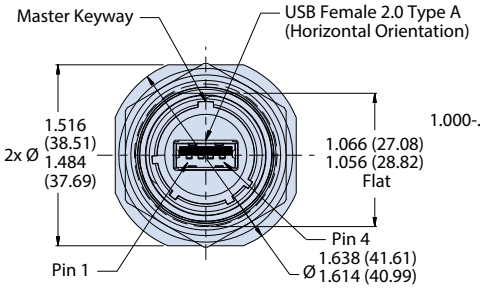
## G6 PLUG WITH ACCESSORY THREADS

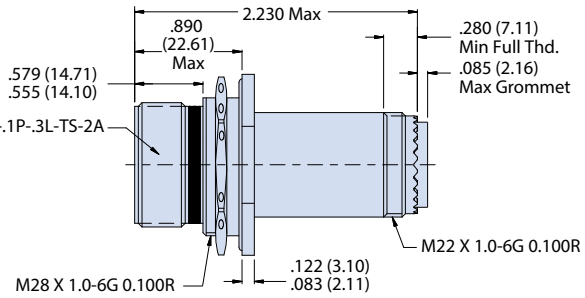


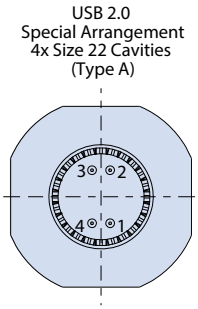



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

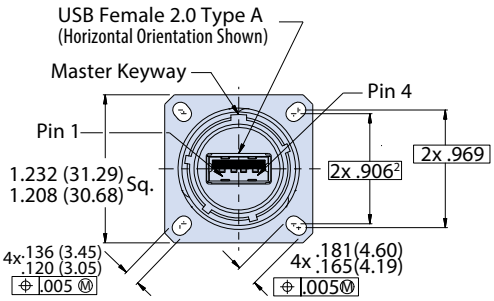
## 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE WITH ACCESSORY THREADS

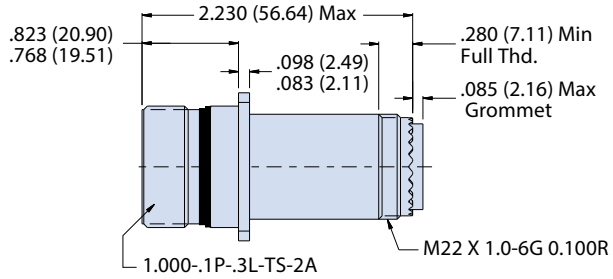


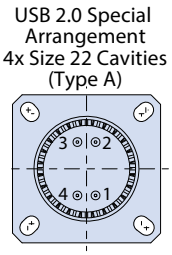



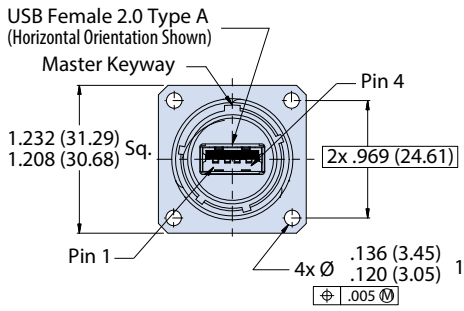

## 00 WALL MOUNT RECEPTACLE WITH ACCESSORY THREADS

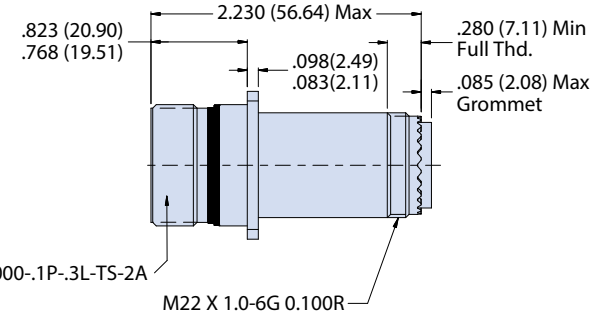


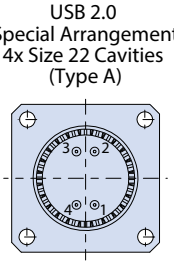



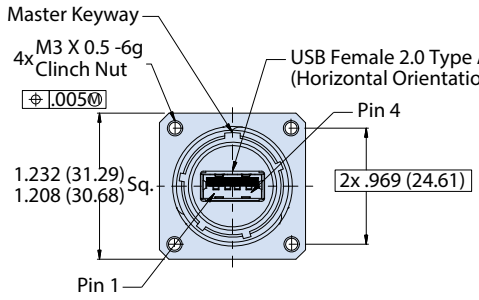

## DO - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS

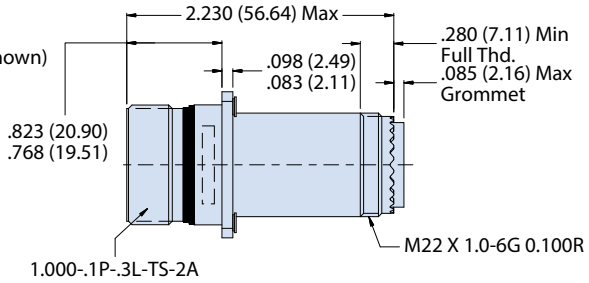


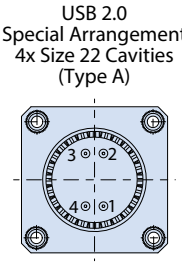




## CM - WALL MOUNT RECEPTACLES WITH ACCESSORY THREADS




C

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

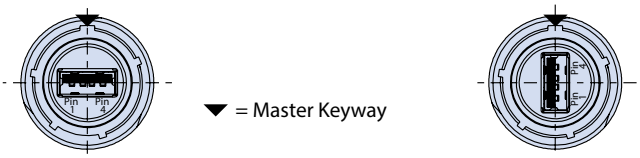
# MIL-DTL-38999 Series III Type Connectors

## 233-370 Feed-through receptacle

**Feed-through**
**Front View**

| Part Number Development | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-370** | **NF** | **00** | **-17** | **2** | **A** | **A** | **N** | **H** |
| **Basic Number** | **233-370** | | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | | |
| **Connector Style**[1] | See Connector Style table | | | | | | | | |
| **Shell Size** | **15** or **17** | | | | | | | | |
| **USB Performance** | **2** = USB 2.0 | | | | | | | | |
| **USB Front Interface** | **A** = Type A | | | | | | | | |
| **USB Rear Interface** | **A** = Type A | | | | | | | | |
| **Alternate Polarization**[1] | **A**, **B**, **C**, **D**, **E**, **N** = Normal | | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | | |

**USB Receptacle Orientation Options (Partial Views Shown)**




Horizontal Vertical

C

| Material and Finish | |
|---|---|
| **NF** | Aluminum/cadmium, olive drab |
| **M** | Aluminum/electroless nickel |
| **MT** | Alumimun/nickel PTFE |
| **ZR** | Aluminum/black zinc-nickel |

| Connector Style | |
|---|---|
| **07** | Rear panel mount, jam nut receptacle |
| **00** | Wall mount receptacle with slotted holes[2] |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |

## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Front panel mount only
3. Meets IP67 in unmated condition, IP68 mated
4. Feedthru has front and rear USB female mating interface

| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| Pin | Name | Cable Color (USB) | Description | Recommended Wire Sizes (AWG) |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

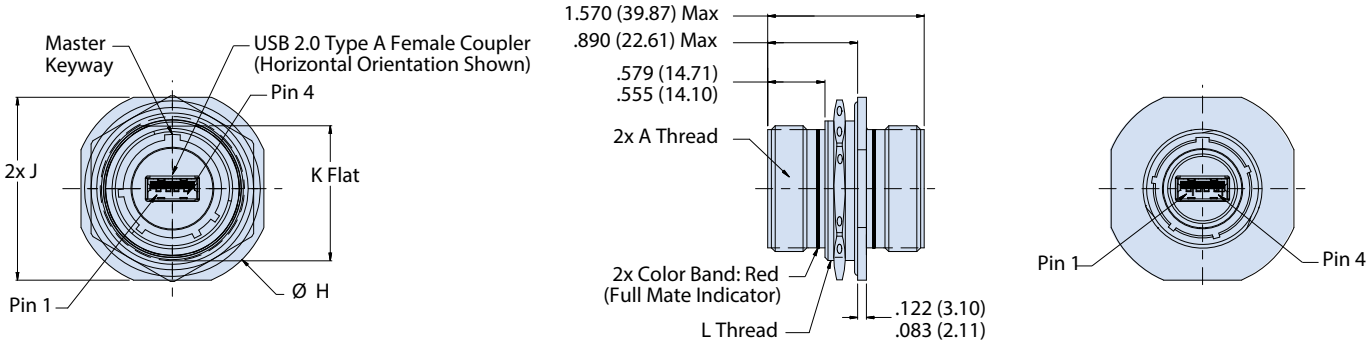
| Jam Nut Mount | | | | | | | |
|---|---|---|---|---|---|---|---|
| Shell Size | Ø H | | J | | K Flat | | L Thread |
| | in | mm | in | mm | in | mm | |
| 15 | 1.638 | 41.61 | 1.516 | 38.51 | 1.066 | 27.08 | M28 X 1.0-6G 0.100R |
| | 1.614 | 41.00 | 1.484 | 37.69 | 1.056 | 26.82 | |
| 17 | 1.764 | 44.81 | 1.642 | 41.71 | 1.191 | 30.25 | M32 X 1.0-6G 0.100R[4] |
| | 1.740 | 44.20 | 1.610 | 40.89 | 1.181 | 30.00 | |

| Wall Mount | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | A Thread | B Sq | | C Bsc | | D Bsc[2] | | E | | F | | Ø G Holes | |
| | | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm |
| 15 | 1.0000-.1P-.3L-TS-2A | 1.232<br>1.208 | 31.29<br>30.68 | .969 | 24.61 | .906 | 23.01 | .136<br>0.120 | 3.45<br>3.05 | 0.181<br>0.165 | 4.60<br>4.19 | 0.136<br>0.120 | 3.45<br>3.05 |
| 17 | 1.1875-.1P-.3L-TS-2A | 1.323<br>1.299 | 33.60<br>32.99 | 1.062 | 26.97 | .969 | 24.61 | | | 0.202<br>0.186 | 5.13<br>4.72 | | |



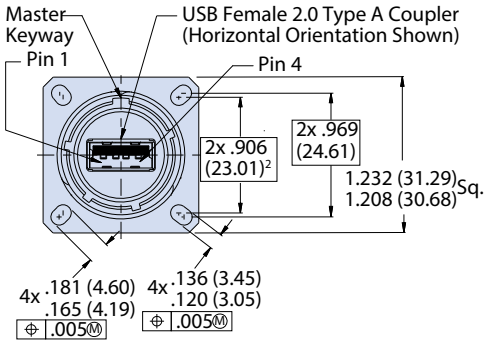
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE

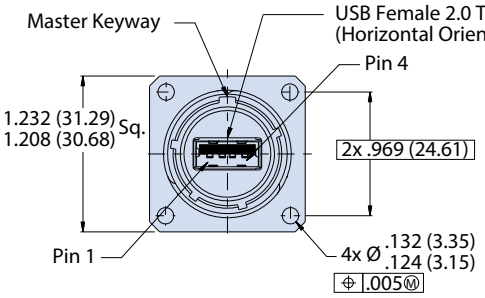



## 00, DO AND CM - WALL MOUNT RECEPTACLES

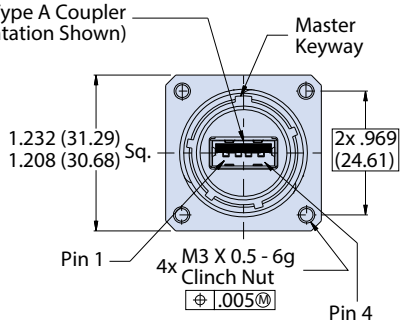
### 00 - Slotted Hole Receptacle Face View



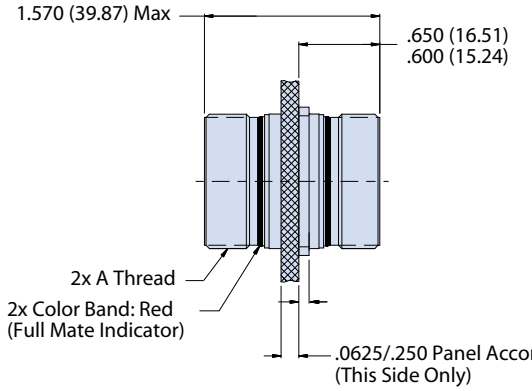

### D0 - Round Hole Receptacle Face View



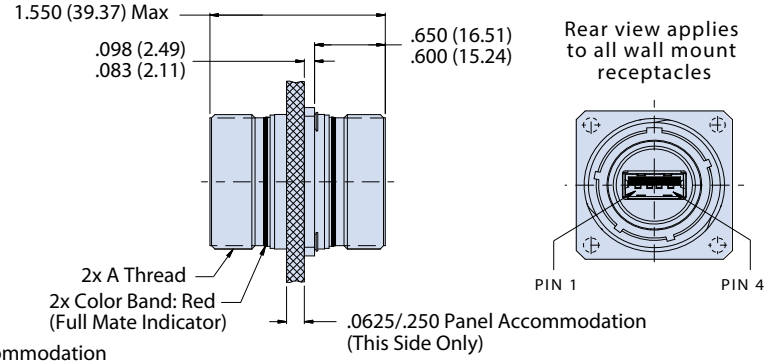

### CM - Clinch Hole Receptacle Face View




### 00 and D0 - Receptacle Side View




### CM - Receptacle Side View

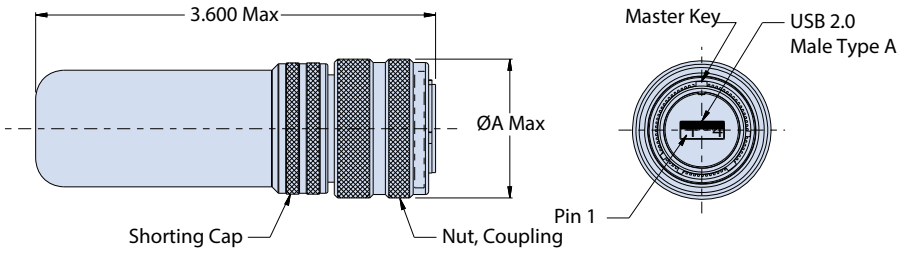



***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

# MIL-DTL-38999 Series III Type Connectors

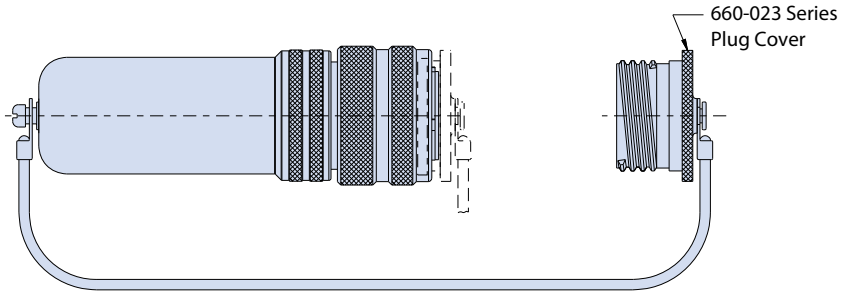
## 233-390 USB 2.0 Memory stick

| Part Number Development | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-390** | **NF** | **32** | **-15** | **N** | **H** | **P** |
| **Series / Basic Part No.** | **233-390** | | | | | | |
| **Finish** | **NF** = Aluminum/cadmium olive drab<br>**ME** = Aluminum/electroless nickel<br>**MT** = Aluminum/nickel PTFE<br>**ZR** = Aluminum/zinc-nickel | | | | | | |
| **Storage Capacity Options** | **128** = 128Gb **64** = 64Gb **32** = 32 Gb, **16** = 16 Gb, **8** = 8Gb | | | | | | |
| **Shell Size** | **15**, **17**, **19**, **21**, **23**, **25** | | | | | | |
| **Alternate Key Position** | **A**, **B**, **C**, **D**, **E**, **N** = Normal; Per MIL-DTL-38999 | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | |
| **Protective Cover Option** | **P** = Series 660-023 cover (omit for none) | | | | | | |




**View shown with Protective Cap**

| Dimensions | |
|---|---|
| **Shell Size** | **ØA Max** |
| 15 | 1.280 (32.5) |
| 17 | 1.406 (35.7) |
| 19 | 1.516 (38.5) |
| 21 | 1.642 (41.7) |
| 23 | 1.768 (44.9) |
| 25 | 1.890 (48.0) |




### NOTES

1. System requirements: Windows 2000, XP, Vista, Windows 7.
2. Compatibility: plug and play; USB 2.0 Compliance.
3. Interface: USB 2.0, Type A male.
4. Data transfer rates: USB 2.0: Up to 25 Mb/sec read, 10Mb/sec write.
5. Password protection and AES encryption.
6. Mates with 233-340,-341,-342,-343 & -345
7. Environmental parameters: Operating temperatures: -40°C to 85°C (see part number development)
8. Storage temperatures: -40°C to 85°C
9. Humidity range operating: 10% to 95%
10. Memory stick uses USB male plug
11. Material/Finish
    - Barrel, coupling nut:
    - Insulators: high grade rigid dielectric/ N.A.
    - Seal: fluorosilicone/N.A.
    - EMI grounding spring: BeCu /electroless nickel plate.
    - Hardware: stainless steel/passivated



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 2330-0069 USB 2.0 Cable assembly

## 2330-0069 Glenair SuperSeal™ USB 2.0 cable jumpers, with SuperNine® connectors to standard USB Type A plug

SuperSeal USB connectors are IP67 open face rated and IP68 in the mated condition for complete protection in harsh environments. SuperSeal connector styles include plug, wall mount and jam-nut receptacles. Wall mount receptacles are available with slotted holes and straight cable exit. USB 2.0 can be ordered in horizontal or vertical orientation to provide further security against mis-mating and conform to existing USB orientations. Please consult factory for custom configurations.

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

| Material and Finish | |
|---|---|
| NF | Aluminum/cadmium, olive drab |
| ME | Aluminum/electroless nickel |
| ZR | Zinc nickel, black (tri-valent chromium) RoHS compliant |
| XM | Composite/electroless nickel |
| Z1 | Stainless steel / passivate |
| AB | Marine bronze/none |

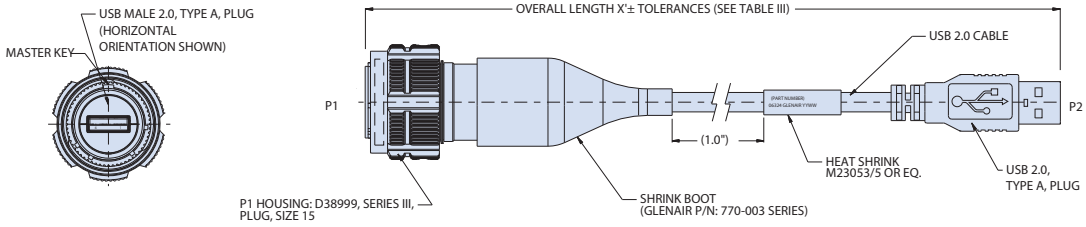
**Part Number Development**

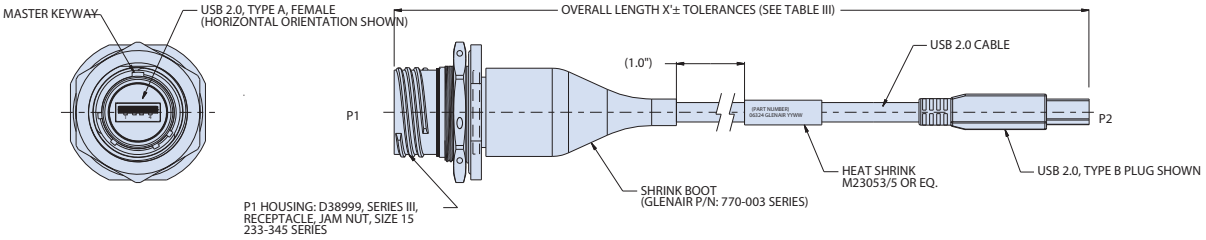
| Sample Part Number | 2330-0069 | M | 07 | N | H | A | -XX |
|---|---|---|---|---|---|---|---|
| Basic Number | 2330-0069 | | | | | | |
| P1 Finish | See Material and Finish table | | | | | | |
| P1 Connector Style | 07 = Receptacle, Jam Nut<br>00 = Square Flange w/ Slotted Holes<br>D0 = Square Flange with Round Holes<br>G6 = Plug | | | | | | |
| Polarization | A, B, C, D, E, N = Normal | | | | | | |
| P1 USB 2.0 Orientation | H = Horizontal V = Vertical | | | | | | |
| P2 Connector Style | A = USB 2.0 Type A plug<br>B = USB 2.0 Type B plug | | | | | | |
| Overall Length | 12 = 12 inches 24 = 24 inches XX = XX inches (197 Inches max.) | | | | | | |

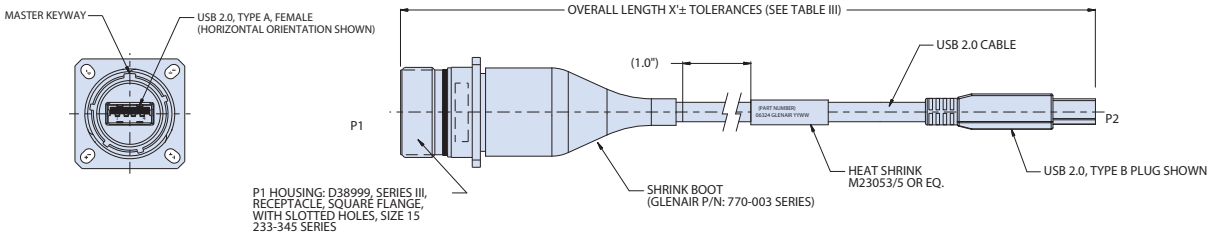
## NOTES

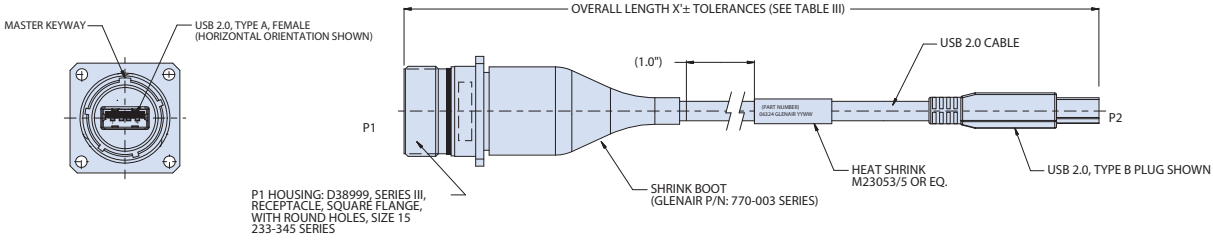
1. Interpret drawing per ASME Y14.5 - 2009
2. USB 2.0 Electrical specifications:
   DWV 500 VAC
   I.R. 100 Megohms min.
3. Meets IP67 in unmated condition, IP68 mated
4. Cable assembly to be tested 100% for electrical shorts, continuity, IR, and DWV. 100% functional USB testing per ATP-555


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

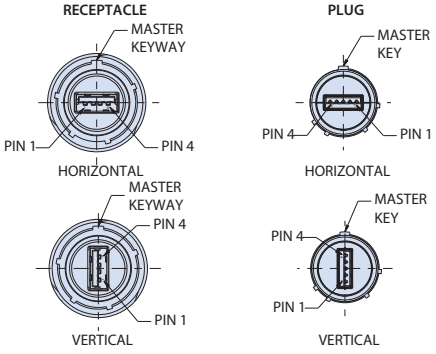


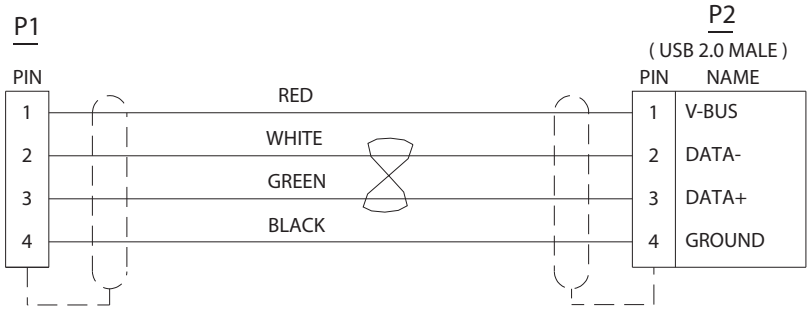




USB 2.0 ORIENTATION OPTIONS (P1)
(PARTIAL FRONT VIEWS SHOWN)




## WIRING DIAGRAM




C

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## 2330-0015 Glenair SuperSeal™ USB 2.0 cable jumpers, with SuperNine® connectors to standard USB Type A plug

SuperSeal USB connectors are IP67 open face rated and IP68 in the mated condition for complete protection in harsh environments. SuperSeal connector styles include plug, wall mount and jam-nut receptacles. Wall mount receptacles are available with slotted holes and straight cable exit. USB 2.0 can be ordered in horizontal or vertical orientation to provide further security against mis-mating and conform to existing USB orientations. Please consult factory for custom configurations.

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

| Material and Finish | |
|---|---|
| NF | Aluminum/cadmium, olive drab |
| ME | Aluminum/electroless nickel |
| ZR | Zinc nickel, black (tri-valent chromium) RoHS compliant |

| Connector Style | |
|---|---|
| G6 | Plug |
| 07 | Rear panel mount, jam nut receptacle |
| 00 | Wall mount receptacle with slotted holes[2] |
| CM | Receptacle, wall mount, with metric clinch nuts |
| D0 | Receptacle, wall mount, with slotted holes |

## NOTES

1. See Section A for panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. Standard configurations provided with potted back end
4. SuperSeal plug houses USB plug. Superseal receptacle houses USB receptacle

| Part Number Development | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **2330-0015** | **NF** | **D0** | **S** | **-15** | **2** | **A** | **N** | **H** | **A** | **S** | **-03** |
| **Basic Number** | **2330-0015** | | | | | | | | | | | |
| **P1 Finish** | See Material and Finish table | | | | | | | | | | | |
| **P1 Connector Style**[1] | See Connector Style table | | | | | | | | | | | |
| **P1 Cable Exit** | **S** = Staight | | | | | | | | | | | |
| **Shell Size** | **15** | | | | | | | | | | | |
| **USB Performance** | **2** = USB 2.0 | | | | | | | | | | | |
| **USB Interface** | **A** = Type A | | | | | | | | | | | |
| **Polarization** | **A**, **B**, **C**, **D**, **E**, **N** = Normal | | | | | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | | | | | |
| **P2 Connector Style** | **A** - Type A USB plug **Omit** = Flying leads | | | | | | | | | | | |
| **P2 Cable Exit** | **S** = Straight **Omit** = Flying leads | | | | | | | | | | | |
| **Standard Lengths** | See Table I | | | | | | | | | | | |

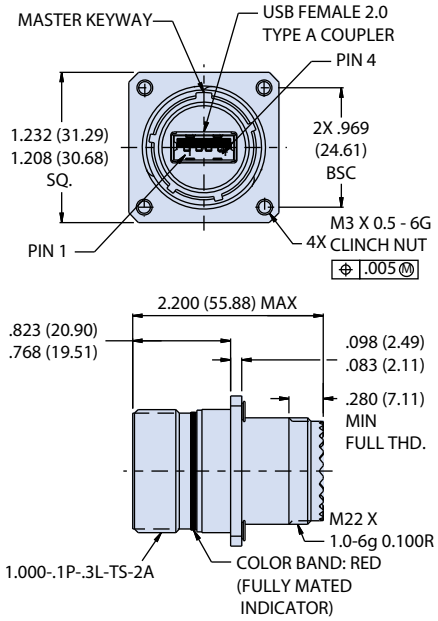
For custom configurations please consult factory.

| TABLE I: Overall Length Tolerances | | |
|---|---|---|
| Dash No. | Overall Length (Feet) | Tolerances |
| 01 | 1.0 | +1″/-0 |
| 02 | 2.0 | +2″/-0 |
| 03 | 3.0 | |
| 04 | 5.0 | |
| 05 | 7.0 | +4″/-0 |
| 06 | 10.0 | |
| 07 | 15.0 | +6″/-0 |

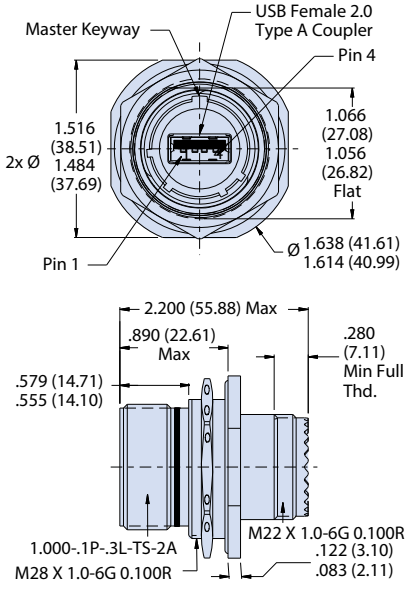

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## AVAILABLE P1 CONNECTOR DIMENSIONS, SHELL SIZE 15

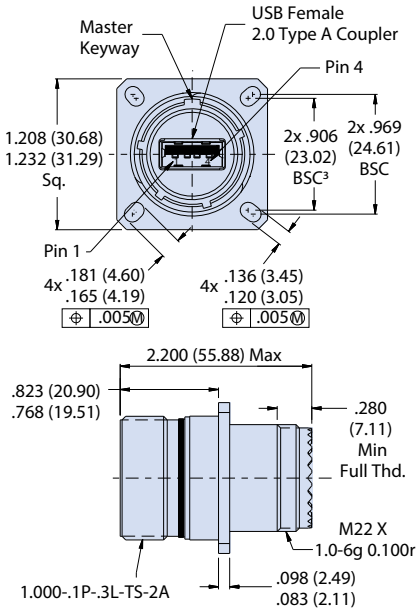
### CM - Wall Mount Receptacle with Metric Clinch Nuts




### 07 Receptacle, Jam-Nut Mount

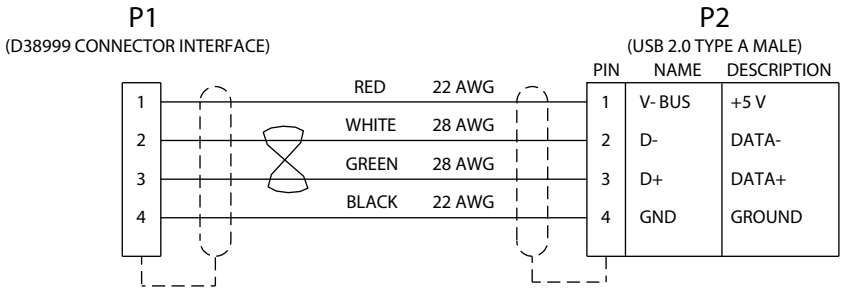



### 00 Receptacle, Wall Mount with Slotted Holes

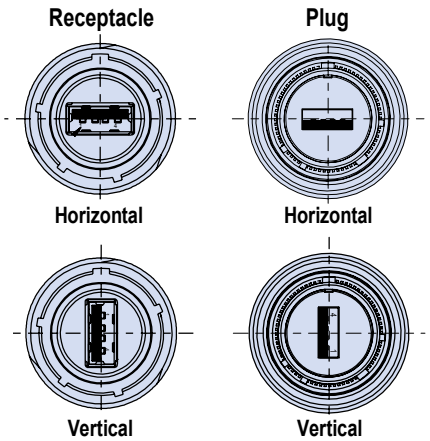



C

## WIRING DIAGRAM

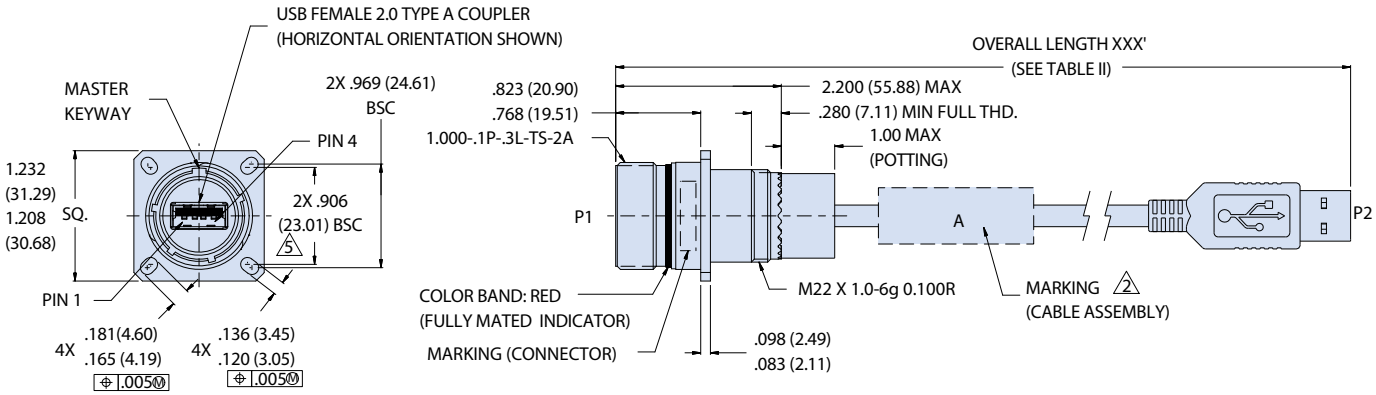



### USB Orientation Options (Partial Views Shown)

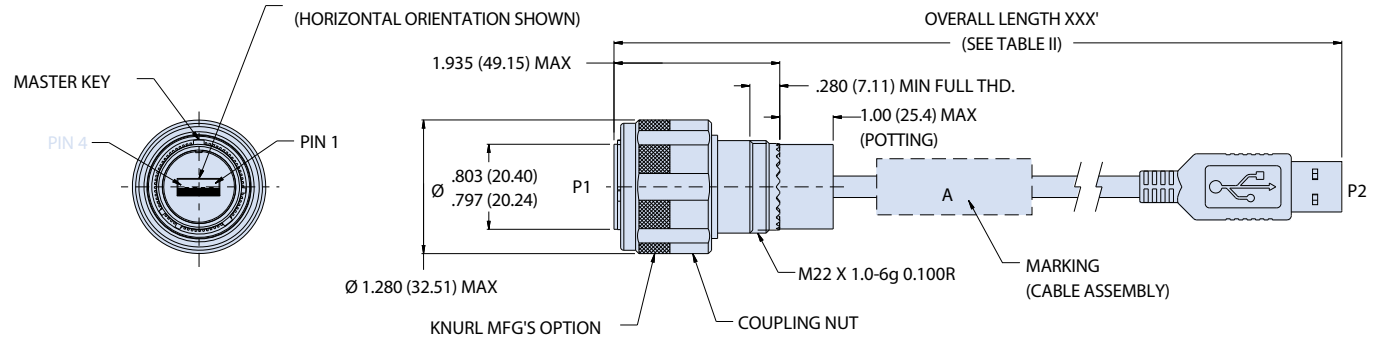



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

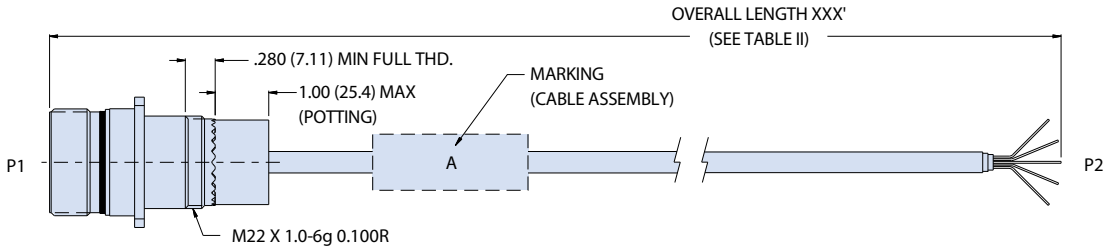
## 00 WALL MOUNT RECETPACLE WITH SLOTTED HOLES (STRAIGHT SYTLE SHOWN)




## G6 PLUG (STRAIGHT STYLE SHOWN)




## 00, D0, CM, 07 RECEPTACLE & G6 PLUG (FLYING LEADS SHOWN)





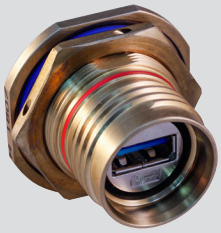
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## Product Selection Guide

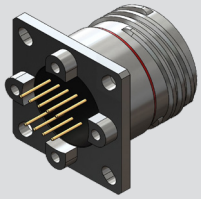
**233-350** C-22

SuperSeal™ Panel Mount USB 3.0 Receptacle Connectors



**233-352** C-24

SuperSeal Receptacle with USB 3.0 Female Interface to PC Tail Termination

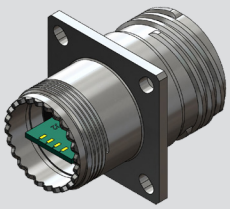


**233-357** C-26

SuperSeal Panel Mount Receptacles with USB 3.0 to PC Tail Termination and Threaded Standoff

**233-353** C-28

SuperSeal Receptacle with USB 3.0 Female Interface to Solder Cup Termination



**233-354** C-30

SuperSeal Panel Mount Receptacles with USB 3.0 to Breakout Board Termination and Accessory Threads

**233-355** C-32

SuperSeal USB 3.0 Female-to-Female Feed-thru Coupler

**233-358** C-34

SuperSeal Plug Adapter for USB 3.0 Terminated Cordset

**2330-0445** C-35

SuperSeal USB 3.0 Cable Assembly

**2330-0445** C-37

SuperSeal USB 3.0 Cable Assembly with active repeater

**233-92** C-38

SuperSeal USB 3.0 Memory Stick


C

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-350 Panel mount receptacle couplers with accessory threads

| Part Number Development | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-350** | **NF** | **00** | **-15** | **3** | **A** | **N** | **H** | |
| **Basic Number** | **233-350** | | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | | |
| **Connector Style**[1] | See Connector Style table | | | | | | | | |
| **Shell Size** | **15** | | | | | | | | |
| **USB Performance** | **3** = USB 3.0 | | | | | | | | |
| **USB Interface (Front and Back)** | **A** = Type A | | | | | | | | |
| **Alternate Key Position**[1] | **A**, **B**, **C**, **D**, **E**, **N** = Normal per MIL-DTL-38999 | | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | | |
| **Shrink Boot** | **T** = Part No. 770-028 (Omit for None) | | | | | | | | |

C

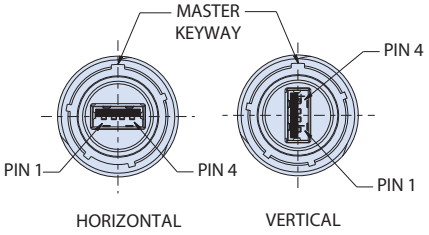
| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Alumimun/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |
| **AB** | Marine Bronze |
| **XM** | Composite/Electroless Nickel |

Additional material / finish options available consult factory

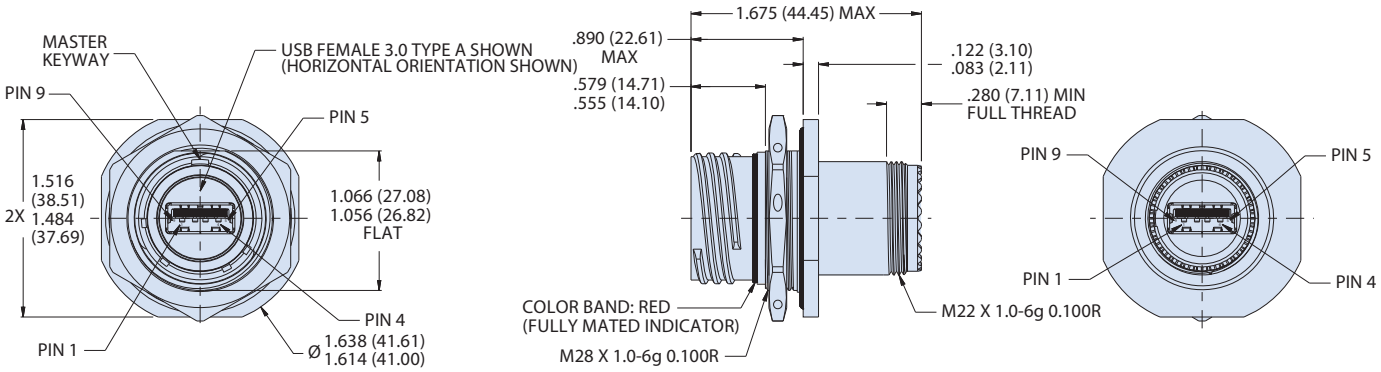
| Connector Style | |
|---|---|
| **07** | Rear panel mount, jam nut receptacle |
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with thru-holes |
| **CM** | Wall mount receptacle with metric clinch nuts |

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

**USB Receptacle Orientation Options**




## 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE



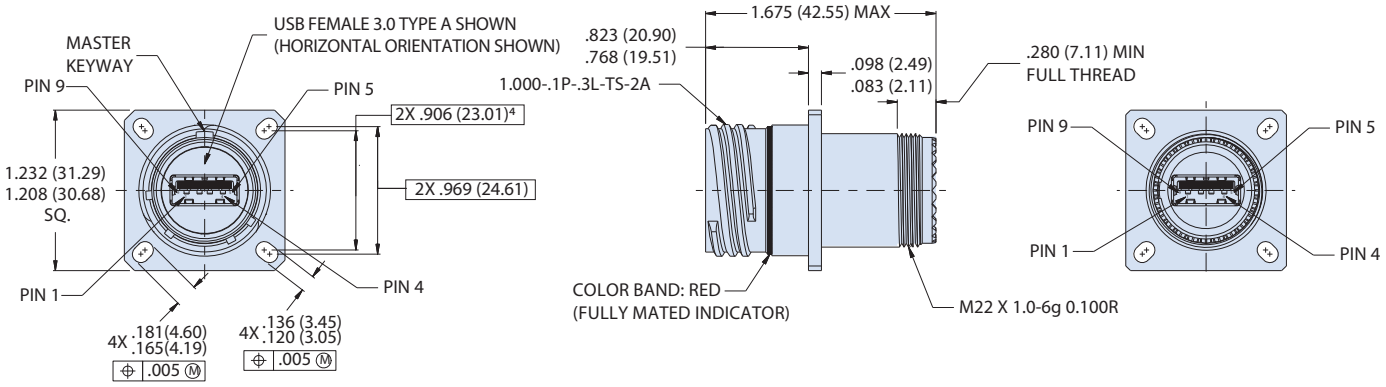

## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. USB female port, front and back
4. Front panel mount only
5. Material and Finish
   - Shell, jam nut: al alloy
   - Insulators: high grade rigid dielectric/n.a.
   - Contacts: copper alloy, gold plated
   - Seals: silicone based elastomer
   - USB (shell/contacts): copper alloy
   - Dielectric: hi-temp thermoplastic PA9T UL94V-0
   - Hardware: stainless steel /passivated

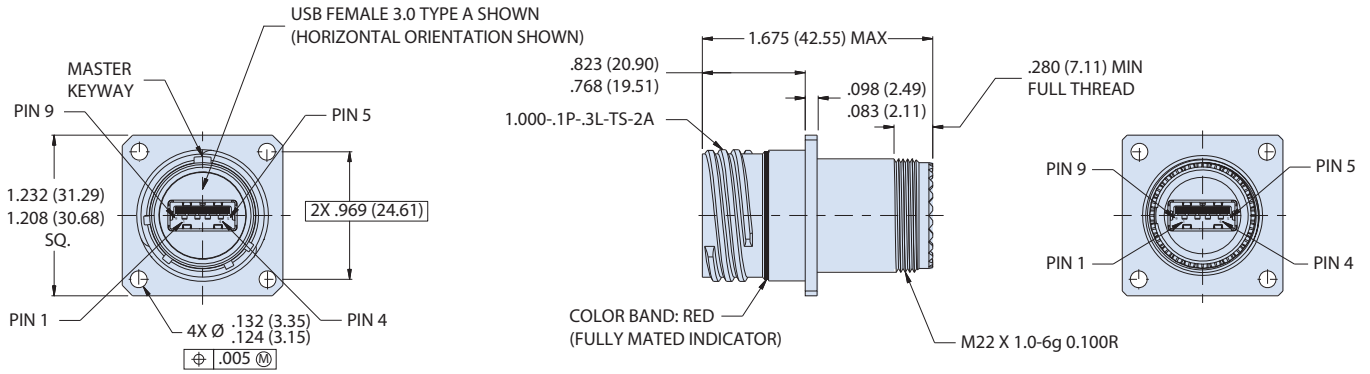


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

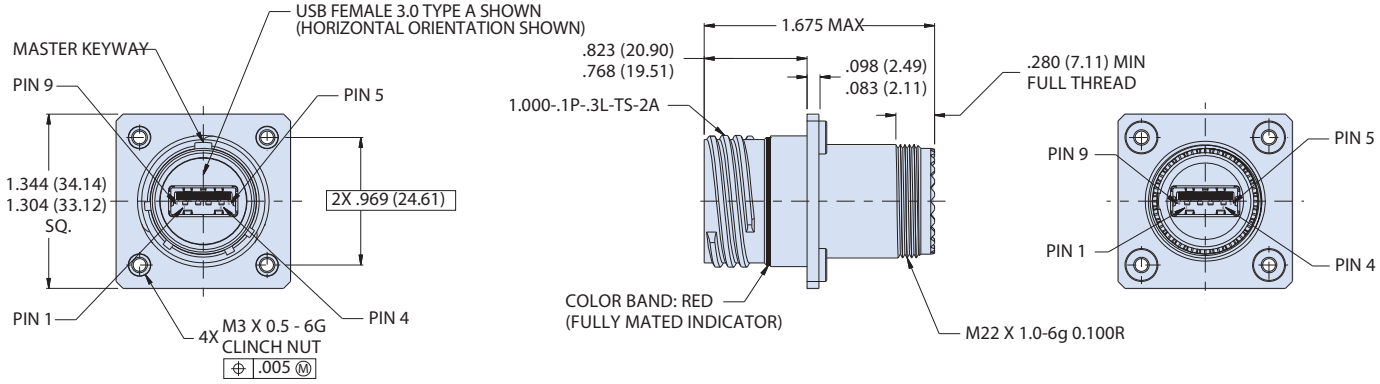
## 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES




## DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES




## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS

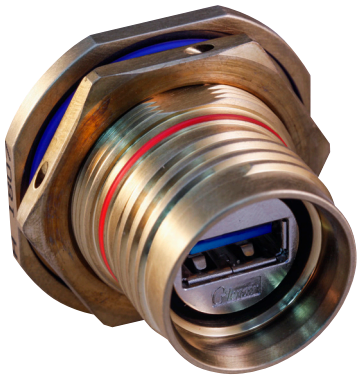



C

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-352 Panel mount receptacles with PC tails



| Material and Finish | |
|---|---|
| NF | Aluminum/Cadmium, Olive Drab |
| ME | Aluminum/Electroless Nickel |
| MT | Alumimun/Nickel PTFE |
| ZR | Aluminum/Black Zinc-Nickel |
| AB | Marine Bronze |
| XM | Composite/Electroless Nickel |

Additional material / finish options available consult factory

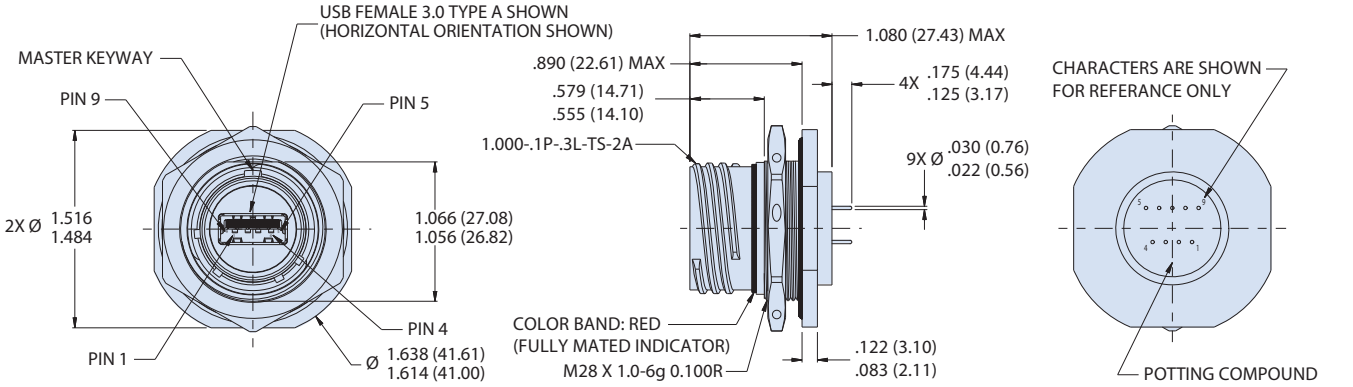
| Part Number Development | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Sample Part Number | 233-352 | NF | 00 | -15 | 3 | A | N | H |
| Basic Number | 233-352 | | | | | | | |
| Finish | See Material and Finish table | | | | | | | |
| Connector Style[1] | See Connector Style table | | | | | | | |
| Shell Size | 15 | | | | | | | |
| USB Performance | 3 = USB 3.0 | | | | | | | |
| USB Interface (Front and Back) | A = Type A | | | | | | | |
| Alternate Key Position[1] | A, B, C, D, E, N = Normal per MIL-DTL-38999 | | | | | | | |
| USB Orientation | H = Horizontal V = Vertical | | | | | | | |

| Connector Style | |
|---|---|
| 07 | Rear panel mount, jam nut receptacle |
| 00 | Wall mount receptacle with slotted holes |
| D0 | Wall mount receptacle with thru-holes |
| CM | Wall mount receptacle with metric clinch nuts |

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

C

## 07 - JAM-NUT MOUNT RECEPTACLE

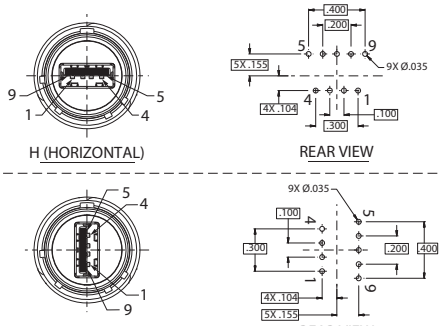



## NOTES

1. See Section A for polaziation / panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. USB female port, front
4. Material and Finish
   - Shell, jam nut: aluminum alloy
   - Insulators: high grade rigid dielectric/n.a.
   - Contacts: copper alloy, gold plated
   - Seals: silicone based elastomer
   - USB (shell/contacts): copper alloy
   - Dielectric: hi-temp thermoplastic PA9T UL94V-0
   - Hardware: stainless steel /passivated

| USB 3.0 Wiring | | |
|---|---|---|
| Pin | Name | Description |
| 1 | (V BUS) | +5 V |
| 2 | (D-) | USB 2.0 Data |
| 3 | (D+) | |
| 4 | (GND) | Ground |
| 5 | (RX-) | Receiver |
| 6 | (RX+) | Receiver |
| 7 | (GND) | Ground |
| 8 | (TX-) | Transmitter |
| 9 | (TX+) | Transmitter |

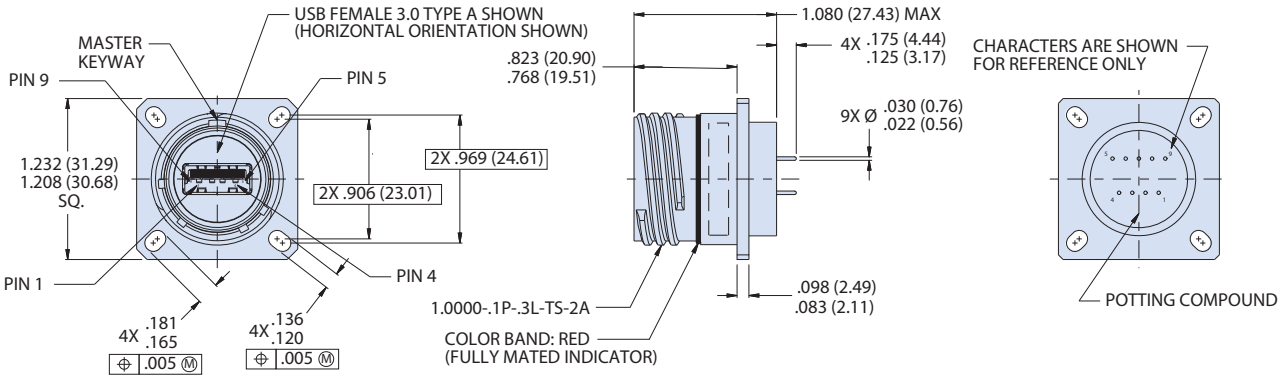
Solder Cup Positions



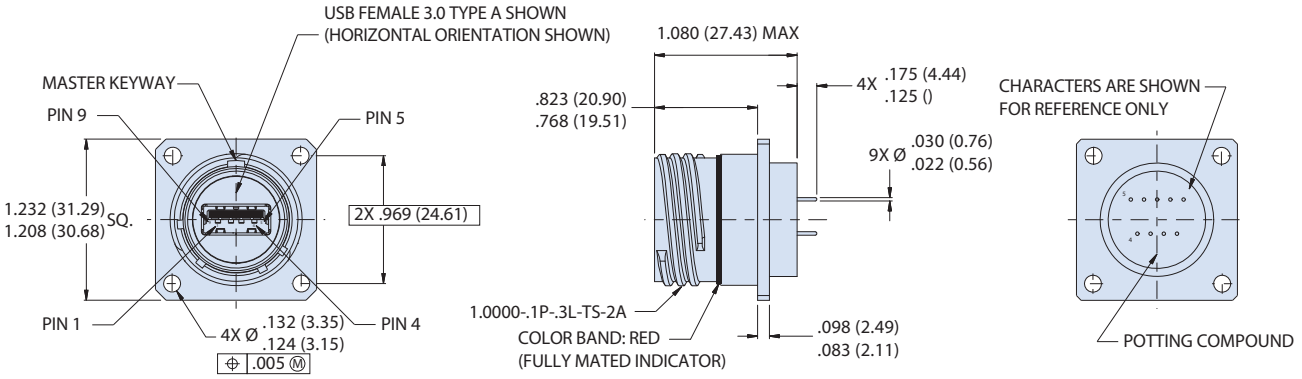



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

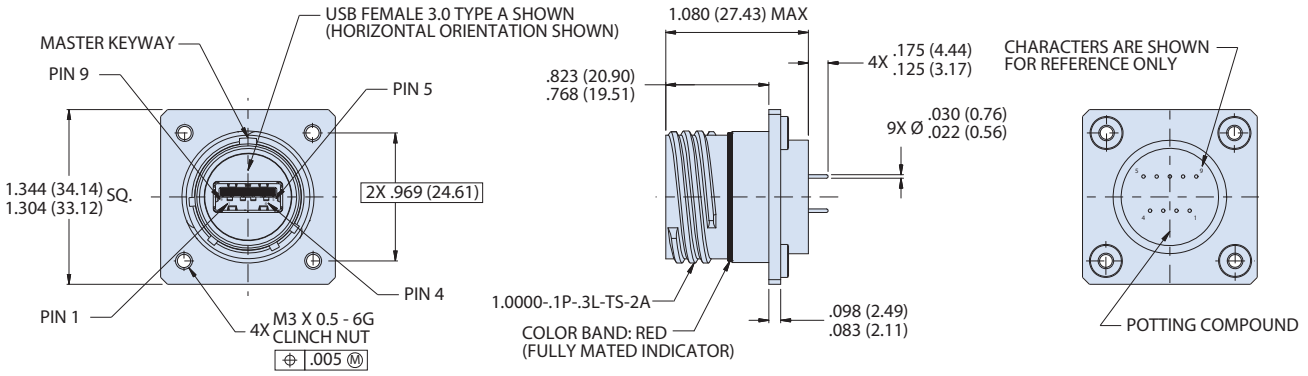
## 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES




## DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES




## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS

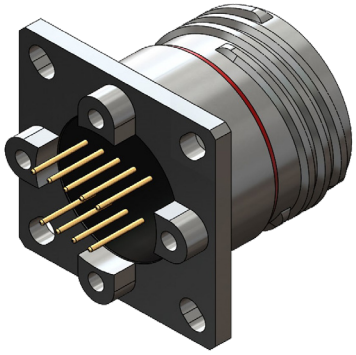



C

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-357 Panel mount receptacles with PC tails and threaded stand-offs



| Part Number Development | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-357** | **NF** | **00** | **-15** | **3** | **A** | **N** | **H** |
| **Basic Number** | **233-357** | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | |
| **Connector Style**[1] | See Connector Style table | | | | | | | |
| **Shell Size** | **15** | | | | | | | |
| **USB Performance** | **3** = USB 3.0 | | | | | | | |
| **USB Interface (Front and Back)** | **A** = Type A | | | | | | | |
| **Alternate Key Position**[1] | **A, B, C, D, E, N** = Normal per MIL-DTL-38999 | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | |

| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Alumimun/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |
| **AB** | Marine Bronze |
| **XM** | Composite/Electroless Nickel |

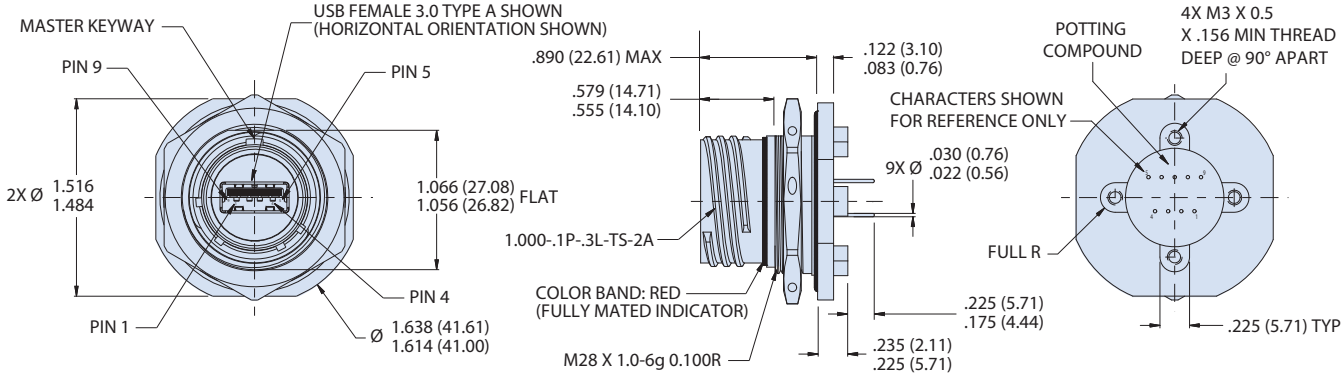
Additional material / finish options available consult factory

| Connector Style | |
|---|---|
| **07** | Rear panel mount, jam nut receptacle |
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with thru-holes |
| **CM** | Wall mount receptacle with metric clinch nuts |

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

C

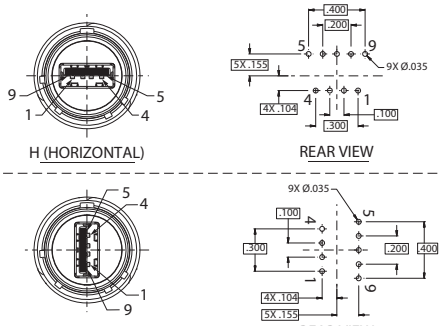
## 07 - JAM-NUT MOUNT RECEPTACLE




## NOTES

1. See Section A for polaziation / panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. USB female port, front
4. Material and Finish
   - Shell, jam nut: aluminum alloy
   - Insulators: high grade rigid dielectric/n.a.
   - Contacts: copper alloy, gold plated
   - Seals: silicone based elastomer
   - USB (shell/contacts): copper alloy
   - Dielectric: hi-temp thermoplastic PA9T UL94V-0
   - Hardware: stainless steel /passivated

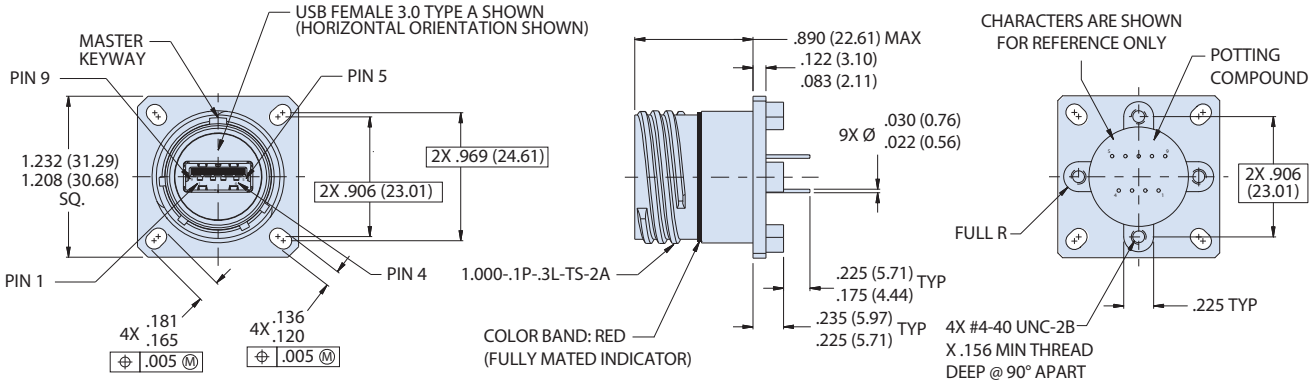
Solder Cup Positions



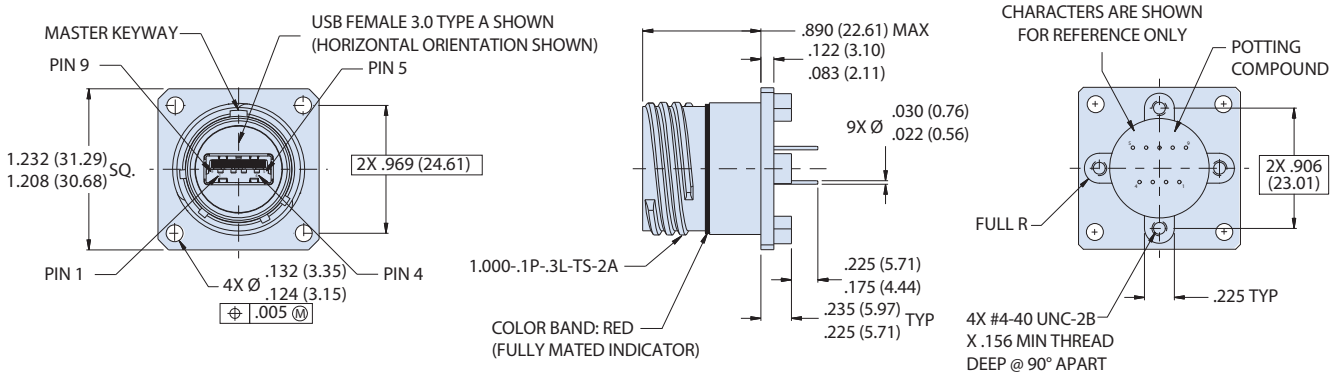



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

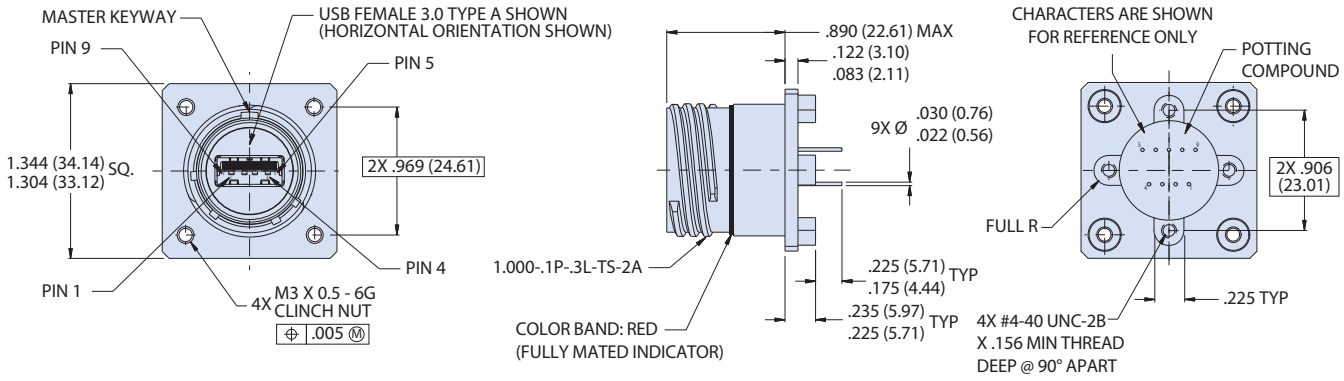
## 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES




## DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES




## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS




C

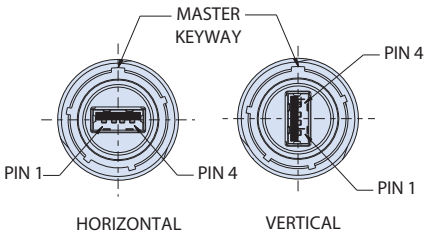
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# USB 3.0 TYPE A CONNECTORS
# MIL-DTL-38999 Series III Type Connectors

## 233-353 Panel mount receptacles with solder cups

| Part Number Development | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-353** | **NF** | **00** | **-15** | **3** | **A** | **N** | **H** |
| **Basic Number** | **233-353** | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | |
| **Connector Style**[1] | See Connector Style table | | | | | | | |
| **Shell Size** | **15** | | | | | | | |
| **USB Performance** | **3** = USB 3.0 | | | | | | | |
| **USB Interface (Front and Back)** | **A** = Type A | | | | | | | |
| **Alternate Key Position**[1] | **A, B, C, D, E, N** = Normal per MIL-DTL-38999 | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | |

### USB Receptacle Orientation Options



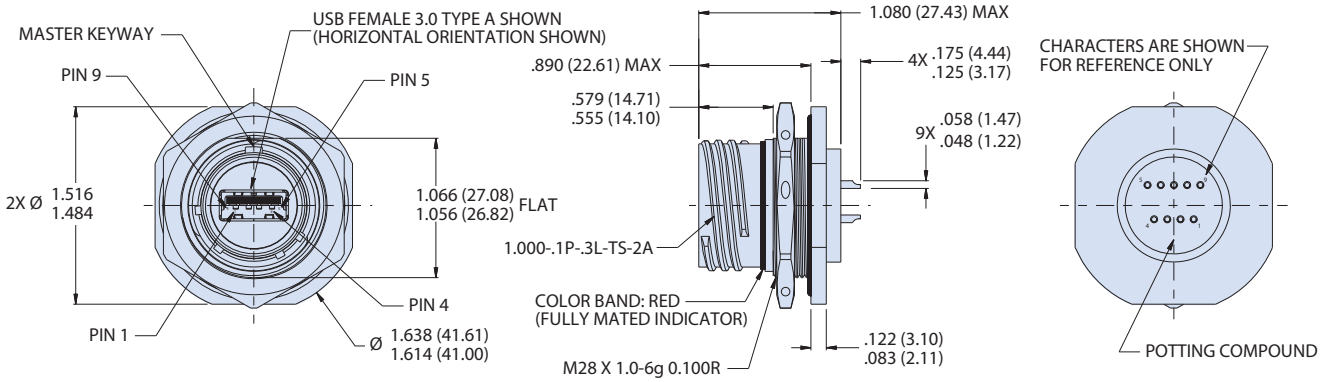

| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Alumimun/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |
| **AB** | Marine Bronze |
| **XM** | Composite/Electroless Nickel |

Additional material / finish options available consult factory

| Connector Style | |
|---|---|
| **07** | Rear panel mount, jam nut receptacle |
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with thru-holes |
| **CM** | Wall mount receptacle with metric clinch nuts |

C

## 07 - JAM-NUT MOUNT RECEPTACLE




## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. USB female port, front
4. Rear panel mount only
5. Material and Finish
   - Shell, jam nut: al alloy
   - Insulators: high grade rigid dielectric/n.a.
   - Contacts: copper alloy, gold plated
   - Seals: silicone based elastomer
   - USB (shell/contacts): copper alloy
   - Dielectric: hi-temp thermoplastic PA9T UL94V-0
   - Hardware: stainless steel /passivated

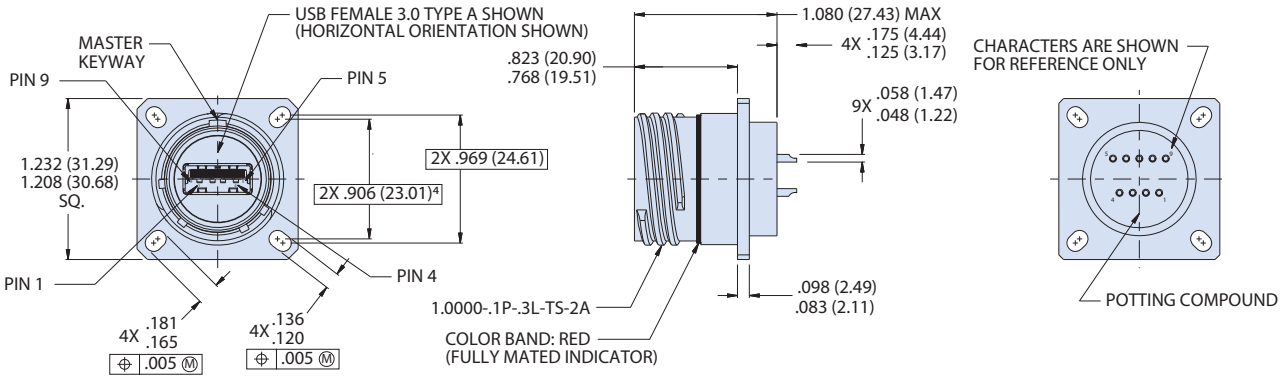
***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

| USB 3.0 Wiring | | |
|---|---|---|
| **Pin** | **Name** | **Description** |
| 1 | (V BUS) | +5 V |
| 2 | (D-) | USB 2.0 Data |
| 3 | (D+) | |
| 4 | (GND) | Ground |
| 5 | (RX-) | Receiver |
| 6 | (RX+) | Receiver |
| 7 | (GND) | Ground |
| 8 | (TX-) | Transmitter |
| 9 | (TX+) | Transmitter |

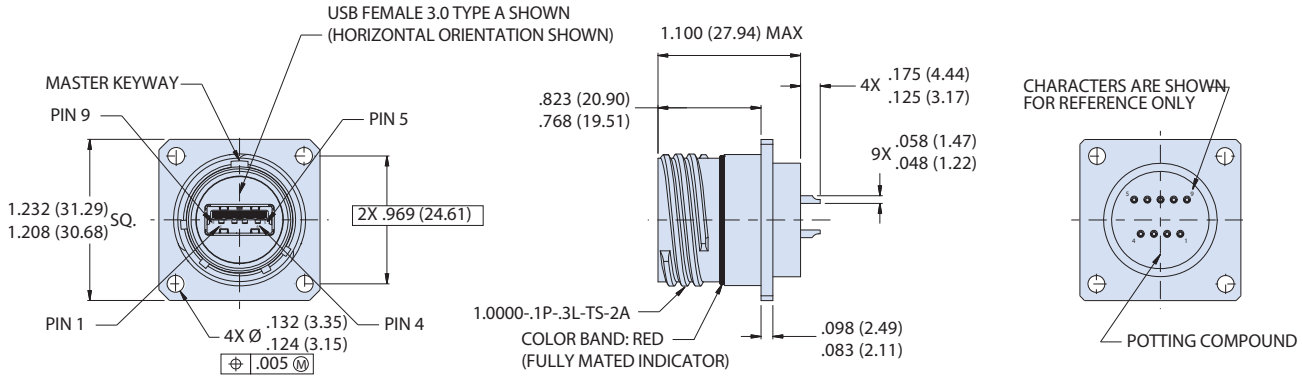

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 233-353 Panel mount receptacles with solder cups

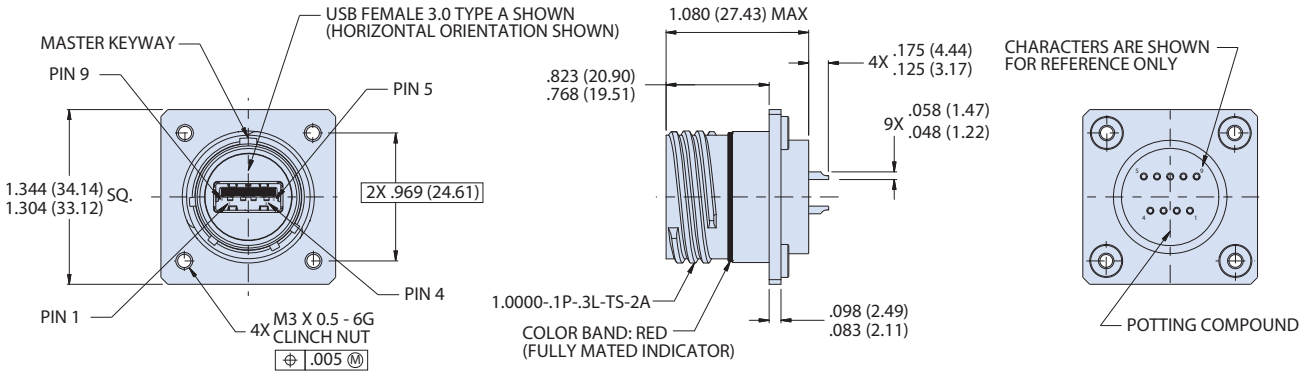
## 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES




## DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES




## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS

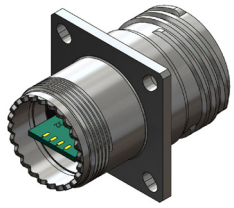



C

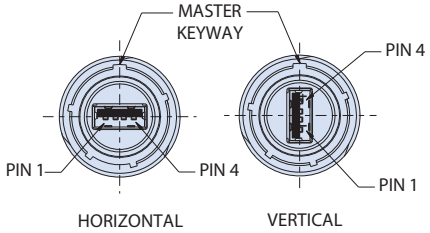
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-354 Panel mount receptacles with breakout board



### USB Receptacle Orientation Options




| Material and Finish | |
|---|---|
| NF | Aluminum/Cadmium, Olive Drab |
| M | Aluminum/Electroless Nickel |
| MT | Alumimun/Nickel PTFE |
| ZR | Aluminum/Black Zinc-Nickel |

| Part Number Development | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-354** | **NF** | **00** | **-15** | **3** | **A** | **N** | **H** |
| **Basic Number** | **233-354** | | | | | | | |
| **Finish** | See Material and Finish table | | | | | | | |
| **Connector Style**[1] | See Connector Style table | | | | | | | |
| **Shell Size** | **15** | | | | | | | |
| **USB Performance** | **3** = USB 3.0 | | | | | | | |
| **USB Interface (Front and Back)** | **A** = Type A | | | | | | | |
| **Alternate Key Position**[1] | **A, B, C, D, E, N** = Normal per MIL-DTL-38999 | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | |

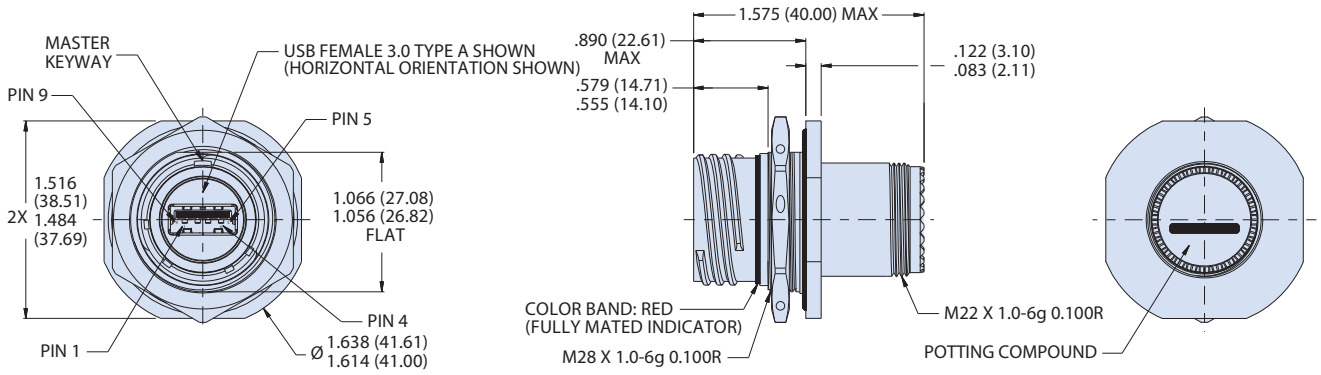
| Material and Finish | |
|---|---|
| NF | Aluminum/Cadmium, Olive Drab |
| ME | Aluminum/Electroless Nickel |
| MT | Alumimun/Nickel PTFE |
| ZR | Aluminum/Black Zinc-Nickel |
| AB | Marine Bronze |
| XM | Composite/Electroless Nickel |

Additional material / finish options available consult factory

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

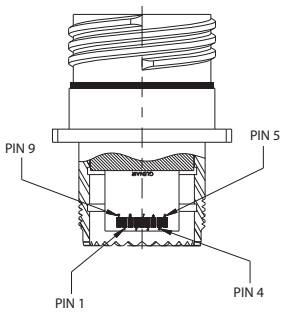
C

## 07 - JAM-NUT MOUNT RECEPTACLE




## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. USB female port, front
4. Material and Finish
   - Shell, jam nut: al alloy
   - Insulators: high grade rigid dielectric/n.a.
   - Contacts: copper alloy, gold plated
   - Seals: silicone based elastomer
   - USB (shell/contacts): copper alloy
   - Dielectric: hi-temp thermoplastic PA9T UL94V-0
   - Hardware: stainless steel / passivated

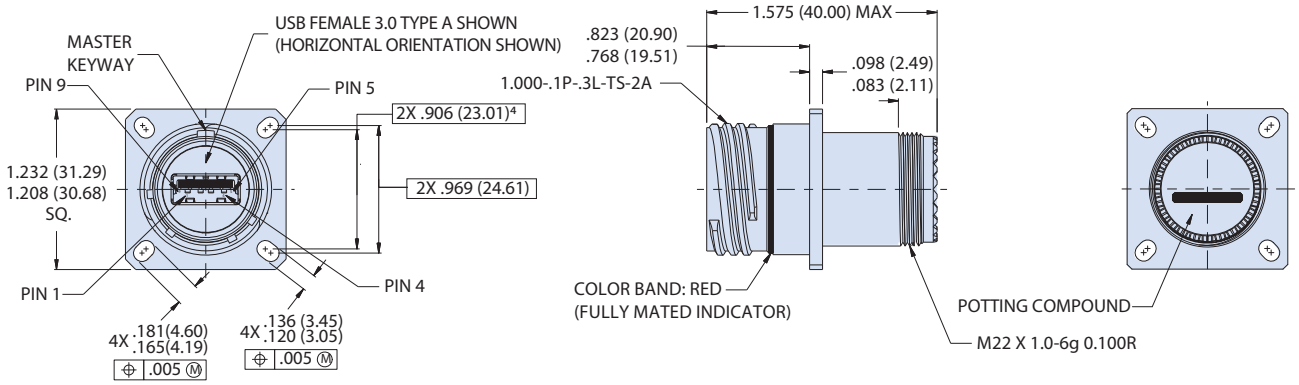



| USB 3.0 Wiring | | |
|---|---|---|
| **Pin** | **Name** | **Description** |
| 1 | (V BUS) | +5 V |
| 2 | (D-) | USB 2.0 Data |
| 3 | (D+) | |
| 4 | (GND) | Ground |
| 5 | (RX-) | Receiver |
| 6 | (RX+) | Receiver |
| 7 | (GND) | Ground |
| 8 | (TX-) | Transmitter |
| 9 | (TX+) | Transmitter |

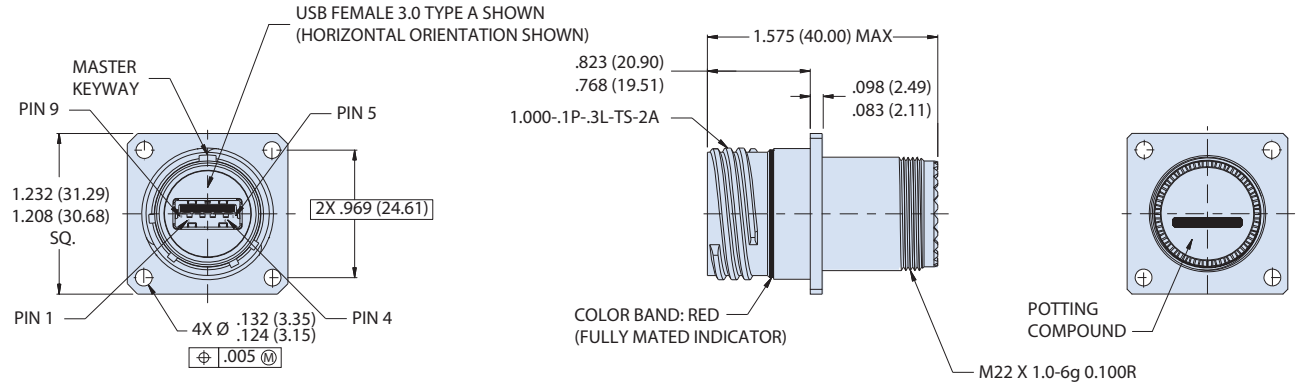


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

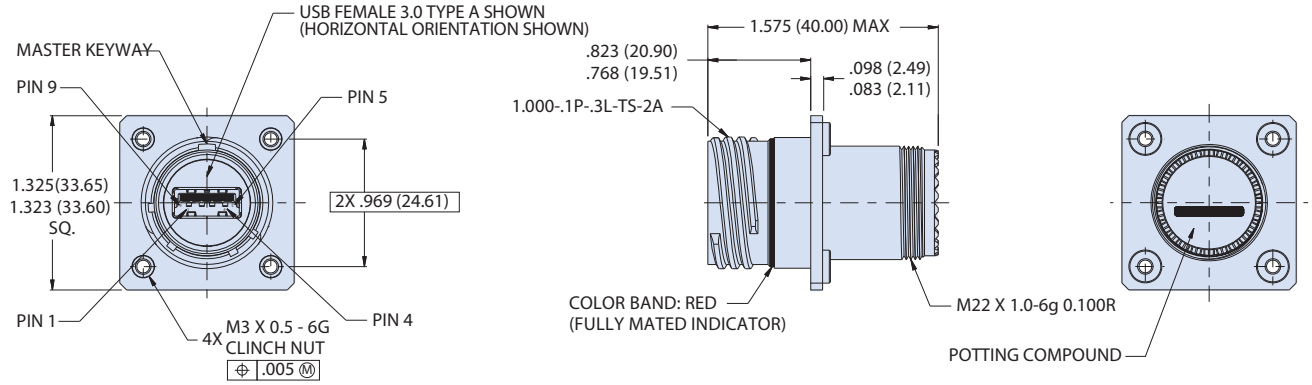
## 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES




## DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES




## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS




C

# MIL-DTL-38999 Series III Type Connectors

## 233-355 Panel mount feed-through connectors

| Part Number Development | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-355** | **NF** | **00** | **-15** | **3** | **A** | **N** | **H** |

| | |
|---|---|
| **Basic Number** | **233-355** |
| **Finish** | **See** Material and Finish table |
| **Connector Style**[1] | **See** Connector Style table |
| **Shell Size** | **15** |
| **USB Performance** | **3** = USB 3.0 |
| **USB Interface (Front and Back)** | **A** = Type A |
| **Alternate Key Position**[1] | **A, B, C, D, E, N** = Normal per MIL-DTL-38999 |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |

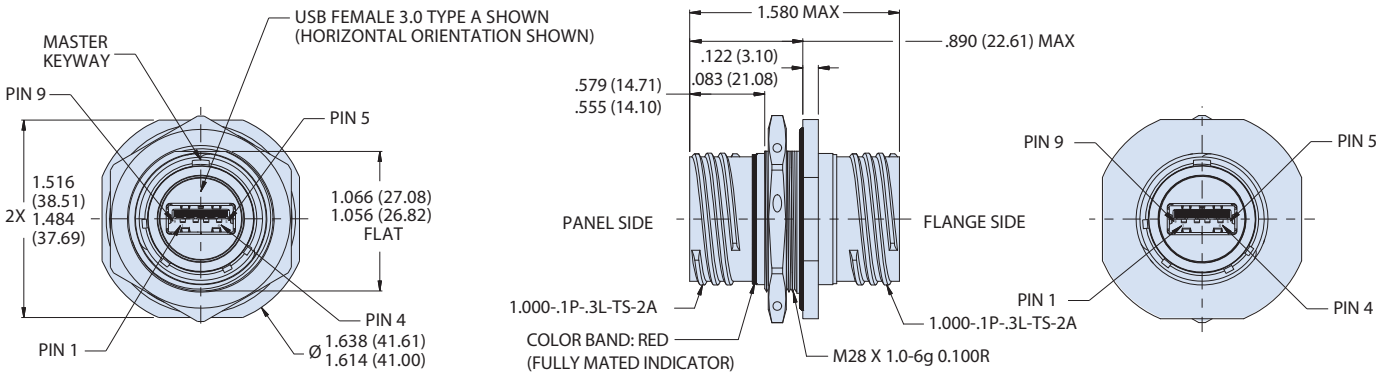
| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Alumimun/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |

| Connector Style | |
|---|---|
| **07** | Rear panel mount, jam nut receptacle |
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with thru-holes |
| **CM** | Wall mount receptacle with metric clinch nuts |

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

C

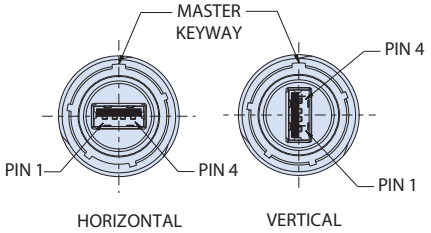
## 07 - JAM-NUT MOUNT RECEPTACLE




## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. USB female port, front
4. Material and Finish
   - Shell, jam nut: al alloy
   - Insulators: high grade rigid dielectric/n.a.
   - Contacts: copper alloy, gold plated
   - Seals: silicone based elastomer
   - USB (shell/contacts): copper alloy
   - Dielectric: hi-temp thermoplastic PA9T UL94V-0
   - Hardware: stainless steel /passivated

### USB Receptacle Orientation Options

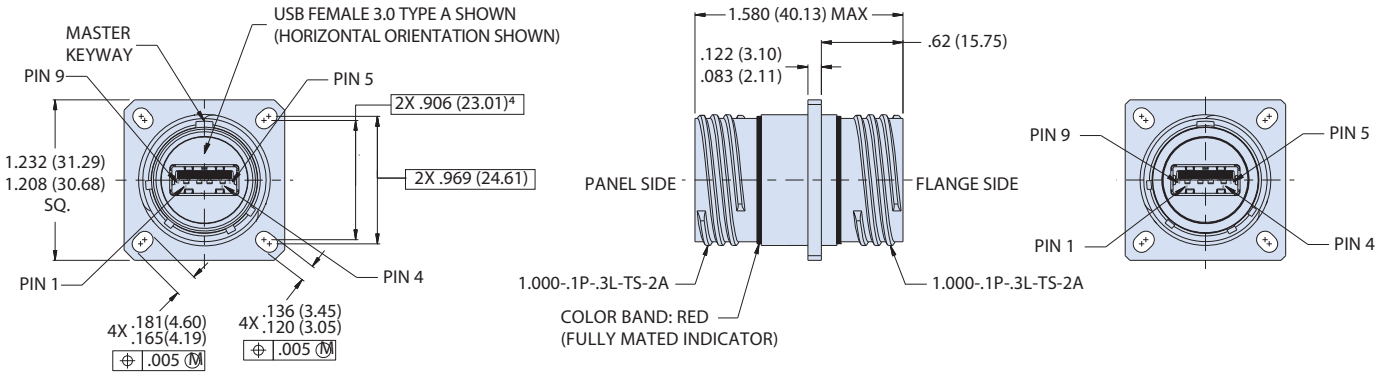



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

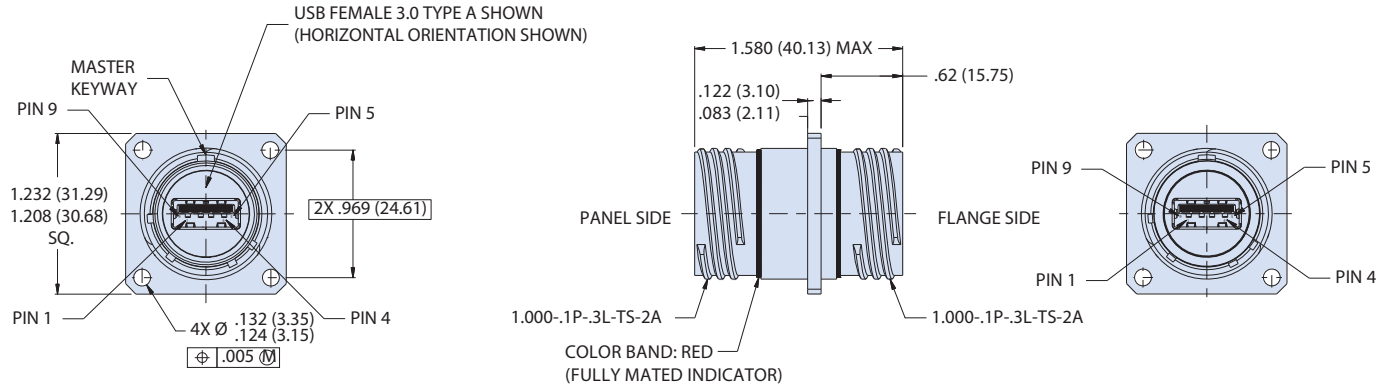


REV. 12.21.23

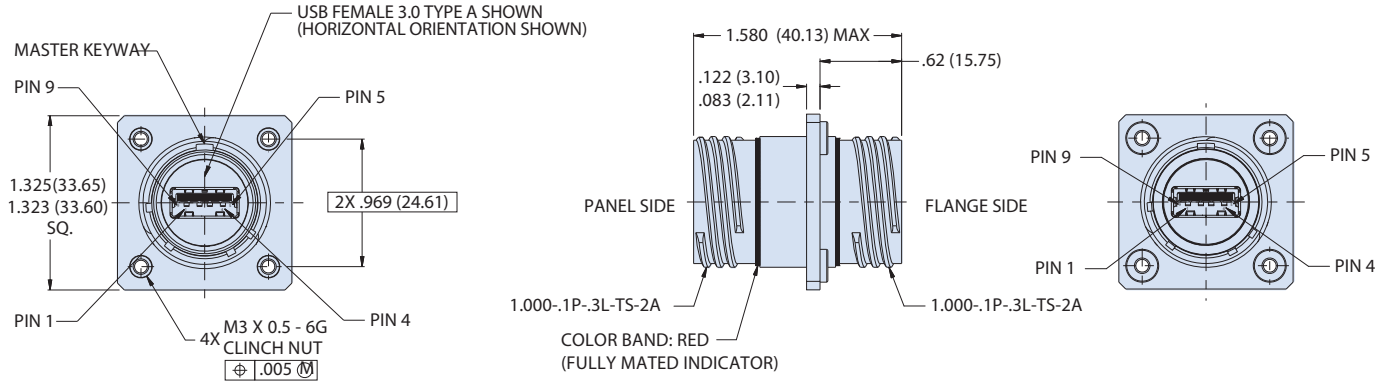
## 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES




## DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES




## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS






© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

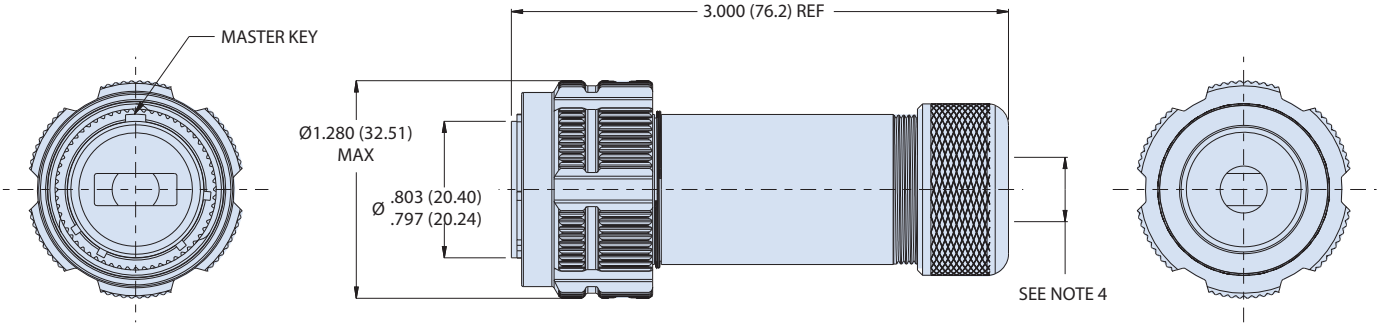
## 233-358 Plug USB cord adapter

| Part Number Development | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-358** | **NF** | **G6** | **-15** | **N** | **H** |
| **Basic Number** | **233-358** | | | | | |
| **Finish** | **See** Material and Finish table | | | | | |
| **Connector Style**[1] | **G6** = plug | | | | | |
| **Shell Size** | **15** | | | | | |
| **Alternate Key Position**[1] | **A**, **B**, **C**, **D**, **E**, **N** = Normal per MIL-DTL-38999 | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | |

| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Alumimun/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

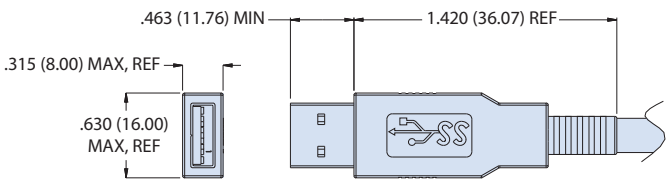
C




## NOTES

1. See Section A for polaziation / panel cutout dimensions
2. Meets IP68 in mated condition, IP68 mated condition
3. Accommodates USB 3.0 patch cords with Type A plug interface
4. Accomodates cable outside diameter 0.118 (2.997) to 0.243 (6.172)
5. USB female port, front
6. Material and Finish
   - Shell, coupling nut: aluminum alloy (composite coupling nut no plating required)
   - Insulators: high grade rigid dielectric/n.a.
   - Seals: silicone based elastomer
   - USB adapter housing: UL94V-0 compliant ABS or PPS
   - Hardware: stainless steel /passivated

## RECOMMENDED USB TYPE A PLUG DESIGN




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog

Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 2330-0445 USB 3.0 Cable assembly

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

### 2330-0445 Glenair SuperSeal™ USB 3.0 cable jumpers, with SuperNine® connectors to standard USB Type A plug

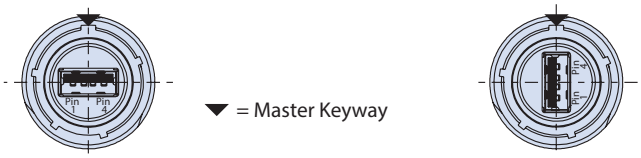
SuperSeal USB connectors are IP67 open face rated and IP68 in the mated condition for complete protection in harsh environments. SuperSeal connector styles include plug, wall mount and jam-nut receptacles. USB 3.0 can be ordered in horizontal or vertical orientation to provide further security against mis-mating and conform to existing USB orientations. Please consult factory for custom configurations.

| Material and Finish | |
|---|---|
| NF | Aluminum/cadmium, olive drab |
| ME | Aluminum/electroless nickel |
| ZR | Zinc nickel, black (tri-valent chromium) RoHS compliant |

| Connector Style | |
|---|---|
| G6 | Plug |
| 07 | Rear panel mount, jam nut receptacle |
| 00 | Wall mount receptacle with slotted holes[2] |

| Part Number Development | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **2330-0445** | **NF** | **07** | **-15** | **3** | **A** | **N** | **H** | **-03** |
| **Basic Number** | **2330-0445** | | | | | | | | |
| **P1 Finish** | See Material and Finish table | | | | | | | | |
| **P1 Connector Style**[1] | See Connector Style table | | | | | | | | |
| **P1 Shell Size** | **15** | | | | | | | | |
| **USB Performance** | **3** = USB 3.0 | | | | | | | | |
| **USB Interface** | **A** = Type A | | | | | | | | |
| **Polarization** | **N** = Normal | | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | | |
| **Overall Length** | **01**, **02**, **03**, **06** and **10** feet in length. For lengths longer than 10 feet use 2330-0450 repeaters for optimal performance | | | | | | | | |

**USB Receptacle Orientation Options (Partial Views Shown)**




Horizontal Vertical

### NOTES

1. See Section A for panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. USB 3.0 Specifications
   DWV: 100 VAC (RMS)
   IR: 100 Megohms minimum
   Operating Temperature: 20°C to +85°C
4. Standard configurations provided with adhesive lined shrink boot
5. SuperSeal plug houses USB plug. Superseal receptacle houses USB receptacle

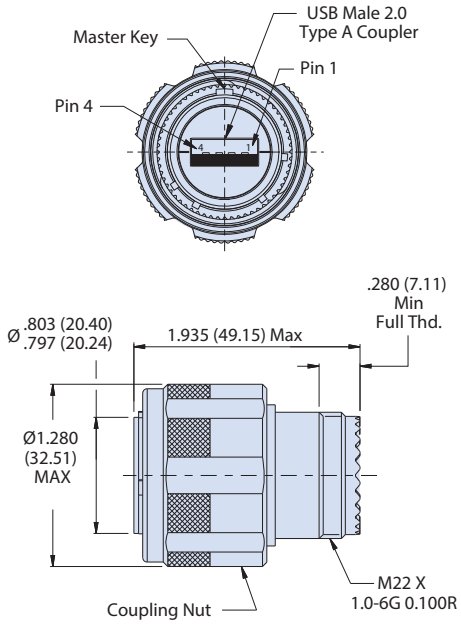
C

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

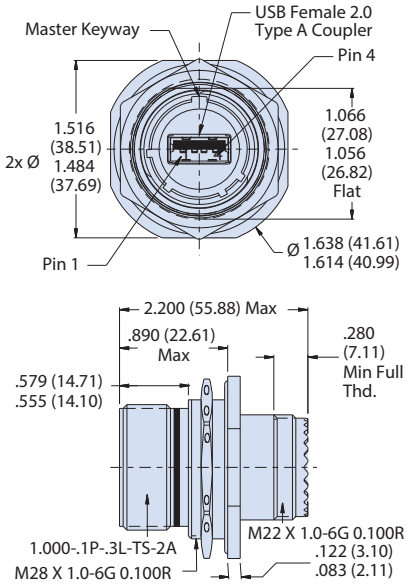
# 2330-0445 USB 3.0 Cable assembly

## AVAILABLE P 1 CONNECTOR DIMENSIONS, SHELL SIZE 15

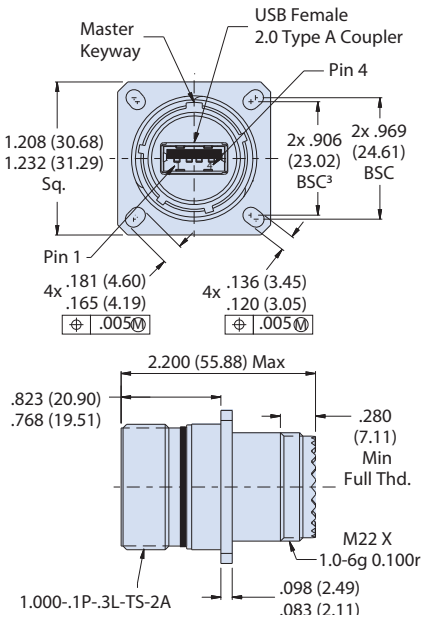
### G6 Plug



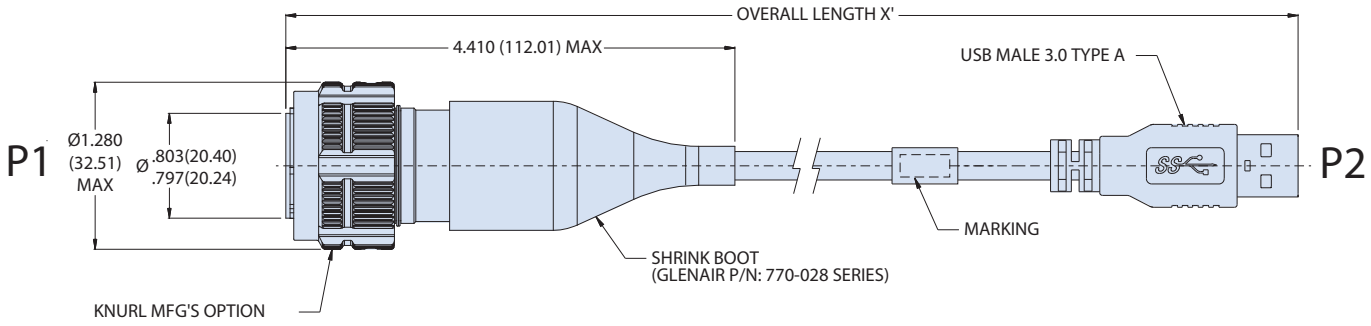

### 07 Receptacle, Jam-Nut Mount




### 00 Receptacle, Wall Mount




## CABLE ASSEMBLY SHOWN WITH PLUG CONNECTOR STYLE




C



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 2330-0450 USB 3.0 cable assembly with active repeater

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

| Material and Finish | |
|---|---|
| NF | Aluminum/cadmium, olive drab |
| ME | Aluminum/electroless nickel |
| ZR | Zinc nickel, black (tri-valent chromium) RoHS compliant |

### NOTES

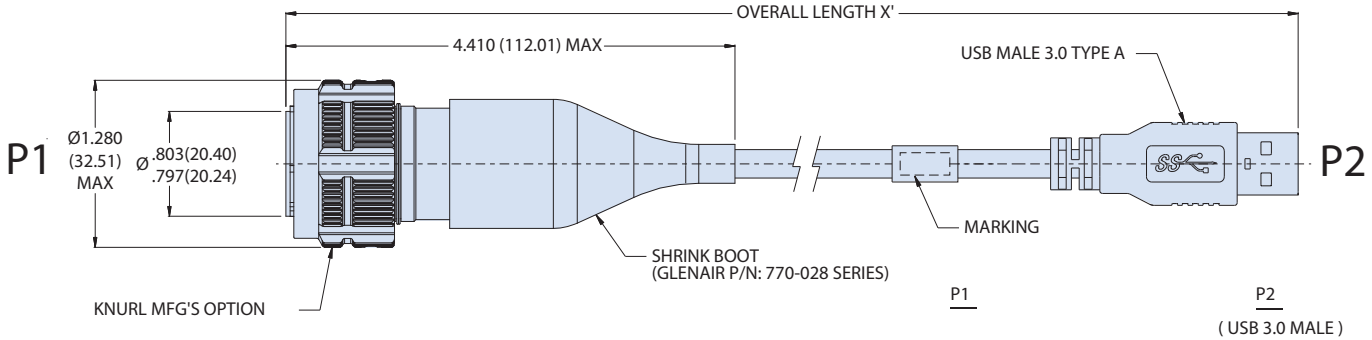
1. Meets IP67 in unmated condition, IP68 mated
2. SuperSeal plug houses USB plug.

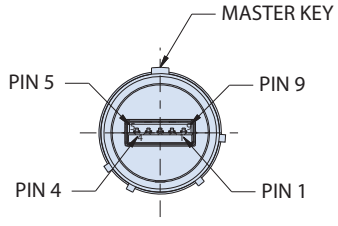
### 2330-0450 Glenair SuperSeal™ USB 3.0 plug cable jumper, with active repeater.

SuperSeal USB cable assemblys with IP67 open face rated connectors offer complete protection from environmental debris and water ingress common under harsh environmental conditions. USB 3.0 can be ordered in horizontal or vertical orientation to provide further security against mis-mating and conforms to existing USB orientations. Additional length options and custom configurations available. Please consult factory.

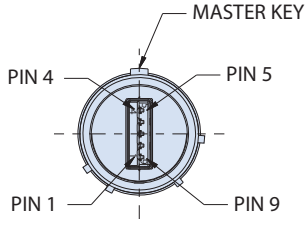
| Part Number Development | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **2330-0450** | **NF** | **G6** | **-15** | **3** | **A** | **N** | **H** | **-03** |
| **Basic Number** | **2330-0450** | | | | | | | | |
| **P1 Finish** | See Material and Finish table | | | | | | | | |
| **P1 Connector Style**[1] | **G6** = Plug | | | | | | | | |
| **P1 Shell Size** | **15** | | | | | | | | |
| **USB Performance** | **3** = USB 3.0 | | | | | | | | |
| **USB Interface** | **A** = Type A | | | | | | | | |
| **Polarization** | **A**, **B**, **C**, **D**, **E**, **N** = Normal | | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | | |
| **Overall Length** | **01** thru **10**; length in feet. | | | | | | | | |

C

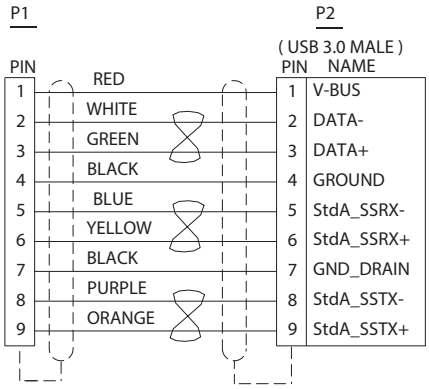



HORIZONTAL

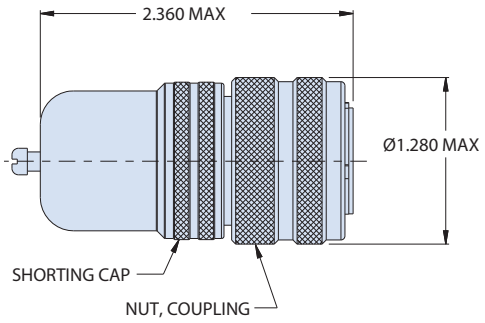


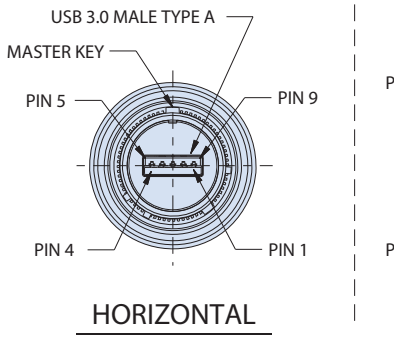

VERTICAL



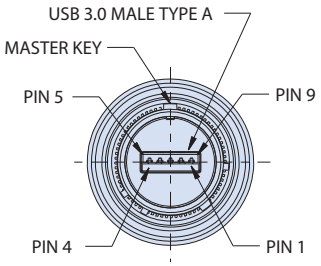

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

| Part Number Development | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-392** | **NF** | **32** | **15** | **-N** | **H** | **P** |
| **Series / Basic Part No.** | **233-392** | | | | | | |
| **Material/Finish** | **NF** = Aluminum/cadmium olive drab<br>**ME** = Aluminum/electroless nickel<br>**MT** = Aluminum/nickel PTFE<br>**ZR** = Aluminum/zinc-nickel | | | | | | |
| **Storage Capacity Options** | **32** = 32 GB, **64** = 64 GB,<br>**128** = 128 GB, **256** = 256 GB | | | | | | |
| **Shell Size** | **15** | | | | | | |
| **Alternate Polarization** | **A**, **B**, **C**, **D**, **E**, **N** = Normal; Per MIL-DTL-38999 | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | |
| **Protective Cover Option** | **P** = Series 660-023 cover; Omit for none | | | | | | |

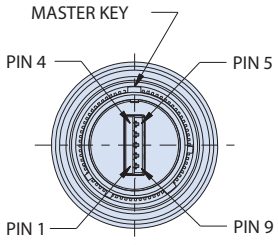



HORIZONTAL




HORIZONTAL




VERTICAL

| Table II | | |
|---|---|---|
| Read / Write Performance | | |
| Capacity | Read (Mb/S) | Write (Mb/S) |
| 32 GB | 190 | 45 |
| 64 GB | 190 | 95 |
| 128 GB | 195 | 95 |
| 256 GB | 180 | 130 |

## NOTES

1. Contact factory for details of protective cover options.
2. This connector is designed to mate with Glenair part numbers 233-350,-352,-353,-354 &-355.
3. USB flash memory specifications:
   - Storage capacity - 32 GB, 64 GB, 128 GB, 256 GB (consult factory for other capacity options)
   - System requirements - windows 2000, xp, vista, windows 7.
   - Compatibility - plug and play; USB 3.0 compliance; backward compatible with USB 2.0.
   - Interface - USB 3.0, Type a male.
   - Data transfer rates - see table II
   - Password protection and AES encryption.
   - Environmental parameters:
     - » Operating temperatures - -40°c to 85°c
     - » Storage temperatures - -40°c to 85°c
     - » Humidity range operating - 10% to 95%.
4. Material/finishes:
   - Barrel, coupling nut - see part number development
   - Insulators-high grade rigid dielectric/N.A.
   - Seal: fluorosilicone/N.A.
   - EMI grounding spring-BeCu/ electroless nickel plate.
   - Hardware: stainless steel/ passivated
5. Assembly shall be identified with Glenair's name, part number and date code, space permitting.
6. Interpret drawing per ASME Y14.5 - 2009.

C

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

Rev. 02/16/22

C

SERIES 23

# SuperSeal™

## Ruggedized USB 3.2 Gen 2 Type C connectors

38999 Type SuperSeal™ ruggedized connectors offer outstanding environmental sealing and metal-to-metal shell grounding performance for commercial USB 3.2 Gen 2 Type C interfaces in a standard 38999 type package. Connectors are IP68 rated when mated and IP67 rated in the unmated condition for complete system protection against water sand and dust. These rugged field connectors offer military-grade harsh-environment protection for the SuperSpeed 10Gb/s and fast charging that USB 3.2 provides. The Type C interface allows smaller shell sizes to be utilized for lighter weight systems and panel real estate savings. 38999 Type SuperSeal™ USB 3.2 connectors feature polarized keys to prevent mismating and non-corrosive, conductive material and finish options. The durable SuperSeal™ insert design provides an enhanced operating temperature range, increased life cycle, and rugged vibration and shock performance. Simple plug-and-play connectivity and hot-swappable addition of external peripherals without restarting systems. Crimp, solder-cup, PC tail and cable assemblies available.

**Features:**

- **USB 3.2 Gen 2 Type C SuperSpeed 10 Gb/s**
- **Ruggedized D38999 interface with enhanced shielding and grounding**
- **Superior sealing: IP68 mated, IP67 open-face; except 'Drive-Thru' plug**
- **Military-grade vibration and shock performance**
- **Increased operating temperature range compared to commercial-grade USB connectors**



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

Rev. 11.05.21

**233-380** C-42

233-380 Receptacle Connector with USB 3.2 Gen 2 (Type C) Female-to-Female Ports

**233-382** C-45

233-382 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to PC Tail Termination

**233-384** C-48

233-384 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to Breakout Board

**233-388** C-51

233-388 'Drive-Thru' Plug provides IP68 sealing in mated condition for standard

C

| New name | Old name | Original name | SuperSpeed name | Max speed | USB TYPE | Product Lines related |
|---|---|---|---|---|---|---|
| USB 3.2 Gen 2x2 | N/A | USB 3.2 | SuperSpeed USB 20Gbps | 20Gbps | C | Versalink |
| USB 3.2 Gen 2 | USB 3.1 Gen 2 | USB 3.1 | SuperSpeed USB 10Gbps | 10Gbps | C | Versalink, 233-380, 233-382, 233-384, 233-388 |
| USB 3.2 Gen 1 | USB 3.1 Gen 1 | USB 3.0 | SuperSpeed USB | 5Gbps | A | 253-045, 253-044, El-Ochito Blue, Versalink, 233-350, 233-352, 233-354, El-Ochito Mighty Mouse, Speed Master, High Speed Micro-D, Superfly (882-00/010) |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

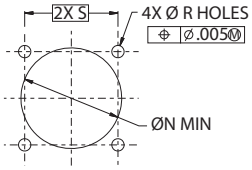
# MIL-DTL-38999 Series III Type Connectors

## 233-380 Receptacle Connector with USB 3.2 Gen 2 (Type C) Female-to-Female Ports

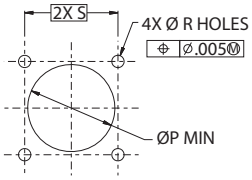
*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

| Material and Finish | | |
|---|---|---|
| **Sym.** | **Material** | **Finish Description** |
| NF | aluminum | cadmium, olive drab |
| ME | | electroless nickel (96 hour salt spray) |
| ZR | | zinc nickel, black (tri-valent chromium) RoHS compliant |
| XM | composite | electroless nickel |
| Z1 | SST | passivate |
| AB | marine bronze | none (clean only) |
| Consult factory for other options | | |

Back panel mounting

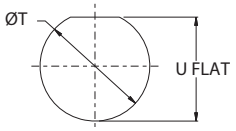



Recommended mounting holes panel thickness .288 max (See panel cutout and wall mount dimensions)




FRONT PANEL MOUNTING

Recommended panel cut out for jam-nut receptacle




## 233-380 Glenair SuperSeal™ USB 3.2 Female to Female Coupler

SuperSeal USB 3.2 connectors are IP67 open face rated and offer complete protection from environmental debris and water ingress common under harsh environ mental conditions. Design meets USB 3.2 Gen 2 (Type C) benchmark data transfer rate requirements for read and write performance requirements.

| Part Number Development | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-380** | **NF** | **00** | **-11** | **N** | **H** |
| **Basic Number** | **233-380** | | | | | |
| **Material / Finish** | **See Material and Finish table** | | | | | |
| **Connector Style** | **00** = Receptacle, Wall Mount, with Slotted Holes<br>**D0** = Receptacle, Wall Mount, Round Holes<br>**CM** = Receptacle, Wall Mount with Metric Clinch Nuts<br>**CS** = Receptacle, Wall Mount, with Standard Clinch Nuts<br>**07** = Receptacle, Jam-Nut<br>**05** = Recetpacle, Inline | | | | | |
| **Shell Size** | **11, 13** | | | | | |
| **Alternate Polarization** | **A, B, C, D, E, N** = Normal | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | |

| Wall Mount Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| **SHELL SIZE** | **A THREAD** | **B SQ** | **B' SQ** | **C BSC** | **D BSC** | **E THREAD** |
| 11 | .7500-.1P-.3L-TS-2A | 1.043 (26.49)<br>1.019 (25.88) | 1.132 (28.75)<br>1.092 (27.74) | 0.812 (20.62) | 0.719 (18.26) | M15 X 1.0-6g 0.100R |
| 13 | .8750-.1P-.3L-TS-2A | 1.138 (28.91)<br>1.114 (28.30) | 1.226 (31.14)<br>1.186 (30.12) | 0.906 (23.01) | 0.812 (20.62) | M18 X 1.0-6g 0.100R |

| Jam Nut Mount & Inline Dimensions | | | | | | | |
|---|---|---|---|---|---|---|---|
| **SHELL SIZE** | **F THREAD** | **ØG** | **H** | **J FLAT** | **K THREAD** | **L THREAD** | **ØM MAX** |
| 11 | .7500-.1P-.3L-TS-2A | 1.386 (35.20)<br>1.362 (34.59) | 1.268 (32.21)<br>1.236 (31.39) | 0.755 (19.18)<br>0.745 (18.92) | M20 X 1.0-6g 0.100R | M15 X 1.0-6g 0.100R | 0.984 (24.99) |
| 13 | .8750-.1P-.3L-TS-2A | 1.512 (38.40)<br>1.488 (37.80) | 1.390 (35.31)<br>1.358 (34.49) | 0.942 (23.93)<br>0.932 (23.67) | M25 X 1.0-6g 0.100R | M18 X 1.0-6g 0.100R | 1.157 (29.39) |

| Panel Cutout & Wall Mount Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| **SHELL SIZE** | **ØN MIN** | **ØP MIN** | **R HOLES** | **S BSC** | **ØT** | **U FLAT** |
| 11 | 0.796 (20.22) | 0.625 (15.88) | 0.133 (3.38)<br>0.123 (3.12) | 0.812 (20.62) | 0.835 (21.21)<br>0.825 (20.96) | 0.771 (19.58)<br>0.761 (19.33) |
| 13 | 0.922 (23.42) | 0.750 (19.05) | | 0.906 (23.01) | 1.020 (25.91)<br>1.010 (25.65) | 0.955 (24.26)<br>0.945 (24.00) |

## NOTES

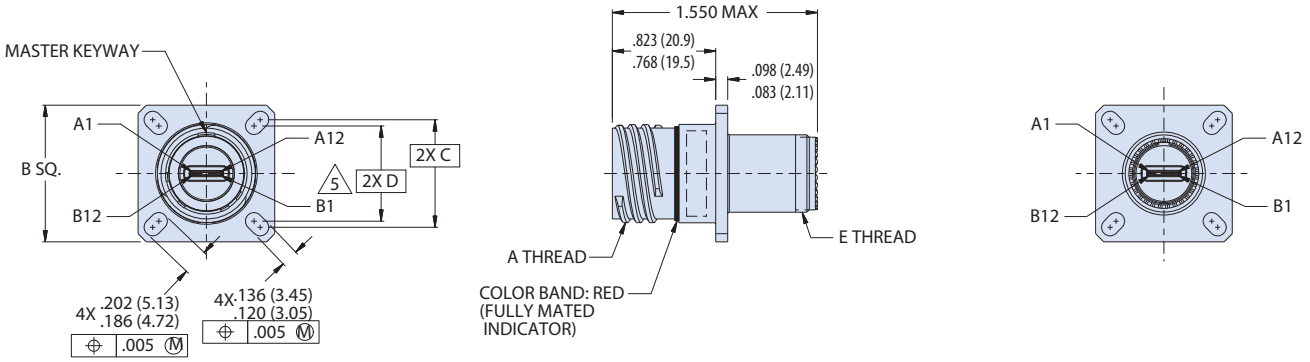
1. Meets IP67 in unmated condition, IP68 mated
2. Operating temperature: -20ºC to +85°C



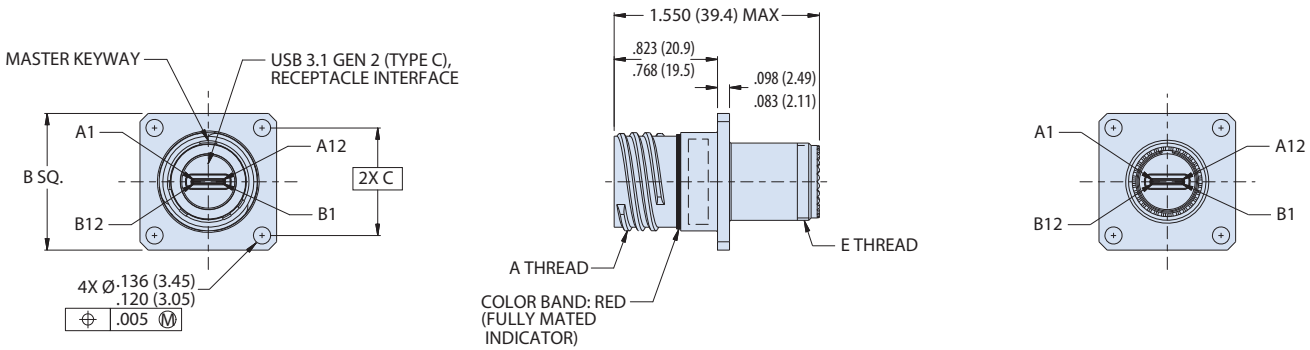
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 233-380 Receptacle Connector with USB 3.2 Gen 2 (Type C) Female-to-Female Ports

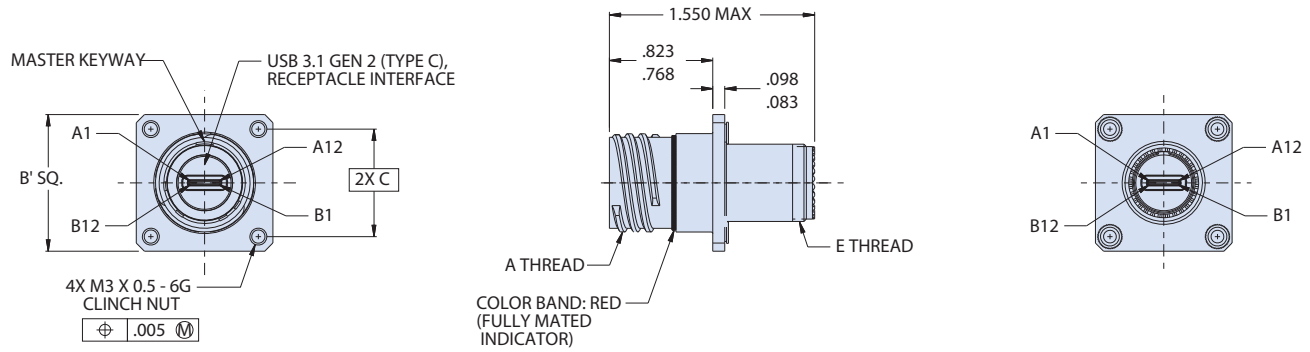
## 00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES




## D0 - WALL MOUNT RECEPTACLE WITH ROUND HOLES




## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS



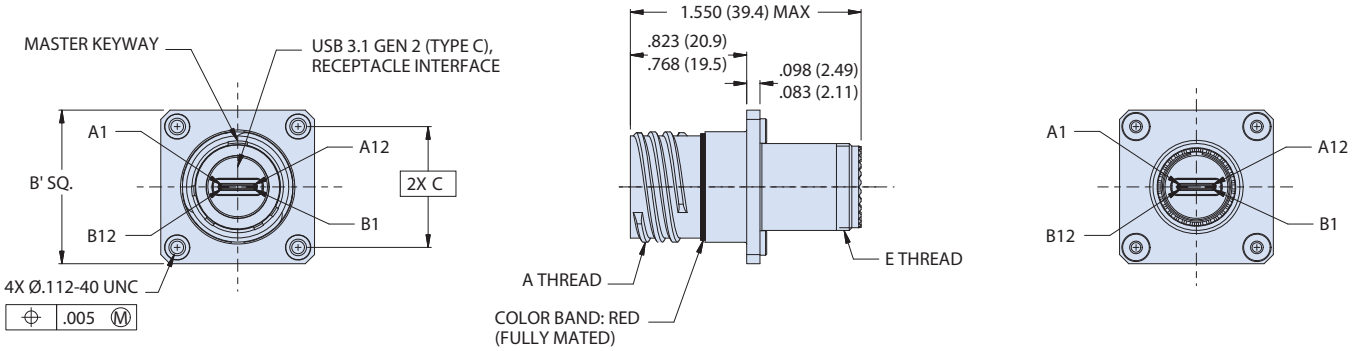

C

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

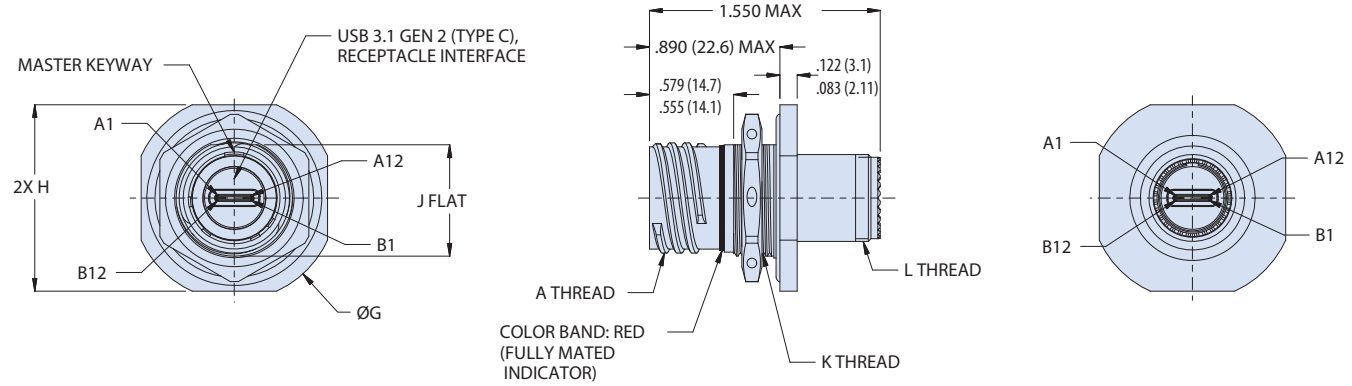


Rev. 11.05.21

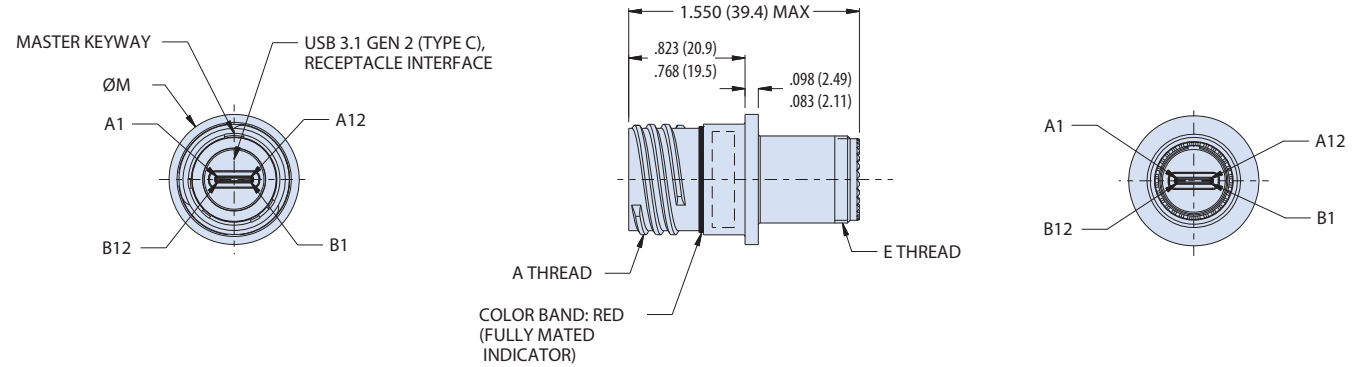
## CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS




## 07 - JAM NUT MOUNT RECEPTACLE



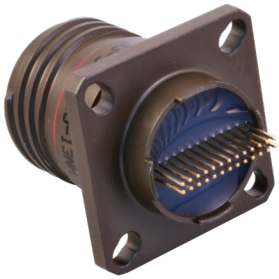

## 05 - INLINE RECEPTACLE





© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 233-382 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to PC Tail Termination

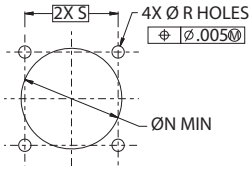


*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

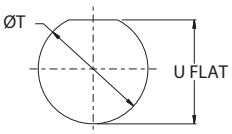
| Material and Finish | | |
|---|---|---|
| **Sym.** | **Material** | **Finish Description** |
| **NF** | aluminum | cadmium, olive drab |
| **ME** | | electroless nickel (96 hour salt spray) |
| **ZR** | | zinc nickel, black (tri-valent chromium) RoHS compliant |
| **XM** | composite | electroless nickel |
| **Z1** | SST | passivate |
| **AB** | marine bronze | none (clean only) |
| Consult factory for other options | | |

## PANEL CUTOUT DIMENSIONS

Back panel mounting




Recommended panel cut out for jam-nut receptacle




## 233-382 Glenair SuperSeal™ USB 3.2 Connector with PC Tails

SuperSeal USB 3.2 connectors are IP68 open face rated and offer complete protection from environmental debris and water ingress common under harsh environmental conditions. Design meets USB 3.2 Gen 2 (Type C) benchmark data transfer rate requirements for read and write performance requirements.

| Part Number Development | | | | | |
|---|---|---|---|---|---|
| **Sample Part Number** | **233-382** | **NF** | **00** | **-11** | **N** |
| **Basic Number** | **233-382** | | | | |
| **Material / Finish** | **See Material and Finish table** | | | | |
| **Connector Style** | **00** = Receptacle, Wall Mount, with Slotted Holes<br>**D0** = Receptacle, Wall Mount, Round Holes<br>**CM** = Recetpacle, Wall Mount with Metric Clinch Nuts<br>**CS** = Receptacle, Wall Mount, with Standdard Clinch Nuts<br>**07** = Receptacle, Jam-Nut | | | | |
| **Shell Size** | **11, 13** | | | | |
| **Alternate Polarization** | **A, B, C, D, E, N** = Normal | | | | |

| Wall Mount Dimensions | | | | | |
|---|---|---|---|---|---|
| SHELL SIZE | A THREAD | B SQ | B' SQ | C BSC | D BSC |
| 11 | .7500-.1P-.3L-TS-2A | 1.043 (26.49)<br>1.019 (25.88) | 1.132 (28.75)<br>1.092 (27.74) | 0.812 (20.62) | 0.719 (18.26) |
| 13 | .8750-.1P-.3L-TS-2A | 1.138 (28.91)<br>1.114 (28.30) | 1.226 (31.14)<br>1.186 (30.12) | 0.906 (23.01) | 0.812 (20.62) |

| Jam Nut Mount & Inline Dimensions | | | | | |
|---|---|---|---|---|---|
| SHELL SIZE | F THREAD | ØG | H | J FLAT | K THREAD |
| 11 | .7500-.1P-.3L-TS-2A | 1.386 (35.20)<br>1.362 (34.59) | 1.268 (32.21)<br>1.236 (31.39) | 0.755 (19.18)<br>0.745 (18.92) | M20 X 1.0-6g 0.100R |
| 13 | .8750-.1P-.3L-TS-2A | 1.512 (38.40)<br>1.488 (37.80) | 1.390 (35.31)<br>1.358 (34.49) | 0.942 (23.93)<br>0.932 (23.67) | M25 X 1.0-6g 0.100R |

| Panel Cutout & Wall Mount Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| SHELL SIZE | ØN MIN | ØP MIN | R HOLES | S BSC | ØT | U FLAT |
| 11 | 0.796 (20.22) | 0.625 (15.88) | 0.133 (3.38)<br>0.123 (3.12) | 0.812 (20.62) | 0.835 (21.21)<br>0.825 (20.96) | 0.771 (19.58)<br>0.761 (19.33) |
| 13 | 0.922 (23.42) | 0.750 (19.05) | | 0.906 (23.01) | 1.020 (25.91)<br>1.010 (25.65) | 0.955 (24.26)<br>0.945 (24.00) |

## NOTES

1. Meets IP67 in unmated condition, IP68 mated
2. Front panel mount only
3. Operating temperature: -20°C to +85°C



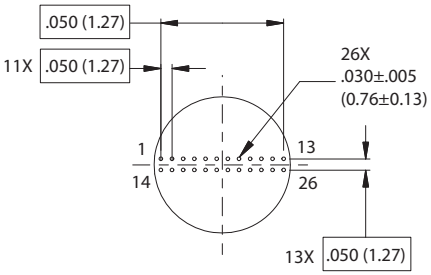
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog

Dimensions in Inches (millimeters) are subject to change without notice.

# 233-382 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to PC Tail Termination

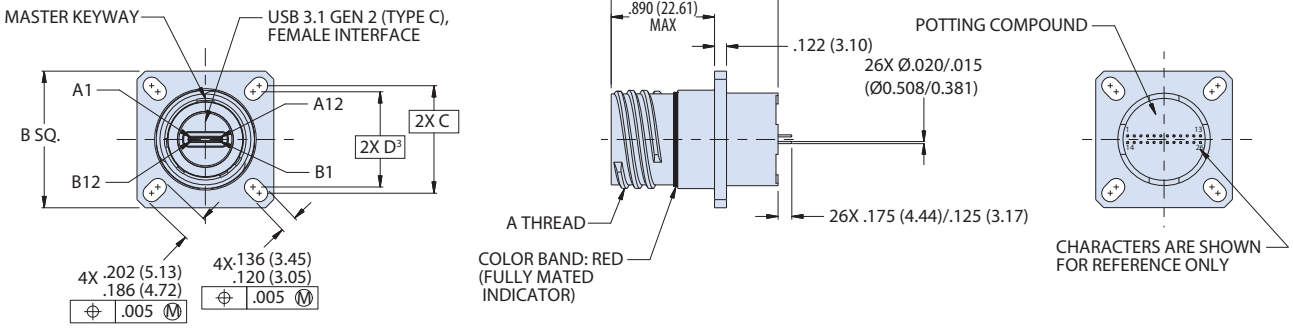
| PC TAIL PINS TO USB TYPE-C WIRING | | | | | |
|---|---|---|---|---|---|
| PC TAIL PIN | USB C PIN | NAME | PC TAIL PIN | USB C PIN | NAME |
| 1 | A4,A9,B4,B9 | VBUS | 14 | A4,A9,B4,B9 | VBUS |
| 2 | A5 | cc1 | 15 | B5 | CC2 |
| 3 | A8 | SBU1 | 16 | B8 | SBU2 |
| 4 | A11 | RX2+ | 17 | B2 | TX2+ |
| 5 | A10 | RX2- | 18 | B3 | TX2- |
| 6 | A1,A12,B1,B12 | GND | 19 | A1,A12,B1,B12 | GND |
| 7 | A7 | D- | 20 | B6 | D2+ |
| 8 | A6 | D+ | 21 | B7 | D2- |
| 9 | A1,A12,B1,B12 | GND | 22 | A1,A12,B1,B12 | GND |
| 10 | A3 | TX1- | 23 | B10 | RX1- |
| 11 | A2 | TX1+ | 24 | B11 | RX1+ |
| 12 | A1,A12,B1,B12 | GND | 25 | A1,A12,B1,B12 | GND |
| 13 | A4,A9,B4,B9 | VBUS | 26 | A4,A9,B4,B9 | VBUS |

## PCB LAYOUT (SOLDER SIDE)

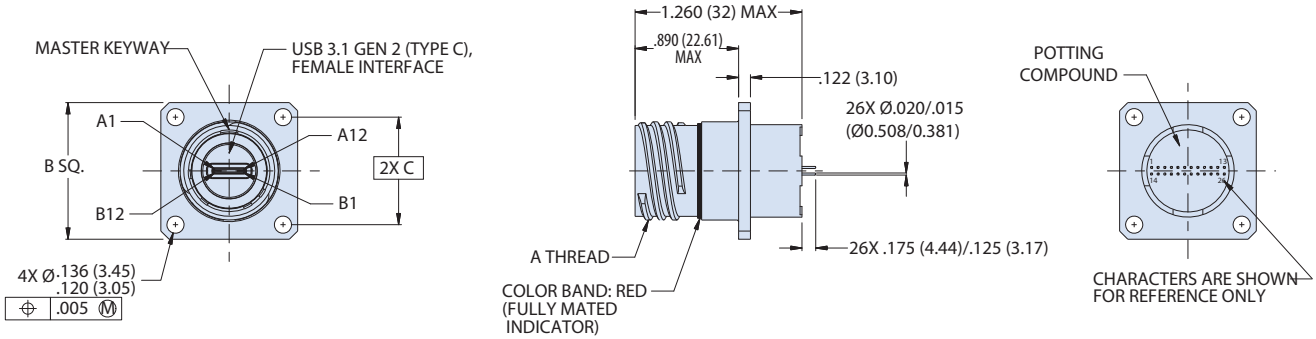



C

## 00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES




## D0 - WALL MOUNT RECEPTACLE WITH ROUND HOLES

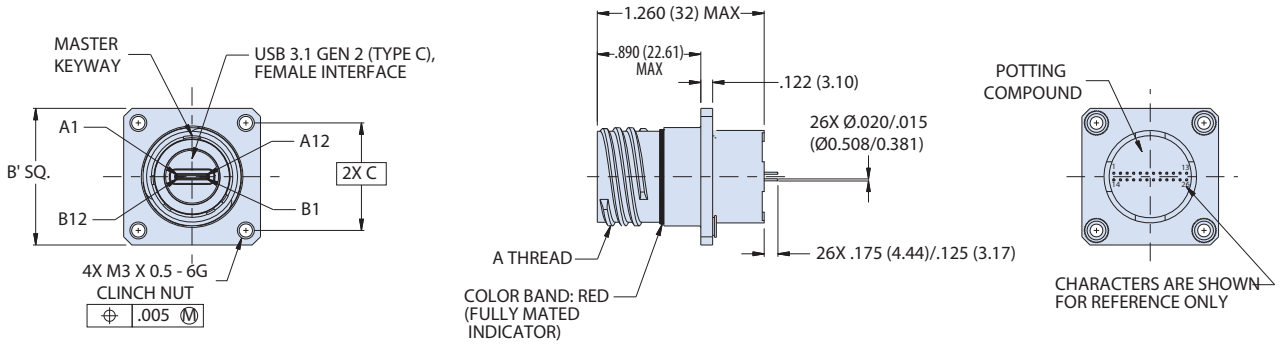




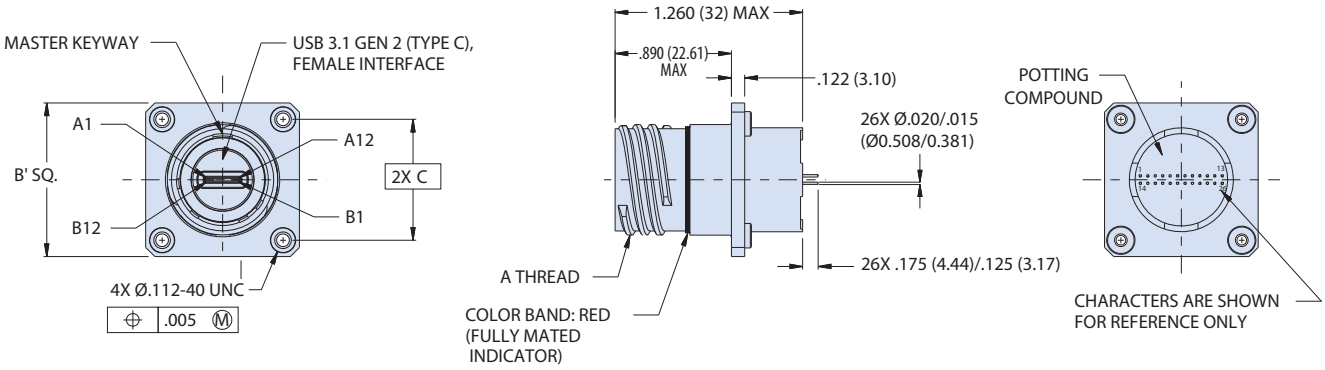
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 233-382 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to PC Tail Termination

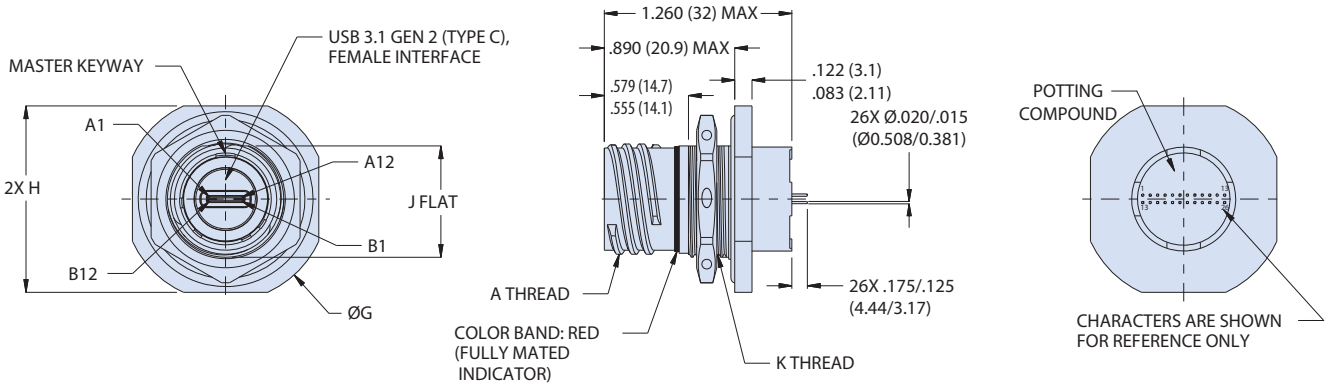
## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS




## CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS




## 07 - JAM NUT MOUNT RECEPTACLE




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog

Dimensions in Inches (millimeters) are subject to change without notice.

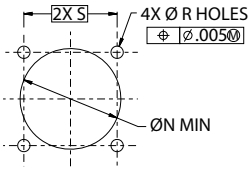
# 233-384 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to Breakout Board

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

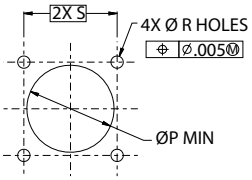
| Material and Finish | | |
|---|---|---|
| **Sym.** | **Material** | **Finish Description** |
| NF | aluminum | cadmium, olive drab |
| ME | | electroless nickel (96 hour salt spray) |
| ZR | | zinc nickel, black (tri-valent chromium) RoHS compliant |
| XM | composite | electroless nickel |
| Z1 | SST | passivate |
| AB | marine bronze | none (clean only) |
| Consult factory for other options | | |

## PANEL CUTOUT DIMENSIONS

Back panel mounting

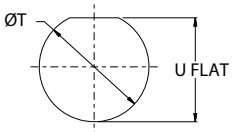



Recommended mounting holes panel thickness .288 max (See panel cutout and wall mount dimensions)




FRONT PANEL MOUNTING

Recommended panel cut out for jam-nut receptacle




## 233-384 Glenair SuperSeal™ USB 3.2 to Breakout Board

SuperSeal USB 3.2 connectors are IP67 open face rated and offer complete protection from environmental debris and water ingress common under harsh environmental conditions. Design meets USB 3.2 Gen 2 (Type C) benchmark data transfer rate requirements for read and write performance requirements.

| Part Number Development | | | | | |
|---|---|---|---|---|---|
| **Sample Part Number** | **233-384** | **NF** | **00** | **-11** | **N** |
| **Basic Number** | **233-384** | | | | |
| **Material / Finish** | **See Material and Finish table** | | | | |
| **Connector Style** | **00** = Receptacle, Wall Mount, with Slotted Holes<br>**D0** = Receptacle, Wall Mount, Round Holes<br>**CM** = Recetpacle, Wall Mount with Metric Clinch Nuts<br>**CS** = Receptacle, Wall Mount, with Standard Clinch Nuts<br>**07** = Receptacle, Jam-Nut<br>**05** = Receptacle, Inline | | | | |
| **Shell Size** | **11, 13** | | | | |
| **Alternate Polarization** | **A, B, C, D, E, N** = Normal | | | | |

| Wall Mount Dimensions | | | | | |
|---|---|---|---|---|---|
| **SHELL SIZE** | **A THREAD** | **B SQ** | **B′ SQ** | **C BSC** | **D BSC** |
| 11 | .7500-.1P-.3L-TS-2A | 1.043 (26.49)<br>1.019 (25.88) | 1.132 (28.75)<br>1.092 (27.74) | 0.812 (20.62) | 0.719 (18.26) |
| 13 | .8750-.1P-.3L-TS-2A | 1.138 (28.91)<br>1.114 (28.30) | 1.226 (31.14)<br>1.186 (30.12) | 0.906 (23.01) | 0.812 (20.62) |

| Jam Nut Mount & Inline Dimensions | | | | | |
|---|---|---|---|---|---|
| **SHELL SIZE** | **F THREAD** | **ØG** | **H** | **J FLAT** | **K THREAD** |
| 11 | .7500-.1P-.3L-TS-2A | 1.386 (35.20)<br>1.362 (34.59) | 1.268 (32.21)<br>1.236 (31.39) | 0.755 (19.18)<br>0.745 (18.92) | M20 X 1.0-6g 0.100R |
| 13 | .8750-.1P-.3L-TS-2A | 1.512 (38.40)<br>1.488 (37.80) | 1.390 (35.31)<br>1.358 (34.49) | 0.942 (23.93)<br>0.932 (23.67) | M25 X 1.0-6g 0.100R |

| Panel Cutout & Wall Mount Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| **SHELL SIZE** | **ØN MIN** | **ØP MIN** | **R HOLES** | **S BSC** | **ØT** | **U FLAT** |
| 11 | 0.796 (20.22) | 0.625 (15.88) | 0.133 (3.38)<br>0.123 (3.12) | 0.812 (20.62) | 0.835 (21.21)<br>0.825 (20.96) | 0.771 (19.58)<br>0.761 (19.33) |
| 13 | 0.922 (23.42) | 0.750 (19.05) | | 0.906 (23.01) | 1.020 (25.91)<br>1.010 (25.65) | 0.955 (24.26)<br>0.945 (24.00) |

## NOTES

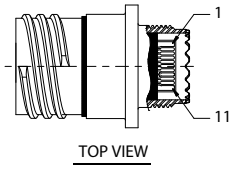
1. Meets IP67 in unmated condition, IP68 mated
2. Front panel mount only
3. Operating temperature: -20ºC to +85°C


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

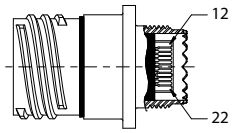
# 233-384 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to Breakout Board

| USB Type-C Wiring | | | | | |
|---|---|---|---|---|---|
| **PAD** | **PIN** NAME | **DESCRIPTION** | **PAD** | **PIN** NAME | **DESCRIPTION** |
| 1 | A1,A12 | GND | 12 | B1,B12 | GND |
| 2 | A2 | TX1+ | 13 | B2 | TX2+ |
| 3 | A3 | TX1- | 14 | B3 | TX2- |
| 4 | A4 | VBUS | 15 | B4 | VBUS |
| 5 | A5 | CC1 | 16 | B5 | CC2 |
| 6 | A6 | D+ | 17 | B6 | D+ |
| 7 | A7 | D- | 18 | B7 | D- |
| 8 | A8 | SBU1 | 19 | B8 | SBU2 |
| 9 | A9 | VBUS | 20 | B9 | VBUS |
| 10 | A10 | RX2- | 21 | B10 | RX1- |
| 11 | A11 | RX2+ | 22 | B11 | RX1+ |

## CONNECTOR PIN ASSIGNMENTS

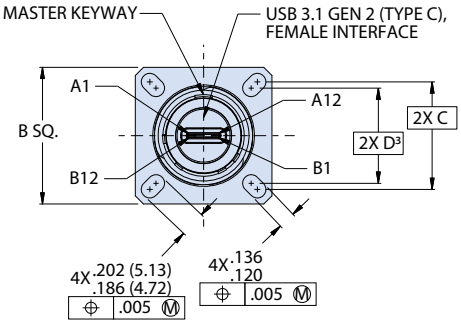


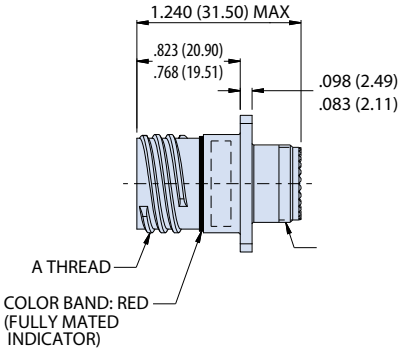
TOP VIEW

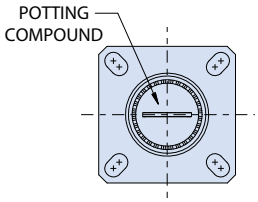


BOTTOM VIEW

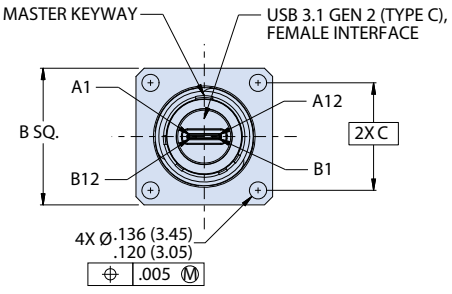
## 00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES

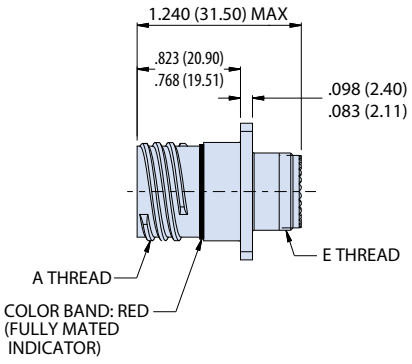


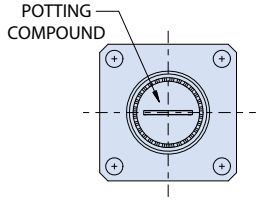




## D0 - WALL MOUNT RECEPTACLE WITH ROUND HOLES




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

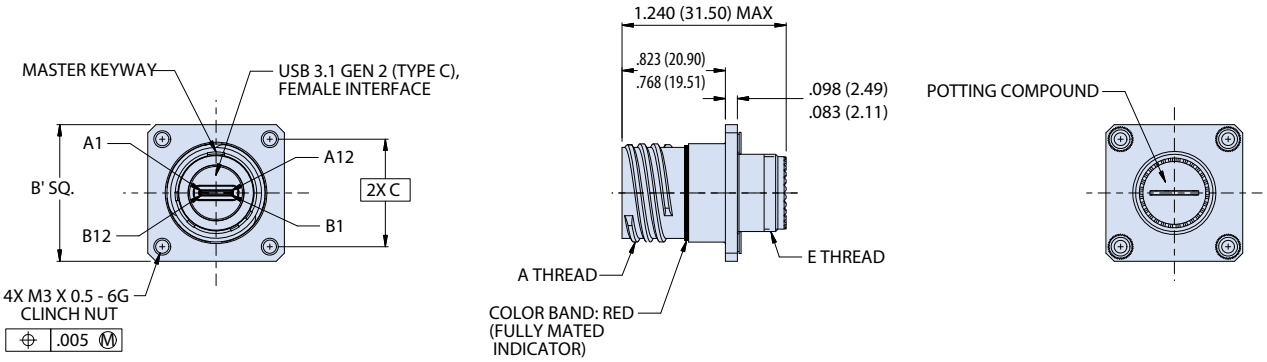


Rev. 11.05.21

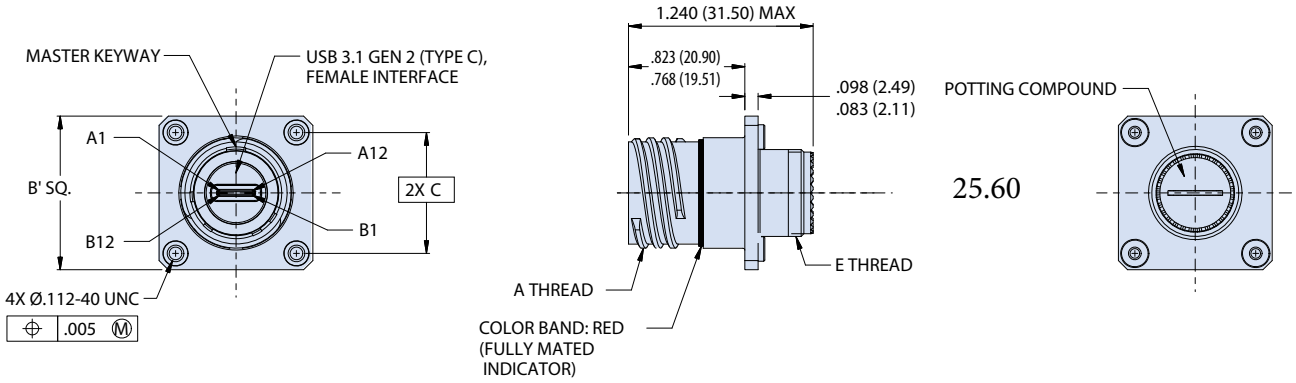
# 233-384 Receptacle Connector with Female USB 3.2 Gen 2 (Type C) Port to Breakout Board



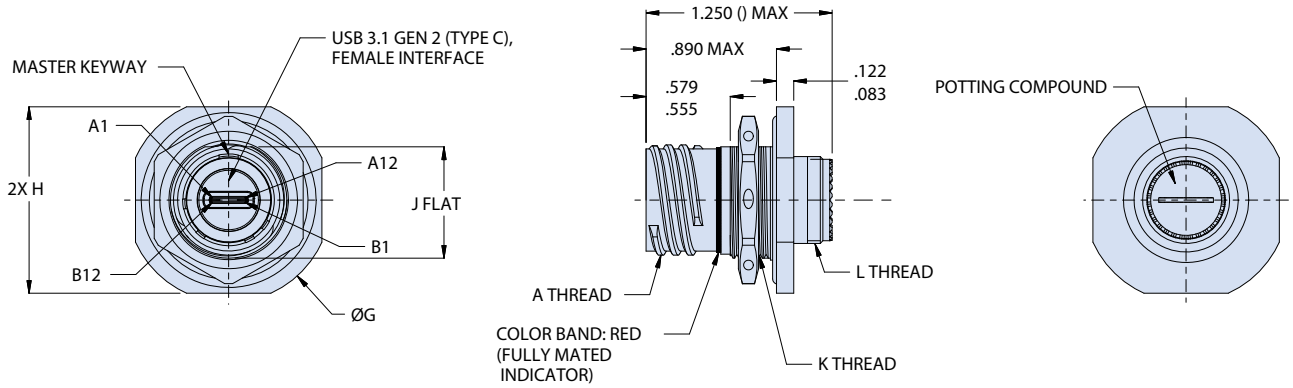
## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS




## CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS




## 07 - JAM NUT MOUNT RECEPTACLE






© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

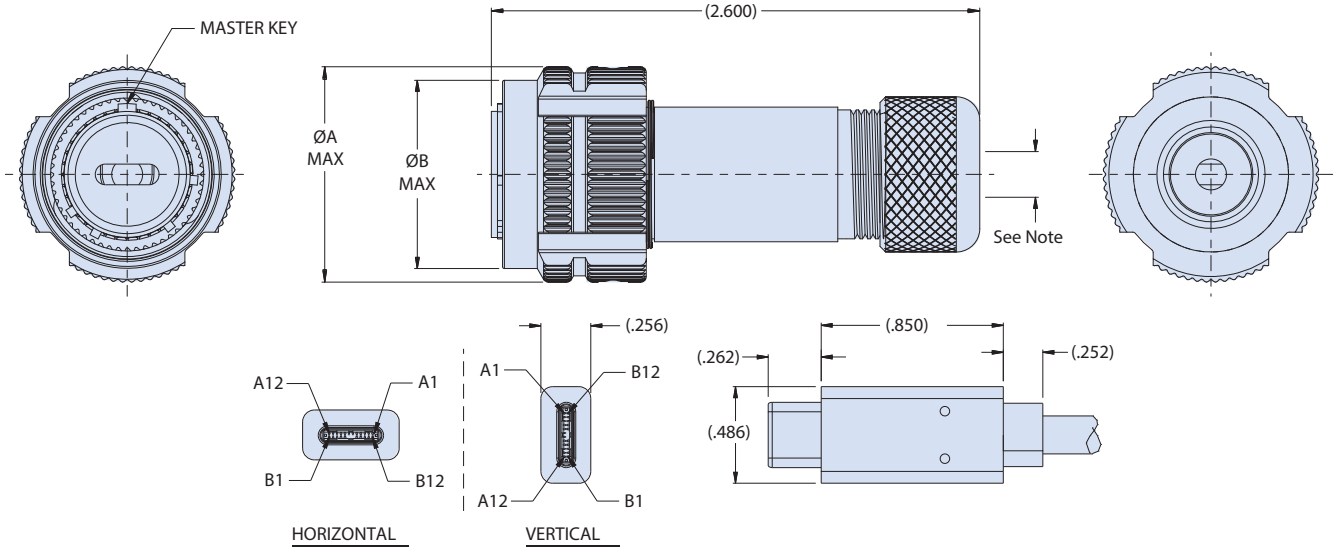
## 233-388 Drive-Thru Plug Connector with Male USB 3.2 Gen 2 (Type C) Plug

*All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.*

### 233-388 Glenair SuperSeal™ USB 3.2 Plug

SuperSeal USB 3.2 connectors are IP67 in mated condition and offer complete protection from environmental debris and water ingress common under harsh environmental conditions. Drive-thru design utilizes USB 3.2 commercially available cabled connector with nominal outside diameter of 0.189 (4.8). Meets USB 3.2 Gen 2 (Type C) benchmark data transfer rate requirements for read and write performance requirements.

| Part Number Development | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-388** | **NF** | **G6** | **-13** | **N** | **H** |
| **Basic Number** | **233-388** | | | | | |
| **Material / Finish** | **See Table I** | | | | | |
| **Connector Style** | **G6** = Plug | | | | | |
| **Shell Size** | **11, 13** | | | | | |
| **Alternate Polarization** | **A, B, C, D, E, N** = Normal | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | |




Recommended USB 3.1 Type C Plug Overmold Design

| Table I: Material and Finish | | |
|---|---|---|
| **Sym.** | **Material** | **Finish Description** |
| **NF** | Aluminum | Cadmium, Olive Drab |
| **ME** | | Electroless Nickel (96 Hour Salt Spray) |
| Consult factory for other options | | |

| Table II | | |
|---|---|---|
| **SHELL SIZE** | **ØA MAX** | **ØB MAX** |
| 11 | 0.984 (24.99) | 0.839 (21.31) |
| 13 | 1.157 (29.39) | 1.008 (25.60) |

### NOTES

1. IP68 in mated condition
2. Design accommodates cable outside diameter of 0.1879 (4.8) nominal
3. Operating Temperature: -40° C to +85° C

RUGGEDIZED SERIES ITS REVERSE-BAYONET RJ45 CAT 6A CONNECTOR

# SUPERSEAL™

## Harsh-environment RJ45 data transmission connectors with fast and reliable reverse-bayonet coupling for military vehicle and rail applications

***Series ITS SuperSeal™ Advantages***

- **Intermountable 5015 style reverse-bayonet connectors for heavy-duty industrial and transportation applications**
- **Reverse-bayonet coupling for fast, reliable mating in hard-to-reach locations**
- **Superior sealing—IP67 (open face) and IP68 (mated)—for complete harsh-environment protection**
- **Crimp contact termination or pigtail cables**
- **Available backshells provide strain-relief and environmental protection**
- **Integrated RJ45 plugs and jacks for Cat 5e high-speed data transmission**

Glenair®

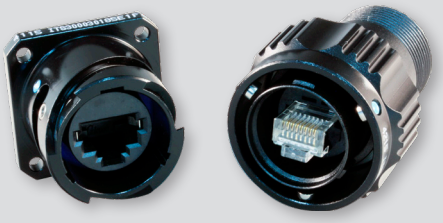
Glenair, Inc.
1211 Air Way
Glendale, CA 91201-2497
818-247-6000
sales@glenair.com
www.glenair.com

RJ45/USB SUPER SEAL™

*RJ45 CAT 5E ETHERNET*

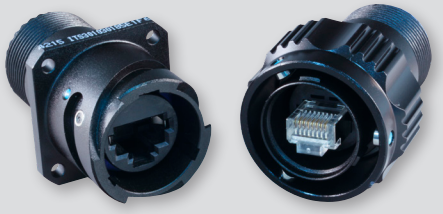
# Series ITS (5015 intermountable) Reverse Bayonet Coupling

## Product Selection Guide



**ITS300** Page D-2

SuperSeal™ Coupler with Accessory Threads and Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle).



**ITS301** Page D-4

SuperSeal™ Connector with Accessory Threads and Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts.

**ITS302** Page D-6

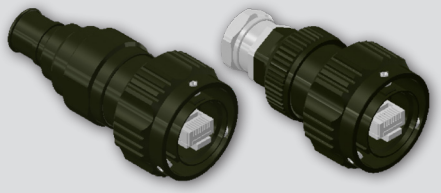
SuperSeal™ Receptacle with RJ45 Jack to PC Tail Termination.

**ITS303** Page D-8

SuperSeal™ Receptacle with RJ45 Jack to Solder Cup Termination.

**ITS330** Page D-10

SuperSeal™ Feedthrough Receptacle with Jack-to-Jack RJ45.



**ITS300H** Page D-11

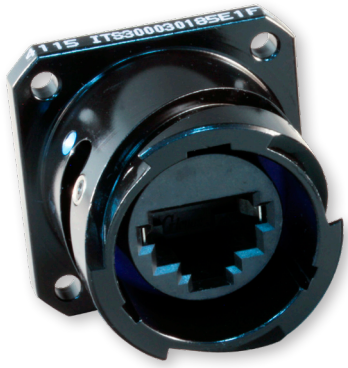
SuperSeal™ RJ45 Connector and Backshell with Accessory Options.

D

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

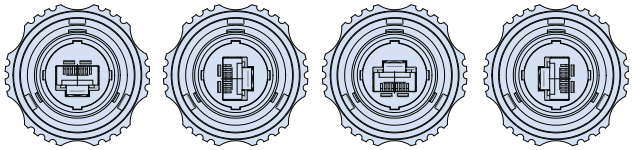
# Series ITS (5015 type) Reverse-Bayonet

## ITS300 Coupler with Accessory Threads and Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)



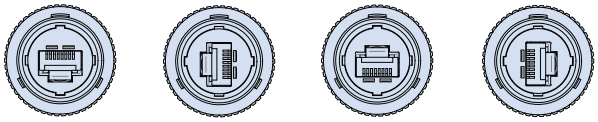
| How to Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS300** | **030** | **G** | **18** | **5E** | **1** | **F7** |
| **Basic Number** | **ITS300** | | | | | | |
| **Connector Style**[1] | **030** = Rear Panel Mount Square Flange Receptacle<br>**01** = InLine Receptacle<br>**070** = Rear Panel Mount Jam Nut Receptacle<br>**06** = Straight Plug Connector | | | | | | |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell; available for receptacle only (for use with shielded cable)<br>**Omit** = for none | | | | | | |
| **Shell Size** | **18** | | | | | | |
| **RJ45 Category** | **5E** = Cat 5E<br>For Cat 6A applications consult factory | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3** or **4** | | | | | | |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel | | | | | | |

### RJ45 Orientation Options



Code 1 Code 2 Code 3 Code 4

**Plug**

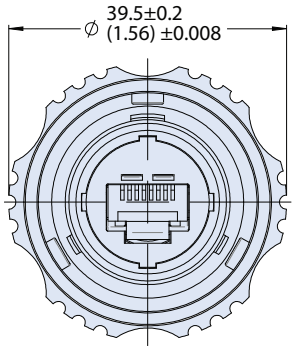


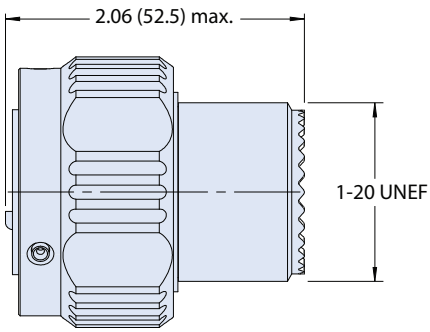
**Receptacle**
(In-Line Shown)

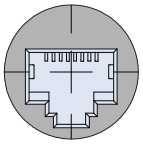
### NOTES

1. See Section A for panel cutout dimensions
2. Plugs are plug/jack and receptacles are jack/jack

### 06 - PLUG WITH ACCESSORY THREADS



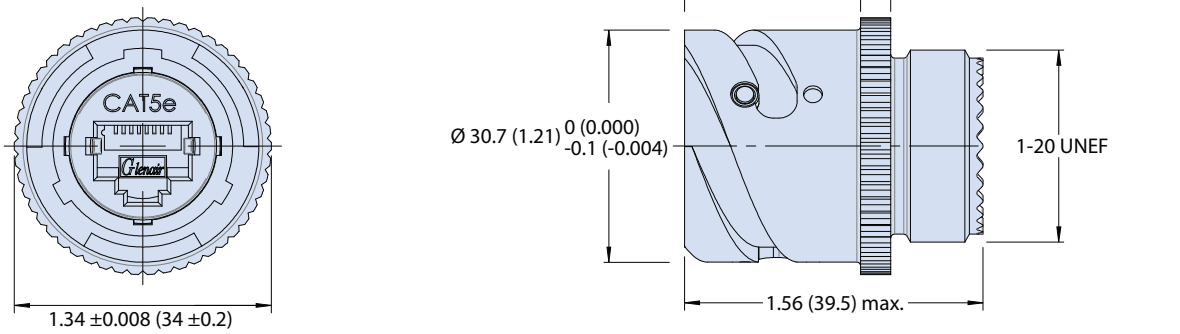



Rear Connector View with RJ45 Jack (Applies to all connector styles)

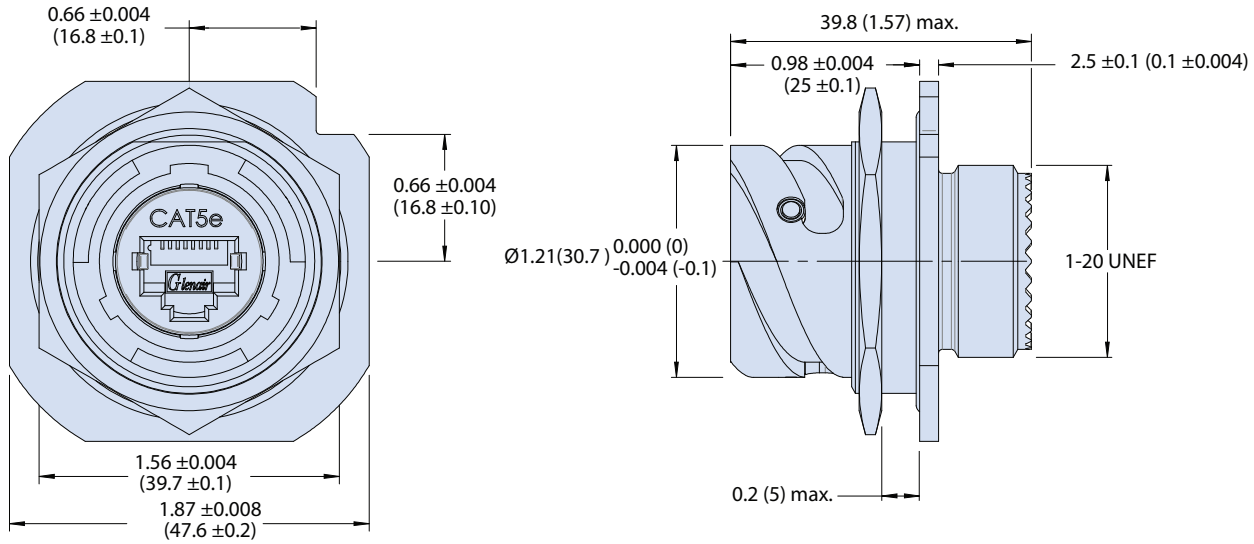


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

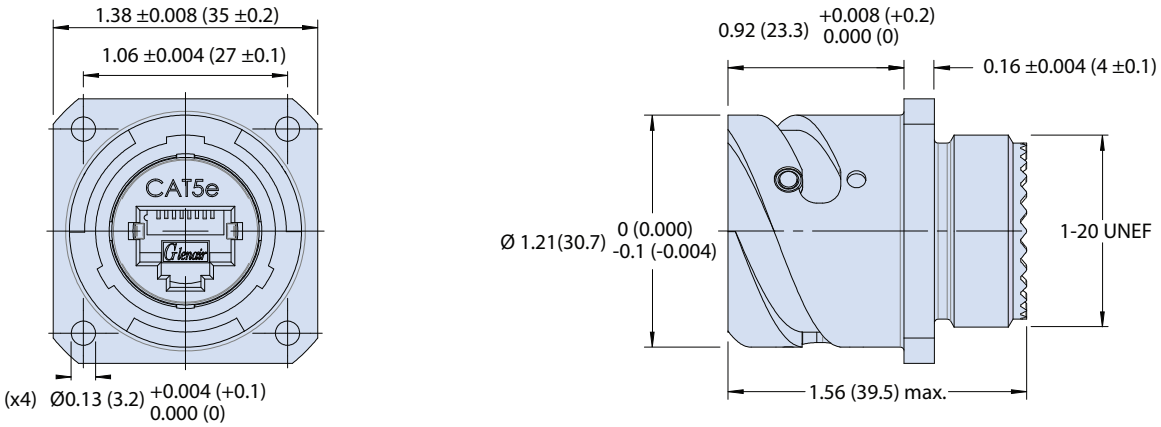
## 01 - INLINE RECEPTACLE WITH ACCESSORY THREADS




## 070 - REAR PANEL MOUNT JAM NUT RECEPTACLE WITH ACCESSORY THREADS




## 030 - REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE WITH ACCESSORY THREADS




D

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

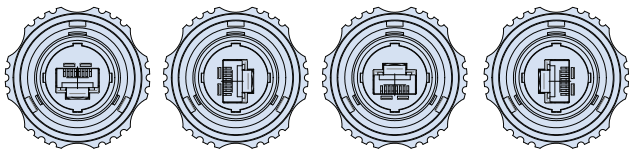
*RJ45 CAT 5E ETHERNET*

# Series ITS (5015 type) Reverse-Bayonet

## ITS301 Connector with Accessory Threads and Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts

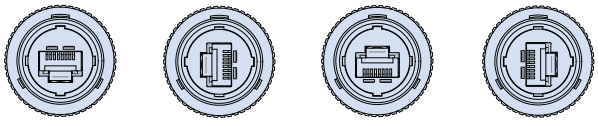
| How to Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS301** | **030** | **G** | **18** | **5E** | **1** | **F7** |
| **Basic Number** | **ITS301** | | | | | | |
| **Connector Style**[1] | **030** = Rear Panel Mount Square Flange Receptacle<br>**01** = InLine Receptacle<br>**070** = Rear Panel Mount Jam Nut Receptacle<br>**06** = Straight Plug Connector | | | | | | |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell; available for receptacle only (for use with shielded cable)<br>**Omit** = for none | | | | | | |
| **Shell Size** | **18** | | | | | | |
| **RJ45 Category** | **5E** = Cat 5E<br>For Cat 6A applications consult factory | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3** or **4** | | | | | | |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel | | | | | | |

### RJ45 Orientation Options



Code 1 Code 2 Code 3 Code 4

**Plug**

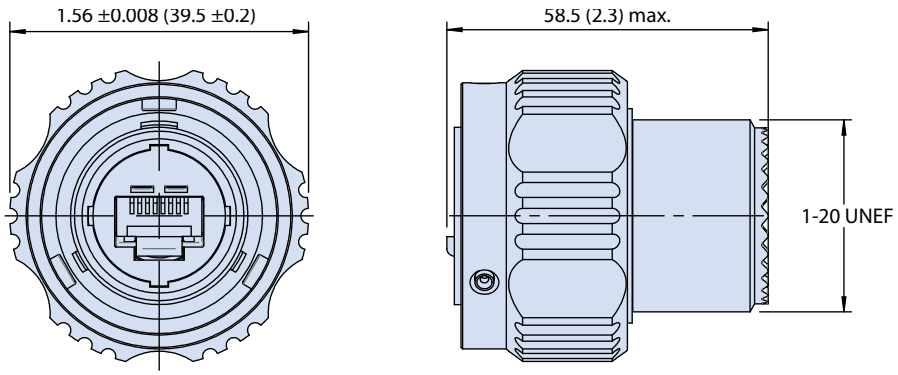


**Receptacle**
(In-Line Shown)

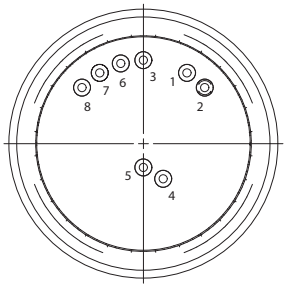
### NOTES

1. See Section A for panel cutout dimensions
2. Crimp removable size 22 contacts (M39029/58-360) supplied loose

### 06 - PLUG WITH ACCESSORY THREADS



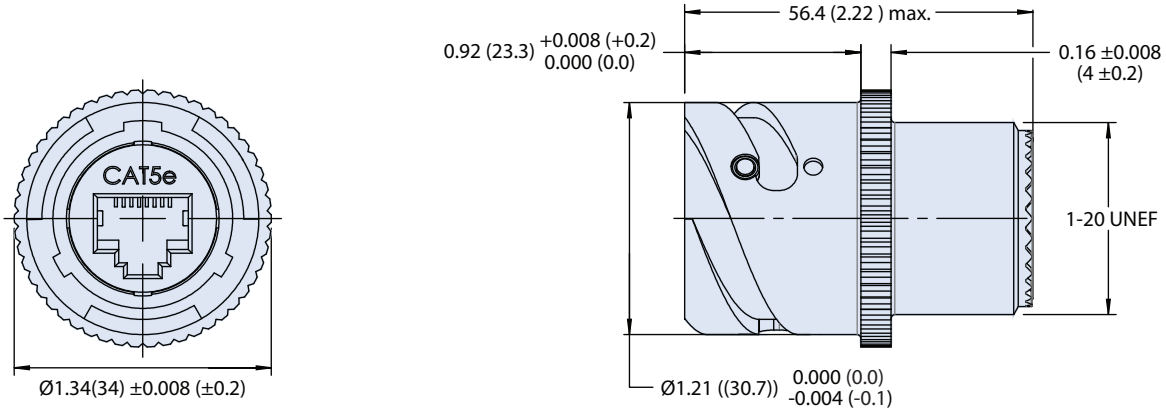

### PLUG AND RECEPTACLE REAR TERMINATION VIEW



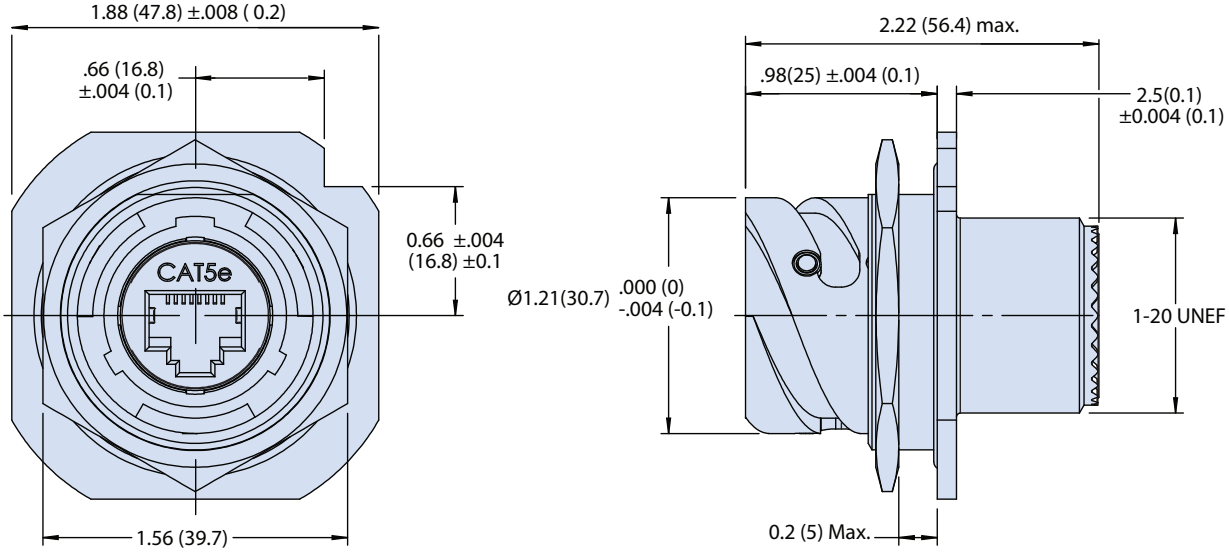



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

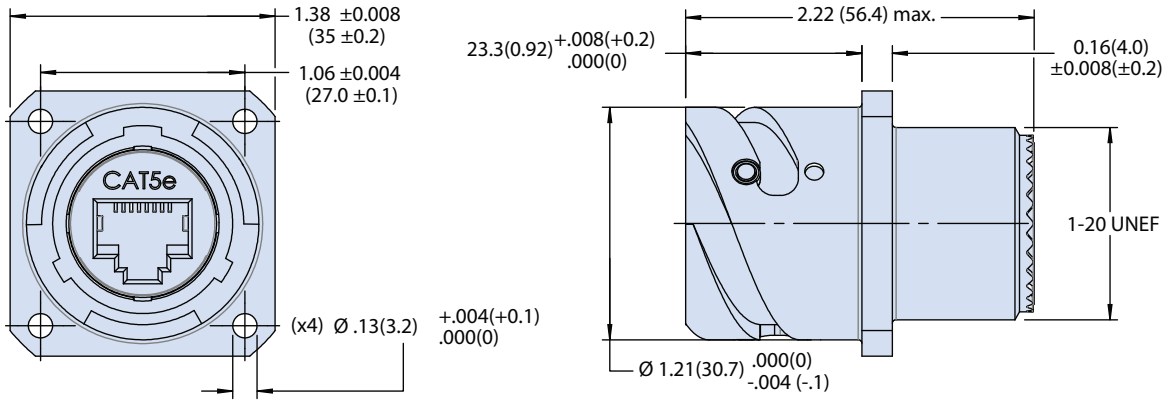
## 01 - INLINE RECEPTACLE WITH ACCESSORY THREADS




## 070 - REAR PANEL MOUNT JAM NUT RECEPTACLE WITH ACCESSORY THREADS




## 030 - REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE WITH ACCESSORY THREADS

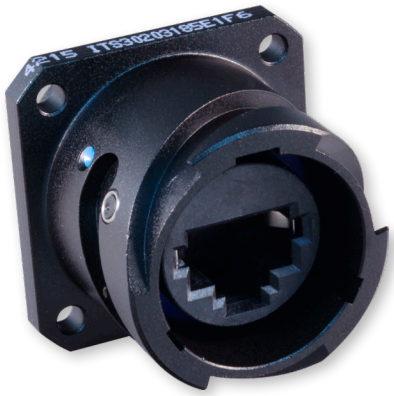



D

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series ITS (5015 type) Reverse-Bayonet

## ITS302 Receptacle with RJ45 Jack to PC Tail Termination

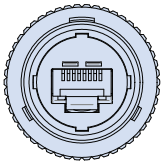


| How to Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS302** | **03** | **G** | **18** | **5E** | **1** | **F7** |

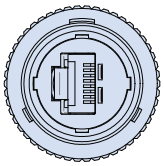
| | |
|---|---|
| **Basic Number** | **ITS302** |
| **Connector Style**[1] | **03** = Rear Panel Mount Square Flange Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell (for use with shielded cable) (Use only with G3, F11 or F7 finish)<br>**Omit** = for none |
| **Shell Size** | **18** |
| **RJ45 Category** | **5E** = Cat 5E<br>For Cat 6A applications consult factory |
| **RJ45 Orientation** | **1**, **2**, **3** or **4** |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel |

### RJ45 Orientation Options for Receptacle

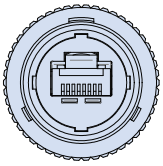
(In-line shell sytle shown for reference only, shell style not available)



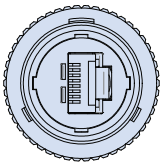
Code 1



Code 2



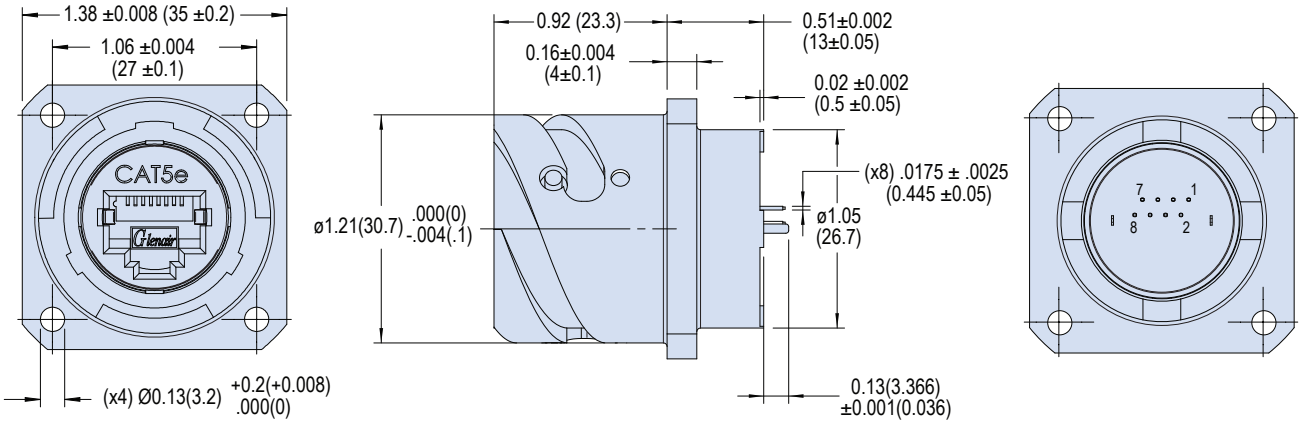
Code 3



Code 4

D

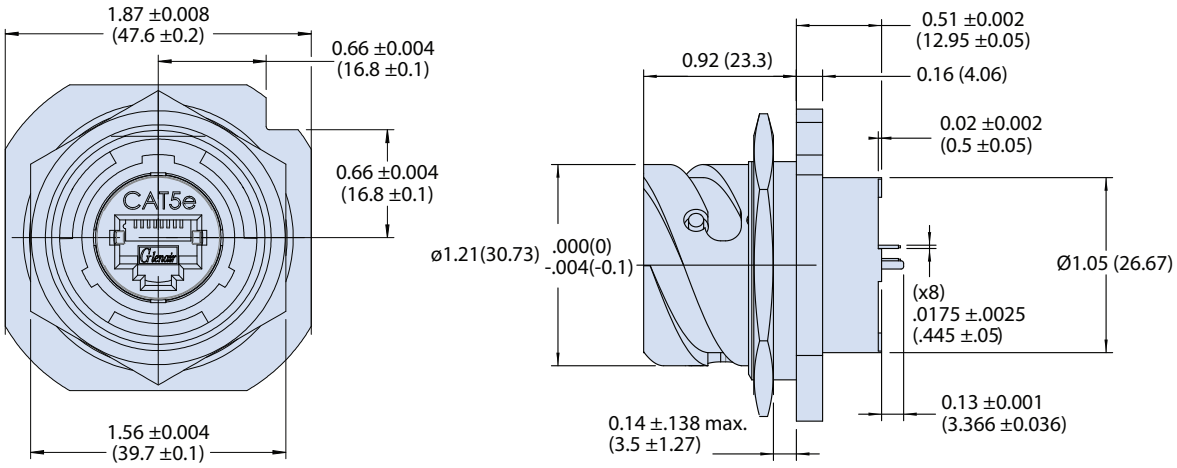
## 03 - REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE





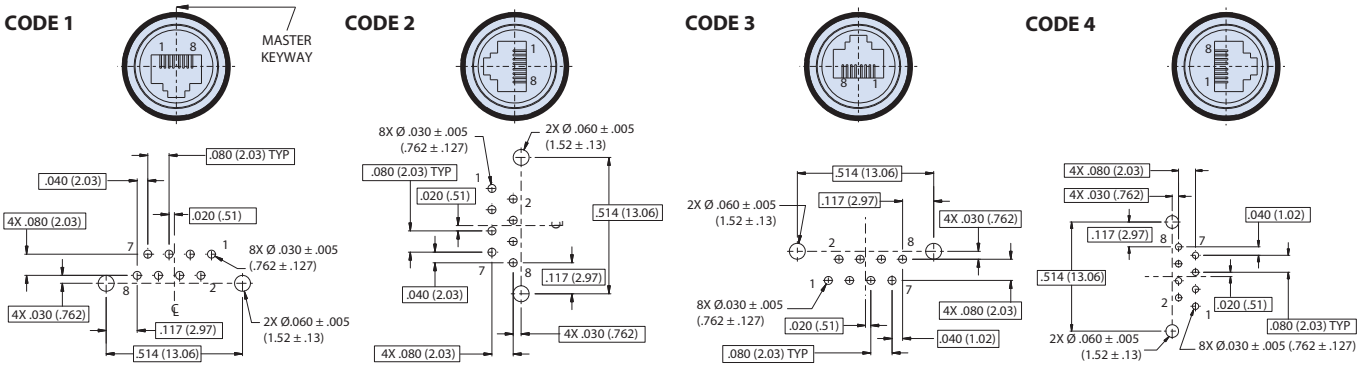

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## 07 - REAR PANEL MOUNT JAM NUT RECEPTACLE




### Receptacle RJ45 Orientation Code

Recommended PCB Layout
(Solder Side Of Board)




## NOTES

1. See Section A for panel cutout dimensions, PCB footprints

D

RJ45/USB SUPER SEAL™

*RJ45 CAT 5E ETHERNET*

# Series ITS (5015 type) Reverse-Bayonet

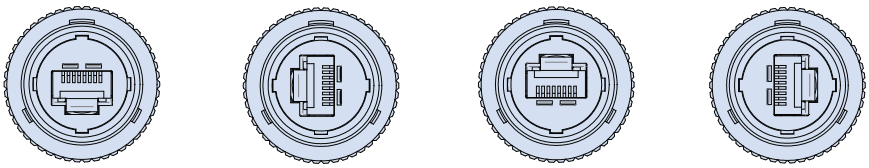
## ITS303 Receptacle with RJ45 Jack to Solder Cup Termination

Glenair

| How to Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS303** | **03** | **G** | **18** | **5E** | **1** | **F7** |
| **Basic Number** | **ITS303** | | | | | | |
| **Connector Style**[1] | **03** = Rear Panel Mount Square Flange Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle | | | | | | |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell (for use with shielded cable) (Use only with G3, F11 or F7 finish)<br>**Omit** = for none | | | | | | |
| **Shell Size** | **18** | | | | | | |
| **RJ45 Category** | **5E** = Cat 5E<br>For Cat 6A applications consult factory | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3** or **4** | | | | | | |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel | | | | | | |

### RJ45 Orientation Options for Receptacle

(In-line shell sytle shown for reference only, shell style not available)



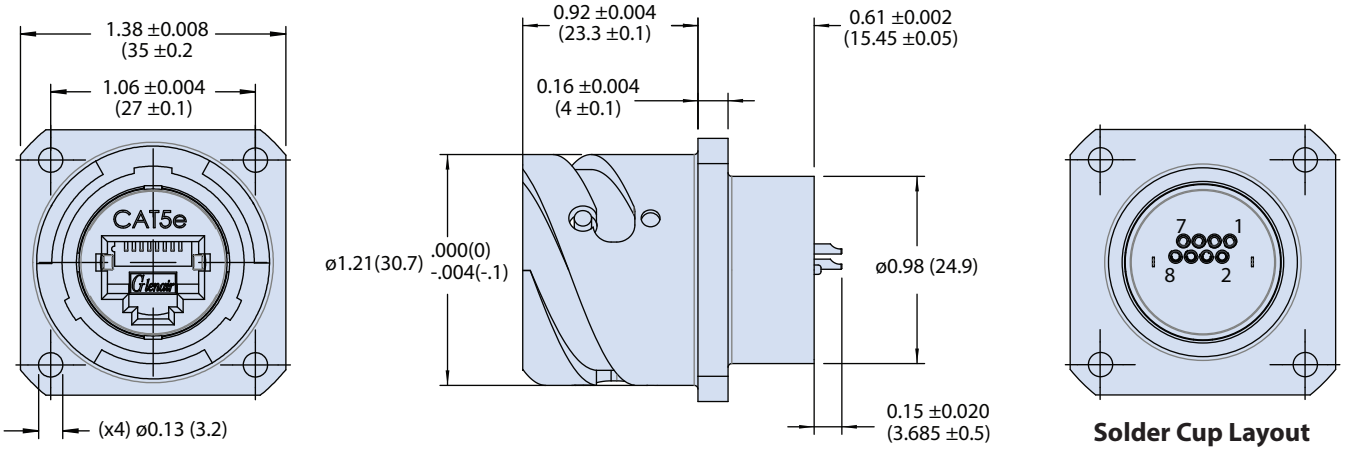
Code 1 Code 2 Code 3 Code 4

### NOTES

1. See Section A for panel cutout dimensions

D

### 03 - REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE

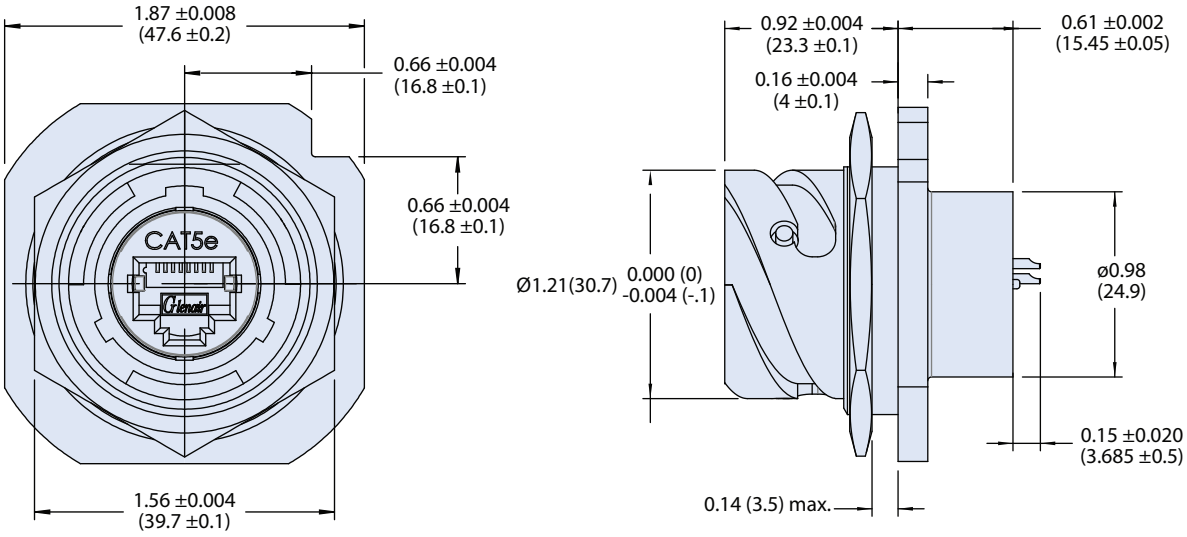



**Solder Cup Layout**



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## 07 - REAR PANEL MOUNT JAM NUT RECEPTACLE




D

# Series ITS (5015 type) Reverse-Bayonet

## ITS330 Feedthrough Receptacle with Jack-to-Jack RJ45

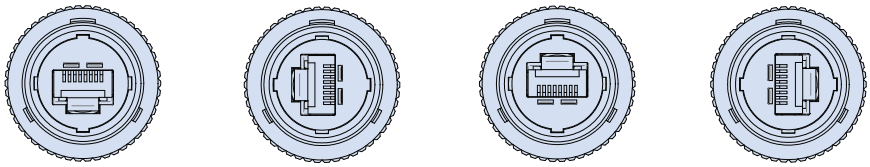
| How to Order | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS330** | **03PP** | **18** | **5E** | **1** | **F7** |
| **Basic Number** | **ITS330** | | | | | |
| **Connector Style**[1] | **03PP** = Rear Panel Mount Receptacle | | | | | |
| **Shell Size** | **18** | | | | | |
| **RJ45 Category** | **5E** = Cat 5E<br>For Cat 6A applications consult factory | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3** or **4** | | | | | |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel | | | | | |

### NOTES

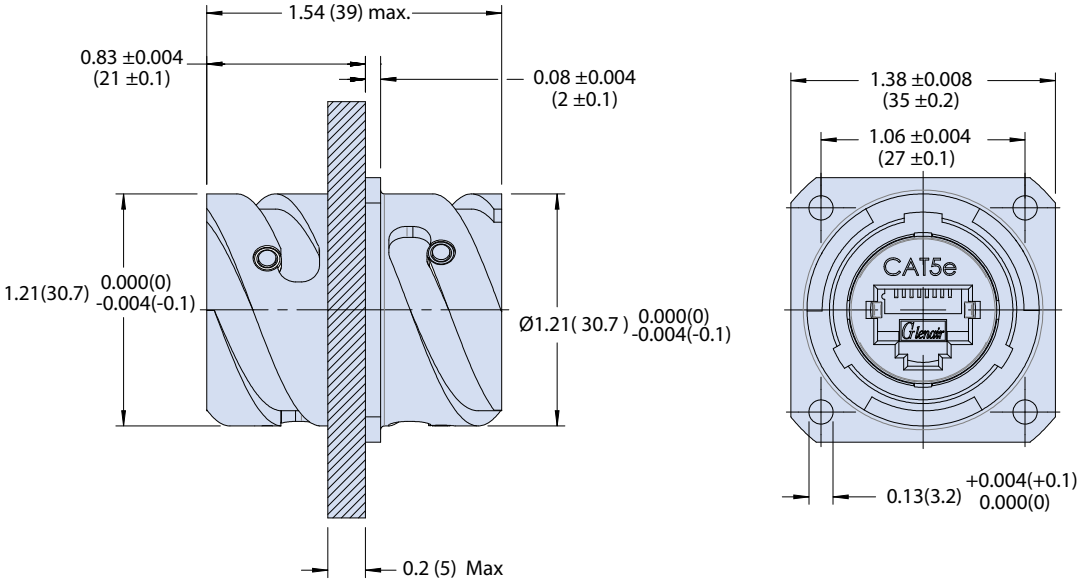
1. See Section A panel cutout dimensions and complete material and finish options

### RJ45 Orientation Options for Receptacle

(In-line shell sytle shown for reference only, shell style not available)



Code 1 Code 2 Code 3 Code 4




D

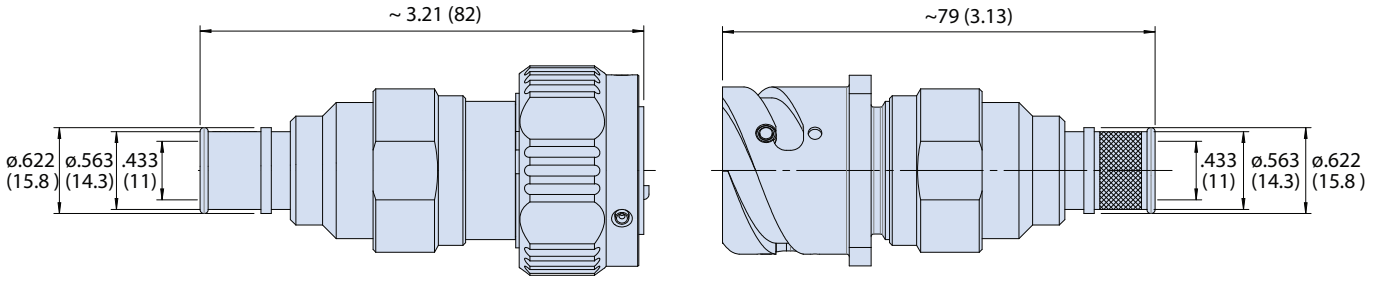


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series ITS (5015 type) Reverse-Bayonet

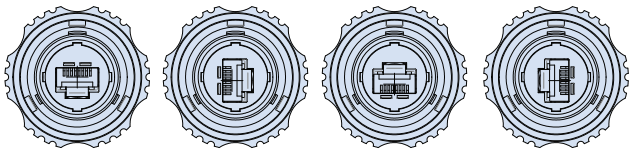
## ITS300H Connector and Backshell with Banding Porch and Shrink Boot Groove

| How to Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | | **ITS300H** | **030** | **G** | **18** | **5E** | **1** | **ZL** | **F7** |
| **Basic Number** | **ITS300H** | | | | | | | | |
| **Connector Style** | **030** = Rear Panel Mount Square Flange Receptacle<br>**01** = InLine Receptacle<br>**070** = Rear Panel Mount Jam Nut Receptacle<br>**06** = Straight Plug Connector | | | | | | | | |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell<br>(for use with shielded cable)<br>(Use only with G3, F11 or F7 finish)<br>**Omit** = for none | | | | | | | | |
| **Shell Size** | **18** | | | | | | | | |
| **RJ45 Category** | **5E** = Cat 5E<br>For Cat 6A applications consult factory | | | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3** or **4** | | | | | | | | |
| **Backshell** | **ZL =** With banding platform for direct attachment of cable shield and shrinkboot | | | | | | | | |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel | | | | | | | | |



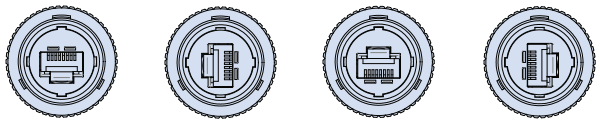

Plug and Receptacle without Pigtail

### RJ45 Plug Orientation Options



Code 1 Code 2 Code 3 Code 4

### RJ45 Receptacle Orientation Options



Code 1 Code 2 Code 3 Code 4

### HEAT SHRINK BOOT

Glenair P/N : **770-004S903W2**

**Must be ordered separately**

Type 9 flexible polyolefin short profile boots have an operating temperature range of -40°C to 100°C and provide very good resistance to fuels, oils and solvents. These boots fit most standard boot adapters for circular connectors and are specifically designed for low temperature rated CAT5e and USB cables.

### NOTES

1. See Section A panel cutout dimensions

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

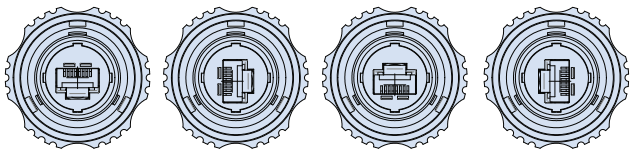
# Series ITS (5015 type) Reverse-Bayonet

## ITS300H Connector and Backshell with Pigtail

| How to Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS300H** | **030** | **G** | **18** | **5E** | **1** | **ZL** | **0.5** | **F7** |

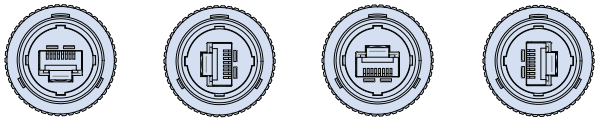
| | |
|---|---|
| **Basic Number** | **ITS300H** |
| **Connector Style**[1] | **030** = Rear Panel Mount Square Flange Receptacle<br>**01** = InLine Receptacle<br>**070** = Rear Panel Mount Jam Nut Receptacle<br>**06** = Straight Plug Connector |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell; available for receptacle only (for use with shielded cable)<br>**Omit** = for none |
| **Shell Size** | **18** |
| **Cable Category** | **5E** = Cat 5E<br>For Cat 6A applications consult factory |
| **RJ45 Orientation** | **1**, **2**, **3** or **4** |
| **Backshell** | **ZL** = With banding platform for direct attachment of cable shield and shrinkboot pre-installed |
| **Cable Length** | **0.5** = 0.5 meter (20 inch) increments |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel |

### RJ45 Plug Orientation Options



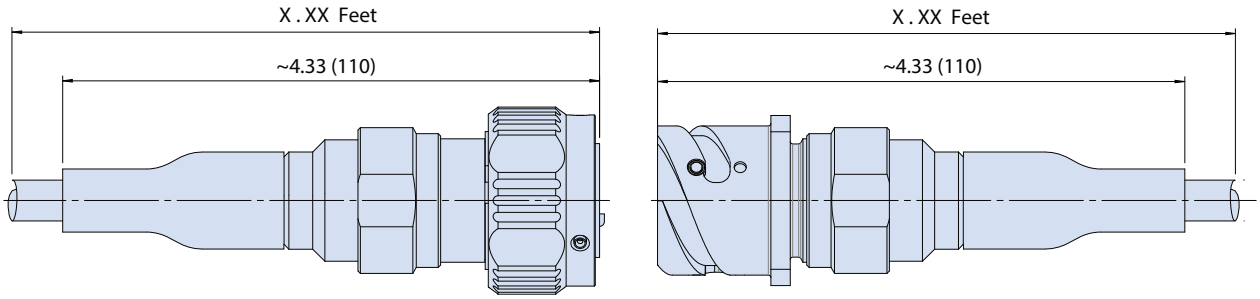
Code 1 Code 2 Code 3 Code 4

### RJ45 Receptacle Orientation Options



Code 1 Code 2 Code 3 Code 4

Plug and Receptacle with Pigtail




Cable length to be ordered in 20in (0.5 mt) increments

### NOTES

1. See Section A panel cutout dimensions



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

*RJ45 CAT 5E ETHERNET*

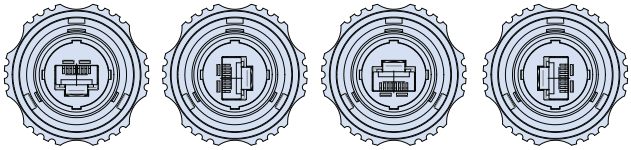
# Series ITS (5015 type) Reverse-Bayonet

## ITS300H Connector and Backshell with Cable Gland Backshell

Glenair®

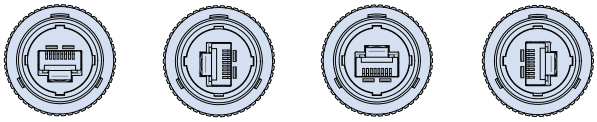
| How to Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | | **ITS300H** | **030** | **G** | **18** | **5E** | **1** | **M** | **F7** |
| **Basic Number** | **ITS300H** | | | | | | | | |
| **Connector Style**[1] | **030** = Rear Panel Mount Square Flange Receptacle<br>**01** = InLine Receptacle<br>**070** = Rear Panel Mount Jam Nut Receptacle<br>**06** = Straight Plug Connector | | | | | | | | |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell; available for receptacle only (for use with shielded cable)<br>**Omit** = for none | | | | | | | | |
| **Shell Size** | **18** | | | | | | | | |
| **RJ45 Category** | **5E** = Cat 5E<br>For Cat 6A applications consult factory | | | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3** or **4** | | | | | | | | |
| **Backshell with Internal Thread** | **M** = M16 x 1.5 **PG** = PG9 | | | | | | | | |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel | | | | | | | | |

### RJ45 Plug Orientation Options

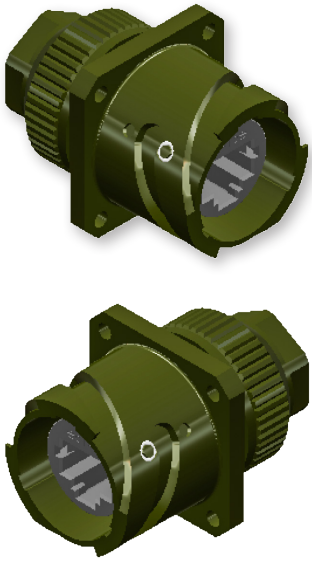


Code 1 Code 2 Code 3 Code 4

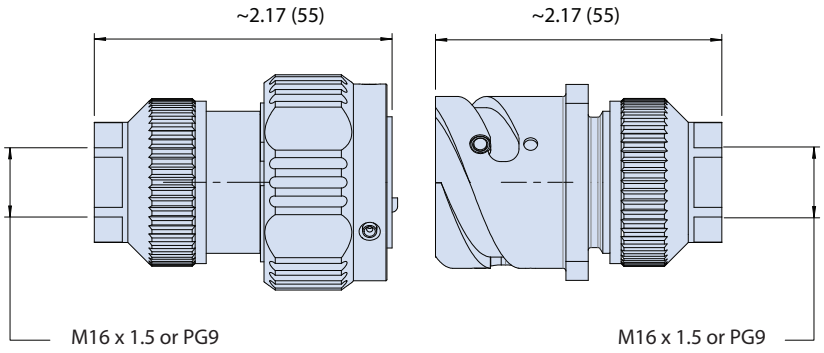
### RJ45 Receptacle Orientation Options



Code 1 Code 2 Code 3 Code 4



Plug and Receptacle internal threaded backshell without Cable Gland
(Other Backshells option are available, please consult the factory)




### NOTES

1. See Section A panel cutout dimensions

D

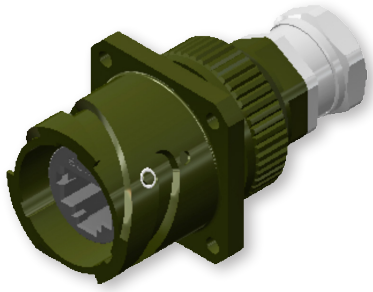
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series ITS (5015 type) Reverse-Bayonet

## ITS300H Connector and Backshell with Metallic Cable Gland with or without Pigtails

| How to Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS300H** | **030** | **G** | **18** | **5E** | **1** | **MS1** | **0.5** | **F6** |

| | |
|---|---|
| **Basic Number** | **ITS300H** |
| **Connector Style**[1] | **030** = Rear Panel Mount Square Flange Receptacle<br>**01** = InLine Receptacle<br>**070** = Rear Panel Mount Jam Nut Receptacle<br>**06** = Straight Plug Connector |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell; available for receptacle only (for use with shielded cable)<br>**Omit** = for none |
| **Shell Size** | **18** |
| **RJ45 Category** | **5E** = Cat 5E<br>For Cat 6A applications consult factory |
| **RJ45 Orientation** | **1**, **2**, **3** or **4** |
| **Metallic Cable Gland** | See Metallic Cable Gland Table |
| **Cable Length** | **0.5** = 0.5 meter (20 inch) increments<br>**Omit** for none |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel |



| Metallic Cable Gland | | |
|---|---|---|
| **Type** | **Cable Range in(mm)** | **Shield** |
| M1 | .24-.31 (6 - 8) | No |
| M2 | .31 - .40 (8 - 10) | No |
| MS1 | .24-.31 (6 - 8) | Yes |
| MS2 | .31-.40 (8 - 10) | Yes |

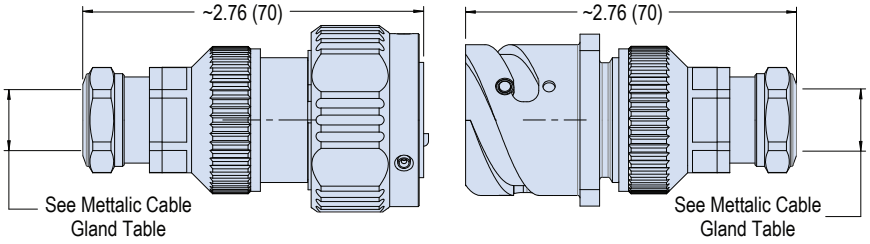
### NOTES

1. See Section A panel cutout dimensions

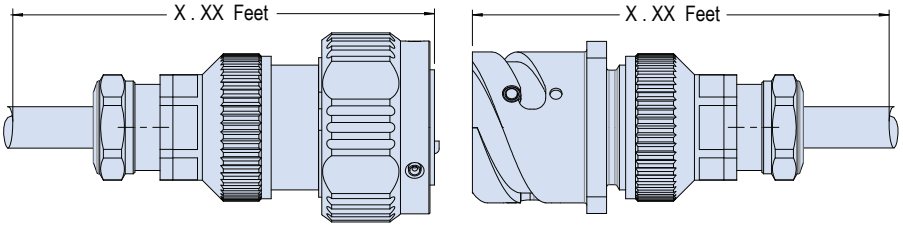


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

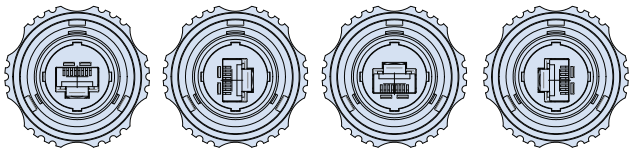
## PLUG AND RECEPTACLE WITHOUT PIGTAIL




## PLUG AND RECEPTACLE WITH PIGTAIL

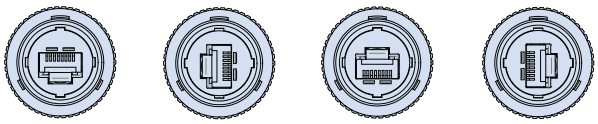



### RJ45 Plug Orientation Options



Code 1 Code 2 Code 3 Code 4

### RJ45 Receptacle Orientation Options



Code 1 Code 2 Code 3 Code 4

D

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

MIL-DTL-5015 TYPE
FIELD-READY
USB 2.0

# SUPERSEAL™

## Rugged environmental 5015 intermountable reverse bayonet connectors with IP67 sealing, robust insert-to-shell grounding, and complete range of wire, cable, and PCB terminations

***Series ITS SuperSeal™ Advantages***

- **Intermountable 5015 style reverse-bayonet connectors for heavy-duty industrial and transportation applications**
- **Superior sealing—IP67 open face and IP68 mated — for complete system protection against water, sand and dust**
- **Highly durable USB design, including enhanced operating temperature, increased life-cycle, and rugged vibration and shock performance**
- **Crimp, solder-cup, PC-tail, and wire termination options**
- **USB 2.0 plug and receptacle versions**
- **Available backshells provide strain-relief and environmental protection**

Glenair®

Glenair, Inc.
1211 Air Way
Glendale, CA 91201-2497
818-247-6000
sales@glenair.com
www.glenair.com

RJ45/USB SUPER SEAL™

*USB 2.0 TYPE A*

# Series ITS (5015 intermountable) Reverse Bayonet Coupling

## Product Selection Guide

Glenair®

**ITS340** Page E-2

SuperSeal™ Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle).

**ITS342** Page E-4

SuperSeal™ Receptacle with USB Female Interface to PC Tail Termination.

**ITS343** Page E-5

SuperSeal™ Receptacle with USB Female Interface to Solder Cup Termination.

**ITS345** Page E-6

SuperSeal™ Connectors with Accessory Threads and USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts.

**ITS370** Page E-8

SuperSeal™ Feedthrough Receptacle with USB Female-to-Female Interface.

**ITS340H** Page E-9

SuperSeal™ Connector and Backshell with Accessory Options.

E

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

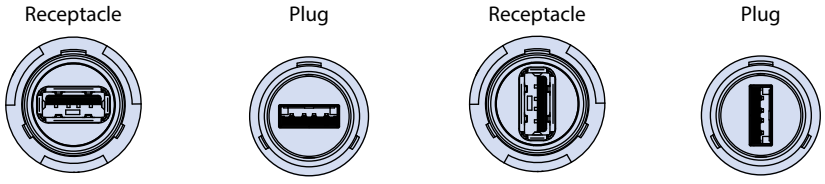
*USB 2.0 TYPE A*

# Series ITS (5015 type) Reverse-Bayonet

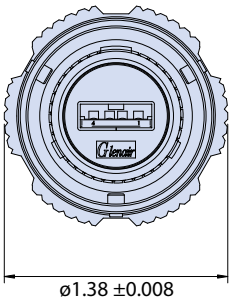
## ITS340 Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

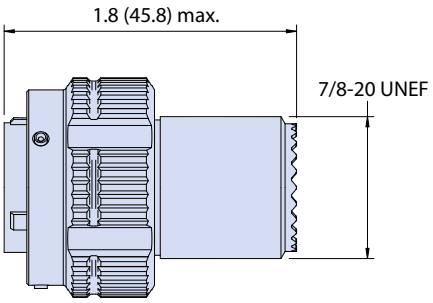
| How to Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS340** | **030** | **16** | **2** | **A** | **A** | **H** | **F6** |
| **Basic Number** | **ITS340** | | | | | | | |
| **Connector Style**[1] | **06** = Plug with Accessory Thread<br>**01** = InLine Receptacle with Accessory Thread<br>**070** = Rear Panel Mount Jam Nut Receptacle with Accessory Thread<br>**030** = Rear Panel Mount Square Flange Receptacle with Accessory Thread | | | | | | | |
| **Shell Size** | **16** | | | | | | | |
| **USB Performance** | **2** = 2.0 | | | | | | | |
| **USB Front Interface Type** | **A** = Type A | | | | | | | |
| **USB Rear Interface Type** | **A** = Type A | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel | | | | | | | |

**USB Orientation Options**




## 06 - PLUG WITH ACCESSORY THREADS




### NOTES

1. See Section A for panel cutout dimensions and finish plating options

E



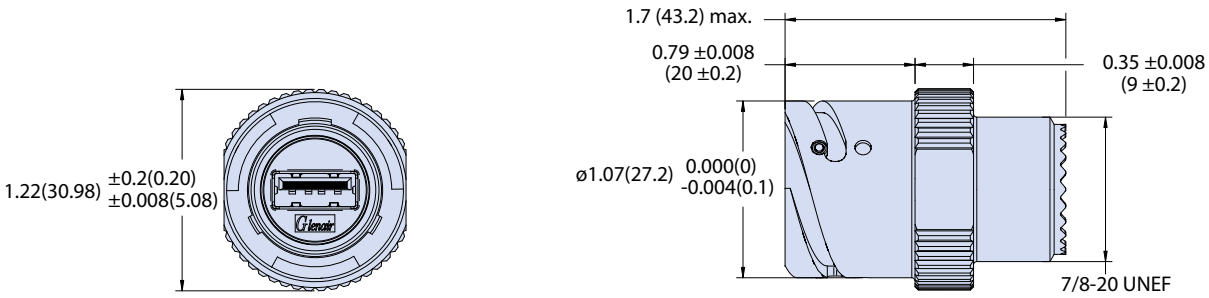
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

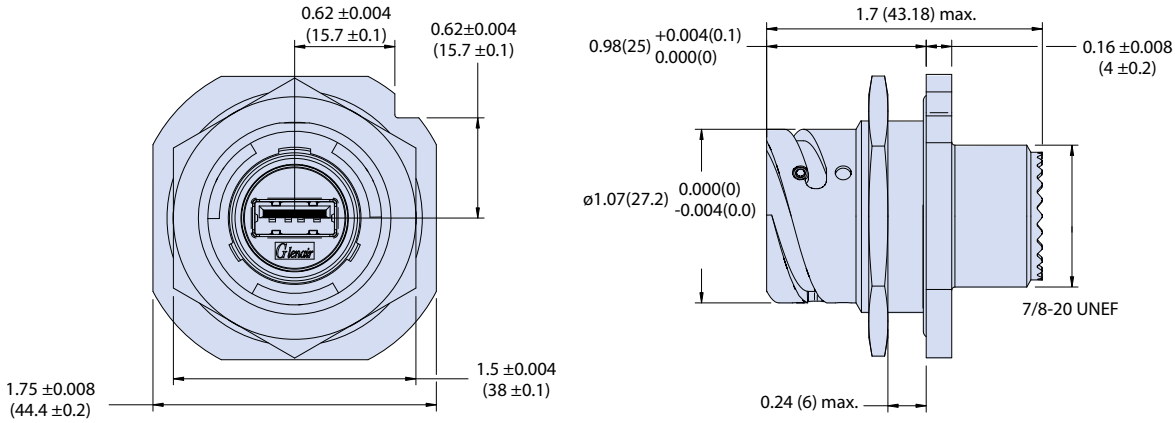
# Series ITS (5015 type) Reverse-Bayonet

## ITS340 Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

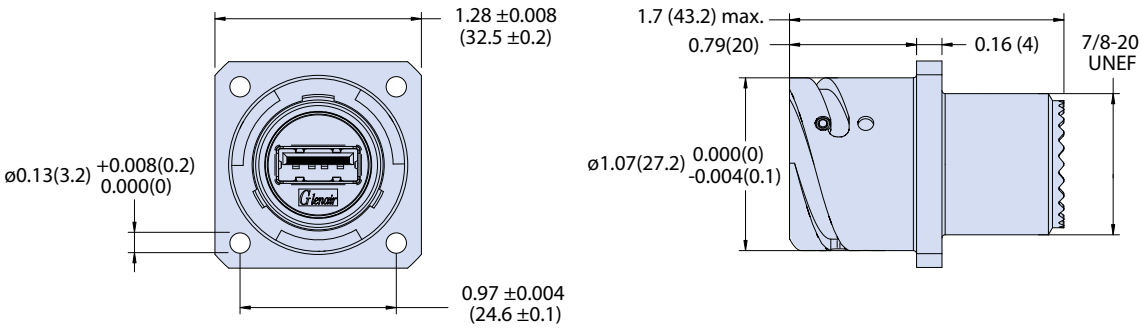
### 01 - INLINE RECEPTACLE WITH ACCESSORY THREADS




### 070 - REAR PANEL MOUNT JAM NUT RECEPTACLE WITH ACCESSORY THREADS




### 030 - REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE WITH ACCESSORY THREADS




E

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

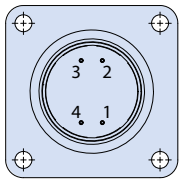
# Series ITS (5015 type) Reverse-Bayonet

## ITS342 Receptacle with USB Female Interface to PC Tail Termination

| How to Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS342** | **03** | **16** | **2** | **A** | **H** | **F6** |

| | |
|---|---|
| **Basic Number** | **ITS342** |
| **Connector Style**[1] | **03** = Rear Panel Mount Square Flange Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle |
| **Shell Size** | **16** |
| **USB Performance** | **2** = 2.0 |
| **USB Interface Type** | **A** = Type A |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |
| **Material/Finish** | **Omit** for Al/Cadmium, Olive Drab (G3) **F7** = Al/Conductive Black Zinc Nickel<br>**F6** = Al/Black Polymer Electrocoat **F11** = Al/Electroless Nickel |

**Rear View**
Horizontal USB Orientation
Shown USB 2.0

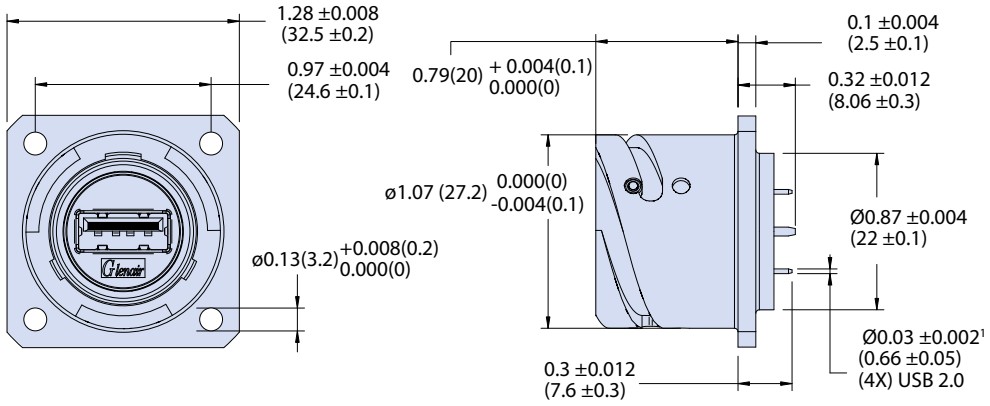



USB Orientation Options

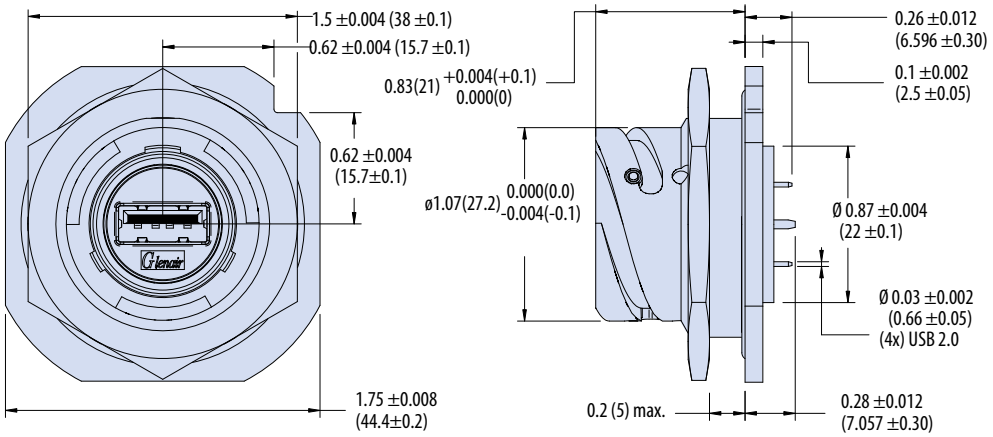
**HORIZONTAL**
Receptacle

**VERTICAL**
Receptacle

## 03 - REAR PANEL MOUNT RECEPTACLE




## 07 - REAR PANEL MOUNT JAM NUT RECEPTACLE




## NOTES

1. See Section A for panel cutout dimensions, PCB footprints and complete finish options



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

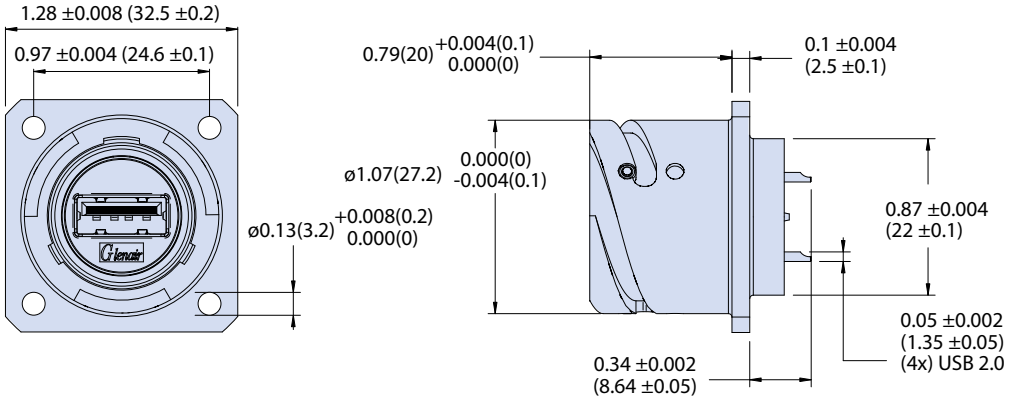
*USB 2.0 TYPE A*

# Series ITS (5015 type) Reverse-Bayonet

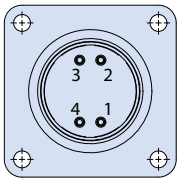
## ITS343 Receptacle with USB Female Interface to Solder Cup Termination

| How to Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS343** | **03** | **16** | **2** | **A** | **H** | **F6** | |
| **Basic Number** | **ITS343** | | | | | | | |
| **Connector Style** | **03** = Rear Panel Mount Square Flange Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle | | | | | | | |
| **Shell Size** | **16** | | | | | | | |
| **USB Performance** | **2** = 2.0 | | | | | | | |
| **USB Interface Type** | **A** = Type A | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | |
| **Material/Finish** | **Omit** for Al/Cadmium, Olive Drab (G3) **F7** = Al/Conductive Black Zinc Nickel<br>**F6** = Al/Black Polymer Electrocoat **F11** = Al/Electroless Nickel | | | | | | | |

## 03 - REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE




**Rear View**
Horizontal USB Orientation
Shown USB 2.0

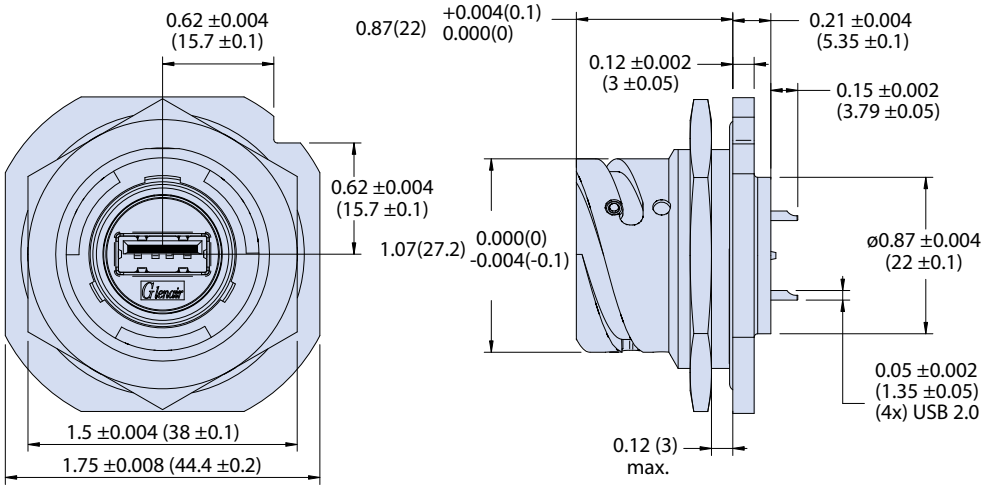



USB Orientation Options

**HORIZONTAL**
Receptacle

**VERTICAL**
Receptacle

## 07 - REAR PANEL MOUNT JAM NUT RECEPTACLE




## NOTES

1. See Section A for panel cutout dimensions and complete finish options



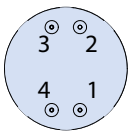
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

# Series ITS (5015 type) Reverse-Bayonet

## ITS345 Connectors with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts

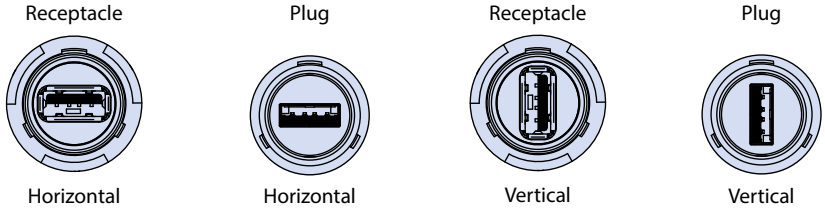
**Rear View**
Horizontal USB Orientation
Shown USB 2.0 Type A Male



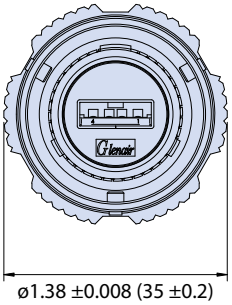

| How to Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS345** | **06** | **16** | **2** | **A** | **H** | **F6** |

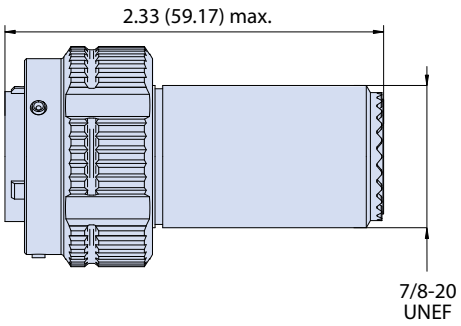
| | |
|---|---|
| **Basic Number** | **ITS345** |
| **Connector Style**[1] | **06** = Plug with Accessory Threads<br>**01** = InLine Receptacle w/ Accessory Thd<br>**070** = Rear Panel Mount Jam Nut Receptacle with Accessory Thread<br>**030** = Rear Panel Mount Squre Flange Receptacle with Accessory Threads |
| **Shell Size** | **16** |
| **USB Performance** | **2** = 2.0 |
| **USB Interface Type** | **A** = Type A |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |
| **Material/Finish** | **Omit** for Al/Cadmium, Olive Drab (G3)<br>**F6** = Al/Black Polymer Electrocoat<br>**F7** = Al/Conductive Black Zinc Nickel<br>**F11** = Al/Electroless Nickel |

**USB Orientation Options**




## 06 - PLUG WITH ACCESSORY THREADS




## NOTES

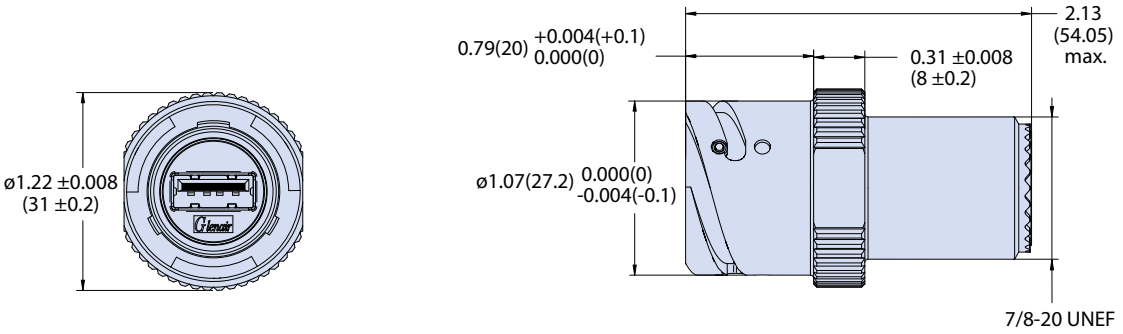
1. See Section A for panel cutout dimensions

E

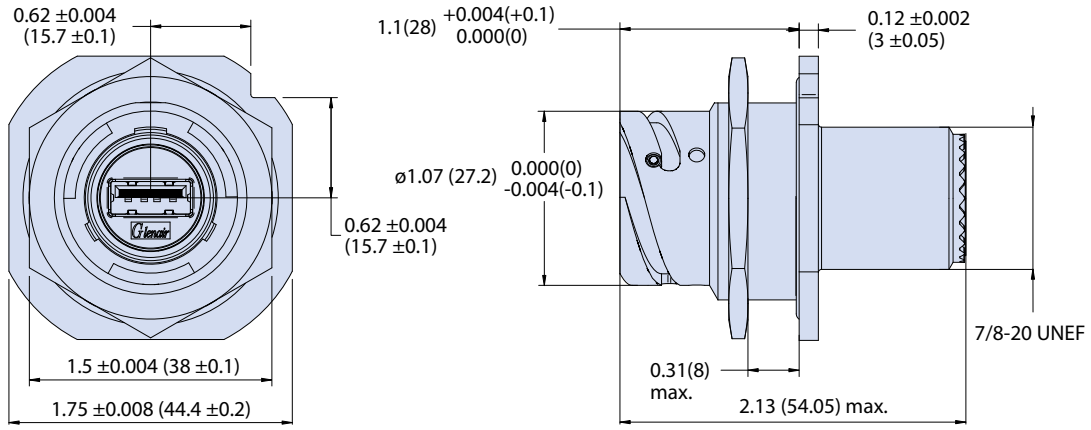


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

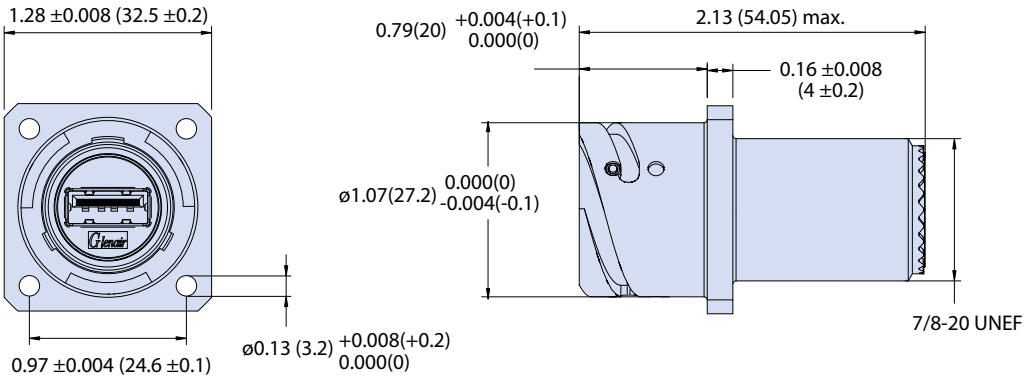
### 01 - INLINE RECEPTACLE WITH ACCESSORY THREADS




### 070 - REAR PANEL MOUNT JAM NUT RECEPTACLE WITH ACCESSORY THREADS




### 030 - REAR PANEL MOUNT RECEPTACLE WITH ACCESSORY THREADS




E

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

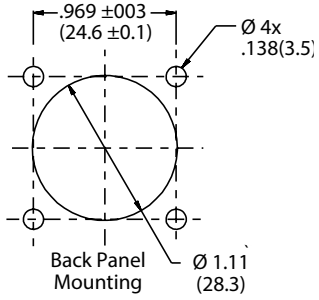
*USB 2.0 TYPE A*

# Series ITS (5015 type) Reverse-Bayonet

## ITS370 Feedthrough Receptacle with USB Female-to-Female Interface

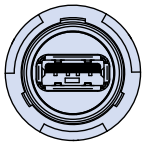
| How to Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS370** | **03PP** | **16** | **2** | **A** | **A** | **H** | **F6** |
| **Basic Number** | **ITS370** | | | | | | | |
| **Connector Style**[1] | **03PP** = Rear panel mount receptacle bulkhead feed through | | | | | | | |
| **Shell Size** | **16** | | | | | | | |
| **USB Performance** | **2** = 2.0 | | | | | | | |
| **USB Front Interface Type** | **A** = Type A | | | | | | | |
| **USB Rear Interface Type** | **A** = Type A | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | |
| **Material/Finish** | **Omit** for Al/Cadmium, Olive Drab (G3)<br>**F6** = Black Polymer Electrocoat<br>**F7** = Conductive Black Zinc Nickel<br>**F11** = Electroless Nickel | | | | | | | |

### Recommended Panel Cutout

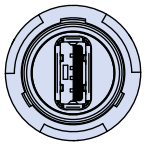



**Square Flange Mount**
**Recommended Mounting Holes**
**Panel Thickness .315 (8) Max**

### USB RECEPTACLE ORIENTATION OPTIONS



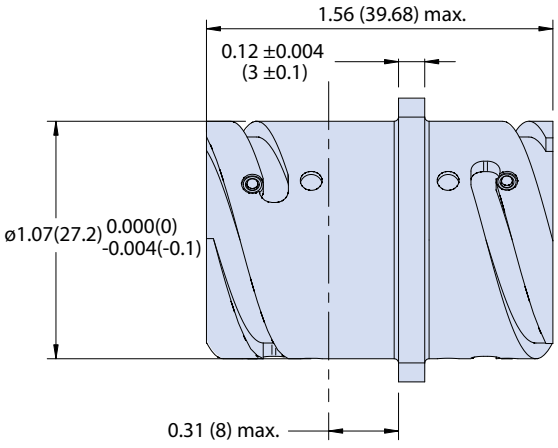
Horizontal

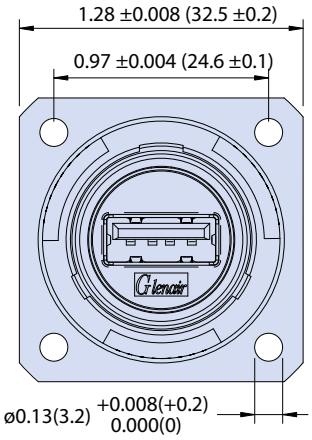


Vertical

### NOTES

1. See Section A for panel cutout dimensions




E



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

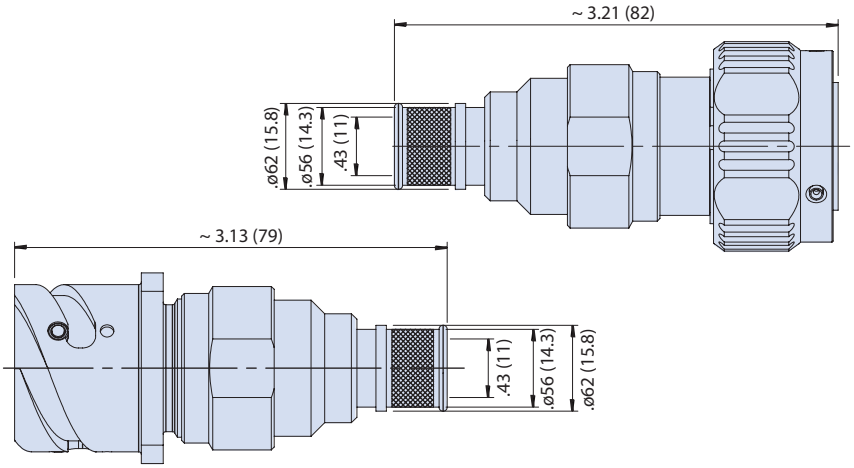
# Series ITS (5015 type) Reverse-Bayonet

## ITS340H Connector and Backshell with Banding Porch and Shrink Boot Groove

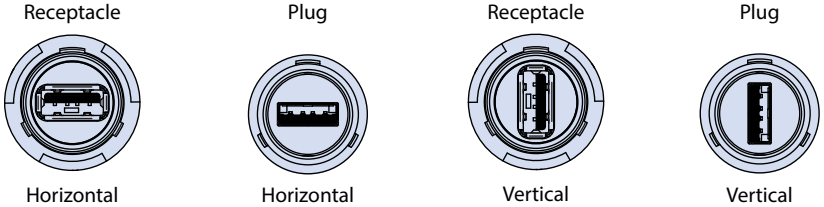
Glenair®

| How to Order | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS340H** | **030** | **16** | **2** | **A** | **A** | **H** | **ZL** | **F6** |
| **Basic Number** | **ITS340H** | | | | | | | | |
| **Connector Style**[1] | **06** = Plug with Accessory Thread<br>**01** = InLine Receptacle with Accessory Thread<br>**070** = Rear Panel Mount Jam Nut Receptacle with Accessory Thread<br>**030** = Rear Panel Mount Square Flange Receptacle with Accessory Thread | | | | | | | | |
| **Shell Size** | **16** | | | | | | | | |
| **USB Performance** | **2** = 2.0 | | | | | | | | |
| **USB Front Interface Type** | **A** = Type A | | | | | | | | |
| **USB Rear Interface Type** | **A** = Type A | | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | | |
| **Backshell** | **ZL** = With banding platform for direct attachment of cable shield and shrink boot | | | | | | | | |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel | | | | | | | | |

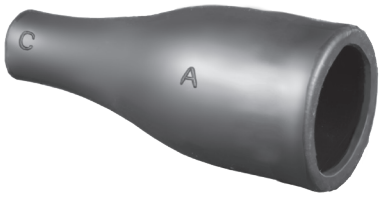
### Plug and Receptacle without Pigtail




### USB Orientation Options




### HEAT SHRINK BOOT



Glenair P/N : **770-004S903W2**

**Must be ordered separately**

Type 9 flexible polyolefin short profile boots have an operating temperature range of -40°C to 100°C and provide very good resistance to fuels, oils and solvents. These boots fit most standard boot adapters for circular connectors and are specifically designed for low temperature rated CAT5e and USB cables.

### NOTES

1. See Section A for panel cutout dimensions and complete finish options

E

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

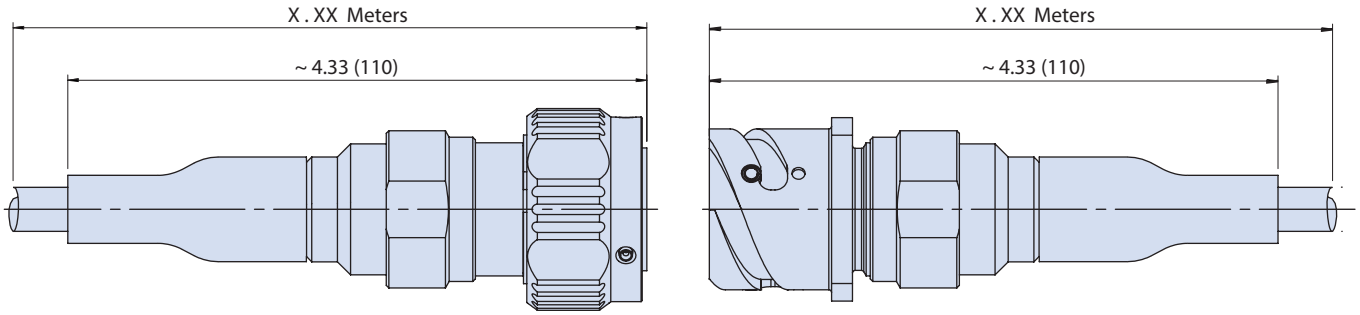
# Series ITS (5015 type) Reverse-Bayonet

## ITS340H Connector and Backshell with Pigtail

Glenair®

| How to Order | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS340H** | **030** | **16** | **2** | **A** | **A** | **H** | **ZL** | **0.5** | **F6** |

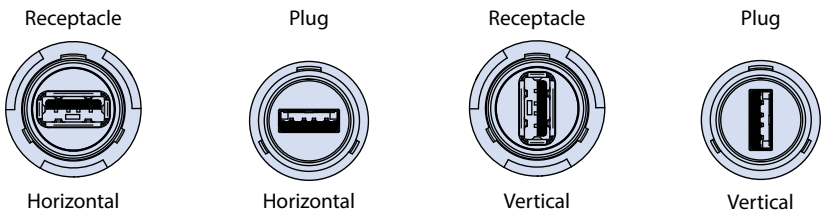
| | |
|---|---|
| **Basic Number** | **ITS340H** |
| **Connector Style**[1] | **030** = Rear Panel Mount Square Flange Receptacle with Accessory Threads<br>**01** = InLine Receptacle with Accessory Threads<br>**070** = Rear Panel Mount Jam Nut Receptacle with Accessory Threads<br>**06** = Straight Plug Connector with Accessory Threads |
| **Shell Size** | **16** |
| **USB Performance** | **2** = 2.0 |
| **USB Front Interface Type** | **A** = Type A |
| **USB Rear Interface Type** | **A** = Type A |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |
| **Backshell** | **ZL** = Backshell with banding platform for direct attachment of cable shield and shrink boot pre-installed |
| **Cable Length** | **0.5** = 0.5 meter pigtail (20 inches)*; See High Data Rate Cable P/N 963-012 |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel |




*Cable length to be ordered in 0.5 mt (20 inch) increments

**Plug and Receptacle with Pigtail**

**USB Orientation Options**




## NOTES

1. See Section A for panel cutout dimensions and complete finish options



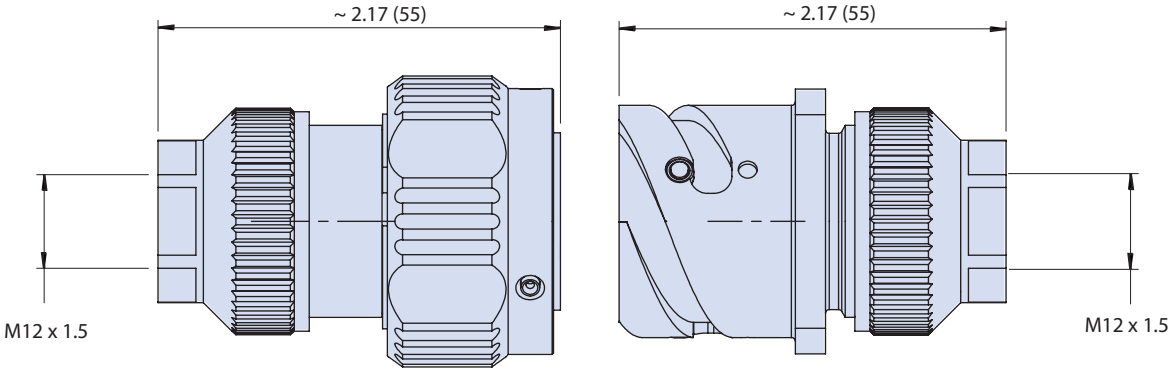
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

# Series ITS (5015 type) Reverse-Bayonet

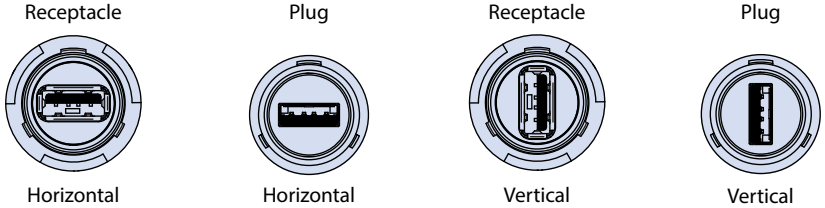
## ITS340H Connector with Internal Metric Thread Backshell

| How to Order | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS340H** | **030** | **16** | **2** | **A** | **A** | **H** | **M** | **F6** |
| **Basic Number** | **ITS340H** | | | | | | | | |
| **Connector Style**[1] | **030** = Rear Panel Mount Square Flange Receptacle with Accessory Threads<br>**01** = InLine Receptacle with Accessory Threads<br>**070** = Rear Panel Mount Jam Nut Receptacle with Accessory Threads<br>**06** = Straight Plug Connector with Accessory Threads | | | | | | | | |
| **Shell Size** | **16** | | | | | | | | |
| **USB Performance** | **2** = 2.0 | | | | | | | | |
| **USB Front Interface Type** | **A** = Type A | | | | | | | | |
| **USB Rear Interface Type** | **A** = Type A | | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | | |
| **Backshell** | **M** = Backshell with metric thread | | | | | | | | |
| **Material/Finish** | **Omit** for Aluminum/Cadmium Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel | | | | | | | | |




**Plug and Receptacle without Cable Gland**
**(Other Backshells option are available, please consult the factory)**

**USB Orientation Options**




## NOTES

1. See Section A for panel cutout dimensions and complete finish options

E

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

# Series ITS (5015 type) Reverse-Bayonet

## ITS340H Connector and Backshell with Metallic Cable Gland, with or without Pigtails

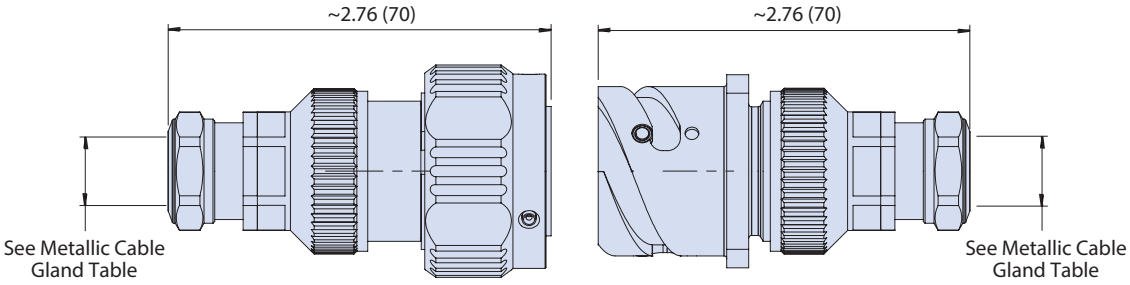
Glenair®

| How to Order | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **ITS340H** | **030** | **16** | **2** | **A** | **A** | **H** | **MS1** | **0.5** | **F6** |

| | |
|---|---|
| **Basic Number** | **ITS340H** |
| **Connector Style**[1] | **030** = Rear Panel Mount Square Flange Receptacle with Accessory Threads<br>**01** = InLine Receptacle with Accessory Threads<br>**070** = Rear Panel Mount Jam Nut Receptacle with Accessory Threads<br>**06** = Straight Plug Connector with Accessory Threads |
| **Shell Size** | **16** |
| **USB Performance** | **2** = 2.0 |
| **USB Front Interface Type** | **A** = Type A |
| **USB Rear Interface Type** | **A** = Type A |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |
| **Metallic Cable Gland** | See Metallic Cable Gland Table |
| **Cable Length** | **0.5** = 0.5 mt. (20 inch) pigtail **Omit** for None |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel |

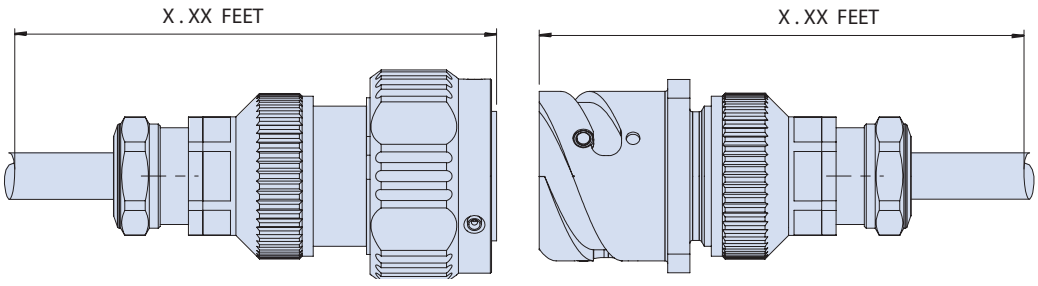
### NOTES

1. See Section A for panel cutout dimensions and complete finish options



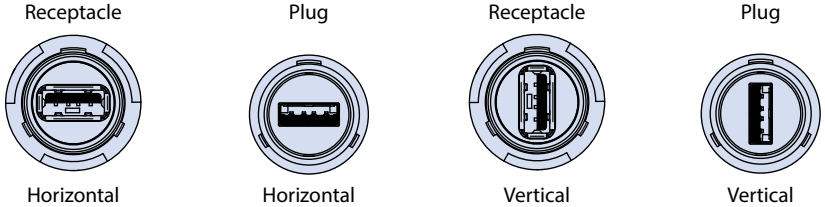

**Plug and Receptacle without Pigtail**

*Cable length to be ordered in 0.5 mt (20 inch) increments




**Plug and Receptacle with Pigtail**

**USB Orientation Options**




| Metallic Cable Gland | | |
|---|---|---|
| Type | Cable Range | Shield |
| M1 | .13 - .19 (3.5 – 5) | No |
| M2 | .25 - .31 (6.5 - 8) | No |
| MS1 | .17 - .23 (4.5 - 6) | Yes |
| MS2 | .23 - .29 (6 - 7.5) | Yes |

E



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

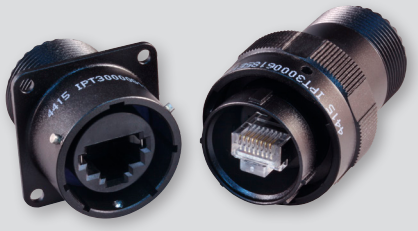
RJ45/USB SUPER SEAL™

*RJ45 CAT 5E ETHERNET*

# Series IPT (26482 Type) Bayonet Coupler

## Product Selection Guide

Glenair®

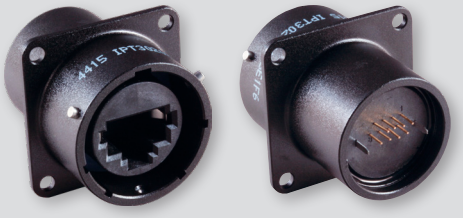


**IPT300** Page F-2

SuperSeal™ Coupler with Accessory Threads and RJ45 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle).

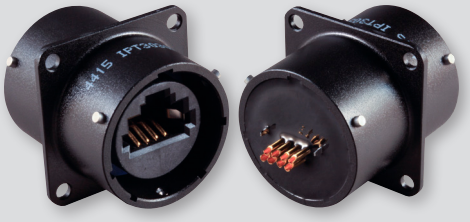
**IPT301** Page F-4

SuperSeal™ Connector with Accessory Threads and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts.



**IPT302** Page F-6

SuperSeal™ Receptacle with Jack to PC Tail Termination.



**IPT303** Page F-7

SuperSeal™ Receptacle with Jack to Solder Cup Termination.

**IPT330** Page F-8

SuperSeal™ Feedthrough Receptacle with Jack-to-Jack RJ45.

**IPT300H** Page F-9

SuperSeal™ Connector and Backshell Options.

F

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal® Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

*RJ45 CAT 5E ETHERNET*

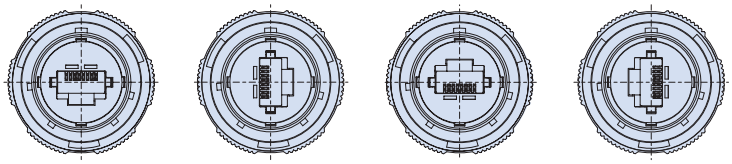
# Series IPT (26482 Type) Bayonet Coupler

Glenair

## IPT300 Coupler with Accessory Threads and RJ45 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)

| How to Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT300** | **00** | **G** | **18** | **5E** | **1** | **F7** |
| **Basic Number** | **IPT300** | | | | | | |
| **Connector Style**[1] | **00** = Front Panel Mount Square Flange Receptacle<br>**01** = In-Line Receptacle<br>**070** = Rear Panel Mounting Jam Nut Receptacle<br>**06** = Straight Plug | | | | | | |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell; available for receptacle only (for use with shielded cable)<br>**Omit** = for none | | | | | | |
| **Shell Size** | **18** | | | | | | |
| **RJ45 Category**[2] | **5E** = Cat 5E<br>For Cat 6A applications consult factory | | | | | | |
| **RJ45 Orientation** | **1**,**2**,**3** or **4** | | | | | | |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel | | | | | | |

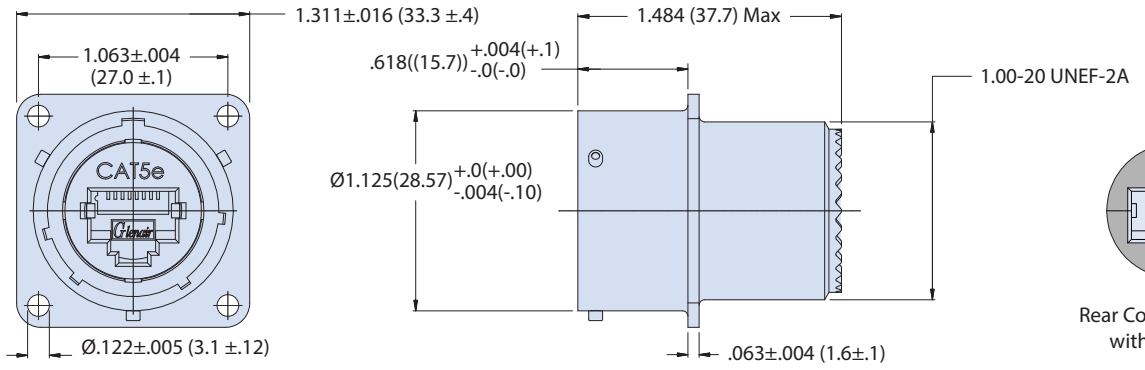
### RJ45 Orientation Options




### NOTES

1. See Section A for recommended panel cut out dimensions
2. Plugs are plug/jack and receptacles are jack/jack

### 00 - FRONT PANEL MOUNT SQUARE FLANGE RECEPTACLE WITH ACCESSORY THREADS




F

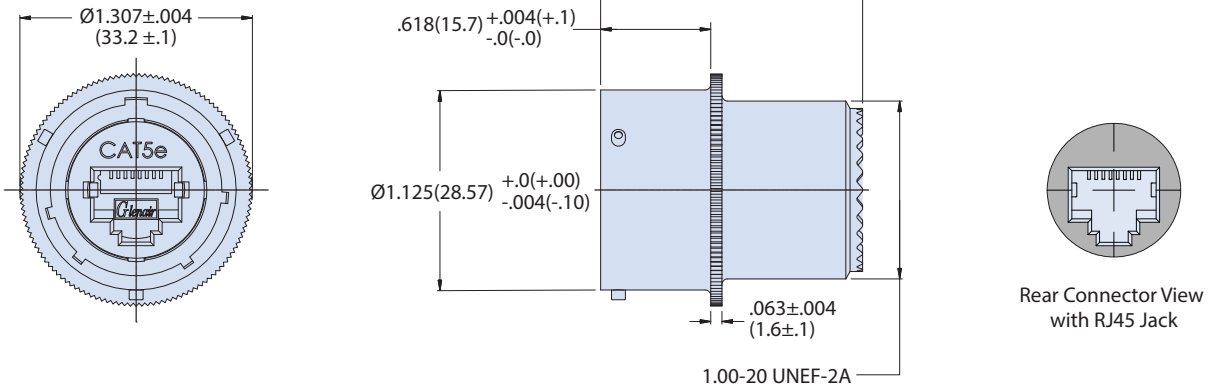


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

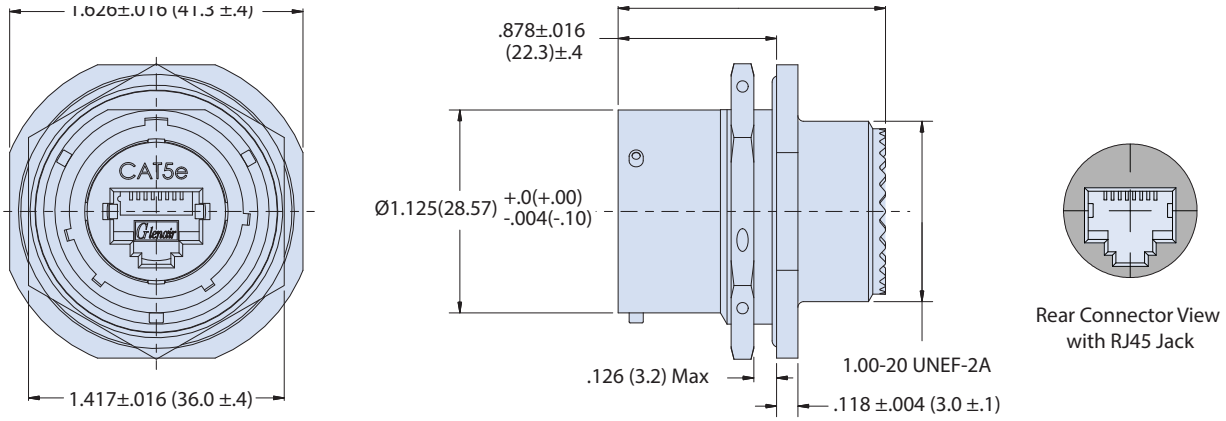
# Series IPT (26482 Type) Bayonet Coupler

## IPT300 Coupler with Accessory Threads and RJ45 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)

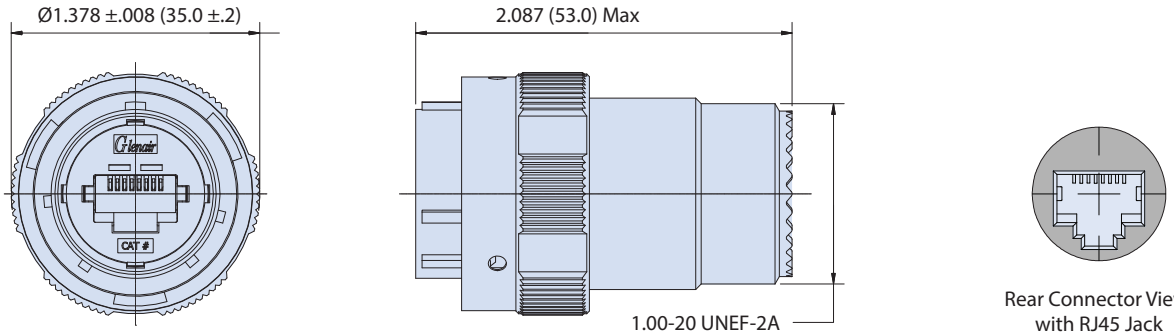
### 01 - INLINE RECEPTACLE WITH ACCESSORY THREADS




### 070 - REAR PANEL MOUNT JAM NUT RECEPTACLE WITH ACCESSORY THREADS




### 06 - PLUG WITH ACCESSORY THREADS




F

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

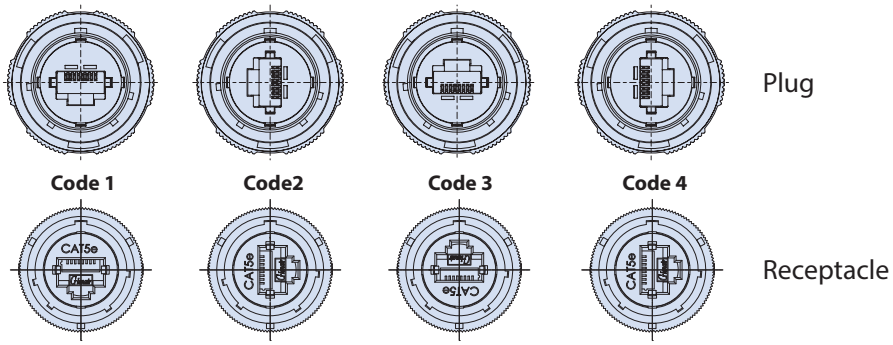
# Series IPT (26482 Type) Bayonet Coupler

## IPT301 Connector with Accessory Threads and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts

| How to Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT301** | **00** | **G** | **18** | **5E** | **1** | **F7** |

| | |
|---|---|
| **Basic Number** | **IPT301** |
| **Connector Style** | **00** = Front Panel Mount Square Flange Receptacle<br>**01** = In-Line Receptacle<br>**070** = Rear Panel Mounting Jam Nut Receptacle<br>**06** = Straight Plug |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell; available for receptacle only (for use with shielded cable)<br>**Omit** = for none |
| **Shell Size** | **18** |
| **RJ45 Category** | **5E** = Cat 5E<br>For Cat 6A applications consult factory |
| **RJ45 Orientation** | **1**,**2**,**3** or **4** |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel |

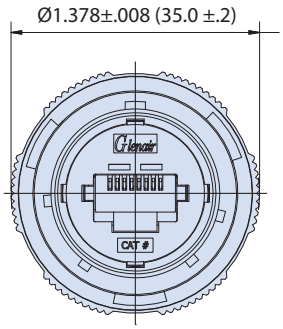
### RJ45 Orientation Options

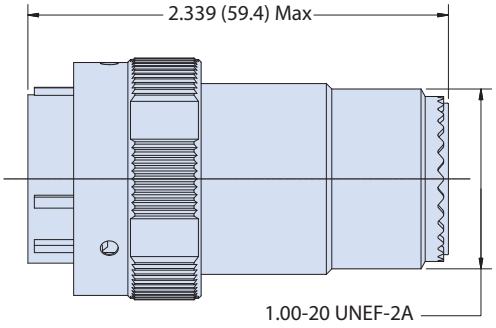



### NOTES

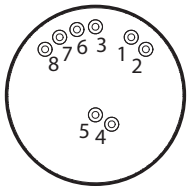
1. See Section A for recommended panel cut out dimensions

### 06 - PLUG WITH ACCESSORY THREADS




**Crimp Layout**
(Code 1 Orientation Shown)




F

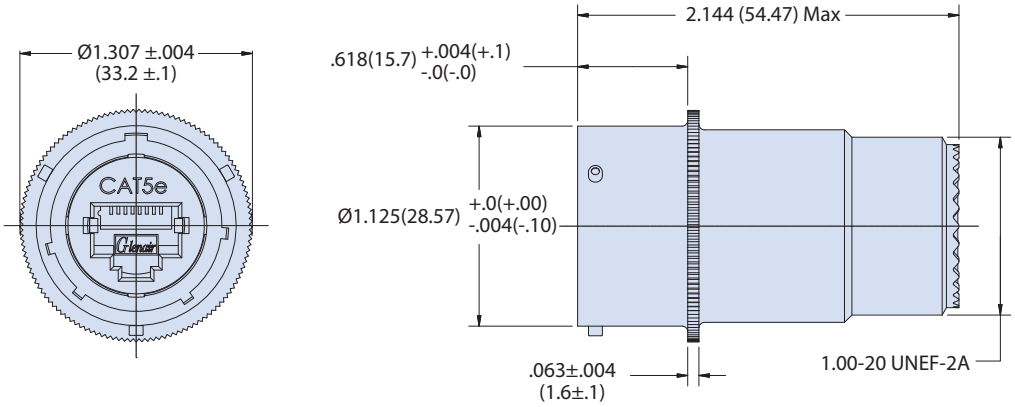


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

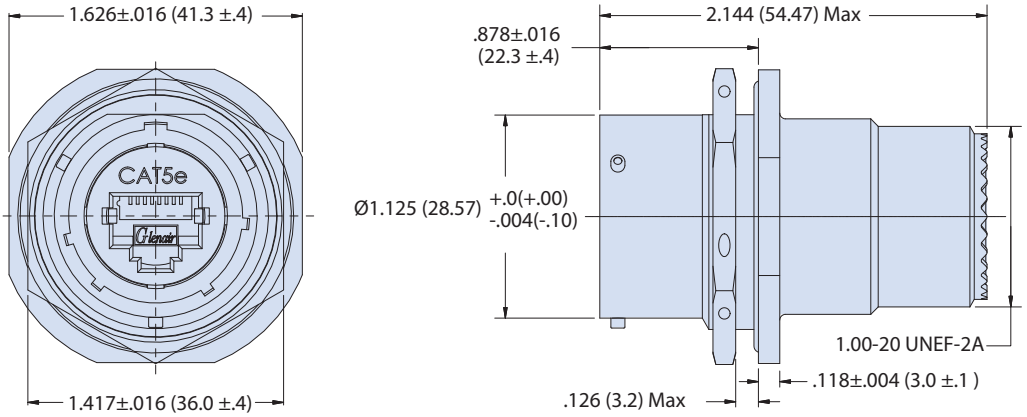
# Series IPT (26482 Type) Bayonet Coupler

## IPT301 Connector with Accessory Threads and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts

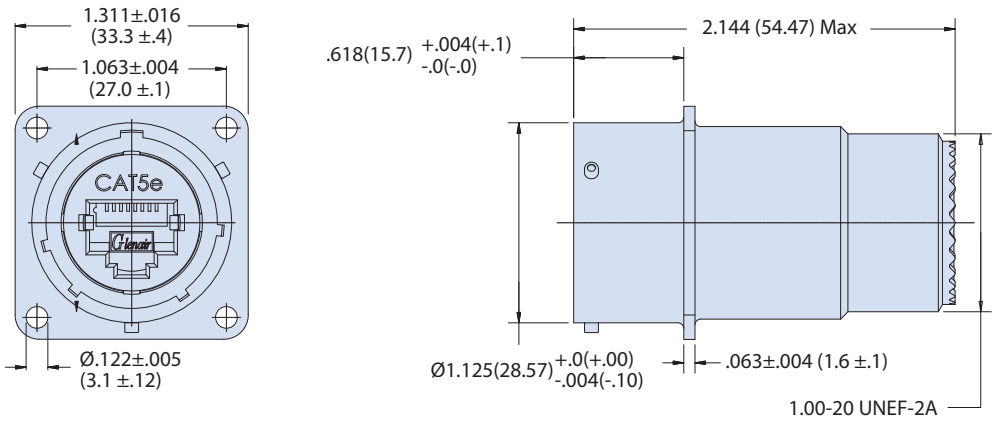
### 01 - INLINE RECEPTACLE WITH ACCESSORY THREADS




### 070 - REAR PANEL MOUNTING JAM NUT RECEPTACLE WITH ACCESSORY THREADS




### 00 - FRONT PANEL MOUNT SQUARE FLANGE RECEPTACLE WITH ACCESSORY THREADS




F

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45 CAT 5E ETHERNET

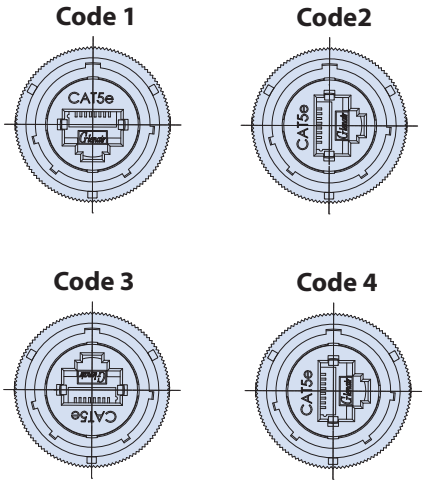
# Series IPT (26482 Type) Bayonet Coupler

## IPT302 Receptacle with Jack to PC Tail Termination

| How to Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT302** | **02** | **G** | **18** | **5E** | **1** | **F7** |

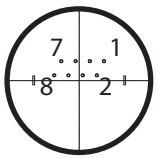
| | |
|---|---|
| **Basic Number** | **IPT302** |
| **Connector Style**[1] | **02** = Front panel Mount Square Flange Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell **Omit** for none<br>(for use with shielded cable)<br>(Use only with G3, F11 or F7 finish) |
| **Shell Size** | **18** |
| **RJ45 Category**[2] | **5E** = Cat 5E<br>For Cat 6A applications consult factory |
| **RJ45 Orientation** | **1**,**2**,**3** or **4** |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel |

### RJ45 Receptacle, Orientation Options




### PC tail layout

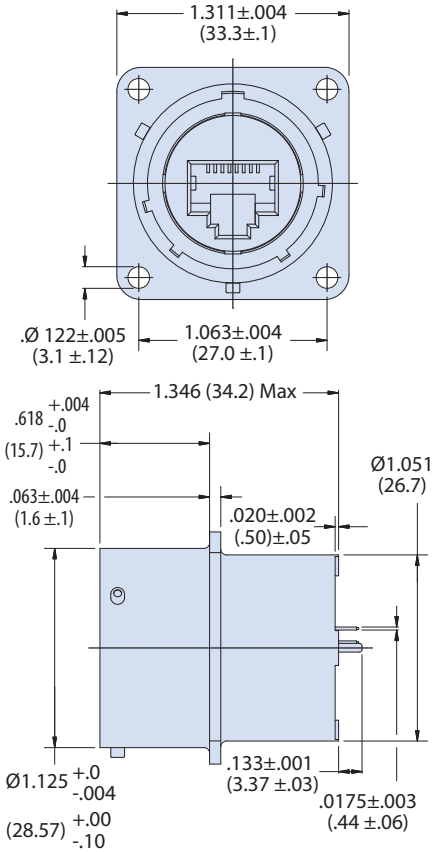
(Code 1 Orientation Shown)



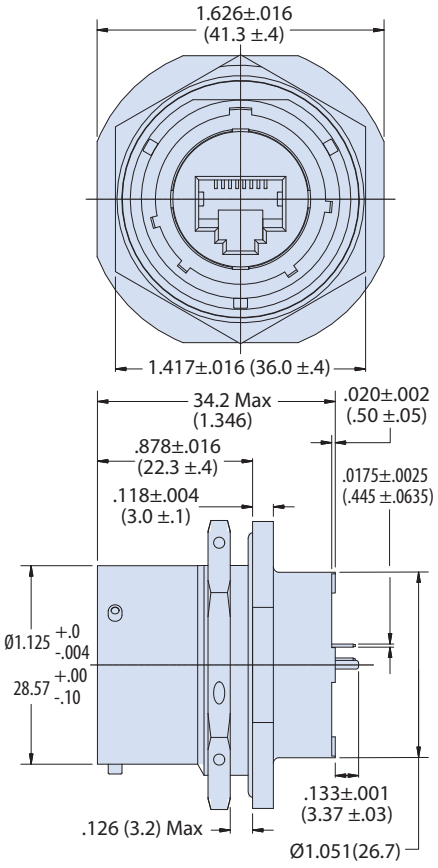

### NOTES

1. See Section A for recommended panel cut out dimensions

### 02 - FRONT PANEL MOUNT SQUARE FLANGE RECEPTACLE




### 07 - REAR PANEL MOUNTING JAM NUT RECEPTACLE




F



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

*RJ45 CAT 5E ETHERNET*

# Series IPT (26482 Type) Bayonet Coupler

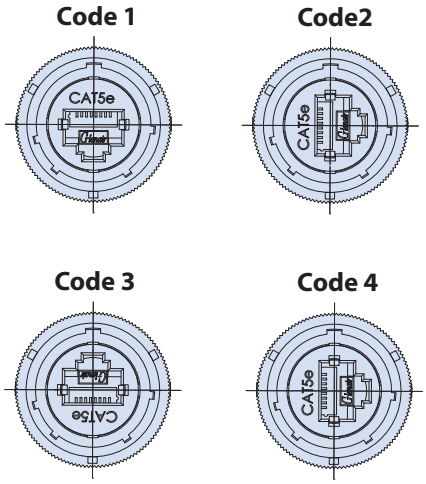
## IPT303 Receptacle with Jack to Solder Cup Termination

Glenair®

| How to Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT303** | **02** | **G** | **18** | **5E** | **1** | **F7** |

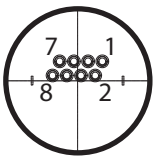
| | |
|---|---|
| **Basic Number** | **IPT303** |
| **Connector Style**[1] | **02** = Front Panel Square Flange Mount Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell **Omit** for none<br>(for use with shielded cable)<br>(Use only with G3, F11 or F7 finish) |
| **Shell Size** | **18** |
| **RJ45 Category**[2] | **5E** = Cat 5E<br>For Cat 6A applications consult factory |
| **RJ45 Orientation** | **1**,**2**,**3** or **4** |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel |

### RJ45 Receptacle, Orientation Options




### Solder cup layout

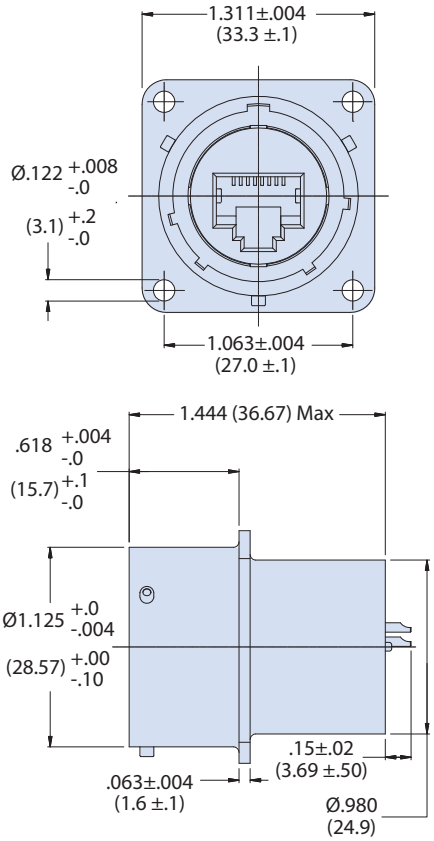
(Code 1 Orientation Shown)



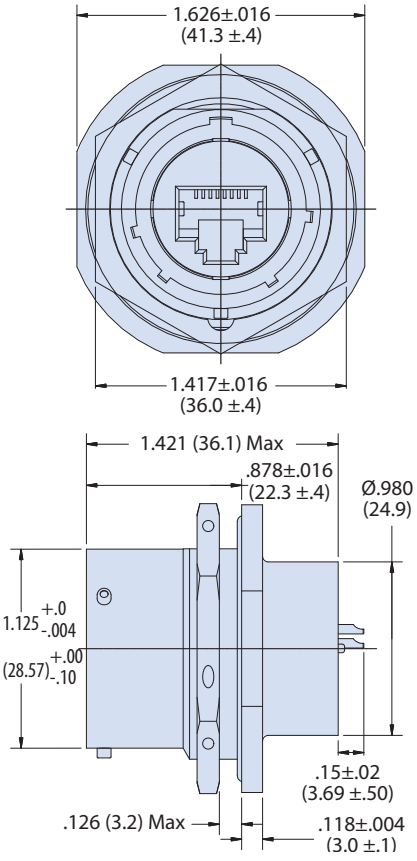

### NOTES

1. See Section A for recommended panel cut out dimensions and solder cup layout

### 02 - FRONT PANEL MOUNT SQUARE FLANGE RECEPTACLE




### 07 - REAR PANEL MOUNTING JAM NUT RECEPTACLE




F

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series IPT (26482 Type) Bayonet Coupler

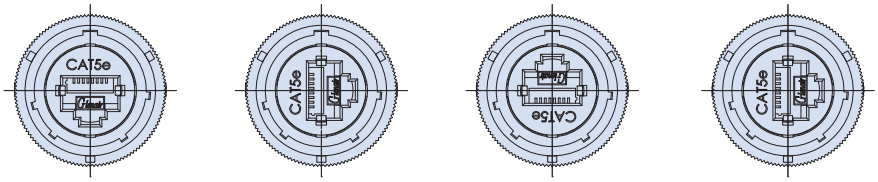
## IPT330 Feedthrough Receptacle with Jack-to-Jack RJ45

| How to Order | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT330** | **02PP** | **18** | **5E** | **1** | **F7** |
| **Basic Number** | **IPT330** | | | | | |
| **Connector Style**[1] | **02PP** = Front Panel Mount Square Flange receptacle | | | | | |
| **Shell Size** | **18** | | | | | |
| **RJ45 Category**[2] | **5E** = Cat 5E<br>For Cat 6A applications consult factory | | | | | |
| **RJ45 Orientation** | **1**,**2**,**3** or **4** | | | | | |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel | | | | | |

### NOTES

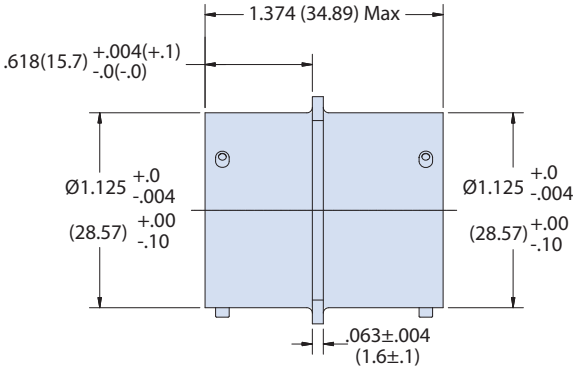
1. See Section A for recommended panel cut out dimensions
2. Feedthrough is jack/jack layout

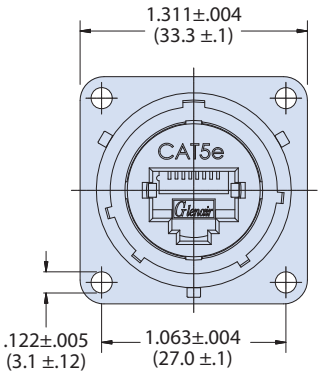
### RJ45 Orientation, Receptacle Options

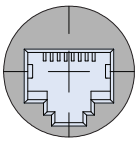



Code 1 Code2 Code 3 Code 4

### 02 - FRONT PANEL SQUARE FLANGE MOUNT RECEPTACLE



Rear Connector View with RJ45 Jack

F



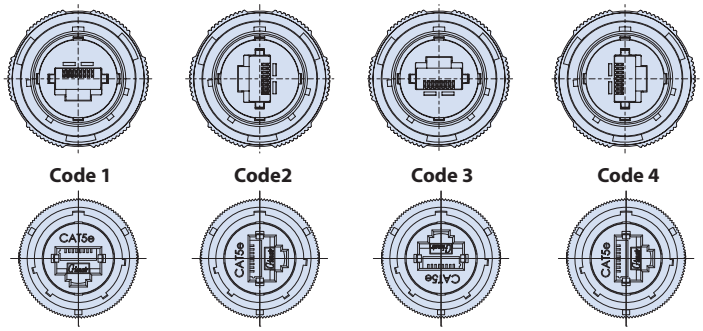
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series IPT (26482 Type) Bayonet Coupler

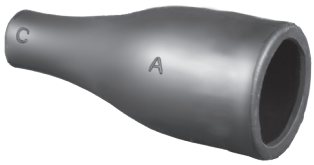
## IPT300H Connector and Backshell with Banding Porch and Boot Groove

| How to Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT300H** | **00** | **G** | **18** | **5E** | **1** | **ZL** | **F7** | |
| **Basic Number** | **IPT300H** | | | | | | | | |
| **Connector Style**[1] | **00** = Front Panel Mount Square Flange Receptacle<br>**01** = In-Line Receptacle<br>**070** = Rear Panel Mount Jam Nut Receptacle<br>**06** = Straight Plug | | | | | | | | |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell; available for receptacle only and for use with shielded cable<br>**Omit** = for none | | | | | | | | |
| **Shell Size** | **18** | | | | | | | | |
| **RJ45 Category** | **5E** = Cat 5E (For Cat 6A applications consult factory) | | | | | | | | |
| **RJ45 Orientation** | **1**,**2**,**3** or **4** | | | | | | | | |
| **Backshell** | **ZL** = Backshell with Banding Porch and Boot Groove | | | | | | | | |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel | | | | | | | | |

### RJ45 Orientation Options




### HEAT SHRINK BOOT




Glenair P/N : **770-004S903W2**

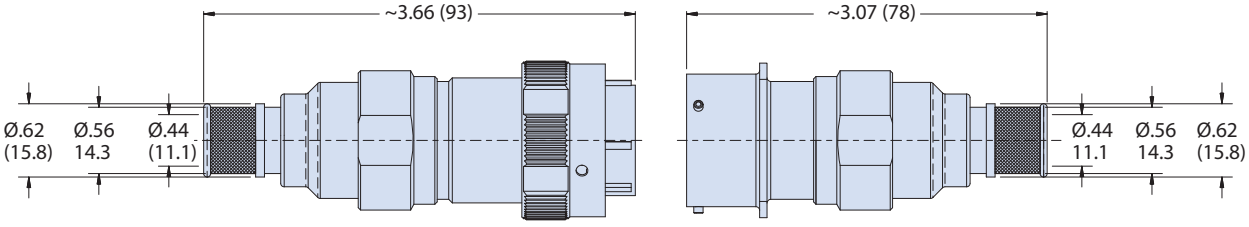
**Must be ordered separately**

Type 9 flexible polyolefin short profile boots have an operating temperature range of -40°C to 100°C and provide very good resistance to fuels, oils and solvents. These boots fit most standard boot adapters for circular connectors and are specifically designed for low temperature rated CAT5e and USB cables.

### NOTES

1. See Section A for recommended panel cut out dimensions

### CONNECTOR AND BACKSHELL WITH INTEGRAL BANDING PORCH AND BOOT GROOVE




F

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

*RJ45 CAT 5E ETHERNET*

# Series IPT (26482 Type) Bayonet Coupler

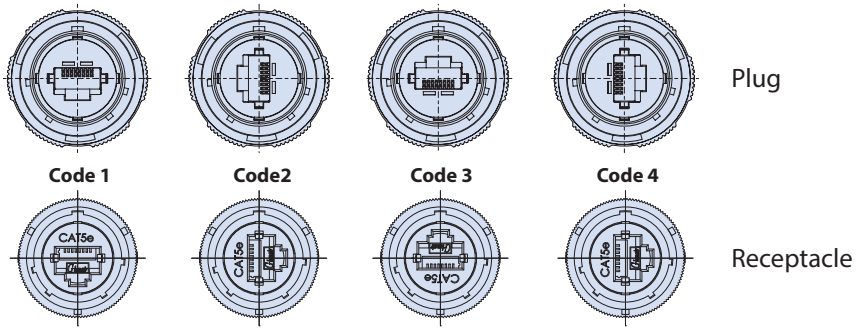
Glenair®

## IPT300H Connector and Backshell with Cable Shield Terminated Pigtail and Fitted Shrink Boot

| How to Order | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT300H** | **00** | **G** | **18** | **5E** | **1** | **T** | **ZL** | **1** | **F7** |

| | |
|---|---|
| **Basic Number** | **IPT300H** |
| **Connector Style**[1] | **00** = Front Panel Mount Square Flange Receptacle with Accessory Threads<br>**01** = In-Line Receptacle<br>**070** = Rear Panel Mount Jam Nut Receptacle with Accessory Threads<br>**06** = Straight Plug |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell; available for receptacle only and for use with shielded cable<br>**Omit** = for none |
| **Shell Size** | **18** |
| **RJ45 Category** | **5E** = Cat 5E<br>For Cat 6A applications consult factory |
| **RJ45 Orientation** | **1**,**2**,**3** or **4** |
| **Shrink Boot** | **T** = Shrink Boot **Omit** for none |
| **Backshell** | **ZL** = Backshell with Banding Porch and Boot Groove |
| **Cable Length** | **.5** meter; order in .5 meter increments (approximately 20 inches) |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel |

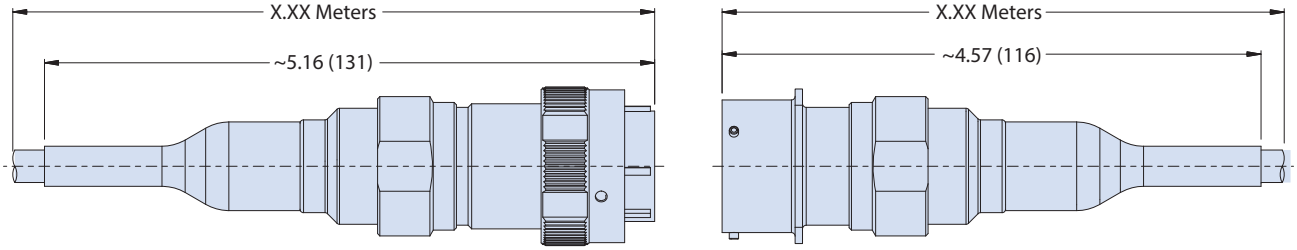
### RJ45 Orientation Options




### NOTES

1. See Section A recommended panel cut out dimensions

### 06 - PLUG



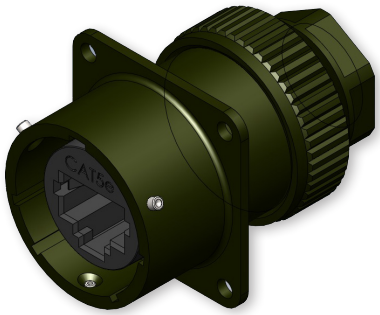

Cable to be ordered in 0.5 meter increments

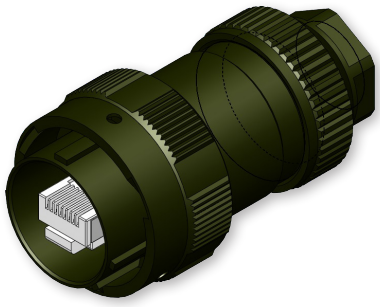


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series IPT (26482 Type) Bayonet Coupler

## IPT300H Connector and Backshell with Internal Metric Thread or PG9 Thread

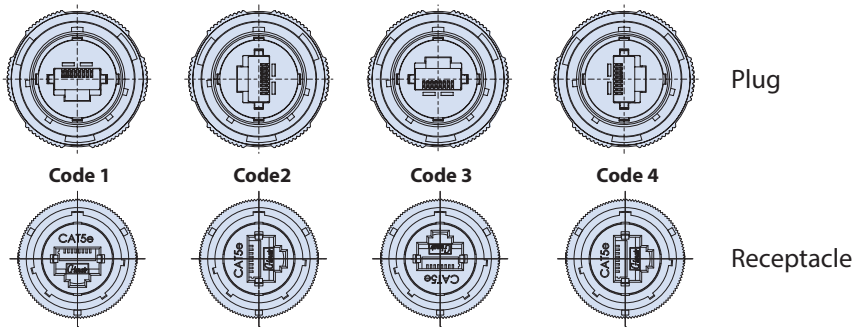




| How to Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT300H** | **00** | **G** | **18** | **5E** | **1** | **M** | **F7** |

| | |
|---|---|
| **Basic Number** | **IPT300H** |
| **Connector Style**[1] | **00** = Front Panel Mount Square Flange Receptacle with Accessory Threads<br>**01** = In-Line Receptacle<br>**070** = Rear Panel Mount Jam Nut Receptacle with Accessory Threads<br>**06** = Straight Plug |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell; available for receptacle only and for use with shielded cable<br>**Omit** = for none |
| **Shell Size** | **18** |
| **RJ45 Category** | **5E** = Cat 5E<br>For Cat 6A applications consult factory |
| **RJ45 Orientation** | **1**,**2**,**3** or **4** |
| **Backshell** | **M** = M16 x 1.5 Internal Thread **PG9** = PG9 Internal Thread |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel |

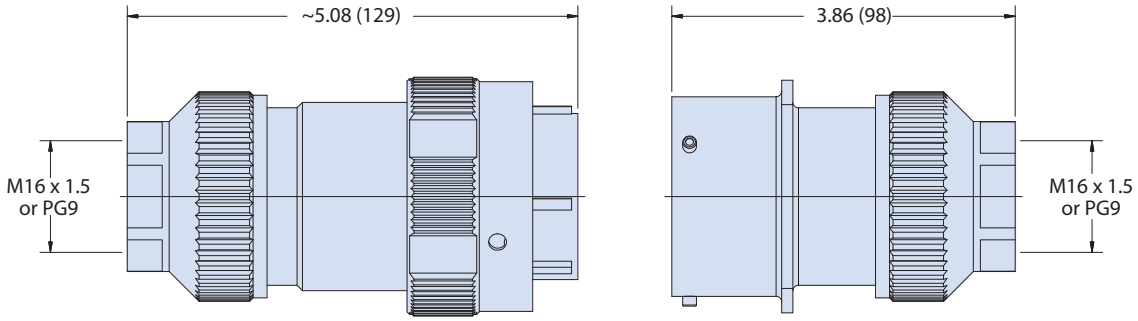
### RJ45 Orientation Options




### NOTES

1. See Section A for recommended panel cut out dimensions

### CONNECTOR AND BACKSHELL WITH M16 X 1.5 OR PG9 INTERNAL THREAD




F

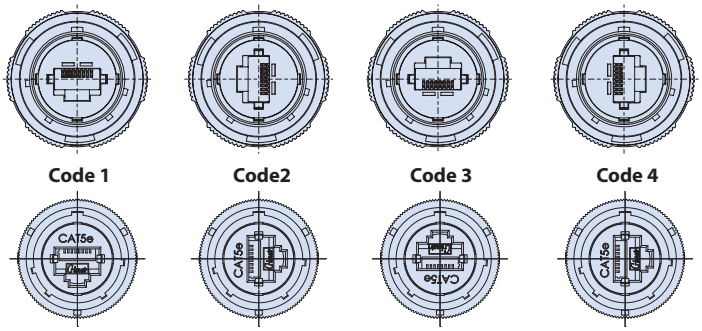
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series IPT (26482 Type) Bayonet Coupler

## IPT300H Connector and Backshell with Cable Gland and Optional Pigtail

| How to Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT300H** | **00** | **G** | **18** | **5E** | **1** | **M** | **0.5** | **F7** |
| **Basic Number** | **IPT300H** | | | | | | | | |
| **Connector Style**[1] | **00** = Front Panel Mount Square Flange Receptacle with Accessory Threads<br>**01** = In-Line Receptacle<br>**070** = Rear Panel Mounting Jam Nut Receptacle<br>**06** = Straight Plug | | | | | | | | |
| **Insert-to-Shell Grounding** | **G** = Insert grounded to shell; available for receptacle only; for use with shielded cable<br>**Omit** = for none | | | | | | | | |
| **Shell Size** | **18** | | | | | | | | |
| **RJ45 Category** | **5E** = Cat 5E<br>For Cat 6A applications consult factory | | | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3** or **4** | | | | | | | | |
| **Metallic Cable Gland** | **M1**, **M2**, **MS1**, **MS2** (see metallic cable gland table) | | | | | | | | |
| **Cable Length** | **0.5** = 0.5 meter increments; I.E. 1.5 = 1.5 meters | | | | | | | | |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Aluminum/Black Polymer Electrocoat<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**F11** = Aluminum/Electroless Nickel | | | | | | | | |

### RJ45 Orientation Options




| Metallic Cable Gland | | |
|---|---|---|
| **Type** | **Cable Range** | **Shield** |
| **M1** | .236 - .315 (6 - 8 mm) | No |
| **M2** | .315 - .394 (8 - 10) | No |
| **MS1** | .236 - .315 (6 - 8 mm) | Yes |
| **MS2** | .315 - .394 (8 - 10) | Yes |

### NOTES

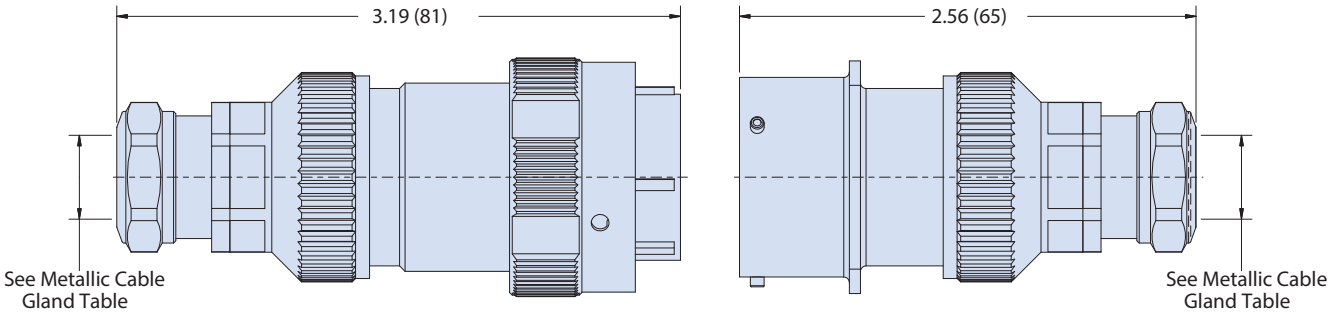
1. See Section A for recommended panel cut out dimensions

F

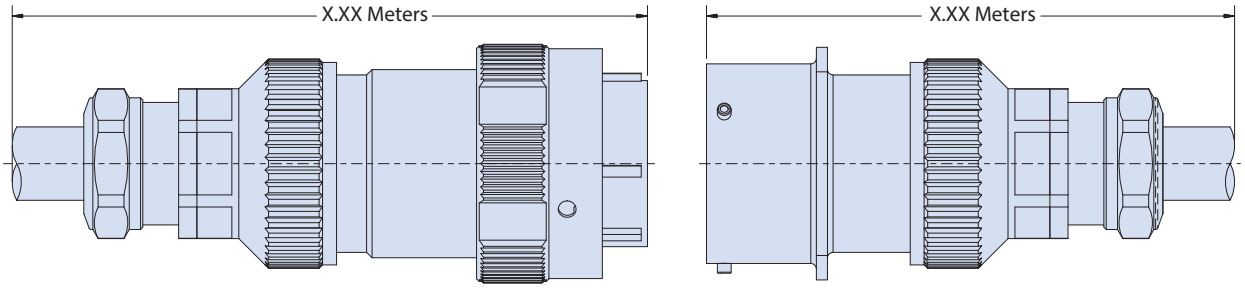


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## PLUG AND RECEPTACLE WITHOUT PIGTAIL




## PLUG AND RECEPTACLE WITH PIGTAIL




Cable to be ordered in 0.5 meter increments

F

*SERIES IPT*
**FIELD-READY**
**USB 2.0**

# SUPERSEAL™

**Rugged environmental Series IPT bayonet connectors with IP67 sealing, robust shielding, and a complete range of wire, cable, and circuit board terminations.**

***Series IPT SuperSeal™ Advantages***

- **26482 Type bayonet connectors for mil-aero applications**
- **Superior sealing—IP67 open face and IP68 mated — for complete system protection against water, sand and dust**
- **Highly durable USB design, including enhanced operating temperature, increased life-cycle, and rugged vibration and shock performance**
- **Crimp, solder-cup, PC-tail, and wire termination options**
- **USB 2.0 plug and receptacle versions**
- **Available backshells provide strain-relief and environmental protection**

Glenair®

Glenair, Inc.
1211 Air Way
Glendale, CA 91201-2497
818-247-6000
sales@glenair.com
www.glenair.com

**IPT340** Page G-2

SuperSeal™ Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle) Interface.

**IPT342** Page G-4

SuperSeal™ Receptacle with USB Female Interface to PC Tail Termination.

**IPT343** Page G-6

SuperSeal™ Receptacle with USB Female Interface to Solder Cup Termination.

**IPT345** Page G-8

SuperSeal™ Connectors with Accessory Threads and USB Male (Plug) or Female (Receptacle) Interface to Crimp Removable Contacts.

**IPT370** Page G-10

SuperSeal™ Feedthrough Receptacle with USB Female-to-Female Interface.

**IPT340H** Page G-11

SuperSeal™ USB Connector and Backshell with Accessory Options.

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal® Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

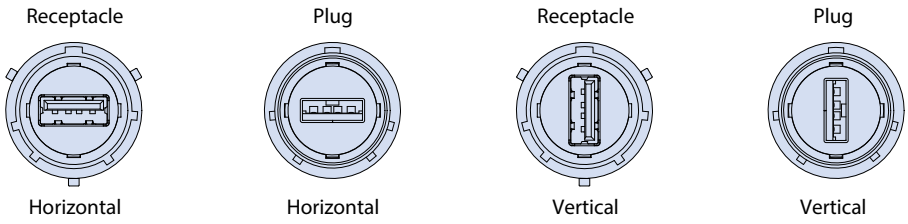
*USB 2.0 TYPE A*

# Series IPT (26482 Type) Bayonet Coupler

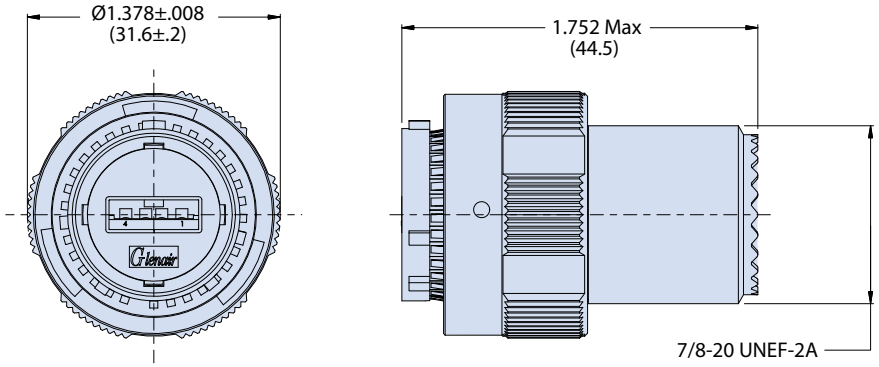
## IPT340 Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

| How to Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT340** | **00** | **16** | **2** | **A** | **H** | **F6** |
| **Basic Number** | **IPT340** | | | | | | |
| **Connector Style**[1] | **06** = Plug<br>**01** = In-Line Receptacle<br>**070** = Rear Panel Mount Jam Nut Receptacle<br>**00** = Wall Mount Receptacle | | | | | | |
| **Shell Size** | **16** | | | | | | |
| **USB Performance** | **2** = 2.0 | | | | | | |
| **USB Type** | **A** = Type A | | | | | | |
| **Orientation Option** | **H** = Horizontal **V** = Vertical | | | | | | |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab<br>**F6** = Black Polymer Electrocoat<br>**F7** = Conductive Black Zinc Nickel<br>**F11** = Electroless Nickel | | | | | | |

**USB Orientation Options**




## 06 - PLUG WITH ACCESSORY THREADS




### NOTES

1. See Section A panel cutout dimensions



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal® Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

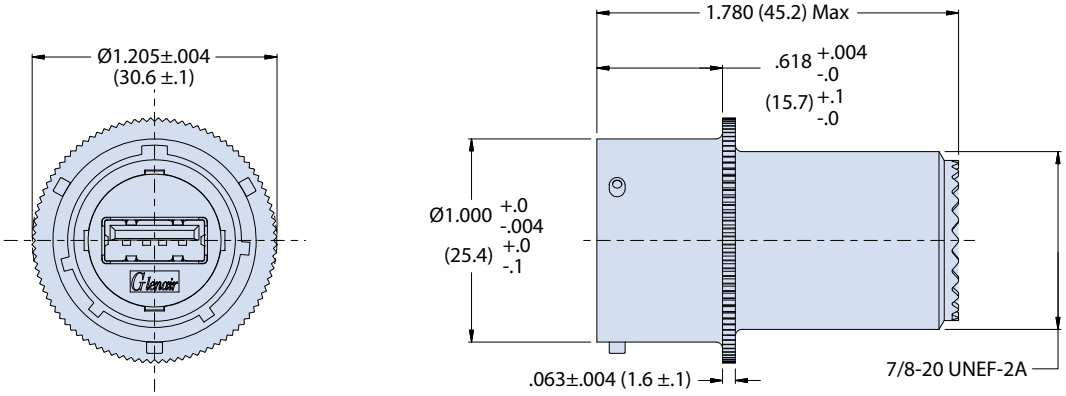
*USB 2.0 TYPE A*

# Series IPT (26482 Type) Bayonet Coupler

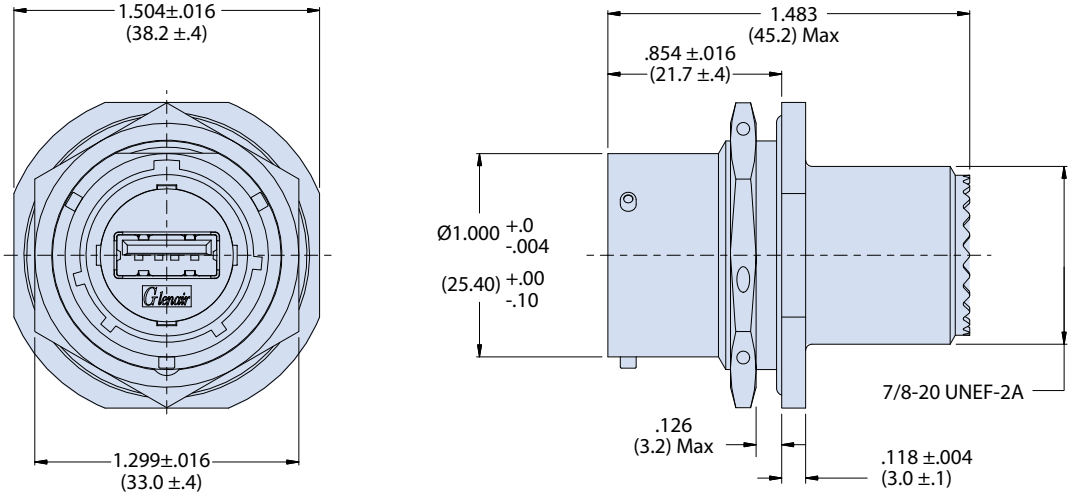
## IPT340 Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle)



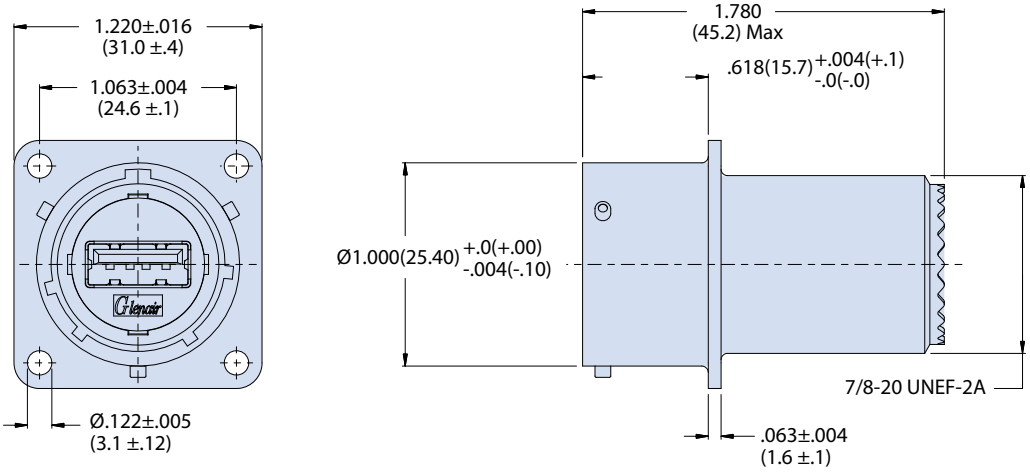
### 01 - INLINE RECEPTACLE WITH ACCESSORY THREADS




### 070 - REAR PANEL MOUNT JAM NUT RECEPTACLE WITH ACCESSORY THREADS




### 00 - WALL MOUNT RECEPTACLE WITH ACCESSORY THREADS




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal® Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

*USB 2.0 TYPE A*

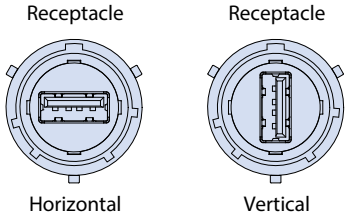
# Series IPT (26482 Type) Bayonet Coupler

## IPT342 Receptacle with USB Female Interface to PC Tail Termination

Glenair®

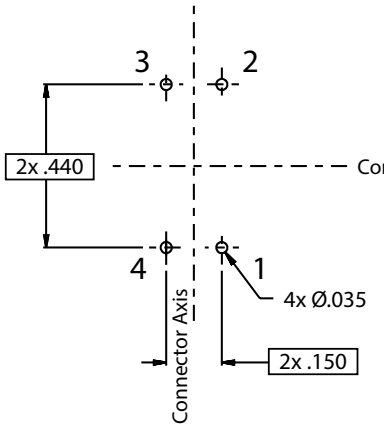
| How to Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT342** | **02** | **16** | **2** | **A** | **H** | **F6** |
| **Basic Number** | **IPT342** | | | | | | |
| **Connector Style**[1] | **02** = Wall Mount Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle | | | | | | |
| **Shell Size** | **16** | | | | | | |
| **USB Performance** | **2** = 2.0 | | | | | | |
| **USB Type** | **A** = Type A | | | | | | |
| **Orientation Option** | **H** = Horizontal **V** = Vertical | | | | | | |
| **Material/Finish** | **Omit** for Cadmium/Olive Drab<br>**F6** = Black Polymer Electrocoat<br>**F7** = Conductive Black Zinc Nickel<br>**F11** = Electroless Nickel | | | | | | |

**USB Orientation Options**



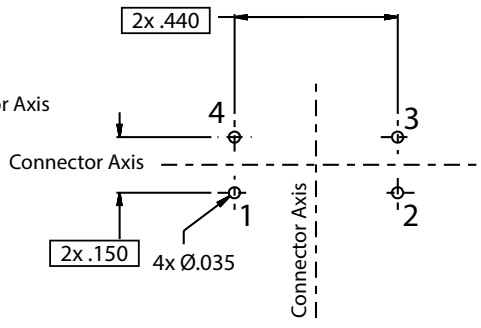

## RECOMMENDED PCB LAYOUT

**Receptacle USB 2.0 / Type A (Horizontal Orientation)**




Recommended (Solder Side)

**Receptacle USB 2.0 / Type A (Vertical Orientation)**




Recommended (Solder Side)

### NOTES

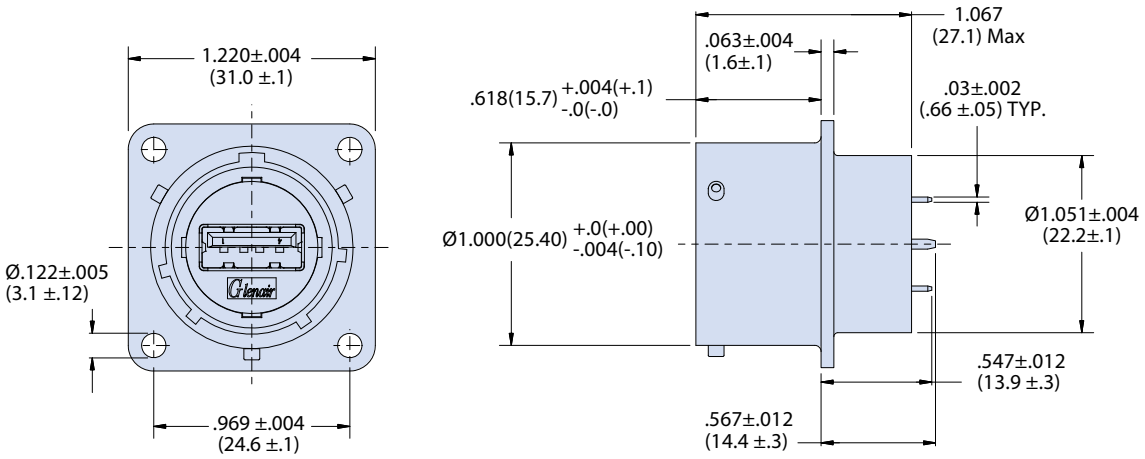
1. See Section A for panel cutout dimensions



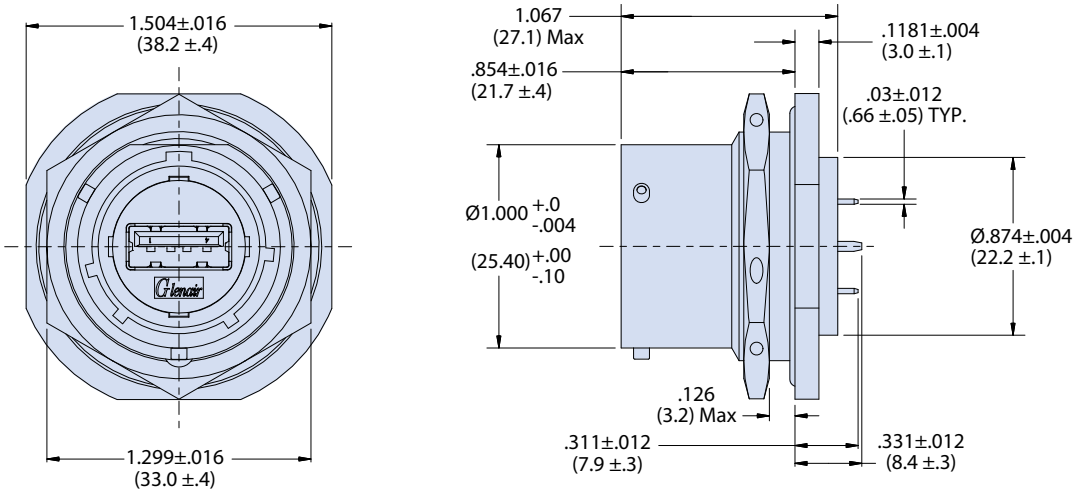
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal® Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

G

## 02 - WALL MOUNT RECEPTACLE




## 07 - REAR PANEL MOUNT JAM NUT RECEPTACLE




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal® Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

# Series IPT (26482 Type) Bayonet Coupler

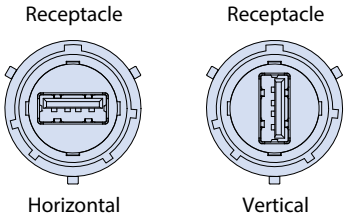
## IPT343 Receptacle with USB Female Interface to Solder Cup Termination

**How to Order**

| Sample Part Number | IPT343 | 02 | 16 | 2 | A | H | F6 |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| **Basic Number** | **IPT343** |
| **Connector Style**[1] | **02** = Wall Mount Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle |
| **Shell Size** | **16** |
| **USB Performance** | **2** = 2.0 |
| **USB Rear Jack Type** | **A** = Type A |
| **Orientation Option** | **H** = Horizontal **V** = Vertical |
| **Material/Finish** | **Omit** for Cadmium/Olive Drab<br>**F6** = Black Polymer Electrocoat<br>**F7** = Conductive Black Zinc Nickel<br>**F11** = Electroless Nickel |

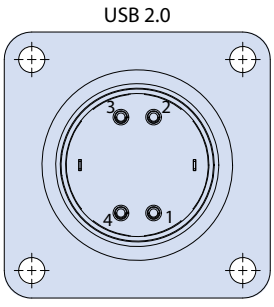
**USB Orientation Options**



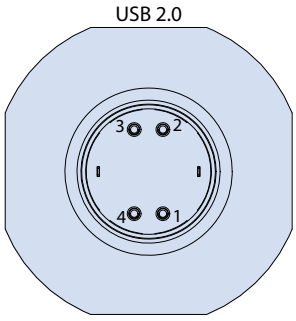

## SOLDER CUP LAYOUTS FOR USB 2.0

### Horizontal USB layout

**-02 Style Solder Cup Layouts**



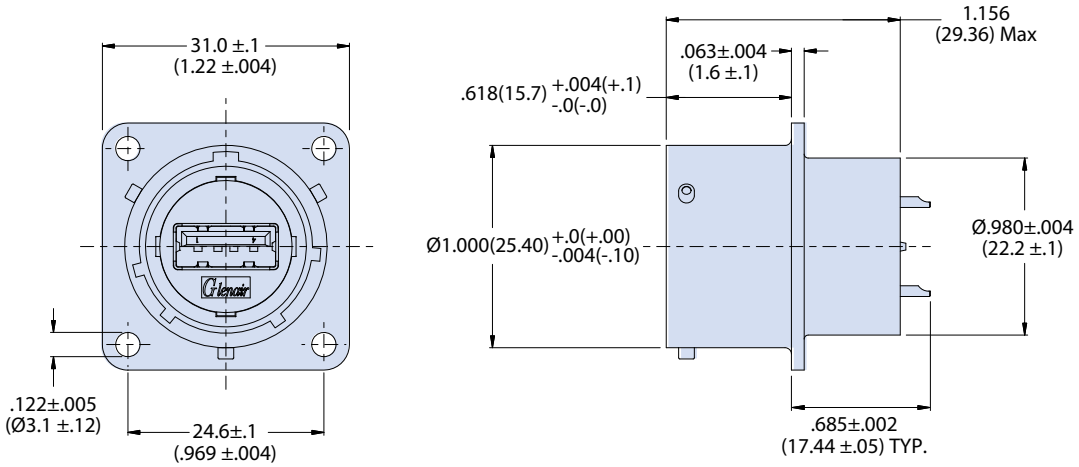

**-07 Style Solder Cup Layouts**



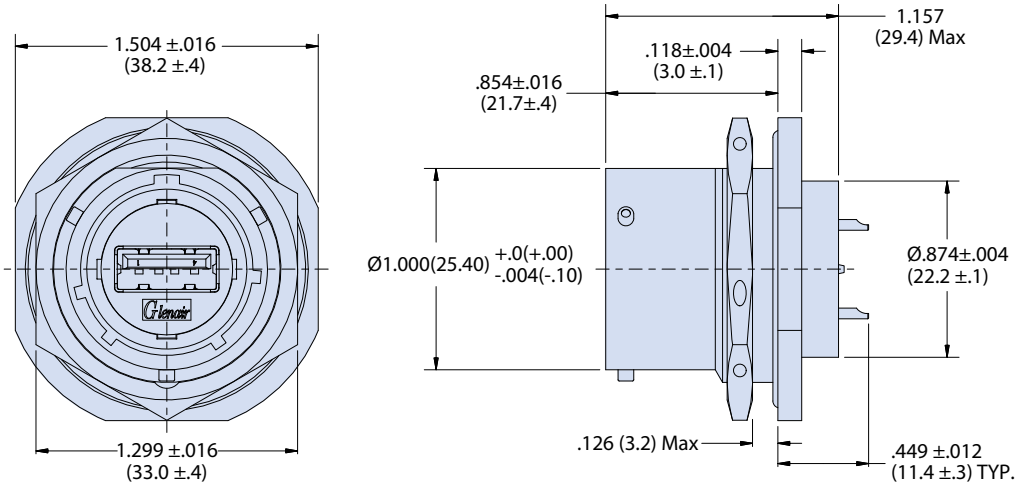



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal® Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## 02 - WALL MOUNT RECEPTACLE




## 07 - REAR PANEL MOUNT JAM NUT RECEPTACLE




## NOTES

1. See Section A panel cutout dimensions

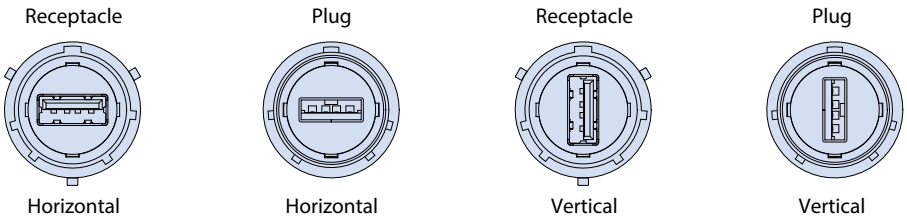
*USB 2.0 TYPE A*

# Series IPT (26482 Type) Bayonet Coupler

## IPT345 Connectors with USB Male (Plug) or Female (Receptacle) Interface to Crimp Removable Contacts

| How to Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT345** | **00** | **16** | **2** | **A** | **H** | **F6** |
| **Basic Number** | **IPT345** | | | | | | |
| **Connector Style** | **00** = Wall Mount Receptacle<br>**070** = Rear Panel Mount Jam Nut Receptacle<br>**06** = Straight Plug | | | | | | |
| **Shell Size** | **16** | | | | | | |
| **USB Performance** | **2** = 2.0 | | | | | | |
| **USB Rear Jack Type** | **A** = Type A | | | | | | |
| **Orientation Option** | **H** = Horizontal **V** = Vertical | | | | | | |
| **Material/Finish** | **Omit** for Cadmium/Olive Drab **F6** = Black Polymer Electrocoat<br>**F7** = Conductive Black Zinc Nickel **F11** = Electroless Nickel | | | | | | |

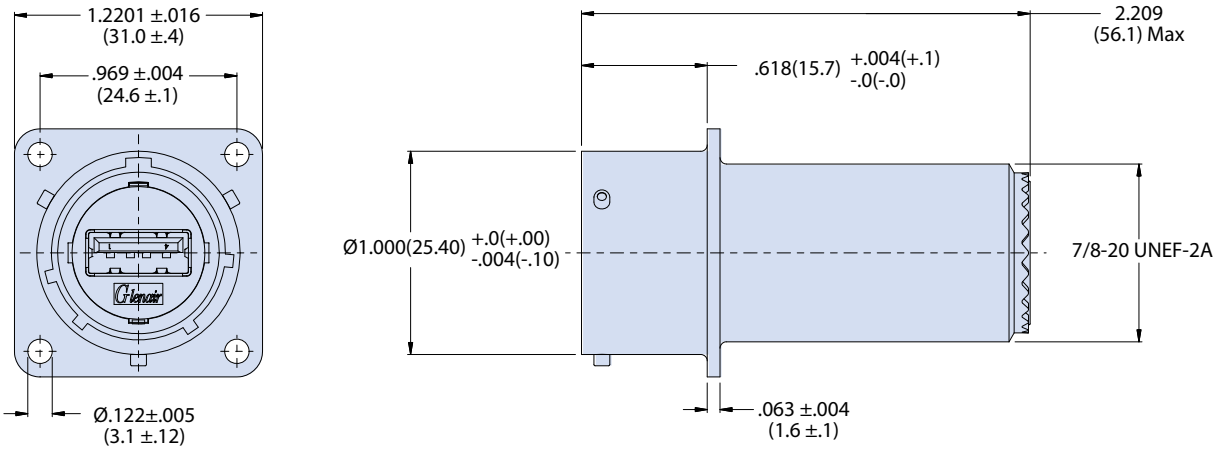
**USB Orientation Options**




### NOTES

1. See Section A for panel cutout dimensions

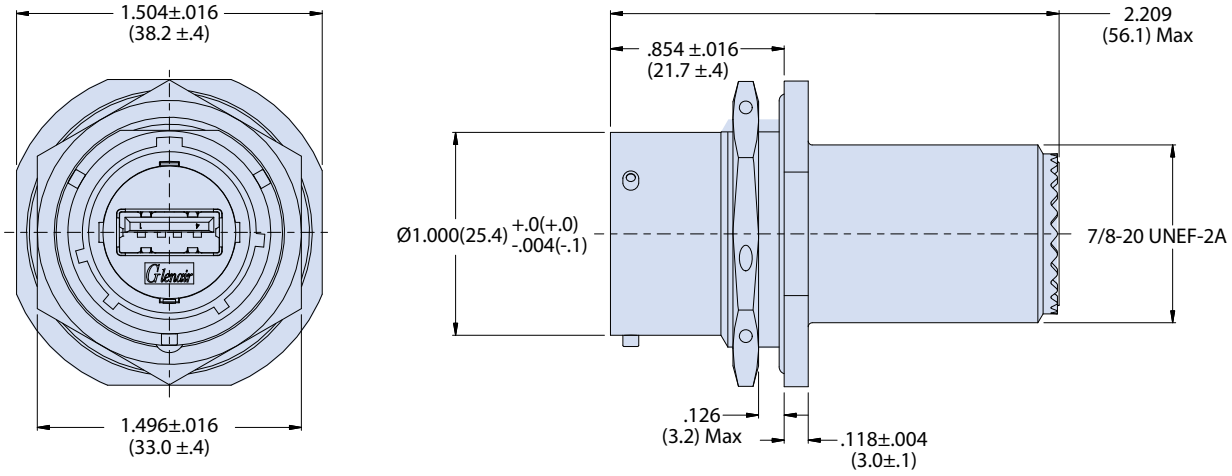
### 00 - WALL MOUNT RECEPTACLE WITH ACCESSORY THREADS



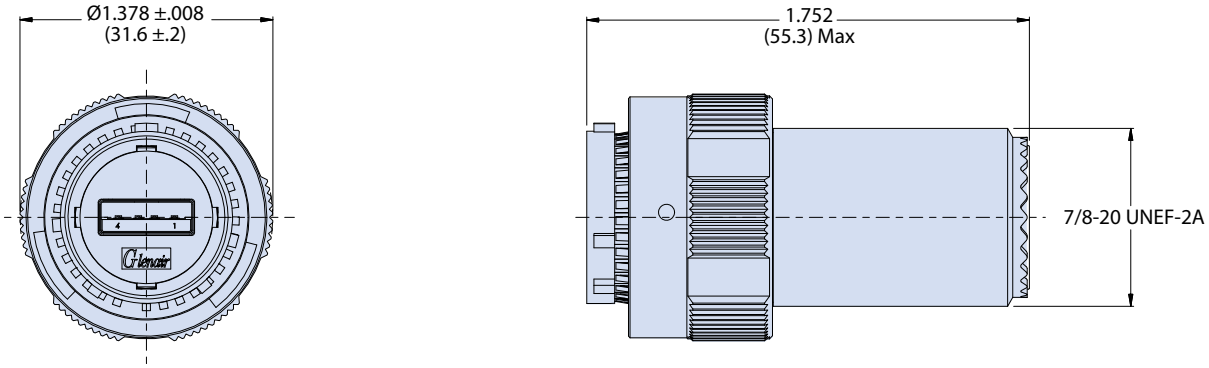



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal® Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

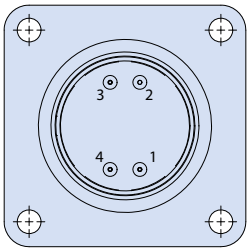
## 070 - REAR PANEL MOUNT JAM NUT RECEPTACLE WITH ACCESSORY THREADS




## 06 - PLUG WITH ACCESSORY THREADS




### Crimp Contact Layout
(Horizontal Orientation Shown)




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal® Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

# Series IPT (26482 Type) Bayonet Coupler

## IPT370 Feedthrough Receptacle with USB Female-to-Female Interface

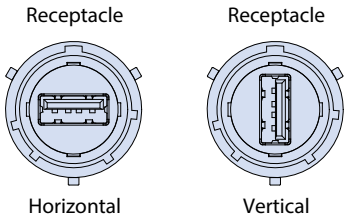
| How to Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT370** | **02PP** | **16** | **2** | **A** | **A** | **H** | **F6** |

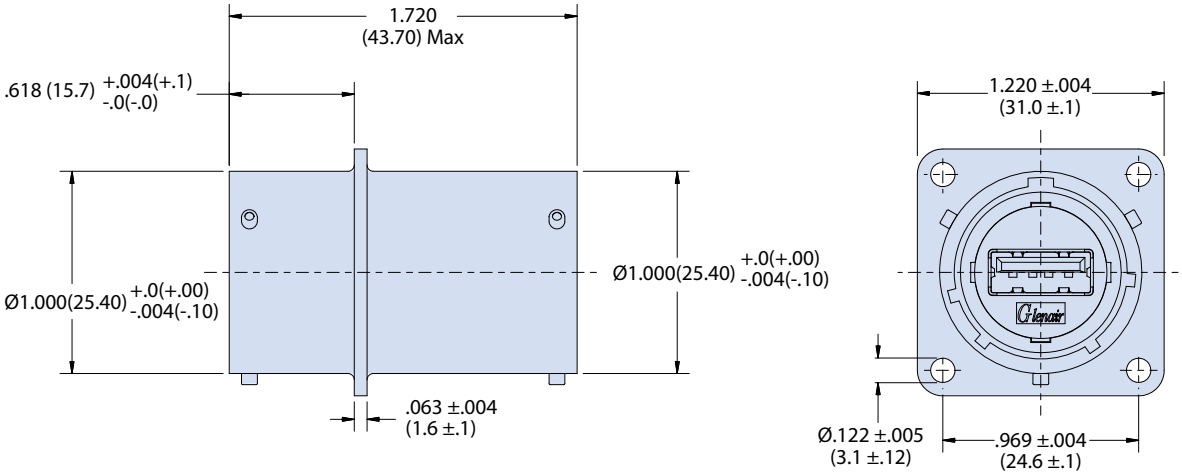
| | |
|---|---|
| **Basic Number** | **IPT370** |
| **Connector Style**[1] | **02PP** = Rear Panel Mounting Receptacle Bulkhead Feed Through |
| **Shell Size** | **16** |
| **USB Performance** | **2** = 2.0 |
| **USB Rear Jack Type** | **A** = Type A |
| **USB Front Jack Type** | **A** = Type A |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |
| **Material/Finish** | Omit for Cadmium/Olive Drab<br>**F6** = Black Polymer Electrocoat<br>**F7** = Conductive Black Zinc Nickel<br>**F11** = Electroless Nickel |

## NOTES

1. See Section A for panel cutout dimensions and complete finish options

**USB Orientation Options**






© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal® Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

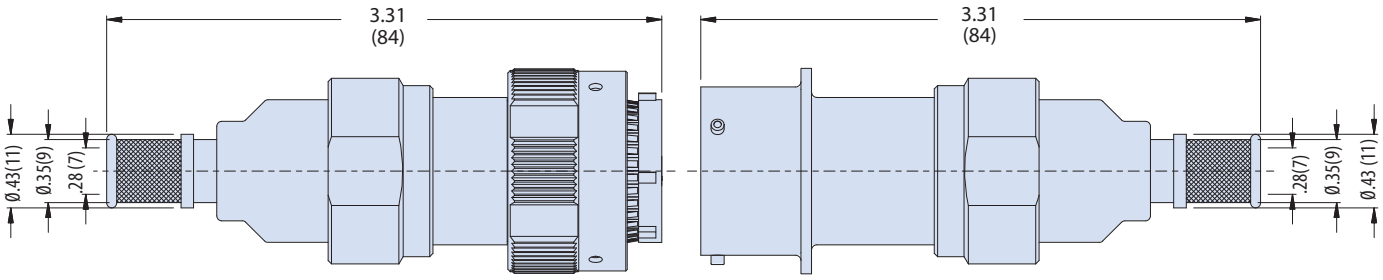
*USB 2.0 TYPE A*

# Series IPT (26482 Type) Bayonet Coupler

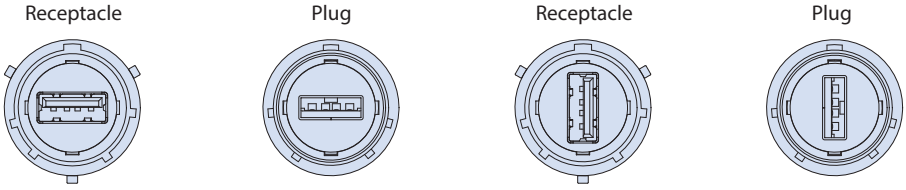
## IPT340H Connector and Backshell with Banding Porch and Shrink Boot Groove

| How to Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT340H** | **00** | **16** | **2** | **A** | **A** | **H** | **ZL** | **F6** |

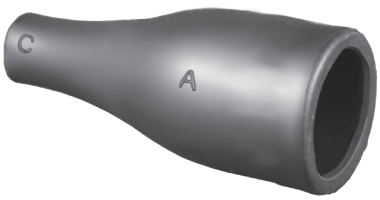
| | |
|---|---|
| **Basic Number** | **IPT340H** |
| **Connector Style**[1] | **00** = Wall Mount Receptacle with Accessory Threads<br>**01** = InLine Receptacle with Accessory Threads<br>**070** = Rear Panel Mount Jam Nut Receptacle with Accessory Threads<br>**06** = Straight Plug Connector with Accessory Threads |
| **Shell Size** | **16** |
| **USB Performance** | **2** = 2.0 |
| **USB Rear Jack Type** | **A** = Type A |
| **USB Front Jack Type** | **A** = Type A |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |
| **Backshell** | **ZL** = With banding platform for direct attachment of cable shield and shrink boot groove |
| **Material/Finish** | **Omit** for Cadmium/Olive Drab **F7** = Conductive Black Zinc Nickel<br>**F6** = Black Polymer Electrocoat **F11** = Electroless Nickel |




**USB Orientation Options**




## HEAT SHRINK BOOT




Glenair P/N : **770-004S903W2**

**Must be ordered separately**

Type 9 flexible polyolefin short profile boots have an operating temperature range of -40°C to 100°C and provide very good resistance to fuels, oils and solvents. These boots fit most standard boot adapters for circular connectors and are specifically designed for low temperature rated CAT5e and USB cables.

## NOTES

1. See Section A for panel cutout dimensions

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal® Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

*USB 2.0 TYPE A*

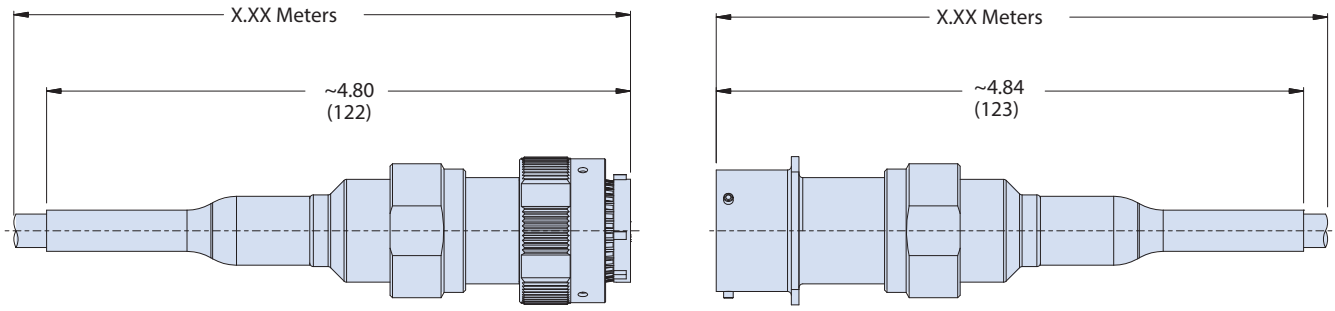
# Series IPT (26482 Type) Bayonet Coupler

## IPT340H Connector and Backshell with Pigtail

Glenair®

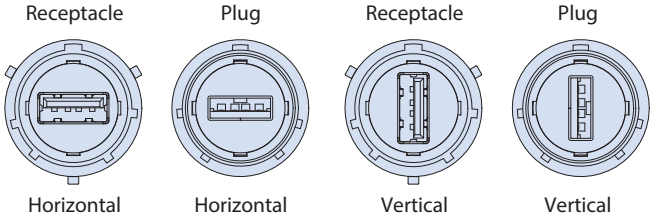
| How to Order | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT340H** | **00** | **16** | **2** | **A** | **A** | **H** | **ZL** | **0.5** | **F6** |

| | |
|---|---|
| **Basic Number** | **IPT340H** |
| **Connector Style**[1] | **00** = Wall Mount Receptacle<br>**01** = InLine Receptacle<br>**070** = Rear Panel Mounting Jam Nut Receptacle<br>**06** = Straight Plug Connector |
| **Shell Size** | **16** |
| **USB Performance** | **2** = 2.0 |
| **USB Rear Jack Type** | **A** = Type A |
| **USB Front Jack Type** | **A** = Type A |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |
| **Backshell** | **ZL** = Backshell with banding platform for direct attachment of cable shield and shrink boot pre-installed |
| **Cable Length** | **0.5** = 0.5 inch pigtail (See High Data Rate Cable P/N 963-012) |
| **Material/Finish** | **Omit** for Cadmium/Olive Drab<br>**F6** = Black Polymer Electrocoat<br>**F7** = Conductive Black Zinc Nickel<br>**F11** = Electroless Nickel |




**Plug and Receptacle with Pigtail**

**USB Orientation Options**




## NOTES

1. See Section A for panel cutout dimensions



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal® Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

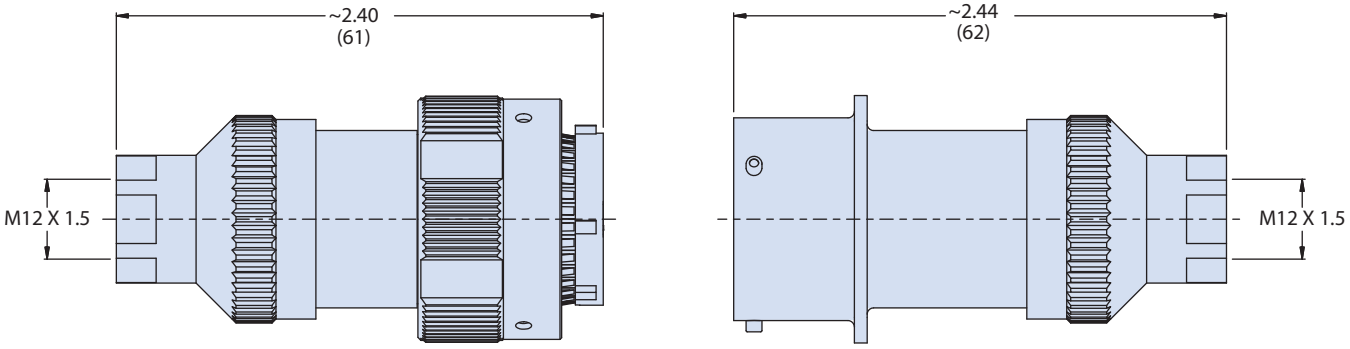
*USB 2.0 TYPE A*

# Series IPT (26482 Type) Bayonet Coupler

## IPT340H Connector with Internal Metric Thread Backshell

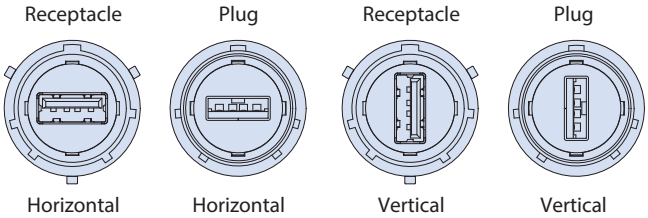
| How to Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT340H** | **00** | **16** | **2** | **A** | **A** | **H** | **M** | **F6** |

| | |
|---|---|
| **Basic Number** | **IPT340H** |
| **Connector Style**[1] | **00** = Wall Mount Receptacle<br>**01** = InLine Receptacle<br>**070** = Rear Panel Mounting Jam Nut Receptacle<br>**06** = Straight Plug Connector |
| **Shell Size** | **16** |
| **USB Performance** | **2** = 2.0 |
| **USB Rear Jack Type** | **A** = Type A |
| **USB Front Jack Type** | **A** = Type A |
| **Orientation Option** | **H** = Horizontal **V** = Vertical |
| **Backshell** | **M** = Backshell with metric thread |
| **Material/Finish** | **Omit** for Cadmium/Olive Drab<br>**F6** = Black Polymer Electrocoat<br>**F7** = Conductive Black Zinc Nickel<br>**F11** = Electroless Nickel |




**Plug and Receptacle without Cable Gland**
**(Other Backshell options are available, please consult the factory)**

**USB Orientation Options**




## NOTES

1. See Section A panel cutout dimensions

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal® Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

*USB 2.0 TYPE A*

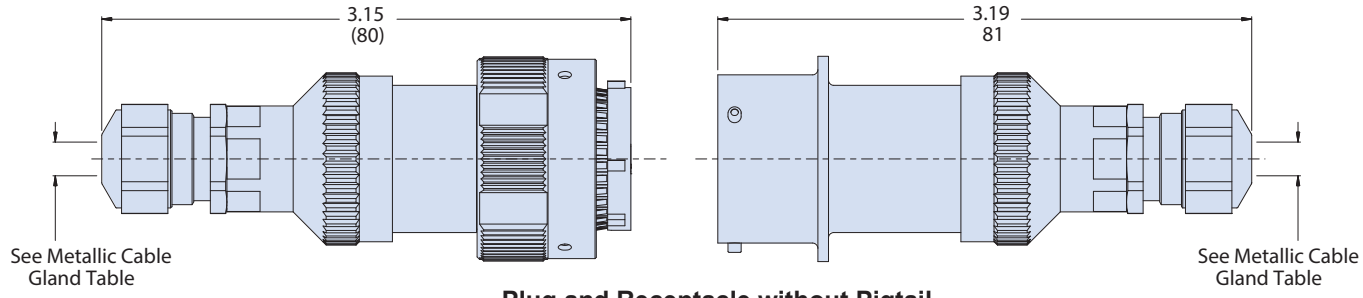
# Series IPT (26482 Type) Bayonet Coupler

## IPT340H Connector and Backshell with Cable Gland, with or without Pigtails

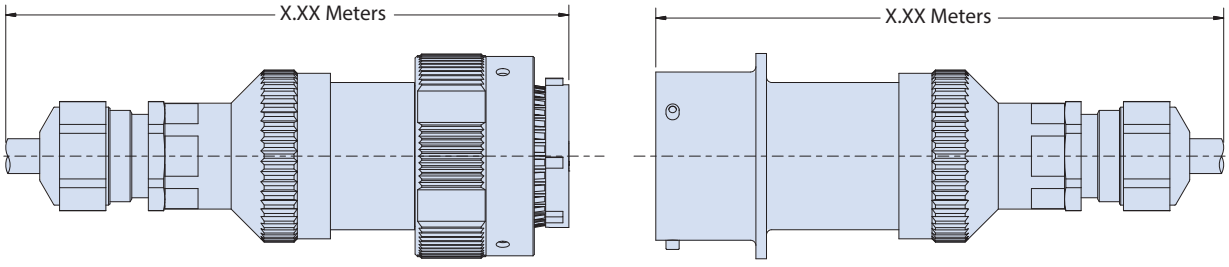
Glenair®

| How to Order | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **IPT340H** | **00** | **16** | **2** | **A** | **A** | **H** | **MS1** | **0.5** | **F6** |

| | |
|---|---|
| **Basic Number** | **IPT340H** |
| **Connector Style**[1] | **00** = Wall Mount Receptacle<br>**01** = InLine Receptacle<br>**070** = Rear Panel Mounting Jam Nut Receptacle<br>**06** = Straight Plug Connector with Accessory Threads |
| **Shell Size** | **16** |
| **USB Performance** | **2** = 2.0 |
| **USB Rear Jack Type** | **A** = Type A |
| **USB Front Jack Type** | **A** = Type A |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |
| **Metallic Cable Gland** | **M1**, **M2**, **MS1**, **MS2** See Metallic Cable Gland Table |
| **Cable Length** | **0.5** = 0.50 inch pigtail **Omit** for None |
| **Material/Finish** | **Omit** for Aluminum/Cadmium, Olive Drab (G3)<br>**F6** = Black Polymer Electrocoat<br>**F7** = Conductive Black Zinc Nickel<br>**F11** = Electroless Nickel |

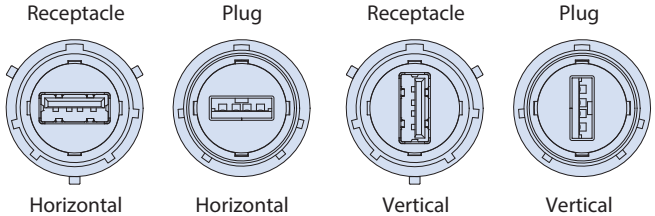



**Plug and Receptacle without Pigtail**




**Plug and Receptacle with Pigtail**

**USB Orientation Options**




| Metallic Cable Gland | | |
|---|---|---|
| Type | Cable Range | Shield |
| M1 | .13 - .19 (3.5 - 5) | No |
| M2 | .25 - .31 (6.5 - 8) | No |
| MS1 | .17 - .23 (4.5 - 6) | Yes |
| MS2 | .23 - .29 (6 - 7.5) | Yes |

## NOTES

1. See Section A for panel cutout dimensions



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal® Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*RJ12, RJ45, AND USB 2.0 TYPE A*

# SuperSeal™ 28840 Type Connectors

## Product Selection Guide

**900-320** Page H-2

SuperSeal™ Coupler with Accessory Threads and RJ12 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle).

**900-300** Page H-4

SuperSeal™ Coupler with Accessory Threads and RJ45 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle).

**900-301** Page H-6

SuperSeal™ Connector with Accessory Threads and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts.

**900-340** Page H-8

SuperSeal™ Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle).

**900-345** Page H-10

SuperSeal™ Connector with Accessory Threads and USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts.

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 28840 SuperSeal™

## 900-320 Coupler with Accessory Threads and RJ12 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)



| How to Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Part Number Example** | **900-320** | **NF** | **D0** | **-** | **17** | **1** | **1** |

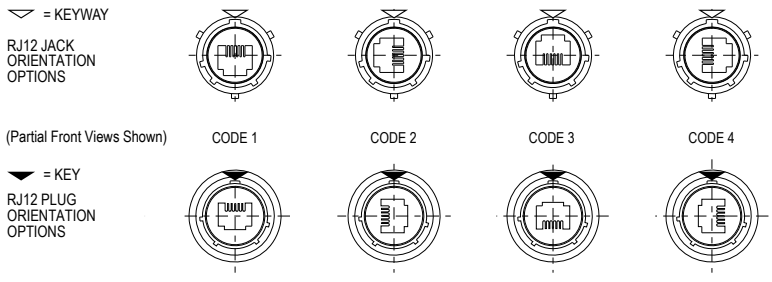
| | |
|---|---|
| **Basic Number** | **900-320** |
| **Material/Finish** | See Material and Finish Options Table |
| **Connector Style** | **D0** = Receptacle, Wall Mount<br>**05** = Receptacle, Inline<br>**07** = Receptacle, Jam Nut<br>**G6** = Plug |
| **Shielding** | **–** = Inline Shielded RJ45<br>**G** = Inline Shielded and Grounded to Shell (See Note 2) |
| **Shell Size** | **15** or **17** |
| **Alternate Polarization** | **1**, **2**, **3**, **4**, **5**, **6** See Section A for details (Per MIL-DTL-28840) |
| **RJ12 Orientation Option** | **1**, **2**, **3**, **4** (See below for options) |

| Wall Mount & Inline Receptacle Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| **Shell Size** | **A Thread** | **B Sq** | **C Bsc** | **D Thread** | **E** | **ØF** |
| 15 | 1.062-.1P-.2L-DS-2A | 1.278 (32.46)<br>1.238 (31.45) | .968 (24.59) | 1.000-20 UNEF 2A | 1.080 (27.43)<br>1.070 (27.18) | 1.275 (32.39)<br>1.255 (31.88) |
| 17 | 1.125-.1P-.2L-DS-2A | 1.403 (35.64)<br>1.363 (34.62) | 1.015 (25.78) | 1.125-18 UNEF 2A | 1.143 (29.03)<br>1.133 (28.78) | 1.338 (33.99)<br>1.318 (33.48) |

| Jam Nut Receptacle & Plug Dimensions | | | | | |
|---|---|---|---|---|---|
| **Shell Size** | **ØG** | **H** | **J Flat** | **K Thread** | **ØL Max** |
| 15 | 1.681 (42.70)<br>1.661 (42.19) | 1.587 (40.31)<br>1.567 (39.80) | 1.153 (29.29)<br>1.144 (29.06) | 1.1875-18 UNEF 2A | 1.263 (32.08) |
| 17 | 1.743 (44.27)<br>1.723 (43.76) | 1.649 (41.88)<br>1.629 (41.38) | 1.216 (30.89)<br>1.207 (30.66) | 1.250-18 UNEF 2A | 1.387 (35.23) |

| Material and Finish Options | | |
|---|---|---|
| **Code** | **Material** | **Finish Description** |
| **NF** | Aluminum | Cadmium O. D. Over Electroless Nickel (500 hour Salt Spray) |
| **ZN** | | Zinc Nickel, Olive Drab |
| **MT** | | Nickel-PTFE,1000 Hour Grey™ |
| **Z1** | Stainless Steel | Passivate |
| **ZU** | | Black Cadmium Over Nickel |
| **AB** | Marine Bronze | None (Clean Only) |

## RJ12 JACK ORIENTATION OPTIONS




## NOTES

1. Receptacle meets IP67 requirements in the unmated condition and plug meets IP68 requirements in the mated condition, consult factory for details.
2. "G" option only with receptacle.
3. Connector accessory features per M28840 connector designator G. Consult factory for accessory selection.

## SPECIFICATIONS

- RJ12 coupler maintains shield continuity
- Wiring: straight through
- RoHS compliant
- Electrical: current rating: 1.5 Amp
- D.W.V.: 1000 VDC (700 VAC)
- Operating temperature: -40°C to +120°C

| Wiring Diagram* | | | |
|---|---|---|---|
| **Pin** | **Modern Color Code (UTP)** | **Old Color Code** | **Destination** |
| 1 | white/green | white | T3 (Tip 3) |
| 2 | white/orange | black | T2 (Tip 2) |
| 3 | blue/white | red | R1 (Ring 1) |
| 4 | white/blue | green | T1 (Tip 1) |
| 5 | orange/white | orange | R2 (Ring 2) |
| 6 | green/white | blue | R3 (Ring 3) |

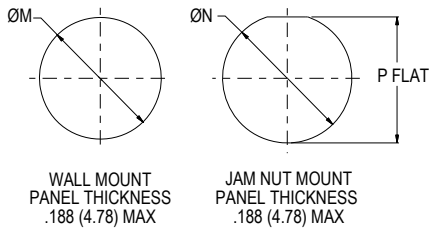
Pair 1 = Primary dial tone or talk circuit on a single line

Pair 2 = Secondary dial tone on a two line or data control circuit for an electronic key phone

Pair 3 = Third dial tone on a three line or an accessory circuit for an electronic key phone

*Wiring Diagram based on industry standard USOC-6

| Recommended Panel Cutouts | | | |
|---|---|---|---|
| **Shell Size** | **ØM** | **ØN** | **P Flat** |
| 15 | 1.124 (28.55) | 1.203 (30.56)<br>1.193 (30.30) | 1.165 (29.59)<br>1.155 (29.34) |
| 17 | 1.187 (30.15) | 1.265 (32.13)<br>1.255 (31.88) | 1.228 (31.19)<br>1.218 (30.94) |



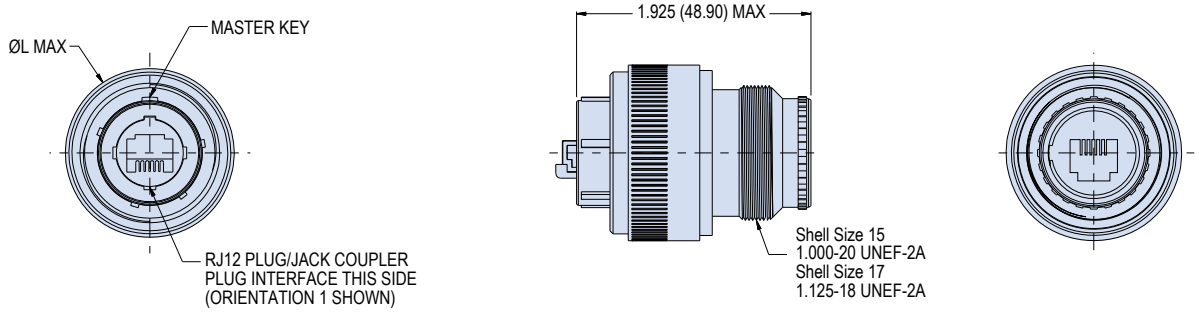



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

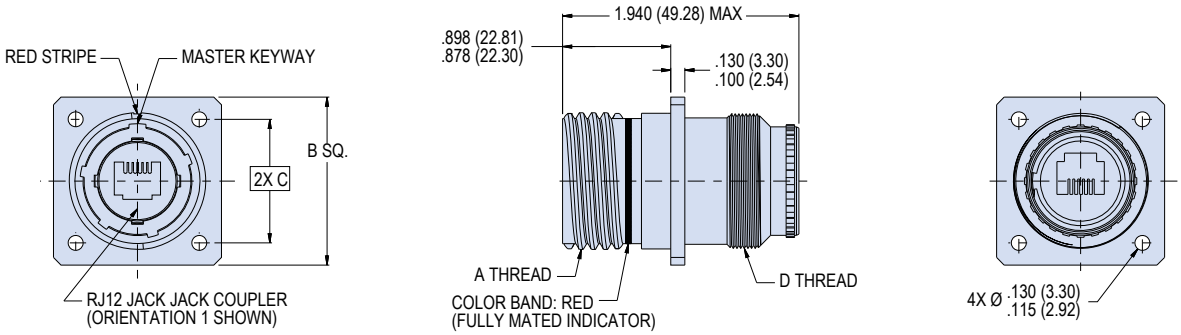
# 900-320 Coupler with Accessory Threads and RJ12 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)



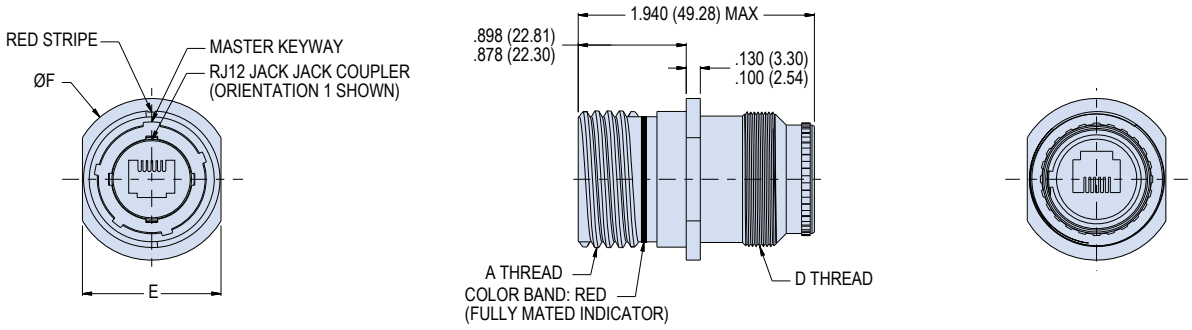
## G6 - PLUG (JAM NUT RECEPTACLE & PLUG DIMENSIONS TABLE)



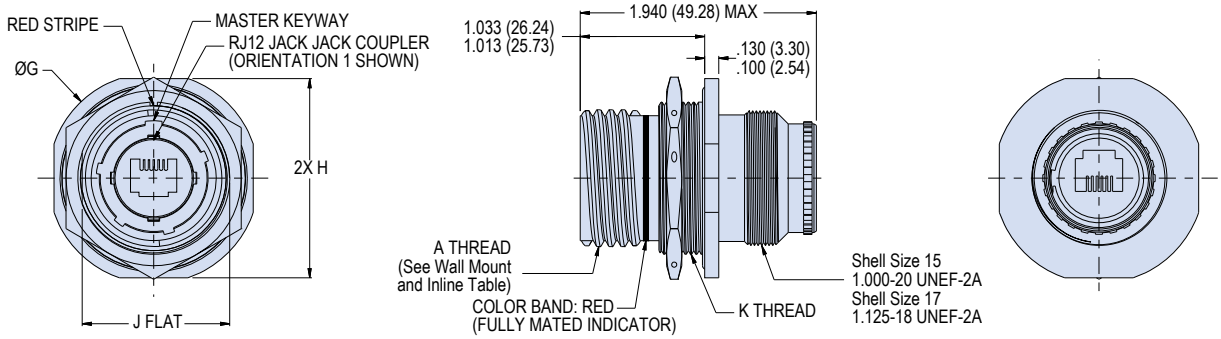

## D0 - WALL MOUNT RECEPTACLE (SEE WALL MOUNT & INLINE RECEPTACLE DIMENSIONS TABLE)




## 05 - RECEPTACLE, INLINE (SEE WALL MOUNT & INLINE RECEPTACLE DIMENSIONS TABLE)




## 07 - JAM NUT MOUNT RECEPTACLE (JAM NUT RECEPTACLE & PLUG DIMENSIONS TABLE)




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog

Dimensions in Inches (millimeters) are subject to change without notice.

# 28840 SuperSeal™

## 900-300 Coupler with Accessory Threads and RJ45 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)



| How to Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Part Number Example** | **900-300** | **NF** | **D0** | **-** | **17** | **5H** | **1** | **1** |

| | |
|---|---|
| **Basic Number** | **900-300** |
| **Material/Finish** | See Material and Finish Options Table |
| **Connector Style** | **D0** = Receptacle, Wall Mount **05** = Receptacle, Inline<br>**07** = Receptacle, Jam Nut **G6** = Plug |
| **Shielding** | **–** = Inline Shielded RJ45 **G** = Inline Shielded and Grounded to Shell |
| **Shell Size** | **17** or **19** (See Note 1) |
| **RJ45 Category** | **5H** = Cat 5E<br>For Cat 6A applications consult factory |
| **Alternate Polarization** | **1**, **2**, **3**, **4**, **5**, **6** See connector specifications page for further information (Per MIL-DTL-28840) |
| **RJ45 Orientation Option** | **1**, **2**, **3**, **4** (See below for options) |

**Wall Mount & Inline Receptacle Dimensions**

| Shell Size | A Thread | B Sq | C Bsc | D Thread | E | ØF |
|---|---|---|---|---|---|---|
| 17 | 1.125-.1P-.2L-DS-2A | 1.403 (35.64)<br>1.363 (34.62) | 1.015 (25.78) | 1.125-18 UNEF 2A | 1.143 (29.03)<br>1.133 (28.78) | 1.338 (33.99)<br>1.318 (33.48) |
| 19 | 1.312-.1P-.2L-DS-2A | 1.528 (38.81)<br>1.488 (37.80) | 1.140 (28.96) | 1.250-18 UNEF 2A | 1.330 (33.78)<br>1.320 (33.53) | 1.525 (38.74)<br>1.505 (38.23) |

**Jam Nut Receptacle & Plug Dimensions**

| Shell Size | ØG | H | J Flat | K Thread | ØL | ØN Max |
|---|---|---|---|---|---|---|
| 17 | 1.743 (44.27)<br>1.723 (43.76) | 1.649 (41.88)<br>1.629 (41.38) | 1.216 (30.89)<br>1.207 (30.66) | 1.250-18<br>UNEF 2A | 1.354 (34.39)<br>1.344 (34.14) | 1.387<br>(35.23) |
| 19 | 1.931 (49.05)<br>1.911 (48.54) | 1.837 (46.66)<br>1.817 (46.16) | 1.403 (35.64)<br>1.394 (35.41) | 1.4375-18<br>UNEF 2A | 1.542 (39.17)<br>1.532 (38.91) | 1.513<br>(38.43) |

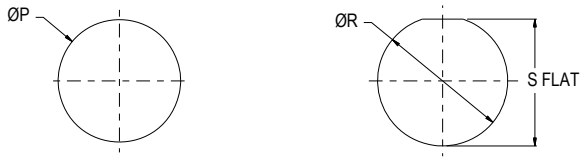
**Panel Cutouts**

| Shell Size | ØP | ØR | S Flat |
|---|---|---|---|
| 17 | 1.187 (30.15) | 1.265 (32.13)<br>1.255 (31.88) | 1.228 (31.19)<br>1.218 (30.94) |
| 19 | 1.374 (34.90) | 1.453 (36.91)<br>1.443 (36.65) | 1.415 (35.94)<br>1.405 (35.69) |

**Material and Finish Options**

| Code | Material | Finish Description |
|---|---|---|
| **NF** | Aluminum | Cadmium O. D. Over Electroless Nickel (500 hour Salt Spray) |
| **ZN** | | Zinc Nickel, Olive Drab |
| **MT** | | Nickel-PTFE,1000 Hour Grey™ |
| **Z1** | Stainless Steel | Passivate |
| **ZU** | | Black Cadmium Over Nickel |
| **AB** | Marine Bronze | None (Clean Only) |

## RECOMMENDED PANEL CUT-OUTS



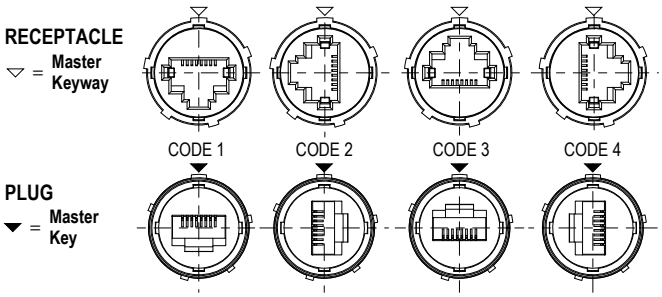

WALL MOUNT
PANEL THICKNESS .188 (4.78) MAX

JAM NUT MOUNT
PANEL THICKNESS .188 (4.78) MAX

## NOTES

1. Size 17 uses rear shielding sleeve.
   Size 19 uses front and rear shielding sleeve.
2. Connector accessory features per M28840 connector designator G. Consult factory for accessory selection.
3. Receptacle connector meets IP67 requirements in the unmated condition and plug meets IP68 requirements in the mated condition, consult factory for details.

## RJ45 ORIENTATION OPTIONS



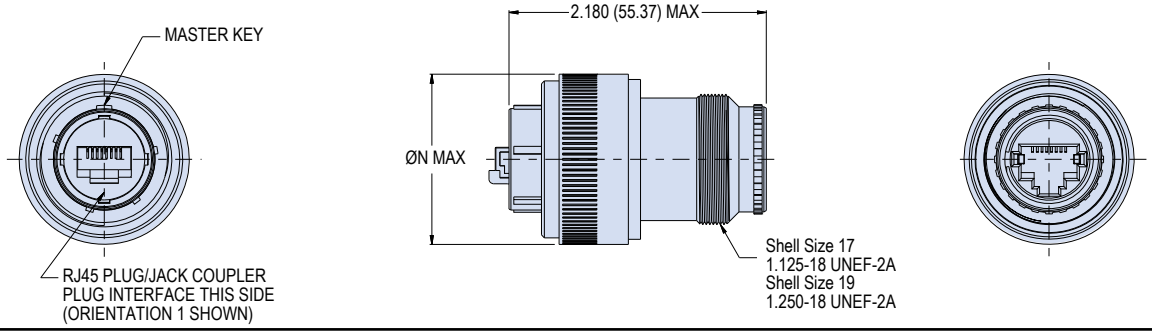



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

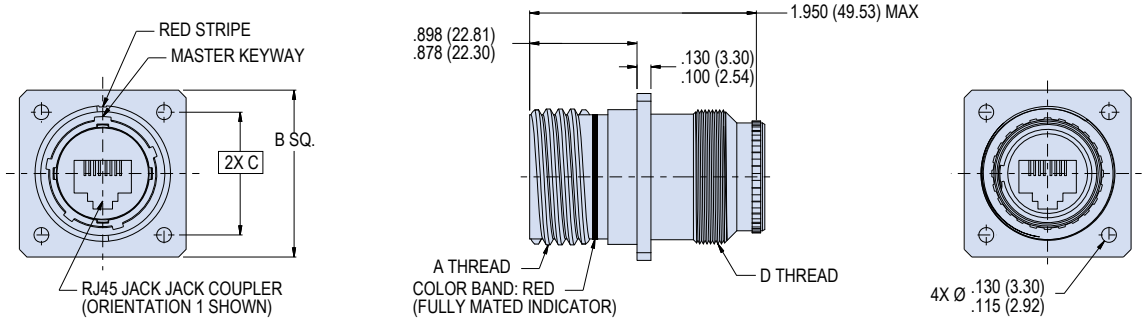
# 900-300 Coupler with Accessory Threads and RJ45 Plug-to-Jack (Plug) or Jack-to-Jack (Receptacle)



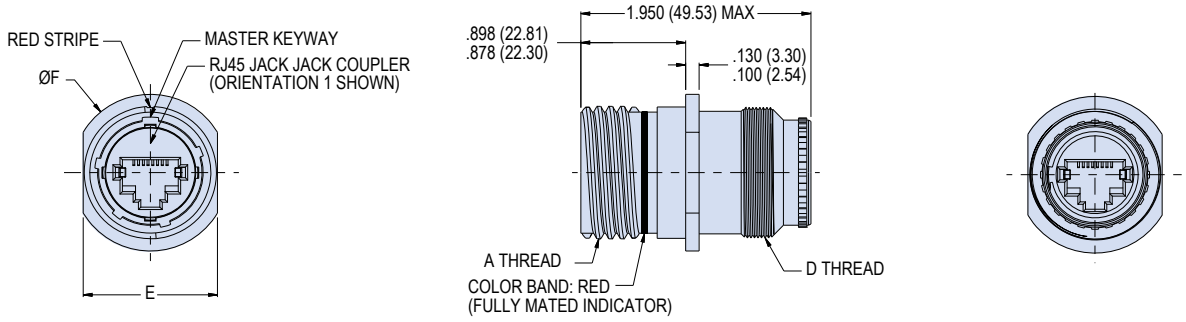
## G6 - PLUG (JAM NUT RECEPTACLE & PLUG DIMENSIONS TABLE)



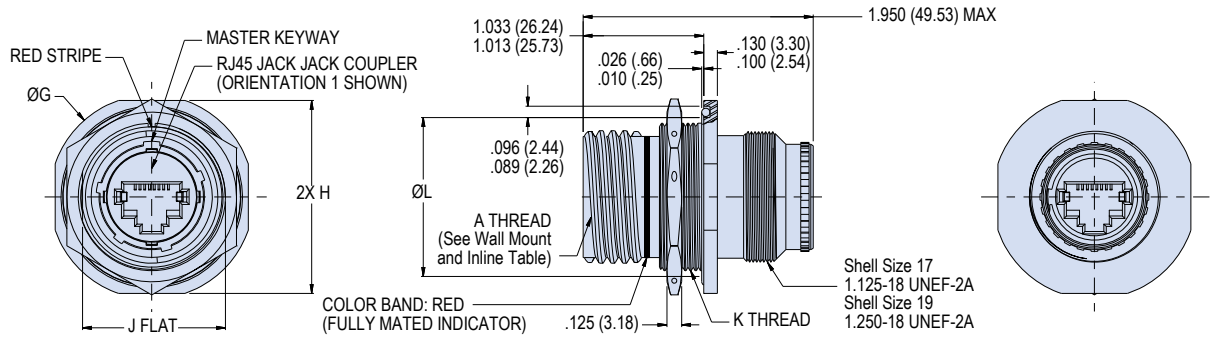

## D0 - WALL MOUNT RECEPTACLE (WALL MOUNT & INLINE RECEPTACLE DIMENSIONS TABLE)




## 05 - RECEPTACLE, INLINE (WALL MOUNT & INLINE RECEPTACLE DIMENSIONS TABLE)




## 07 - JAM NUT MOUNT RECEPTACLE (JAM NUT RECEPTACLE & PLUG DIMENSIONS TABLE)




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog

Dimensions in Inches (millimeters) are subject to change without notice.

# 28840 SuperSeal™

## 900-301 Connector with RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts



| How to Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Part Number Example** | **900-301** | **NF** | **D0** | **-** | **17** | **5H** | **1** | **1** |

| | |
|---|---|
| **Basic Number** | **900-301** = Connector with Accessoy Threads |
| **Material/Finish** | See Material and Finish Options Table |
| **Connector Style** | **D0** = Receptacle, Wall Mount **05** = Receptacle, Inline<br>**07** = Receptacle, Jam Nut **G6** = Plug |
| **Shielding** | **–** = Inline Shielded RJ45 **G** = Inline Shielded and Grounded to Shell (See Note 4) |
| **Shell Size** | **17** or **19** |
| **RJ45 Category** | **5H** = CAT5E For Cat 6A applications consult factory |
| **Alternate Polarization** | **1, 2, 3, 4, 5, 6** See connector specifications page for further information (Per MIL-DTL-28840) |
| **RJ45 Orientation** | **1, 2, 3, 4** (See below for options) |

**Wall Mount & Inline Receptacle Dimensions**

| Shell Size | A Thread | B Sq | C Bsc | D Thread | E | ØF |
|---|---|---|---|---|---|---|
| 17 | 1.125-.1P-.2L-DS-2A | 1.403 (35.64)<br>1.363 (34.62) | 1.015 (25.78) | 1.125-18 UNEF 2A | 1.143 (29.03)<br>1.133 (28.78) | 1.338 (33.99)<br>1.318 (33.48) |
| 19 | 1.312-.1P-.2L-DS-2A | 1.528 (38.81)<br>1.488 (37.80) | 1.140 (28.96) | 1.250-18 UNEF 2A | 1.330 (33.78)<br>1.320 (33.53) | 1.525 (38.74)<br>1.505 (38.23) |

**Jam Nut Receptacle & Plug Dimensions**

| Shell Size | ØG | H | J Flat | K Thread | ØL Max |
|---|---|---|---|---|---|
| 17 | 1.743 (44.27)<br>1.723 (43.76) | 1.649 (41.88)<br>1.629 (41.38) | 1.216 (30.89)<br>1.207 (30.66) | 1.250-18 UNEF 2A | 1.387 (35.23) |
| 19 | 1.931 (49.05)<br>1.911 (48.54) | 1.837 (46.66)<br>1.817 (46.16) | 1.403 (35.64)<br>1.394 (35.41) | 1.4375-18 UNEF 2A | 1.513 (38.43) |

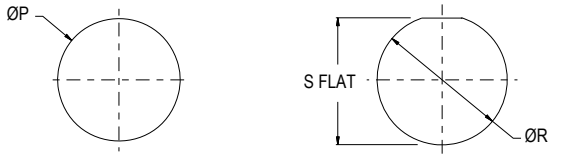
**Panel Cutouts**

| Shell Size | ØP | ØR | S Flat |
|---|---|---|---|
| 17 | 1.187 (30.15) | 1.265 (32.13)<br>1.255 (31.88) | 1.228 (31.19)<br>1.218 (30.94) |
| 19 | 1.374 (34.90) | 1.453 (36.91)<br>1.443 (36.65) | 1.415 (35.94)<br>1.405 (35.69) |

**Material and Finish Options**

| Code | Material | Finish Description |
|---|---|---|
| **NF** | Aluminum | Cadmium O. D. Over Electroless Nickel (500 hour Salt Spray) |
| **ZN** | | Zinc Nickel, Olive Drab |
| **MT** | | Nickel-PTFE,1000 Hour Grey™ |
| **Z1** | Stainless Steel | Passivate |
| **ZU** | | Black Cadmium Over Nickel |
| **AB** | Marine Bronze | None (Clean Only) |

## RECOMMENDED PANEL CUT-OUTS



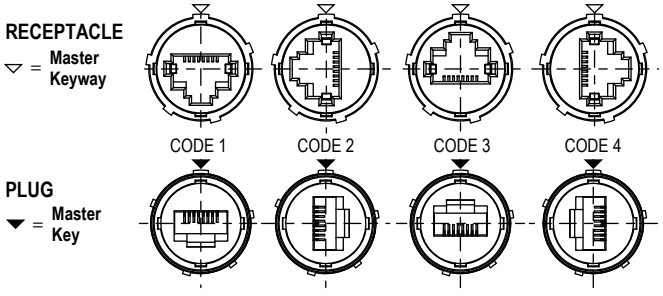

WALL MOUNT
PANEL THICKNESS .188 (4.78) MAX

JAM NUT MOUNT
PANEL THICKNESS .188 (4.78) MAX

## NOTES

1. Connector meets general requirements of MIL-DTL-28840 and RJ45 connector meets TIA 568B standard.
2. Crimp removable contacts to conform to M39029/58-360 - size 22 pin contacts supplied loose.
3. Receptacle connector designed to meet IP67 unmated condition. Plug connector designed to meet IP68 mated condition, consult factory for detailed information.
4. "G" indicates RJ45 coupler is shielded inline and grounded to shell.
5. Connector accessory features per M28840 connector designator G. Consult factory for crimp tool and accessory selection.

## RJ45 ORIENTATION OPTIONS



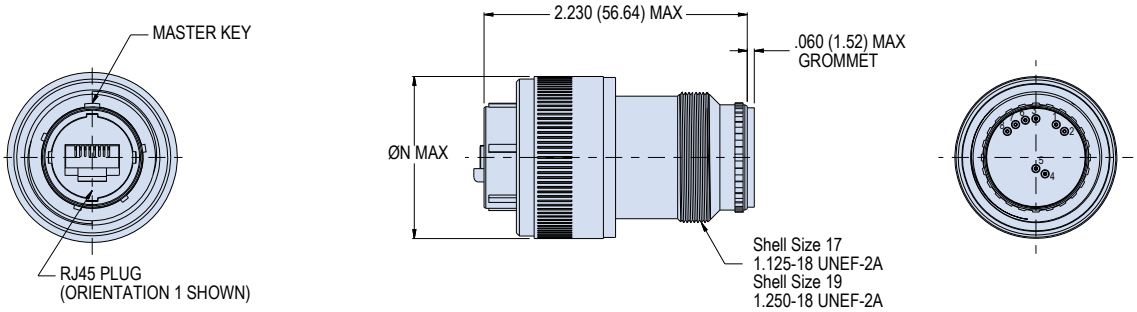



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

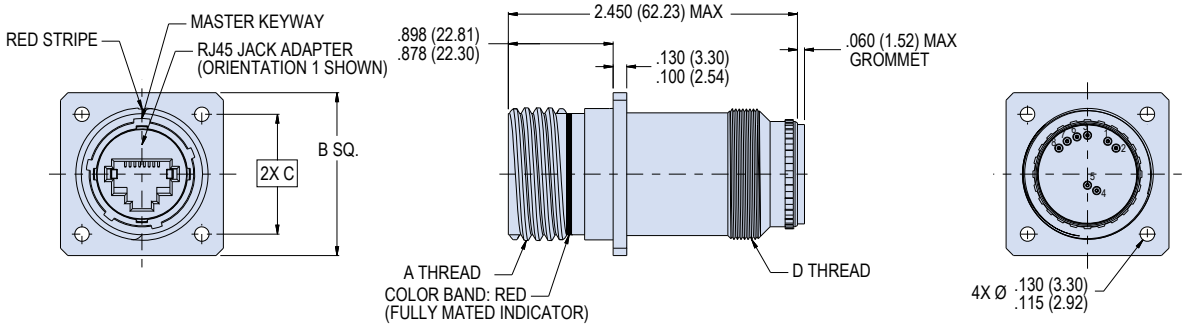
# 900-301 Connector with RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts



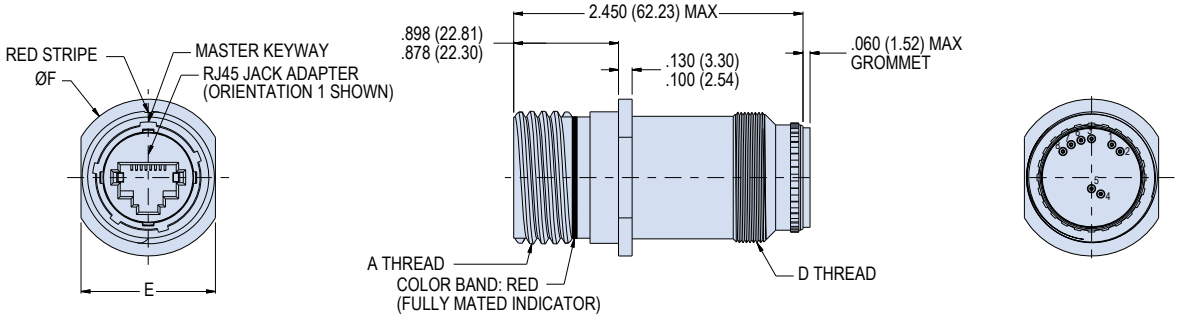
## G6 - PLUG (JAM NUT RECEPTACLE & PLUG DIMENSIONS TABLE)



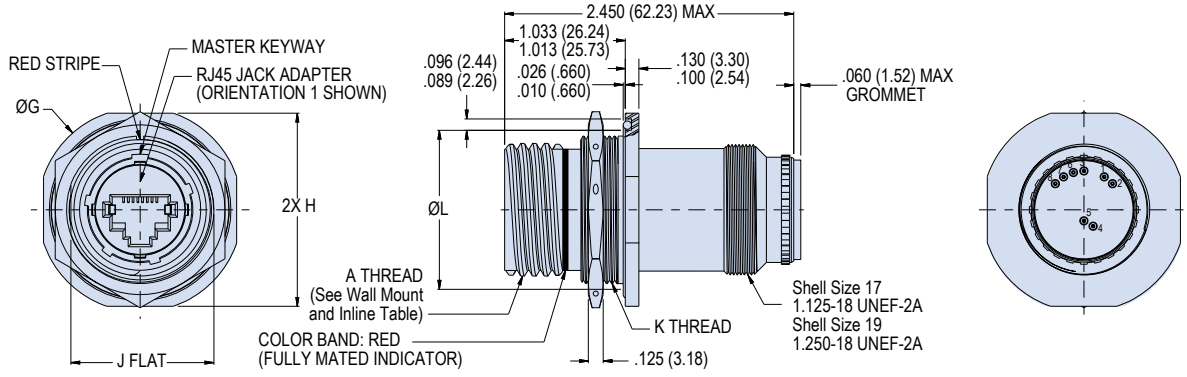

## D0 - WALL MOUNT RECEPTACLE (WALL MOUNT & INLINE RECEPTACLE DIMENSIONS TABLE)




## 05 - RECEPTACLE, INLINE (WALL MOUNT & INLINE RECEPTACLE DIMENSIONS TABLE)




## 07 - JAM NUT MOUNT RECEPTACLE (JAM NUT RECEPTACLE & PLUG DIMENSIONSTABLE)




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog

Dimensions in Inches (millimeters) are subject to change without notice.

# USB 2.0 TYPE A
# 28840 SuperSeal™
## 900-340 Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

| How to Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Part Number Example** | **900-340** | **NF** | **D0** | **-15** | **2** | **A** | **A** | **1** | **H** |

| | |
|---|---|
| **Basic Number** | **900-340** |
| **Material/Finish** | See Material and Finish Options Table |
| **Connector Style** | **D0** = Receptacle, Wall Mount **05** = Receptacle, Inline<br>**07** = Receptacle, Jam Nut **G6** = Plug |
| **Shell Size** | **15** |
| **USB Performance** | **2** = USB 2.0 |
| **USB Interface Type (Front)** | **A** = Type A |
| **USB Interface Type (Back)** | **A** = Type A |
| **Alternate Polarization** | **1**, **2**, **3**, **4**, **5**, and **6** See connector specifications page for further information (Per MIL-DTL-28840) |
| **USB Orientation** | **H** = Horizontal **V** = Vertical (See below for options) |

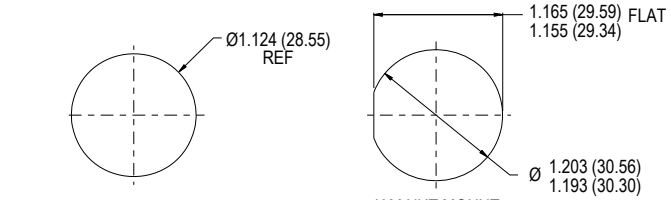
| USB 2.0 Wiring | | | |
|---|---|---|---|
| **Pin** | **Name** | **Cable Color (USB)** | **Description** |
| 1 | (V BUS) | Red | +5 V |
| 2 | (D-) | White | Data - |
| 3 | (D+) | Green | Data + |
| 4 | (GND) | Black | Ground |

| Material and Finish Options | | |
|---|---|---|
| **Code** | **Material** | **Finish Description** |
| **NF** | Aluminum | Cadmium O. D. Over Electroless Nickel (500 hour Salt Spray) |
| **ZN** | | Zinc Nickel, Olive Drab |
| **MT** | | Nickel-PTFE,1000 Hour Grey™ |
| **Z1** | Stainless Steel | Passivate |
| **ZU** | | Black Cadmium Over Nickel |
| **AB** | Marine Bronze | None (Clean Only) |

## NOTES

1. Connector and contacts shall meet general requirements of MIL-DTL-28840 and USB receptacle meets USB 2.0 standard.
2. Connector meets IP67 in the unmated condition.
3. Connector accessory features per M28840 connector designator G. Consult factory for shrink boot option and accessory selection.

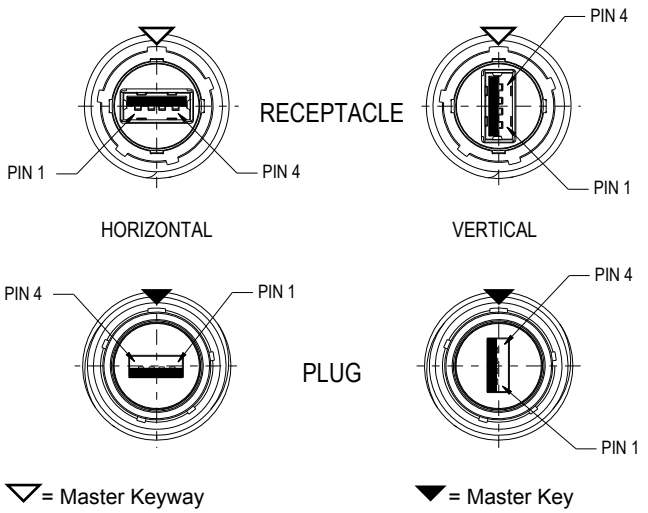
## RECOMMENDED PANEL CUT-OUTS




WALL MOUNT
PANEL THICKNESS .188 (4.78) MAX

JAM NUT MOUNT
PANEL THICKNESS .188 (4.78) MAX

## USB ORIENTATION OPTIONS



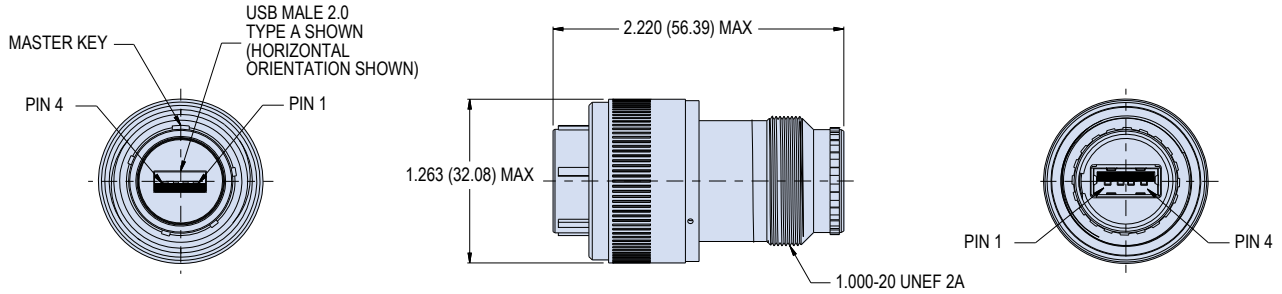



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

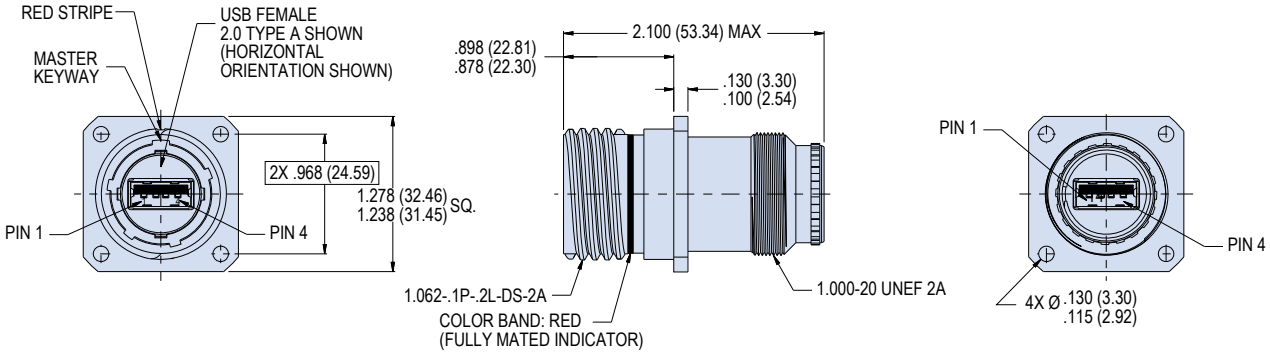
# 900-340 Coupler with Accessory Threads and USB Male-to-Female (Plug) or Female-to-Female (Receptacle)



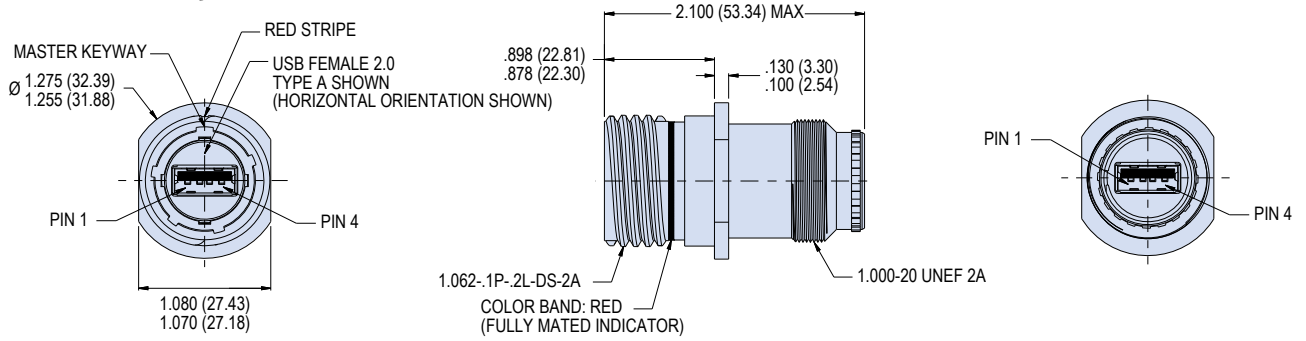
## G6 - PLUG



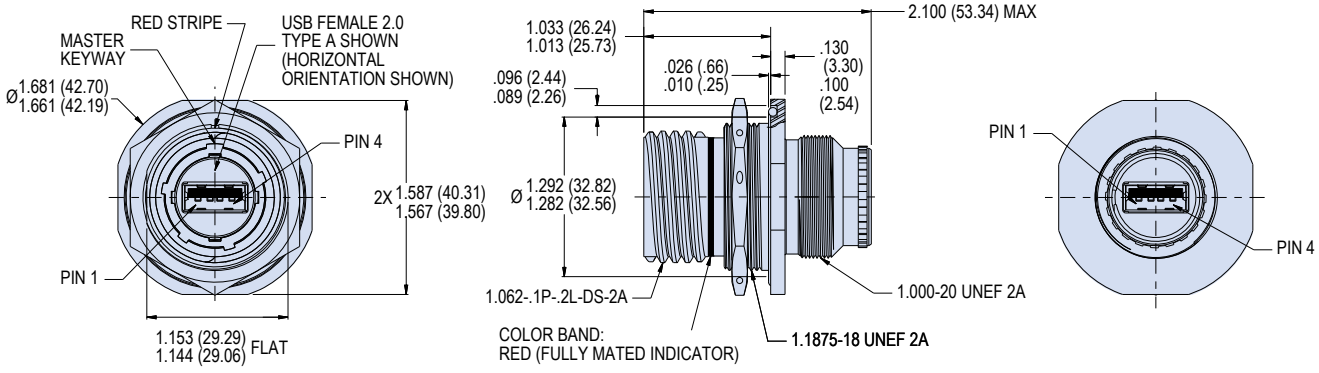

## D0 - WALL MOUNT RECEPTACLE




## 05 - RECEPTACLE, INLINE




## 07 - JAM NUT MOUNT RECEPTACLE




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog

Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

# 28840 SuperSeal™

## 900-345 Connector with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts

| How to Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Part Number Example** | **900-345** | **NF** | **D0** | **-15** | **2** | **A** | **1** | **H** |

| | |
|---|---|
| **Basic Number** | **900-345** |
| **Material/Finish** | See Material and Finish Options Table |
| **Connector Style** | **D0** = Receptacle, Wall Mount **05** = Receptacle, Inline<br>**07** = Receptacle, Jam Nut **G6** = Plug |
| **Shell Size** | **15** |
| **USB Performance** | **2** = USB 2.0 |
| **USB Interface Type** | **A** = Type A |
| **Alternate Polarization** | **1**, **2**, **3**, **4**, **5**, and **6** See connector specifications page for further information (Per MIL-DTL-28840) |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |

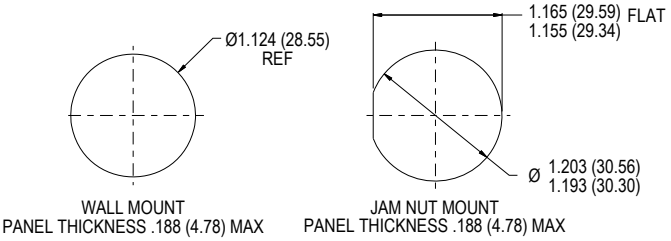
| Material and Finish Options | | |
|---|---|---|
| **Code** | **Material** | **Finish Description** |
| **NF** | Aluminum | Cadmium O. D. Over Electroless Nickel (500 hour Salt Spray) |
| **ZN** | | Zinc Nickel, Olive Drab |
| **MT** | | Nickel-PTFE,1000 Hour Grey™ |
| **Z1** | Stainless Steel | Passivate |
| **ZU** | | Black Cadmium Over Nickel |
| **AB** | Marine Bronze | None (Clean Only) |

| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| **Pin** | **Name** | **Cable Color (USB)** | **Description** | **Recommended Wire Sizes (AWG)** |
| 1 | (V BUS) | Red | +5 V | 22 |
| 2 | (D-) | White | DATA - | 28 |
| 3 | (D+) | Green | DATA + | 28 |
| 4 | (GND) | Black | GROUND | 22 |

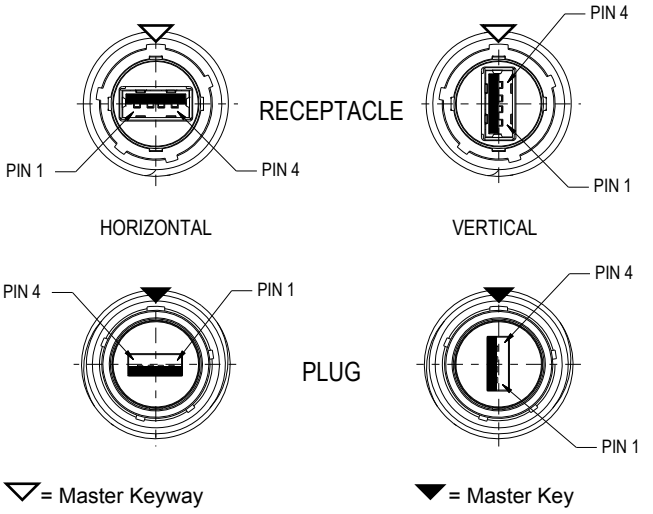
## NOTES

1. Connector shall meet general requirements of MIL-DTL-28840. USB connector shall be per USB 2.0 standard.
2. Crimp removable contacts conform to: M39029/56-348 - size 22 socket contacts (supplied loose).Connector meets IP67 in the unmated condition
3. Connector accessory features per M28840 connector designator G. Consult factory for crimp tool and accessory selection.

## RECOMMENDED PANEL CUT-OUTS




## USB ORIENTATION OPTIONS



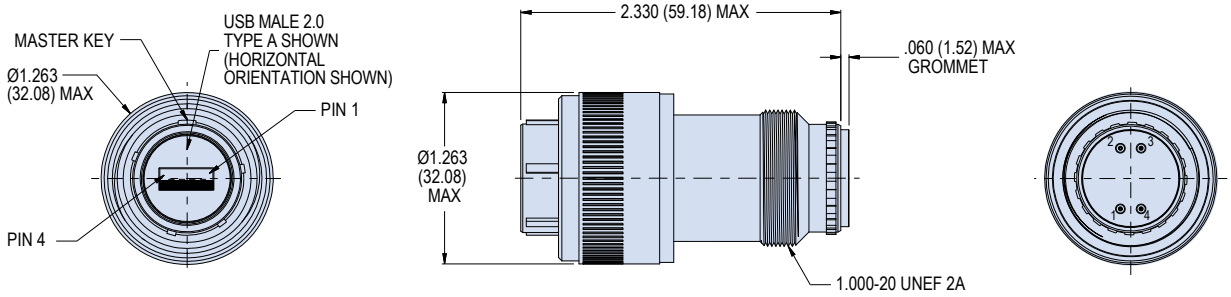



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

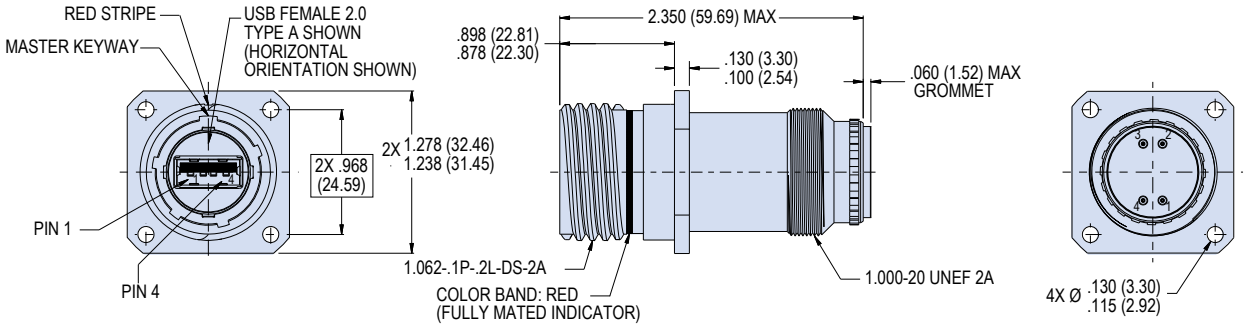
# 900-345 Connector with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts



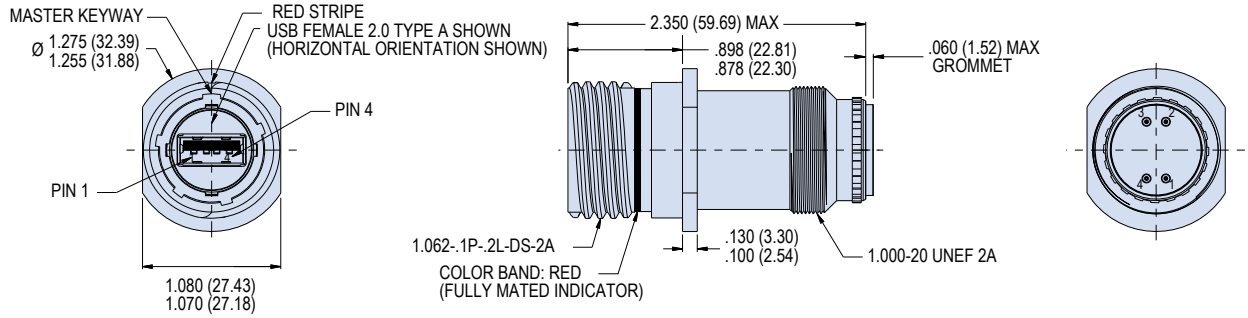
## G6 - PLUG



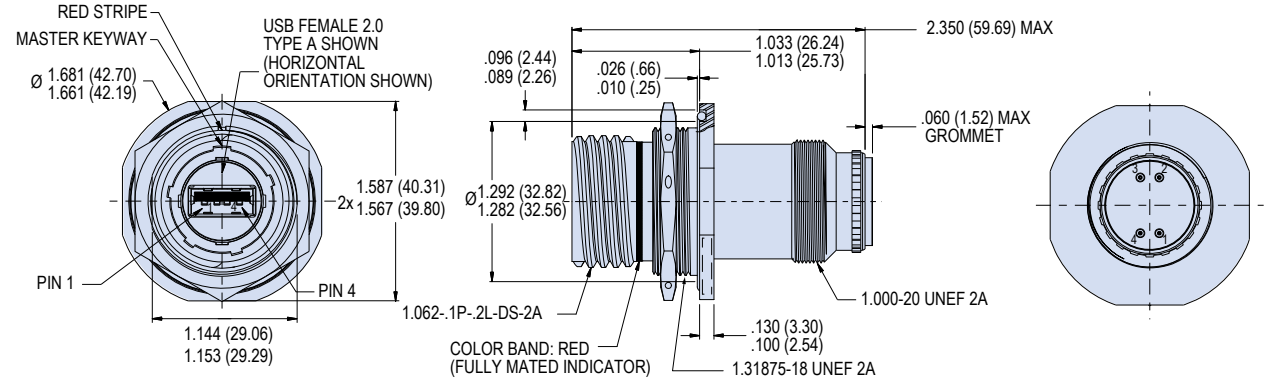

## D0 - WALL MOUNT RECEPTACLE




## 05 - RECEPTACLE, INLINE




## 07 - JAM NUT MOUNT RECEPTACLE




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog

Dimensions in Inches (millimeters) are subject to change without notice.

**SERIES 80**
MIGHTY MOUSE
RJ45 ETHERNET

# SUPERSEAL™

## The harsh environment, light weight, small form factor field Ethernet connector ideally suited for land forces communications and data networking applications

Field ready ruggedized SuperSeal™ Mighty Mouse connectors with USB 2.0 inserts are available for Series 801 with double start ACME thread, Series 804 push/pull connectors, and Series 805 with triple-start ACME thread. All three Series meet IP67 requirements in the open-face condition and are in-line shielded. Mounting styles include In-line, front or rear panel mount square flange with or without clinch nuts, jam-nut and plug connectors. Connectors are offered with RJ45 CAT 5e interfaces and support current ethernet protocols. RJ45 offers separate orientation options in addition to standard Mighty Mouse® keyway position offerings to provide greater control and convenience over the connector engagement. Connectors are available with size #23 crimp contacts, solder cup termination, PC tail termination, pin/socket contacts or Quadrax contact to standard RJ45 interface. Rear accessory options include accessory thread, integrated shrink boot adapter or integrated banding platform.

Glenair®

Glenair, Inc.
1211 Air Way
Glendale, CA 91201-2497
818-247-6000
sales@glenair.com
www.glenair.com

RJ45/USB SUPER SEAL™

*RJ45 CAT 5E ETHERNET COMPATIBLE*

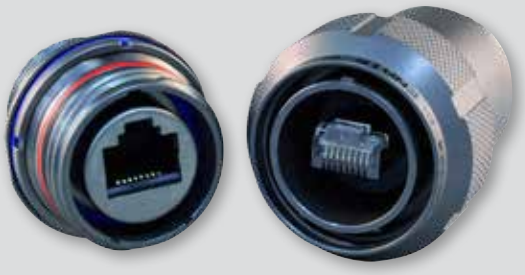
# Series 801, 804 and 805 Mighty Mouse

## Product Selection Guide

Glenair®

### Series 801

**Double-Start Threaded**
**Mighty Mouse Shell**




**801-300** Page K-2
SuperSeal™ Double-Start Coupler with Accessory Options and RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug).

**801-301** Page K-4
SuperSeal™ Double-Start Connector with Accessory Options and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts.

**801-302 and 801-303** Page K-6
SuperSeal™ Double-Start Receptacle with RJ45 Jack to PC Tail or Solder Cup Termination.

**801-304** Page K-8
SuperSeal™ Double-Start Receptacle Adapter with Accessory Options and Pin/Socket Contacts to RJ45 Jack.

**801-305** Page K-10
SuperSeal™ Double-Start Receptacle Adapter with Accessory Options and Quadrax Contacts to RJ45 Jack.


### Series 804

**Push/Pull**
**Mighty Mouse Shell**

**804-300** Page K-12
SuperSeal™ Push/Pull Coupler with Accessory Options and RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug).

**804-301** Page K-14
SuperSeal™ Push/Pull Connector with Accessory Options and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts.

**804-302 and 804-303** Page K-16
SuperSeal™ Push/Pull Receptacle with RJ45 Jack-to-PC Tail or Solder Cup Termination.

**804-305** Page K-18
SuperSeal™ Push/Pull Receptacle Adapter with Accessory Options and Quadrax Contacts to RJ45 Jack.


### Series 805

**Triple-Start Threaded**
**Mighty Mouse Shell**

**805-300** Page K-20
SuperSeal™ Triple-Start Coupler with Accessory Options and RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug) .

**805-301** Page K-22
SuperSeal™ Triple-Start Connector with Accessory Options and RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts.

**805-302** Page K-24
SuperSeal™ Triple-Start Receptacle with RJ45 Jack to PC Tail Termination.

**805-303** Page K-26
SuperSeal™ Triple-Start Receptacle with RJ45 Jack to Solder Cup Termination.


K


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45 CAT 5E ETHERNET COMPATIBLE

# Series 801, 804 and 805 Mighty Mouse

## 801-300 Double-Start Coupler with RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug)

| How To Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **801-300** | **-** | **NF** | **07** | **G** | **17** | **5H** | **A** | **1** |

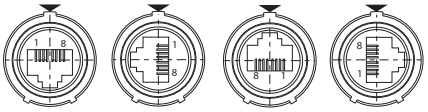
| | |
|---|---|
| **Series** | **801-300** = plug (plug) or jack (receptacle) to jack |
| **Rear Accessory Option** | **–** = Accessory Thread and Teeth<br>**S** = Integral Banding Platform<br>**B** = Integral Boot Adapter |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **01** = In Line Receptacle<br>**02** = Front or Rear Panel Mount Square Flange Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle<br>**26** = Plug |
| **Grounding** | **–** = Inline Shielded **G** = Inline Shielded and Grounded to Shell, Receptacle Only[2] |
| **Shell Size** | **17** = Shell Size 17 **19** = Shell Size 19 |
| **RJ45 Category** | **5H** = Cat 5E For Cat 6A applications consult factory |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F** |
| **RJ45 Orientation** | **1**, **2**, **3**, **4** |

## NOTES

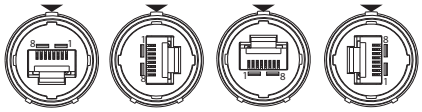
1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. G option is inline shielded and grounded to shell, receptacle only
3. Meets IP67 sealing requirement in unmated condition

## RJ45 ORIENTATION OPTIONS

**Plug** ▼ = Master Key

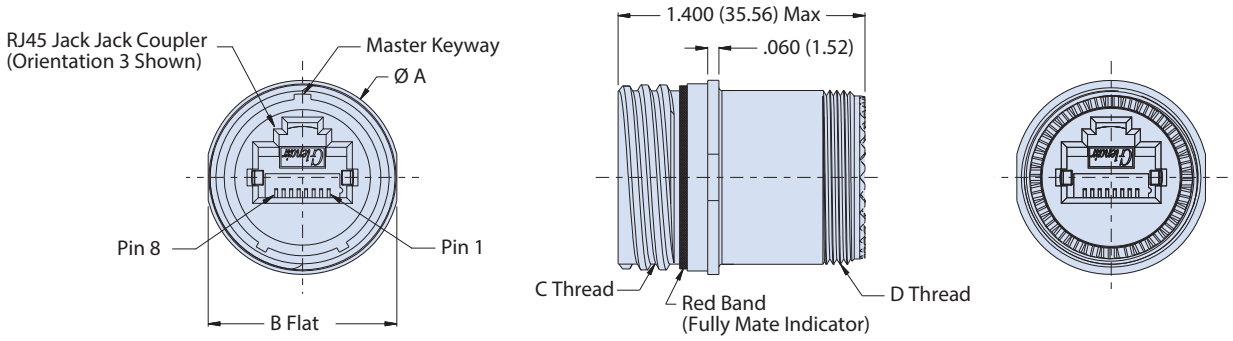



**Receptacle** ▼ = Master Keyway




| Receptacle Dimensions | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | Ø A | | B Flat | | C Threads | D Threads | Ø E | | F SQ | | G BSC | | Ø J | | K Flat | | M Threads | Ø N | |
| | in | mm | in | mm | | | in | mm | in | mm | in | mm | in | mm | in | mm | | in | mm |
| 17 | 1.110 | 28.19 | 1.070 | 27.18 | 1.0625-.1P-.2L-DS-2A | .9375-20 UNEF-2A | 1.700 | 43.18 | 1.280 | 32.51 | 1.060 | 26.92 | 1.325 | 33.66 | 1.290 | 32.77 | 1.1250-28 UN-2A | 0.850 | 21.59 |
| 19 | 1.243 | 31.57 | 1.191 | 30.25 | 1.1875-.1P-.2L-DS-2A | 1.0625-18 UNEF-2A | 1.900 | 48.26 | 1.432 | 36.37 | 1.191 | 30.25 | 1.450 | 36.83 | 1.415 | 35.94 | 1.2500-28 UN-2A | 1.003 | 25.48 |

## SHELL STYLE 01 INLINE RECEPTACLE





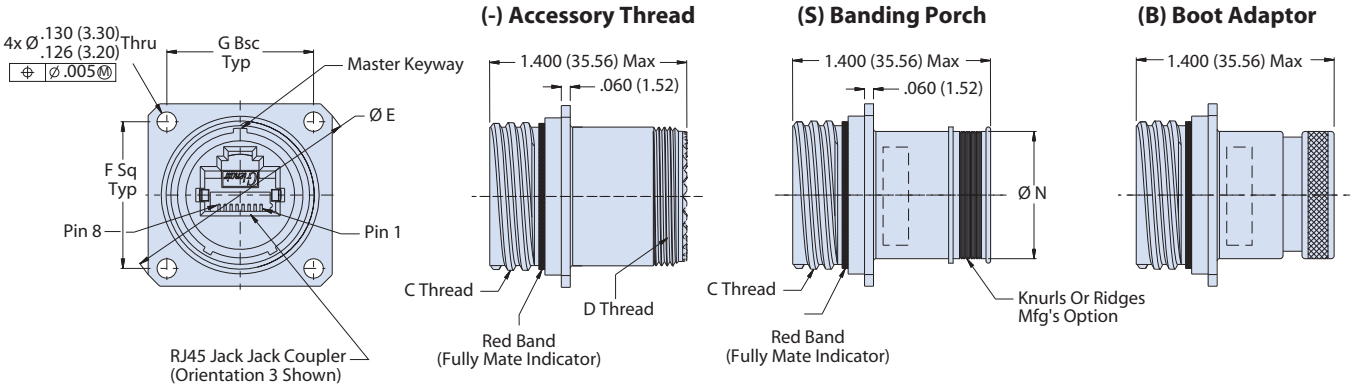

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

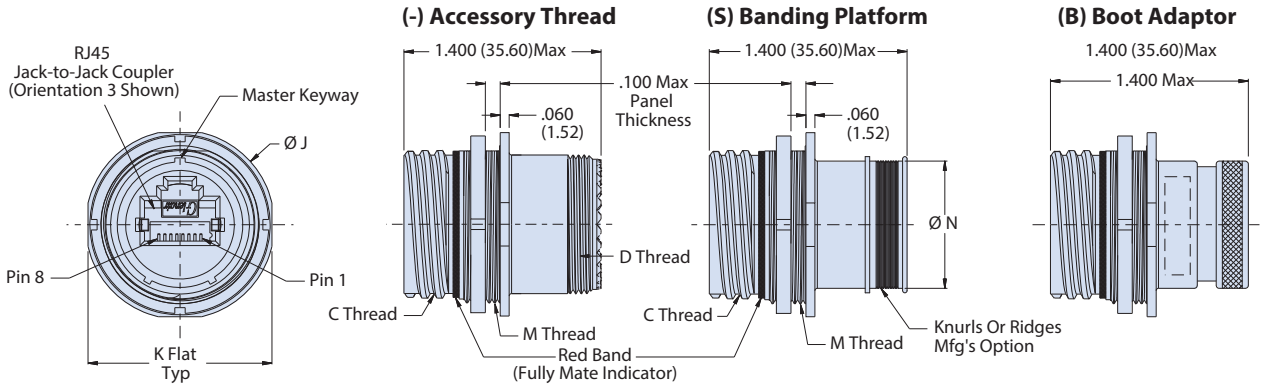
## 801-300 Double-Start Coupler with RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug)



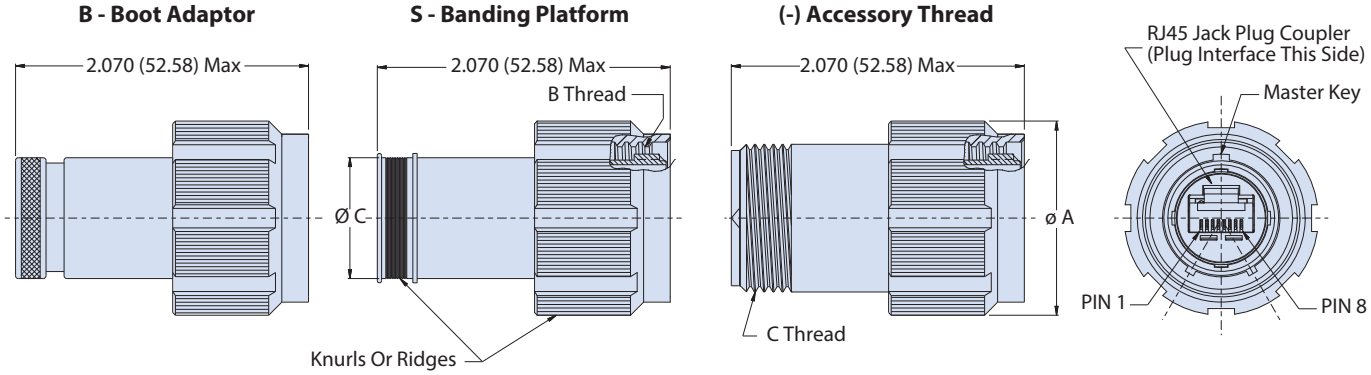
### SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE




### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE




### SHELL STYLE 26 PLUG




| Plug Dimensions | | | |
|---|---|---|---|
| Shell Size | Ø A | B Threads | C Threads |
| 17 | 1.450 (36.83) | 1.0625-.1P-.2L-DS-2B | .9375-20 UNEF-2A |
| 19 | 1.500 (38.1) | 1.0625-.1P-.2L-DS-2B | 1.0625-18 UNEF-2A |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45 CAT 5E ETHERNET COMPATIBLE

# Series 801, 804 and 805 Mighty Mouse

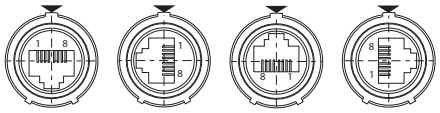
## 801-301 Double-Start Connector with RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts

| How To Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **801-301** | **-** | **NF** | **07** | **G** | **19** | **5H** | **A** | **1** |
| **Series** | **801-301** | | | | | | | | |
| **Rear Accessory Option** | **–** = Accessory Thread and Teeth<br>**B** = Integral Boot Adapter<br>**S** = Integral Banding Platform | | | | | | | | |
| **Material and Finish**[1] | **NF** = Al/Cadmium, Olive Drab<br>**M** = Al/Electroless Nickel<br>**MT** = Al/Nickel PTFE<br>**ZNU** = Al/Black Zinc Nickel | | | | | | | | |
| **Shell Style**[1] | **01** = In Line Receptacle<br>**02** = Front or Rear Panel Mount Square Flange Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle<br>**26** = Plug | | | | | | | | |
| **Grounding**[2] | **–** = Inline Shielded<br>**G** = Shielded and grounded to shell | | | | | | | | |
| **Shell Size** | **17** = Shell Size 17 **19** = Shell Size 19 | | | | | | | | |
| **RJ45 Category** | **5H** = Cat 5E For Cat 6A applications consult factory | | | | | | | | |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F** | | | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, **4** | | | | | | | | |

### RJ45 ORIENTATION OPTIONS

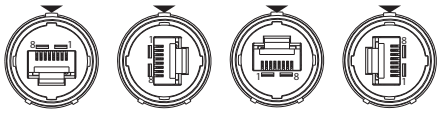
**Plug** ▼ = Master Key

CODE 1 CODE 2 CODE 3 CODE 4



**Receptacle** ▼ = Master Keyway

CODE 1 CODE 2 CODE 3 CODE 4

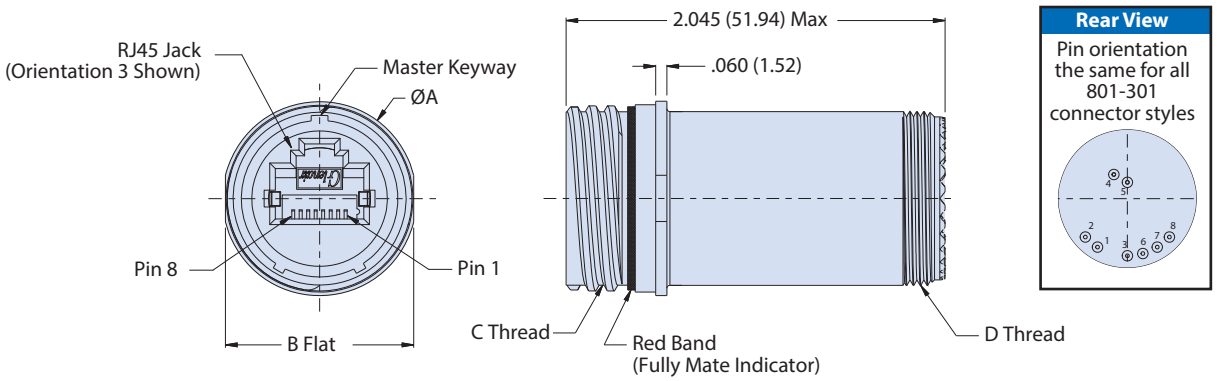


### NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. G option is inline shielded and grounded to shell, receptacle only
3. Meets IP67 sealing requirement in unmated condition
4. Supplied with size 23 socket contacts (809-002 supplied loose) 1 extra contact provided

| Receptacle Dimensions | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | Ø A | | B Flat | | C Threads | D Threads | Ø E | | F SQ | | G BSC | | Ø J | | K Flat | | M Threads | Ø N | |
| | in | mm | in | mm | | | in | mm | in | mm | in | mm | in | mm | in | mm | | in | mm |
| 17 | 1.110 | 28.19 | 1.070 | 27.18 | 1.0625-.1P-.2L-DS-2A | .9375-20 UNEF-2A | 1.700 | 43.18 | 1.280 | 32.51 | 1.060 | 26.92 | 1.325 | 33.66 | 1.290 | 32.77 | 1.1250-28 UN-2A | 0.850 | 21.59 |
| 19 | 1.243 | 31.57 | 1.191 | 30.25 | 1.1875-.1P-.2L-DS-2A | 1.0625-18 UNEF-2A | 1.900 | 48.26 | 1.432 | 36.37 | 1.191 | 30.25 | 1.450 | 36.83 | 1.415 | 35.94 | 1.2500-28 UN-2A | 1.003 | 25.48 |

### SHELL STYLE 01 IN-LINE RECEPTACLE





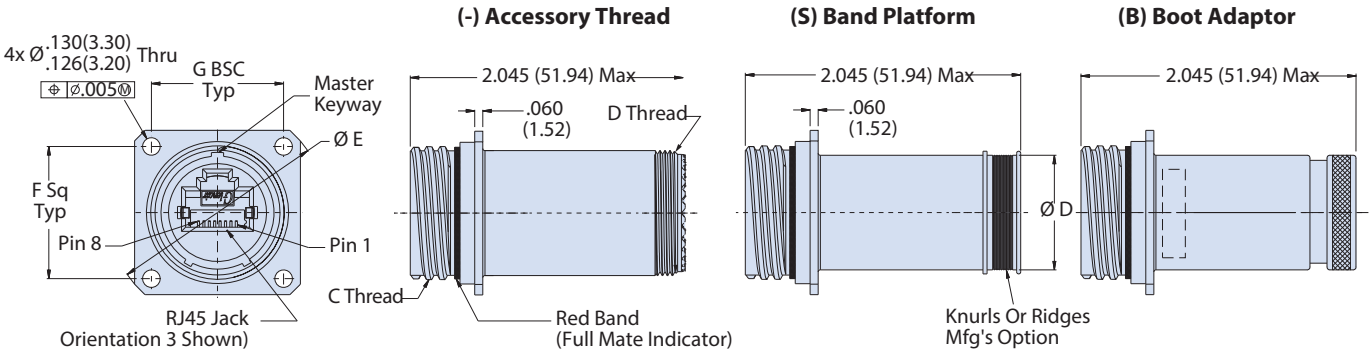

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

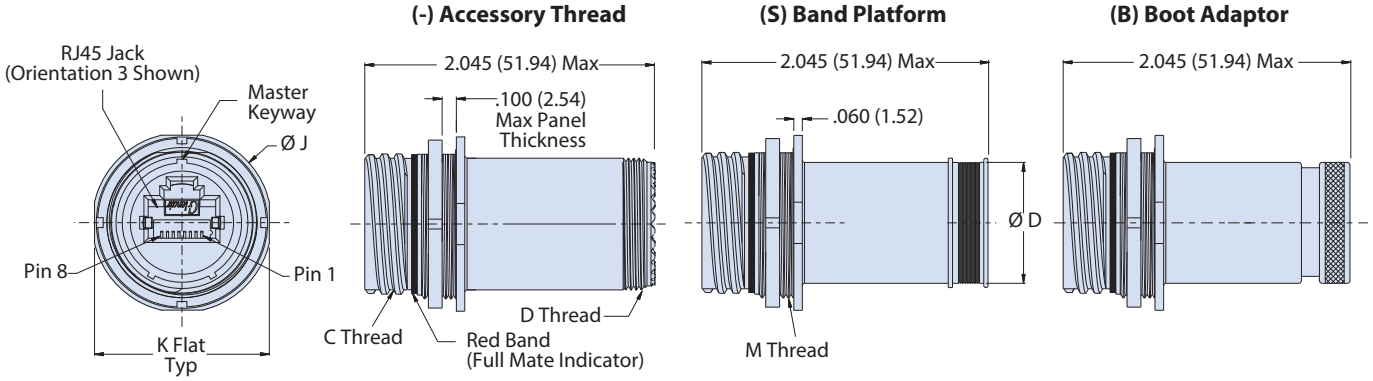
## 801-301 Double-Start Connector with RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts



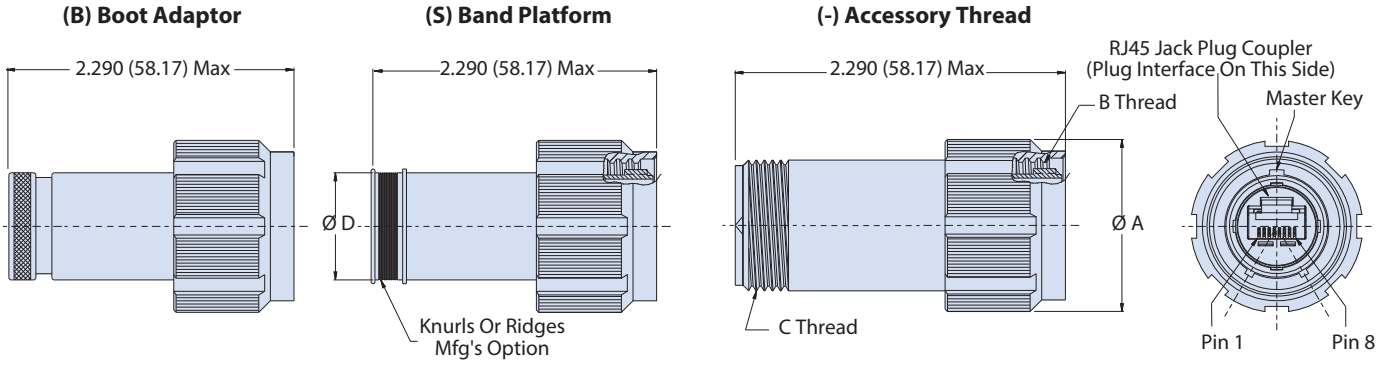
### SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE




### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE




### SHELL STYLE 26 PLUG




| Plug Dimensions | | | |
|---|---|---|---|
| Shell Size | Ø A | B Threads | Ø C |
| 17 | 1.450 (36.83) | 1.0625-.1P-.2L-DS-2B | .850 (21.59) |
| 19 | 1.560 (39.62) | 1.1875-.1P-.2L-DS-2B | 1.003 (25.48) |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

## 801-302 or 801-303 Double-Start Receptacle with RJ45 Jack to PC Tail or Solder Cup Termination

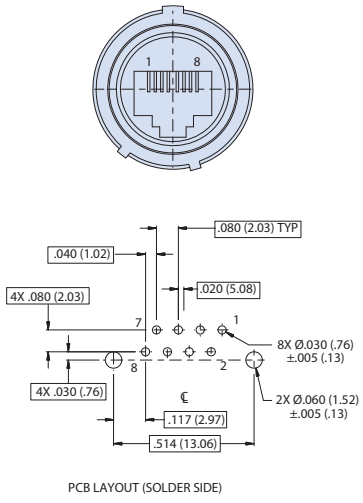


| How To Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **801-302** | **NF** | **07** | **-** | **17** | **5H** | **A** | **1** |
| **Series** | **801-302** = PC Tail<br>**801-303** = Solder Cup | | | | | | | |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel | | | | | | | |
| **Shell Style**[1] | **02** = Front or Rear, Square Flange Panel Mount Receptacle<br>**07** = Jam Nut Receptacle, Rear Panel Mount | | | | | | | |
| **Grounding** | **-** = Inline Shielded **G** = Shielded and grounded to shell<br>For improved 360° shielding performance select shell size 19 | | | | | | | |
| **Shell Size** | **17** = Shell Size 17 **19** = Shell Size 19 | | | | | | | |
| **RJ45 Category** | **5H** = Cat 5E For Cat 6A applications consult factory | | | | | | | |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F** | | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, **4** | | | | | | | |

## RJ45 ORIENTATION OPTIONS AND PCB FOOTPRINTS*

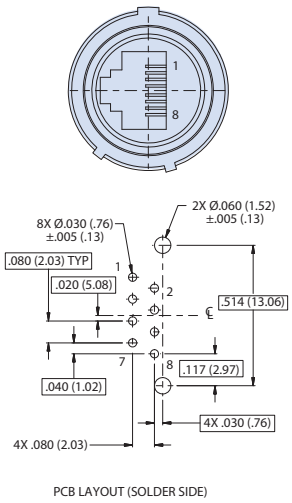
(PARTIAL VIEWS SHOWN)

CODE 1



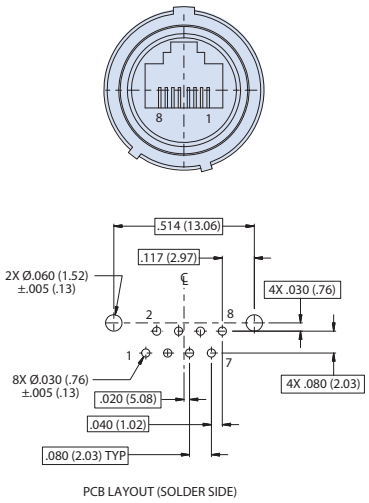

PCB LAYOUT (SOLDER SIDE)

CODE 2



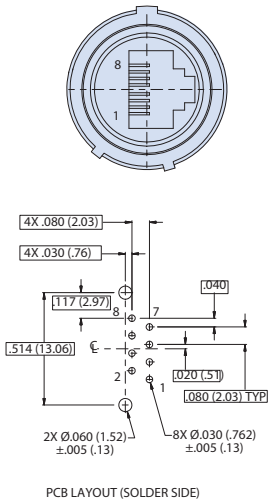

PCB LAYOUT (SOLDER SIDE)

CODE 3




PCB LAYOUT (SOLDER SIDE)

CODE 4




PCB LAYOUT (SOLDER SIDE)

*PCB footprints apply to 801-302 PC tail connectors only. Orientation codes apply to 801-302 and 801-303

| Receptacle Dimensions | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | Ø A | | B Flat | | C Threads | Ø E | | F SQ | | G BSC | | Ø J | | K Flat | | M Threads |
| | in | mm | in | mm | | in | mm | in | mm | in | mm | in | mm | in | mm | |
| 17 | 1.110 | 28.19 | 1.070 | 27.18 | 1.0625-.1P-.2L-DS-2A | 1.700 | 43.18 | 1.280 | 32.51 | 1.060 | 26.92 | 1.325 | 33.66 | 1.290 | 32.77 | 1.1250-28 UN-2A |
| 19 | 1.243 | 31.57 | 1.191 | 30.25 | 1.1875-.1P-.2L-DS-2A | 1.900 | 48.26 | 1.432 | 36.37 | 1.191 | 30.25 | 1.450 | 36.83 | 1.415 | 35.94 | 1.2500-28 UN-2A |



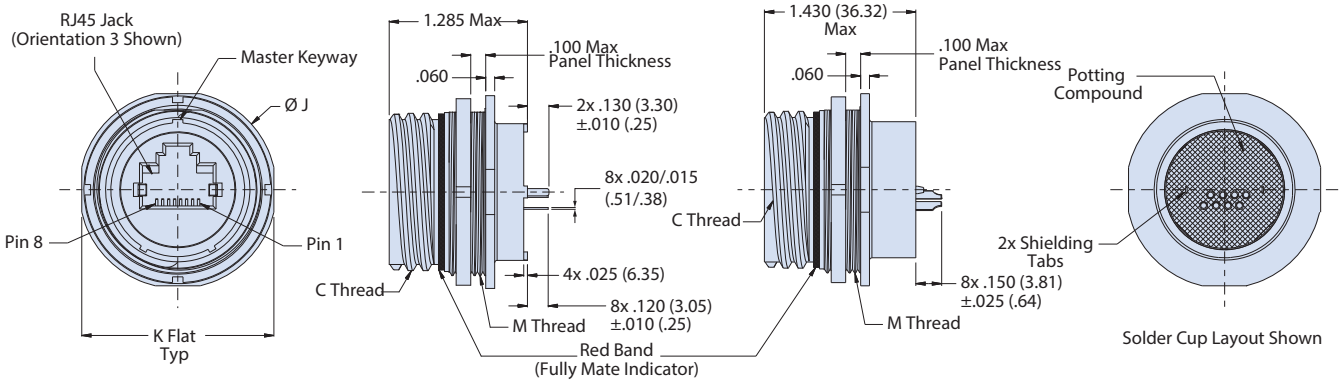
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

## 801-302 or 801-303 Double-Start Receptacle with RJ45 Jack to PC Tail or Solder Cup Termination



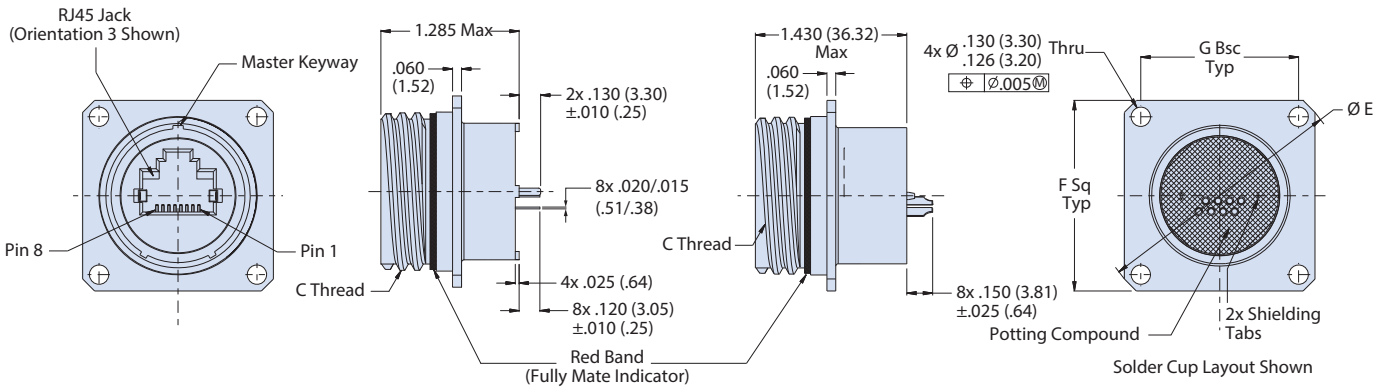
### SHELL STYLE 07 JAM NUT RECEPTACLE FOR 801-302 PC TAIL AND 801-303 SOLDER CUP




**801-302**
**PC Tail**

**801-303**
**Solder Cup**

### SHELL STYLE 02 SQUARE FLANGE RECEPTACLE FOR 801-302 PC TAIL AND 801-303 SOLDER CUP




**801-302**
**PC Tail**

**801-303**
**Solder Cup**

### NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Material and Finish
   - Shell, jam nut: al alloy or cres
   - Seal/o-ring: fluoorosilicone
   - Sealant: RTV

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

*RJ45 CAT 5E ETHERNET COMPATIBLE*

# Series 801, 804 and 805 Mighty Mouse

## 801-304 Double-Start Receptacle Adapter with Pin/Socket Contacts to RJ45 Jack

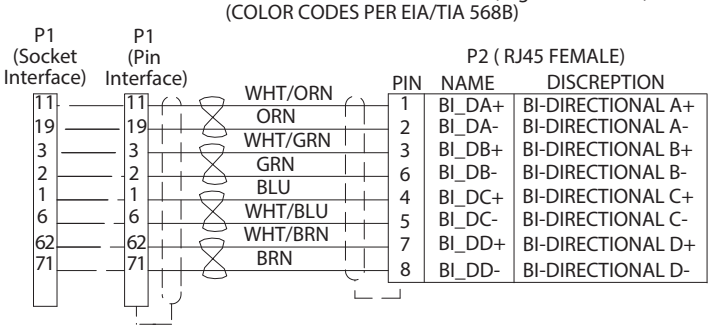
Glenair®

### How To Order

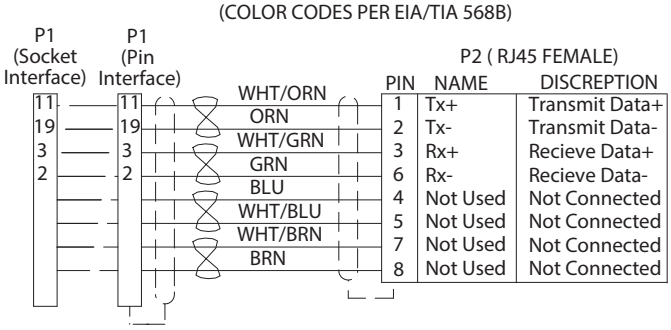
| Sample Part Number | 801-304 | - | NF | 07 | 17 | - | 85 | P | 5H | A |
|---|---|---|---|---|---|---|---|---|---|---|

| | |
|---|---|
| **Series** | **801-304** = Pin/Socket to RJ45 Jack |
| **Rear Accessory Option** | **–** = Accessory Thread and Teeth **B** = Integral Boot Adapter<br>**S** = Integral Banding Platform |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab **M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE **ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **01** = In Line Receptacle **02** = Front or Rear Panel Mount Square Flange Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle **26** = Plug |
| **Shell Size** | **17** = Shell Size 17 **19** = Shell Size 19 |
| **Grounding** | **-** = Inline Shielded **G** = Shielded and grounded to shell<br>For improved 360° shielding performance select shell size 19 |
| **Insert Arrangement**[3] | **85** = 17-85 per Mighty Mouse Inserts **100** = 19-100 per Mighty Mouse Inserts |
| **Contact Style** | **P** = Pin **S** = Socket |
| **RJ45 Category** | **5H** = Cat 5E For Cat 6A applications consult factory |
| **Aternate Key Positions**[1] | **A, B, C, D, E, F** |

WIRING DIAGRAM FOR ETHERNET 1000base-T (Gigabit ethernet)
(COLOR CODES PER EIA/TIA 568B)




WIRING DIAGRAM FOR ETHERNET 10base-T and 100 base-TX
(COLOR CODES PER EIA/TIA 568B)



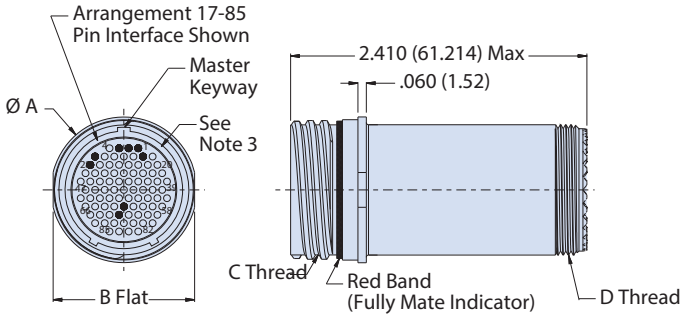

### Receptacle Dimensions

| Shell Size | Ø A in | Ø A mm | B Flat in | B Flat mm | C Threads | D Threads | Ø E in | Ø E mm | F SQ in | F SQ mm | G BSC in | G BSC mm | Ø J in | Ø J mm | K Flat in | K Flat mm | M Threads | Ø N in | Ø N mm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 1.110 | 28.19 | 1.070 | 27.18 | 1.0625-.1P-.2L-DS-2A | .9375-20 UNEF-2A | 1.700 | 43.18 | 1.280 | 32.51 | 1.060 | 26.92 | 1.325 | 33.66 | 1.290 | 32.77 | 1.1250-28 UN-2A | 0.850 | 21.59 |
| 19 | 1.243 | 31.57 | 1.191 | 30.25 | 1.1875-.1P-.2L-DS-2A | 1.0625-18 UNEF-2A | 1.900 | 48.26 | 1.432 | 36.37 | 1.191 | 30.25 | 1.450 | 36.83 | 1.415 | 35.94 | 1.2500-28 UN-2A | 1.003 | 25.48 |

## NOTES

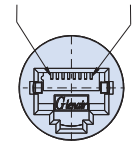
1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition.
3. In accordance with Mighty Mouse insert arrangement 17-85 or 19-100 consult factory for other arrangements options.
4. Material/Finishes:
   - Shell, jam nut: al alloy or cres
   - seal/o-ring: fluorosilicone

## SHELL STYLE 01 IN-LINE RECEPTACLE




**Rear View**

Pin Position is the same for all styles





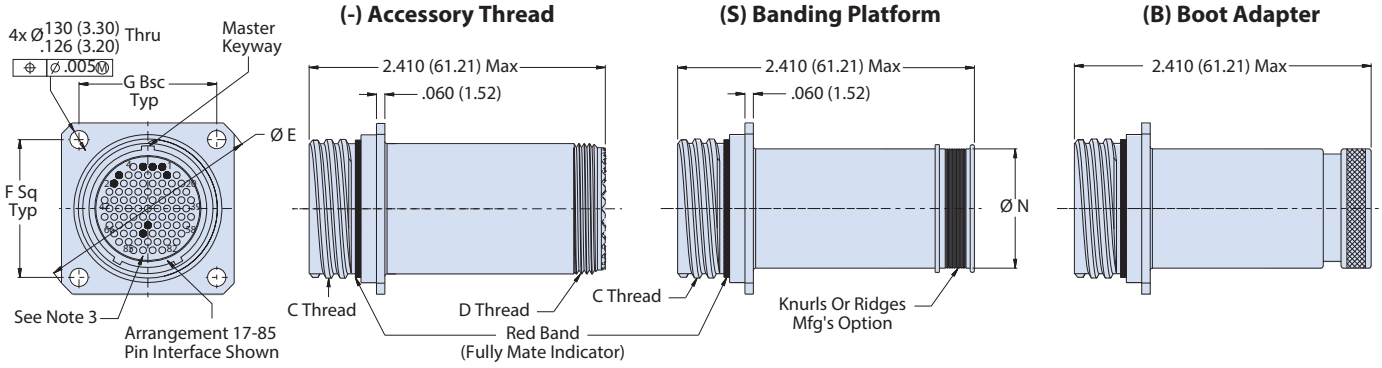

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

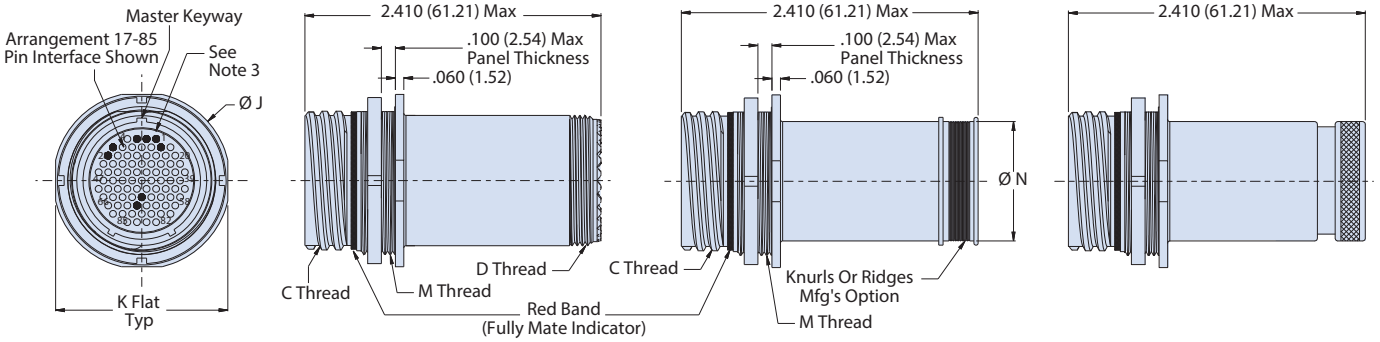
## 801-304 Double-Start Receptacle Adapter with Pin/Socket Contacts to RJ45 Jack



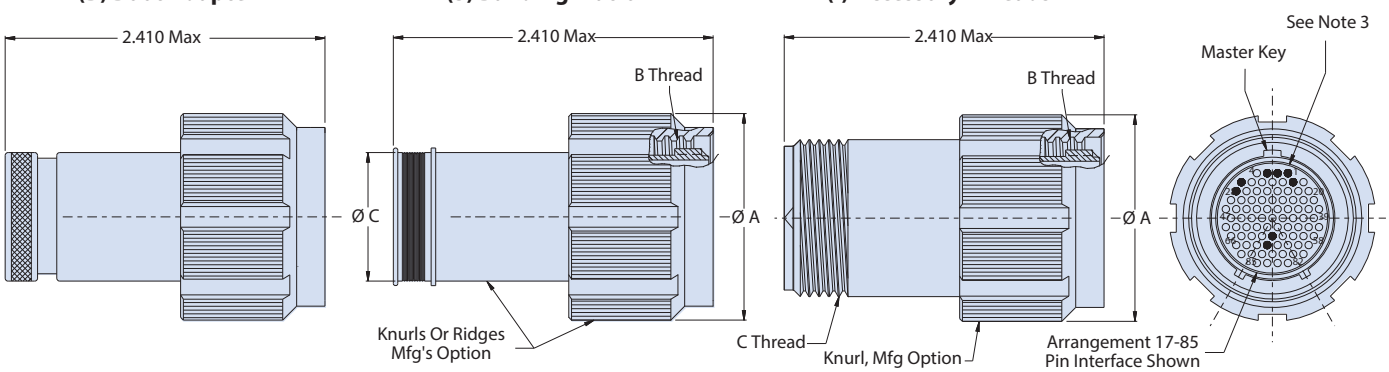
## SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE




## SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE




## SHELL STYLE 26 PLUG




| Plug Dimensions | | | |
|---|---|---|---|
| Shell Size | Ø A | B Threads | C Threads |
| 17 | 1.450 (36.83) | 1.0625-.1P-.2L-DS-2B | .9375-20 UNEF-2A |
| 19 | 1.560 (39.62) | 1.1875-.1P-.2L-DS-2B | 1.0625-18 UNEF-2A |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45 CAT 5E ETHERNET COMPATIBLE

# Series 801, 804 and 805 Mighty Mouse

## 801-305 Double-Start Receptacle Adapter with Quadrax Contacts to RJ45 Jack

### How To Order

| Sample Part Number | 801-305 | - | NF | 07 | G | 17 | 5H | P | A |
|---|---|---|---|---|---|---|---|---|---|

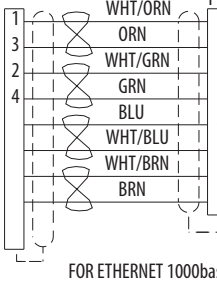
| | |
|---|---|
| **Series** | **801-305** Quadrax to RJ45 Jack |
| **Rear Accessory Option** | **–** = Accessory Thread and Teeth<br>**B** = Integral Boot Adapter<br>**S** = Integral Banding Platform |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **01** = In Line Receptacle **26** = Plug<br>**02** = Front or Rear Panel Mount Square Flange Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle |
| **Grounding** | **-** = Inline Shielded<br>**G** = Shielded and grounded to shell<br>For improved 360° shielding performance select shell size 19 |
| **Shell Size** | **17** = Shell Size 17 **19** = Shell Size 19 |
| **RJ45 Category** | **5H** = Cat 5E; For Cat 6A applications consult factory |
| **Contact Style**[3] | **P** = Pin **S** = Socket |
| **Alternate Key Positions**[1] | **A, B, C, D, E, F** |

### WIRING DIAGRAMS

FOR ETHERNET 10base-T & 100 base-TX
(COLOR CODES PER EIA/TIA 568B)

P1 ( CONNECTOR INTERFACE )
2 QUADRAX CONTACTS 1, 2, 3 & 4

P2 ( RJ45 FEMALE)

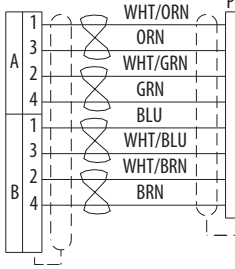



| PIN | NAME | DESCRIPTION |
|---|---|---|
| 1 | TX+ | TRANSMIT DATA+ |
| 2 | TX- | TRANSMIT DATA- |
| 3 | RX+ | RECIEVE DATA+ |
| 6 | RX- | RECIEVE DATA- |
| 4 | NOT USED | NOT CONNECTED |
| 5 | NOT USED | NOT CONNECTED |
| 7 | NOT USED | NOT CONNECTED |
| 8 | NOT USED | NOT CONNECTED |

FOR ETHERNET 1000base-T (Gigabit ethernet)
(COLOR CODES PER EIA/TIA 568B)

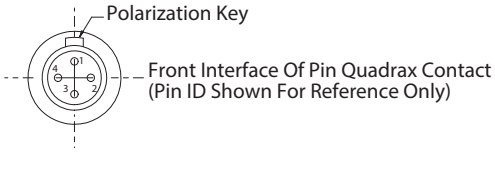
P1 ( CONNECTOR INTERFACE )
2 QUADRAX CONTACTS, A & B

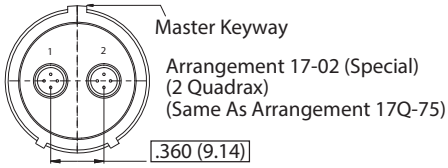
P2 ( RJ45 FEMALE)

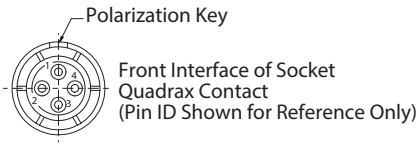



| PIN | NAME | DESCRIPTION |
|---|---|---|
| 1 | BI_DA+ | BI-DIRECTIONAL A+ |
| 2 | BI_DA- | BI-DIRECTIONAL A- |
| 3 | BI_DB+ | BI-DIRECTIONAL B+ |
| 6 | BI_DB- | BI-DIRECTIONAL B- |
| 4 | BI_DC+ | BI-DIRECTIONAL C+ |
| 5 | BI_DC- | BI-DIRECTIONAL C- |
| 7 | BI_DD+ | BI-DIRECTIONAL D+ |
| 8 | BI_DD- | BI-DIRECTIONAL D- |

## PARTIAL VIEW OF CONNECTOR QUADRAX INTERFACE



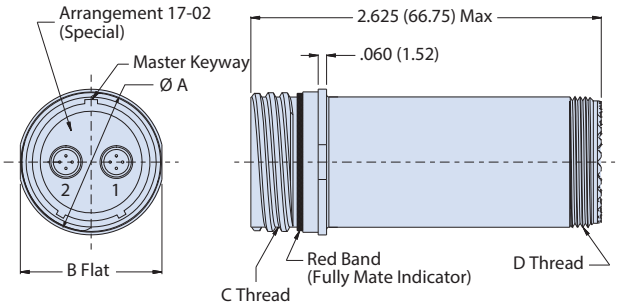

### Receptacle Dimensions

| Shell Size | Ø A in | Ø A mm | B Flat in | B Flat mm | C Threads | D Threads | Ø E in | Ø E mm | F SQ in | F SQ mm | G BSC in | G BSC mm | Ø J in | Ø J mm | K Flat in | K Flat mm | M Threads | Ø N in | Ø N mm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 1.110 | 28.19 | 1.070 | 27.18 | 1.0625-.1P-.2L-DS-2A | .9375-20 UNEF-2A | 1.700 | 43.18 | 1.280 | 32.51 | 1.060 | 26.92 | 1.325 | 33.66 | 1.290 | 32.77 | 1.1250-28 UN-2A | 0.850 | 21.59 |
| 19 | 1.243 | 31.57 | 1.191 | 30.25 | 1.1875-.1P-.2L-DS-2A | 1.0625-18 UNEF-2A | 1.900 | 48.26 | 1.432 | 36.37 | 1.191 | 30.25 | 1.450 | 36.83 | 1.415 | 35.94 | 1.2500-28 UN-2A | 1.003 | 25.48 |

## NOTES

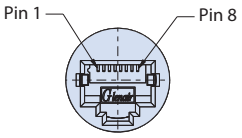
1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition.
3. Pin contact shall mate with Glenair socket contact P/N 854-002-XX. Socket contact shall mate with Glenair pin contact P/N 854-001-XX. Contact factory for more information.

## SHELL STYLE 01 IN-LINE RECEPTACLE




**Rear View**

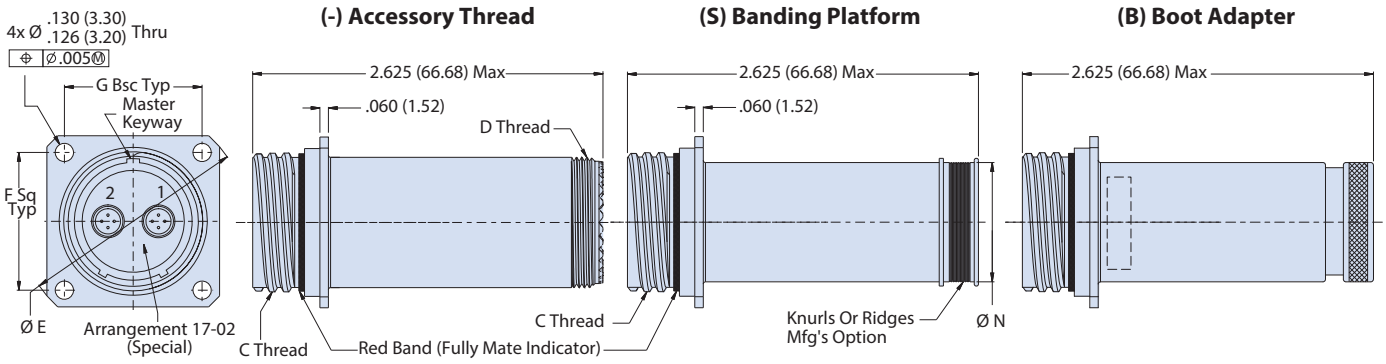
Orientation and pin position apply to all connector styles.



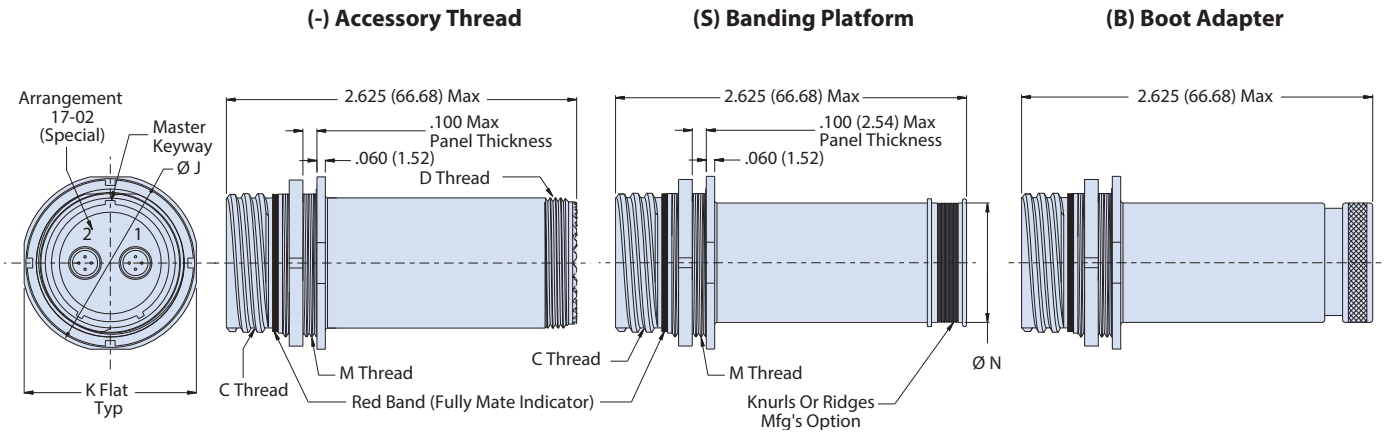



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

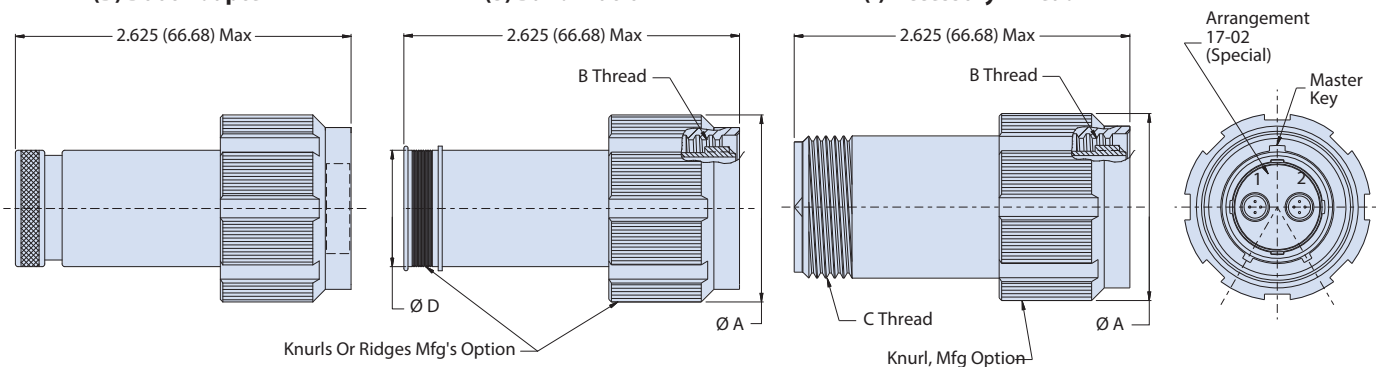
## SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE




## SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE




## SHELL STYLE 26 PLUG




| Plug Dimensions | | | | |
|---|---|---|---|---|
| Shell Size | Ø A | B Threads | C Threads | ØD |
| 17 | 1.450 (36.83) | 1.0625-.1P-.2L-DS-2B | .9375-20 UNEF-2A | .850 (21.59) |
| 19 | 1.560 (39.62) | 1.1875-.1P-.2L-DS-2B | 1.0625-18 UNEF-2A | 1.003 (25.48) |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

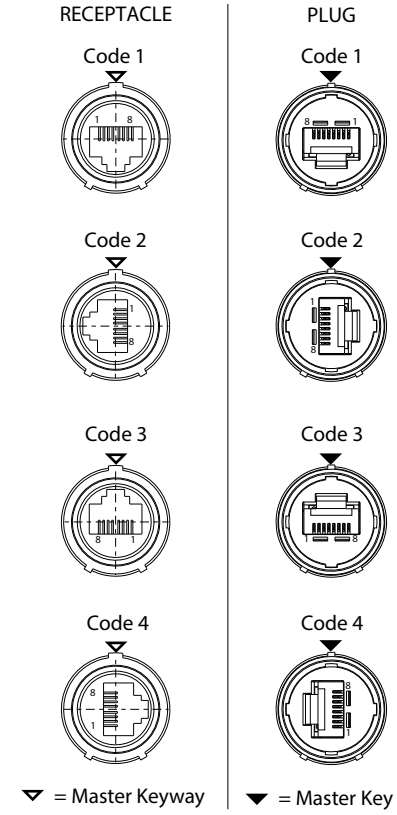
RJ45 CAT 5E ETHERNET COMPATIBLE

# Series 801, 804 and 805 Mighty Mouse

## 804-300 Push/Pull Coupler with RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug)

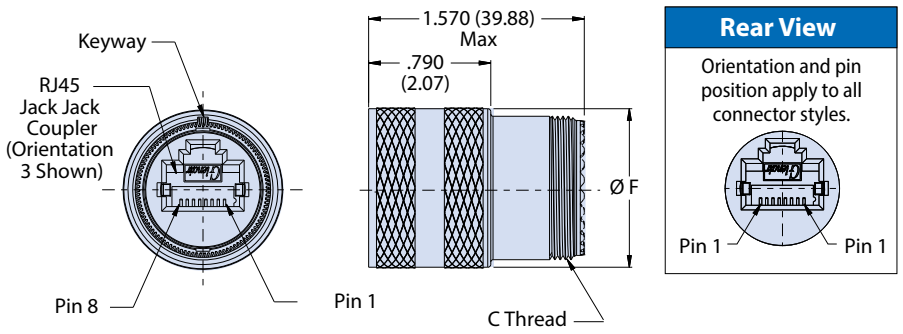
| How To Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **804-300** | **-** | **NF** | **07** | **G** | **16** | **5H** | **A** | **1** |
| **Series** | **804-300** | | | | | | | | |
| **Rear Accessory Option** | **–** = Accessory Thread and Teeth<br>**B** = Integral Boot Adapter<br>**S** = Integral Banding Platform | | | | | | | | |
| **Material and Finish**[1] | **NF** = Al/Cadmium, Olive Drab<br>**M** = Al/Electroless Nickel<br>**MT** = Al/Nickel PTFE<br>**ZNU** = Al/Black Zinc Nickel | | | | | | | | |
| **Shell Style**[1] | **01** = In Line Receptacle<br>**00** = Jam Nut Receptacle, Front Panel Mount<br>**07** = Jam Nut Receptacle, Rear Panel Mount<br>**16** = Plug | | | | | | | | |
| **Grounding**[4] | **-** = Inline Shielded<br>**G** = Shielded and grounded to shell<br>For improved 360° shielding performance select shell size 16 | | | | | | | | |
| **Shell Size** | **15** = Shell Size 15 **16** = Shell Size 16 | | | | | | | | |
| **RJ45 Category** | **5H** = Cat 5E For Cat 6A applications consult factory | | | | | | | | |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F**; Omit for single keyway (non polarized) | | | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, **4** | | | | | | | | |

## RJ45 ORIENTATION OPTIONS




| Receptacle Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Size Shell** | **Mounting Style** | **Ø A** | **B Threads** | **C Threads** | **Ø D** | **ØE** | **ØF** | **K Threads** |
| 15 | Front Mount | -- | -- | .9375-20 UNEF-2A | 1.450 (35.31) | .850 (21.59) | 1.060 (26.92) | 1.125-28 UN-2A |
| | Rear Mount | 1.390 (35.31) | 1.0625-20 UN-2A | | -- | | | -- |
| 16 | Front Mount | -- | -- | 1.000-20 UNEF-2A | 1.502 (38.15) | .902 (22.91) | 1.188 (30.18) | 1.1875-28 UN-2A |
| | Rear Mount | 1.425 (36.20) | 1.250-28 UN-2A | | -- | | | -- |

## SHELL STYLE 01 IN-LINE RECEPTACLE




## NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Receptacles are JACK-JACK and plugs are PLUG-JACK configurations
4. Size 15 uses only rear shielding sleeve. Size 16 uses front and back shielding sleeves



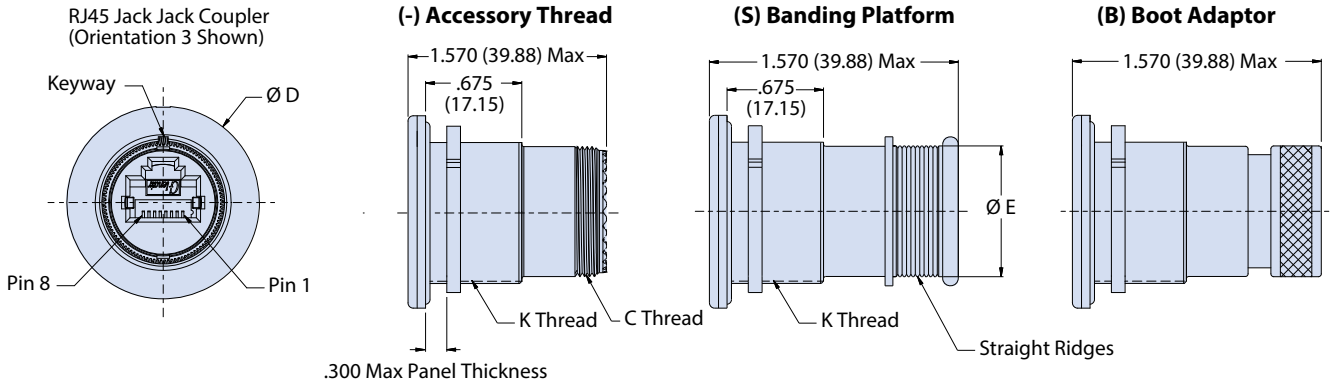
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

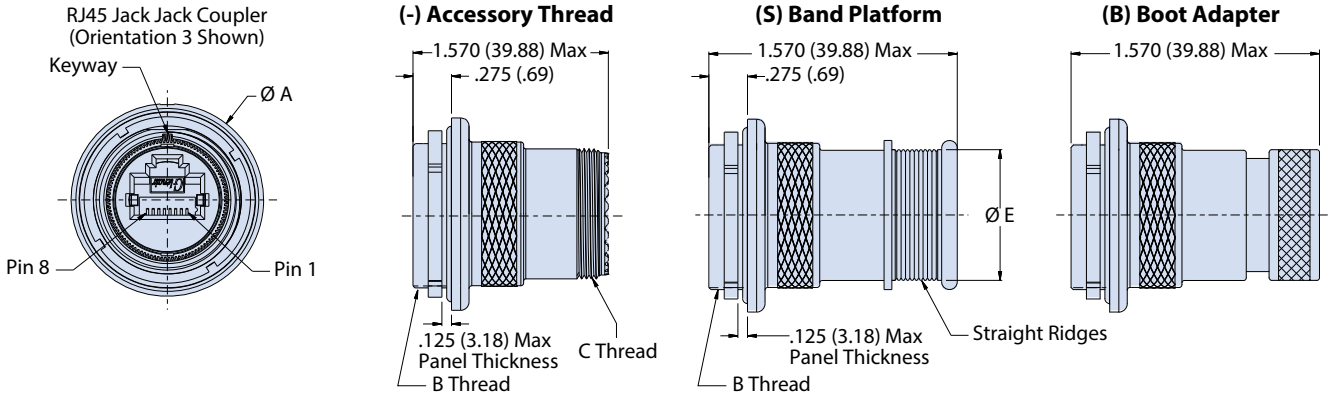
## 804-300 Push/Pull Coupler with RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug)



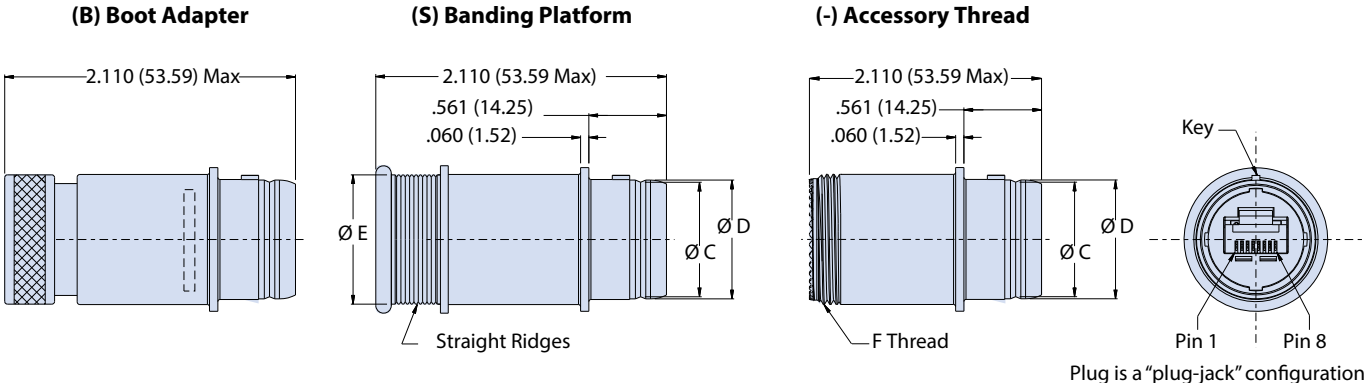
## SHELL STYLE 00 FRONT PANEL MOUNT JAM NUT RECEPTACLE




## SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE




## SHELL STYLE 16 PLUG




Plug is a "plug-jack" configuration

| Plug Dimensions | | | | | |
|---|---|---|---|---|---|
| Size Shell | Ø A Max | Ø C | Ø D | Ø E | F Thread |
| 15 | 1.045 (26.54) | .828 (21.03) | .860 (21.84) | .850 (21.59). | .9375-20 UNEF-2A |
| 16 | 1.095 (27.81) | .878 (21.30) | .910 (23.11) | .902 (22.91) | 1.0000-20 UNEF-2A |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

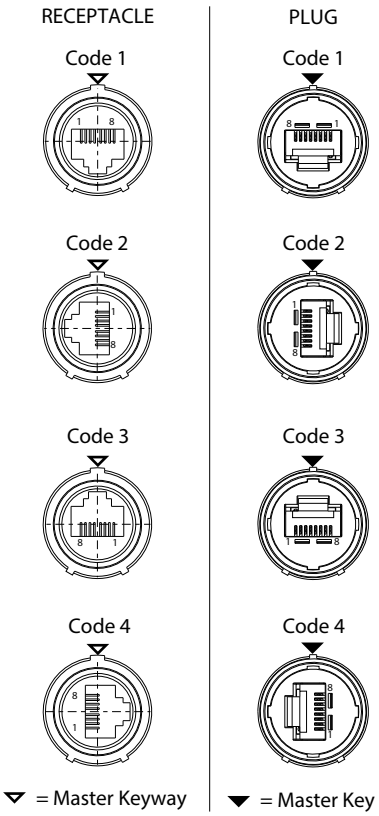
## 804-301 Push/Pull RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts



| How To Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **804-301** | **-** | **NF** | **07** | **G** | **16** | **5H** | **A** | **1** |

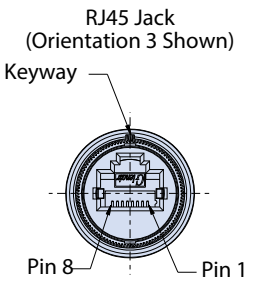
| | |
|---|---|
| **Series** | **804-301** |
| **Rear Accessory Option** | **–** = Accessory Thread and Teeth<br>**B** = Integral Boot Adapter<br>**S** = Integral Banding Platform |
| **Material and Finish**[1] | **NF** = Al/Cadmium, Olive Drab<br>**M** = Al/Electroless Nickel<br>**MT** = All/Nickel PTFE<br>**ZNU** = Al/Black Zinc Nickel |
| **Shell Style**[1] | **01** = In Line Receptacle<br>**00** = Jam Nut Receptacle, Front Panel Mount<br>**07** = Jam Nut Receptacle, Rear Panel Mount<br>**16** = Plug |
| **Grounding** | **-** = Inline Shielded<br>**G** = Shielded and grounded to shell<br>For improved 360° shielding performance select shell size 16 |
| **Shell Size** | **15** = Shell Size 15 **16** = Shell Size 16 |
| **RJ45 Category** | **5H** = Cat 5E For Cat 6A applications consult factory |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F**; Omit for single keyway (non polarized) |
| **RJ45 Orientation** | **1**, **2**, **3**, **4** |

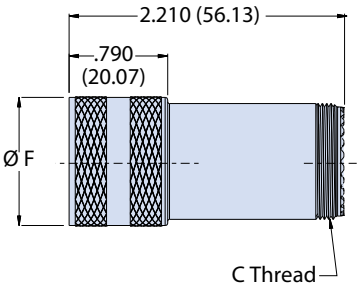
## RJ45 ORIENTATION OPTIONS




| Receptacle Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Size Shell** | **Mounting Style** | **Ø A** | **B Threads** | **C Threads** | **Ø D** | **ØE** | **ØF** | **K Threads** |
| 15 | Front Mount | -- | -- | .9375-20 UNEF-2A | 1.450 (35.31) | .850 (21.59) | 1.060 (26.92) | 1.125-28 UN-2A |
| | Rear Mount | 1.390 (35.31) | 1.0625-20 UN-2A | | -- | | | -- |
| 16 | Front Mount | -- | -- | 1.000-20 UNEF-2A | 1.502 (38.15) | .902 (22.91) | 1.188 (30.18) | 1.1875-28 UN-2A |
| | Rear Mount | 1.425 (36.20) | 1.250-28 UN-2A | | -- | | | -- |

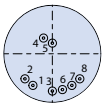
## SHELL STYLE 01 IN-LINE RECEPTACLE




**Rear View**

Orientation and pin position apply to all connector styles.



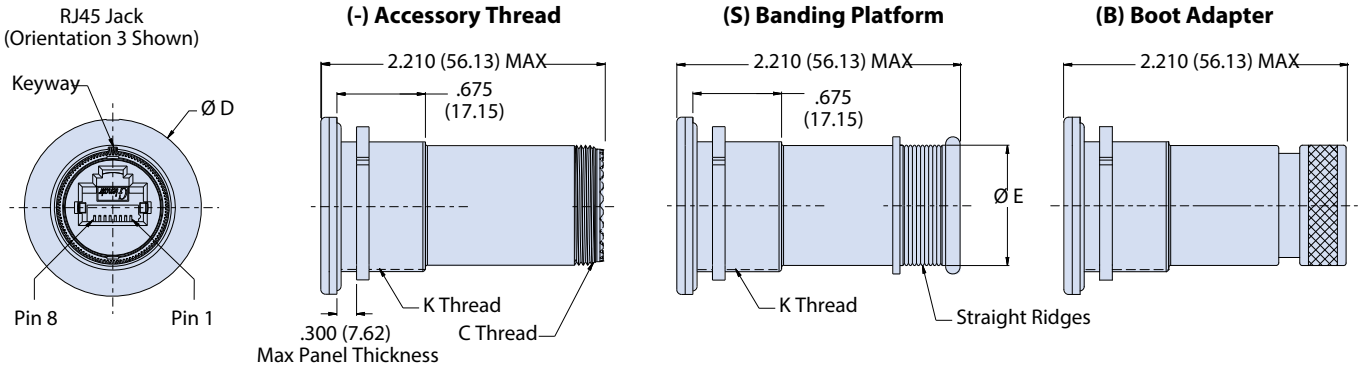
## NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Supplied with size 23 crimp socket contacts (809-002 supplied loose)

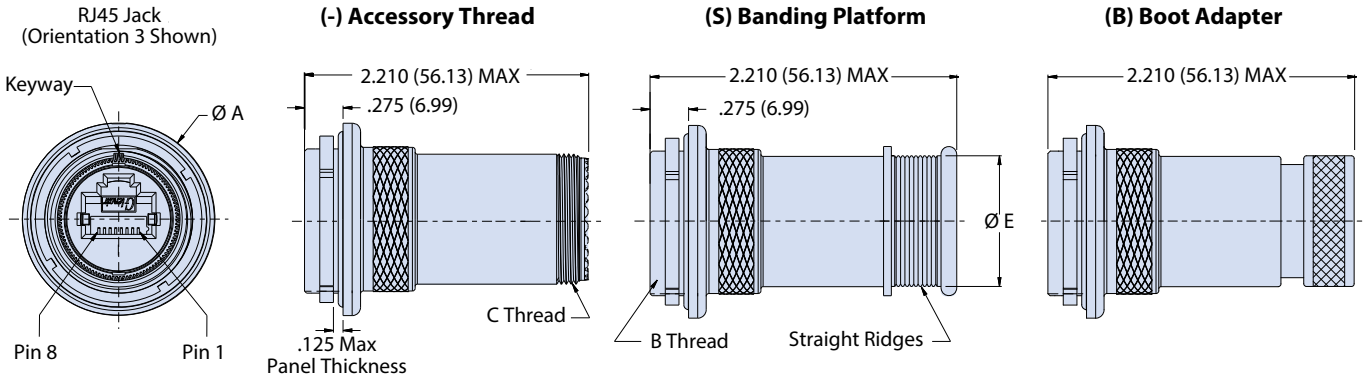


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

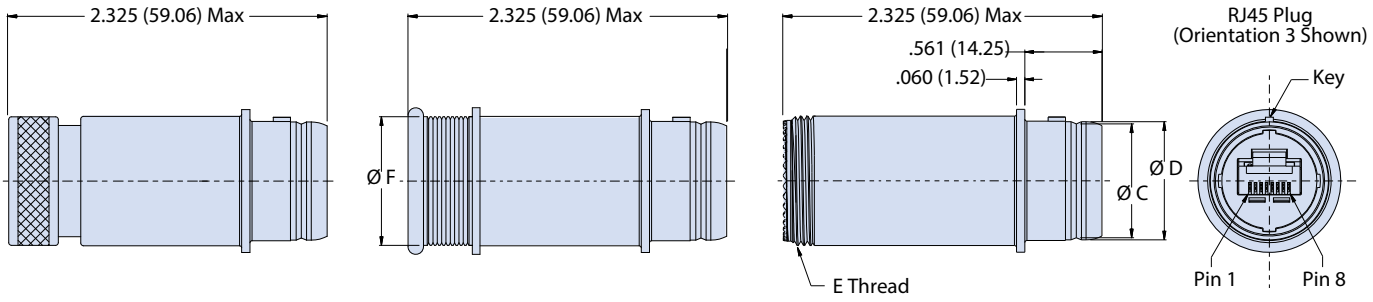
## SHELL STYLE 00 FRONT PANEL MOUNT JAM NUT RECEPTACLE




## SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE




## SHELL STYLE 16 PLUG




| Plug Dimensions | | | | | |
|---|---|---|---|---|---|
| Shell Size | Ø A | Ø C | Ø D | E Threads | Ø F |
| 15 | 1.045 (26.54) | .828 (21.03) | .860 (21.84) | .9375-20 UNEF-2A | .850 (26.92) |
| 16 | 1.095 (27.81) | .878 (22.30) | .910 (23.11) | 1.0000-20 UNEF-2A | .902 (22.91) |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45 CAT 5E ETHERNET COMPATIBLE

# Series 801, 804 and 805 Mighty Mouse

## 804-302 or 804-303 Push/Pull Receptacle with RJ45 Jack-to-PC Tail or Solder Cup Termination

| How To Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **804-302** | **NF** | **07** | **-** | **15** | **5H** | **A** | **1** |

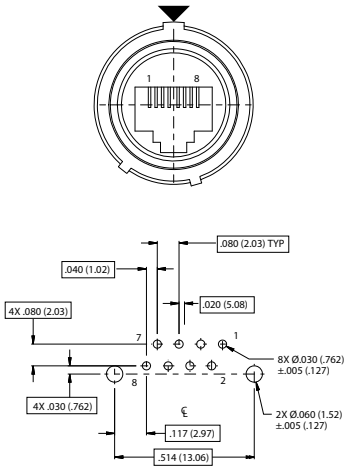
| | |
|---|---|
| **Series** | **804-302** = PC Tail **804-303** = Solder Cup |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **07** = Rear Panel Mount Jam Nut Receptacle<br>**00** = Front Panel Mount Jam Nut Receptacle |
| **Shielding** | **-** = Inline Shielded **G** = Shielded and grounded to shell<br>For improved 360° shielding performance select shell size 16 |
| **Shell Size** | **15** = Shell Size 15 **16** = Shell Size 16 |
| **RJ45 Category** | **5H** = Cat 5E For Cat 6A applications consult factory |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F**; Omit for single keyway (non-polarized) |
| **RJ45 Orientation** | **1**, **2**, **3**, **4** |

| Receptacle Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shell Size | Mounting Style | Ø A | | B Threads | Ø D | | K Threads | C Threads |
| | | In | mm | | In | mm | | |
| 15 | FRONT MOUNT | - | - | - | 1.450 | 36.83 | 1.125-28 UN-2A | .9375-20 UNEF-2A |
| | REAR MOUNT | 1.390 | 35.306 | 1.0625-20 UN-2A | - | - | - | .9375-20 UNEF-2A |
| 16 | FRONT MOUNT | - | - | - | 1.502 | 38.1508 | 1.1875-28 UN-2A | 1.000-20 UNEF-2A |
| | REAR MOUNT | 1.425 | 36.195 | 1.250-28 UN-2A | - | - | - | 1.000-20 UNEF-2A |

## RJ45 RECEPTACLE ORIENTATION OPTIONS AND PCB FOOTPRINT

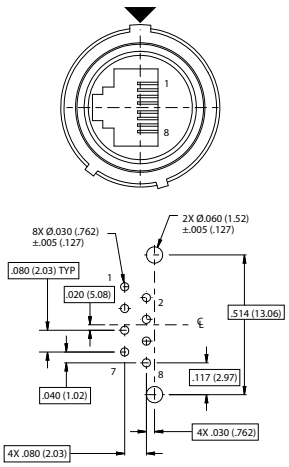
**(PARTIAL VIEWS SHOWN)**

CODE 1



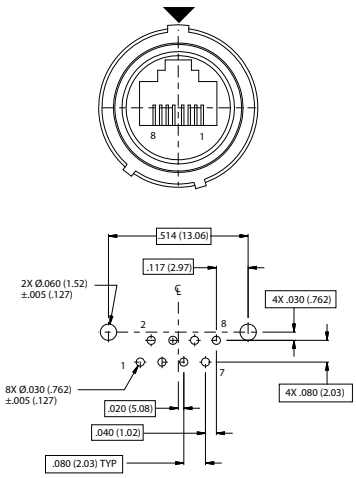

PCB LAYOUT (SOLDER SIDE)

CODE 2



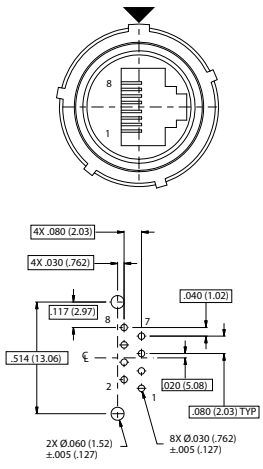

PCB LAYOUT (SOLDER SIDE)

CODE 3




PCB LAYOUT (SOLDER SIDE)

CODE 4




PCB LAYOUT (SOLDER SIDE)

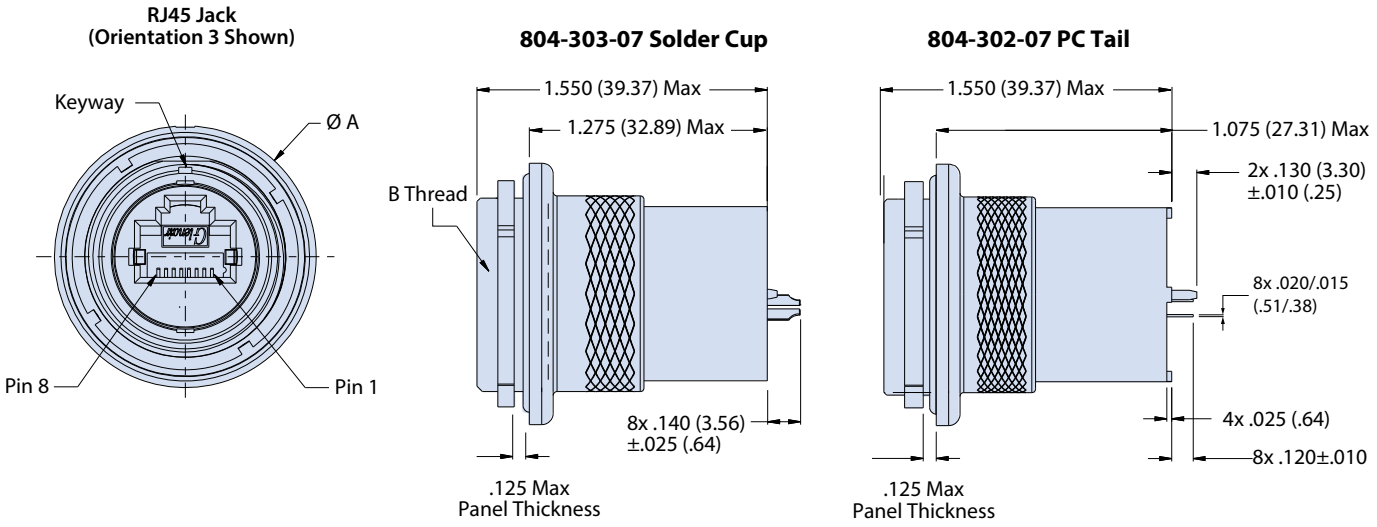
▼ = Master Keyway

**PCB layout applies to 804-302 only, orientations codes for 804-302 and 804-303**

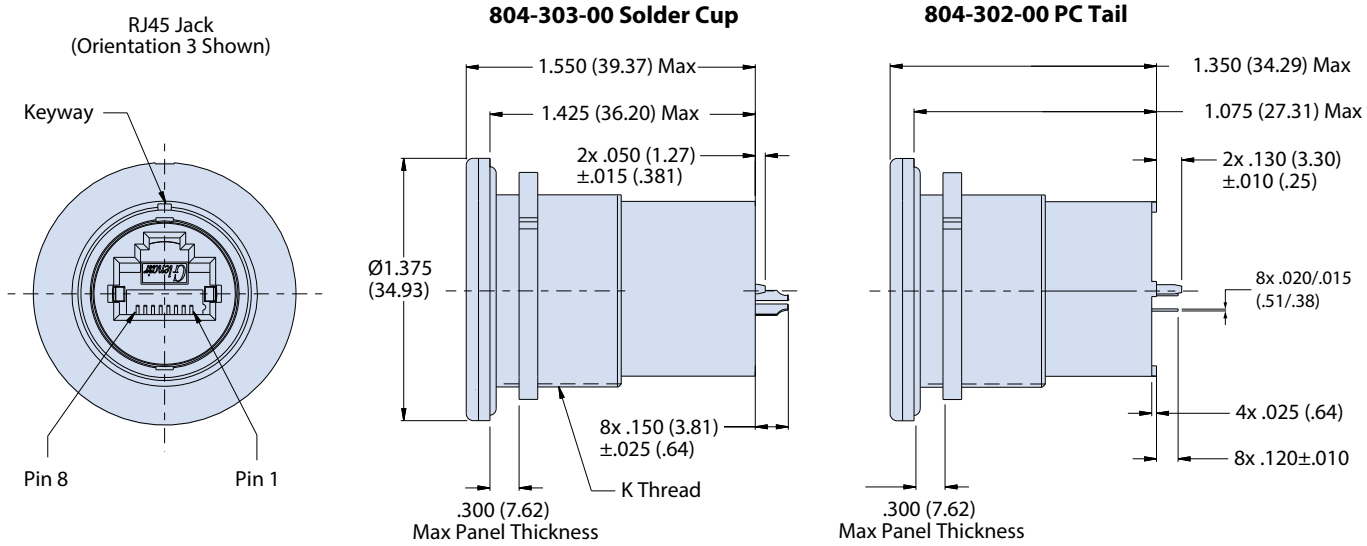


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## REAR PANEL MOUNT JAM NUT RECEPTACLE, 804-302-07 PC TAIL AND 804-303-07 SOLDER CUP

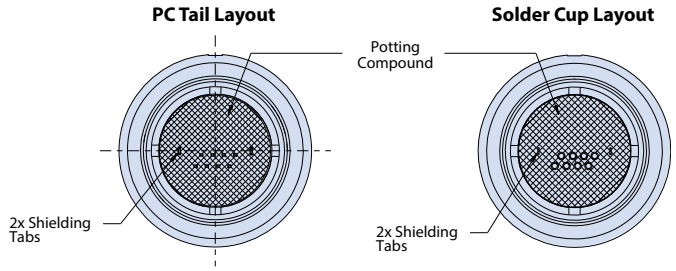



## FRONT PANEL MOUNT JAM NUT RECEPTACLE, 804-302-00 PC TAIL AND 804-303-00 SOLDER CUP




## NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Mates with 804-300 series




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45 CAT 5E ETHERNET COMPATIBLE

# Series 801, 804 and 805 Mighty Mouse

## 804-305 Push/Pull Receptacle Adapter with Quadrax Contacts to RJ45 Jack

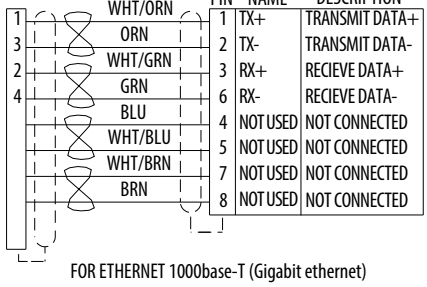
| How To Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **804-305** | **-** | **NF** | **07** | **G** | **16** | **5H** | **P** | **A** |
| **Series** | **804-305** | | | | | | | | |
| **Rear Accessory Option** | – = Accessory Thread<br>**B** = Boot Adapter<br>**S** = Banding Platform | | | | | | | | |
| **Material and Finish**[1] | **NF** = Al/Cadmium, Olive Drab<br>**M** = Al/Electroless Nickel<br>**MT** = Al/Nickel PTFE<br>**ZNU** = Al/Black Zinc Nickel | | | | | | | | |
| **Shell Style**[1] | **01** = In Line Receptacle<br>**00** = Jam Nut Receptacle, FPM<br>**07** = Jam Nut Receptacle, RPM<br>**16** = Plug | | | | | | | | |
| **Grounding** | - = Inline Shielded<br>**G** = Shielded and grounded to shell<br>For improved 360° shielding performance select shell size 16 | | | | | | | | |
| **Shell Size** | **15** = Shell Size 15 **16** = Shell Size 16 | | | | | | | | |
| **RJ45 Category** | **5H** = Cat 5E For Cat 6A applications consult factory | | | | | | | | |
| **Contact Style**[3] | **P** = Pin **S** = Socket | | | | | | | | |
| **RJ45 Orientation** | **A**, **B**, **C**, **D**, **E**, **F**; Omit for single keyway (non polarized) | | | | | | | | |

### WIRING DIAGRAMS

FOR ETHERNET 10base-T & 100 base-TX
(COLOR CODES PER EIA/TIA 568B)

P1 ( CONNECTOR INTERFACE )
2 QUADRAX CONTACTS 1, 2, 3 & 4

P2 ( RJ45 FEMALE)

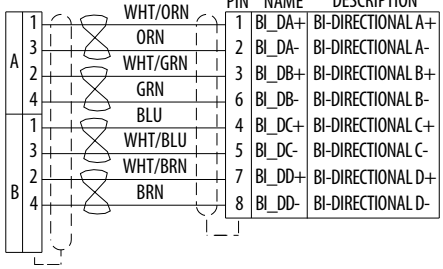



| PIN | NAME | DESCRIPTION |
|---|---|---|
| 1 | TX+ | TRANSMIT DATA+ |
| 2 | TX- | TRANSMIT DATA- |
| 3 | RX+ | RECIEVE DATA+ |
| 6 | RX- | RECIEVE DATA- |
| 4 | NOT USED | NOT CONNECTED |
| 5 | NOT USED | NOT CONNECTED |
| 7 | NOT USED | NOT CONNECTED |
| 8 | NOT USED | NOT CONNECTED |

FOR ETHERNET 1000base-T (Gigabit ethernet)
(COLOR CODES PER EIA/TIA 568B)

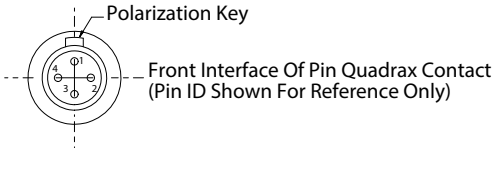
P1 ( CONNECTOR INTERFACE )
2 QUADRAX CONTACTS, A & B

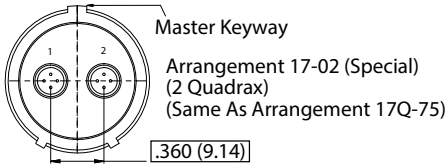
P2 ( RJ45 FEMALE)

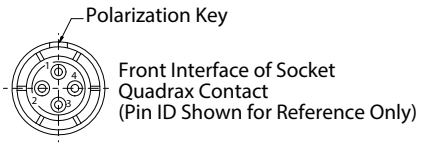



| PIN | NAME | DESCRIPTION |
|---|---|---|
| 1 | BI_DA+ | BI-DIRECTIONAL A+ |
| 2 | BI_DA- | BI-DIRECTIONAL A- |
| 3 | BI_DB+ | BI-DIRECTIONAL B+ |
| 6 | BI_DB- | BI-DIRECTIONAL B- |
| 4 | BI_DC+ | BI-DIRECTIONAL C+ |
| 5 | BI_DC- | BI-DIRECTIONAL C- |
| 7 | BI_DD+ | BI-DIRECTIONAL D+ |
| 8 | BI_DD- | BI-DIRECTIONAL D- |

## PARTIAL VIEW OF CONNECTOR QUADRAX INTERFACE

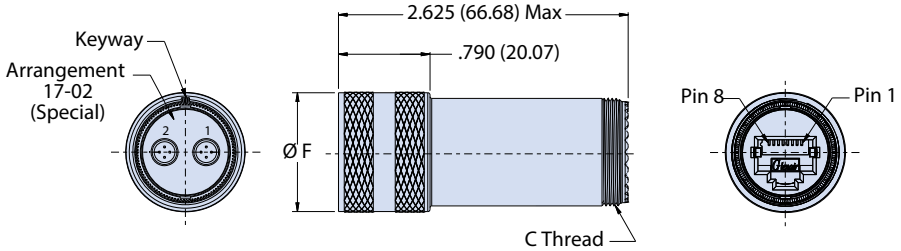



| Receptacle Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Size Shell** | **Mounting Style** | **Ø A** | **B Threads** | **C Threads** | **Ø D** | **ØE** | **ØF** | **K Threads** |
| 15 | Front Mount | -- | -- | .9375-20 UNEF-2A | 1.450 (35.31) | .850 (21.59) | 1.060 (26.92) | 1.125-28 UN-2A |
| | Rear Mount | 1.390 (35.31) | 1.0625-20 UN-2A | | -- | | | -- |
| 16 | Front Mount | -- | -- | 1.000-20 UNEF-2A | 1.502 (38.15) | .902 (22.91) | 1.188 (30.18) | 1.1875-28 UN-2A |
| | Rear Mount | 1.425 (36.20) | 1.250-28 UN-2A | | -- | | | -- |

## SHELL STYLE 01 IN-LINE RECEPTACLE




## NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Pin contact mates with Glenair socket contact P/N 854-002-XX. Socket contact mates with Glenair pin contact P/N 854-001-XX



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

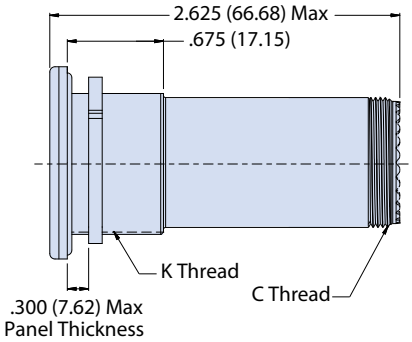
# Series 801, 804 and 805 Mighty Mouse

## 804-305 Push/Pull Receptacle Adapter with Quadrax Contacts to RJ45 Jack

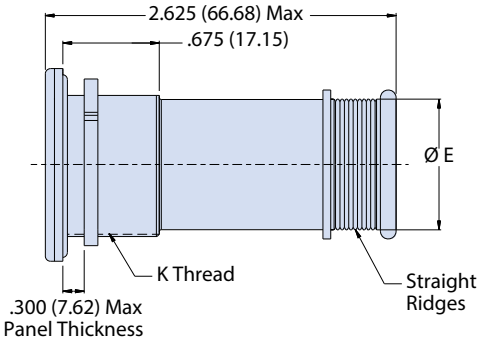


### SHELL STYLE 00 FRONT PANEL MOUNT JAM NUT RECEPTACLE

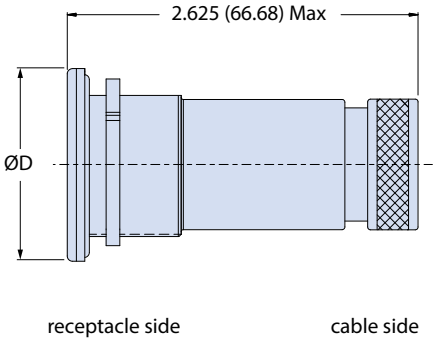
**(-) Accessory Thread**




**(S) Banding Platform**

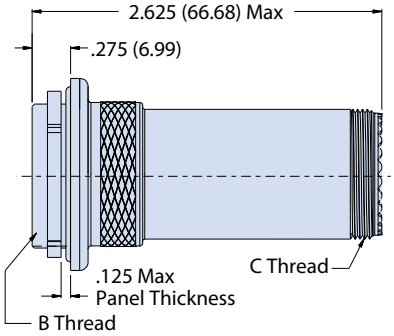



**(B) Boot Adapter**

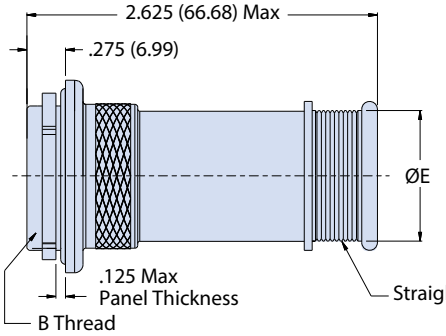



### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE

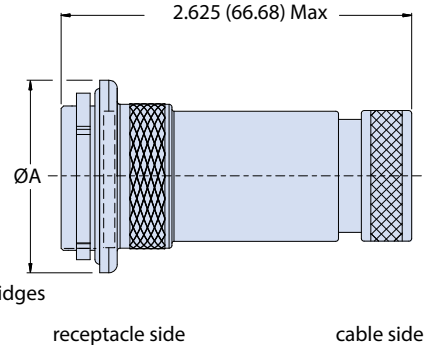
**(-) Accessory Thread**




**(S) Banding Platform**

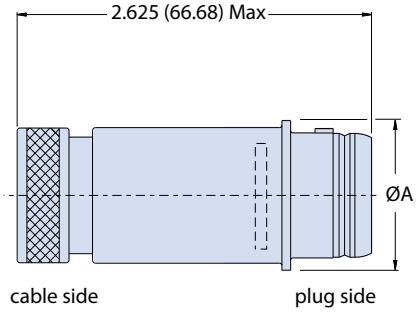



**(B) Boot Adapter**

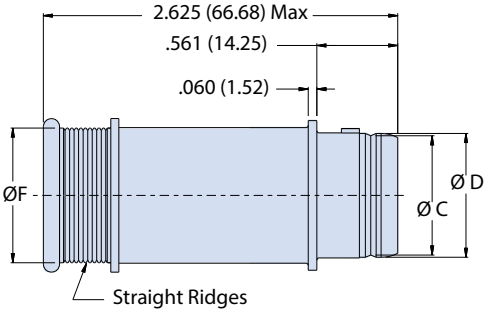



### SHELL STYLE 16 PLUG

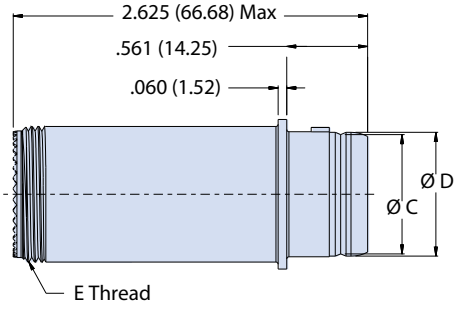
**(B) Boot Adaptor**




**(S) Banding Platform**




**(-) Accessory Thread**




| Plug Dimensions | | | | | |
|---|---|---|---|---|---|
| **Shell Size** | **Ø A Max** | **Ø C** | **Ø D** | **E Thread** | **Ø F** |
| 15 | 1.045 (26.54) | .828 (21.03) | .860 (21.84) | .9375-20 UNEF-2A | .850 (21.59) |
| 16 | 1.095 (27.81) | .878 (22.30) | .910 (23.11) | 1.0000-20 UNEF-2A | .902 (22.91) |

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

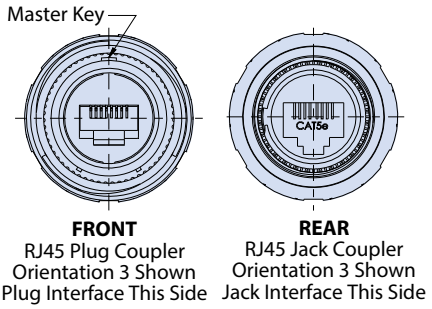
RJ45 CAT 5E ETHERNET COMPATIBLE

# Series 801, 804 and 805 Mighty Mouse

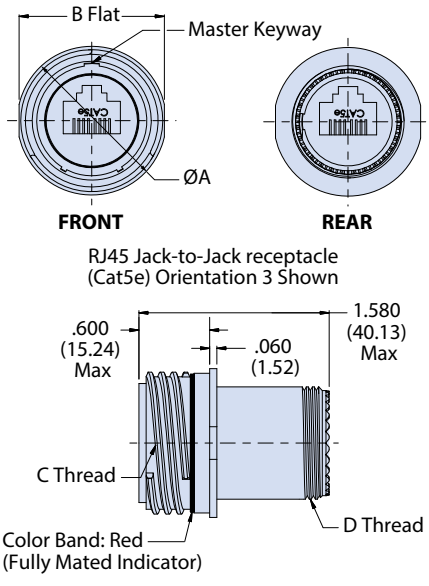
## 805-300 Triple-Start Coupler with RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug)

| How To Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **805-300** | **-** | **NF** | **07** | **G** | **21** | **5H** | **A** | **4** |
| **Series** | **805-300** | | | | | | | | |
| **Rear Accessory Option** | **–** = Accessory Thread and Teeth<br>**B** = Integral Boot Adapter<br>**S** = Integral Banding Platform | | | | | | | | |
| **Material and Finish**[1] | **NF** = Al/Cadmium, Olive Drab<br>**M** = Al/Electroless Nickel<br>**MT** = Al/Nickel PTFE<br>**ZNU** = Al/Black Zinc Nickel | | | | | | | | |
| **Shell Style**[1] | **01** = In Line Receptacle<br>**02** = Front or Rear Panel Mount Square Flange Receptacle<br>**12** = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts<br>**22** = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts<br>**07** = Rear Panel Mount Jam Nut Receptacle<br>**16** = Plug | | | | | | | | |
| **Grounding** | **G** = Shielded and grounded to shell<br>For improved 360° shielding performance select shell size 21 | | | | | | | | |
| **Shell Size**[3] | **19** = Shell Size 19 **21** = Shell Size 21 | | | | | | | | |
| **RJ45 Category** | **5H** = Cat 5E For Cat 6A applications consult factory, | | | | | | | | |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F**; A = Normal | | | | | | | | |
| **RJ45 Orientation** | **1**, **2**, **3**, **4** | | | | | | | | |

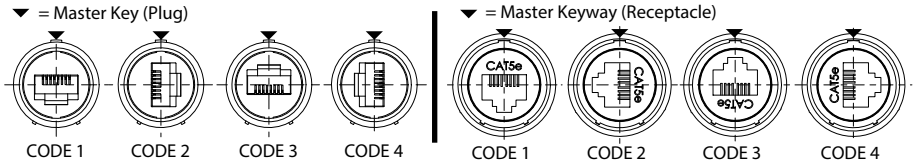
## SHELL STYLE 16 PLUG




## SHELL STYLE 01 IN-LINE RECEPTACLE




## RJ45 JACK ORIENTATION OPTIONS




| Jam Nut, Plug and Banding Platform Rear Accessory Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| **Size Shell** | **Ø K** | **L** | **M Flat** | **N Thread** | **Ø P** | **Ø R** |
| 19 | 1.450 (36.83) | 1.420 (30.07) | 1.221 (31.01) | 1.2500-28 UN-2A | 1.311 (33.30) | .884 (22.45) |
| 21 | 1.590 (40.38) | 1.560 (39.62) | 1.350 (34.29) | 1.3750-28 UN-2A | 1.448 (36.78) | 1.003 (25.48) |

| In-Line, Square Flange and Threaded Rear Accessory Dimensions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Size Shell** | **Ø A** | **B Flat** | **C Threads** | **D Thread** | **Ø E** | **F SQ** | **G BSC** | **Ø H** | **J SQ** |
| 19 | 1.235 (31.37) | 1.205 (30.61) | 1.1875-.1P-.3L-TS-2A | .9375-20 UNEF-2A | 2.094 (53.19) | 1.537 (39.04) | 1.327 (39.04) | 2.197 (55.80) | 1.647 (41.83) |
| 21 | 1.360 (34.54) | 1.330 (33.78) | 1.3125-.1P-.3L-TS-2A | 1.0625-18 UNEF-2A | 2.270 (57.66) | 1.663 (42.24) | 1.452 (36.88) | 2.380 (60.45) | 1.772 (45.01) |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

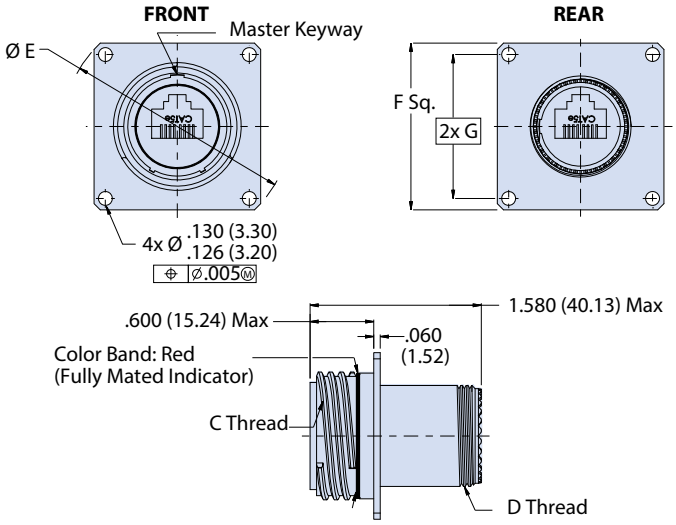
# Series 801, 804 and 805 Mighty Mouse

## 805-300 Triple-Start Coupler with RJ45 Jack-to-Jack (Receptacle) or Plug-to-Jack (Plug)



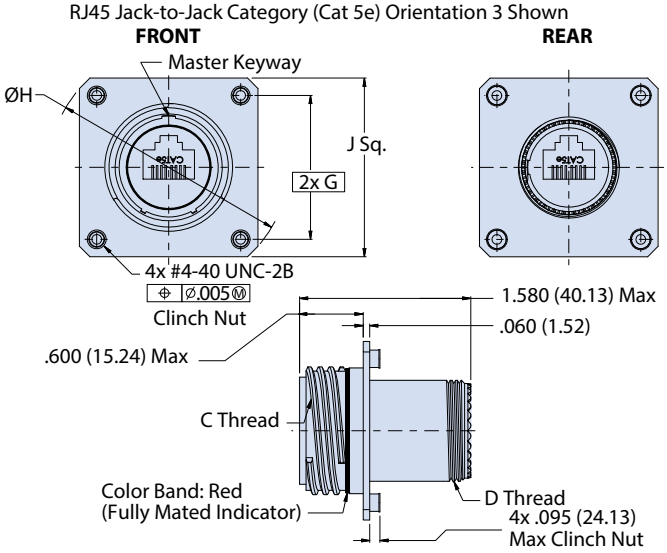
### SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE

RJ45 Jack-to-Jack Connector (Cat 5e) Orientation 3 Shown



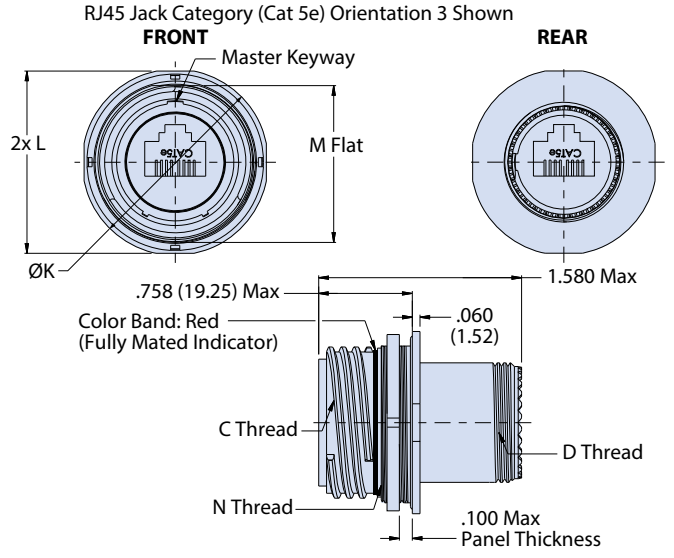

### SHELL STYLE 12 & 22 FRONT OR REAR PANEL MOUNT RECEPTACLE WITH CLINCH NUTS

RJ45 Jack-to-Jack Category (Cat 5e) Orientation 3 Shown

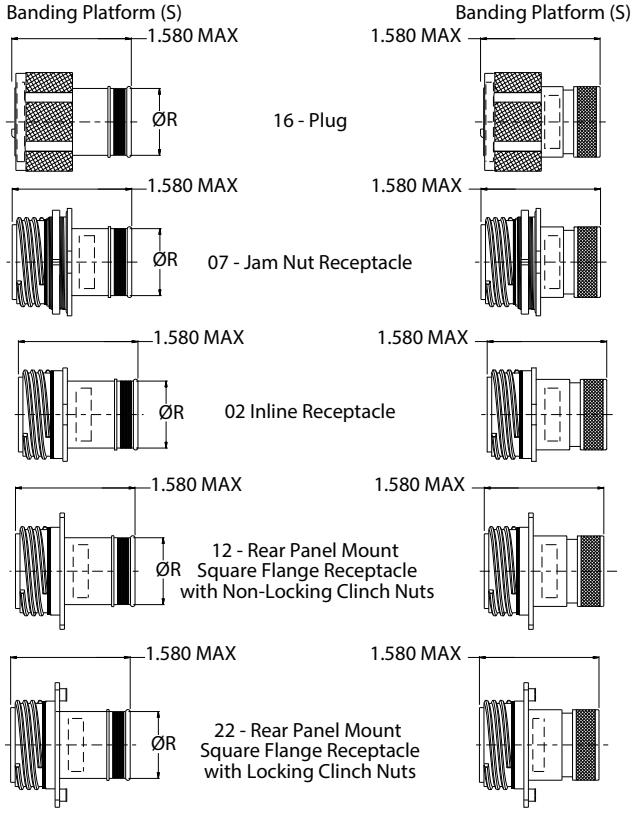



### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE

RJ45 Jack Category (Cat 5e) Orientation 3 Shown




### ADDITIONAL REAR ACCESSORY OPTIONS




### NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. IP67 sealing in unmated condition
3. Size 19 uses only rear shield sleeve
   Size 21 uses front and rear shield sleeves

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

## 805-301 Triple-Start Connector with RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts



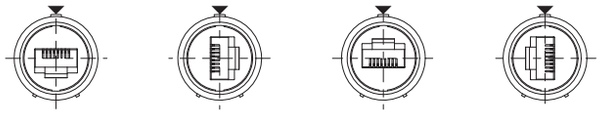


| How To Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **805-301** | **-** | **NF** | **01** | **G** | **21** | **5H** | **A** | **1** |

| | |
|---|---|
| **Series** | **805-301** = Crimp Contacts |
| **Rear Accessory Option** | **–** = Accessory Thread and Teeth<br>**B** = Integral Boot Adapter<br>**S** = Integral Banding Platform |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **01** = In Line Receptacle<br>**02** = Front or Rear Panel Mount Square Flange Receptacle<br>**12** = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts<br>**22** = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts<br>**07** = Rear Panel Mount Jam Nut Receptacle<br>**16** = Plug |
| **Shielding/Grounding**[2] | **-** = Inline Shielded<br>**G** = Inline Shielded and Grounded to Shell |
| **Shell Size** | **21** = Shell Size 21 |
| **RJ45 Category** | **5H** = Cat 5E For Cat 6A applications consult factory |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F**; A = Normal |
| **RJ45 Orientation Option** | **1**, **2**, **3**, **4** |

## RJ45 JACK ORIENTATION OPTIONS

▼ = Master Key (Plug)



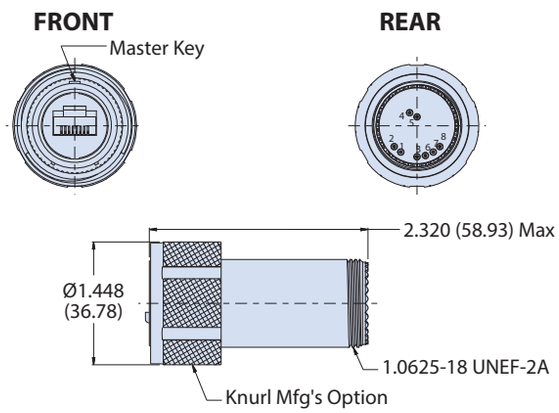
CODE 1 CODE 2 CODE 3 CODE 4

▼ = Master Keyway (Receptacle)

CODE 1 CODE 2 CODE 3 CODE 4

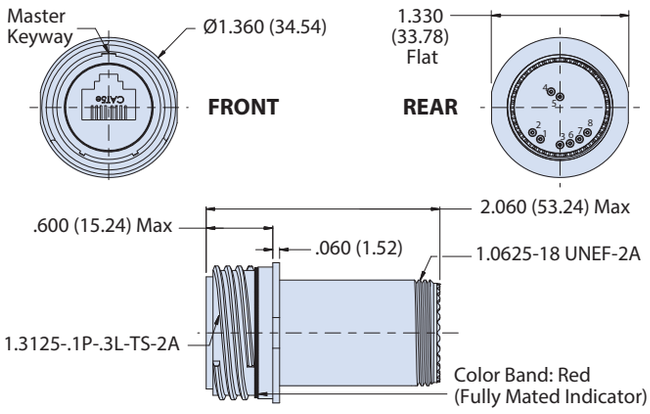
## SHELL STYLE 16 PLUG

RJ45 Plug Category (CAT 5e) Orientation 3 Shown




## SHELL STYLE 01 IN-LINE RECEPTACLE

RJ45 Jack Category (CAT 5e) Orientation 3 Shown





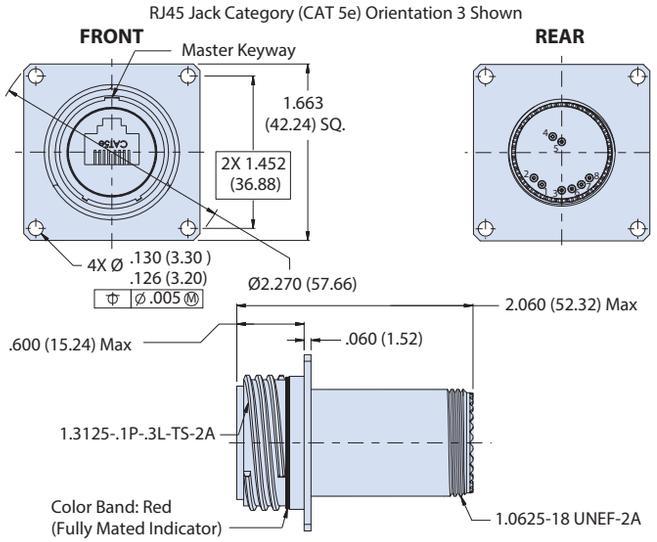

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

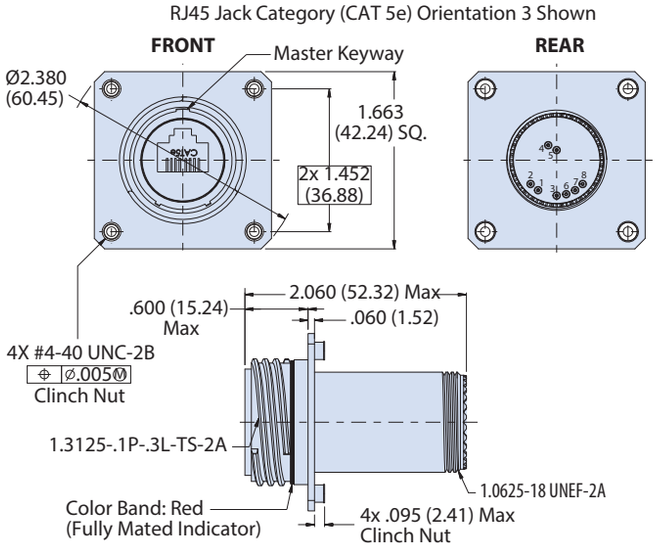
## 805-301 Triple-Start Connector with RJ45 Plug (Plug) or Jack (Receptacle) to Crimp Removable Contacts



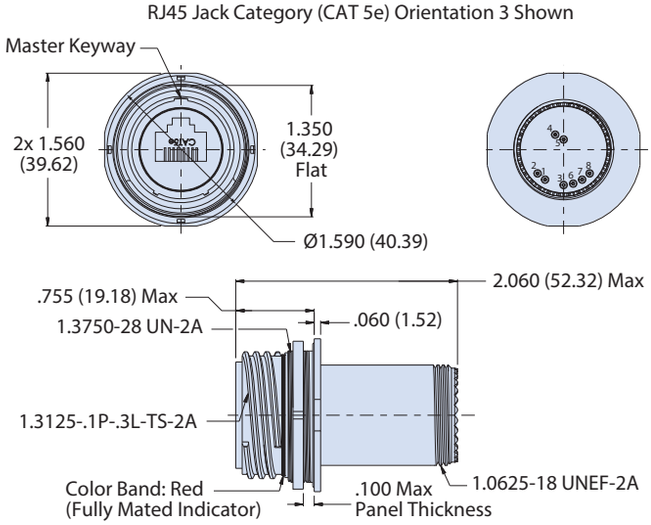
### SHELL STYLE 02 FRONT OR REAR PANEL MOUNT RECEPTACLE



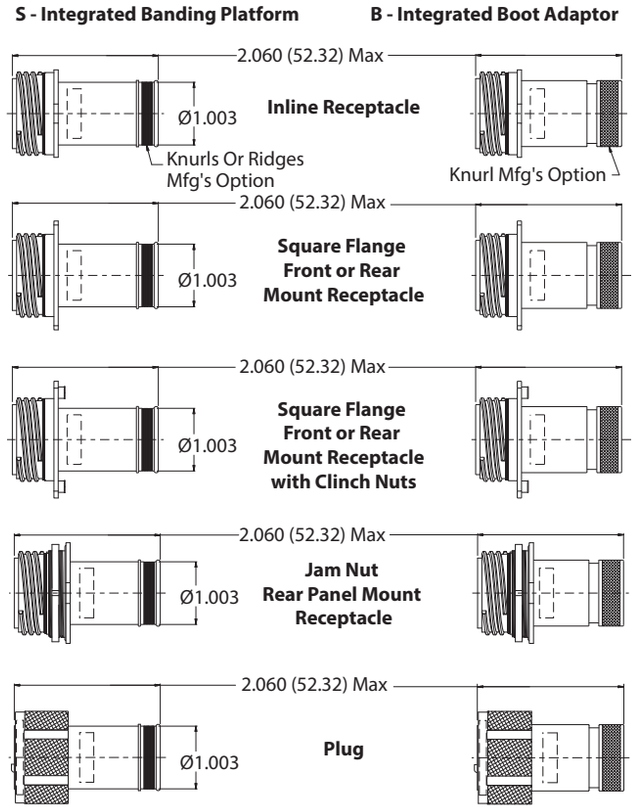

### SHELL STYLE 12 & 22 REAR PANEL MOUNT RECEPTACLE WITH CLINCH NUTS




### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE




### REAR ACCESSORY OPTIONS




### NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. G option is inline shielded and grounded to shell, receptacle only
3. Meets IP67 sealing requirement in unmated condition
4. Supplied with size 23 crimp pin contacts (809-001 supplied loose)

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

*RJ45 CAT 5E ETHERNET COMPATIBLE*

# Series 801, 804 and 805 Mighty Mouse

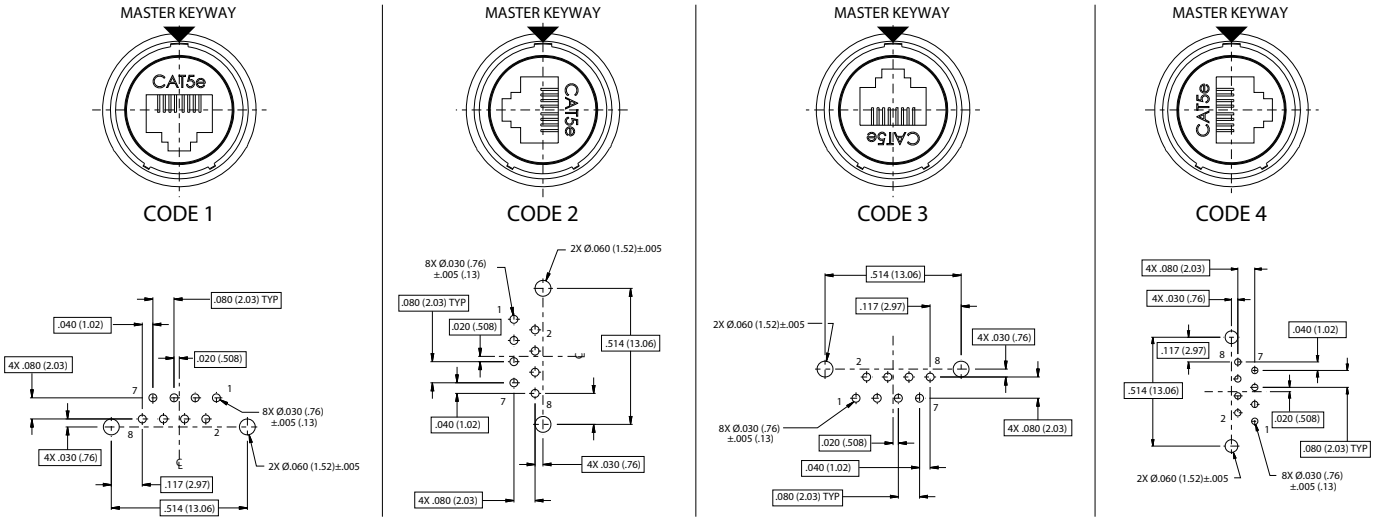
## 805-302 Triple-Start Receptacle with RJ45 Jack to PC Tail Termination

Glenair®

| How To Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **805-302** | **NF** | **07** | **G** | **19** | **5H** | **A** | **1** |

| | |
|---|---|
| **Series** | **805-302** = PC Tail |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab **M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE **ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **02** = Front or Rear Panel Mount Square Flange Receptacle<br>**12** = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts<br>**22** = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts<br>**07** = Rear Panel Mount Jam Nut Receptacle |
| **Grounding** | **G** = Shielded and grounded to shell<br>For improved 360° shielding performance select shell size 21 |
| **Shell Size** | **19** = Shell Size 19 **21** = Shell Size 21 |
| **RJ45 Category** | **5H** = Cat 5E For Cat 6A applications consult factory |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F**; A = Normal |
| **RJ45 Orintation Option** | **1**, **2**, **3**, **4** |

## RJ45 RECEPTACLE ORIENTATION OPTIONS AND PCB FOOTPRINT (PARTIAL VIEWS SHOWN)




**PCB Layout (Solder Side Shown)**

| Square Flange Mount Dimensions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Shell Size** | **Ø A** | **B Flat** | **C Thread** | **Ø D** | **Ø E** | **F SQ** | **G BSC** | **Ø H** | **J SQ** |
| 19 | 1.235 (31.69) | 1.205 (30.61) | 1.1875-.1P-.3L-TS-2A | 0.912 (23.16) | 2.094 (53.19) | 1.537 (39.04) | 1.327 (33.71) | 2.197 (55.80) | 1.647 (41.83) |
| 21 | 1.360 (34.54) | 1.330 (33.78) | 1.3125-.1P-.3L-TS-2A | 1.017 (25.83) | 2.270 (57.66) | 1.663 (42.24) | 1.452 (36.88) | 2.380 (60.45) | 1.772 (45.01) |

| Jam Nut and Plug Dimensions | | | | |
|---|---|---|---|---|
| **Shell Size** | **Ø K** | **L** | **M Flat** | **N Thread** |
| 19 | 1.450 (36.83) | 1.420 (36.07) | 1.221 (31.01) | 1.2500-28 UN-2A |
| 21 | 1.590 (40.39) | 1.560 (39.62) | 1.350 (34.29) | 1.3750-28 UN-2A |

## NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions
2. Meets IP67 sealing requirement in unmated condition



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

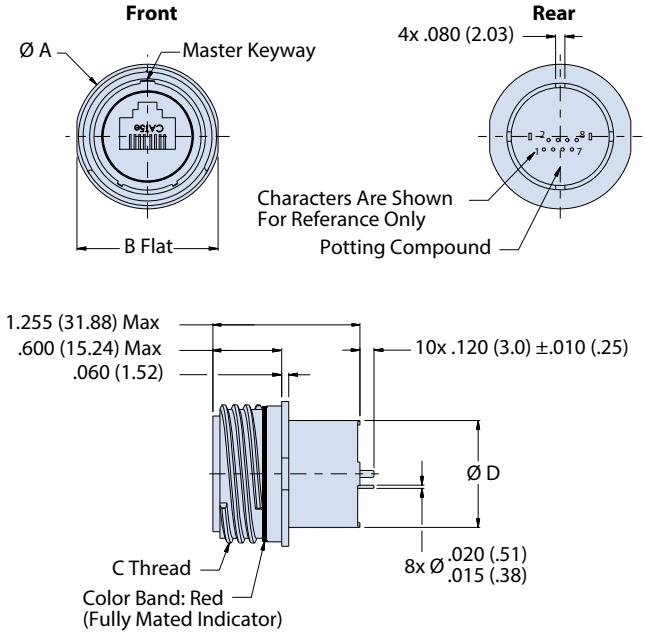
# Series 801, 804 and 805 Mighty Mouse

## 805-302 Triple-Start Receptacle with RJ45 Jack to PC Tail Termination



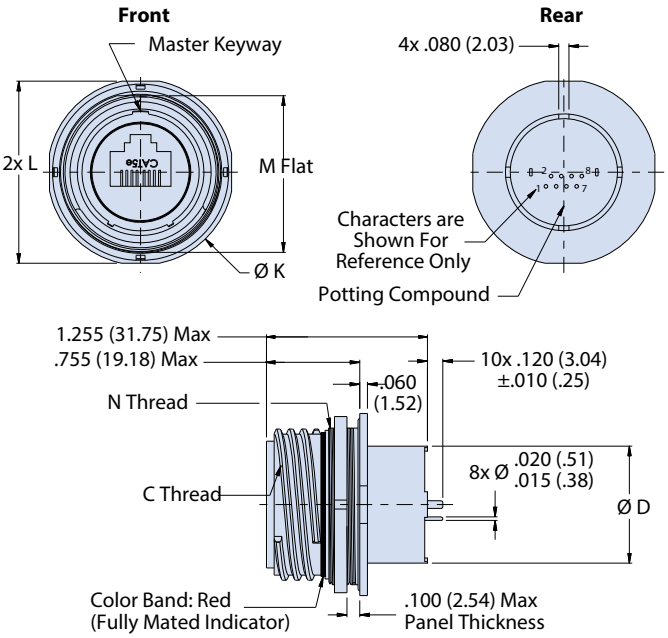
## SHELL STYEL 01 INLINE

RJ45 Jack Category (Cat 5e) Orientation 3 Shown



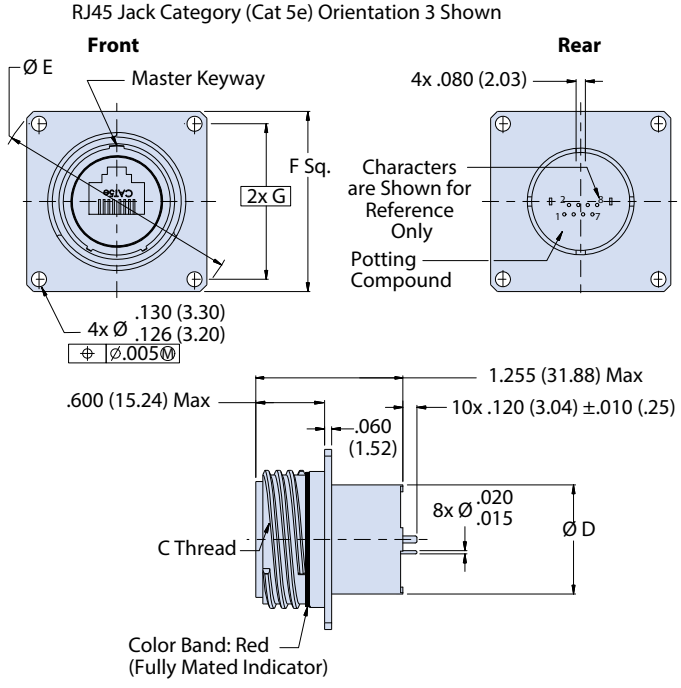

## SHELL STYLE 07 JAM NUT

RJ45 Jack Category (Cat 5e) Orientation 3 Shown



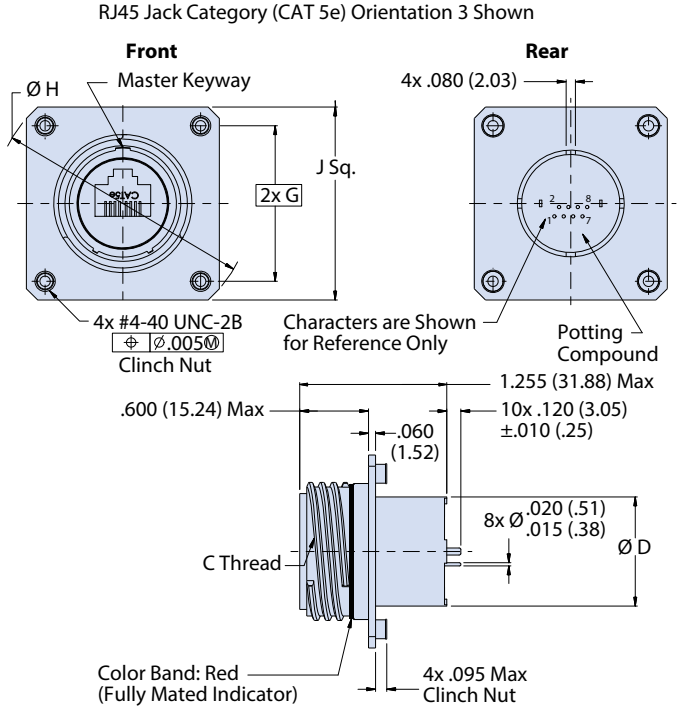

## SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE

RJ45 Jack Category (Cat 5e) Orientation 3 Shown




## SHELL STYLE 12 AND 22 REAR PANEL MOUNT SQ FLANGE RECEPTACLE WITH CLINCH NUTS

RJ45 Jack Category (CAT 5e) Orientation 3 Shown




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog

Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

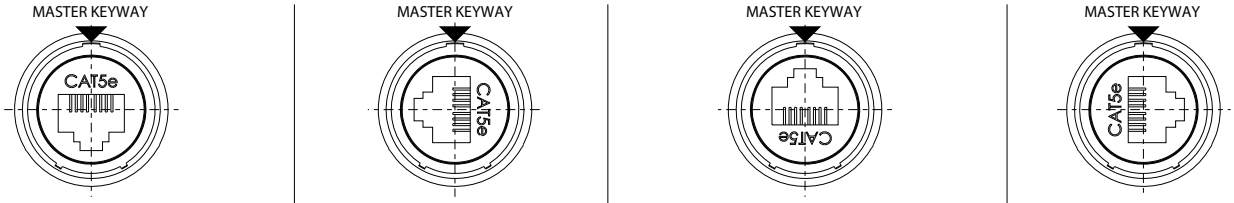
## 805-303 Triple-Start Receptacle with RJ45 Jack to Solder Cup Termination



| How To Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **805-303** | **NF** | **07** | **G** | **19** | **5H** | **A** | **1** |

| | |
|---|---|
| **Series** | **805-303** = Solder Cup |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **02** = Front or Rear Panel Mount Square Flange Receptacle<br>**12** = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts<br>**22** = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts<br>**07** = Rear Panel Mount Jam Nut Receptacle |
| **Grounding** | **G** = Shielded and grounded to shell<br>For improved 360° shielding performance select shell size 21 |
| **Shell Size** | **19** = Shell Size 19 **21** = Shell Size 21 |
| **RJ45 Category** | **5H** = Cat 5E For Cat 6A applications consult factory |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F**; A = Normal |
| **RJ45 Orintation Option** | **1**, **2**, **3**, **4** |

## RJ45 RECEPTACLE ORIENTATION OPTIONS (PARTIAL VIEWS SHOWN)




| Square Flange Mount Dimensions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Shell Size** | **Ø A** | **B Flat** | **C Thread** | **Ø D** | **Ø E** | **F SQ** | **G BSC** | **Ø H** | **J SQ** |
| 19 | 1.235 (31.69) | 1.205 (30.61) | 1.1875-.1P-.3L-TS-2A | .912 (23.16) | 2.094 (53.19) | 1.537 (39.04) | 1.327 (33.71) | 2.197 (55.80) | 1.647 (41.83) |
| 21 | 1.360 (34.54) | 1.330 (33.78) | 1.3125-.1P-.3L-TS-2A | 1.017 (25.83) | 2.270 (57.66) | 1.663 (42.24) | 1.452 (36.88) | 2.380 (60.45) | 1.772 (45.01) |

| Jam Nut and Plug Dimensions | | | | |
|---|---|---|---|---|
| **Shell Size** | **Ø K** | **L** | **M Flat** | **N Thread** |
| 19 | 1.450 (36.83) | 1.420 (36.07) | 1.221 (31.01) | 1.2500-28 UN-2A |
| 21 | 1.590 (40.39) | 1.560 (39.62) | 1.350 (34.29) | 1.3750-28 UN-2A |

## NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions
2. Meets IP67 sealing requirement in unmated condition
3. Materials/Finishes:
   - Insulators: high grade rigid dielectric/n.a.
   - contacts: copper alloy, gold plated
   - seals: silicone based eleastomer
   - RJ45 coupler housing: UL94V-0 compliant ABS or PPS
   - hardware: stainless steel/passivated



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

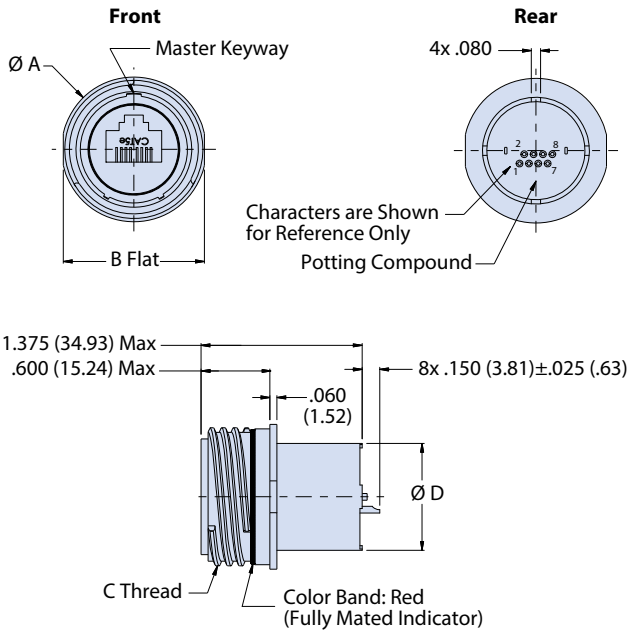
# Series 801, 804 and 805 Mighty Mouse

## 805-303 Triple-Start Receptacle with RJ45 Jack to Solder Cup Termination



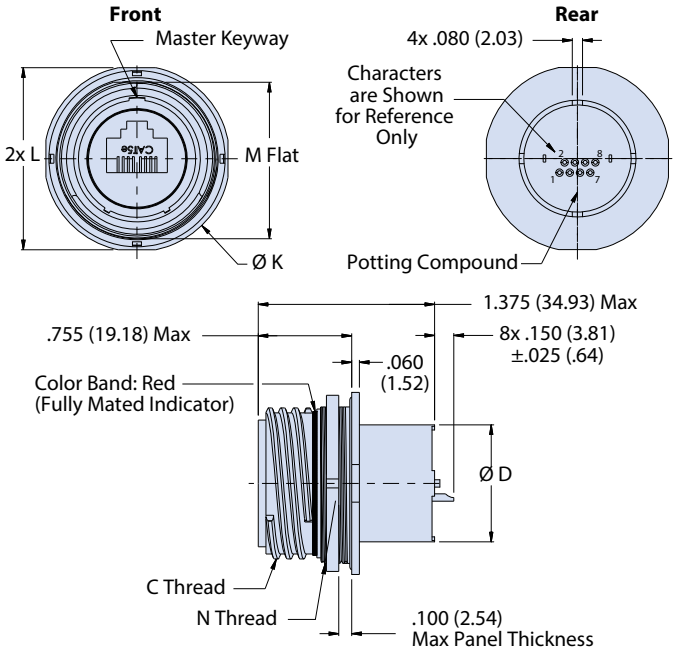
### SHELL STYEL 01 INLINE

RJ45 Jack Category (Cat 5e) orientation 3 Shown



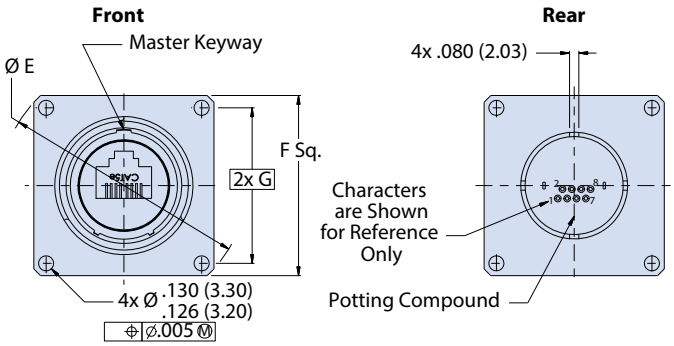

### SHELL STYLE 07 JAM NUT

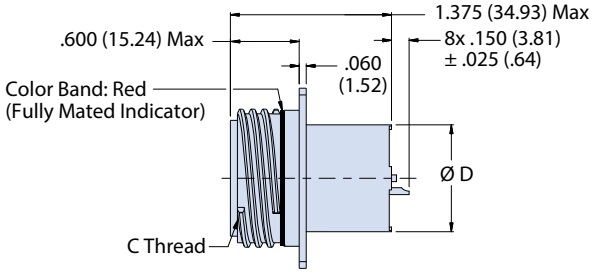
RJ45 Jack Category (Cat 5e) Orientation 3 Shown




### SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE

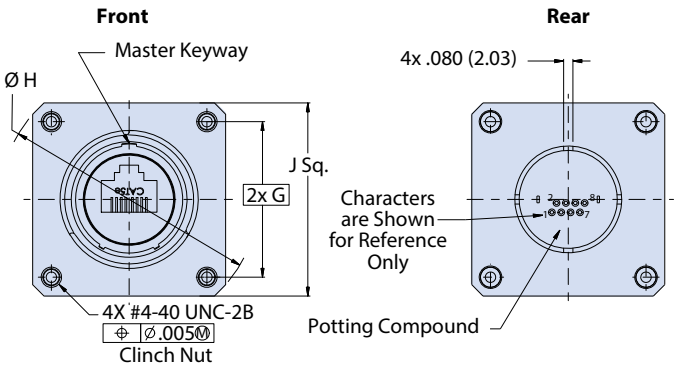
RJ45 (CAT 5e) Orientation 3 Shown

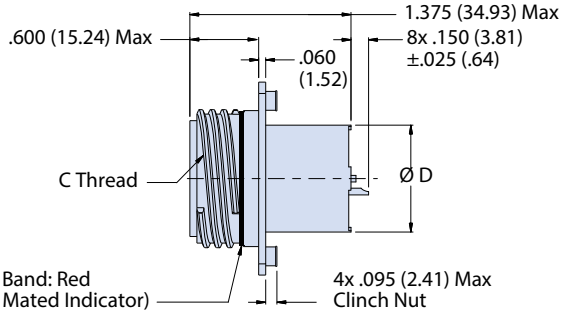



### SHELL STYLE 12 AND 22 REAR PANEL MOUNT SQ FLANGE RECEPTACLE WITH CLINCH NUTS

RJ45 (CAT 5e) Orientation 3 Shown




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog

Dimensions in Inches (millimeters) are subject to change without notice.

SERIES 80 MIGHTY MOUSE FIELD-READY STANDARD USB

# SUPERSEAL™

## Series 801, 804 and 805 Mighty Mouse connectors with superior sealing, shielding and a variety of termination options.

***Features***

- **Superior sealing— IP67 unmated and IP68 when mated—for complete system protection against water, sand and dust**
- **Couple, Crimp contact, PC tail and solder cup termination options available**
- **Integral banding porch or connector accessory interface**
- **Standard USB 2.0 plugs and receptacles**
- **Series 804 push/pull, Series 801 double-start or Series 805 triple-start, stub ACME threaded coupling.**
- **Less than half the size and weight compared to MIL-DTL-38999 type solutions**

Glenair®

Glenair, Inc.
1211 Air Way
Glendale, CA 91201-2497
818-247-6000
sales@glenair.com
www.glenair.com

RJ45/USB SUPER SEAL™

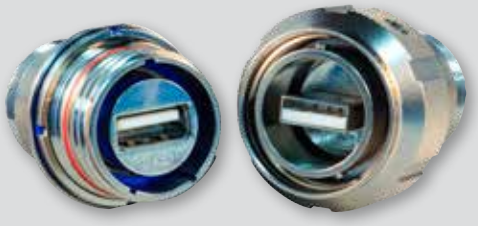
*USB 2.0 TYPE A*

# Series 801, 804 and 805 Mighty Mouse

## Product Selection Guide

Glenair®

### Series 801
**Double-Start**




**801-340** Page L-2
SuperSeal™ Coupler with Accessory Options and USB Male-to-Female (Plug) or Female-to-Female (Receptacle).

**801-341** Page L-4
SuperSeal™ Connector with Accessory Options and USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts.

**801-342 PC Tail or 801-343 Solder Cup** Page L-6
SuperSeal™ Receptacles with USB Female Interface to PC Tail or Solder Cup Termination.


### Series 804
**Push/Pull**

**804-340** Page L-8
SuperSeal™ Coupler with Accessory Options and USB Male-to-Female (Plug) or Female-to-Female (Receptacle).

**804-341** Page L-10
SuperSeal™ Connectors with Accessory Options and USB Male (Plug) or Female (Receptacle) to Rear Release Crimp Socket Contacts.

**804-342 PC Tail and 801-343 Solder Cup** Page L-12
SuperSeal™ Receptacles with USB Female Interface to PC Tail or Solder Cup Termination.


### Series 805
**Triple-Start**

**805-340** Page L-14
SuperSeal™ Coupler with Accessory Options and USB Male-to-Female (Plug) or Female-to-Female (Receptacle).

**805-341** Page L-16
SuperSeal™ Connectors with Accessory Options and USB Male (Plug) or Female (Receptacle) to Rear Release Crimp Socket Contacts. .

**805-342 PC Tail** Page L-18
SuperSeal™ Receptacle with
USB Female Interface to PC Tail Termination.

**805-343 Solder Cup** Page L-20
SuperSeal™ Receptacle with
USB Female Interface to Solder Cup Termination.


L


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

# Series 801, 804 and 805 Mighty Mouse

## 801-340 Coupler with USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

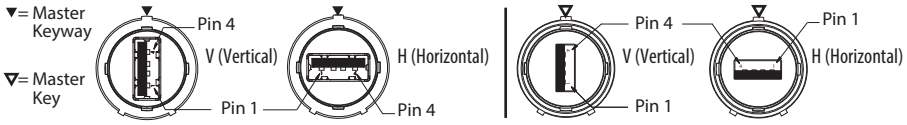
| How To Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **801-340** | **-** | **NF** | **07** | **-16** | **2** | **A** | **A** | **H** |

| | |
|---|---|
| **Series** | **801-340** |
| **Rear Accessory Option** | **–** = Accessory Thread and Teeth<br>**S** = Integrated Banding Platform<br>**B** = Integrated Boot Adaptor |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **01** = In Line Receptacle<br>**02** = Front or Rear Panel Mount Square Flange Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle<br>**26** = Plug |
| **Shell Size** | **16** = Shell Size 16 |
| **USB Performance** | **2** = USB 2.0 |
| **USB Type** | **A** = Type A |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F** |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |

## NOTES

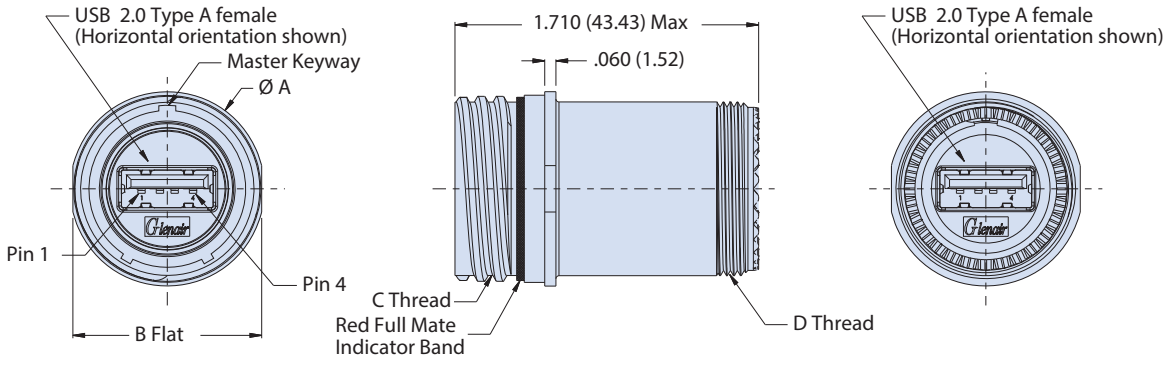
1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition

## USB 2.0 ORIENTATION OPTIONS




| Dimensions | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Size Shell | Ø A | B Flat | C Threads | D Threads | Ø E | F Sq | G Bsc | Ø J | K Flat | M Threads | Ø N |
| 16 | 1.040 (26.42) | 1.010 (25.65) | 1.0000-.1P-.2L-DS-2A | .9375-20 UNEF-2A | 1.625 (41.28) | 1.219 (30.96) | .981 (24.92) | 1.264 (32.11) | 1.230 (31.24) | 1.0625-20 UN-2A | 1.230 (31.24) |

## SHELL STYLE 01 INLINE RECEPTACLE





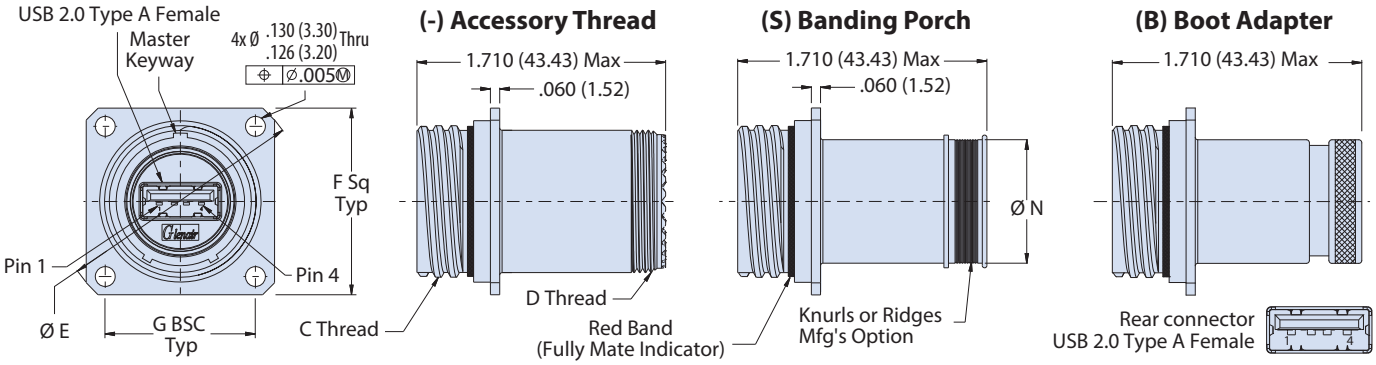

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

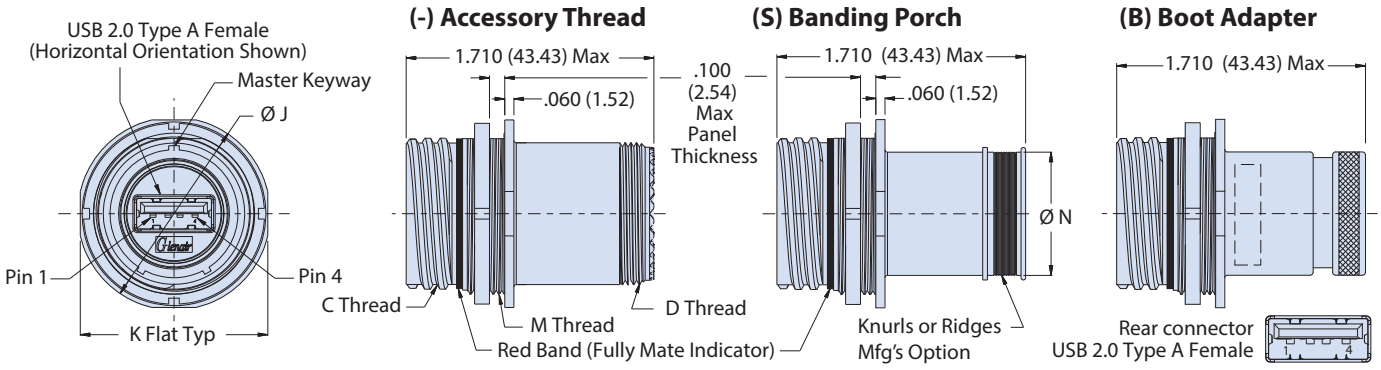
## 801-340 Coupler with USB Male-to-Female (Plug) or Female-to-Female (Receptacle)



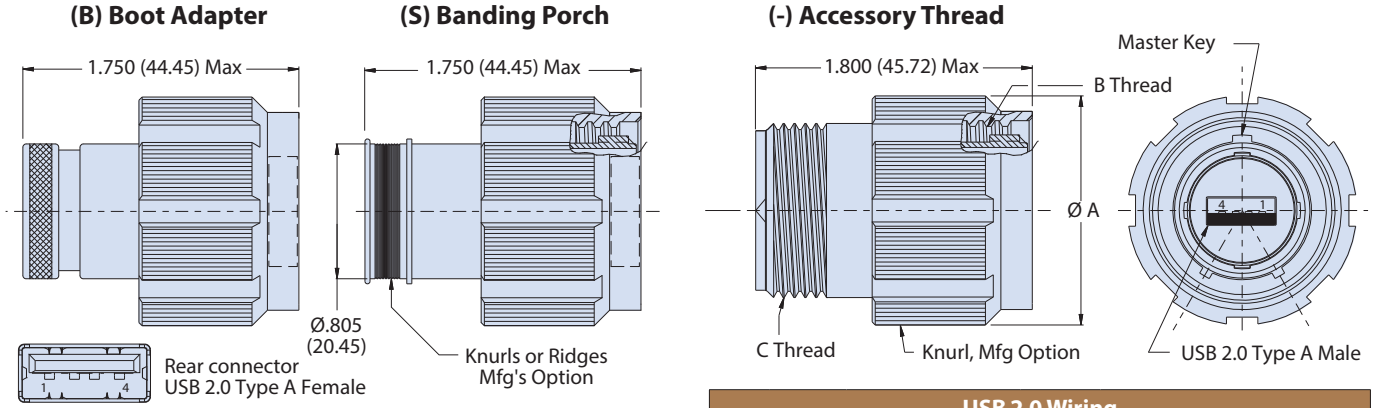
### SHELL STYLE 02 FRONT OR REAR SQUARE FLANGE RECEPTACLE




### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE




### SHELL STYLE 26 PLUG




| Plug Dimensions | | | |
|---|---|---|---|
| Shell Size | Ø A | B Threads | C Threads |
| 16 | 1.340 (34.04) | 1.0000-.1P-.2L-2B | .9375-20 UNEF-2A |

| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| Pin | Name | Cable Color(USB) | Desc. | Recomended Wire Size (AWG) |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

# Series 801, 804 and 805 Mighty Mouse

## 801-341 Connector with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts



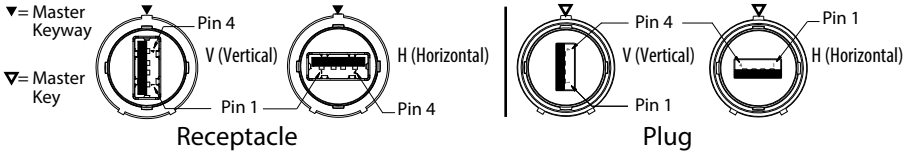
| How To Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **801-341** | **-** | **NF** | **07** | **-16** | **2** | **A** | **A** | **H** |
| **Series** | **801-341** | | | | | | | | |
| **Rear Accessory Option** | **–** = Accessory Thread and Teeth<br>**B** = Integrated Boot Adaptor<br>**S** = Integrated Banding Platform | | | | | | | | |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel | | | | | | | | |
| **Shell Style**[1] | **01** = In Line Receptacle<br>**02** = Front or Rear Panel Mount Square Flange Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle<br>**26** = Plug | | | | | | | | |
| **Shell Size** | **16** = Shell Size 16 | | | | | | | | |
| **USB Performance** | **2** = USB 2.0 | | | | | | | | |
| **USB Type** | **A** = Type A | | | | | | | | |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F**; Omit for single keyway (non polarized) | | | | | | | | |
| **USB Orientation** | **H** = Horizontal **V** = Vertical | | | | | | | | |

### NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Supplied with size 23 socket contacts (809-002 supplied loose) 1 extra contact provided
4. Material/Finish
   - Shell, jam nut: al alloy or cres
   - Seal/o-ring fluorosilicone

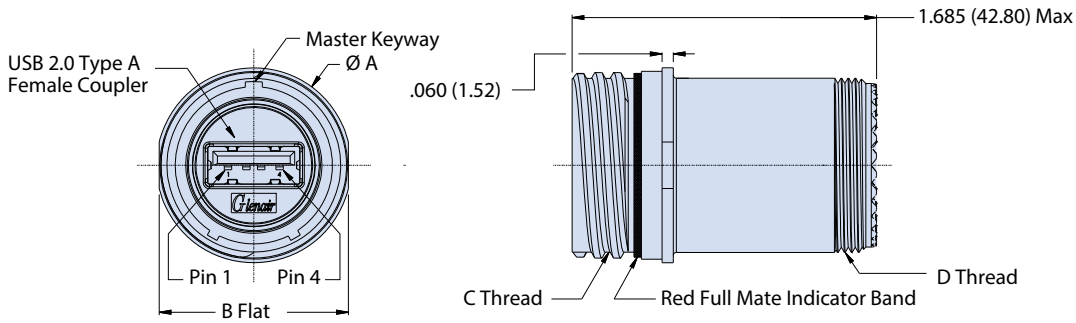
| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| **Pin** | **Name** | **Cable Color (USB)** | **Desc.** | **Recomended Wire Size (AWG)** |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

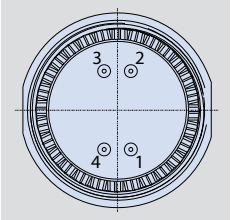
### USB 2.0 ORIENTATION OPTIONS




| Receptacle Dimensions | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Size Shell** | **Ø A** | **B Flat** | **C Threads** | **D Threads** | **Ø E** | **F Sq** | **G Bsc** | **Ø J** | **K Flat** | **M Threads** | **Ø N** |
| 16 | 1.040 (26.42) | 1.010 (25.65) | 1.0000-.1P-.2L-DS-2A | .9375-20 UNEF-2A | 1.625 (41.28) | 1.219 (30.96) | .981 (24.92) | 1.264 (32.11) | 1.230 (31.24) | 1.0625-20 UN-2A | 1.230 (31.24) |

### SHELL STYLE 01 IN-LINE RECEPTACLE




**Rear contact positions apply to all shell styles**



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

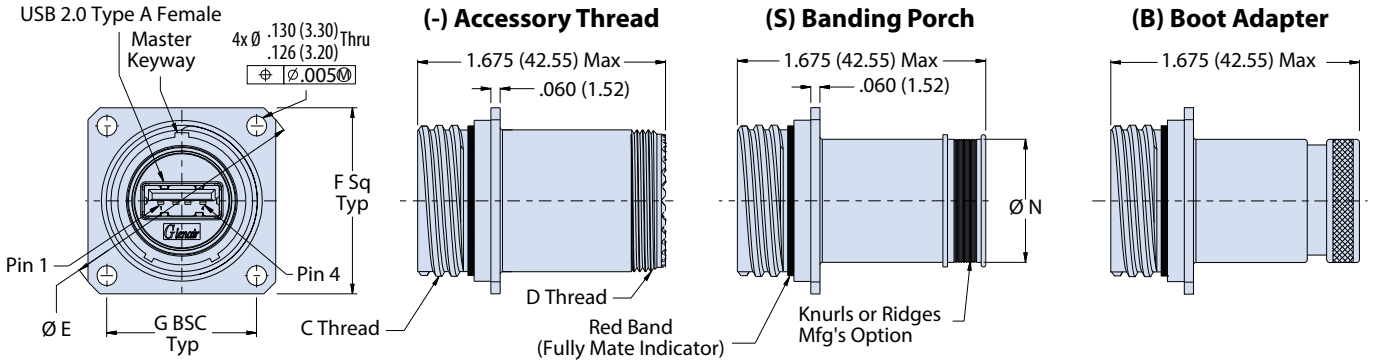
*USB 2.0 TYPE A*

# Series 801, 804 and 805 Mighty Mouse

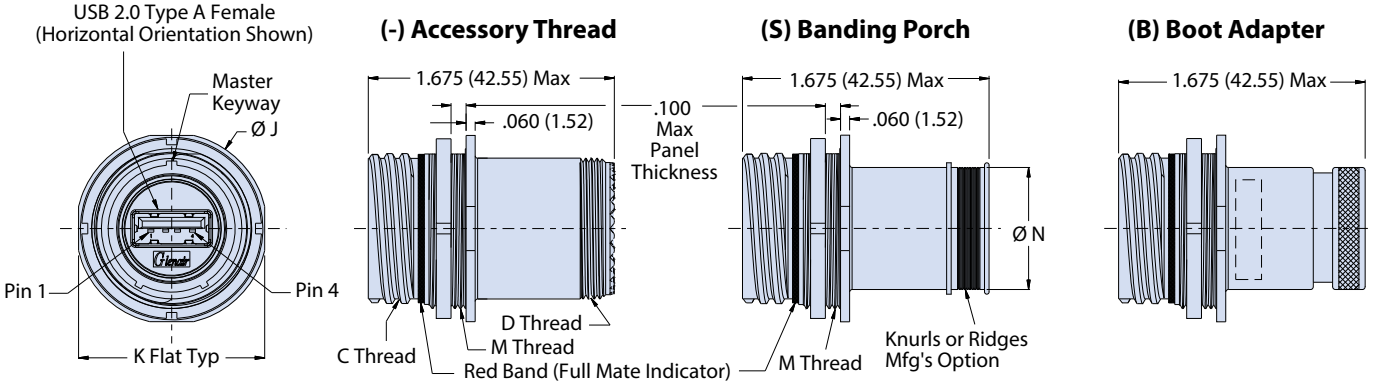
## 801-341 Connector with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts



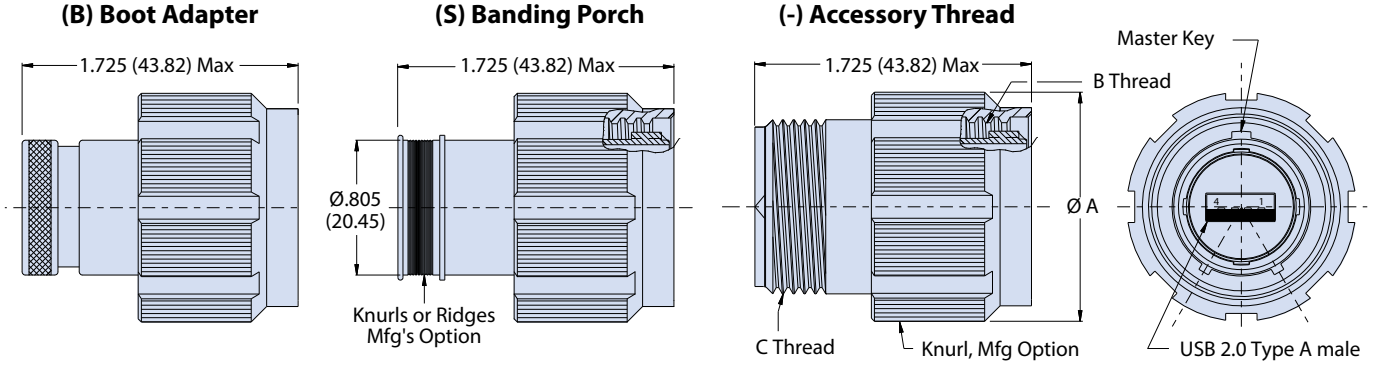
### SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE




### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE




### SHELL STYLE 26 PLUG




| Plug Diameter | | | |
|---|---|---|---|
| **Shell Size** | **ØA** | **B Thread** | **C Threads** |
| 16 | 1.340 (34.04) | 1.0000-.1P-.2L-2B | .9375-20 UNEF-2A |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

# Series 801, 804 and 805 Mighty Mouse

## 801-342 or 801-343 Receptacles with USB Female Interface to PC Tail or Solder Cup Termination

| How To Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **801-342** | **NF** | **07** | **-16** | **2** | **A** | **A** | **H** |

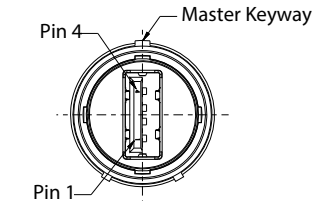
| | |
|---|---|
| **Series** | **801-342** = PC Tail<br>**801-343** = Solder Cup |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **02** = Front or Rear, Square Flange Panel Mount Receptacle<br>**07** = Jam Nut Receptacle, Rear Panel Mount |
| **Shell Size** | **16** = Shell Size 16 |
| **USB Performance** | **2** = USB 2.0 |
| **USB Type** | **A** = Type A |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F** |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |

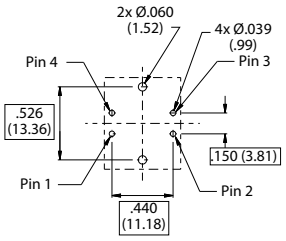
| Dimensions | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Size Shell** | **C Threads** | **Ø E** | **F Sq** | **G Bsc** | **Ø J** | **K Flat** | **M Threads** |
| 16 | 1.0000-.1P-.2L-DS-2A | 1.625 (41.28) | 1.219 (30.96) | 0.981 (24.92) | 1.264 (32.11) | 1.230 (31.24) | 1.0625-20 UN-2A |

| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| **Pin** | **Name** | **Cable Color (USB)** | **Description** | **Recommended Wire Size (AWG)** |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

## USB 2.0 ORIENTATION OPTIONS

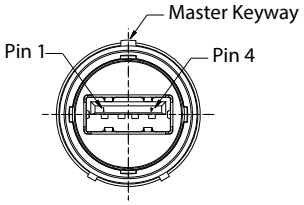
V (Vertical)

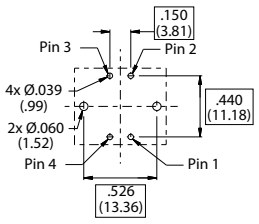



PCB Layout (Solder Side)

H (Horizontal)




PCB Layout (Solder Side)

PCB layouts apply to 801-342. USB orientation applies to 801-342 and 801-343



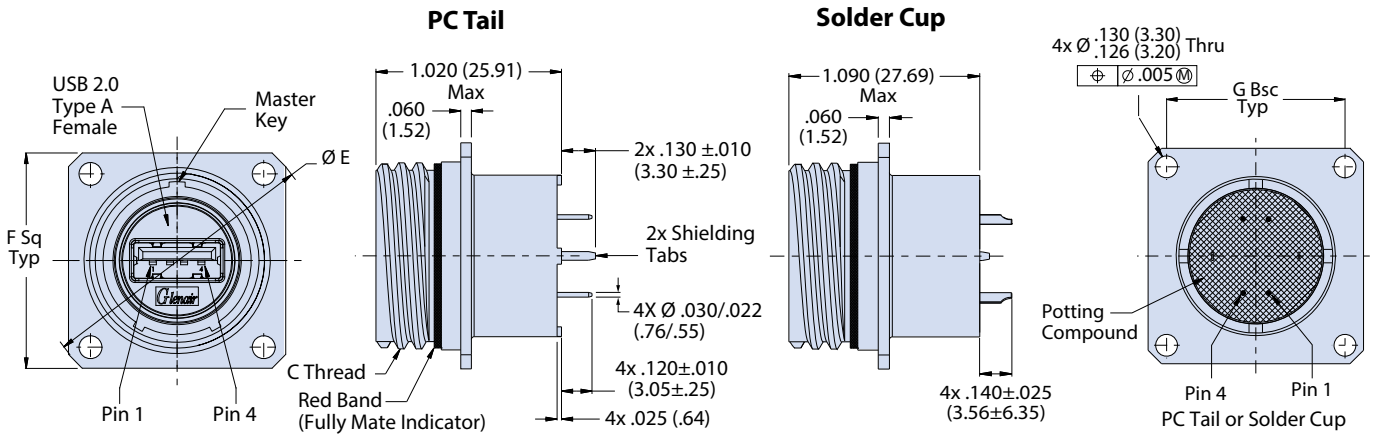
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

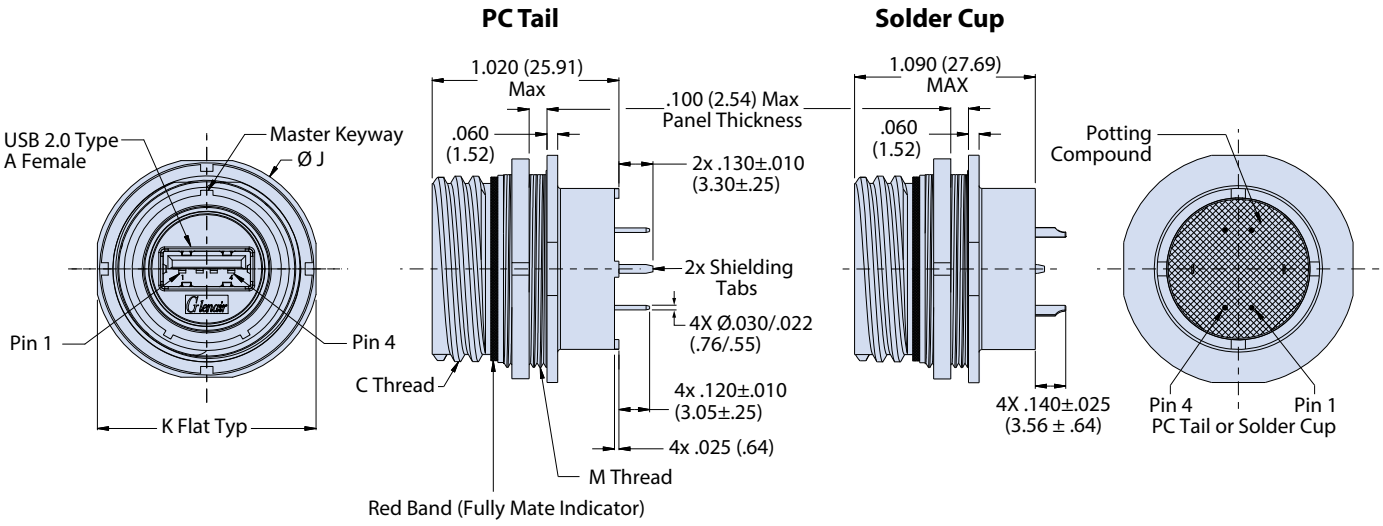
## 801-342 or 801-343 Receptacles with USB Female Interface to PC Tail or Solder Cup Termination



### SHELL STYLE 02 SQUARE FLANGE RECEPTACLE FOR 801-342 PC TAIL AND 801-343 SOLDER CUP




### SHELL STYLE 07 JAM NUT RECEPTACLE FOR 801-342 PC TAIL AND 801-343 SOLDER CUP




### NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Material/Finish
   - Shell, jam nut: al alloy or cres
   - Seal/o-ring fluorosilicone
   - Sealant: RTV



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

*USB 2.0 TYPE A*

# Series 801, 804 and 805 Mighty Mouse

## 804-340 Coupler with USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

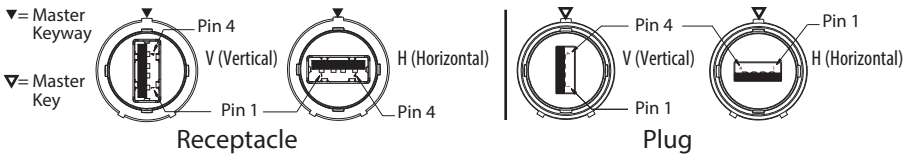
Glenair

| How To Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **804-340** | **-** | **NF** | **07** | **-14** | **2** | **A** | **A** | **H** |

| | |
|---|---|
| **Series** | **804-340** |
| **Rear Accessory Option** | **–** = Accessory Thread and Teeth<br>**B** = Integrated Boot Adaptor<br>**S** = Integrated Banding Platform |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **01** = In Line Receptacle<br>**00** = Jam Nut Receptacle, Front Panel Mount<br>**07** = Jam Nut Receptacle, Rear Panel Mount<br>**06** = Plug |
| **Shell Size** | **14** = Shell Size 14 |
| **USB Performance** | **2** = USB 2.0 |
| **USB Type** | **A** = Type A |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F**; Omit for single keyway (non polarized) |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |

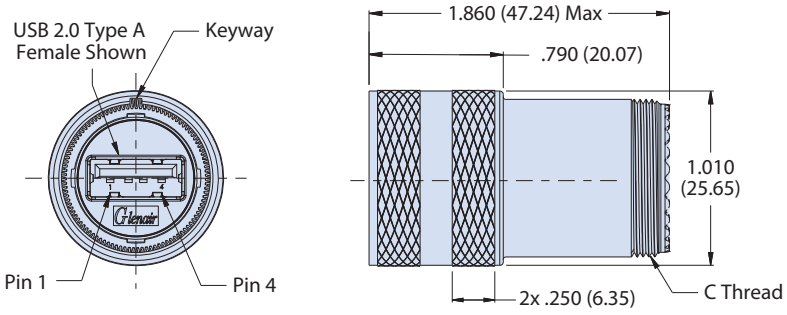
| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| **Pin** | **Name** | **Cable Color (USB)** | **Desc.** | **Recommended Wire Size (AWG)** |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Grnd | 22 |

## USB 2.0 ORIENTATION OPTIONS




| Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| **Size Shell** | **Mounting Style** | **Ø A** | **B Threads** | **C Threads** | **Ø D** | **K Threads** |
| 14 | Front Mount | -- | -- | .9375-20 UNEF-2A | 1.390 (35.31) | 1.0620-20 UN-2A |
| | Rear Mount | 1.325 (33.66) | 1.0000-28 UN-2A | .9375-20 UNEF-2A | -- | -- |

## SHELL STYLE 01 IN-LINE RECEPTACLE




## NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

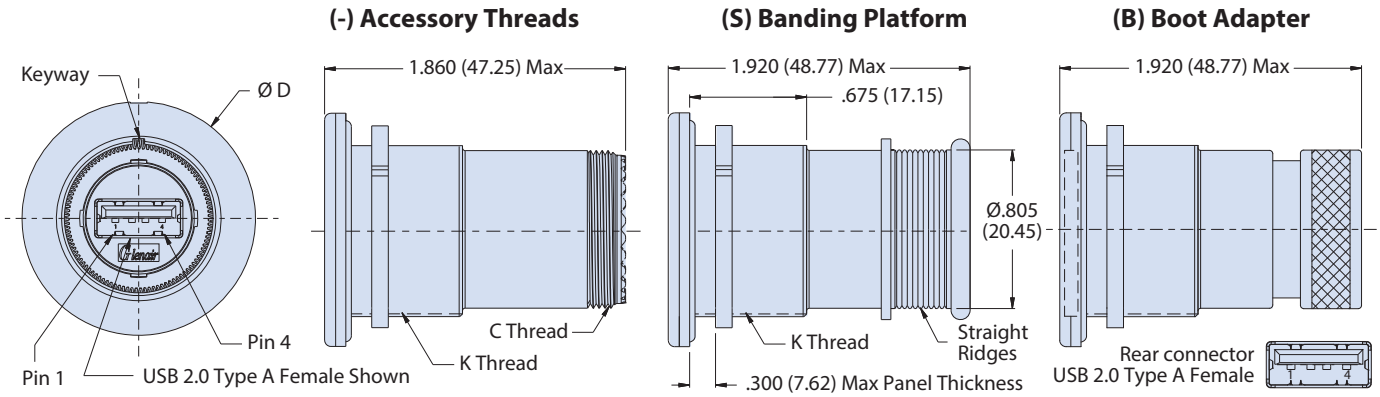
*USB 2.0 TYPE A*

# Series 801, 804 and 805 Mighty Mouse

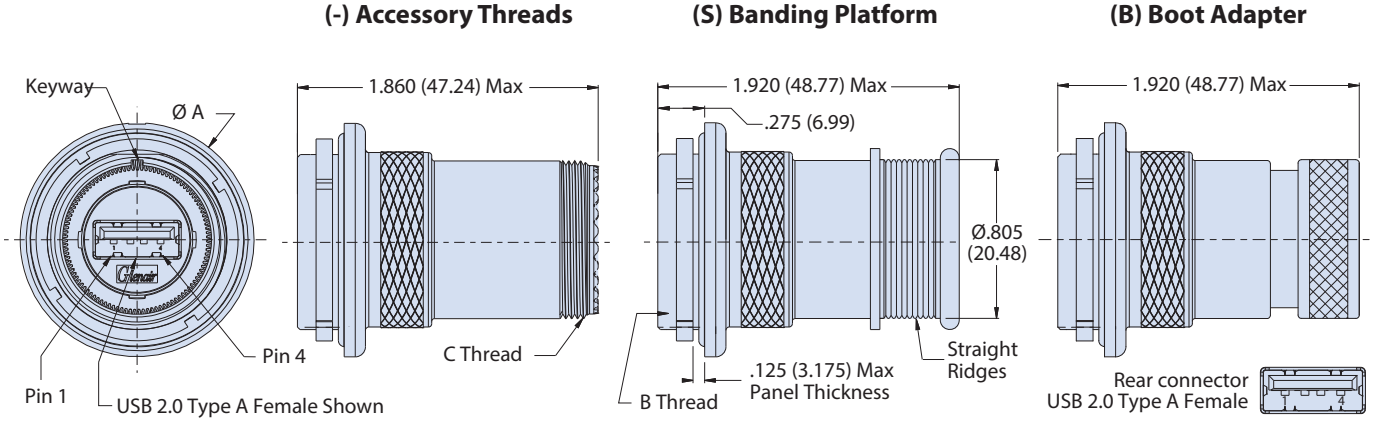
## 804-340 Coupler with USB Male-to-Female (Plug) or Female-to-Female (Receptacle)



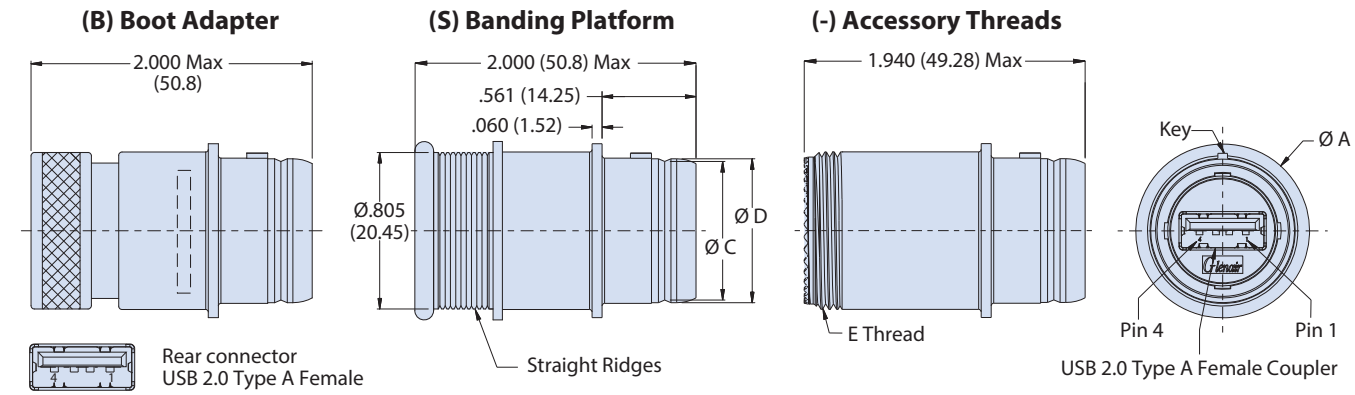
### SHELL STYLE 00 FRONT PANEL MOUNT JAM NUT RECEPTACLE




### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE




### SHELL STYLE 06 PLUG




| Plug Dimensions | | | | |
|---|---|---|---|---|
| **Size Shell** | **Ø A Max** | **Ø C** | **Ø D** | **E Thd** |
| 14 | .985 (25.02) | .768 (19.51) | .800 (20.32) | .9375-20 UNEF-2A |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

*USB 2.0 TYPE A*

# Series 801, 804 and 805 Mighty Mouse

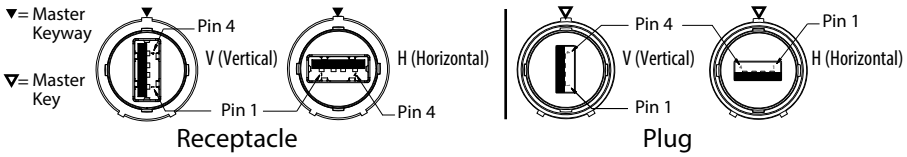
## 804-341 Connectors with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts

| How To Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **804-341** | **-** | **NF** | **07** | **-14** | **2** | **A** | **A** | **H** |

| | |
|---|---|
| **Series** | **804-341** |
| **Rear Accessory Option** | **–** = Accessory Thread and Teeth<br>**B** = Integrated Boot Adaptor<br>**S** = Integrated Banding Platform |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab **MT** = Aluminum/Nickel PTFE<br>**M** = Aluminum/Electroless Nickel **ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **01** = In Line Receptacle<br>**00** = Front Panel Mount Jam Nut Receptacle<br>**07** = Rear Panel Mount Jam Nut Receptacle<br>**06** = Plug |
| **Shell Size** | **14** = Shell Size 14 |
| **USB Performance** | **2** = USB 2.0 |
| **USB Type** | **A** = Type A |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F**; Omit for single keyway (non polarized) |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |

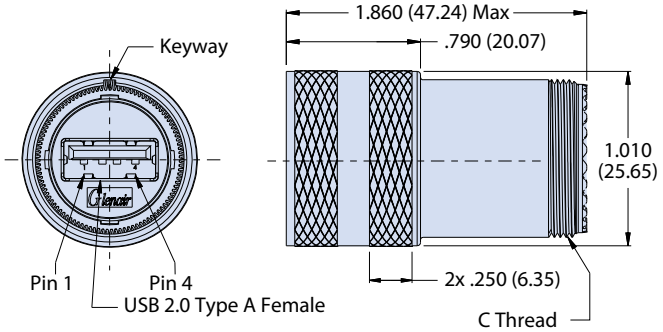
| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| **Pin** | **Name** | **Cable Color (USB)** | **Desc.** | **Recommended Wire Size (AWG)** |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

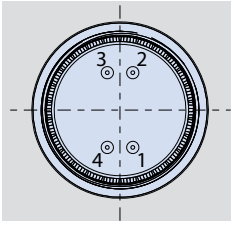
## USB 2.0 ORIENTATION OPTIONS




| Receptacle Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| **Shell Size** | **Mounting Style** | **Ø A** | **B Threads** | **Ø D** | **K Threads** | **C Threads** |
| 14 | Front Mount | - | - | 1.390 (35.31) | 1.0620-20 UN-2A | .9375-20 UNEF-2A |
| | Rear Mount | 1.325 (33.66) | 1.0000-28 UN-2A | - | - | .9375-20 UNEF-2A |

## SHELL STYLE 01 IN-LINE RECEPTACLE




**Rear contact positions apply to all shell styles**

## NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Supplied with size 23 crimp socket contacts (809-002 supplied loose)
4. Material/finish
   - Shell, jam nut: al alloy or cres
   - Seal/o-ring: fluorosilicone



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

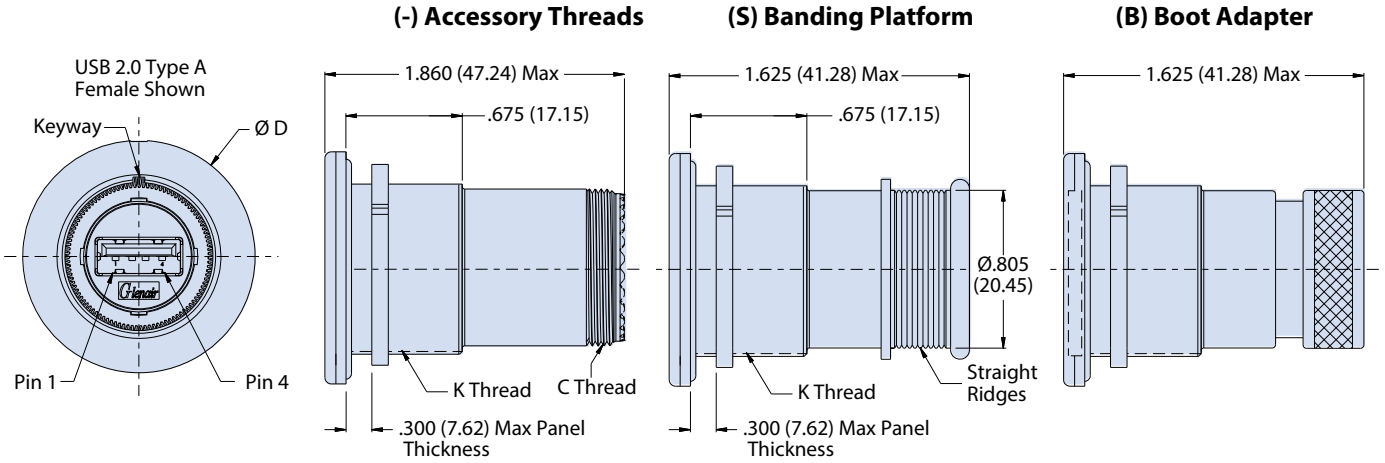
*USB 2.0 TYPE A*

# Series 801, 804 and 805 Mighty Mouse

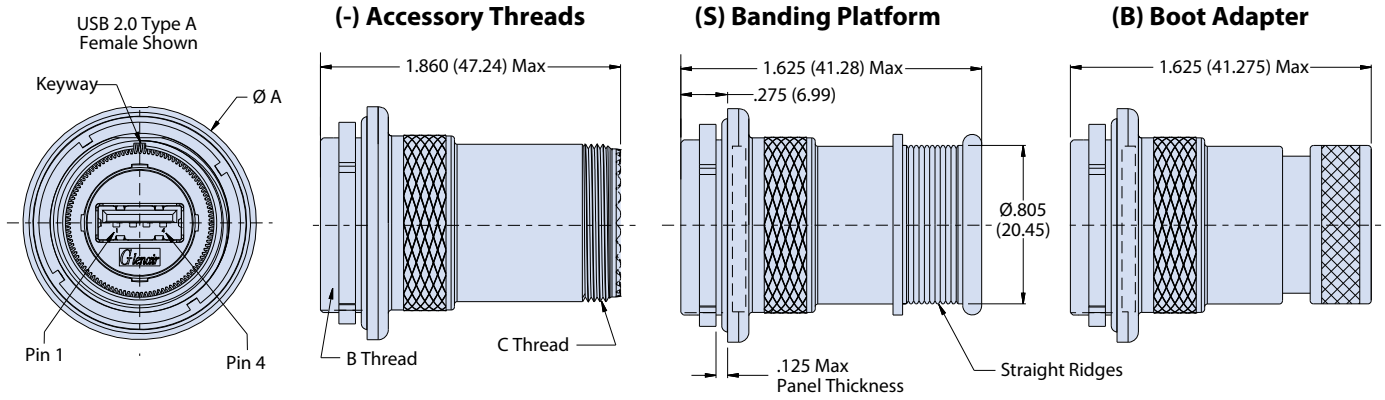
## 804-341 Connectors with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts



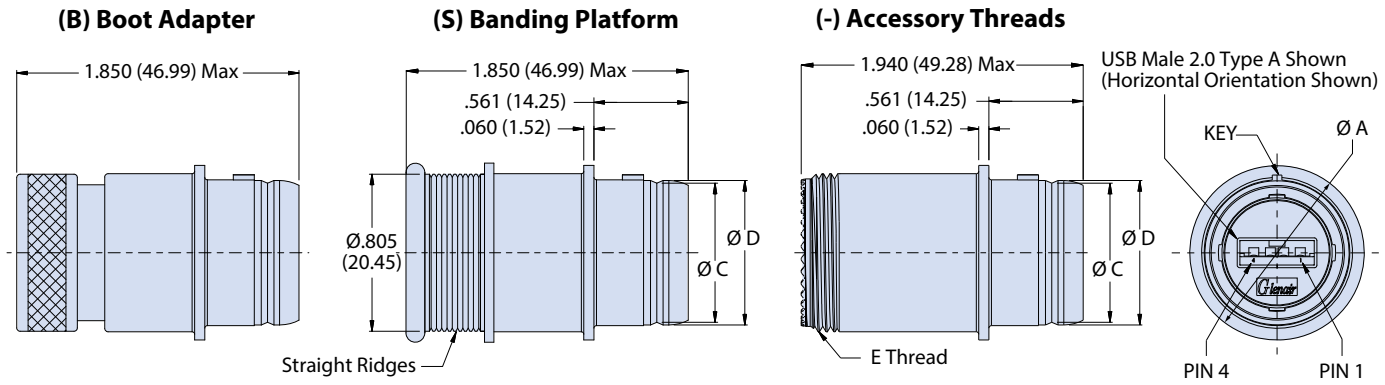
### SHELL STYLE 00 FRONT PANEL MOUNT JAM NUT RECEPTACLE




### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE




### SHELL STYLE 16 PLUG




| Plug Dimensions | | | | |
|---|---|---|---|---|
| **Shell Size** | **Ø A** | **Ø C** | **Ø D** | **E Threads** |
| 14 | .985 (25.02) | .768 (19.51) | .800 (20.32) | .9375-20 UNEF-2A |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

# Series 801, 804 and 805 Mighty Mouse

## 804-342 or 804-343 Receptacles with USB Female Interface to PC Tail or Solder Cup Termination

| How To Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **804-342** | **NF** | **07** | **-14** | **2** | **A** | **A** | **H** |

| | |
|---|---|
| **Series** | **804-342** = PC Tail<br>**804-343** = Solder Cup |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **07** = Rear Panel Mount Jam Nut Receptacle<br>**00** = Front Panel Mount Jam Nut Receptacle |
| **Shell Size** | **14** = Shell Size 14 |
| **USB Performance** | **2** = USB 2.0 |
| **USB Type** | **A** = Type A |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F**; Omit for single keyway (non polarized) |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |

**USB 2.0 Wiring**

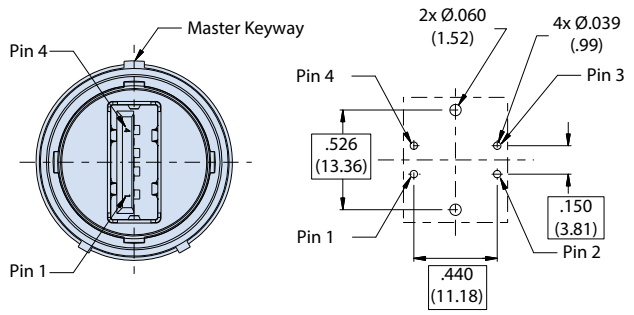
| Pin | Name | Cable Color (USB) | Description | Recommended Wire Size (AWG) |
|---|---|---|---|---|
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

**Dimensions**

| Shell Size | Mounting Style | Ø A | B Threads | Ø D | K Threads | C Threads |
|---|---|---|---|---|---|---|
| 14 | FRONT MOUNT | - | - | 1.390 (35.31 ) | 1.0620-20 UN-2A | .9375-20 UNEF-2A |
| | REAR MOUNT | 1.325 (33.66) | 1.0000-28 UN-2A | - | - | .9375-20 UNEF-2A |

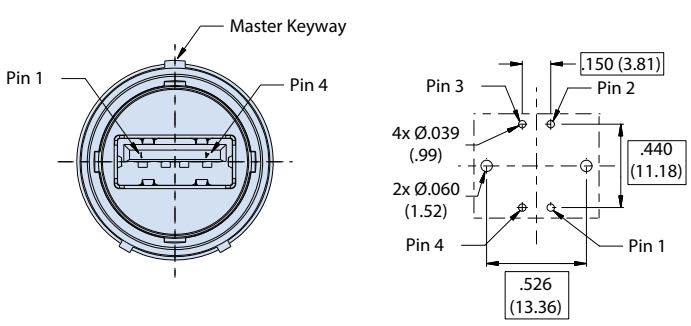
## USB 2.0 RECEPTACLE ORIENTATION OPTIONS AND PCB FOOTPRINT

V (VERTICAL)




PCB Layout (Solder Side)

H (HORIZONTAL)

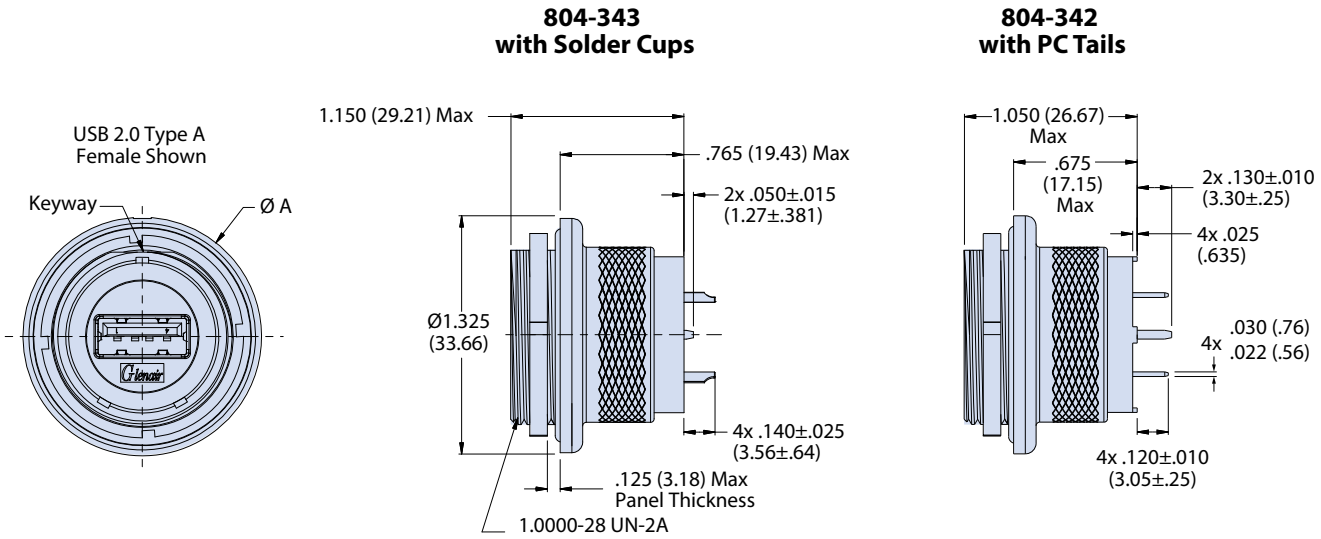



PCB Layout (Solder Side)

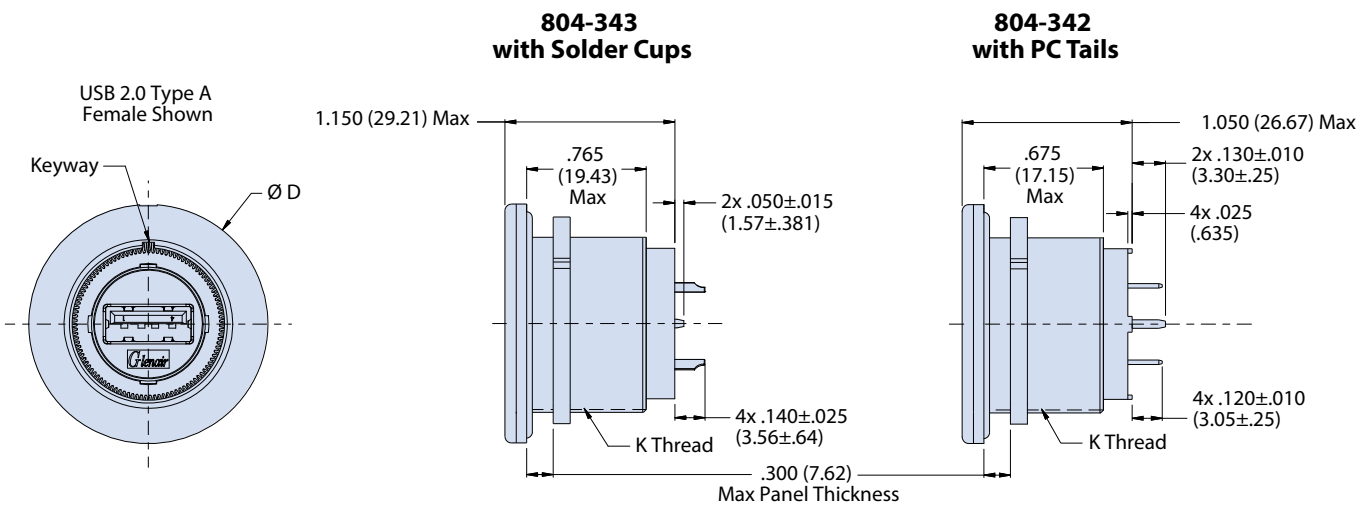


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## SHELL STYLE 07 JAM NUT RECEPTACLE FOR 804-342 PC TAIL AND 804-343 SOLDER CUP

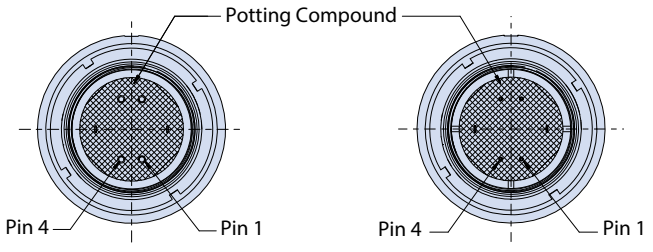



## SHELL STYLE 00 JAM NUT RECEPTACLE FOR 804-342 PC TAIL AND 804-343 SOLDER CUP,




## NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Material/finish
   - Shell, jam nut: al alloy or cres
   - Seal/o-ring: fluorosilicone
   - Sealant RTV




**Solder Cup Layout** **PC Tail Layout**



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

## 805-340 Coupler with USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

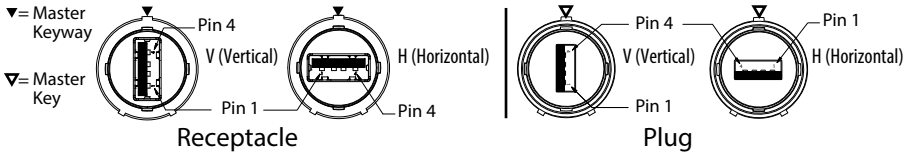


| How To Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **805-340** | **-** | **NF** | **07** | **-18** | **2** | **A** | **A** | **H** |

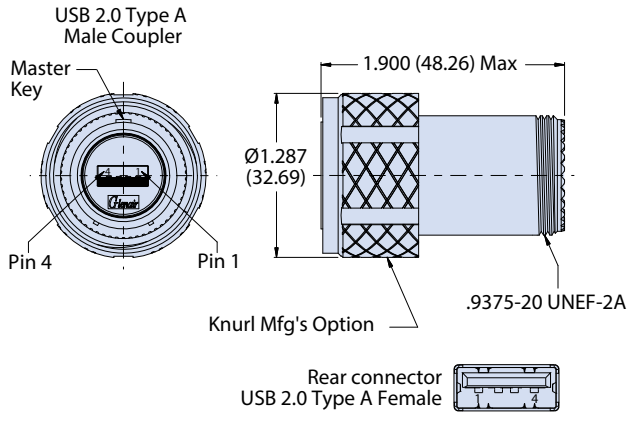
| | |
|---|---|
| **Series** | **805-340** |
| **Rear Accessory Option** | **–** = Accessory Thread and Teeth<br>**B** = Integrated Boot Adaptor<br>**S** = Integrated Banding Platform |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **01** = In Line Receptacle<br>**02** = Front or Rear Panel Mount Square Flange Receptacle<br>**12** = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts<br>**22** = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts<br>**07** = Rear Panel Mount Jam Nut Receptacle<br>**16** = Plug |
| **Shell Size** | **18** = Shell Size 18 |
| **USB Performance** | **2** = USB 2.0 |
| **USB Type** | **A** = Type A |
| **Aternate Key Positions**[1] | **A, B, C, D, E, F** |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |

| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| **Pin** | **Name** | **Cable Color (USB)** | **Desc.** | **Recommended Wire Size (AWG)** |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

## USB 2.0 ORIENTATION OPTIONS

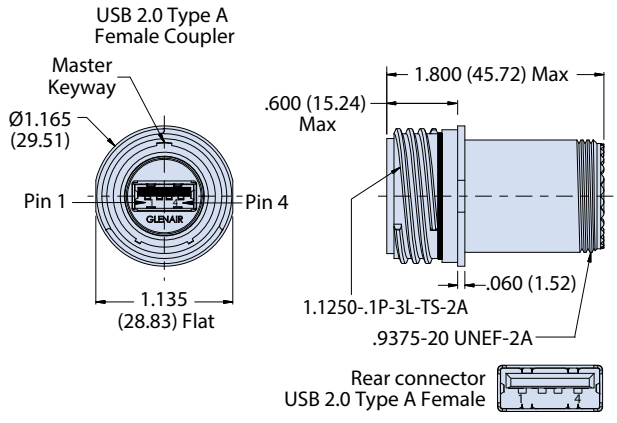



## SHELL STYLE 16 PLUG




**Accessory Thread Option**

## SHELL STYLE 01 IN-LINE RECEPTACLE




**Accessory Thread Option**



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

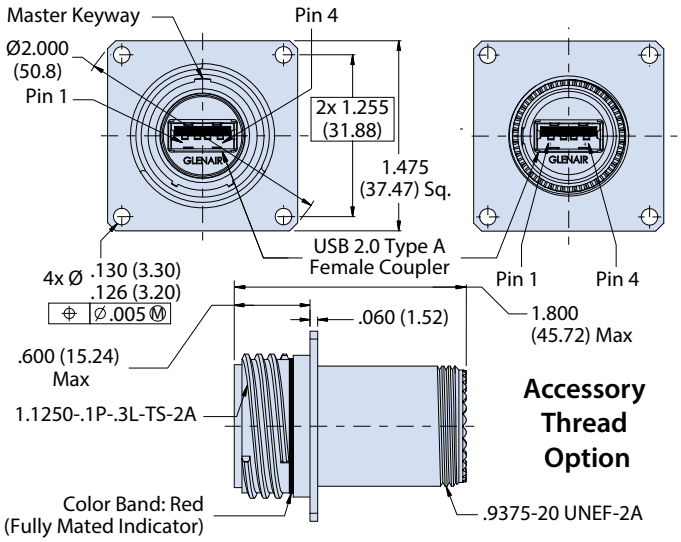
# Series 801, 804 and 805 Mighty Mouse

## 805-340 Coupler with USB Male-to-Female (Plug) or Female-to-Female (Receptacle)

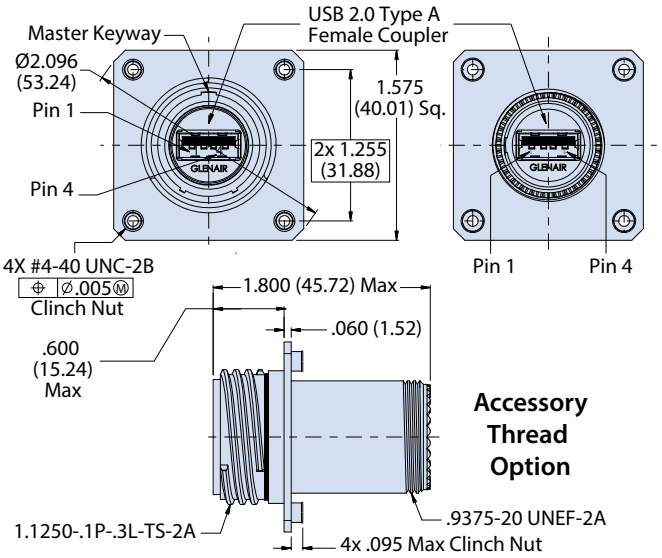




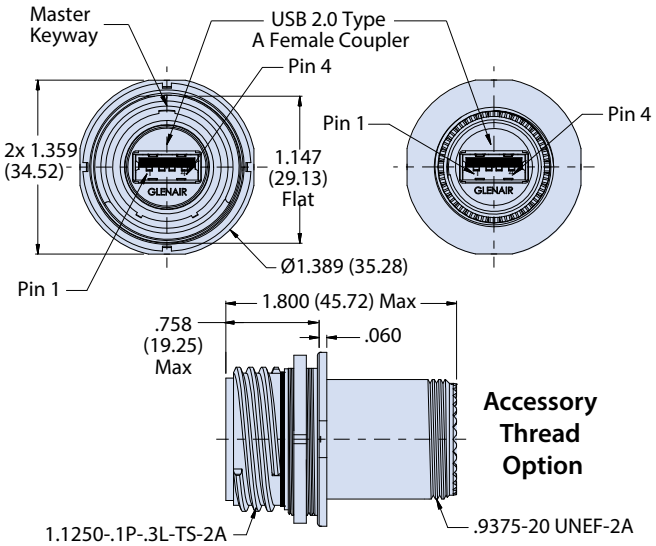
### SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE




### SHELL STYLE 12 & 22 FRONT OR REAR PANEL MOUNT RECEPTACLE WITH CLINCH NUTS



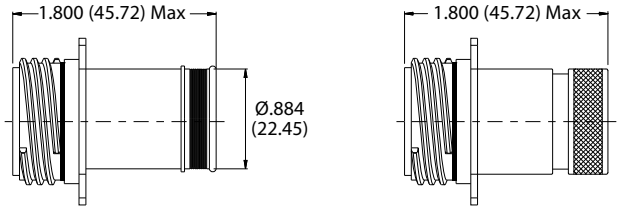

### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE



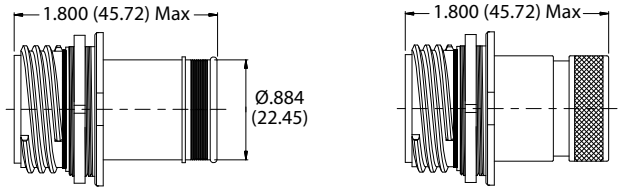

### REAR ACCESSORY OPTIONS (AVAILABLE FOR IN-LINE ALSO)

**Banding Platform (S)** **Boot Adapter (B)**

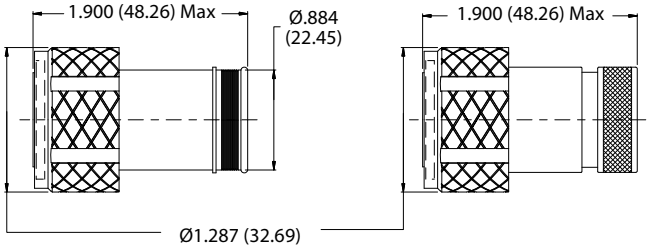
**Shell Style 02, 12, 22**




**Shell Style 07**




**Shell Style 16**




### NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Plugs are male/female and receptacles are female/female



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

# Series 801, 804 and 805 Mighty Mouse

## 805-341 Connectors with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts

**How To Order**

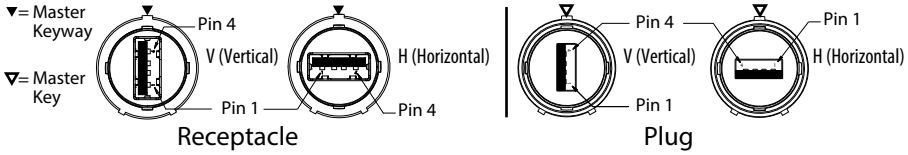
| Sample Part Number | 805-341 | - | NF | 07 | -18 | 2 | A | A | H |
|---|---|---|---|---|---|---|---|---|---|

| | |
|---|---|
| **Series** | **805-341** |
| **Rear Accessory Option** | **–** = Accessory Thread and Teeth<br>**B** = Integrated Boot Adaptor<br>**S** = Integrated Banding Platform |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **01** = In Line Receptacle<br>**02** = Front or Rear Panel Mount Square Flange Receptacle<br>**12** = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts<br>**22** = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts<br>**07** = Rear Panel Mount Jam Nut Receptacle<br>**16** = Plug |
| **Shell Size** | **18** = Shell Size 18 |
| **USB Performance** | **2** = USB 2.0 |
| **USB Type** | **A** = Type A |
| **Aternate Key Positions**[1] | **A, B, C, D, E, F** |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |

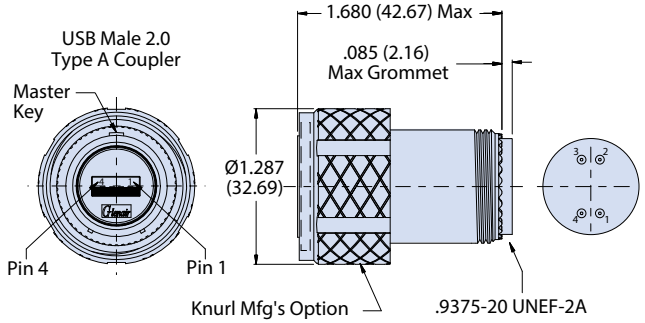
**USB 2.0 Wiring**

| Pin | Name | Cable Color (USB) | Desc. | Recomended Wire Size (AWG) |
|---|---|---|---|---|
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

## USB 2.0 ORIENTATION OPTIONS

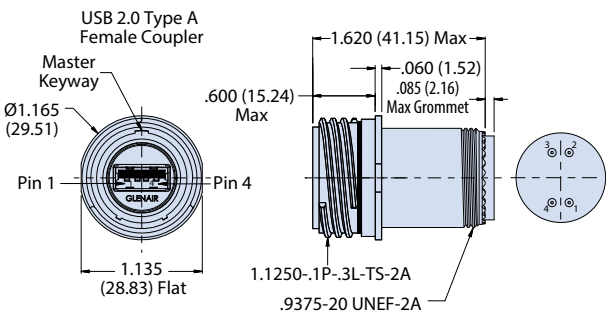



## SHELL STYLE 16 PLUG




Accessory Thread Option

## SHELL STYLE 01 IN-LINE RECEPTACLE




Accessory Thread Option



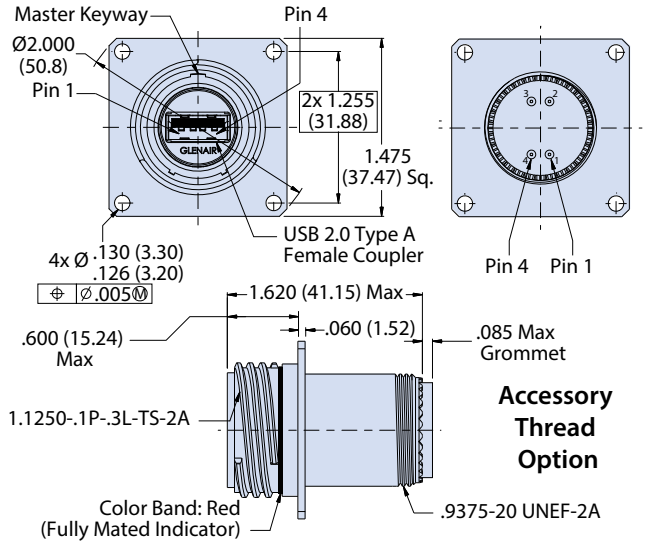
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

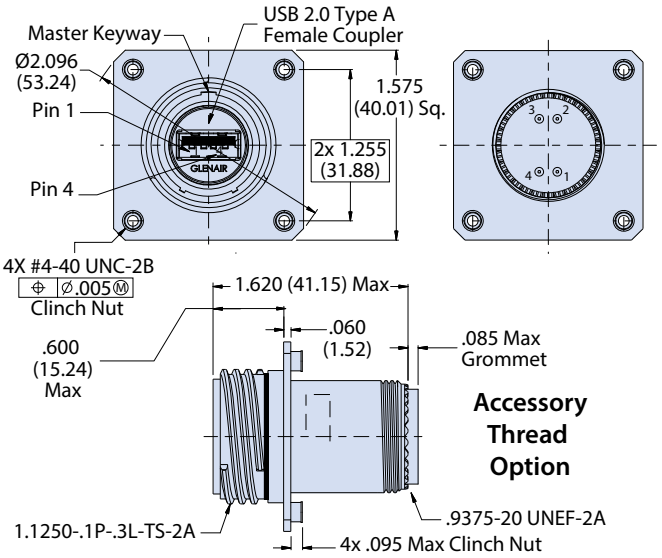
## 805-341 Connectors with USB Male (Plug) or Female (Receptacle) to Crimp Removable Contacts



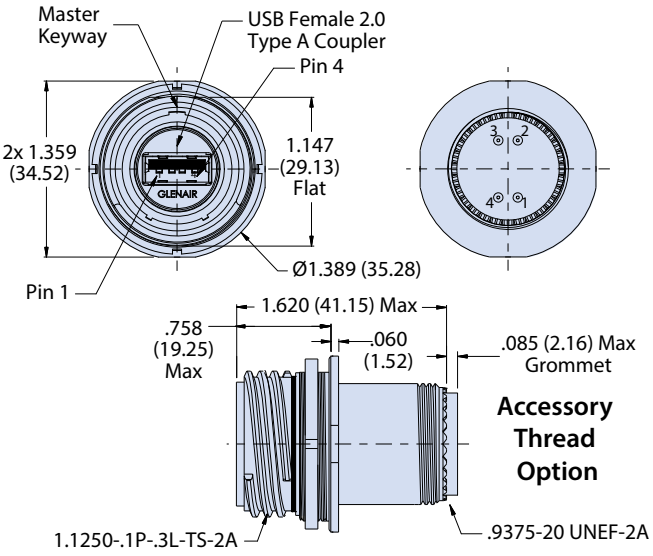
### SHELL STYLE 02 FRONT OR REAR PANEL MOUNT RECEPTACLE




### SHELL STYLE 12 & 22 REAR PANEL MOUNT RECEPTACLE WITH CLINCH NUTS

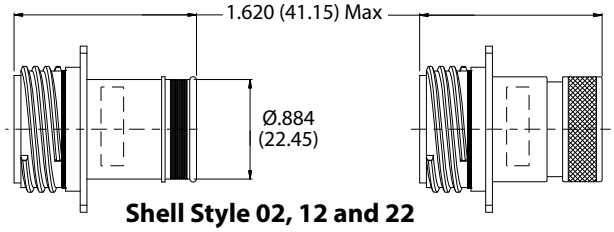



### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE

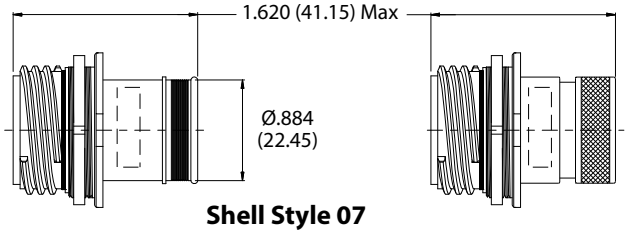



### REAR ACCESSORY OPTIONS (AVAILABLE FOR IN-LINE ALSO)

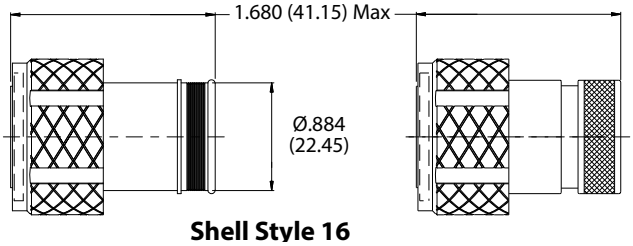
**Banding Platform (S)** **Boot Adapter (B)**




**Shell Style 02, 12 and 22**




**Shell Style 07**




**Shell Style 16**

### NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Supplied with size 23 crimp socket contacts (809-002 supplied loose)

*USB 2.0 TYPE A*

# Series 801, 804 and 805 Mighty Mouse

## 805-342 Receptacle with USB Female Interface to PC Tail Termination





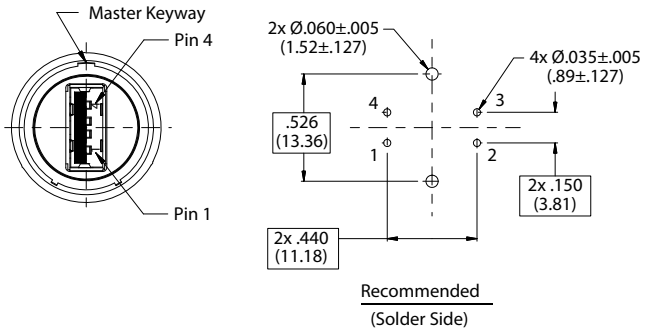
| How To Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **805-342** | **NF** | **07** | **-18** | **2** | **A** | **A** | **H** |

| | |
|---|---|
| **Series** | **805-342** = PC Tail |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **02** = Front or Rear Panel Mount Square Flange Receptacle<br>**12** = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts<br>**22** = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts<br>**07** = Rear Panel Mount Jam Nut Receptacle |
| **Shell Size** | **18** = Shell Size 18 |
| **USB Performance** | **2** = USB 2.0 |
| **USB Type** | **A** = Type A |
| **Aternate Key Positions**[1] | **A, B, C, D, E, F** |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |

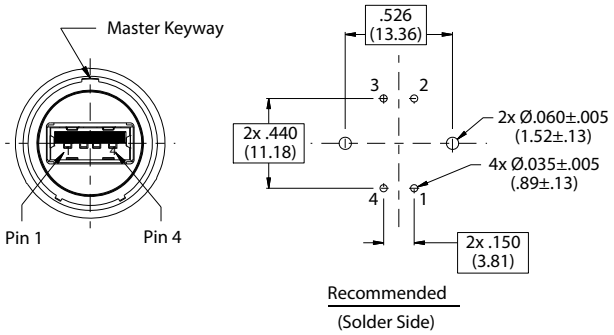
| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| **Pin** | **Name** | **Cable Color (USB)** | **Description** | **Recommended Wire Size (AWG)** |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

## USB 2.0 RECEPTACLE ORIENTATION OPTIONS AND PCB FOOTPRINT (PARTIAL VIEWS SHOWN)

V (VERTICAL)




H (HORIZONTAL)








© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

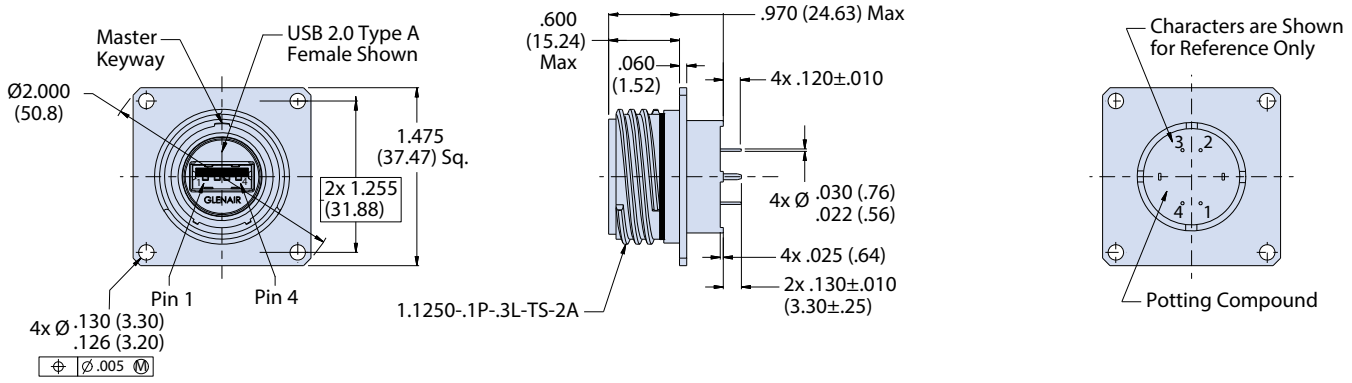
# Series 801, 804 and 805 Mighty Mouse

## 805-342 Receptacle with USB Female Interface to PC Tail Termination

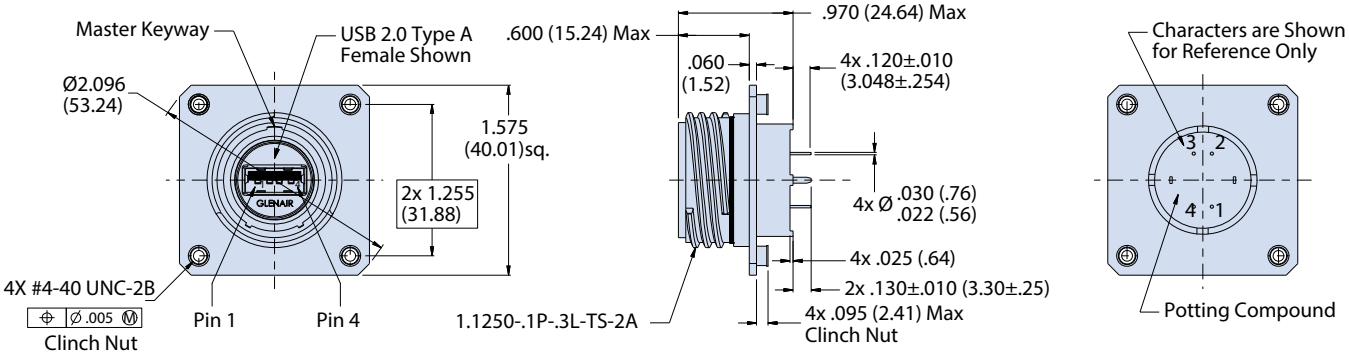




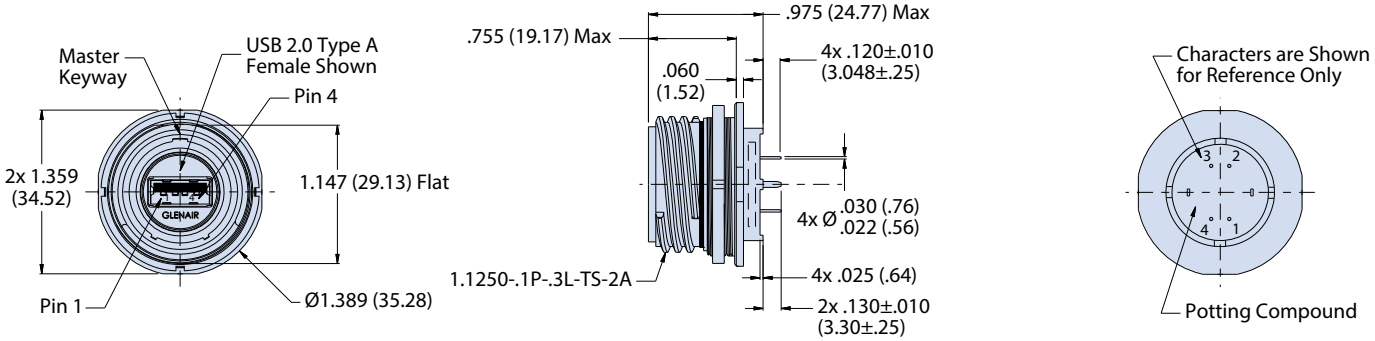
### SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE




### SHELL STYLE 12 AND 22 REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE WITH CLINCH NUTS




### SHELL STYLE 07 JAM NUT




### NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition
3. Material/finish
   - Shell, jam nut: al alloy or cres
   - Seal/o-ring: fluorosilicone
   - Sealant: RTV



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*USB 2.0 TYPE A*

# Series 801, 804 and 805 Mighty Mouse

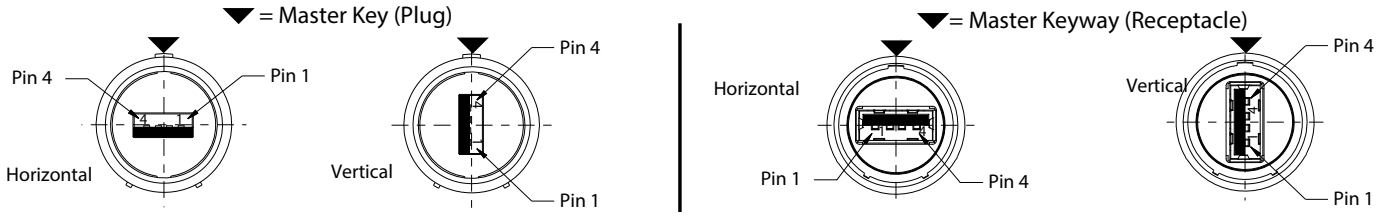
## 805-343 Receptacle with USB Female Interface to Solder Cup Termination

| How To Order | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **805-343** | **NF** | **07** | **-18** | **2** | **A** | **A** | **H** |

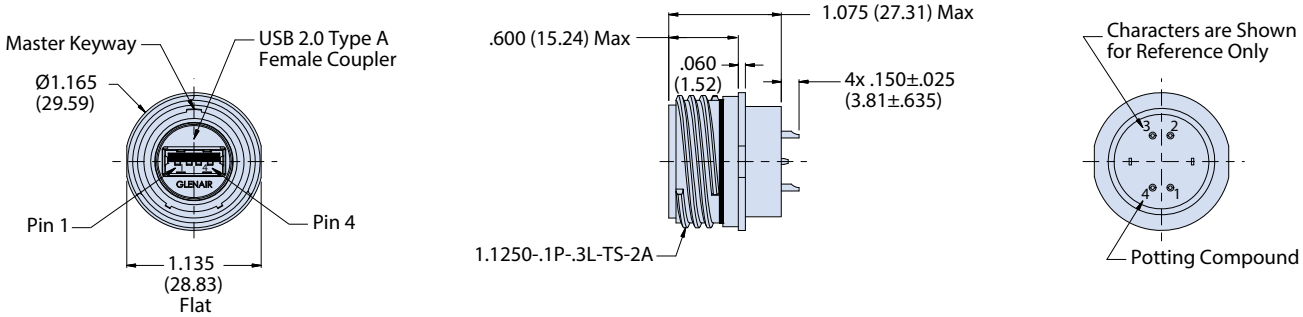
| | |
|---|---|
| **Series** | **805-343** = Solder Cup |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**M** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **01** = In-line<br>**02** = Front or Rear Panel Mount Square Flange Receptacle<br>**12** = Rear Panel Mount Square Flange Receptacle with "Non-Locking" Clinch Nuts<br>**22** = Rear Panel Mount Square Flange Receptacle with "Locking" Clinch Nuts<br>**07** = Rear Panel Mount Jam Nut Receptacle |
| **Shell Size** | **18** = Shell Size 18 |
| **USB Performance** | **2** = USB 2.0 |
| **USB Type** | **A** = Type A |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F** |
| **USB Orientation** | **H** = Horizontal **V** = Vertical |

| USB 2.0 Wiring | | | | |
|---|---|---|---|---|
| **Pin** | **Name** | **Cable Color (USB)** | **Description** | **Recommended Wire Size (AWG)** |
| 1 | (V Bus) | Red | +5 V | 22 |
| 2 | (D-) | White | Data - | 28 |
| 3 | (D+) | Green | Data + | 28 |
| 4 | (GND) | Black | Ground | 22 |

## USB 2.0 ORIENTATION OPTIONS




## SHELL STYLE 01 IN-LINE RECEPTACLE






© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

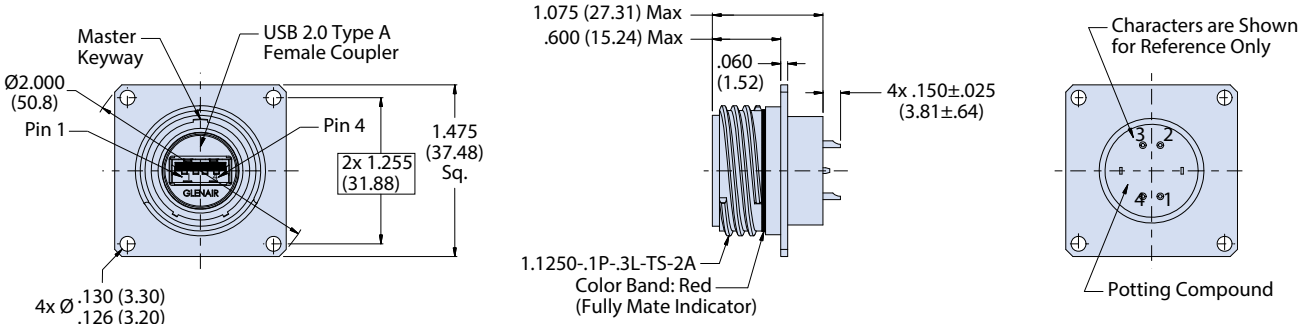
*USB 2.0 TYPE A*

# Series 801, 804 and 805 Mighty Mouse

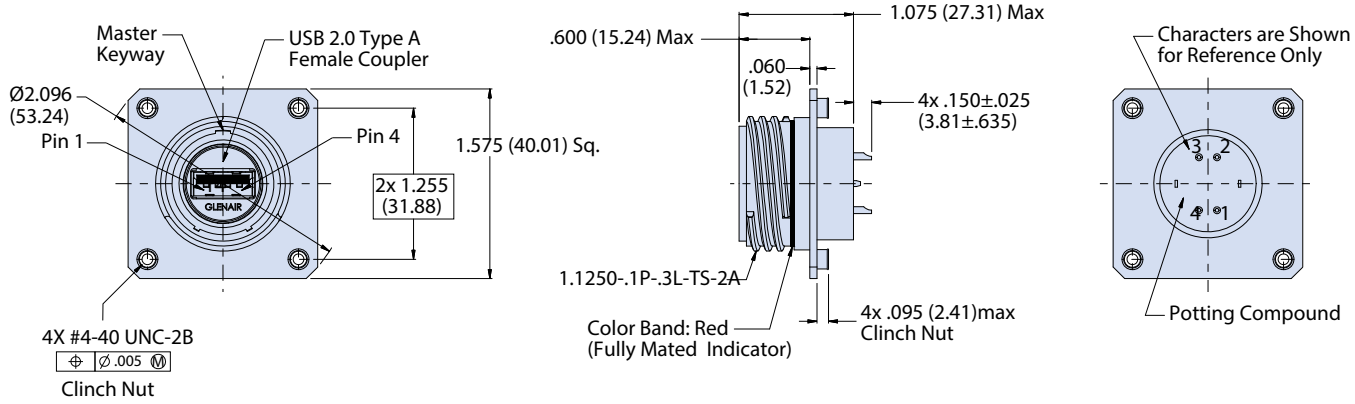
## 805-343 Receptacle with USB Female Interface to Solder Cup Termination



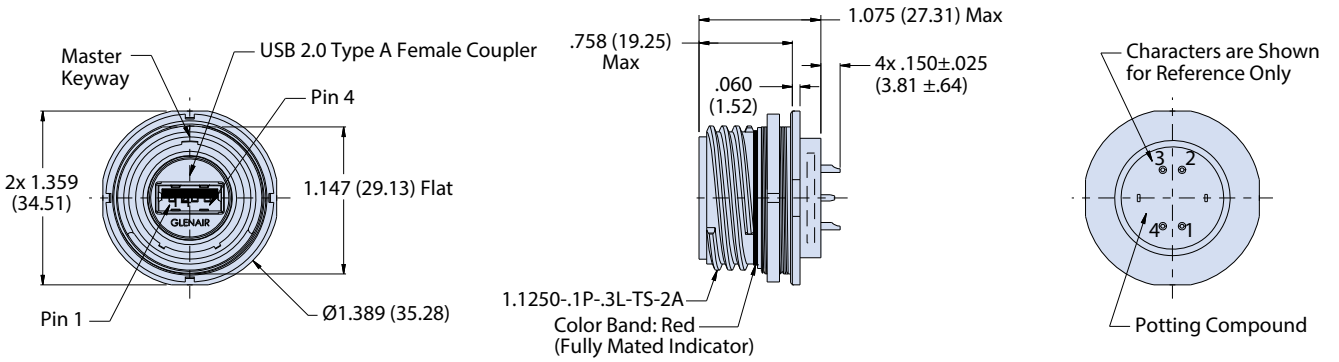
### SHELL STYLE 02 FRONT OR REAR PANEL MOUNT SQUARE FLANGE RECEPTACLE




### SHELL STYLE12 AND 22 REAR PANEL MOUNT RECEPTACLE WITH CLINCH NUTS




### SHELL STYLE 07 REAR PANEL MOUNT JAM NUT RECEPTACLE




### NOTES

1. See Section A for recommended panel cutout dimensions, additional finishes and alternate keyway positions.
2. Meets IP67 sealing requirement in unmated condition.
3. Max solder wire diameter of .025 inches
4. Material/finish
   - Shell, jam nut: al alloy or cres
   - Seal/o-ring: fluorosilicone
   - Sealant: RTV



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series 801, 804 and 805 Mighty Mouse

## 804-380 Connector with USB 3.2 Gen 2 Type C F-F Coupler



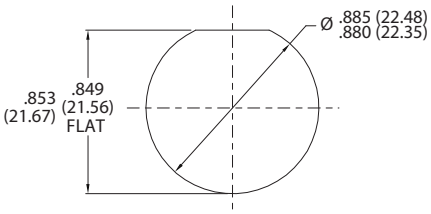
| How To Order | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **804-380** | **-** | **NF** | **01** | **-12** | **A** |

| | |
|---|---|
| **Series** | **804-380** = F-F Coupler |
| **Rear Accessory Option** | **-** = Accessory Thread and Teeth<br>**S** = Integrated Banding Platform<br>**B** = Integrated Boot Adaptor |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**ME** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel |
| **Shell Style**[1] | **01** = In-Line Receptacle<br>**00** = Jam-nut Receptacle for Front Panel Mounting<br>**07** = Jam-nut Receptacle for Rear Panel Mounting |
| **Shell Size** | **-12** = Shell Size 12 |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F** |

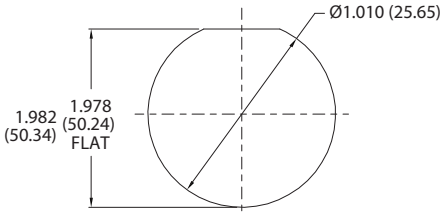
## NOTES

1. Interpret drawing per ASME Y14.5 - 2009.
2. Material/Finishes:
- Shell, coupling nut, jam nut - AL alloy or CRES / see Mighty Mouse Series 804 catalog
- Seal/O-ring - fluorosilicone
- Hardware: stainless steel
3. USB Type C:
- Housing: thermoplastic/NA
- Shell: copper alloy/nickel plated
- Terminal: copper alloy/gold plated
4. USB 3.2 Gen 2 (Type C) specifications:
- Electrical: D.W.V.: 100 Vac
- I.R.: 100 Megohms min.
- Operating temperature range: -20°C to
- +85°C
5. Performance: design meets USB 3.2 Gen 2 (Type C) benchmark data transfer rate requirements for read and write.
6. Sealing Rate: IP67 in unmated condition. IP68 in mated condition

## PANEL CUTOUT DIMENSIONS

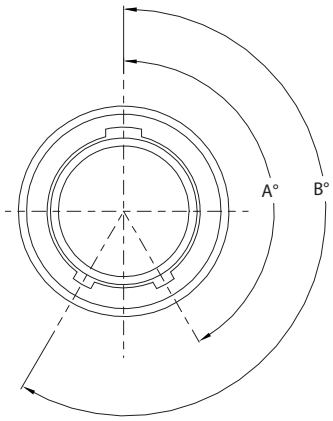



RECOMMENDED PANEL CUTOUT FOR FRONT MOUNT JAM NUT RECEPTACLE




RECOMMENDED PANEL CUTOUT FOR FRONT MOUNT JAM NUT RECEPTACLE

| Alternate Key and Keyway Positions | | |
|---|---|---|
| Position | A° | B° |
| A | 150° | 210° |
| B | 75° | 210° |
| C | 95° | 230° |
| D | 140° | 275° |
| E | 75° | 275° |
| F | 95° | 210° |

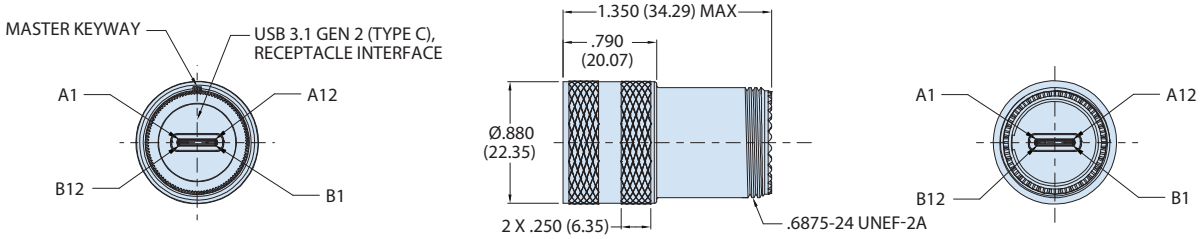



**ORMAL AND ALTERNATE POSITION KEY ROTATION**

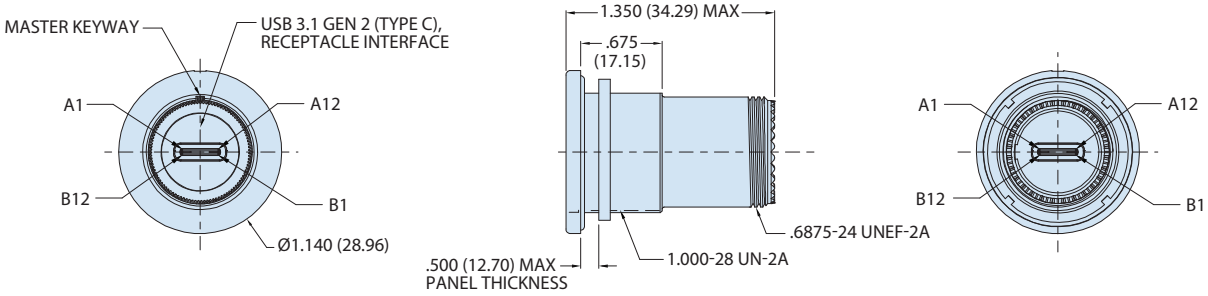


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

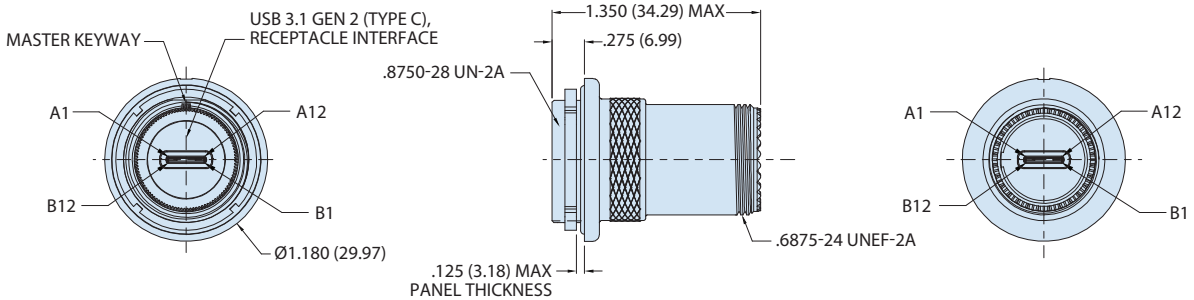
## SHELL STYLE 01 INLINE RECEPTACLE




## SHELL STYLE 00 JAM NUT RECEPTACLE FOR FRONT PANEL MOUNTING



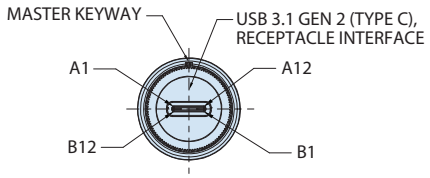

## SHELL STYLE 07 JAM NUT RECEPTACLE FOR REAR PANEL MOUNTING

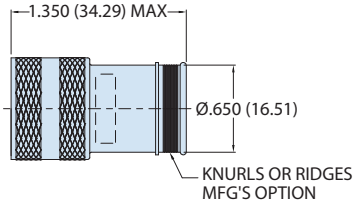




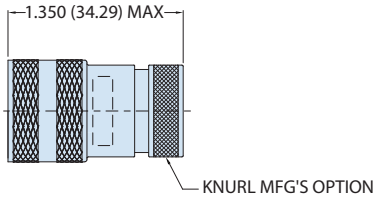

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## SHELL STYLE 01 INLINE RECEPTACLE



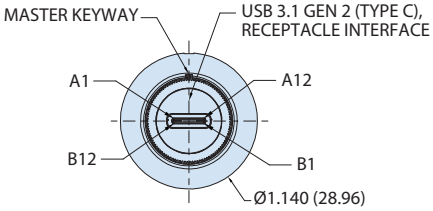



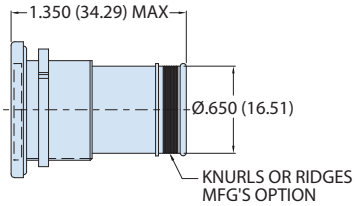

**S - INTEGRATED BANDING PLATFORM**



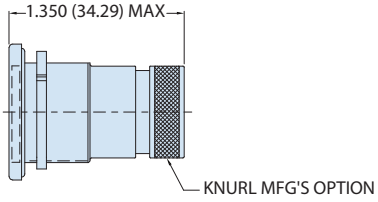

**B - INTEGRATED BOOT ADAPTOR**

## SHELL STYLE 00 JAM NUT RECEPTACLE FOR FRONT PANEL MOUNTING



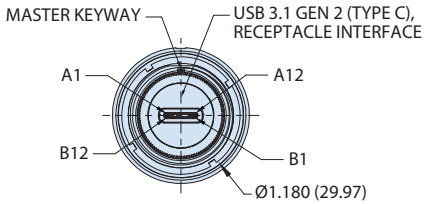



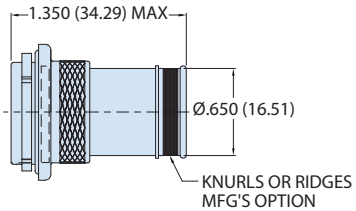

**S - INTEGRATED BANDING PLATFORM**



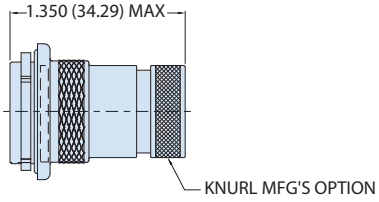

**B - INEGRATED BOOT ADAPTOR**

## SHELL STYLE 07 JAM NUT RECEPTACLE FOR REAR PANEL MOUNTING




**S - INTEGRATED BANDING PLATFORM**




**B - INEGRATED BOOT ADAPTOR**



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

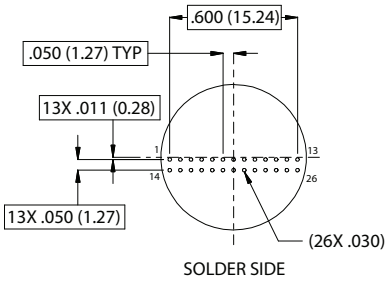
# Series 801, 804 and 805 Mighty Mouse

## 804-382 Receptacle with USB Type C Interface to Solder Cup Termination

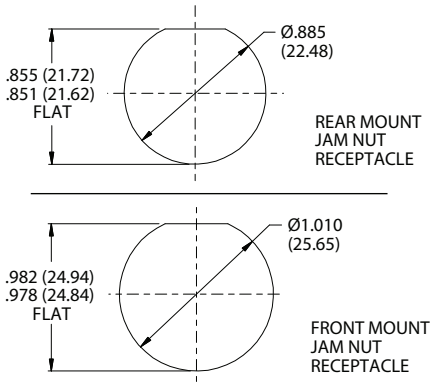


| How To Order | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | | **804-382** | **NF** | **07** | **-12** | **A** |
| **Series** | **804-382** = PCB Mount | | | | | |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**ME** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel | | | | | |
| **Shell Style**[1] | **00** = Jam-nut Receptacle for Front Panel Mounting<br>**07** = Jam-nut Receptacle for Rear Panel Mounting | | | | | |
| **Shell Size** | **12** = Shell Size 12 | | | | | |
| **Alternate Key Positions**[1] | **A, B, C, D, E, F** | | | | | |

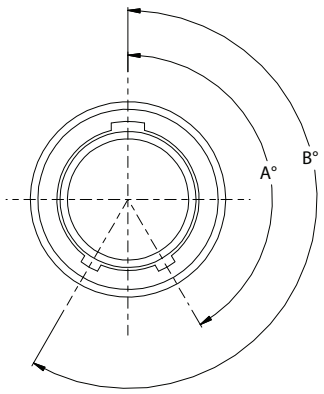
## PCB LAYOUT




## PANEL CUTOUT DIMENSIONS




| Alternate Key and Keyway Positions | | |
|---|---|---|
| **Position** | **A°** | **B°** |
| A | 150° | 210° |
| B | 75° | 210° |
| C | 95° | 230° |
| D | 140° | 275° |
| E | 75° | 275° |
| F | 95° | 210° |




**NORMAL AND ALTERNATE POSITION KEY ROTATION**

## NOTES

1. Connector designed to meet IP67 sealing requirement unmated condition
2. USB 3.2 Gen 2 (Type C ) specifications:
- Performance: design meets USB 3.2 Gen 2 (Type C) benchmark data transfer rate requirements for read and write

Electrical:
- DWV: 100 VAC
- Insulation resistance: 100 MegOhms min.
- Operating Temperature: -20° C to +85° C

3. Material/Finish:
- Shell, coupling nut, jam-nut: aluminum alloy or CRES
- Seal/O-ring: fluorosilicone
- Hardware: stainless steel

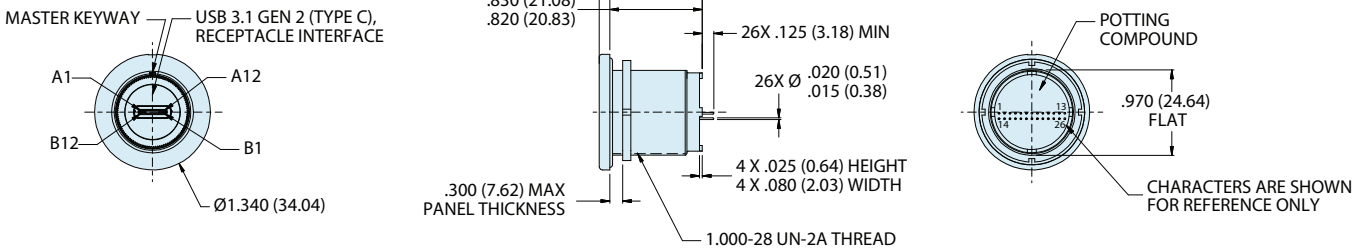
USB Type C
- Housing: thermoplastic
- Shell: copper alloy/nickel plated
- Terminal: copper alloy/gold plated

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

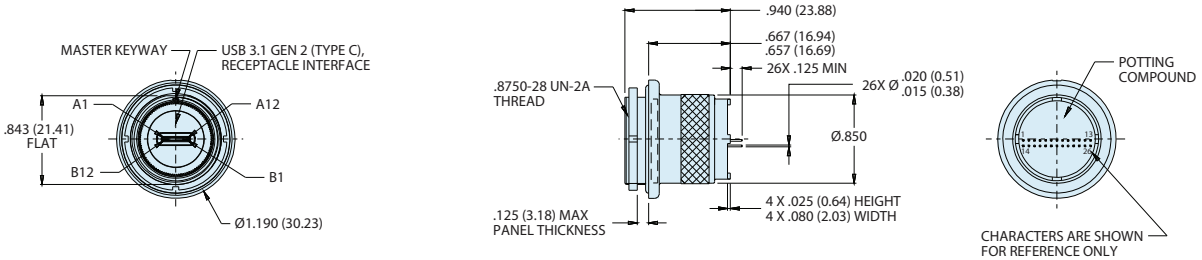


Rev. 10.20.23

## SHELL STYLE 00 JAM NUT RECEPTACLE FOR FRONT PANEL MOUNTING




## SHELL STYLE 07 JAM NUT RECEPTACLE FOR REAR PANEL MOUNTING








© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

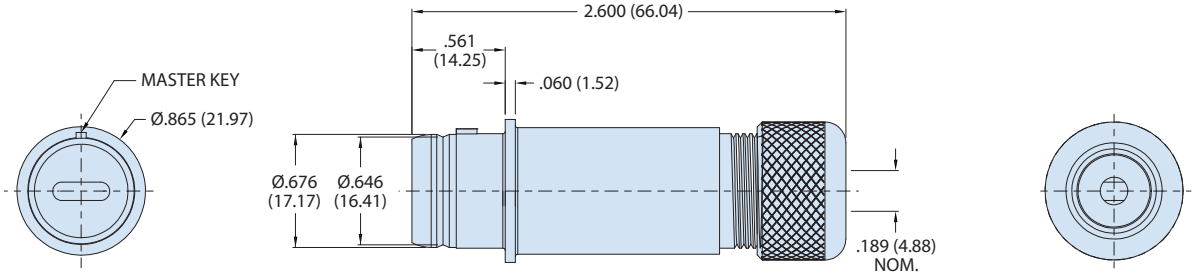
# Series 801, 804 and 805 Mighty Mouse

## 804-388 USB 3.2 Type C Plug



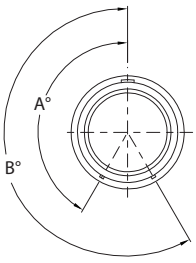
| How To Order | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | | **804-388** | **NF** | **07** | **-12** | **A** |
| **Series** | **804-388** = USB 3.2 Type C Plug | | | | | |
| **Material and Finish**[1] | **NF** = Aluminum/Cadmium, Olive Drab<br>**ME** = Aluminum/Electroless Nickel<br>**MT** = Aluminum/Nickel PTFE<br>**ZNU** = Aluminum/Black Zinc Nickel | | | | | |
| **Connector Style**[1] | **06** = Plug | | | | | |
| **Shell Size** | **12** = Shell Size 12 | | | | | |
| **Aternate Key Positions**[1] | **A**, **B**, **C**, **D**, **E**, **F** Omit character for single key (non-polarized) | | | | | |

## USB 3.2 TYPE C PLUG

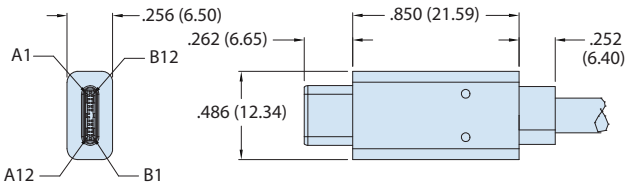



## KEYWAY POSITIONS

| Alternate Key and Keyway Positions | | |
|---|---|---|
| **Position** | **A°** | **B°** |
| A | 150° | 210° |
| B | 75° | 210° |
| C | 95° | 230° |
| D | 140° | 275° |
| E | 75° | 275° |
| F | 95° | 210° |




## RECOMMENDED USB 3.2 TYPE C PLUG DESIGN




## NOTES

1. 1. Interpret drawing per ASME Y14.5 - 2009.
2. Material/finishes:
   - Barrel: AL alloy or CRES / see Mighty Mouse Series 80 catalog
   - Seals: silicone based elastomer
   - Hardware: stainless steel
3. USB 3.2 Type C:
   - Electrical: current rating: 3.0 Amp max
   - D.W.V.: 100 VAC
   - I.R.: 100 Megohms min.
   - Operating temperature range: -20°C to +85°C
4. Plug connector designed to meet IP68 mated condition.
5. USB design meets USB 3.2 Type C benchmark data transfer rate requirements for read and write.

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

TOOLS AND ACCESSORIES

# SUPERSEAL™

## Tools and Accessories for the SuperSeal™ family of connectors

Nobody can grasp the ins-and-outs of interconnect tool design and manufacturing without a full understanding of cable harness assembly. At Glenair, we not only manufacture the connectors, backshells, cables and enclosures which go into creating interconnect cable harnesses, we run a top-flight cable assembly service of our own. We've drawn on this extensive experience to design and build a complete family of specialized backshell assembly tools for most Mil-Standard circular connectors, as well as connector wrenches, universal connector holding tools and braid termination tools for production use and field maintenance.

Glenair, Inc.
1211 Air Way
Glendale, CA 91201-2497
818-247-6000
sales@glenair.com
www.glenair.com

RJ45/USB SUPER SEAL™

*RJ45 AND USB 2.0*

# Contacts, Tools, and Accessories

## Product Selection Guide

Glenair®

### Contacts and Termination Tools


Tools, Contacts and Contact Installation Instructions — Page M-2
Band-Master ATS Manual Banding Tools — Page M-6

### MIL-DTL-38999 Type Accessories


Backshells and Recommended Shrink Boots — Page M-8
Covers — Page M-11


### Series ITS (5015 Intermountable) Accessories


Covers — Page M-14


For backshells and Recommended Shrink Boots
see ITS300H for RJ45 or ITS340H for USB Applications

### Series IPT MIL-DTL-26482 Type Accessories


Covers — Page M-15


For backshells and Recommended Shrink Boots
see IPT300H for RJ45 or IPT340H for USB applications

### MIL-DTL-28840 Type Accessories


Backshells — Page M-16
Covers — Page M-18

### Series 80 Mighty Mouse Accessories


Backshells and Recommended Shrink Boots — Page M-19
Covers — Page M-22


M


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

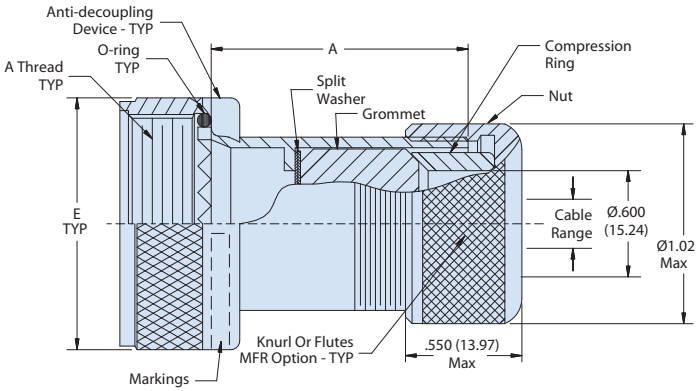
## 637-235 Environmental feedthrough backshell for RJ45 Series connectors

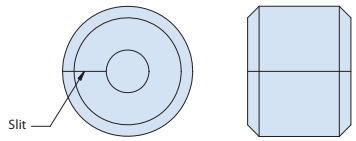
| Part Number Development | | | | | |
|---|---|---|---|---|---|
| **Sample Part Number** | **637-235** | **M** | **17** | **-** | **1** |
| **Basic Number** | **637-235** Environmental Feedthrough Backshell for RJ45 Series Connectors | | | | |
| **Finish** | See Material and Finish table | | | | |
| **Shell Size** | See Table I | | | | |
| **Cable Range** | - = Standard Cable Ø .312/.187<br>**A** = Cable Ø .400/.256<br>**B** = Cable Ø .462/.400 | | | | |
| **Length Indicator** | See Table III (Omit For Standard Length) | | | | |

## NOTES

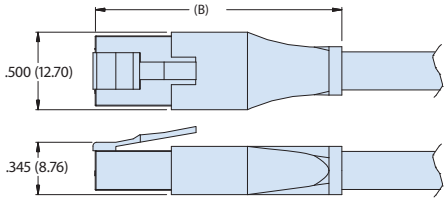
1. Glenair 600 series backshell assembly tools are recommended for assembly and installation.
2. Material/finish:
   - Adapter, coupling nut, compression ring, split washer and nut: see Table I
   - O-ring and grommet: fluorosilicone
   - Anti-decoupling device - corrosion resistant material/na

| Material and Finish[1] | |
|---|---|
| **M** | Aluminum/Electroless Nickel |
| **NF** | Aluminum/Cadmium, Olive Drab, over Electroless Nickel |
| **ZN** | Aluminum/ Zinc NI, Olive Drab |
| **ZE** | |
| **ZR** | Aluminum/Black Zinc-Nickel |
| **MT** | Aluminum/Nickel PTFE |
| **P2** | Aluminum/Nickel Plate Per AMS-QQ-N-290 |
| **XM** | Composite/Electroless Nickel |
| **XMT** | Composite/Nickel-PTFE |
| **XO** | Composite/No Finish |
| **XW** | Composite/Cadmium, Olive Drab, Over Electroless Nickel |
| **Z1** | Stainless Steel/Passivate |
| **ZC** | Stainless Steel/Zinc Cobalt |
| **ZL** | Stainless Steel/ Electro-Deposited Nickel |
| **ZW** | Stainless Steel/Cad Olive Drab Over Nickel |
| **AB** | Bronze/None (Clean Only) |




**Slit Grommet**




**RJ45 Connector**
(For reference only)

| Table I | | | |
|---|---|---|---|
| **Shell Size** | **A Thread** | **E Max** | |
| | | **in** | **mm** |
| **17** | M25 X 1.0-6H | 1.42 | 36.1 |
| **19** | M28 X 1.0-6H | 1.54 | 39.1 |

| Table III | | | | |
|---|---|---|---|---|
| **Shell Size** | **A** | | **B REF** | |
| | **in** | **mm** | **in** | **mm** |
| **1** | 0.75 | 19.05 | 0.62 | 15.75 |
| **2** | 1.00 | 25.40 | 0.87 | 22.10 |
| **3** | 1.25 | 31.75 | 1.12 | 28.45 |
| **4** | 1.50 | 38.10 | 1.37 | 34.80 |
| **Standard Length** | 1.74 | 44.20 | 1.62 | 41.15 |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

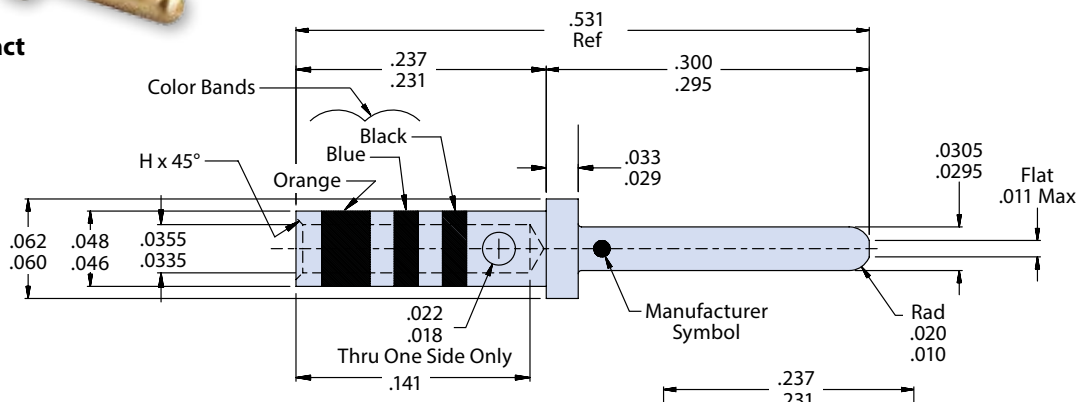
# Pin and Socket Contacts for SuperSeal™ 38999 Type, Series ITS and Series IPT Connectors

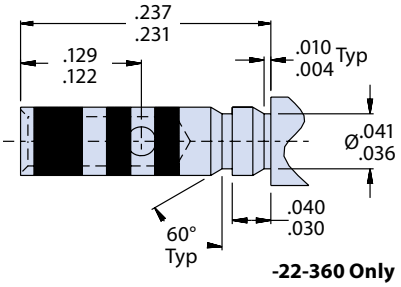


## SIZE #22 STANDARD DUTY ELECTRICAL PIN AND SOCKET CONTACTS FOR USE WITH SUPERSEAL™ 38999 TYPE, ITS 301, ITS 345, IPT 301 AND IPT 345 SERIES CONNECTORS

| | Mating End Size | Wire Accomodation | Military Part Number | Glenair Part Number |
|---|---|---|---|---|
| Pin | 22 | 22-28 AWG | M39029/58-360 | 850-002-22-360 |
| Socket | 22 | 22-28 AWG | M39029/56-348 | 850-001-22-348 |

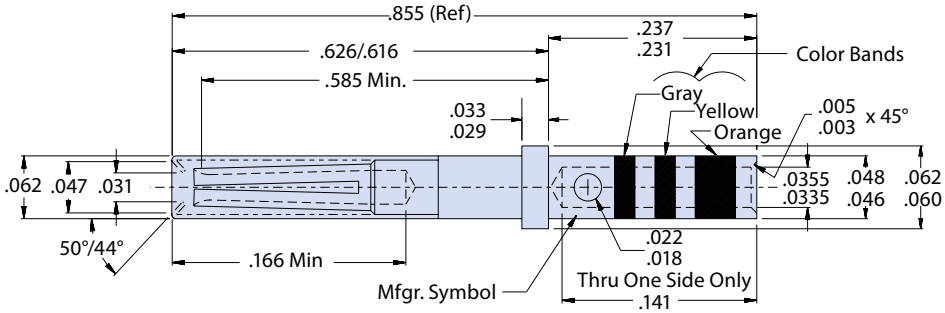
**Pin Contact**

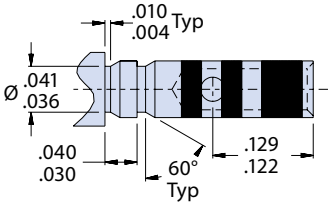



**-22-360 Only**

**Socket Contact**




**-22-348 Only**

| Termination Tools | | | | | | | |
|---|---|---|---|---|---|---|---|
| Size 22 | Part Number | Military Number | AWG Handling | Crimp Tool | Positioner | Insertion Tool | Extraction Tool |
| Pin | 850-002-22-360 | M39029/58-360 | 22, 24, 26, 28 | M22520/2-01<br>M22520/7-01 | M22520/2-09<br>M22520//7-07 | M81969/14-01<br>M81969/8-01 | M81969/14-01<br>M81969/8-02 |
| Socket | 850-001-22-348 | M39029/56-348 | 22, 24, 26, 28 | M22520/2-01<br>M22520/7-01 | M22520/2-07<br>M22520//7-05 | M81969/14-01<br>M81969/8-01 | M81969/14-01<br>M81969/8-02 |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

## HOW TO TERMINATE, INSTALL AND REMOVE SIZE #22 CONTACTS

**1** ***Set Up Series M22520 Crimp Tool.*** See pin and socket contact selection guide for correct tools based on contact part numbers and tool codes. Install proper positioner into crimp tool. The label on the positioner shows the proper tool setting for each wire size. Turn the adjustment wheel to the correct setting.

**2** ***Strip Wire.*** Remove wire insulation, taking care to avoid nicking or cutting wire strands. Strip wire to length shown. Holding wire by insulation, twist strands together to form a neat bundle.

**3** ***Insert wire*** into contact. The wire should be visible in the inspection hole.

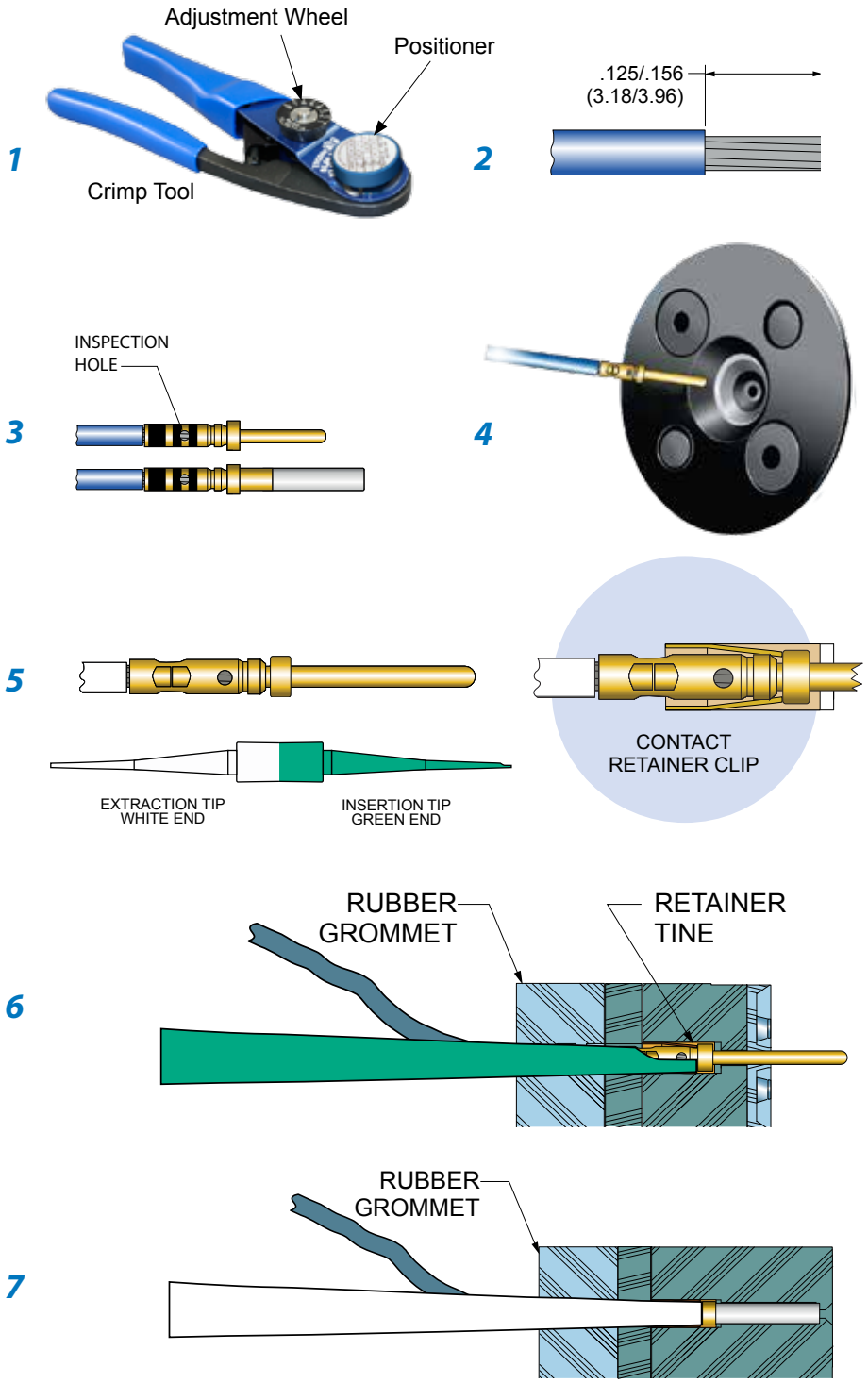
**4** Insert wire and contact into crimp tool as shown. Make sure that the contact is fully inserted into the tool. Squeeze handle completely. The ratchet mechanism will not allow a partial crimp. Release handle and remove contact.

**5** ***Inspect crimped contact.*** Wire should be fully inserted and the crimp should be uniform in appearance.

**6** ***Install contact into connector.*** Slide green end of insertion/extraction tool over wire insulation and slide the tool forward until it bottoms against the contact shoulder. Insert tool/contact/wire into contact cavity, being careful to avoid damage by properly aligning the contact with the cavity. Push forward until contact retention clip snaps into position. Remove tool. Gently pull on wire to confirm contact retention. Fill unused contact cavities with uncrimped contacts followed by the proper MS27488 sealing plug.

| Contact Size | Seal Plug |
|---|---|
| 22, 22M, 22D | MS27488-22 |

**7** ***Contact Extraction.*** Use the white end of appropriate insertion/extraction tool. First, push the wire into the groove of the extraction tool's tip. Slide the tip of the tool over the jacketed wire into the connector cavity. Push the tool until the tip bottoms in the connector. A straight push is best. Avoid wiggling or rocking the tip, as this may damage the cavity. Pinch the wire between your thumb and the white plastic grip and slide the tool and contact out of the connector.



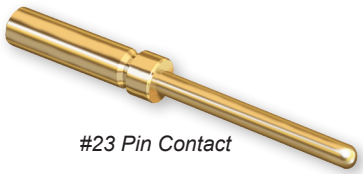



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

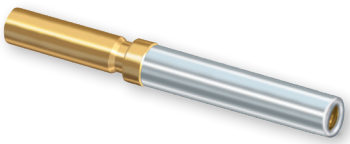
# Size #23 Crimp Contact for Mighty Mouse Series 801, 804, and 805 Micro and Standard USB Connectors



## SIZE #23 CRIMP CONTACTS FOR USE WITH 801-084, 801-085, 801-341, 804-084, 804-085, 804-341 805-084, 805-085 AND 805-341 SERIES 80 MIGHTY MOUSE CONNECTORS



*#23 Pin Contact*

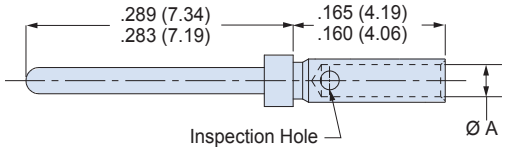


*#23 Socket Contact*

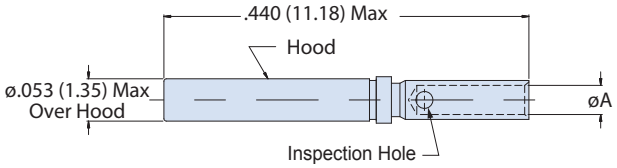
Standard size #23 contacts accept #22 to #28 AWG wire. Choose "small bore" versions for #26 to #30 AWG wire. For thermocouple applications, specify alumel or chromel contacts. Contacts are bulk packaged. Terminate with standard M22520 crimper with special positioner.

| Contact Type | Wire Size | Material | Part Number | Ø A | | Color Band | Tool Code |
|---|---|---|---|---|---|---|---|
| | | | | In. | mm. | | |
| Pin | #22 – #28 | BeCu | 809-001 | .035 Max | .902 | None | A, C |
| Socket | #22 – #28 | BeCu | 809-002 | .035 Max | .902 | None | A, C |

### PIN (809-001)




### Socket (809-002)




| Crimp Tensile Strength | | |
|---|---|---|
| Values are in pounds and are minimums. | | |
| Wire Gage | Silver or Tin Coated Copper Wire | Nickel Coated Copper Wire |
| #22 | 12 | 8 |
| #24 | 8 | 6 |
| #26 | 5 | 3 |
| #28 | 3 | 2 |

### Material and Finish

Beryllium copper alloy per ASTM B196 or B197, 50 microinches gold plated per ASTM B 488 over nickel underplate. Crimp area may have less plating.
Thermocouple contacts: alumel or chromel alloy, unplated, per ANSI 96.1
Socket contact hood: stainless steel, passivated per AMS-QQ-P-35.

### Specifications

Current Rating: 5 Amps maximum
Voltage Drop (at 5 Amps and 25° C): 70 millivolts maximum
Temperature Range: -65° to + 200° C

## MINIATURE ADJUSTABLE CRIMP TOOL AND POSITIONER

Standard M22520/2-01 crimper for use with standard size #23 Mighty Mouse contacts. Performs precision eight-indent crimps for gas-tight wire terminations and excellent tensile strength. Adjustment wheel has 8 settings. Ratchet mechanism prevents improper crimps. Length is 6.75 inches, weight is approx. 10 oz. Bayonet-type positioner 809-005 hold contacts at correct height for crimping. Check calibration with M22520/3 gages.

| Tool | Part Number | Military Part Number | Daniels Part Number | Tool Code |
|---|---|---|---|---|
| Crimp Tool | 809-015 | M22520/2-01 | AFM8 | A |
| Positioner | 809-005 | (none) | K1461 | C |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Size #23 Crimp Contact Instructions for Mighty Mouse Series 801 Micro and Standard USB Connectors



## HOW TO TERMINATE, INSTALL AND REMOVE SIZE #23 CONTACTS

**1** ***Set Up Crimp Tool.*** Install proper positioner into crimp tool. The label on the positioner shows the proper tool setting for each wire size. Turn the adjustment wheel to the correct setting.

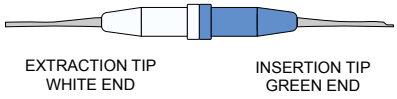
**2** ***Strip Wire.*** Remove wire insulation, taking care to avoid nicking or cutting wire strands. Strip wire to length shown.

**3** ***Insert wire*** into contact. The wire should be visible in the inspection hole.

**4** Insert contact into crimp tool as shown. Make sure that the contact is fully inserted into the tool. Squeeze handle completely. The ratchet mechanism will not allow a partial crimp. Release handle and remove contact.

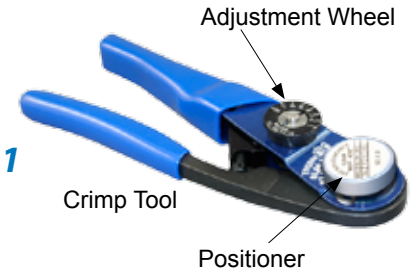
**5** ***Inspect crimped contact.*** Wire should be fully inserted and the crimp should be uniform in appearance.

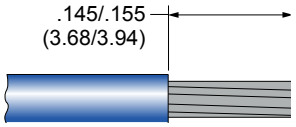
### *Insertion/Extraction Tool 809-088*

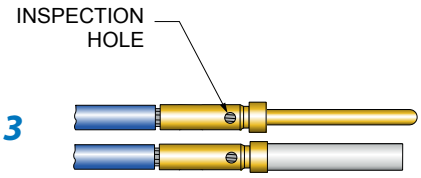


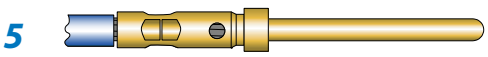

**6** ***Install contact into connector.*** Push the contact through the rear grommet until the contact locks into place. This can usually be done by hand without the need for a tool. If the wire gage is #26 or smaller, a tool is helpful. There are two techniques for installing contacts with a tool. One method is to push the contact in by hand, then use the tool to finish the insertion. The other method is to position the insertion tip against the contact shoulder, then insert the contact. Use insertion/extraction tool 809-088 to install contacts. Slide the wire into the groove on the blue end of the tool. Slide the tool tip up the contact until it touches the contact shoulder. **USE CARE TO AVOID DAMAGING THE CONNECTOR.**

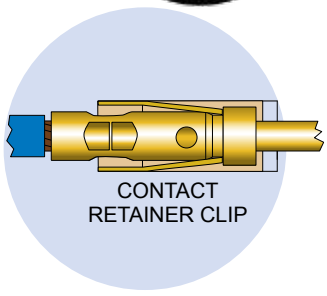
**7** ***Contact Extraction.*** Use tool 809-088. The white end is used for contact extraction. First, push the wire into the groove of the metal tip. Slide the tip of the tool into the connector. Push the tool into the connector cavity until the tip bottoms in the connector. Avoid wiggling or rocking the tip. This may damage the cavity. A straight push is best. Pinch the wire between your finger and the white plastic grip and slide the tool and contact out of the connector. **Wire insulation diameter greater than 0.045 inches (1.14mm) is too large to work properly with the extraction tool. connector damage is possible.**

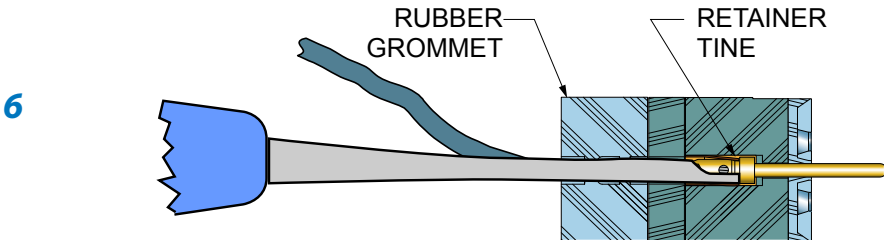


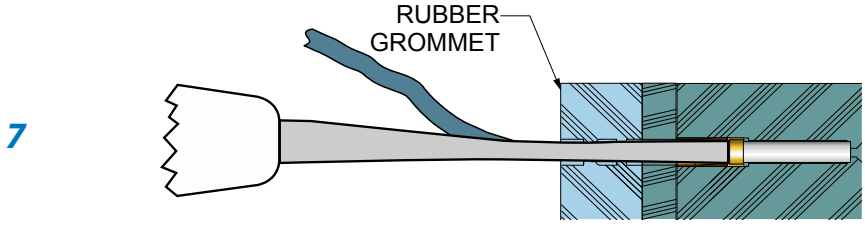








© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Band-Master ATS® 601-100 Commercial and 600-058 QPL Qualified, Standard Banding Tool



## STANDARD BANDING TOOL

### The 601-100 Band-Master ATS® Standard Tool with Counter for Standard Bands

Weighs 1.2 lbs., and is designed for .240" width clamping bands in a tension range from 100 to 180 lbs. Calibrate at 150 lbs. ± 5 lbs. for most shield terminations. Tool and band should never be lubricated.

### The 600-058 QPL Qualified (M81306/1A) Standard Banding Tool without Counter

Weighs 1.1 and is designed for .240" width clamping bands in a tension range from 100 to 180 lbs. Calibrate at 150 lbs. ± 5 lbs. for most shield terminations. Tool and band should never be lubricated (not shown).

Color-coded tool handle:

= Standard; Black

| | Band-Master ATS® Standard Band Selection | | | | | |
|---|---|---|---|---|---|---|
| | Length | | Part Number | | Fits Diameter | |
| Bands | In. | mm. | Flat | Pre-Coiled | In. | mm. |
| Short Standard | 9.0 | 228.6 | 601-005 | 601-006 | 1.0 | 25.4 |
| Medium Standard | 14.25 | 361.95 | 601-040 | 601-041 | 1.8 | 45.7 |
| Long Standard | 18.0 | 457.2 | 601-049 | 601-050 | 2.5 | 63.5 |

| Cable Pull Strength for BandMaster™ ATS Standard Bands | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Band Width | | Band Thickness | | Calibration Setting | Cable Pull Strength |
| Name | Material Type | In | mm | In | mm | | |
| Standard | 300 SS | 0.240 | 6.10 | .020 | .51 | 150 ±5 lbs | per AS85049/128 |

| | QPL Qualified Standard Band Selection | | | | | |
|---|---|---|---|---|---|---|
| | Length | | Mil Spec Part Number | | Fits Diameter | |
| Bands | in. | mm. | Flat | Pre-Coiled | in. | mm. |
| Standard Band | 14.25 | 361.95 | M85049/128-3 | M85049/128-4 | 1.8 | 45.7 |

| Cable Pull Strength for Standard QPL Qualified Bands | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Band Width | | Band Thickness | | Calibration Setting | Cable Pull Strength |
| Name | Material Type | In | mm | In | mm | | |
| Standard | 300 SS | 0.240 | 6.10 | .020 | .51 | 150 ±5 lbs | per AS85049/128 |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Band-Master ATS® 601-101 Commercial and 600-061 QPL Qualified, Micro Banding Tool



## MICRO BANDING TOOL

Color-coded tool handle:

= Micro; Blue

### The 601-101 Band-Master ATS® Micro Tool with Counter for Micro Bands

Weighs 1.3 lbs., and is designed for micro .120" width clamping bands in a tension range from 50 to 85 lbs. Calibrate at 80 lbs ±3 lbs. for most shield terminations. Tool and band should never be lubricated.

### The 600-061 QPL Qualified (M81306/1B) Micro Banding Tool without Counter

Weighs 1.1 and is designed for micro .120" width clamping bands in a tension range from 60 to 85 lbs. Calibrate at 80 lbs ±5 lbs. for most shield terminations. Tool and band should never be lubricated (not shown).

| | Band-Master ATS® Micro Band Selection | | | | | |
|---|---|---|---|---|---|---|
| | Length | | Part Number | | Fits Diameter | |
| Bands | in. | mm. | Flat | Pre-Coiled | in. | mm. |
| Short Micro | 5.0 | 127.0 | 601-024 | 601-025 | 0.5 | 12.7 |
| Medium Micro | 8.125 | 206.38 | 601-060 | 601-061 | .88 | 22.4 |
| Long Micro | 14.25 | 361.95 | 601-064 | 601-065 | 1.8 | 45.7 |

| Cable Pull Strength for Band-Master ATS® Micro Bands | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Band Width | | Band Thickness | | Calibration Setting | Cable Pull Strength |
| Name | Material Type | In | mm | In | mm | | |
| Micro | 300 SS | 0.120 | 3.05 | .015 | .38 | 80 ±5 lbs | per AS85049/128 |

| | QPL Qualified Micro Band Selection | | | | | |
|---|---|---|---|---|---|---|
| | Length | | Part Number | | Fits Diameter | |
| Bands | in. | mm. | Flat | Pre-Coiled | in. | mm. |
| Standard Micro | 8.125 | 206.38 | M85049/128-7 | M85049/128-8 | .88 | 22.4 |

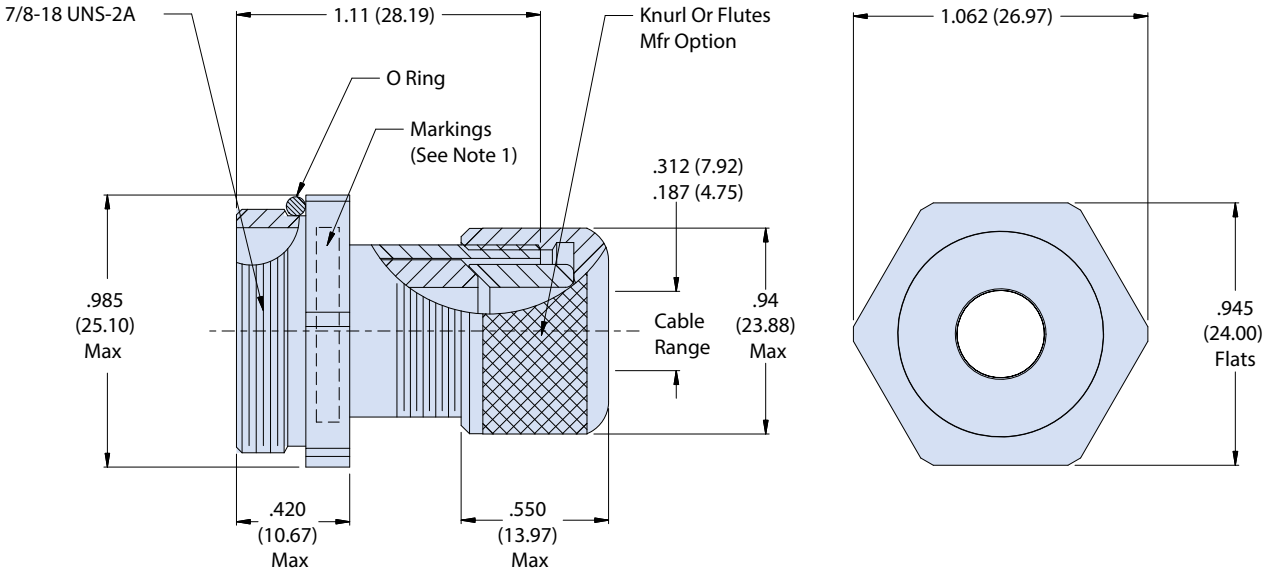
| Cable Pull Strength for Micro QPL Qualified Bands | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Band Width | | Band Thickness | | Calibration Setting | Cable Pull Strength |
| Name | Material Type | In | mm | In | mm | | |
| Micro | 300 SS | 0.120 | 3.05 | .015 | .38 | 80 ±5 lbs | per AS85049/128 |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 637-204 Environmental Backshell with Sealing Gland for 253-100 RJ45 38999 Series III Type Connectors

| How To Order | | |
|---|---|---|
| **Sample Part Number** | **637-204** | **M** |
| **Series** | **637-204** | |
| **Material and Finish** | See Material and Finish Table | |




| Materials and Finishes | |
|---|---|
| **NF** | Aluminum/Cadmium, olive drab |
| **ME** | Aluminum/Electroless nickel |
| **MT** | Aluminum/ Nickel PTFE |
| **ZR** | Aluminum/ Black zinc-nickel |

## NOTES

1. Glenair 600 series backshell assembly tools are recommended for assembly and installation
2. O-ring and grommet: fluorosilicone

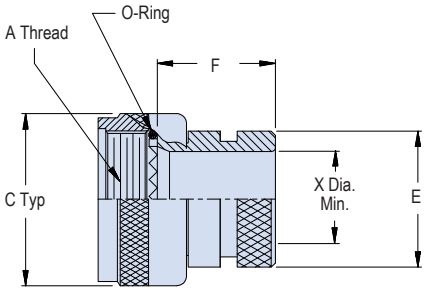




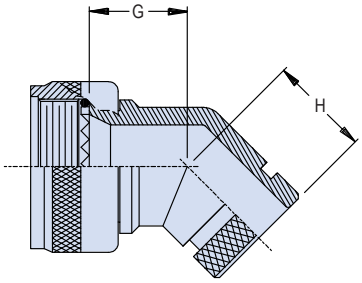
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 310-001 Shrink Boot Adapter with Rotatable Coupling for 38999 Series III Type Connectors

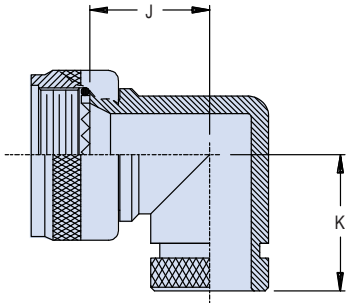
| How To Order | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **310** | **H** | **S** | **001** | **M** | **17** |
| **Series/Basic Part No.** | **310** - Shrink Boot Adapter | | | | | |
| **Connector Designator** | **H** = 38999 | | | | | |
| **Angular Function** | **A** = 90° **B** = 45° **S** = Straight | | | | | |
| **Basic Part No.** | **001** | | | | | |
| **Finish** | See Material and Finish Table | | | | | |
| **Shell Size** | **15**, **17**, **19** | | | | | |




**Straight (S)**




**45° (B)**




**90° (A)**

| Dimensions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Shell Size** | **A Thread** | **C Typ** | **E Max** | **F Max** | **G Max** | **H Max** | **J Max** | **K Max** | **X Dia. Min.** |
| **15** | M22 X 1 -- 6H | 1.07 (27.2) | .838 (21.3) | .940 (23.9) | .705 (17.9) | .890 (22.6) | .920 (23.4) | 1.110 (28.2) | .565 (14.4) |
| **17** | M25 X 1 -- 6H | 1.21 (30.7) | .963 (24.5) | .940 (23.9) | .732 (18.6) | .910 (23.1) | .980 (24.9) | 1.170 (29.7) | .690 (17.5) |
| **19** | M28 X 1 -- 6H | 1.36 (34.5) | 1.042 (26.5) | .940 (23.9) | .748 (19.0) | .920 (23.4) | 1.020 (25.9) | 1.190 (30.2) | .769 (19.5) |

| Materials and Finishes | | |
|---|---|---|
| **NF** | Aluminum | Cadmium, olive drab |
| **ME** | | Electroless nickel |
| **MT** | | Nickel PTFE |
| **ZR** | | Black zinc-nickel |

| Recommnded Shrink Boot* | | |
|---|---|---|
| **Shell Size** | **Shrink Boot with Low Temp Adhesive** | **Shrink Boot without Low Temp Adhesive** |
| **15** | **770-028S904** Lipless boot | **770-028S904U** Lipless boot |
| **17** | **770-028S906** | **770-028S906U** |
| **19** | **770-028S906** | **770-028S906U** |

*** Shrink Boot MUST be ordered seperately.**
Shrink boot material: compound 2013 low temperature polyolefin.



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

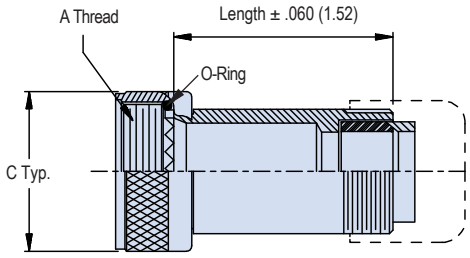
# 370-001 Cable Sealing Backshell with Rotatable Coupling for 38999 Series III Type Connectors



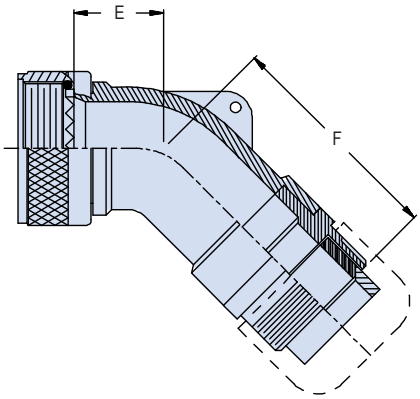
| How To Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **370** | **H** | **S** | **001** | **M** | **17** | **03** | **D** | **1.5** |

| | |
|---|---|
| **Series/Basic Part No.** | **370** - low Profile |
| **Connector Designator** | **H** = 38999 |
| **Angular Function** | **A** = 90° **B** = 45° **S** = Straight |
| **Basic Part No.** | **001** |
| **Finish** | See Material and Finish Table |
| **Shell Size** | **15**, **17**, **19** |
| **Dash No.** | See Dash Number Table |
| **Strain Relief Style** | **D** = Nut |
| **Length** | 1/2 inch increments (e.g. 6 = 3 inches); Straight only<br>Minimum Order Length 1.5 Inch (See Note 1) |

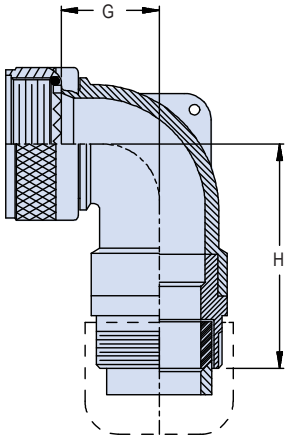
**Straight (S)**



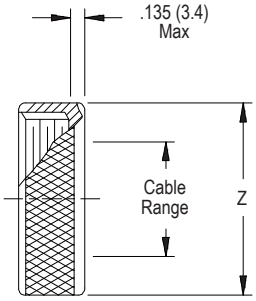

**45° (B)**




**90° (A)**




## STRAIN RELIEF STYLE D




| Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| Shell Size | A Thread | C Typ. | E Max | F Max | G Max | H Max |
| **15** | M22 X 1 -- 6H | 1.07 (27.2) | .645 (16.4) | 2.359 (59.9) | .700 (17.8) | 2.369 (60.2) |
| **17** | M25 X 1 -- 6H | 1.21 (30.7) | .738 (18.7) | 2.469 (62.7) | .885 (22.5) | 2.459 (62.5) |
| **19** | M28 X 1 -- 6H | 1.36 (34.5) | .926 (23.5) | 2.659 (67.5) | .975 (24.8) | 2.629 (66.8) |

| Materials and Finishes[1] | |
|---|---|
| **NF** | Aluminum/Cadmium, olive drab |
| **ME** | Aluminum/Electroless nickel |
| **MT** | Aluminum/ Nickel PTFE |
| **ZR** | Aluminum/ Black zinc-nickel |

| Dash Number | | | |
|---|---|---|---|
| Dash No. | Z Max | Cable Range Min | Cable Range Max |
| **03** | .630 (16.0) | .156 (4.0) | .250 (6.4) |
| **04** | .755 (19.2) | .188 (4.8) | .312 (7.9) |
| **06** | .942 (23.9) | .281 (7.1) | .438 (11.1) |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 660-024 and -023 Protective Covers, Attached to Panel for 38999 Type Receptacle Connectors

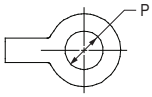


| How To Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **660** | **-024** | **M** | **17** | **H** | **5** | **-01** |

| | |
|---|---|
| **Series** | **660** = Series 66 |
| **Cover Type** | **-024** = metal receptacle cover<br>**-023** = metal plug cover |
| **Material and Finish** | See Material and Finish Table |
| **Shell Size** | **15**, **17**, **19** |
| **Lanyard Type** | **D**, **S**, **F**, **G**, **H**, **K**, **R**, **T**, **U** (See Lanyard Type Table) |
| **Lanyard Length** | Length in inches |
| **Ring Style Dash No.** | (See Table I and II) omit for "SK" slip knot attachment |

**Table I: Dash No. for Small Ring**

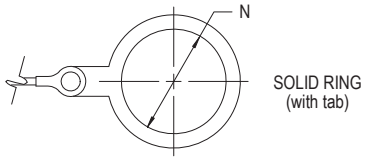
| Dash No. | P | Dash No. | P |
|---|---|---|---|
| 01 | .140 (3.6) | 06 | .125 (3.2) |
| 02 | .182 (4.6) | 07 | .218 (5.5) |
| 03 | .191 (4.9) | 09 | .156 (4.0) |
| 04 | .197 (5.0) | 00 | no eyelet |
| 05 | .167 (4.2) | WS | with strap |




**For attachment to panel**

**Table II: Dash No. for Solid Ring**

| Dash No. | Shell Size | N |
|---|---|---|
| 19 | 15 | 1.141 (29.0) |
| 21 | 17 | 1.266 (32.2) |
| 23 | 19 | 1.391 (35.3) |



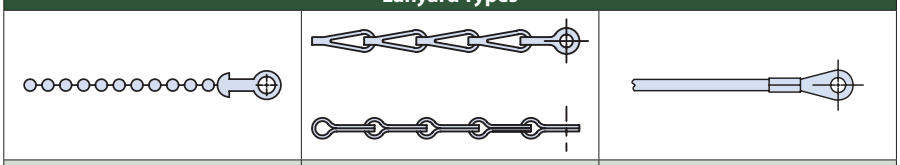

For attachment behind jam nut

**Dimensions**

| Shell Size | A Thread 0.1P-0.3L-TS | F | ØG Max |
|---|---|---|---|
| 15 | 1.0000 | 1.300 (33.0) | 1.260 (32.0) |
| 17 | 1.1875 | 1.457 (37.0) | 1.457 (37.0) |
| 19 | 1.2500 | 1.575 (40.0) | 1.535 (39.0) |

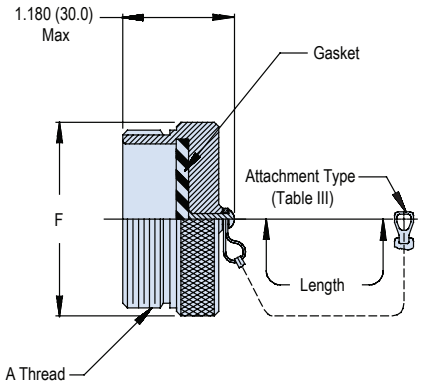
| Lanyard Type | |
|---|---|
| **Sym** | **Attachment** |
| D | Bead chain, cres, passivated, with terminal |
| E | Link chain, cres, passivated, with clevis terminal |
| F | Wire rope, nylon jacket w/terminal |
| G | Nylon rope |
| H | Wire rope, fluoropolymer jacket with terminal |
| K | Nylon rope (olive drab color) |
| N | Attachment omited |
| R | Wire rope, pvc jacket w/terminal |
| T | Wire rope, no jacket, w/terminal |
| S | #8 Sash chain, cres, passivate |
| U | Wire rope, polyurethane jacket with terminal |
| SK | Nylon rope (black) with slip knot |

**Lanyard Types**

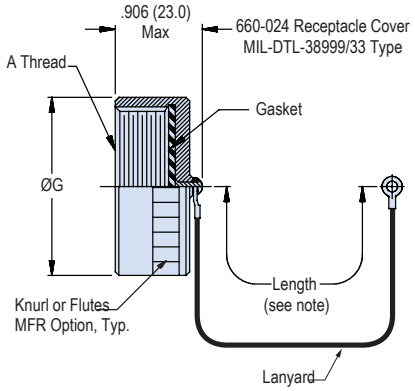


| Bead Chain (Type D) | Sash Chain (Type S) | Rope (Types F, G, H, K, R, T, U ) |
|---|---|---|

## 660-023 Plug Cover




## 660-024 Receptacle Cover




## NOTES

1. Length tolerance for Sash Chain (S) is ± 1 link, for all other attachments ± .25.
2. For plug covers contact factory
3. Material and Finish
   - Gasket: Silicone
   - Hardware, Rivet: Stainless Steel/ Passivate

| Materials and Finishes[1] | |
|---|---|
| NF | Aluminum/Cadmium, olive drab |
| ME | Aluminum/Electroless nickel |
| MT | Aluminum/ Nickel PTFE |
| ZR | Aluminum/ Black zinc-nickel |
| Z1 | Stainless Steel/ Passivate |

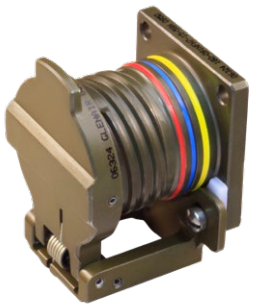


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog • Rev. 11.11.20

Dimensions in Inches (millimeters) are subject to change without notice.

# 667-407 ProSeal™ Spring-Loaded Environmental Cover for 38999 Sr. III Type Wall Mount or Jam Nut Connectors





| How To Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **667-407** | **NF** | **17** | **T1** | **J** | **-59** |
| **Product Series-Basic No.** | **667-407** = Flop Cover | | | | | |
| **Material and Finish** | See Material and Finish Table | | | | | |
| **Connector Shell Size** | See Dimensions Table | | | | | |
| **Panel Thickness** | See Panel Thickness Table | | | | | |
| **Mounting Type** | **J** = Jam Nut Mount Receptacle **W** = Wall Mount Receptacle | | | | | |
| **Conductive Silicone** | **59** | | | | | |

**Dimensions**

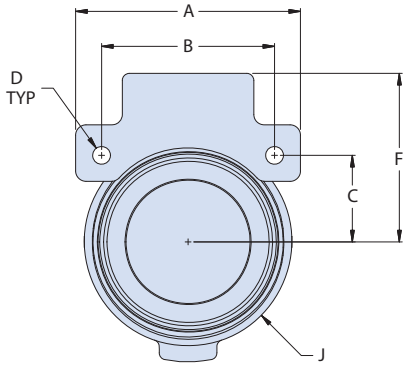
| Shell Size | A Dim ±.031 (.78) | | B Dim | | C Dim | | D Dim ±.008 (.20) | | E Dia ±.031 (.78) | | F Dim Max | | H Dim Max | | J Dia Max | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | In | mm | In | mm | In | mm | In | mm | In | mm | In | mm | In | mm | In | mm |
| **15** | 1.220 | 30.98 | .969 | 24.61 | .485 | 12.31 | .129 | 3.28 | 1.560 | 39.62 | 1.029 | 26.14 | 1.179 | 29.95 | 1.255 | 31.88 |
| **17** | 1.311 | 33.30 | 1.062 | 26.97 | .531 | 13.49 | .129 | 3.28 | 1.625 | 41.28 | 1.114 | 28.30 | 1.212 | 30.78 | 1.425 | 36.20 |
| **19** | 1.437 | 36.50 | 1.156 | 29.36 | .578 | 14.68 | .129 | 3.28 | 1.750 | 44.45 | 1.146 | 29.11 | 1.365 | 34.67 | 1.488 | 37.80 |

**Material and Finish**

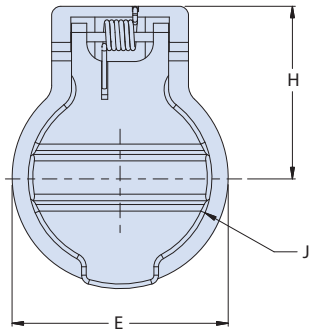
| Symbol | Material | Finish Description |
|---|---|---|
| **MT** | Aluminum | Nickel-PTFE |
| **ZR** | | Zinc ni, black (tri-valet cr) |
| **M** | | eletroless nickel |
| **NF** | | cadmium plate/olive drab over eletroless nickel |
| **Z1** | SST | passivate |
| **XB** | Composite | color black |

**Panel Thickness Table**

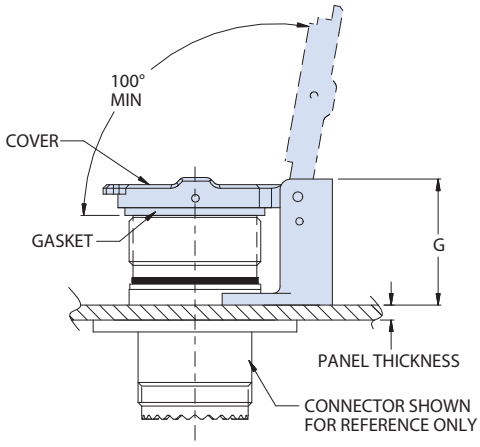
| Dash No. | Panel Thickness ±.030 | | Shell Size | G ±.06 (1.52) | | | |
|---|---|---|---|---|---|---|---|
| | | | | Jam Nut Style | | Wall Style | |
| | In | mm | | In | mm | In | mm |
| **T1** | .062 | 1.57 | 09-19 | 1.041 | 26.44 | 0.977 | 24.82 |
| | | | 21-25 | 1.126 | 28.60 | 1.032 | 26.21 |
| **T2** | .125 | 3.18 | 09-19 | 0.979 | 24.87 | 0.915 | 23.24 |
| | | | 21-25 | 1.064 | 27.03 | 0.970 | 24.64 |




WALL MOUNT




JAM NUT




## NOTES

- Cover will stay open at 100° from receptacle face



 © 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

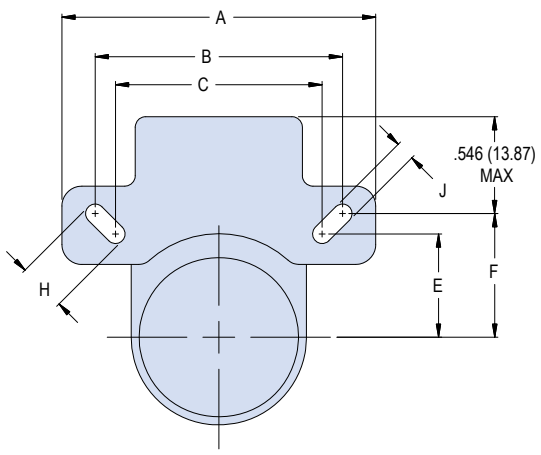
# 667-398 Spring Loaded Flop-Lid Cover for 38999 Series III Type Feed Thru Connector

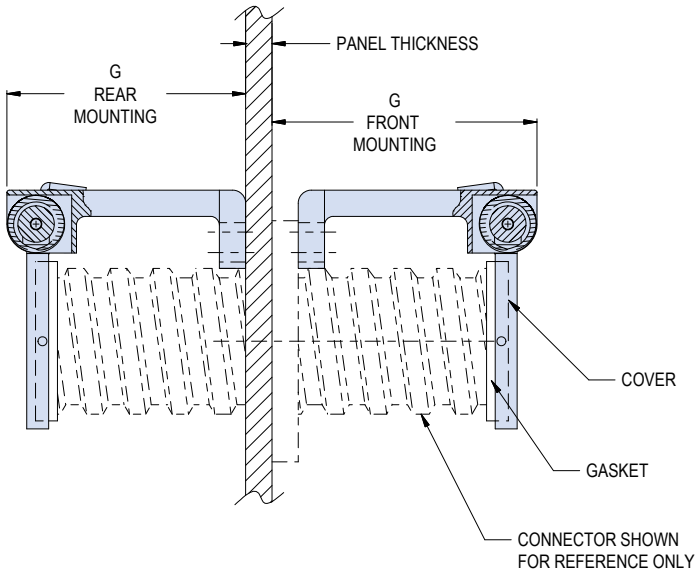


| How To Order | | | | | |
|---|---|---|---|---|---|
| **Sample Part Number** | | **667-398** | **NF** | **17** | **F0** |
| **Product Series-Basic No.** | **667-398** = Flop Cover | | | | |
| **Material and Finish** | See Material and Finish Table | | | | |
| **Connector Shell Size** | See Dimensions Table | | | | |
| **Cover Mounting** | **FO** = Front Mounting **R1**, **R2**, **R3**, **R4** = Rear Mounting<br>See Table I for Panel Thickness Guidelines | | | | |

| Dimensions | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | A Dim ±.012 (.31) | | B Dim | | C Dim | | E Dim | | F Dim | | H Dim ±.008 (.20) | | J Dim ±.008 (.20) | |
| | In | mm | In | mm | In | mm | In | mm | In | mm | In | mm | In | mm |
| 17 | 1.542 | 39.17 | 1.062 | 26.97 | .969 | 24.61 | .485 | 12.32 | .531 | 13.49 | .194 | 4.93 | .128 | 3.25 |
| 19 | 1.636 | 41.55 | 1.156 | 29.36 | 1.062 | 26.97 | .531 | 13.49 | .578 | 14.68 | .194 | 4.93 | .128 | 3.25 |

contact facotry for other shell sizes




| Material and Finish | | |
|---|---|---|
| Symbol | Material | Finish Description |
| MT | Aluminum | Nickel-PTFE |
| ZR | | Zinc ni, black (tri-valet cr) |
| M | | eletroless nickel |
| NF | | cadmium plate/olive drab over eletroless nickel |
| Z1 | SST | passivate |
| XB | Composite | color black |

| Cover Mounting Dash Number | | |
|---|---|---|
| Dash No. | Panel Thickenss ±.030 | G Max |
| FO | N/A | .845 (21.46) |
| R1 | .062 (1.57) | .981 (24.91) |
| R2 | .125 (3.18) | .918 (23.32) |
| R3 | .188 (4.78) | .855 (21.72) |
| R4 | .250 (6.35) | .793 (20.14) |



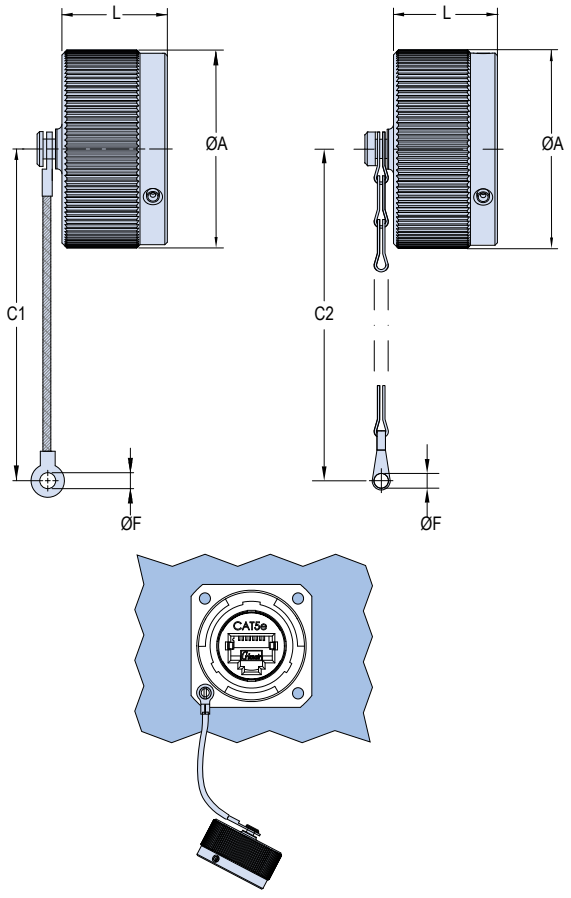
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series ITS Protective Covers for Wall Mount and Jam Nut Receptacle Connectors

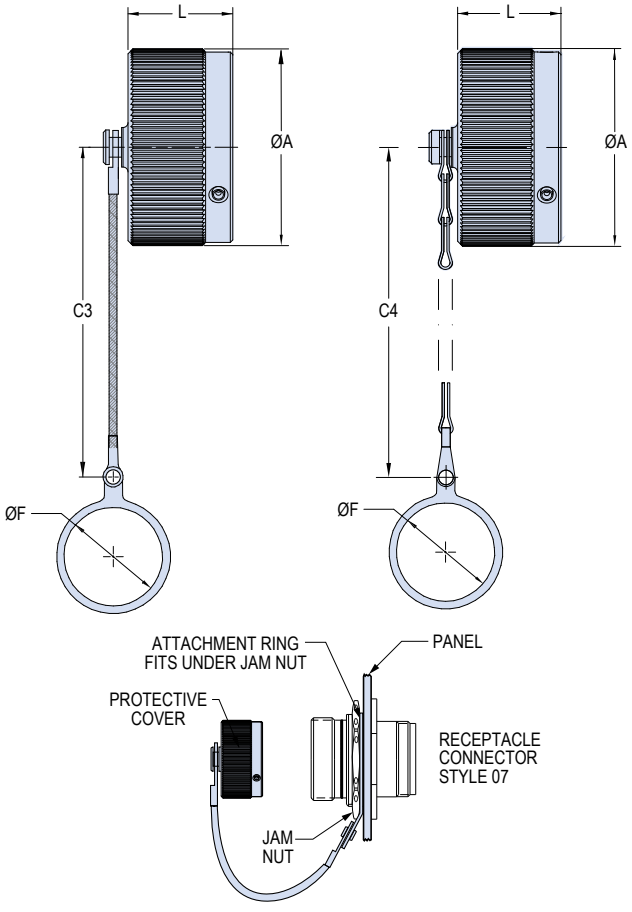


| How To Order | | | | | |
|---|---|---|---|---|---|
| **Sample Part Number** | | | **ITB02** | **TF** | **-17** | **F6** |
| **Series/Basic Part No.** | **ITB02** = Wall Mount Attachment Style | **ITB07** = Jam Nut Attachment Style (See Note 1) | | | |
| **Attachment Type** | **TF** = Stainless Steel Wire Rope | **T** = Sash Chain | | | |
| **Connector Size** | **17** = Shell Size 16 | **18** = Shell Size 18 | | | |
| **Material/Finish Options** | **F6** = Aluminum/Black Polymer Electrocoat<br>**F11** = Aluminum/Electroless Nickel | **F7** = Aluminum/Conductive Black Zinc Nickel<br>**Omit** for Aluminum/Cadmium, Olive Drab | | | |

## ITS (ITB02) WALL MOUNT RECEPTACLE COVER




## ITS (ITB07) JAM NUT MOUNT RECEPTACLE COVER




| Dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Shell Size Code | Connector Size | ØA ±.020 (±0.5) | Wall Mount | | Jam Nut | | ØF +.007 (+0.2) -.003 (-0.1) | L Max. |
| | | | Wire Rope C1Min. | Sash Chain C2 Min. | Wire Rope C3 Min. | Sash Chain C4 Min. | | |
| -17 | 16 | 1.26 (32.0 ) | 7.60 (193) | 4.84 (123) | 8.19 (208) | 5.39 (137) | .170 (4.3) | .83 (21.0) |
| -18 | 18 | 1.44 (36.5) | 7.60 (193) | 4.84 (123) | 8.19 (208) | 5.43 (138) | .17 (4.3) | .85 (21.7) |

## NOTES

1. For plug covers contact factory



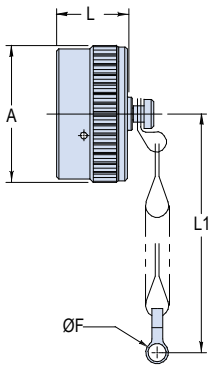
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Series IPT Protective Covers for Wall Mount and Jam Nut Receptacle Connectors

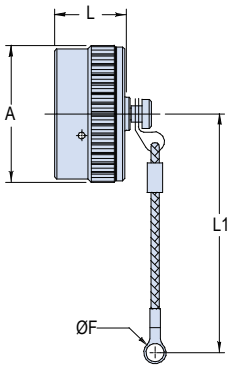


| How To Order | | | | | |
|---|---|---|---|---|---|
| **Sample Part Number** | | **IPT3181** | **-18** | **CF** | **F6** |
| **Series/Basic Part No.** | **IPT3181** = Receptacle Cover (See Note 1) | | | | |
| **Connector Size** | **16** = Shell Size 16 **18** = Shell Size 18 | | | | |
| **Lanyard Style** | **Wall Mount**<br>**C** = Sash Chain<br>**CF** = Nylon Cord<br>**Z1C** = Nylon Cord with Loose Terminal and Sleeve<br>**Jam Nut Mount**<br>**N** = Sash Chain<br>**NF** = Nylon Cord | | | | |
| **Finish Options** | **F6** = Aluminum/Black Polymer Electrocoat<br>**F11** = Aluminum/Electroless Nickel<br>**F7** = Aluminum/Conductive Black Zinc Nickel<br>**Omit** for Aluminum/Cadmium, Olive Drab | | | | |

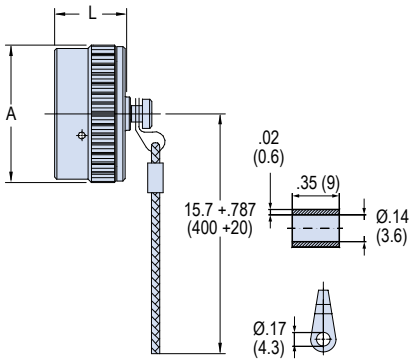
## IPT WALL MOUNT RECEPTACLE COVER



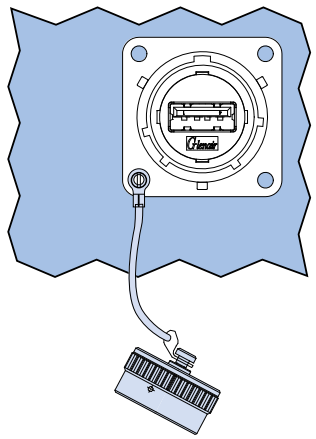

**Example: IPT3181-18C**
**(Stainless Steel Sash Chain)**



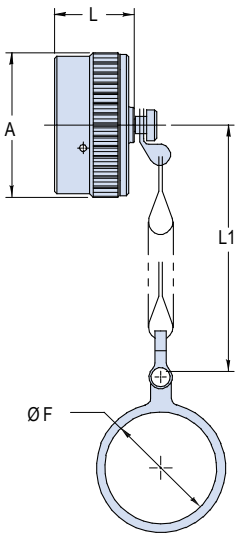

**Example: IPT3181-18CF**
**(Nylon Cord)**



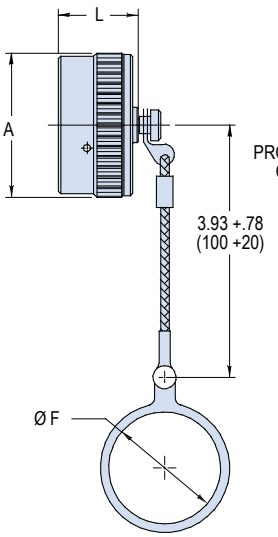

**Example: IPT3181-18Z1C**
**(Nylon Cord with loose terminal and sleeve)**



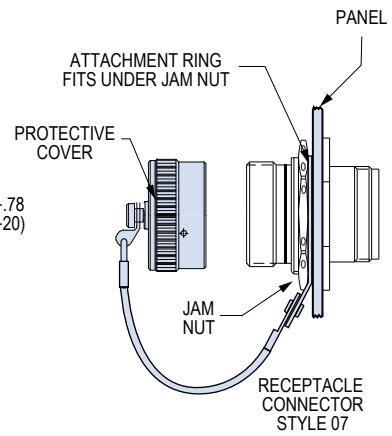
## IPT JAM NUT MOUNT RECEPTACLE COVER




**Example: IPT3181-18N**
**(Stainless Steel Sash Chain)**




**Example: IPT3181-18NF**
**(Nylon Cord)**




| Dimensions for Wall Mount and Jam Nut Covers | | | | |
|---|---|---|---|---|
| **Shell Size** | **A Max.** | **ØF +.874 (+0.2) -.004 (-0.1)** | **L +.197 (+0.5) -0 (-0)** | **L1 Min.** |
| **16** | 1.256 (31.90) | .169 (4.3) | .563 (14.30) | 3.5 (88.9) |
| **18** | 1.378 (35.00) | .169 (4.3) | .563 (14.30) | 3.5 (88.9) |

## NOTES

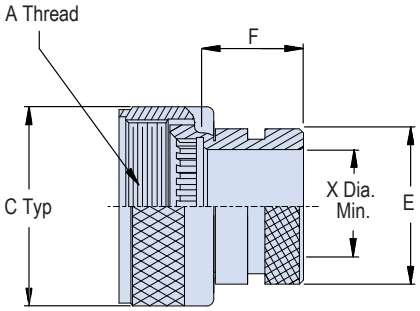
1. For plug covers contact factory

M

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 310-001 Shrink Boot Adapter with Rotatable Coupling for 28840 Type Connectors

| How To Order | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **310** | **G** | **S** | **001** | **M** | **17** |
| **Series/Basic Part No.** | **310** - Shrink Boot Adapter | | | | | |
| **Connector Designator** | **G** = 28840 | | | | | |
| **Angular Function** | **S** = Straight For 45° and 90° versions contact factory | | | | | |
| **Basic Part No.** | **001** | | | | | |
| **Finish** | See Material and Finish Table | | | | | |
| **Shell Size** | **15**, **17**, **19** | | | | | |




| Materials and Finishes | |
|---|---|
| **NF** | Aluminum/ Cadmium olive drab |
| **M** | Aluminum/ Electroless nickel |
| **MT** | Aluminum/ Nickel PTFE |
| **ZR** | Aluminum/ Zinc-nickel black |
| **Z1** | Stainless Steel/ Passivate |

| Dimensions | | | | | |
|---|---|---|---|---|---|
| **Shell Size** | **A Thread** | **C Typ** | **E Max** | **F Max** | **X Dia. Min.** |
| **15** | M22 X 1 -- 6H | 1.07 (27.2) | .838 (21.3) | .940 (23.9) | .565 (14.4) |
| **17** | M25 X 1 -- 6H | 1.21 (30.7) | .963 (24.5) | .940 (23.9) | .690 (17.5) |
| **19** | M28 X 1 -- 6H | 1.36 (34.5) | 1.042 (26.5) | .940 (23.9) | .769 (19.5) |

| Recommnded Shrink Boot* | | |
|---|---|---|
| **Shell Size** | **Shrink Boot with Low Temp Adhesive** | **Shrink Boot without Low Temp Adhesive** |
| **15** | **770-028S904** Lipless boot | **770-028S904U** Lipless boot |
| **17** | **770-028S906** | **770-028S906U** |
| **19** | **770-028S906** | **770-028S906U** |

*** Shrink Boot MUST be ordered seperately.**
Shrink boot material: compound 2013 low temperature polyolefin.





© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

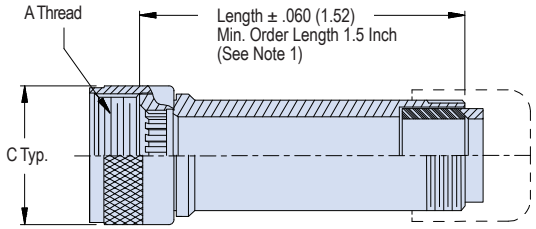
# 370-007 Cable Sealing Backshell with Rotatable Coupling for 28840 Type Connectors



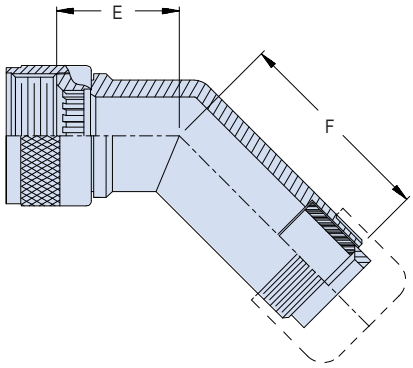
| How To Order | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **370** | **G** | **S** | **007** | **M** | **17** | **03** | **D** | **1.5** |

| | |
|---|---|
| **Series/Basic Part No.** | **370** - low Profile |
| **Connector Designator** | **G** = 28840 |
| **Angular Function** | **J** = 90° **H** = 45° **S** = Straight |
| **Basic Part No.** | **007** |
| **Finish** | See Material and Finish Table |
| **Shell Size** | **15**, **17**, **19** |
| **Dash No.** | See Dash Number Table |
| **Strain Relief Style** | **D** = Nut |
| **Length** | 1/2 inch increments (e.g. 6 = 3 inches); Straight only |

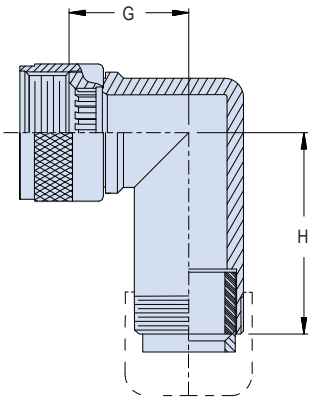
**Straight (S)**



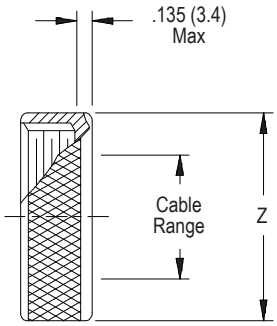

**45° (H)**




**90° (J)**




## STRAIN RELIEF STYLE D




| Dimensions | | | | | | |
|---|---|---|---|---|---|---|
| Shell Size | A Thread | C Typ. | E Max | F Max | G Max | H Max |
| **15** | M22 X 1 -- 6H | 1.07 (27.2) | .645 (16.4) | 2.359 (59.9) | .700 (17.8) | 2.369 (60.2) |
| **17** | M25 X 1 -- 6H | 1.21 (30.7) | .738 (18.7) | 2.469 (62.7) | .885 (22.5) | 2.459 (62.5) |
| **19** | M28 X 1 -- 6H | 1.36 (34.5) | .926 (23.5) | 2.659 (67.5) | .975 (24.8) | 2.629 (66.8) |

| Materials and Finishes | |
|---|---|
| **NF** | Aluminum/ Cadmium, olive drab |
| **M** | Aluminum/ Electroless nickel |
| **MT** | Aluminum/ Nickel PTFE |
| **ZR** | Aluminum/ Zinc-nickel black |
| **Z1** | Stainless Steel/ Passivate |

| Dash Number | | | |
|---|---|---|---|
| Dash No. | Z Max | Cable Range | |
| | | Min. | Max. |
| **03** | .630 (16.0) | .250 (6.4) | .250 (6.4) |
| **04** | .755 (19.2) | .312 (7.9) | .312 (7.9) |
| **06** | .942 (23.9) | .438 (11.1) | .438 (11.1) |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 660-011 Series 66 Protective Covers for 28840 Type Receptacle Connectors



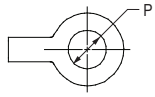
## How To Order

| Sample Part Number | 660 | -011 | M | D | H | 5 | -01 |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| **Series** | **660** = Series 66 |
| **Cover Type** | **-011** = Metal Receptacle Cover (See Note 2) |
| **Material and Finish** | See Material and Finish Table |
| **Shell Size Designator** | **C**, **D**, **E** |
| **Lanyard Type** | **D**, **S**, **F**, **G**, **H**, **R**, **T**, **U** (See Lanyard Type Table) |
| **Lanyard Length** | Length in inches; i.e. 3 = 3 inches |
| **Ring Style Dash No.** | See Tables I, II or III for Ring Selection and Dash Number. Omit for "SK" slip knot attachment |

### Table I: Dash No. for Small Ring

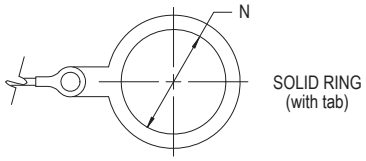
| Dash No. | P Dia ± .010 (0.3) | Dash No. | P Dia ± .010 (0.3) |
|---|---|---|---|
| 01 | .140 (3.6) | 06 | .125 (3.2) |
| 02 | .182 (4.6) | 07 | .218 (5.5) |
| 03 | .191 (4.9) | 09 | .156 (4.0) |
| 04 | .197 (5.0) | 00 | no eyelet |
| 05 | .167 (4.2) | | |




For attachment to panel

### Table II: Dash No. for Solid Ring (Type A)

| Dash No. | Shell Size | N |
|---|---|---|
| 208 | 15 (C) | 1.203 (30.6) |
| 109 | 17 (D) | 1.266 (32.2) |
| 111 | 19 (E) | 1.521 (38.6) |




For attachment behind jam nut

### Dimensions

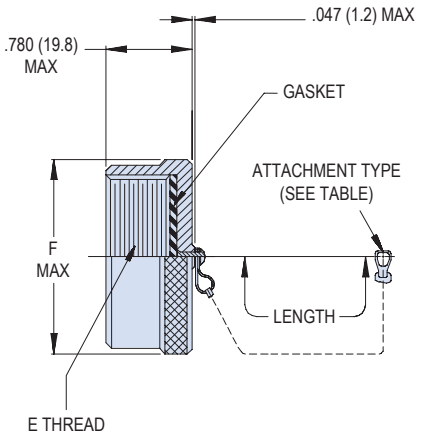
| Shell Size Designator | Shell Size (Ref.) | F Thread | F Max |
|---|---|---|---|
| C | 15 | 1.062 - 0.1P-0.2L-DS | 1.260 (32.0) |
| D | 17 | 1.125 - 0.1P-0.2L-DS | 1.457 (37.0) |
| E | 19 | 1.312 - 0.1P-0.2L-DS | 1.535 (39.0) |

### Lanyard Type

| Sym | Attachment |
|---|---|
| D | Bead chain, cres passivated, w/ terminal |
| F | Wire rope, nylon jacket w/ terminal |
| G | Nylon rope |
| H | Wire rope, fluoropolymer jacket w/ terminal |
| N | Attachment omitted |
| R | Wire rope, PVC jacket w/terminal |
| T | Wire rope, no jacket, w/terminal |
| S | #8 Sash chain, cres, passivate |
| U | Wire rope, polyurethane jacket with terminal |

### Materials and Finishes[2]

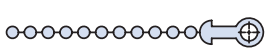
| | |
|---|---|
| NF | Aluminum/Cadmium, Olive Drab |
| M | Aluminum/Electroless Nickel |
| MT | Aluminum/Nickel PTFE |
| ZR | Aluminum/Zinc-Nickel Black |
| Z1 | Stainless Steel/Passivate |



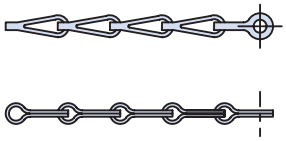

## NOTES

1. Length tolerance for Sash Chain (S) is ± 1 link, for all other attachments ± .25.
2. For plug covers contact factory
3. Material and Finish
   - Gasket: Silicone
   - Components, rivet: Stainless Steel/ Passivate

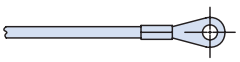
### Lanyard Types



Bead Chain (Type D)



Sash Chain (Type S)



Rope (Types F, G, H, R, T, U )

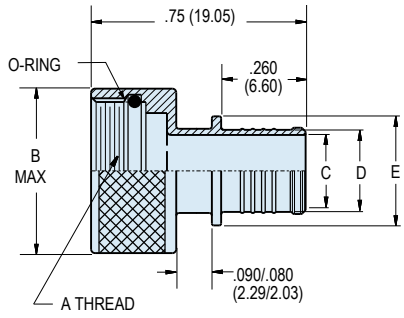

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 440MS134 straight environmental, direct coupling adapter for Series 801, 804 and 805 Mighty Mouse

**Band-Master ATS® Band**
**Microband 601-061**
**See Page M-7**

**Add a boot or overmold for environmental protection (Shown without boot)**

These adapters are used with Band-Master ATS® micro band shield termination straps. Choose the smallest cable entry for your wire bundle.




STRAIGHT ENTRY
DIRECT COUPLING
440MS134

## NOTES

1. For use with Micro USB Mighty Mouse Series 801 and 805
2. Material and Finish
   - Band: 300 Series SST
   - O-Ring: Silicone Elastomer

| How To Order | | | | | |
|---|---|---|---|---|---|
| **Sample Part Number** | **440MS134** | **NF** | **08** | **04** | **B** |
| **Series (See Table I)** | **440MS134** = Straight Entry | | | | |
| **Shell Material and Finish** | **M** = Aluminum/Electroless Nickel<br>**NF** = Aluminum/Cadmium with Olive Drab<br>**ZN** = Aluminum/Zinc-Nickel with Olive Drab Chromate<br>**ZNU** = Aluminum/Zinc-Nickel with Black Chromate<br>**MT** = Aluminum/Nickel-PTFE<br>**Z1** = Stainless Steel/Passivated | | | | |
| **Adapter Size Code** | **08**, **10**, **14**, **16** See Adapter Size Code and Dimensions Table | | | | |
| **Cable Entry Size (See Table i)** | **04**, **05**, **06**, **07**, **08** See Table 1 for Dimensions | | | | |
| **Band Option** | **B** = 601-060 flat band supplied **K** = 601-061 pre-coiled band supplied<br>**Omit** = no band supplied | | | | |

| Adapter Size Code | Shell Size Reference | | A Thread Class -2B | B Max. | | Dash No. |
|---|---|---|---|---|---|---|
| | 801/804 | 805 | | In. | mm. | |
| **08**[1] | 8 | 10 | 1/2-28 UNEF | .595 | 15.11 | **04** thru **08** See Table 1 for Dimensions |
| **10** | 10 | n/a | 5/8-24 UNEF | .715 | 18.16 | |
| **14** | 14/15/16/17 | 18 | 15/16-20 UNEF | 1.020 | 25.91 | |
| **16** | 19 | 21 | 1 1/16-18 UNEF | 1.155 | 29.34 | |

**Adapter Size Code and Dimensions**

| Dash No. | Ø C In. ± .015 | Ø C mm. ± 0.38 | Ø D In. ± .015 | Ø D mm. ± 0.38 | Ø E In. ± .015 | Ø E mm. ± 0.38 | Straight Shrink Boot* |
|---|---|---|---|---|---|---|---|
| **04** | .234 | 5.94 | .273 | 6.93 | .375 | 9.53 | **770-003S901W2** |
| **05** | .272 | 6.91 | .311 | 7.90 | .413 | 10.49 | **770-003S902W2** |
| **06** | .312 | 7.92 | .351 | 8.92 | .453 | 11.51 | **770-003S902W2** |
| **07** | .375 | 9.53 | .414 | 10.52 | .516 | 13.11 | **770-003S903W2** |
| **08** | .438 | 11.13 | .477 | 12.12 | .579 | 14.17 | **770-003S903W2** |

**Table I: Cable Entry, Band Platform Dimensions and Recommended Shrink Boot**

*** Shrink Boot MUST be ordered seperately.**
Shrink boot material: compound 2013 low temperature polyolefin with W2 hot melt adhesive.



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 440-135 EMI/RFI, Rotatable Coupling, Shrink Boot Band Adapter for Series 801, 804 and 805 Mighty Mouse

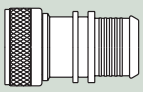
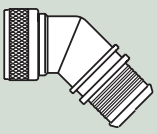
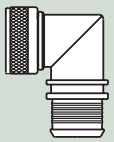
**Band-Master ATS® Band Microband 601-061**
**See Page M-7**

**Add a boot or overmold for environmental protection (Shown without boot)**

**Band-Master ATS® Micro Band Tool 601-101**
**See Page M-7**

These thread-on adapters are used with ***Band-Master ATS® Micro Band*** shield termination straps. Choose the smallest cable entry for your wire bundle. ***Straight Entry*** adapters are available in various lengths. ***Straight***, ***45°*** and ***90°*** adapters feature rotatable coupling nuts.

| How To Order | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **440MS135** | **M** | **08** | **07** | **-7** | **K** |
| **Series (See Table I)** | **440MS135** = Straight Entry<br>**440MK135** = 45° Entry<br>**440ML135** = 90° Entry | | | | | |
| **Shell Material and Finish** | **UCR** = Aluminum/Zinc Cobalt Black<br>**M** = Aluminum/Electroless Nickel<br>**NF** = Aluminum/Cadmium with Olive Drab<br>**ZNU** = Aluminum/Zinc-Nickel with Black Chromate<br>**MT** = Aluminum/Nickel-PTFE<br>**Z1** = Stainless Steel/Passivated | | | | | |
| **Shell Size Code** | **08**, **14**, **16** (See Dimensions Table) | | | | | |
| **Dash No.** | **04**, **05**, **06**, **07** (See Dash No. Table) | | | | | |
| **Length** | Applies to symbol "S", straight only<br>Length in .125 (3.18mm) inch increments (i.e. 7 = .875 inches) | | | | | |
| **Band Option** | **K** = Pre-coiled Band Supplied (601-061) **B**= Band Supplied (601-060) **Omit** for no band supplied | | | | | |

| Table I: Cover Style | | |
|---|---|---|
|  |  |  |
| **440MS135**<br>Straight Entry | **440MK135**<br>45° Entry | **440ML135**<br>90° Entry |

## NOTES

1. Standard Minimum Length is .75. applies to symbol "S" straight only.
2. Material and Finish
   - Band: 300 series SST
   - O-ring: silicone elastomer





© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 440-135 EMI/RFI, Rotatable Coupling, Shrink Boot Band Adapter for Series 801, 804 and 805 Mighty Mouse

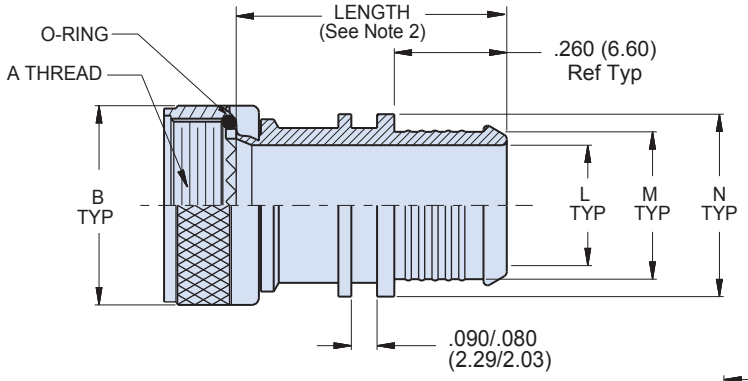


| Dimensions | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size Code | Shell Size Reference | | A Thread Class -2B | B Max | | C Max. | | D Max. | | E Max. | | F Max. | | Max Dash No. |
| | 801 & 804 | 805 | | In | mm | In | mm | In | mm | In | mm | In | mm | |
| 08 | 8 | 10 | 1/2-28 UNEF | .70 | 17.78 | .58 | 14.73 | .70 | 17.78 | .74 | 18.80 | .86 | 21.84 | 07 See Table I |
| 14 | 14,15,16,17 | 18,19 | 15/16-20 UNEF | 1.137 | 28.88 | .69 | 17.53 | .80 | 20.32 | .95 | 24.13 | 1.09 | 27.69 | |
| 16 | 19 | 21 | 1 1/16-18 UNEF | 1.230 | 31.24 | .71 | 18.03 | .82 | 20.83 | .98 | 24.89 | 1.13 | 28.70 | |

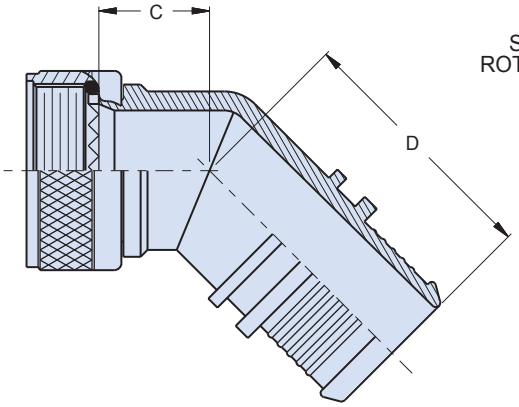
| Table I: Cable Entry and Band Platform Dimensions | | | | | | | |
|---|---|---|---|---|---|---|---|
| Dash No. | L Dia | | M Dia | | N Dia | | Straight Shrink Boot* |
| | in | mm | in | mm | in | mm | |
| 04 | .250 | 6.35 | .289 | 7.34 | .391 | 9.93 | 809S060-1L |
| 05 | .312 | 7.92 | .351 | 8.92 | .453 | 11.51 | 809S060-2L |
| 06 | .375 | 9.53 | .414 | 10.52 | .516 | 13.11 | 809S060-3L |
| 07 | .438 | 11.13 | .477 | 12.12 | .579 | 14.71 | 809S060-3L |

*** Shrink Boot MUST be ordered seperately.**

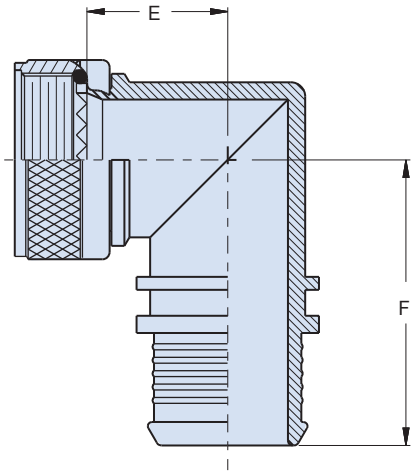
Shrink boot material:
compound 2013 low temperature polyolefin with W2 hot melt adhesive.




STRAIGHT ENTRY
ROTATABLE COUPLING
440MS135




45° ENTRY
ROTATABLE COUPLING
440MK135




90° ENTRY
ROTATABLE COUPLING
440ML135



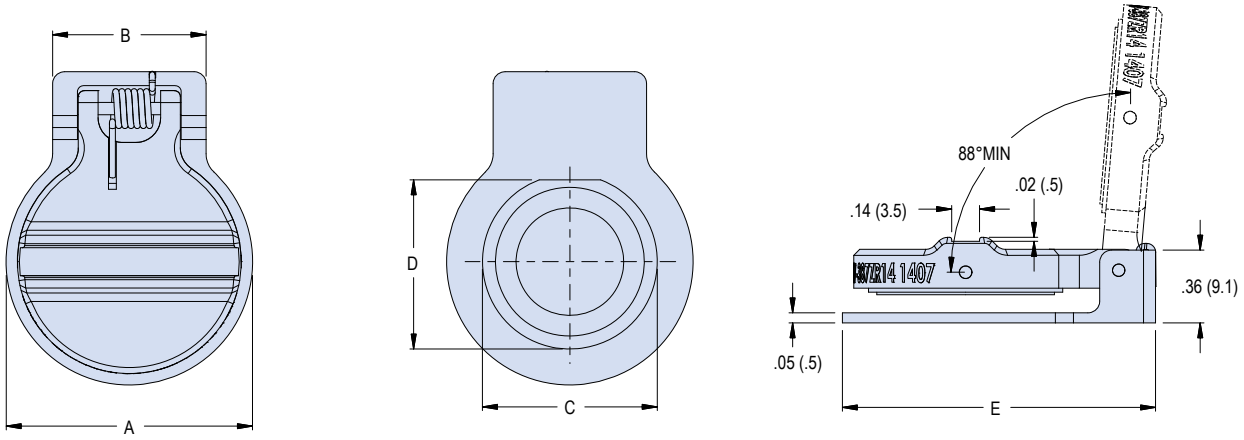
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 667-387 Spring Loaded Flop-Lid Cover for Series 804 Rear Panel Mount Jam Nut Connector



| How To Order | | | | | |
|---|---|---|---|---|---|
| **Sample Part Number** | | **667-387** | **NF** | **15** | **F0** |
| **Product Series-Basic No.** | **667-387** = Mighty Mouse Series 804 Flop-Lid Cover | | | | |
| **Material and Finish** | See Material and Finish Table | | | | |
| **Connector Shell Size** | See Dimensions Table | | | | |
| **Panel Thickness** | **1** = .063 ±.03 (1.60 ±.8) | **2** = .125 ±.03 (3.18 ±.8) | | | |

| Dimensions | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | A Dim) | | B Dim | | C Dia | | D Flat | | E Dim | |
| Shell Size | In | mm | In | mm | In | mm | In | mm | In | mm |
| 15 | 1.42 | 36.1 | .89 | 22.6 | 1.070 | 27.18 | 1.041/1.037 | 26.44/26.34 | 1.74 | 44.20 |




| Material and Finish | | |
|---|---|---|
| Sym | Material | Finish Descrition |
| M | Aluminum | electroless nickel |
| NF | | Cadmium with Olive Drab |
| ZN | | Zinc-Nickel with Olive Drab Chromate |
| ZNU | | Zinc-Nickel with Black Chromate |
| MT | | Aluminum / Nickel-PTFE |
| Z1 | SST | passivated |

## NOTES

1. Mates to Glenair 804 series rear mouning jam nut connectors
2. Hardware Material and finish
   - Housing, cover: see Material and Finish Table
   - Shaft, spring: cress/passivate
   - Sleeve: delrin
   - Gasket: silicone/NA





© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

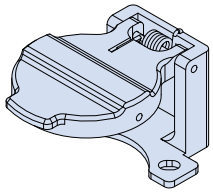
# 667-424 Spring Loaded Flop-Lid Cover for Series 805 Wall Mount and Jam Nut Connectors



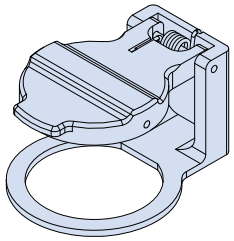
| How To Order | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **667-424** | **NF** | **18** | **T0** | **J** | **59** |
| **Product Series-Basic No.** | **667-424** = Mighty Mouse Series 805 Flop-Lid Cover | | | | | |
| **Material and Finish** | See Material and Finish Table | | | | | |
| **Connector Shell Size** | See Dimensions Table | | | | | |
| **Panel Thickness** | See Panel Thickness Table for Dash No. | | | | | |
| **Type of Mounting** | **J** = Jam Nut **W** = Wall Mount | | | | | |
| **Condutive Silicone** | Omit for Non-conductive **59** = Conductive Silicone | | | | | |

| Panel Thickness | | | | |
|---|---|---|---|---|
| Dash No | Panel Thickness | Shell Size | H Max Jam Nut Mount | H Max Wall Mount |
| T0 | .000 | 8-18 | N/A | .914 |
| | | 19-23 | N/A | .952 |
| T1 | .062 (See Note 1) | 8-18 | .993 | .852 |
| | | 19-23 | 1.031 | .890 |

| Dimensions | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Shell Size | A Dim | | B Dim | | C Dim | | D ±.002 (.05) | | E ±.031 (.79) | | F Dim ±.031 (.78) | | G Dim ±.031 (.78) | |
| | In | mm | In | mm | In | mm | In | mm | In | mm | In | mm | In | mm |
| 10 | 0.975 | 20.03 | 0.785 | 16.12 | 0.393 | 8.07 | 0.094 | 1.93 | 0.825 | 16.95 | 0.906 | 18.61 | 0.79 | 16.23 |
| 18 | 1.475 | 30.30 | 1.255 | 25.78 | 0.628 | 12.90 | 0.128 | 2.63 | 1.106 | 22.72 | 1.465 | 30.09 | 1.1 | 22.59 |
| 19 | 1.537 | 31.57 | 1.327 | 27.26 | 0.664 | 13.64 | 0.128 | 2.63 | 1.34 | 27.52 | 1.535 | 31.53 | 1.338 | 27.48 |
| 21 | 1.663 | 34.16 | 1.452 | 29.82 | 0.726 | 14.91 | 0.128 | 2.63 | 1.465 | 30.09 | 1.814 | 37.26 | 1.478 | 30.36 |

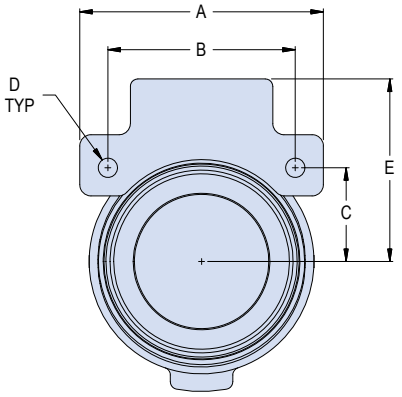


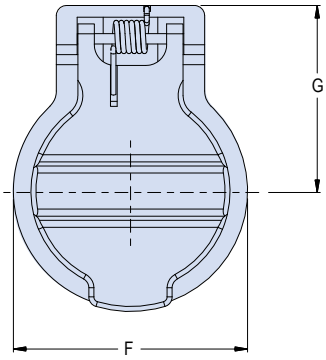
FOR WALL MOUNT RECEPTACLE

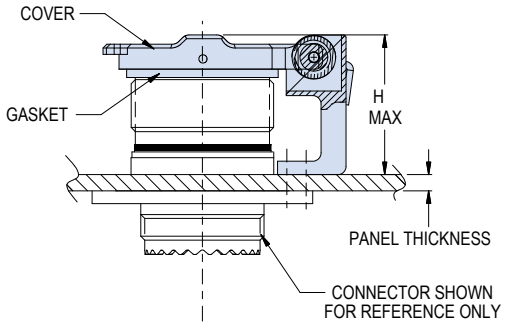


FOR JAM NUT MOUNT RECEPTACLE

| Material and Finish | | |
|---|---|---|
| Symbol | Material | Finish Description |
| M | Aluminum | Electroless nickel |
| NF | | Cadmium with Olive Drab |
| ZN | | Zinc-Nickel with Olive Drab Chromate |
| ZNU | | Zinc-Nickel with Black Chromate |
| MT | | Aluminum / Nickel-PTFE |
| Z1 | SST | passivated |




## NOTES

1. Cover Fits nominaly onto panel with .062 thickness, but will also work for panels as thin as .031
2. Hardware Material and finish
   - Cover: see Material and Finish Table
   - Spring: stainless steel/passivate
   - Sleeve: delrin
   - Gasket: silicone/NA



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 667-218 Receptacle Metal Protective Covers for Mighty Mouse Series 801 Connectors



**Protect Connectors From Damage** Machined aluminum covers have rubber gaskets for a watertight fit.

**Stainless Steel Fittings and Rings** Choose small diameter eye fittings for panel attachment. Larger rings fit under the jam nut or over cable jackets.

**Polyurethane-Coated SST Wire Rope** offers high strength, excellent abrasion resistance and good flexibility. Or, select a fluoropolymer jacket for high temperature exposure.

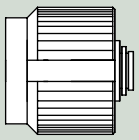
**Braided Nylon Rope** provides excellent flexibility and good abrasion resistance, and can be ordered with slip knot fittings for easy installation on any size cable.

**How To Order**

| Sample Part Number | 667-218 | -M | -G | 9 | 04 | -6 |
|---|---|---|---|---|---|---|

| | |
|---|---|
| **Series (See Table I)** | **667-218** = Receptacle Cover (see note 1) |
| **Material and Finish** | **M** = Aluminum/Electroless Nickel RoHS Compliant<br>**MT** = Aluminum/Nickel-PTFE RoHS Compliant<br>**NF** = Aluminum/Cadmium with Olive Drab Chromate<br>**ZNU** = Aluminum/Zinc-Nickel with Black Chromate<br>**Z1** = Stainless Steel/Passivated RoHS Compliant |
| **Attachment Type** | **D** = Bead Chain, CRES, Passivate<br>**G** = Nylon Rope<br>**N** = No Attachment<br>**S** = SST Sash Chain<br>**T** = SST Wire Rope, No Jacket<br>**F** = Wire Rope, Nylon Jacket<br>**H** = SST Wire Rope, Fluropolymer Jacket<br>**R** = Wire Rope, PVC Jacket<br>**SK** = Nylon Rope With Slip Knot<br>**U** = SST Wire Rope, Polyurethane Jacket<br>"SST" = Stainless Steel |
| **Shell Size** | **8**, **16**, **17**, **19** |
| **Attachment Code (See Table II)** | Small Ring (Attached to Panel)= **01** thru **06**<br>Solid Ring (Rear Panel Mount Jam Nut Application) = **14** thru **33** |
| **Attachment Length (inches)** | Omit for attachment Type N (No Attachment) Example "-6" equals six inch length |

**Table I: Cover Style**



**667-218**
Receptacle Cover

## NOTES

1. For plug covers contact factory
2. Material and Finish
   - Cover: Aluminum alloy or stainless steel
   - Gasket: Fluorosilicone rubber
   - Wire,Hardware: Stainless steel, passivated



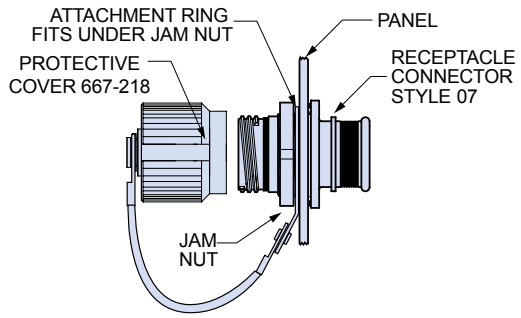


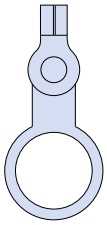
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 667-218 Receptacle Metal Protective Covers for Mighty Mouse Series 801 Connectors



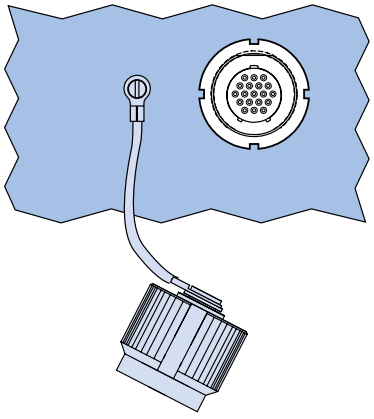
## 667-218 Cover Attachment for RPM Jam Nut Receptacle

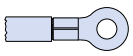




Solid Ring

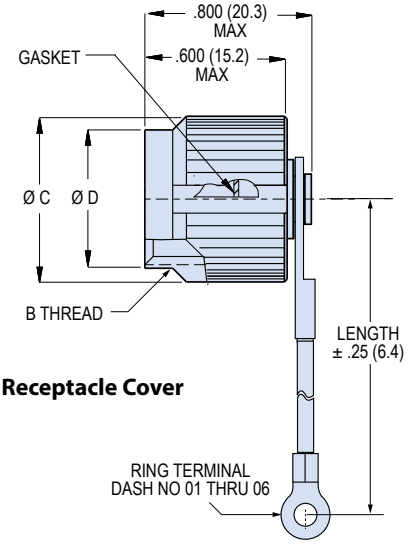
| Attchmt Code | Shell Size | Ring I.D. In. ± .010 | Ring I.D. mm. ±0.25 | Ring O.D. In. ± .015 | Ring O.D. mm. ± 0.38 |
|---|---|---|---|---|---|
| 16 | 8 | .570 | 14.48 | .69 | 17.40 |
| 20 | 16 | 1.070 | 27.17 | 1.20 | 30.35 |

## 667-218 Cover Attachment to a Panel with a Screw




Small Ring for Attaching Receptacle Covers to a Panel with a Screw

| Attchmt Code | Screw Size | Ring I.D. In. ±.005 | Ring I.D. mm. ±0.13 | Ring O.D. In. Max. | Ring O.D. mm. Max. |
|---|---|---|---|---|---|
| 01 | #4, M3 | .126 | 3.20 | .31 | 7.9 |
| 02 | #6 | .145 | 3.68 | .31 | 7.9 |
| 04 | #8, M4 | .188 | 4.78 | .31 | 7.9 |
| 06 | #10 | .197 | 5.00 | .31 | 7.9 |




**667-218 Receptacle Cover**

| Shell Size | Ø A Max. In. | Ø A Max. mm. | Ø B Max. In. | Ø B Max. mm. | Ø D Max. In. | Ø D Max. mm. | C Thread |
|---|---|---|---|---|---|---|---|
| 8 | .653 | 16.6 | .675 | 17.15 | .587 | 14.9 | .5000-.05-.1L |
| 16 | 1.150 | 29.2 | 1.261 | 32.03 | 1.092 | 27.7 | 1.000-.1P-.2L |

## Lanyard Options

| | |
|---|---|
| Nylon Rope | -65° to +100°C., black, very flexible, very good abrasion resistance, good resistance to fuels, .120" (3mm) diameter |
| Polyurethane Coated Wire Rope | Black polyurethane over stainless steel rope, -65° to +125°C., very flexible, excellent abrasion resistance, excellent resistance to fuels, .080" (2mm) diameter |
| Fluoropolymer Jacketed Wire Rope | Translucent FEP jacket over stainless steel, -65° to +200°C., fair flexibility, good abrasion resistance, .100" diameter |
| Sash Chain | Stainless steel, #8 chain, .240" (6mm) |
| Slip Knot (SK) for Attaching Covers to Cable | 65° to +100°C., black, very flexible, very good abrasion resistance, good resistance to fuels, .120" (3mm) diameter. Length includes .5" (13mm) diameter loop. |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 667-202 Receptacle Metal Protective Cover for Mighty Mouse Series 804 connectors



**Protect Connectors From Damage**
Machined aluminum covers prevent ingress of contamination and water.

**Stainless Steel Fittings and Rings**
Choose small diameter eye fittings for panel attachment. Larger rings fit under the jam nut or over cable jackets. Split rings can be installed on fully assembled cables.

**Polyurethane-Coated SST Wire Rope** offers high strength, excellent abrasion resistance and good flexibility. Or, choose Fluoropolymer® jacket for high temperature exposure.

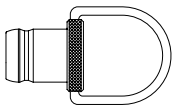
**Braided Nylon Rope** provides excellent flexibility and good abrasion resistance, and can be ordered with slip knot fittings for easy installation on any size cable.

**How To Order**

| Sample Part Number | 667-202 | M | 8 | H | 6 | -14 | R |
|---|---|---|---|---|---|---|---|

| | |
|---|---|
| **Series (See Table I)** | **667-202** = Receptacle Cover (see note 1) |
| **Shell Material / Finish** | **M** = Aluminum/Electroless Nickel RoHS Compliant<br>**NF** = Aluminum/Cadmium with Olive Drab Chromate<br>**ZNU** = Aluminum/Zinc-Nickel with Black Chromate<br>**MT** = Aluminun/Nickel-PTFE RoHS Compliant<br>**Z1** = Stainless Steel/Passivated RoHS Compliant |
| **Shell Size** | **8**, **10**, **14**, **15**, **16** |
| **Attachment Type** | **D** = Bead Chain, CRES, Passivate<br>**G** = Nylon Rope<br>**N** = No Attachment<br>**S** = SST Sash Chain<br>**T** = SST Wire Rope, No Jacket<br>**F** = Wire Rope, Nylon Jacket<br>**H** = SST Wire Rope, Fluoropolymer Jacket<br>**R** = Wire Rope, PVC Jacket<br>**SK** = Nylon Rope With Slip Knot<br>**U** = SST Wire Rope, Polyurethane Jacket<br>"SST" = Stainless Steel |
| **Attachment Length (inches)** | Omit for attachment Type N (No Attachment) Example: "-6" equals six inch length |
| **Attachment Code (See Table II)** | Small Ring = **01** thru **06**<br>Large Ring = **28** thru **30** |
| **Pull Ring Option** | **R** = Supplied with Pull Ring (Omit for none) |

**Table I: Cover Style**



**667-202**
Push Pull Receptacle Cover with Pull Ring

## NOTES

1. For plug covers contact factory
2. Material and Finish
   - Cover: Aluminum alloy or stainless steel
   - Hardware: Stainless steel, passivate



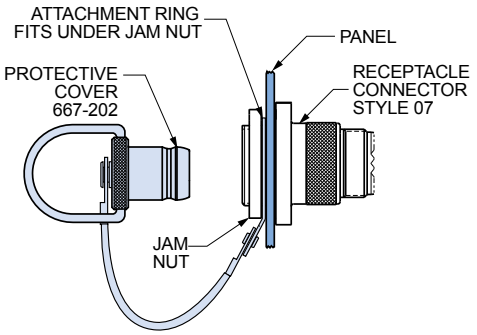


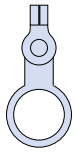
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 667-202 Receptacle Metal Protective Cover for Mighty Mouse Series 804 Connectors

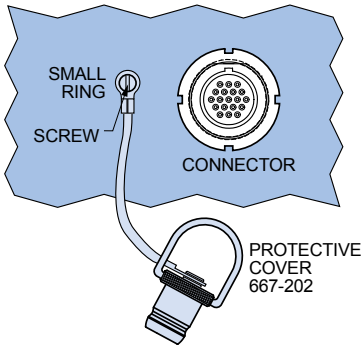


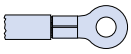
## 667-202 Cover Attachment to RPM Jam Nut Receptacle

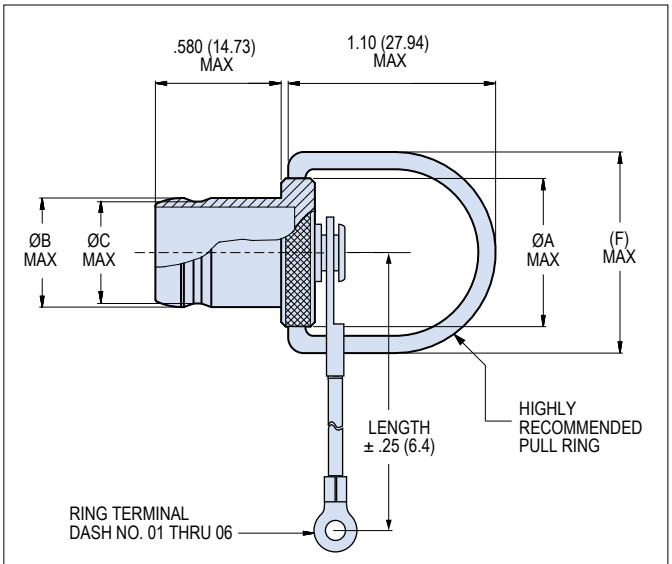



| | Dia. Code | Shell Size | Ring I.D. In. ± .010 | Ring I.D. mm. ±0.25 | Ring O.D. In. ± .015 | Ring O.D. mm. ± 0.38 |
|---|---|---|---|---|---|---|
|  Large Ring | 28 | 14, 15 | 1.015 | 25.78 | 1.20 | 30.48 |
| | 21 | 14, 15 | 1.135 | 28.8 | 1.25 | 31.8 |
| | 30 | 16 | 1.380 | 35.1 | 1.48 | 37.6 |

## 667-202 Cover Attachment to Panel




| | Dia. Code | Screw Size | Ring I.D. In. ±.005 | Ring I.D. mm. ±0.13 | Ring O.D. In. Max. | Ring O.D. mm. Max. |
|---|---|---|---|---|---|---|
|  Small Ring for Attaching Receptacle Covers to a Panel with a Screw | 01 | #4, M3 | .126 | 3.20 | .31 | 7.9 |
| | 02 | #6 | .145 | 3.68 | .31 | 7.9 |
| | 04 | #8, M4 | .188 | 4.78 | .31 | 7.9 |
| | 06 | #10 | .197 | 5.00 | .31 | 7.9 |




**Dimensions**

| Shell Size | Ø A Max. In | Ø A Max. mm | Ø B In | Ø B mm | Ø C In | Ø C mm | (F) Max In | (F) Max mm |
|---|---|---|---|---|---|---|---|---|
| 8 | .614 | 15.60 | .414 | 10.52 | .383 | 9.73 | .87 | 22.10 |
| 10 | .773 | 19.63 | .548 | 13.92 | .513 | 13.03 | 1.03 | 26.16 |
| 14 | .980 | 24.89 | .781 | 19.84 | .749 | 19.02 | 1.23 | 31.24 |
| 15 | 1.045 | 26.54 | .843 | 21.41 | .811 | 20.60 | 1.30 | 33.02 |
| 16 | Contact Factory | | | | | | | |

## Lanyard Options

| | |
|---|---|
| Nylon Rope | -65° to +100°C., black, very flexible, very good abrasion resistance, good resistance to fuels, .120" (3mm) diameter |
| Polyurethane Coated Wire Rope | Black polyurethane over stainless steel rope, -65° to +125°C., very flexible, excellent abrasion resistance, excellent resistance to fuels, .080" (2mm) diameter |
| Fluoropolymer Jacketed Wire Rope | Translucent FEP jacket over stainless steel, -65° to +200°C., fair flexibility, good abrasion resistance, .100" diameter |
| Sash Chain | Stainless steel, #8 chain, .240" (6mm) |
| **Slip Knot (SK)** for Attaching Covers to Cable | 65° to +100°C., black, very flexible, very good abrasion resistance, good resistance to fuels, .120" (3mm) diameter. Length includes .5" (13mm) diameter loop. |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 667-262 Receptacle Metal Protective Covers for Mighty Mouse Series 805

*Receptacle Cover*

**Protect Connectors From Damage** Machined aluminum or stainless steel protective covers have fluorosilicone gasket for a watertight fit.

**Stainless Steel Fittings and Rings** Choose small diameter eye fittings for panel attachment. Larger rings fit under the jam nut or over cable jackets. Split rings can be installed on fully assembled cables.

**Polyurethane-Coated SST Wire Rope** provide resistance and good flexibility. Or, choose a Fluoropolymer jacket for high temperature exposure.

**Braided Nylon Rope** provides excellent flexibility and good abrasion resistance, and can be ordered with slip knot fittings for easy installation on any size cable.

| How To Order | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | | 667-262 | -M | -G | 10 | 04 | -6 |
| **Series (See Table I)** | 667-262 = Receptacle Cover (see note 1) | | | | | | |
| **Shell Material / Finish** | M = Aluminum/Electroless Nickel RoHS Compliant<br>NF = Aluminum/Cadmium with Olive Drab Chromate<br>ZNU = Aluminum/Zinc-Nickel with Black Chromate<br>MT = Aluminun/Nickel-PTFE RoHS Compliant<br>Z1 = Stainless Steel/Passivated RoHS Compliant | | | | | | |
| **Attachment Type** | D = Bead Chain, CRES, Passivate<br>F = Wire Rope, Nylon Jacket<br>G = Nylon Rope<br>H = SST Wire Rope, Fluoropolymer Jacket<br>N = No Attachment<br>R = Wire Rope, PVC Jacket<br>S = SST Sash Chain<br>SK = Nylon Rope With Slip Knot<br>T = SST Wire Rope, No Jacket<br>U = SST Wire Rope, Polyurethane Jacket<br>"SST" = Stainless Steel | | | | | | |
| **Shell Size** | 10, 18, 19, 21 | | | | | | |
| **Attachment Code (See Table II)** | Small Ring = 01 thru 06<br>Large Ring = 18 thru 30 | | | | | | |
| **Attachment Length (inches)** | Omit for attachment Type N (No Attachment)<br>Example "-6" equals six inch length | | | | | | |

**Table I: Cover Style**

667-262
Receptacle Cover

## NOTES

1. For plug covers contact factory
2. Material and Finish
   - Gasket: Fluorosilicone rubber
   - Wire, Hardware: Stainless steel, passivated

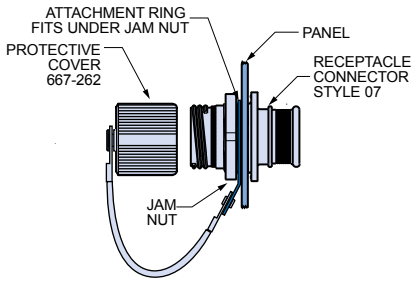


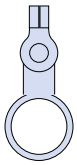
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# 667-262 Receptacle Metal Protective Covers for Mighty Mouse Series 805



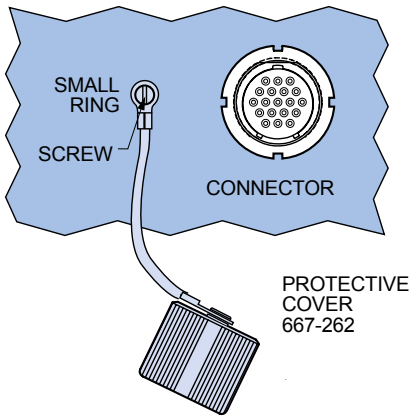
## 667-262 Cover Attachment to RPM Jam Nut Receptacle

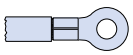




Solid Ring

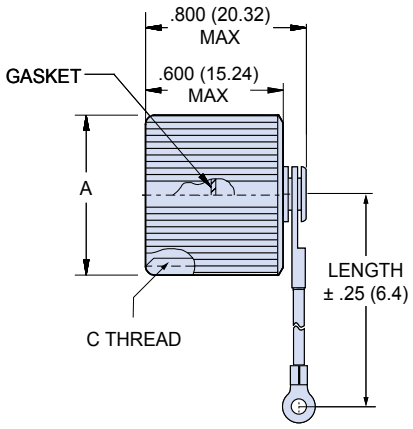
| Attchmt Code | Shell Size | Ring I.D. In. ± .010 | Ring I.D. mm. ±0.25 | Ring O.D. In. ± .015 | Ring O.D. mm. ± 0.38 |
|---|---|---|---|---|---|
| 18 | 10 | .695 | 17.65 | .82 | 20.83 |
| 22 | 18 | 1.210 | 30.73 | 1.31 | 33.27 |
| 23 | 19 | 1.275 | 32.39 | 1.37 | 34.80 |
| 30 | 21 | 1.380 | 35.05 | 1.48 | 37.59 |

## 667-262 Cover Attachment to Panel





Small Ring for Attaching Receptacle Covers to a Panel with a Screw

| Attchmt Code | Screw Size | Ring I.D. In. ±.005 | Ring I.D. mm. ±0.13 | Ring O.D. In. Max. | Ring O.D. mm. Max. |
|---|---|---|---|---|---|
| 01 | #4, M3 | .126 | 3.20 | .31 | 7.9 |
| 02 | #6 | .145 | 3.68 | .31 | 7.9 |
| 04 | #8, M4 | .188 | 4.78 | .31 | 7.9 |
| 06 | #10 | .197 | 5.00 | .31 | 7.9 |




## Dimensions

| Shell Size | A In. | A mm. | B Thread | C Thread |
|---|---|---|---|---|
| 10 | .778 | 19.76 | .6250-.1P-.3L-TS-2A | .6250-.1P-.3L-TS-2B |
| 18 | 1.278 | 32.46 | 1.1250-.1P-.3L-TS-2A | 1.1250-.1P-.3L-TS-2B |
| 19 | 1.340 | 34.04 | 1.1870-.1P-.3L-TS-2A | 1.1870-.1P-.3L-TS-2B |
| 21 | 1.490 | 37.85 | 1.3125-.1P-.3L-TS-2A | 1.3125-.1P-.3L-TS-2B |

## Lanyard Options

| | |
|---|---|
| Nylon Rope | -65° to +100°C., black, very flexible, very good abrasion resistance, good resistance to fuels, .120" (3mm) diameter |
| Polyurethane Coated Wire Rope | Black polyurethane over stainless steel rope, -65° to +125°C., very flexible, excellent abrasion resistance, excellent resistance to fuels, .080" (2mm) diameter |
| Fluoropolymer Jacketed Wire Rope | Translucent FEP jacket over stainless steel, -65° to +200°C., fair flexibility, good abrasion resistance, .100" diameter |
| Sash Chain | Stainless steel, #8 chain, .240" (6mm) |
| Slip Knot (SK) for Attaching Covers to Cable | 65° to +100°C., black, very flexible, very good abrasion resistance, good resistance to fuels, .120" (3mm) diameter. Length includes .5" (13mm) diameter loop. |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog

Dimensions in Inches (millimeters) are subject to change without notice.

RJ45/USB SUPER SEAL™

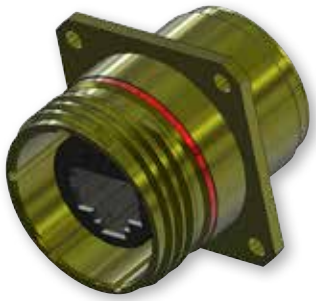
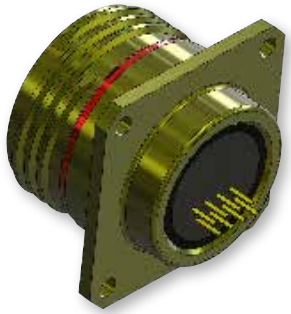
# Coming Soon SuperSeal™ RJ45 CAT 6A ETHERNET CONNECTORS

RJ45 Cat 6a MIL-DTL-38999 Series III Type Wall-Mount Receptacle and Plug

## *High performance, proven reliability environmental connectors housing RJ45 interfaces for mission-critical data transfer applications*

- **Superior sealing—IP67 minimum in unmated condition—for complete system protection against harsh elements**
- **Advanced thru-coupler grounding for superior electrostatic discharge and EMC**
- **Crimp, solder-cup, PC tail, quadrax, and compliant pin contact variations**
- **Scoop proof, self-locking, triple-start threaded coupling design of MIL-DTL-38999 Series III type connectors**
- **RJ45 cordsets with multiple length options available**
- **Integrated banding platform options for easy cable termination and EMI/RFI shielding**
- **Optional spring loaded protective covers for sand, dust, and mechanical protection of junction boxes and switches**
- **RJ45 plug and/or jack interfaces**
- **High Data Transfer Rates: 10GBase**

**SuperSeal™ MIL-DTL-38999 Type RJ45 Connector Selection Guide**

| | | | |
|---|---|---|---|
| |  | |  |
| MIL-DTL-38999 Series III Type Plug Connectors with sealed RJ45 Plug (mated condition) Ethernet interfaces in a two piece coupler design. Easy field termination with Metal Gland backshell or shrink boot sealing options. | MIL-DTL-38999 Series III Type Receptacle Connectors with sealed RJ45 Jack-to-Jack Ethernet interfaces in a one piece coupler design. Metal Gland backshell and spring loaded protective covers available. | MIL-DTL-38999 Series III Type Receptacle Connectors with AS39029 crimp rear-release size #22D contacts | MIL-DTL-38999 Series III Type Receptacle Connectors with sealed RJ45 Jack interface and AS39029 rear-release crimp or solder cup #22D contacts. Size 22 Compliant Pin contacts, Quadrax Contacts or #22 PC Tail contacts also available. |



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal™ Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

| Test Description | SuperSeal MIL-DTL-38999 Series III RJ45 Performance Requirements/Specifications | Procedure Per MIL-DTL-38999 and TIA/EIS-568-B.2 |
|---|---|---|
| Contact Resistance | Connecting hardware shall conform to A.2; a thru c of TIA/EIA-568-B.2 per IEC 60512-2, Test Method 2A, millivolt level method (shall not exceed 0.025 ohms and 0.050 ohms during subsequent tests | TIA/EIA-568-B.2, Section A.2 IAW IEC 60512-2, Test method 2A |
| Insulation Resistance | Per IEC 60512-2, Test 3a, Method C, test voltage 500 VDC (Insulation Resistance minimum of 100 Ohm) | IAW IEC 60512-2, Test Method 2A |
| Mating Durability | 500 to 1000 cycles (finish dependent) with no mechanical damage. Contact Resistance requirement as described above shall be met at 0.050 ohms after 100, 200 and 250 cycles (and 500 per finish). This shall be performed before Thermal Shock and Humidity/ Temperature cycling test and the additional 250 cycles shall be testing after completion in the same manner. | 4.5.8 IAW TIA/EIA-568-B.2 |
| Contact Retention | Individual contacts capable of withstanding at least 10 pounds axial load applied uniformly 1 lb/sec | IAW EIA-364-29 |
| Vibration | Per MIL-DTL-38999 Series III Condition VI Letter J; Sine: 10 to 2,000 Hz each of three mutually perpendicular axis total of 36 hours (4 hours each ambient, -40ºC and +85ºC temperatures) Random: 43.9 rms g's random vibration 16 hours (8 hours longitudinal and perpendicular direction). No electrical discontinuity. | 3.27 Sine 4.5.23.3 & 4.5.23.4 Random 4.5.23.1 IAW EIA-364-28 |
| Shock | 100 mA max with no discontinuities excess of 1 microsecond. Standard: Per EIA-364-27 – half sine wave @ 300 G. High Impact: Per MIL S 901, Grade A. | 4.5 IAW EIA-364-27 IAW MIL S 901 |
| Thermal Shock | Per IEC 60068-2-14 Test Number Nb. • Temperature range -40 - +85ºC ± 2ºC • Exposure Time: 30 min. • Number of Cycles: 100 • Test Group B contacts shall be inspected and contact resistance measured after 50 cycles and at completion of est. These specimens shall be used for humidity/thermal cycling testing. | TIA/EIA-568-B.2, A.7 IAW IEC 60068-2-14, Test Number Nb |
| Humidity/ Temperature Cycling | EIA-364-31 with exceptions b, d & e; EIA 364-32 Test Condition A, except steps 2 & 4 shall be 2 minutes max duration; Humidity/Temperature: TIA/EIA-568-B.2, A.8 per IEC 60068-2-38; Temperature for step 1 shall be -45 +0/-5ºC. • Temperature for step 3 shall be 85 +5/-0ºC Exposure Time: 30 min. • Number of Cycles: 100 No blistering, peeling or separation of the plating or other damage detrimental to operation of connector | 4.5.11.1 or 4.5.11.2 4.5.13 IAW EIA-364-31,Method IV with temperature exceptions; IAW EIA-364-32, Test cond. A; IAW IEC 60068-2-14, Test Method Z/AD |
| Salt Spray | 5% solution, 34º-36ºC. 48-1000 hours, depending on finish. Unmated connectors show no lifting of plated coating or exposure of basis material under 3X magnification which adversely affects performance. | 4.5.13 IAW EIA-364-26 |
| Water Immersion | 1 Meter for 1 hour, Unmated | MIL-STD-810 method 512 |
| EMI Shielding | Per IEC 60603-7, 1 MHz to 1000 MHz with effectiveness of 22 dB. | 4.5.28 EIA-364-66 |
| Fluid Resistance | Per EIA-364-10 unmated connector shall not experience any damage detrimental to performance after immersion in fluid. | 4.5.30 IAW EIA-364-10 |

**MIL-DTL-38999 Connector and Cable Assembly Material and Finish Codes**

| Code | Material | Finish | Finish Specification | Hrs. Salt Spray | Electrical Conductivity | Operating Temp. Range | RoHS Compliance |
|---|---|---|---|---|---|---|---|
| ME | Aluminum | Electroless Nickel | MIL-DTL-24308 Class K | 96 | Yes | | Yes |
| MT | Aluminum | Nickel PTFE | SAE AMS2454 | 500 | Yes | -65° to +175°C | Yes |
| NF | Aluminum | Cadmium, Olive Drab | SAE-AMS-QQ-P-416 Type II Class 2 over electroless nickel | 500 | Yes | -65 to +175°C | No |
| ZR | Aluminum | Zinc-Nickel, Black | ASTM B841 Grade 5 over electroless nickel | 500 | Yes | -65 to +175°C | Yes |

| MIL-DTL-38999 RJ45 Cat6a Electrical Specs for Plug & Receptacle | |
|---|---|
| Rating | Category 6a |
| Data rate | 10GBase |
| Voltage rating | 1000 Volts |
| Current rating | 1.5 Amps (max) |
| Frequency | 500 MHz (max) |
| Wiring | Straight through |
| Shield continuity | Continuous thru-coupler |
| Cable length | 100 M (max) |

Glenair®

For more information contact Glenair at **818-247-6000** or visit our website at **www.glenair.com**
U.S. CAGE code 06324

*HDMI 2.0 CONNECTORS*

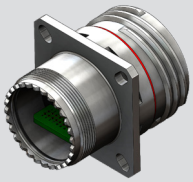
# MIL-DTL-38999 Series III Type Connectors

## Product selection guide

N

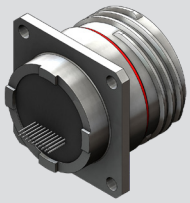
**233-360** E-2

SuperSeal™ HDMI 2.0 Type A Panel Mount Couplers with Accessory Threads



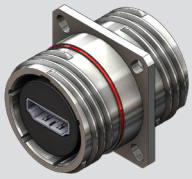
**233-364** E-9

SuperSeal™ HDMI 2.0 Type A Panel Mount Couplers with Break-out Board



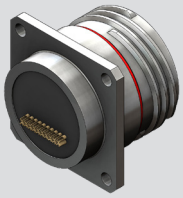
**233-362** E-5

SuperSeal™ HDMI 2.0 Type A Panel Mount Couplers with PC Tails



**233-365** E-12

SuperSeal™ HDMI 2.0 Type A Panel Mount Feed-thru Couplers



**233-363** E-7

SuperSeal™ HDMI 2.0 Type A Panel Mount Couplers with Solder Cups

**233-368** E-14

SuperSeal™ HDMI 2.0 Type A Plug Adapter


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

*SERIES 23*

# SuperSeal™

## HDMI 2.0 Ruggedized solutions

SuperSeal is part of the SuperNine family of 38999 Type connectors featuring improved sealing and grounding capabilities to house commercial HDMI 2.0 interfaces. All superseal connectors are IP68 rated in the mated condition and IP67 rated in the unmated. HDMI 2.0 is the defacto standard for transmission of high-definition video signals from an HDMI-source to compatible monitors or video projectors. A ruggedized solution for C4ISR mobile field applications, SuperSeal HDMI 2.0 connectors provide military grade connector performance including metal-to-metal grounding, polarization keying, and non-corrosive conductive material and finish options. The HDMI 2.0 protocol supports audio/video data transmission rate of 18.0 Gbit/s and a maximum data rate of up to 14.4 Gbit/s and allows for simple plug-and-play connectivity and *hot-swappable* addition of external peripherals without restarting systems.

- **Superior sealing—IP67 unmated—for complete system protection against water, sand and dust**
- **Highly durable SuperSeal™ insert design, provides enhanced operating temperature, increased life-cycle, and rugged vibration and shock performance**
- **Crimp, solder-cup, PC tail, break-out board, feed-thru and cable assembly designs available**



© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Catalog Title
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

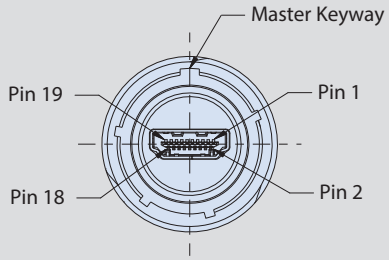
## HDMI 2.0 Performance Specifications



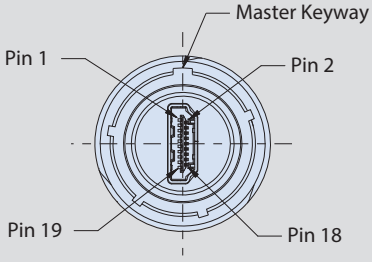
| HDMI 2.0 Performance Specifications | |
|---|---|
| **Property** | **MIL-DTL-38999 Series III Type** |
| **Material and Finish** | |
| **Shell/Coupling and Plating** | Complete list of finishes is available in Section A of the SuperSeal catalog |
| **Contacts** | Copper alloy/gold plate |
| **HDMI Insulator** | LCP |
| **Grommet, Peripheral Seal, Interfacial Seal, O-ring** | Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988 |
| **Shell Size** | 17<br>Consult factory for other shell size options |
| **Electrical Specifications** | |
| **Data Rate** | Up to 18 Gbps |
| **Power Usage** | +5.0 volts |
| **Current Rating** | 0.3 Amps min. |
| **D.W.V.** | 300 VAC |
| **I.R.** | 100 Mega Ohms min |
| **Cabling Length** | 10 Meters Max (recommended) |
| **Shielding** | Continuous through coupler or continuous coupler to shell |
| **Environmental/Mechanical Performance** | |
| **Sealing** | IP67 unmated<br>IP68 mated |
| **Outgassing** | **Mod Code 186S** meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability<br>**Mod Code 928** meets outgassing requirements per UL 94 V-0 |
| **Operating Temperature** | -20°C to +85°C |
| **Backshell Interface** | MIL-DTL-38999 Designator H |
| **Mating System** | Triple-start stub ACME |
| **Mating Cycles** | 500 |

## HDMI 2.0 CONNECTOR ORIENTATION OPTIONS

### Receptacle

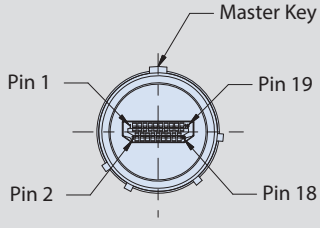



Horizontal

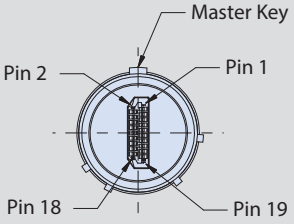



Vertical

### Plug




Horizontal




Vertical

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-360 Panel mount couplers with accessory threads

| Part Number Development | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-360** | **NF** | **00** | **-17** | **N** | **H** |
| **Basic Number** | **233-360** | | | | | |
| **Finish** | See Material and Finish table | | | | | |
| **Connector Style**[1] | See Connector Style table | | | | | |
| **Shell Size** | **17** | | | | | |
| **Alternate Key Position**[1] | **A**, **B**, **C**, **D**, **E**, **N** = Normal per MIL-DTL-38999 | | | | | |
| **HDMI Orientation** | **H** = Horizontal **V** = Vertical | | | | | |
| **Shrink Boot** | **T** = Part No. 770-028 (Omit for None) | | | | | |

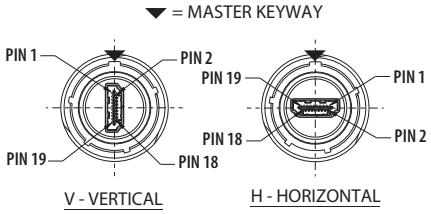
| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Alumimun/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |
| **AB** | Marine Bronze |
| **XM** | Composite/Electroless Nickel |

Additional material / finish options available consult factory

| Connector Style | |
|---|---|
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with thru-holes |
| **CM** | Wall mount receptacle with metric clinch nuts |
| **CS** | Wall mount receptacle with standard clinch nuts |
| **07** | Rear panel mount, jam nut receptacle |
| **05** | Inline receptacle |

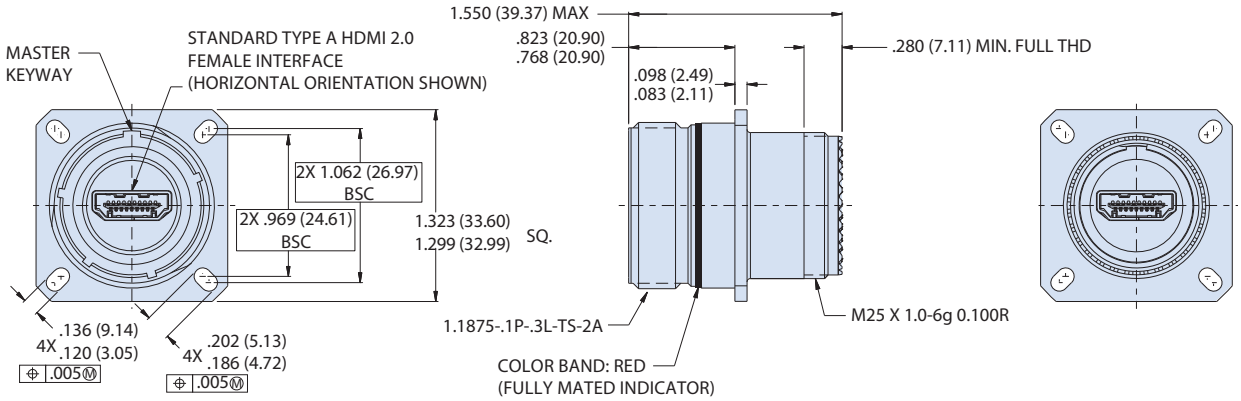
### HDMI 2 FEMALE ORIENTATION OPTIONS

(PARTIAL FRONT VIEWS SHOWN)




***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES



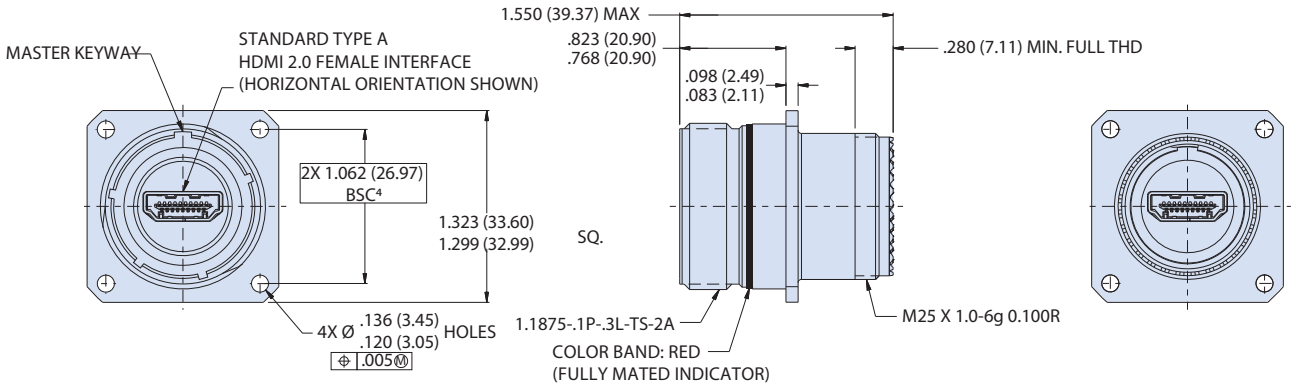

### NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. HDMI Type A female port, front and back
4. Front panel mount only
5. Material and Finish
   - Shell, jam nut: see material finish table
   - Seals: silicone based elastomer
   - Hardware: stainless steel/passivated
6. HDMI:
   - Housing: thermoplastic/NA
   - Shell: copper alloy nickel plated
   - Terminal: copper alloy/gold plated
7. HDMI performance: design meets HDMI 2.0 protocol requirement including 18Gbps of bandwidth and suppots 4K resolution and 60Hz

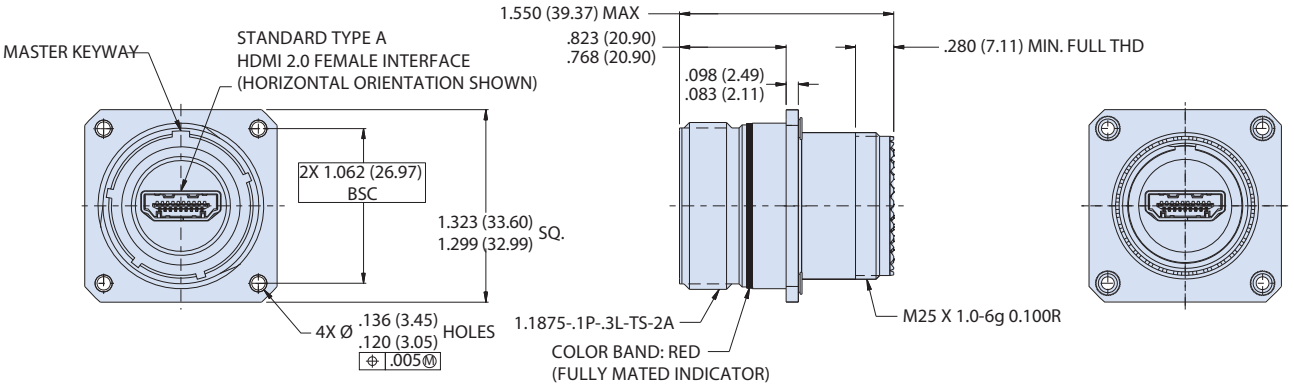


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Catalog Title
Dimensions in Inches (millimeters) are subject to change without notice.

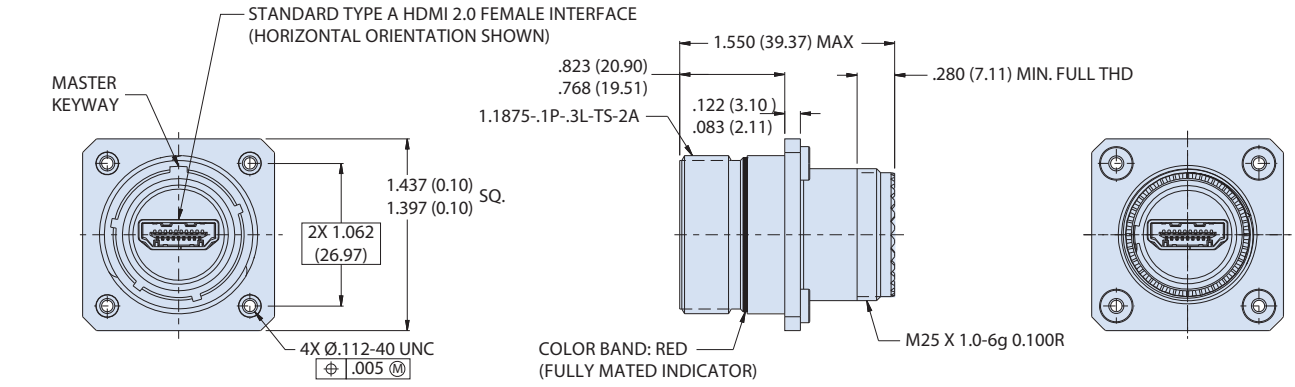
## DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES




## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS



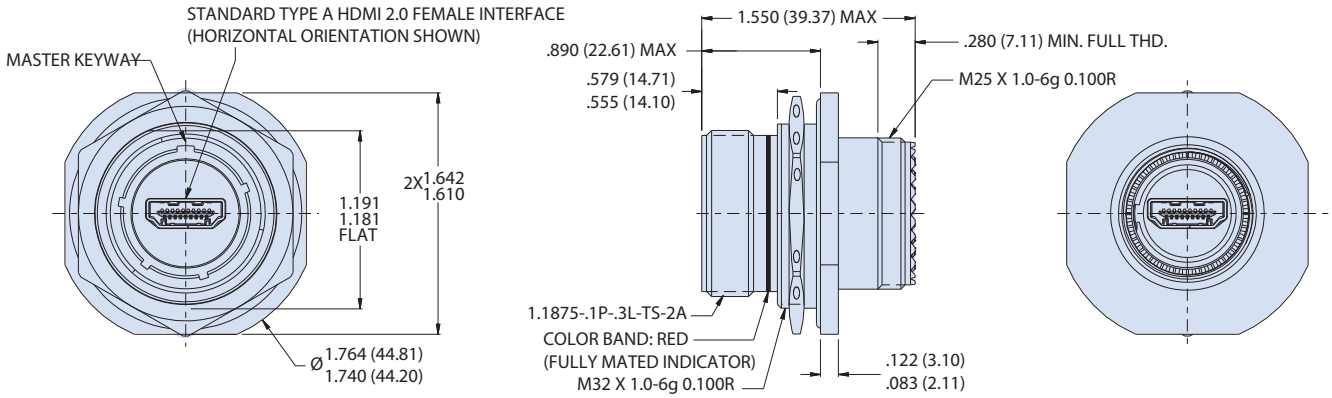

## CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS



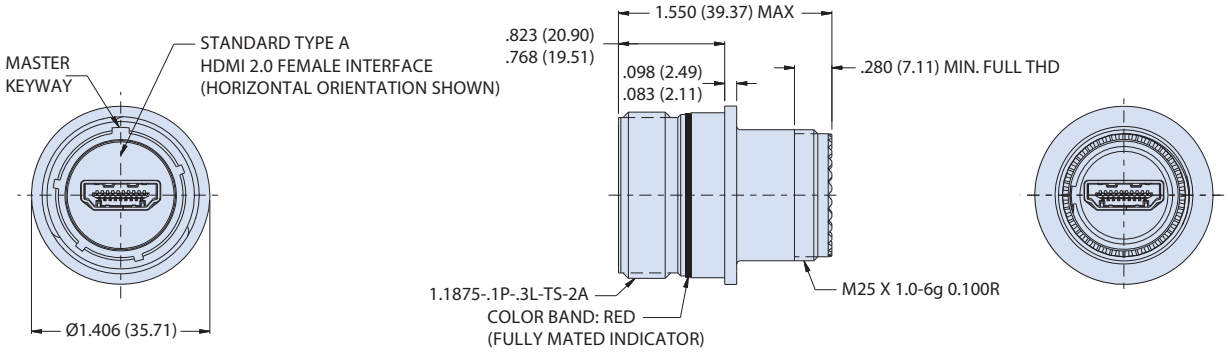

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

N

## 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE




## 05 - CABLE RECEPTACLE



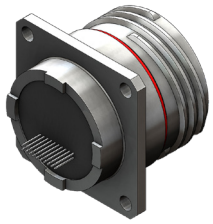


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Catalog Title
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-362 Panel mount receptacles with PC tails

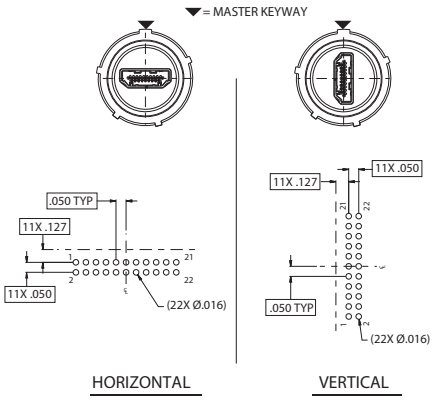




| Part Number Development | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-362** | **NF** | **00** | **-17** | **N** | **H** | |
| **Basic Number** | **233-362** | | | | | | |
| **Finish** | See Material and Finish table | | | | | | |
| **Connector Style[1]** | See Connector Style table | | | | | | |
| **Shell Size** | **17** | | | | | | |
| **Alternate Key Position[1]** | **A**, **B**, **C**, **D**, **E**, **N** = Normal per MIL-DTL-38999 | | | | | | |
| **HDMI Orientation** | **H** = Horizontal **V** = Vertical | | | | | | |
| **Shrink Boot** | **T** = Part No. 770-028 (Omit for None) | | | | | | |

### HDMI 2 FEMALE ORIENTATION OPTIONS

PCB LAYOUT (SOLDER SIDE)



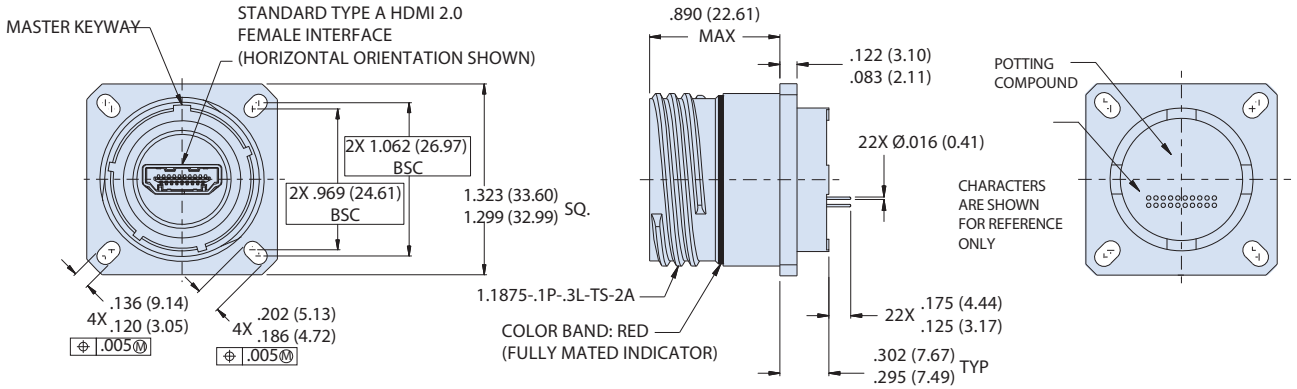

| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Alumimun/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |
| **AB** | Marine Bronze |
| **XM** | Composite/Electroless Nickel |

Additional material / finish options available consult factory

| Connector Style | |
|---|---|
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with thru-holes |
| **CM** | Wall mount receptacle with metric clinch nuts |
| **07** | Rear panel mount, jam nut receptacle |

***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES




### NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. HDMI Type A female port, front and back
4. Front panel mount only
5. Material and Finish
   - Shell, jam nut: see material/finish table
   - Seals: silicone based elastomer
   - Hardware: stainless steel/passivated
6. HDMI:
   - Housing: thermoplastic/NA
   - Shell: copper alloy nickel plated
   - Terminal: copper alloy/gold plated
7. HDMI performance: design meets HDMI 2.0 protocol requirement including 18Gbps of bandwidth and suppots 4K resolution and 60Hz

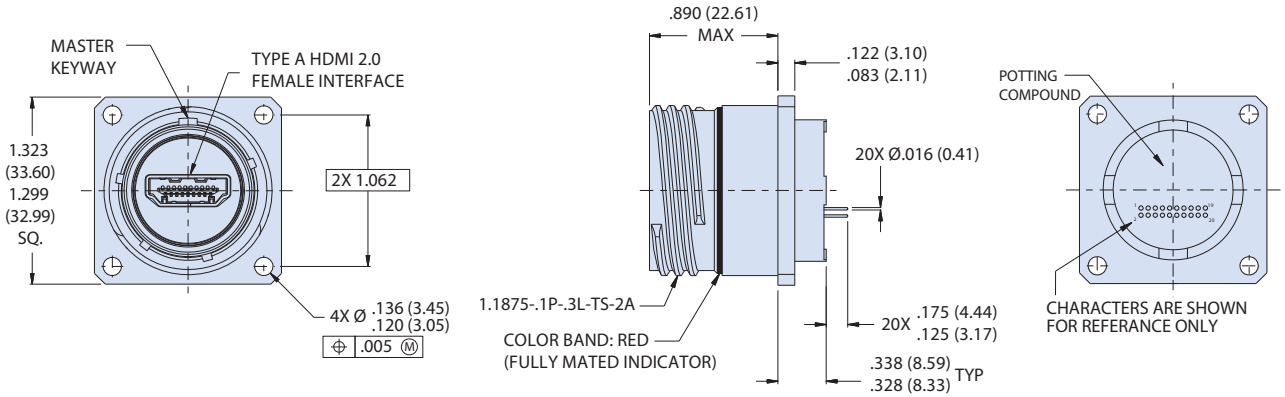
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal Catalog
Dimensions in Inches (millimeters) are subject to change without notice.



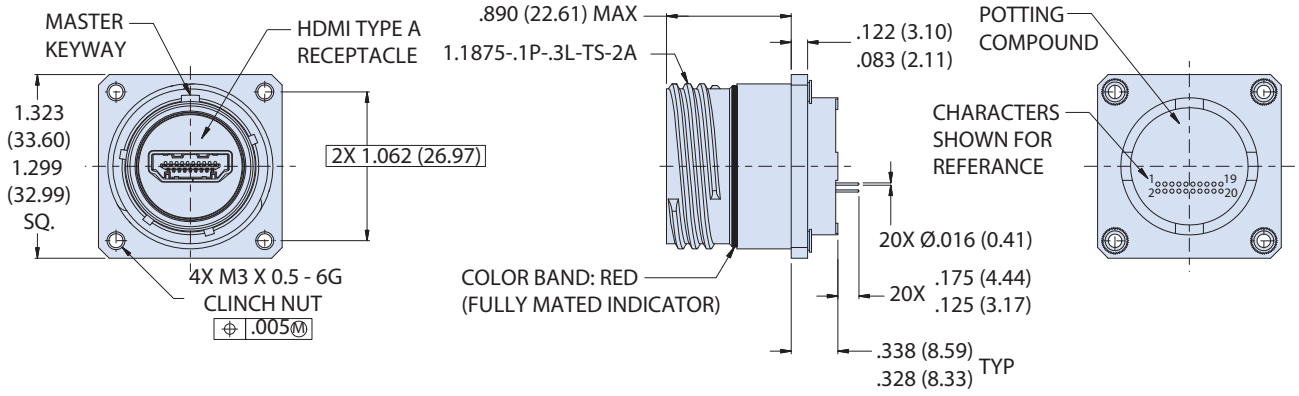
Rev. 08.01.25

N

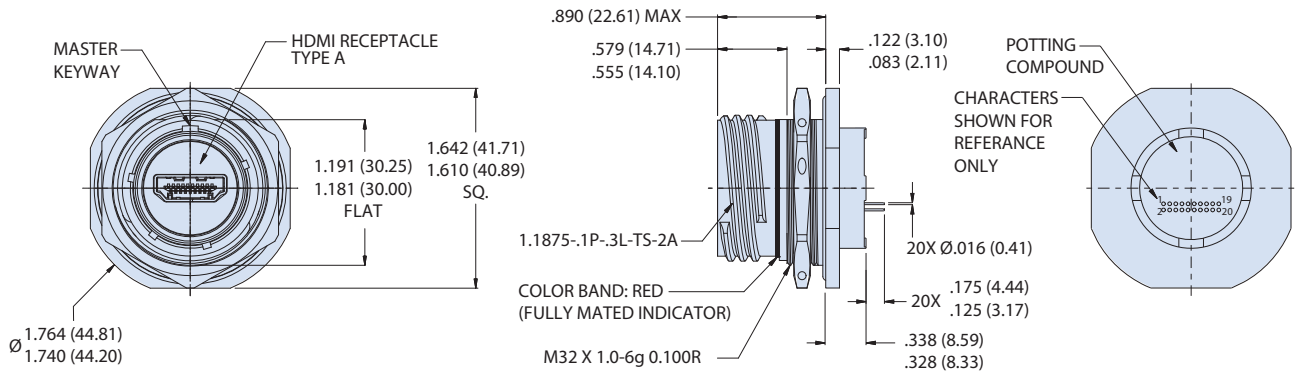
## DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES




## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS




## 07 - JAM-NUT MOUNT RECEPTACLE



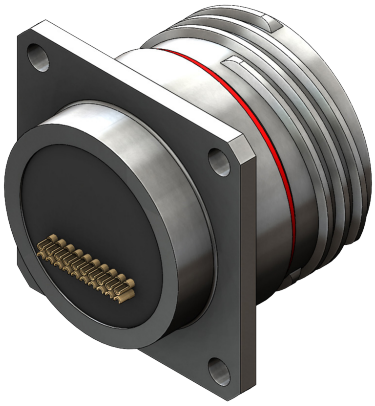


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Catalog Title
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-363 Panel mount connectors with solder cups





| Part Number Development | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-363** | **NF** | **00** | **-17** | **N** | **H** |
| **Basic Number** | **233-363** | | | | | |
| **Finish** | See Material and Finish table | | | | | |
| **Connector Style**[1] | See Connector Style table | | | | | |
| **Shell Size** | **17** | | | | | |
| **Alternate Key Position**[1] | **A**, **B**, **C**, **D**, **E**, **N** = Normal per MIL-DTL-38999 | | | | | |
| **HDMI Orientation** | **H** = Horizontal **V** = Vertical | | | | | |

| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Alumimun/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |
| **AB** | Marine Bronze |
| **XM** | Composite/Electroless Nickel |

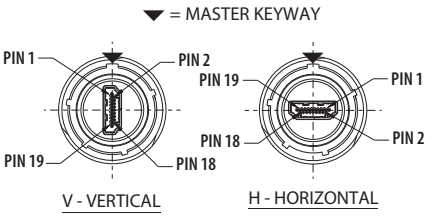
Additional material / finish options available consult factory

| Connector Style | |
|---|---|
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with thru-holes |
| **CM** | Wall mount receptacle with metric clinch nuts |
| **07** | Rear panel mount, jam nut receptacle |

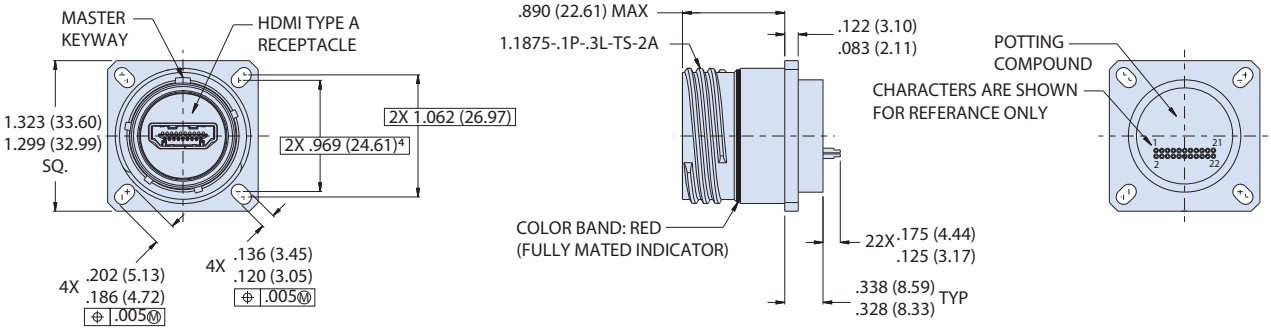
***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

### HDMI 2 FEMALE ORIENTATION OPTIONS

(PARTIAL FRONT VIEWS SHOWN)




### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES




### NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. HDMI Type A female port, front and back
4. Front panel mount only
5. Material and Finish
   - Shell, jam nut: see material finish table
   - Seals: silicone based elastomer
   - Hardware: stainless steel/passivated
6. HDMI:
   - Housing: thermoplastic/NA
   - Shell: copper alloy nickel plated
   - Terminal: copper alloy/gold plated
7. HDMI performance: design meets HDMI 2.0 protocol requirement including 18Gbps of bandwidth and suppots 4K resolution and 60Hz

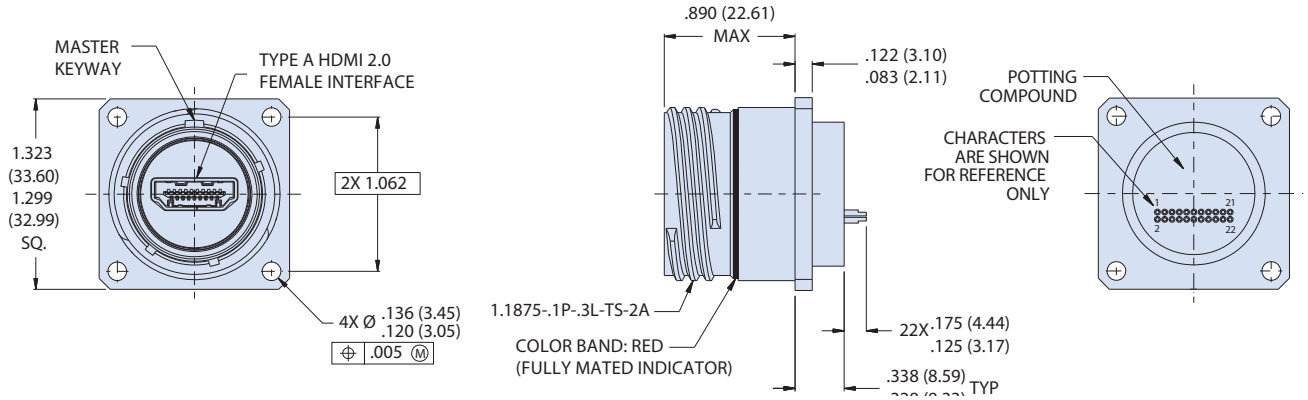
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal Catalog
Dimensions in Inches (millimeters) are subject to change without notice.



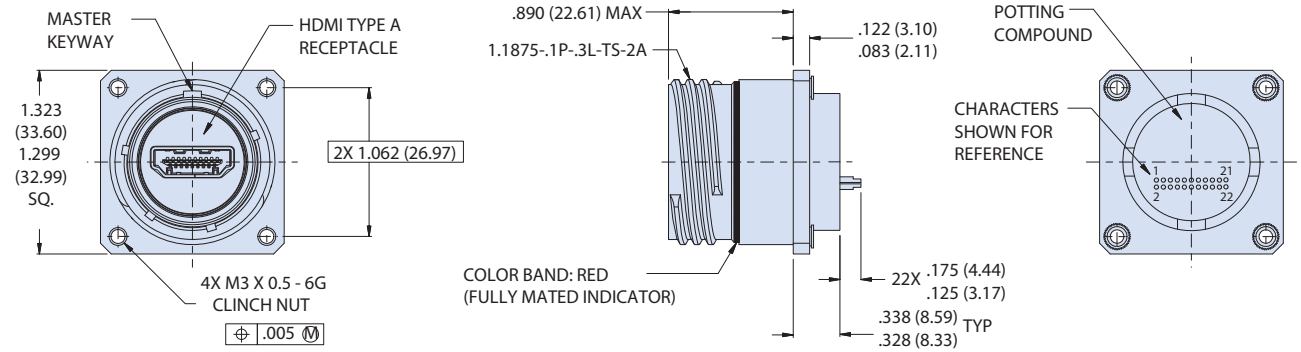
Rev 11.17.23

N

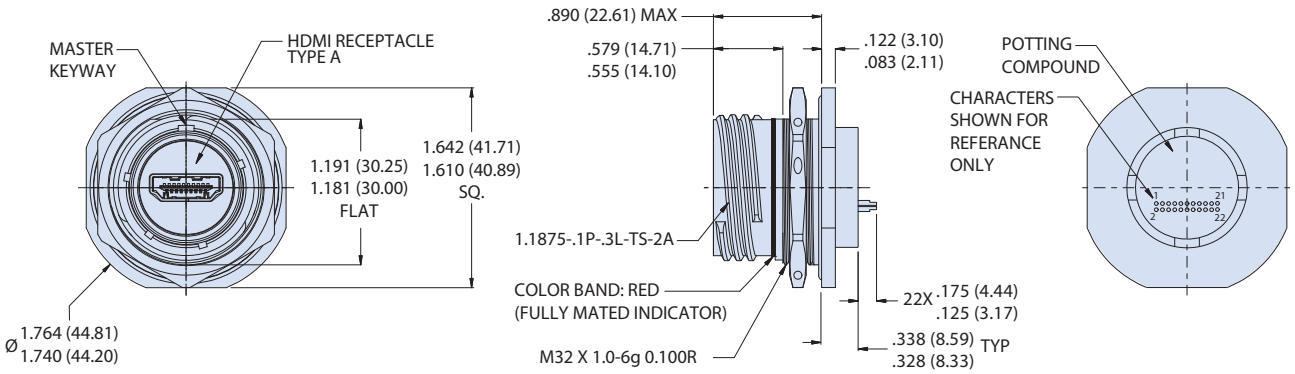
## DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES




## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS




## 07 - JAM-NUT MOUNT RECEPTACLE



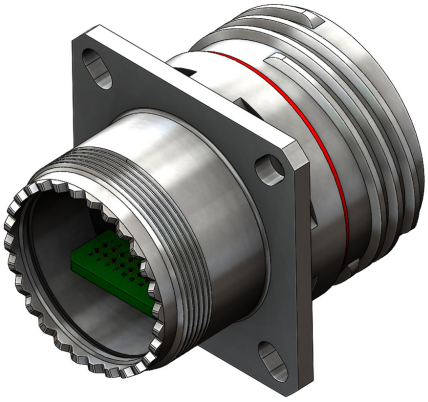


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Catalog Title
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-364 Panel mount receptacles with break-out board





| Part Number Development | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-364** | **NF** | **00** | **-17** | **N** | **H** | |
| **Basic Number** | **233-364** | | | | | | |
| **Finish** | See Material and Finish table | | | | | | |
| **Connector Style**[1] | See Connector Style table | | | | | | |
| **Shell Size** | **17** | | | | | | |
| **Alternate Key Position**[1] | **A**, **B**, **C**, **D**, **E**, **N** = Normal per MIL-DTL-38999 | | | | | | |
| **HDMI Orientation** | **H** = Horizontal **V** = Vertical | | | | | | |
| **Shrink Boot** | **T** = Part No. 770-028 (Omit for None) | | | | | | |

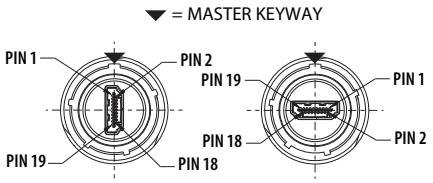
| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Alumimun/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel |
| **AB** | Marine Bronze |
| **XM** | Composite/Electroless Nickel |

Additional material / finish options available consult factory

| Connector Style | |
|---|---|
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with thru-holes |
| **CM** | Wall mount receptacle with metric clinch nuts |
| **CS** | Wall mount receptacle with standard clinch nuts |
| **07** | Rear panel mount, jam nut receptacle |
| **05** | Inline receptacle |

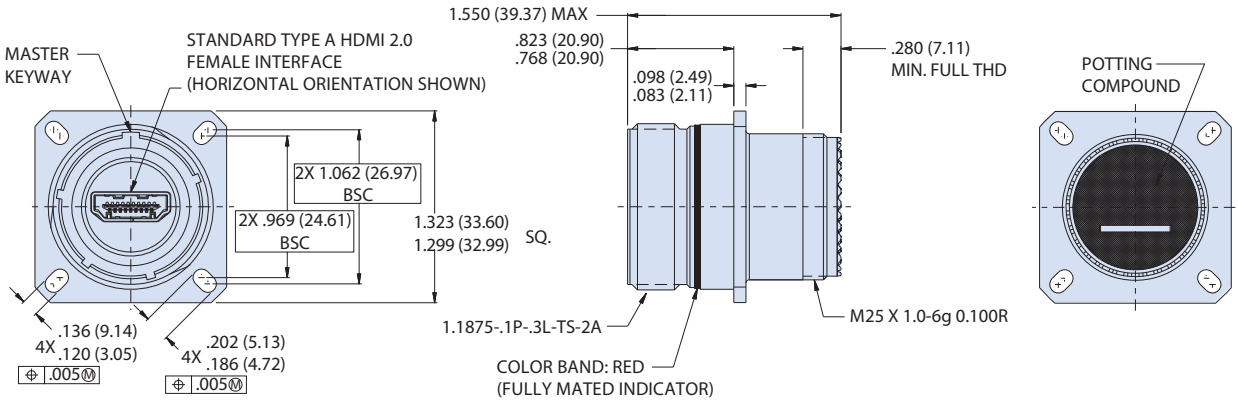
### HDMI 2 FEMALE ORIENTATION OPTIONS

(PARTIAL FRONT VIEWS SHOWN)




***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED THRU-HOLES



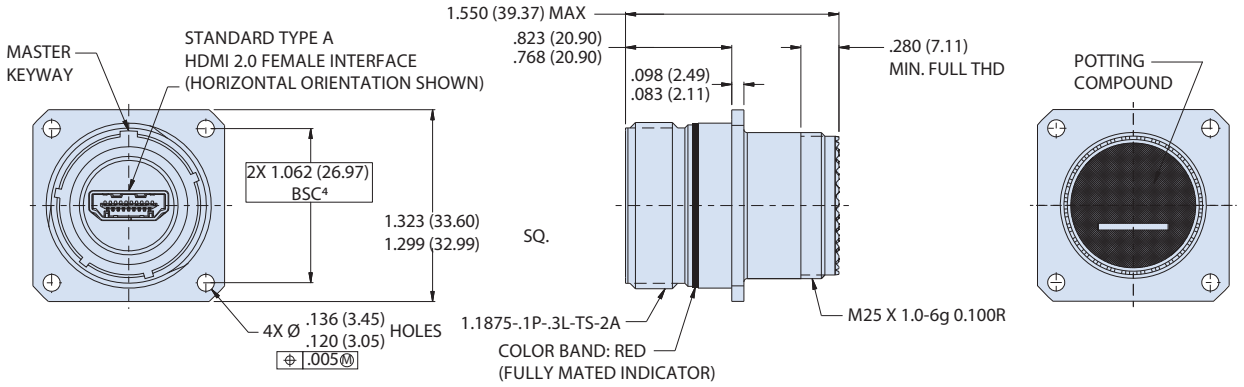

### NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. HDMI Type A female port, front and back
4. Front panel mount only
5. Material and Finish
   - Shell, jam nut: see material finish table
   - Seals: silicone based elastomer
   - Hardware: stainless steel/passivated
6. HDMI:
   - Housing: thermoplastic/NA
   - Shell: copper alloy nickel plated
   - Terminal: copper alloy/gold plated
7. HDMI performance: design meets HDMI 2.0 protocol requirement including 18Gbps of bandwidth and suppots 4K resolution and 60Hz

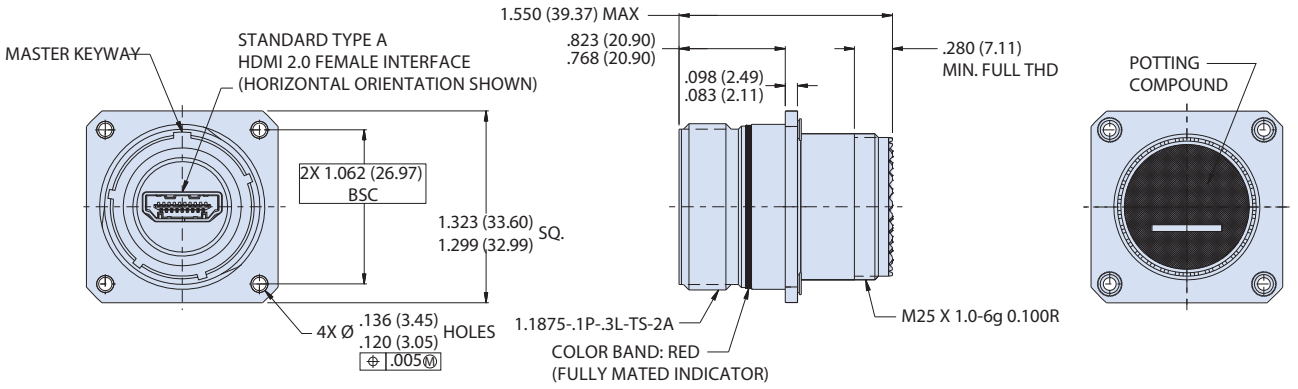
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Catalog Title
Dimensions in Inches (millimeters) are subject to change without notice.

N

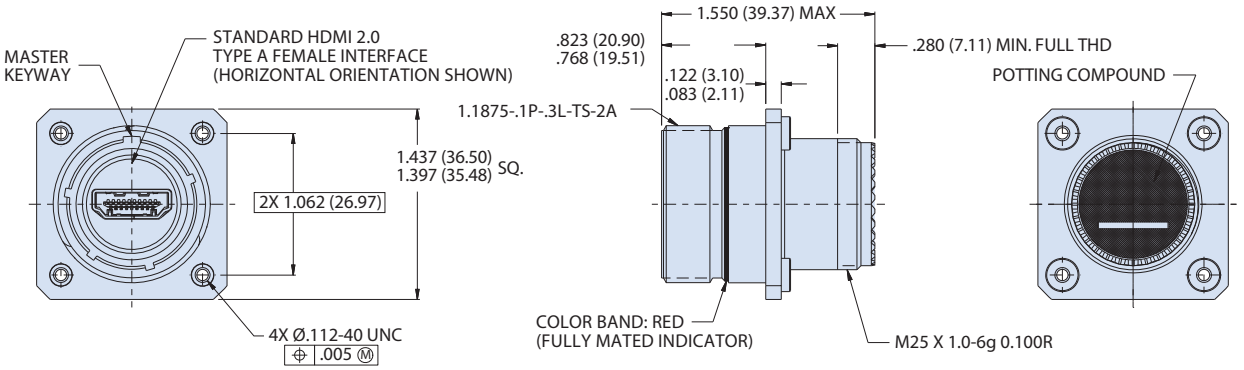
## DO - WALL MOUNT RECEPTACLE WITH ROUND THRU-HOLES




## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS



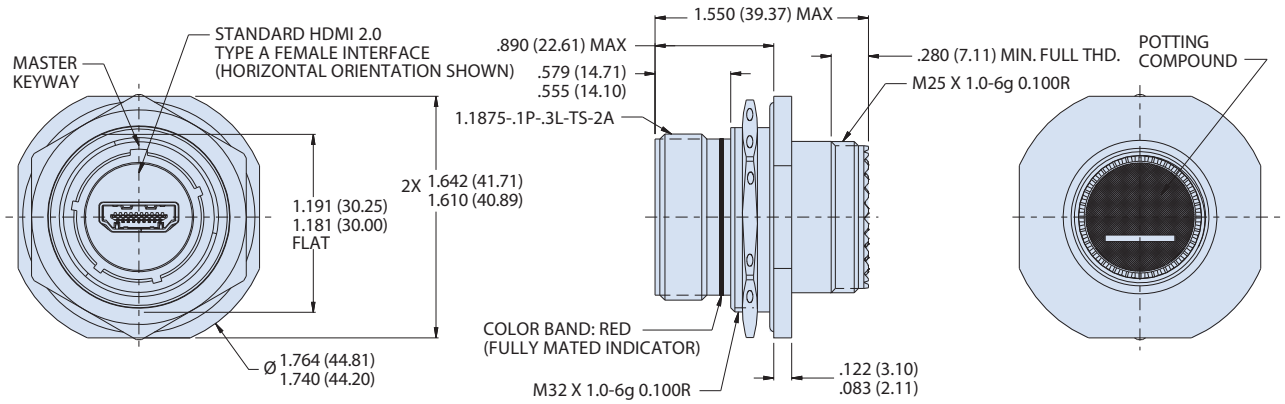

## CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS



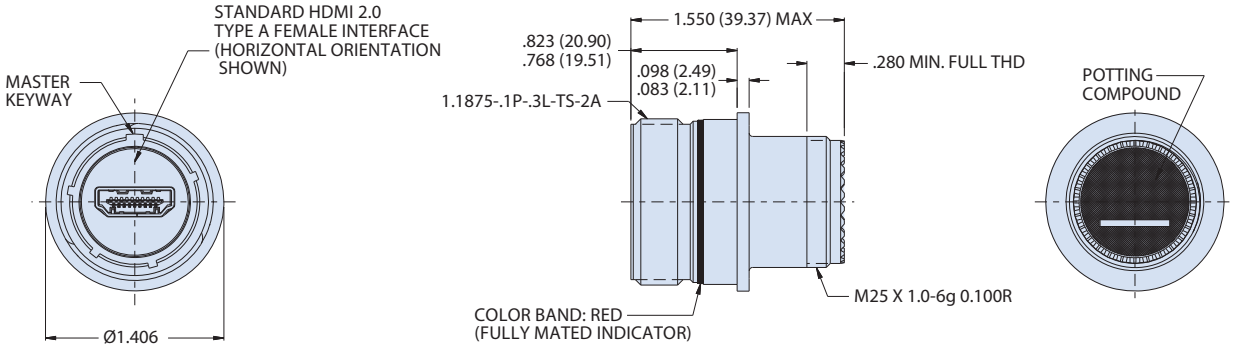


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Catalog Title
Dimensions in Inches (millimeters) are subject to change without notice.

## 07 - REAR PANEL MOUNT, JAM NUT RECEPTACLE



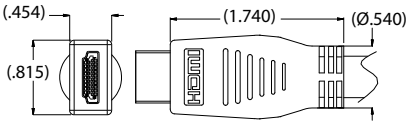

## 05 - CABLE RECEPTACLE



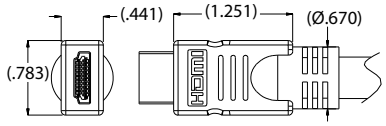

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Catalog Title
Dimensions in Inches (millimeters) are subject to change without notice.

# HDMI 2.0 CONNECTORS
# MIL-DTL-38999 Series III Type Connectors
## 233-368 Plug, accepts HDMI Plug

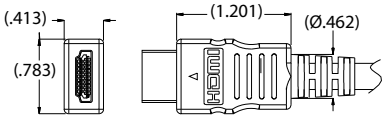
| Part Number Development | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-368** | **NF** | **G6** | **A** | **17** | **N** | **H** |
| **Basic Number** | **233-368** | | | | | | |
| **Finish** | See Material and Finish table | | | | | | |
| **Connector Style**[1] | **G6** = Plug | | | | | | |
| **Overmold Style** | **A**, **B**, **C** | | | | | | |
| **Shell Size** | **17** | | | | | | |
| **Alternate Key Position**[1] | **A**, **B**, **C**, **D**, **E**, **N** = Normal per MIL-DTL-38999 | | | | | | |
| **HDMI Orientation** | **H** = Horizaontal **V** = Vertical | | | | | | |



OVERMOLD BOOT STYLE: C



OVERMOLD BOOT STYLE: B



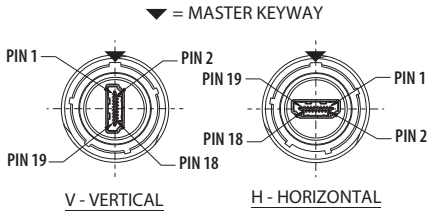
OVERMOLD BOOT STYLE: A

| Material and Finish | |
|---|---|
| **NF** | Aluminum/Cadmium, Olive Drab (500 hour salt spray) |
| **ME** | Aluminum/Electroless Nickel |
| **MT** | Alumimun/Nickel PTFE |
| **ZR** | Aluminum/Black Zinc-Nickel (Tri-valent CR) |
| **AB** | Marine Bronze |
| **XM** | Composite/Electroless Nickel |

Additional material / finish options available consult factory

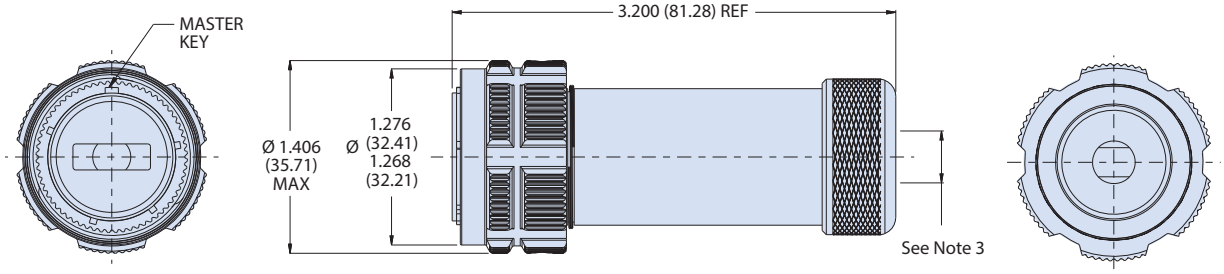
***All external dimensions, features, etc. compliant with D38999/20, /24, &/26. Consult factory for additional information.***

### HDMI 2 FEMALE ORIENTATION OPTIONS
(PARTIAL FRONT VIEWS SHOWN)



V - VERTICAL H - HORIZONTAL

## G6 - PLUG




## NOTES

1. See Section A for alternate key/keyway positions and panel cutout dimensions
2. Meets IP67 in unmated condition, IP68 mated
3. Design accommodates cable outside diameter .280 (7.112) nominal
4. Accommodates HDMI patch cords with standard plug interface
5. Material and Finish
   - Shell, jam nut: see material finish table
   - Seals: silicone based elastomer
   - Hardware: stainless steel/passivated
6. HDMI:
   - Housing: thermoplastic/NA
   - Shell: copper alloy nickel plated
   - Terminal: copper alloy/gold plated


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Catalog Title
Dimensions in Inches (millimeters) are subject to change without notice.

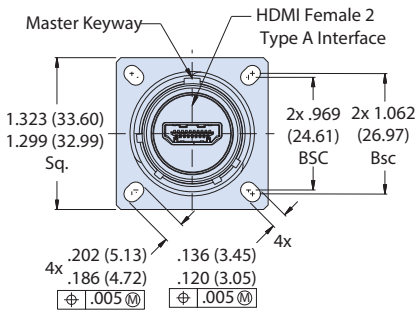
# MIL-DTL-38999 Series III Type Connectors

## 2330-0455 Cable assembly with commercial HDMI 2.0



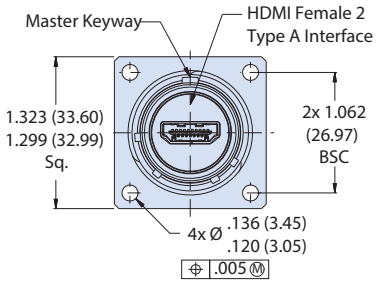
| Part Number Development | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **2330-0455** | **M** | **07** | **-17** | **N** | **H** | **-X** |
| **Series / Basic Part No.** | **2330-0455** | | | | | | |
| **P1 Material/Finish** | **NF** = Aluminum/cadmium olive drab<br>**ME** = Aluminum/electroless nickel<br>**MT** = Aluminum/nickel PTFE<br>**ZR** = Aluminum/zinc-nickel | | | | | | |
| **P1 Connector Style** | **00** = Wall mount receptacle with slotted holes<br>**D0** = Wall mount receptacle with round holes<br>**07** = Jam-nut receptacle<br>**G6** = Plug | | | | | | |
| **Shell Size** | **17** | | | | | | |
| **Alternate Polarization** | **A**, **B**, **C**, **D**, **E**, **N** = Normal; Per MIL-DTL-38999 | | | | | | |
| **HDMI Orientation** | **H** = Horizontal **V** = Vertical | | | | | | |
| **Overall Length** | Provided in 1 foot increments; 01 - 1.0 ft | | | | | | |

### 00 - Wall Mount Receptacle With Slotted Holes



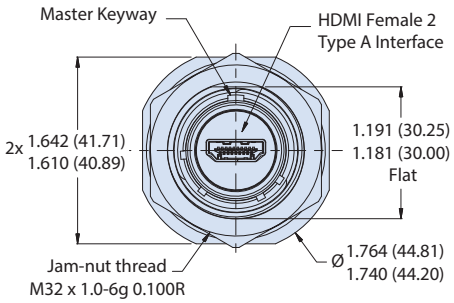

(Horizontal Orientation Shown)

### D0 - Wall Mount Receptacle With Round Holes

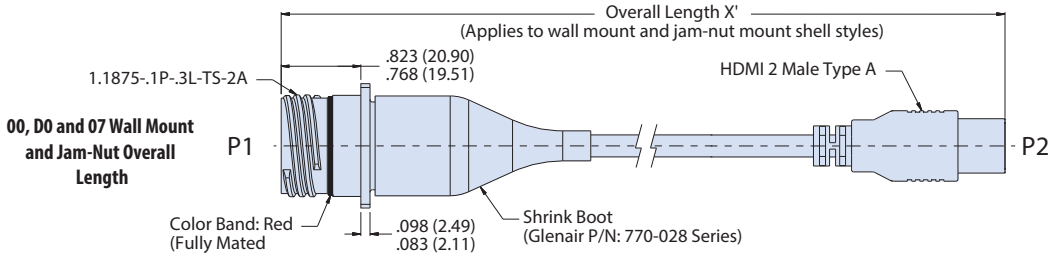


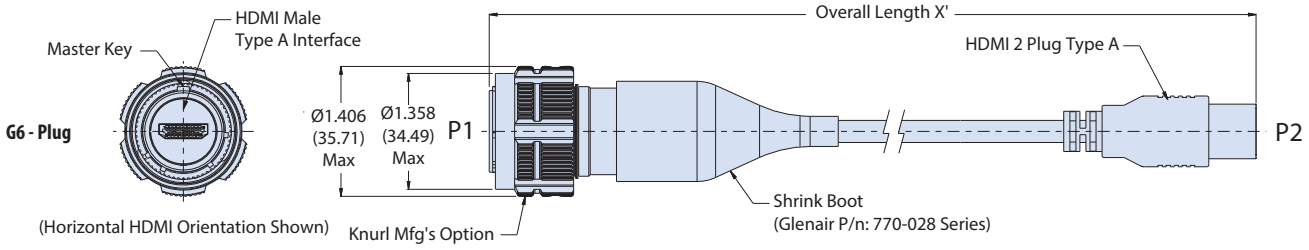

(Horizontal Orientation Shown)

### 07 - Jam Nut Receptacle




(Horizontal Orientation Shown)



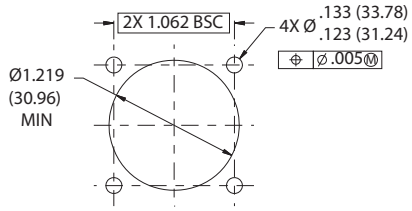

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Catalog Title
Dimensions in Inches (millimeters) are subject to change without notice.

# SuperNine® Datalink connectors

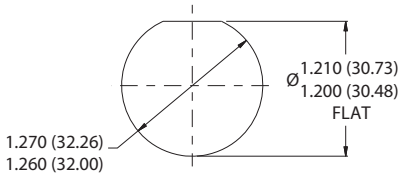
# 2330-0455 Cable assembly with HDMI 2

## MIL-DTL-38999 Series III

Recommended Mounting Holes & Cut Outs




Back Panel Wall Mount Receptacle




Jam Nut Receptacle

| HDMI 2, Connector Pin Assignments | | | |
|---|---|---|---|
| Pin | Signal | Pin | Signal |
| 1 | TMDS DATA2+ | 11 | TMDS CLOCK SHIELD |
| 2 | TMDS DATA2 SHIELD | 12 | TMDS CLOCK- |
| 3 | TMDS DATA2- | 13 | CEC |
| 4 | TMDS DATA1+ | 14 | UTILITY |
| 5 | TMDS DATA1 SHIELD | 15 | SCL |
| 6 | TMDS DATA1- | 16 | SDA |
| 7 | TMDS DATA0+ | 17 | DDC/CEC GROUND |
| 8 | TMDS DATA0 SHIELD | 18 | +5V POWER |
| 9 | TMDS DATA0- | 19 | HOT PLUG DETECT |
| 10 | TMDS CLOCK+ | | |

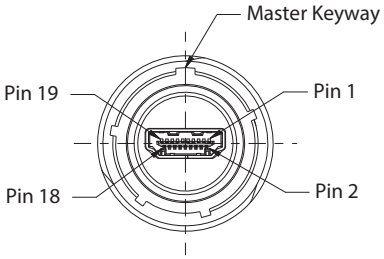
## NOTES

1. Material/finish
   - Shell, jam-nut, barrel: see part number development
   - Insulators: high grade rigid dielectric/N.A.
   - Contacts: copper alloy, gold plated
   - Seals: silicone based elastomer
   - HDMI (shell/contacts): copper alloy
   - Dielectric: thermoplastic PA9T UL94V-0
   - Hardware: stainless steel/passivated
2. HDMI specifications:
   *Performance:*
   - HDMI 2
   *Electrical:*
   - Current rating: 0.5 amps min
   - DWV: 300 Vac
   - I.R.: 100 Meg Ohms min.
   - Operating temperature range: -20°C to +85°C
3. Connector interface (P1) per MIL-DTL-38999, Series III, Shell size 17
4. Connector front interface with HDMI Type A male is designed to mate with HDMI receptacle patch cord or Glenair HDMI receptacle connector 2330-0441

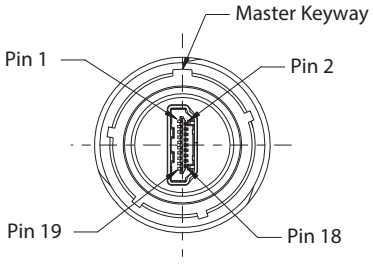
   Connector front interface with HDMI Type A female is designed to mate with HDMI male patch cord

## HDMI 2 ORIENTATION OPTIONS (PARTIAL FRONT VIEWS SHOWN)

Receptacle

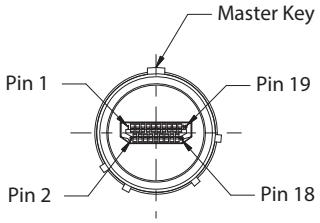



Horizontal

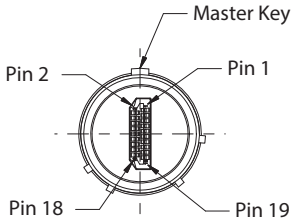



Vertical

Plug




Horizontal




Vertical



© 2018 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperNine Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-367 HDMI to PC Tail connector receptacle with standoffs

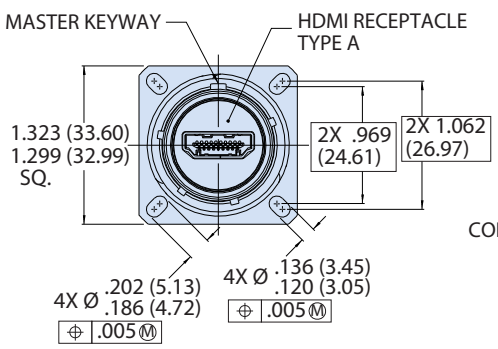
| Part Number Development | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-367** | **NF** | **00** | **-17** | **N** | **H** |
| **Basic Number** | **233-367** | | | | | |
| **Finish** | See Material and Finish table | | | | | |
| **Connector Style** | See Connector Style table | | | | | |
| **Shell Size** | **17** | | | | | |
| **Alternate Key Position**[1] | **A**, **B**, **C**, **D**, **E**, **N** = Normal per MIL-DTL-38999 | | | | | |
| **HDMI Orientation** | **H** = Horizontal **V** = Vertical | | | | | |

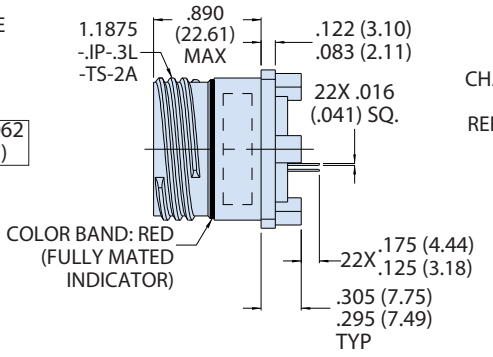
| Material and Finish | | |
|---|---|---|
| **NF** | Aluminum | Cadmium, Olive Drab Over Electroless Nickel (500 Hour Salt Spray) |
| **ME** | | Electroless Nickel (96 Hour Salt Spray) |
| **ZR** | | Black Zinc-Nickel (Tri-Valent CR) |
| **XM** | Composite | Electroless Nickel |
| **Z1** | Stainless Steel | Passivate |
| **AB** | Marine Bronze | None (Clean Only) |

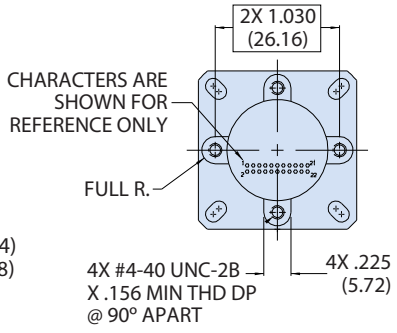
Additional material / finish options available consult factory

| Connector Style | |
|---|---|
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |
| **07** | Rear panel mount, jam nut receptacle |

## DO - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES



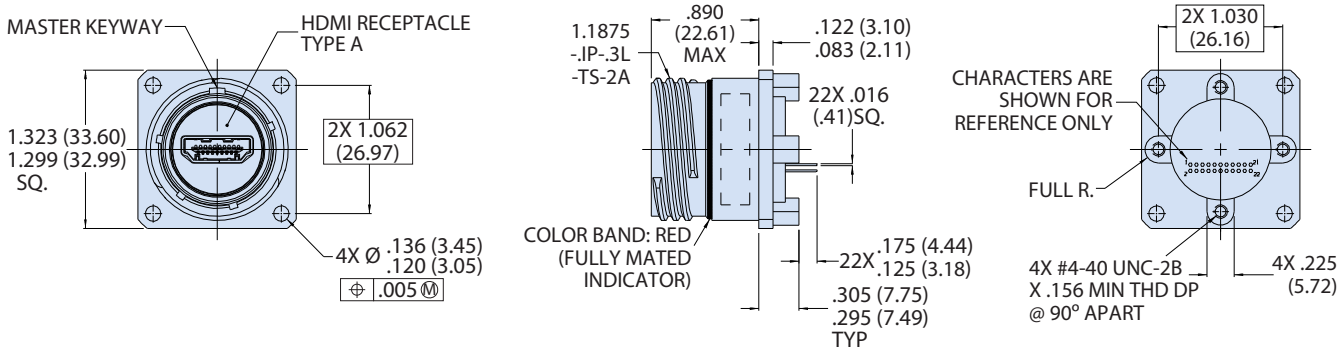

## NOTES

1. HDMI Performance: Design meets HDMI 2.0 protocol requirement including 18Gbps of bandwidth and supports 4K resolution and 60Hz.
2. Receptacle connector designed to meet IP67 unmated condition.
3. HDMI Specifications
   - Performance: See Note 1
   - DWV: 300VAC
   - IR: 100 Mega 0hms MIN
   - Operating Temperature: -20°C to +85°C
4. Material and Finish
   - Shell, jam nut: see material finish table
   - Seals: silicone based elastomer
   - Hardware: stainless steel/passivated
5. HDMI:
   - Housing: thermoplastic/NA
   - Shell: copper alloy nickel plated
   - Terminal: copper alloy/gold plated

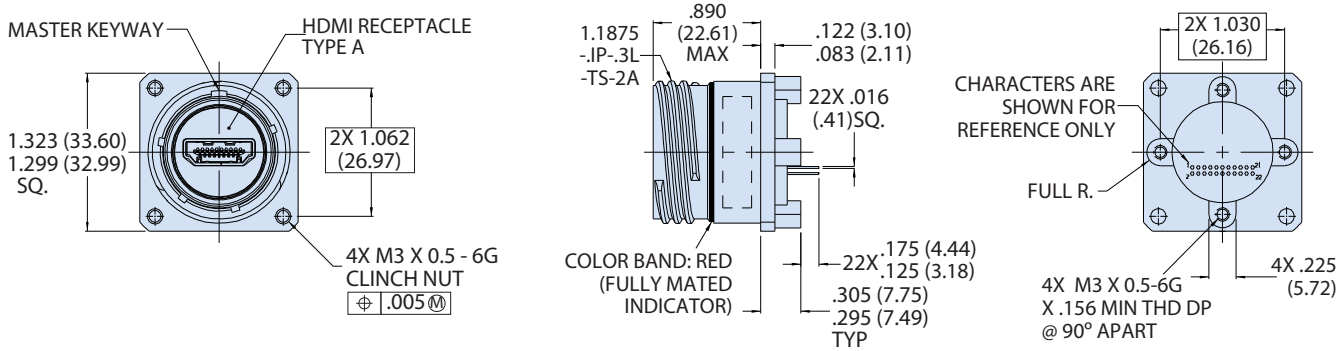
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal Catalog

N

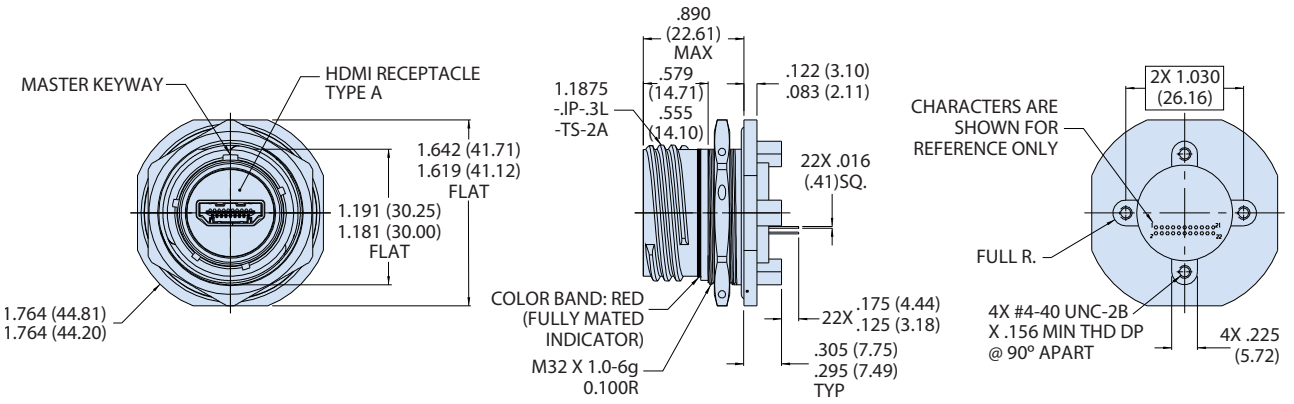
## DO - WALL MOUNT RECEPTACLE WITH ROUND HOLES




## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS




## 07 - JAM NUT MOUNT RECEPTACLE

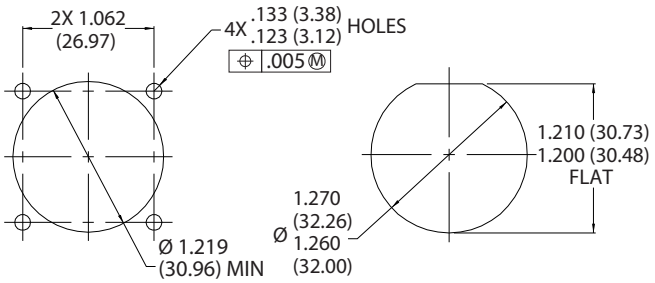




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Catalog Title
Dimensions in Inches (millimeters) are subject to change without notice.

# 233-367 HDMI to PC Tail connector receptacle with standoffs



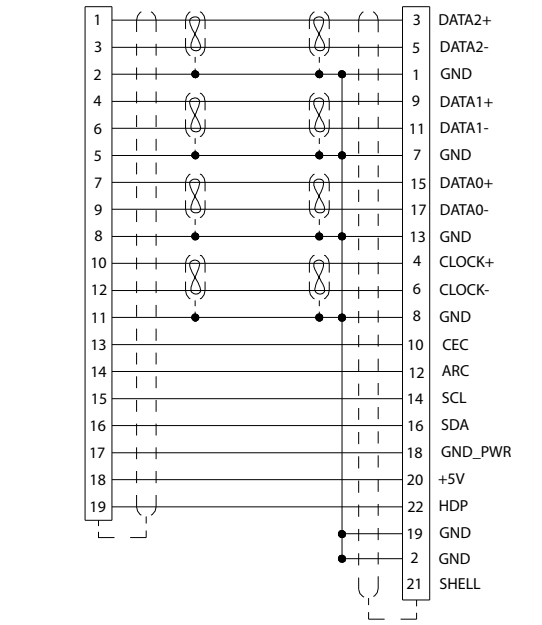



BACK PANEL MOUNTING

RECOMMENDED MOUNTING HOLES
PANEL THICKNESS .299 MAX

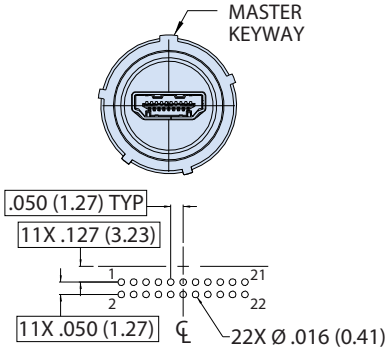
RECOMMENDED PANEL CUT OUT
PANEL THICKNESS .126-.062

WIRING DIAGRAM



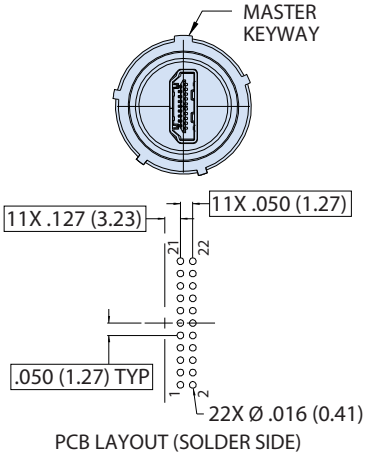

HDMI ORIENTATION OPTIONS
(PARTIAL VIEWS SHOWN)

HORIZONTAL




PCB LAYOUT (SOLDER SIDE)

VERTICAL




PCB LAYOUT (SOLDER SIDE)

*DISPLAYPORT*

# MIL-DTL-38999 Series III Type Connectors

## 233-376 Connector receptacle with shielded DisplayPort coupler

| Part Number Development | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-376** | **NF** | **00** | **-17** | **N** | **H** |
| **Basic Number** | **233-376** | | | | | |
| **Finish** | See Material and Finish table | | | | | |
| **Connector Style** | See Connector Style table | | | | | |
| **Shell Size** | **17** | | | | | |
| **Alternate Key Position** | **A**, **B**, **C**, **D**, **E**, **N** = Normal per MIL-DTL-38999 | | | | | |
| **DisplayPort Orientation** | **H** = Horizontal **V** = Vertical | | | | | |

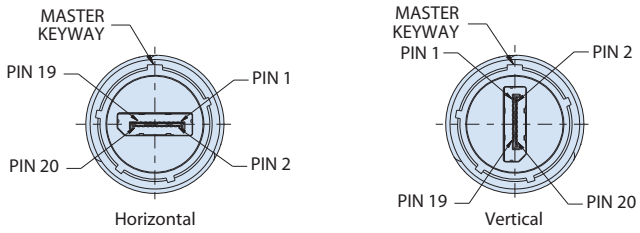
| Material and Finish | | |
|---|---|---|
| **NF** | Aluminum | Cadmium, Olive Drab Over Electroless Nickel (500 Hour Salt Spray) |
| **ME** | | Electroless Nickel (96 Hour Salt Spray) |
| **ZR** | | Black Zinc-Nickel (Tri-Valent CR) |
| **XM** | Composite | Electroless Nickel |
| **Z1** | Stainless Steel | Passivate |
| **AB** | Marine Bronze | None (Clean Only) |

Additional material / finish options available consult factory

| Wiring Diagram | | | | | |
|---|---|---|---|---|---|
| **Signal Name** | **P1** | **P2** | **Signal Name** | **P1** | **P2** |
| ML_LANE 0(p) | 1 | 1 | ML_LANE 3(n) | 12 | 12 |
| ML_LANE 0(n) | 3 | 3 | GND | 11 | 11 |
| GND | 2 | 2 | CONFIG1 | 13 | 13 |
| ML_LANE 1(p) | 4 | 4 | CONFIG2 | 14 | 14 |
| ML_LANE 1(n) | 6 | 6 | AUX CH(p) | 15 | 15 |
| GND | 5 | 5 | AUX CH(n) | 17 | 17 |
| ML_LANE 2(p) | 7 | 7 | GND | 16 | 16 |
| ML_LANE 2(n) | 9 | 9 | Hot Plug Detect | 18 | 18 |
| GND | 8 | 8 | DP_PWR Return | 19 | 19 |
| ML_LANE 3(p) | 10 | 10 | DP_PWR | 20 | 20 |

| Connector Style | |
|---|---|
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |
| **CS** | Wall mount receptacle with standard clinch nuts |
| **07** | Rear panel mount, jam nut receptacle |
| **05** | Rear panel mount, inline receptacle |

DISPLAYPORT ORIENTATION OPTIONS
(PARTIAL FRONT VIEWS SHOWN)




## NOTES

1. Interpret drawing per ASME Y14.5 - 2009.
2. Modified major diameter 31.80 - 31.95 (1.252 - 1.257).
3. Material/finishes:
   - Shell, jam nut: see Material/Finish table
   - (Composite coupling nut no plating required).
   - Seals: silicone based elastomer
   - Hardware: stainless steel/passivated
4. Displayport
   - Housing: thermoplastic/N.A.
   - Shell: copper alloy/nickel plated
   - Terminal: copper alloy/ gold plated
5. Displayport specifications:
   - Performance: see note 8.
   - D.W.V.: 500 VAC (unmated)
   - I.R.: 100 Mega ohms min.
   - Operating temperature range: -20°C to +85°C
6. Front panel mount only.
7. Receptacle connector designed to meet IP67 unmated condition.
8. Performance: design meets displayport 1.4 Benchmark data transfer rate requirements.

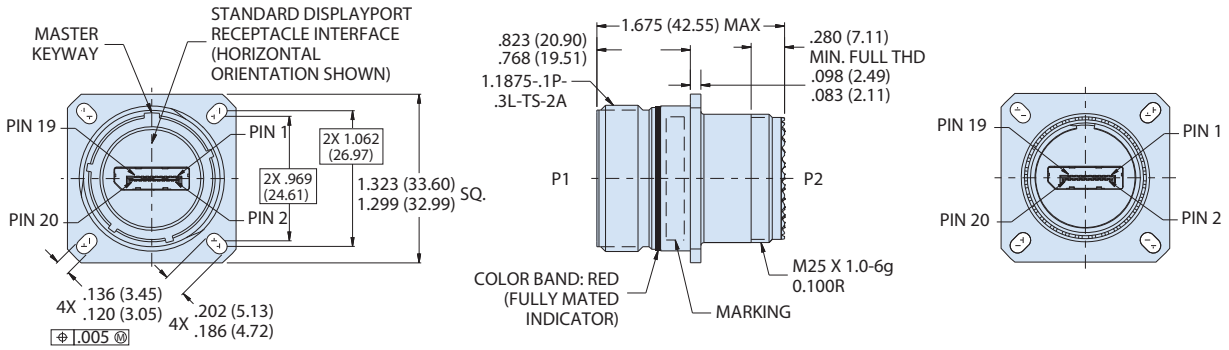


© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

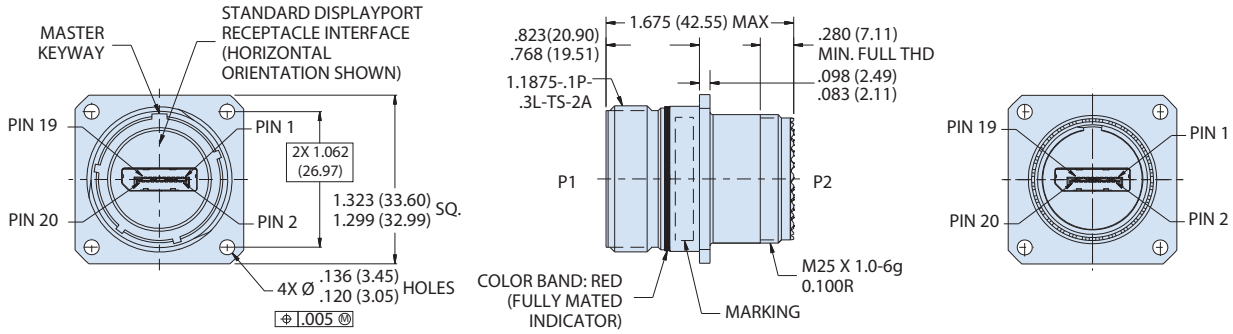
# 233-376 Connector receptacle with shielded DisplayPort coupler



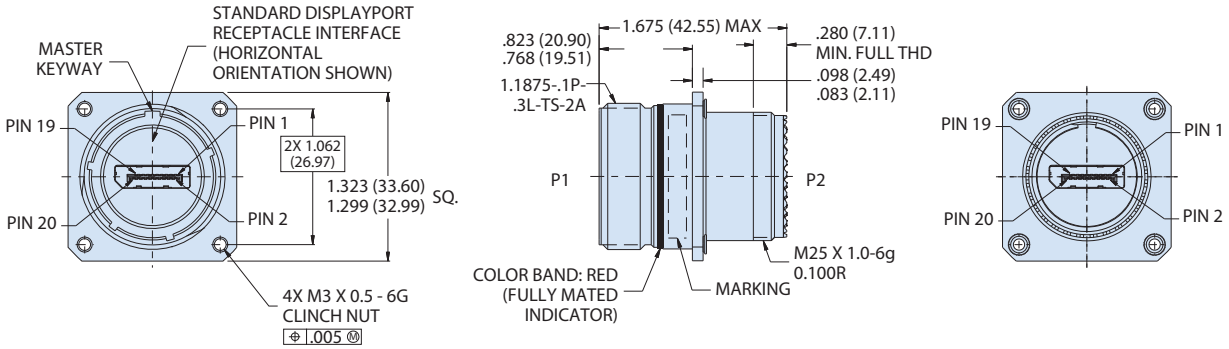
## 00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES




## DO - WALL MOUNT RECEPTACLE WITH ROUND HOLES




## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS



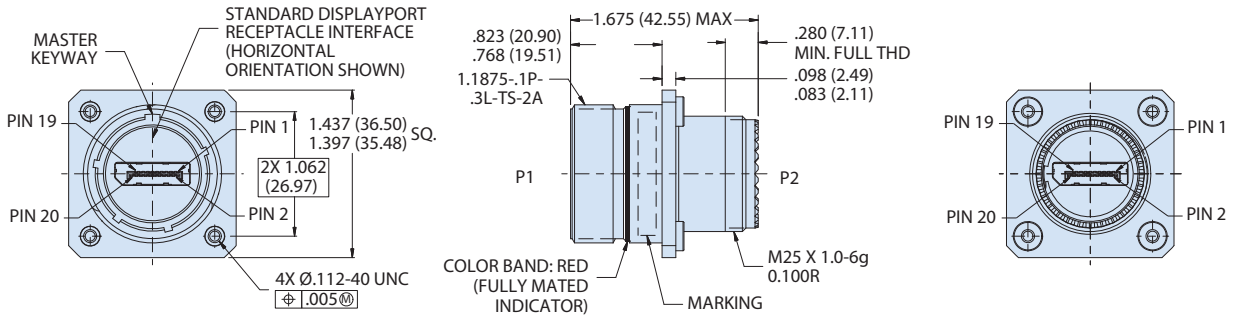

© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal Catalog
Dimensions in Inches (millimeters) are subject to change without notice.



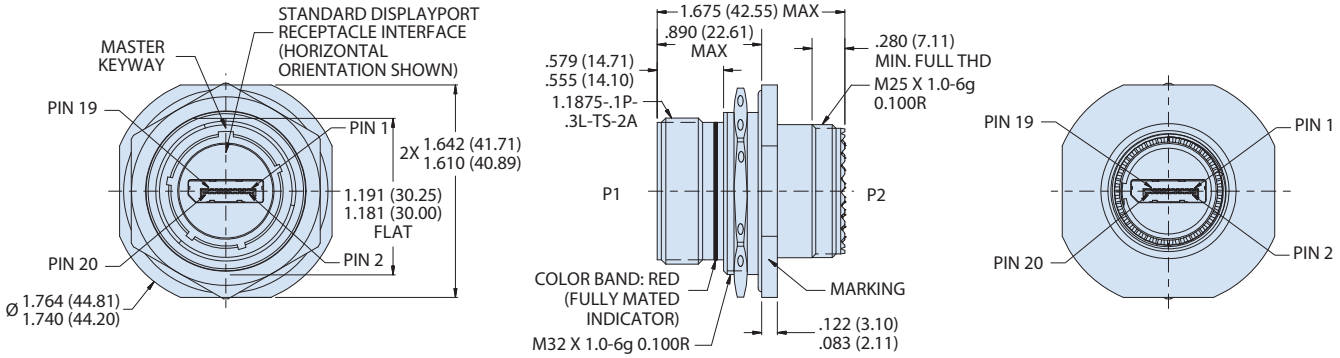
Rev. 04.09.24

N

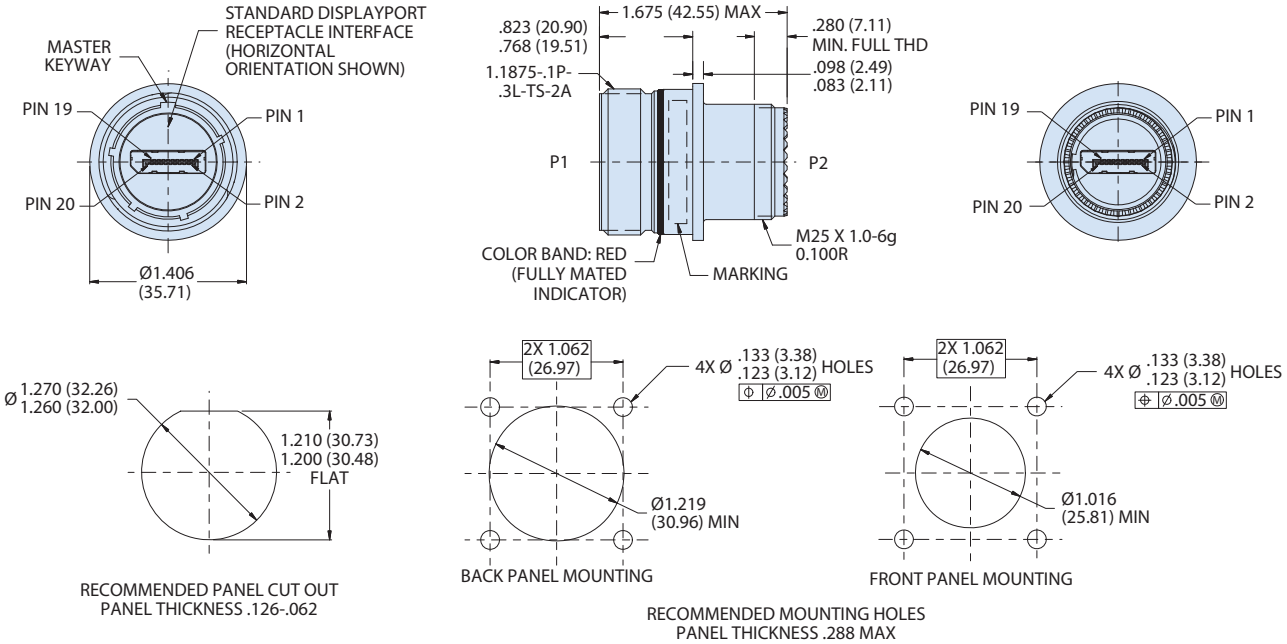
## CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS




## 07 - JAM NUT MOUNT RECEPTACLE




## 05 - INLINE RECEPTACLE






© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# MIL-DTL-38999 Series III Type Connectors

## 233-379 Connector receptacle with DisplayPort to PC tail termination

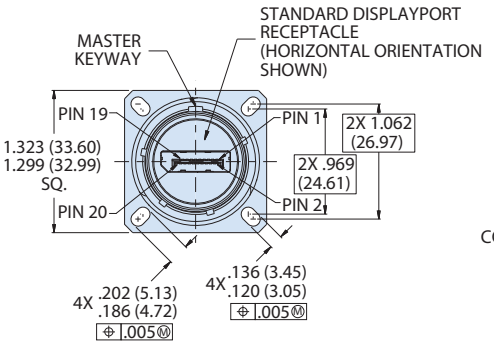
| Part Number Development | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-379** | **NF** | **00** | **-17** | **N** | **H** |
| **Basic Number** | **233-379** | | | | | |
| **Finish** | See Material and Finish table | | | | | |
| **Connector Style** | See Connector Style table | | | | | |
| **Shell Size** | **17** | | | | | |
| **Alternate Key Position** | **A**, **B**, **C**, **D**, **E**, **N** = Normal per MIL-DTL-38999 | | | | | |
| **DisplayPort Orientation** | **H** = Horizontal **V** = Vertical | | | | | |

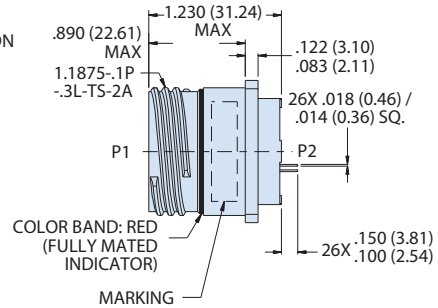
| Material and Finish | | |
|---|---|---|
| **NF** | Aluminum | Cadmium, Olive Drab Over Electroless Nickel (500 Hour Salt Spray) |
| **ME** | | Electroless Nickel (96 Hour Salt Spray) |
| **ZR** | | Black Zinc-Nickel (Tri-Valent CR) |
| **XM** | Composite | Electroless Nickel |
| **Z1** | Stainless Steel | Passivate |
| **AB** | Marine Bronze | None (Clean Only) |

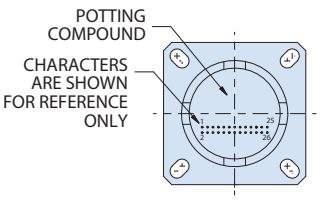
Additional material / finish options available consult factory

| Connector Style | |
|---|---|
| **00** | Wall mount receptacle with slotted holes |
| **D0** | Wall mount receptacle with round holes |
| **CM** | Wall mount receptacle with metric clinch nuts |
| **CS** | Wall mount receptacle with standard clinch nuts |
| **07** | Rear panel mount, jam nut receptacle |

## 00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES




## NOTES

1. Interpret drawing per ASME Y14.5 - 2009.
2. Modified major diameter 31.80 - 31.95 (1.252 - 1.257).
3. Material/finishes:
   - Shell, jam nut: see Material/Finish table
   - (Composite coupling nut no plating required).
   - Seals: silicone based elastomer
   - Hardware: stainless steel/passivated
4. Displayport
   - Housing: thermoplastic/N.A.
   - Shell: copper alloy/nickel plated
   - Terminal: copper alloy/ gold plated
5. Displayport specifications:
   - Performance: see note 8.
   - D.W.V.: 500 VAC (unmated)
   - I.R.: 100 Mega ohms min.
   - Operating temperature range: -20°C to +85°C
6. Front panel mount only.
7. Receptacle connector designed to meet IP68 unmated condition.
8. Performance: design meets displayport 1.4 benchmark data transfer rate requirements.

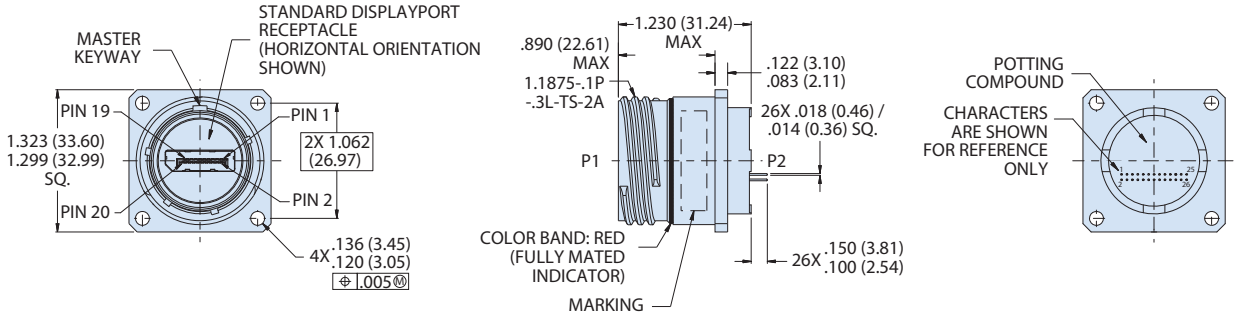
© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal Catalog
Dimensions in Inches (millimeters) are subject to change without notice.



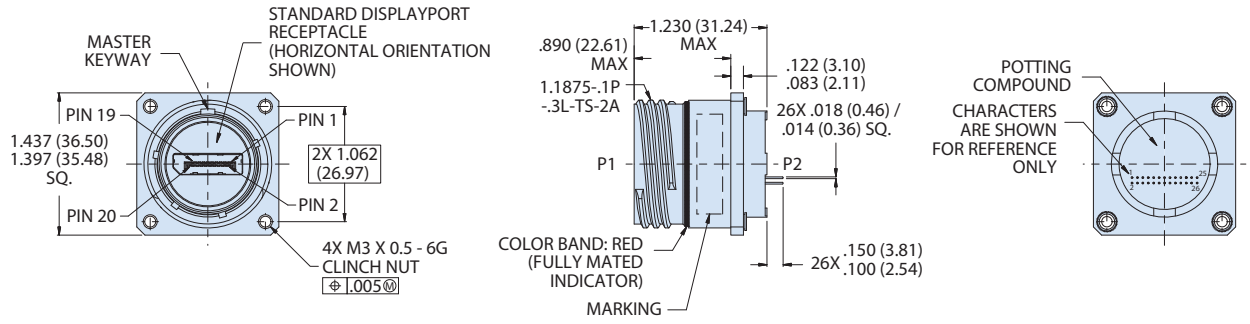
Rev. 04.09.24

N

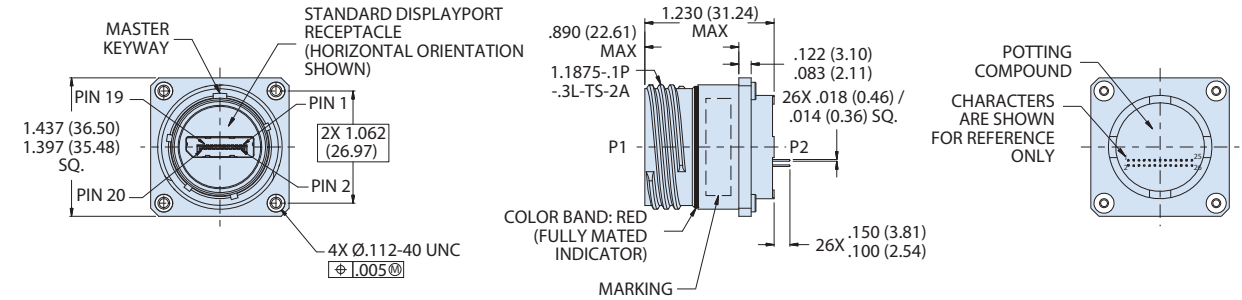
## DO - WALL MOUNT RECEPTACLE WITH ROUND HOLES




## CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS




## CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS

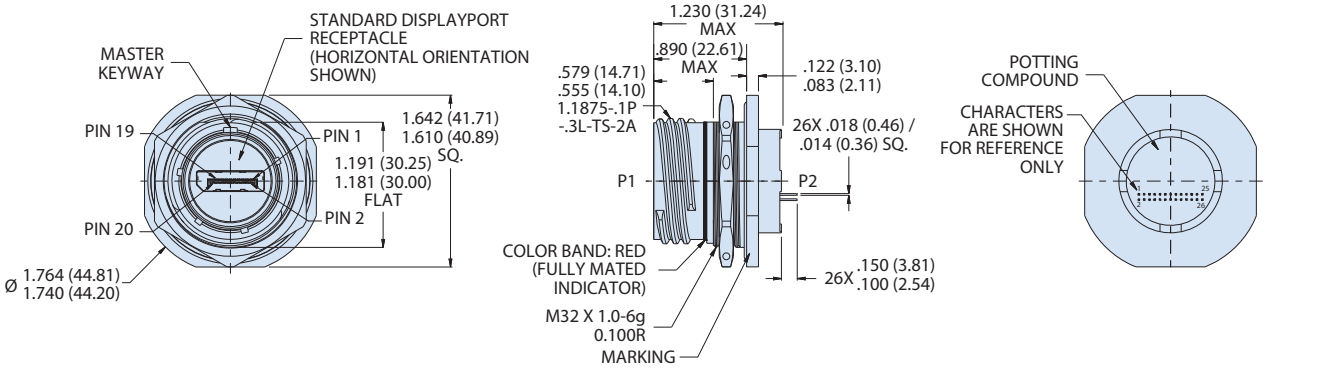




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

N

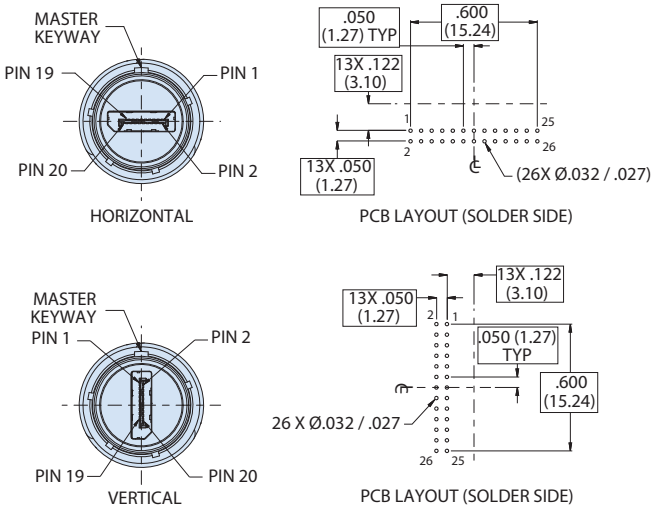
## 07 - JAM NUT MOUNT RECEPTACLE

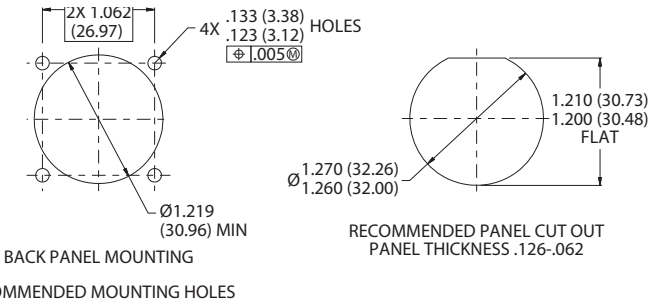



### WIRING DIAGRAM

| SIGNAL NAME | P1 (DP CONNECTOR SIDE) | P2 (PCB SIDE) | |
|---|---|---|---|
| ML_LANE 0(p) | 1 | 3 | ML_LANE 0(p) |
| ML_LANE 0(n) | 3 | 7 | ML_LANE 0(n) |
| GND | 2 | 5 | GND |
| ML_LANE 1(p) | 4 | 9 | ML_LANE 1(p) |
| ML_LANE 1(n) | 6 | 13 | ML_LANE 1(n) |
| GND | 5 | 11 | GND |
| ML_LANE 2(p) | 7 | 15 | ML_LANE 2(p) |
| ML_LANE 2(n) | 9 | 19 | ML_LANE 2(n) |
| GND | 8 | 17 | GND |
| ML_LANE 3(p) | 10 | 21 | ML_LANE 3(p) |
| ML_LANE 3(n) | 12 | 25 | ML_LANE 3(n) |
| GND | 11 | 23 | GND |
| CONFIG1 | 13 | 10 | CONFIG1 |
| CONFIG2 | 14 | 8 | CONFIG2 |
| AUX CH(p) | 15 | 20 | AUX CH(p) |
| AUX CH(n) | 17 | 22 | AUX CH(n) |
| GND | 16 | 18 | GND |
| HOT PLUG DETECT | 18 | 14 | HOT PLUG DETECT |
| DP_PWR RETURN | 19 | 24 | DP_PWR RETURN |
| DP_PWR | 20 | 26 | DP_PWR |
| | | 12 | GND |
| | | 6 | GND |
| | | 1 | NC |
| | | 2 | NC |
| | | 16 | NC |
| SHIELD | SHELL | 4 | (TO SHIELD) |

### DISPLAYPORT ORIENTATION OPTIONS
(PARTIAL FRONT VIEWS SHOWN)




© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal Catalog
Dimensions in Inches (millimeters) are subject to change without notice.



Rev. 04.09.24

*DISPLAYPORT*

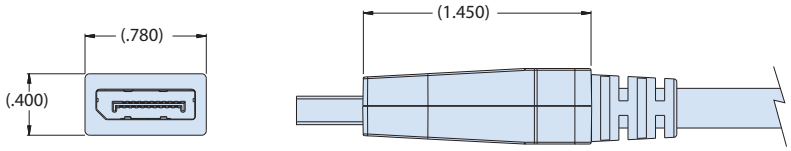
# MIL-DTL-38999 Series III Type Connectors

## 233-389 DisplayPort plug with strain relief cable sealing backshell

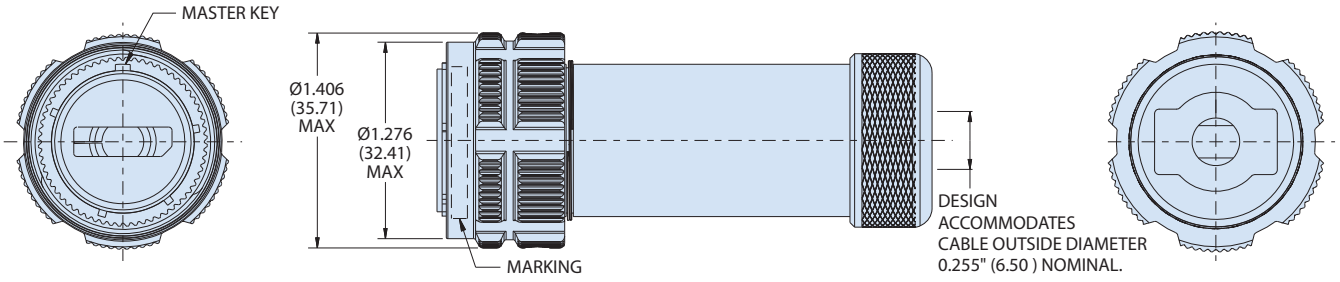
| Part Number Development | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample Part Number** | **233-389** | **NF** | **G6** | **A** | **17** | **N** | **H** |
| **Basic Number** | **233-389** | | | | | | |
| **Material/Finish** | See Material and Finish table | | | | | | |
| **Connector Style** | **G6** = Plug | | | | | | |
| **Overmold Boot Style** | **A** | | | | | | |
| **Shell Size** | **17** | | | | | | |
| **Alternate Position** | **A**, **B**, **C**, **D**, **E**, **N** = Normal per MIL-DTL-38999 | | | | | | |
| **DisplayPort Orientation** | **H** = Horizontal **V** = Vertical | | | | | | |

| Material and Finish | | |
|---|---|---|
| **NF** | Aluminum | Cadmium, Olive Drab Over Electroless Nickel (500 Hour Salt Spray) |
| **ME** | | Electroless Nickel (96 Hour Salt Spray) |
| **ZR** | | Black Zinc-Nickel (Tri-Valent CR) |
| **Z1** | Stainless Steel | Passivate |
| **AB** | Marine Bronze | None (Clean Only) |

Additional material / finish options available consult factory



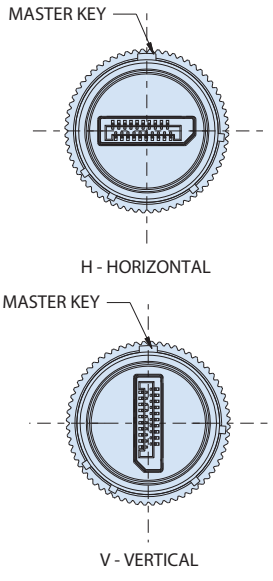

RECOMMENDED DISPLAYPORT PLUG OVERMOLD - STYLE A




## NOTES

1. Interpret drawing per ASME Y14.5 - 2009.
2. Modified major diameter 31.80 - 31.95 (1.252 - 1.257).
3. Material/finishes:
   - Barrel, coupling nut: see Material/Finish table (composite coupling nut no plating required).
   - Insulators: high grade rigid dielectric/N.A.
   - Seals: silicone based elastomer
   - USB adapter housing: UL94V-0 compliant ABS or PPS
   - Hardware: stainless steel/passivated
4. Displayport specifications:
   - Performance: DP 1.4
   - D.W.V.: 500 VAC (unmated)
   - I.R.: 100 Mega ohms min.
   - Operating temperature range: -20°C to +85°C
5. Front panel mount only.
6. Plug connector designed to meet IP68 unmated condition.
7. Design accommodates cable outside diameter 0.255" (6.50 mm) nominal.

DISPLAYPORT ORIENTATION OPTIONS






© 2016 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • SuperSeal Catalog
Dimensions in Inches (millimeters) are subject to change without notice.

# Why Choose GLENAIR?

Plenty of Raw Materials!

Outstanding Customer Service!

In-House Assembly!

Abundant Machining Capacity!

Huge "Same-Day" Inventory!

One of North America's and Machining

High-Production Injection Molding Equipment

State-of-the-Art Plating Capabilities

The Industry's Most Experienced EMI/RFI Braided Shielding Specialists

Glenair®

Largest CNC Milling Installations

Clean Rooms for Filter Array and Printed Circuit Board Assembly

*Out of This World*

# INTERCONNECT SOLUTIONS


## Glenair, Inc.

1211 Air Way • Glendale, California • 91201-2497

Telephone: 818-247-6000 • Fax: 818-500-9912 • sales@glenair.com

**www.glenair.com**

**Glenair Power Products Group**
860 N. Main Street Extension
Wallingford, CT
06492
Telephone: 203-741-1115
Facsimile: 203-741-0053
sales@glenair.com

**Glenair Microway Systems**
7000 North Lawndale Avenue
Lincolnwood, IL
60712
Telephone: 847-679-8833
Facsimile: 847-679-8849

**Glenair Electric GmbH**
Schaberweg 28
61348 Bad Homburg
Germany
Telephone: 06172 / 68 16 0
Facsimile: 06172 / 68 16 90
info@glenair.de

**Glenair Italia S.p.A.**
Via Del Lavoro, 7
40057 Quarto Inferiore –
Granarolo dell'Emilia
Bologna, Italy
Telephone: +39-051-782811
Facsimile: +39-051-782259
info@glenair.it

**Glenair Korea**
B-1304 Gunpo IT Valley
148 Gosan-Ro, Gunpo-Si
Kyunggi-Do, Korea
435-733
Telephone: +82-31-8068-1090
Facsimile: +82-31-8068-1092
sales@glenair.kr

**Glenair UK Ltd**
40 Lower Oakham Way
Oakham Business Park
P.O. Box 37, Mansfield
Notts, NG18 5BY England
Telephone: +44-1623-638100
Facsimile: +44-1623-638111
sales@glenair.co.uk

**Glenair Nordic AB**
Gustav III : S Boulevard 46
SE-169 27 Solna
Sweden
Telephone: +46-8-50550000
sales@glenair.se

**Glenair Iberica**
C/ La Vega, 16
45612 Velada
Spain
Telephone: +34-925-89-29-88
Facsimile: +34-925-89-29-87
sales@glenair.es

**Glenair France SARL**
7, Avenue Parmentier
Immeuble Central Parc #2
31200 Toulouse
France
Telephone: +33-5-34-40-97-40
Facsimile: +33-5-61-47-86-10
sales@glenair.fr


© 2016 Glenair, Inc.

Printed in U.S.A.

CAT-141