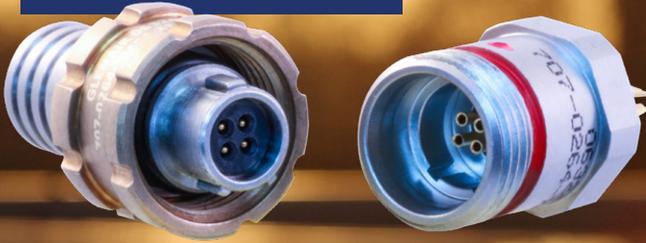




Series 707 Micro-PSI affords PIG designers the opportunity to design out legacy large form-factor connectors with a dramatically smaller high-speed interconnect solution.

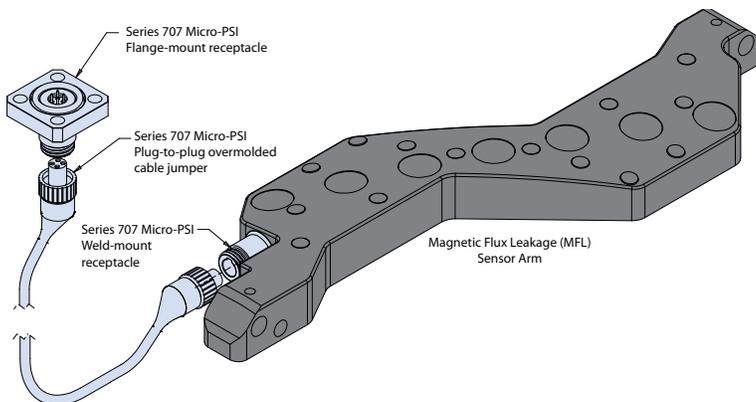


10K PSI SOLUTION

Micro-PSI

Microminiature high-speed, high-pressure connectors

The Series 707 Micro-PSI is a micro miniature 10K PSI high-pressure, high-temperature interconnect designed specifically for pipeline inspection applications in Magnetic Flux Leakage and ultrasonic pipeline inspection PIGs. The Micro-PSI insert arrangements feature high-density micro TwistPin layouts for sensor applications and high-speed Gigabit Ethernet, and a Coax contact layout for 3 GHz performance. Micro-PSI connectors are supplied as discrete plugs, or overmolded plug cordsets with rugged Viton or Polyurethane jacketing. Bulkhead and flange mount receptacles are 10K PSI open-face pressure sealed, and incorporate fused vitreous glass inserts for $<1 \times 10^{-7}$ scc He/sec hermetic performance. Serviceable O-rings on plugs and face O-rings on receptacles provide high-reliability sealing.



Application example shows the 707 Micro-PSI used to interconnect an MFL sensor to on-board PIG data storage.



Actual size!

- 10,000 PSI pressure rated
- 3 GHz Coax
- Less than 1×10^{-7} scc He/sec @ 1 ATM pressure differential
- Special-purpose high density (.056" contact spacing) intelligent inspection (PIG) connector series
- 2 Amp high-speed Gigabit Ethernet-ready
- -20° to +150°C temperature range
- High-density, small form-factor



10K PSI SOLUTION

Micro-PSI High-Speed, High Pressure I/I Connector



Specifications and insert arrangements

MICRO PSI HOW TO ORDER, SPECIFICATIONS, MATERIALS AND FINISHES

Micro-PSI - How To Order	
Sample Part Number	707-0264 -7 ME4 Z1 S N
Series / Basic P/N	707-0264 = Series and Basic Part Number
Connector Style	1 = CCP (Cable Connector Plug) 5 = CCR (Cable Connector Receptacle) 6 = FCR (Flange Mount Receptacle) 7 = BCR (Bulkhead Mount Receptacle)
Shell Size / Layout	ME1, ME4, ME6, MG10, MK19 (See Insert Arrangements diagram)
Shell Material	Z1 = Stainless Steel
Contact Type and Termination Style	Plugs P = Pin / Solder Cups C = Pin / PCB Terminals Receptacles S = Socket / Solder Cups D = Socket / PCB Terminals
Clocking Position	N = Normal, A, B, C (See Key and Keyway Positions table below)

Performance Ratings

Connector Pressure Ratings:
10,000 PSI (Open face receptacle)
10,000 PSI (Mated CCP)

Pressure Tested To:
10,000 PSI per ISO 13628-6

Electrical Performance:
Insulation Resistance: 1000 Megohms at 500 VDC per EIA-364-21
Coax Performance: DC to 3 GHz
Temperature Range: -20°C to +150°C

Hermeticity:
<1 x 10⁻⁷ scc He/sec @ 1 ATM pressure differential; receptacles only

Connector Material / Finish

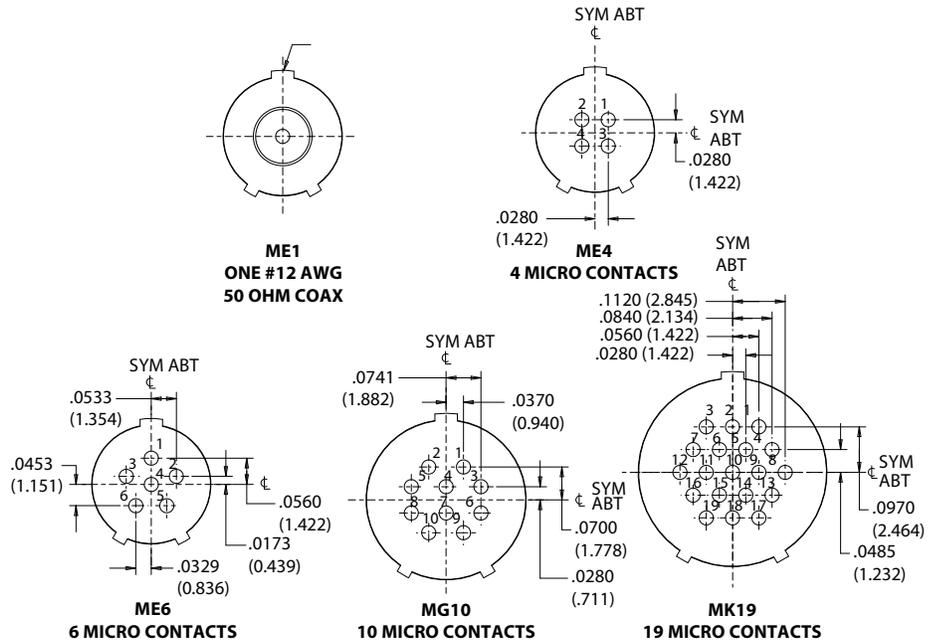
Connector Shell: 316L SST / passivated
Coupling Ring: nickel bronze / None
O-rings: Viton 90 durometer / none
Contacts: nickel-iron alloy / gold over nickel
Hermetic Seal: vitreous glass / none

NOTES

- Plug connectors typically supplied as prewired factory cable assemblies with Viton® overmolding for caustic chemical resistance
- Receptacle connectors commonly supplied as prewired pigtailed or flex jumpers for direct connection to printed circuit boards and / or data drives
- High-speed Ethernet up to 1Gbps

MicroPSI Key and Keyway Positions				
Key Position	Key Rotation		Plug	Receptacle
	X°	Y°		
Normal (N)	150°	210°		
A	75°	210°		
B	95°	230°		
C	140°	275°		

INSERT ARRANGEMENTS



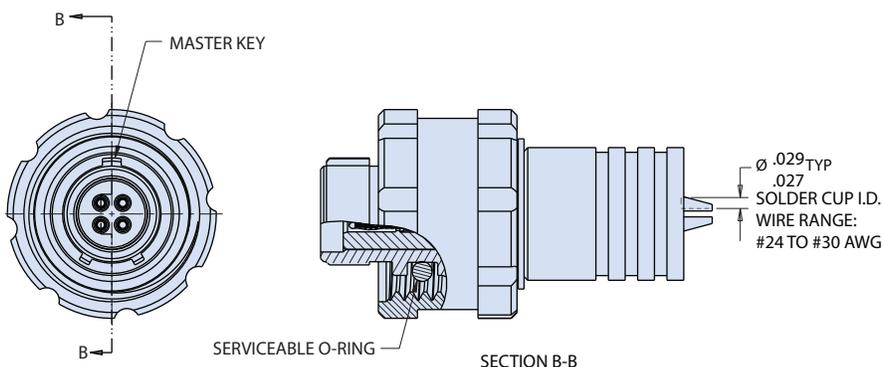
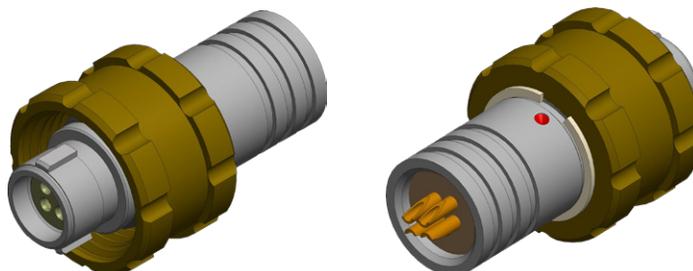


10K PSI SOLUTION Micro-PSI High-Speed, High Pressure I/L Connector Cable plugs and receptacles



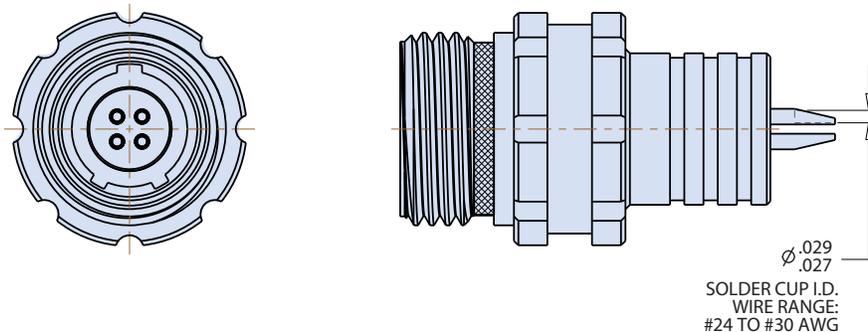
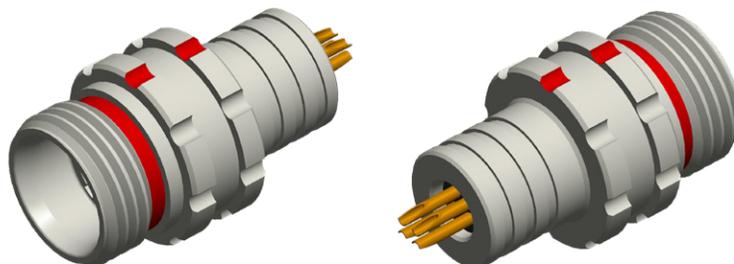
707-0264-1 MICRO-PSI CABLE CONNECTOR PLUG

- 10K PSI rated, mated condition
- Red alignment indicator for accurate mating
- Serviceable O-ring for reliable sealing and easy maintenance
- Ultra small form-factor
- Mates with 707-0264-5 CCR, 707-0264-6 FCR and 707-0264-7 BCR



707-0264-5 MICRO-PSI CABLE CONNECTOR RECEPTACLE

- 10K PSI open-face rated
- Glass-to-metal sealed, $<1 \times 10^{-7}$ scc He/sec hermeticity
- Operating temperature -20° to $+150^{\circ}$ C
- Alignment and full-mate indicators
- Ultra small form-factor
- Flying lead option available
- Mates with 707-0264-1 CCP Plugs



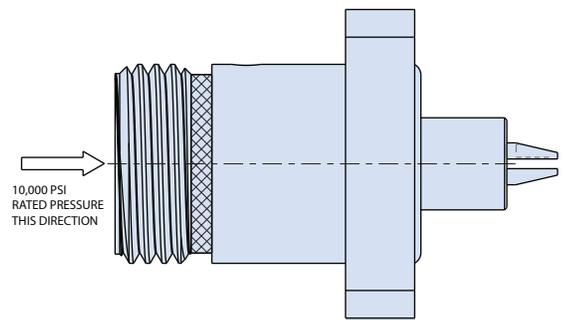
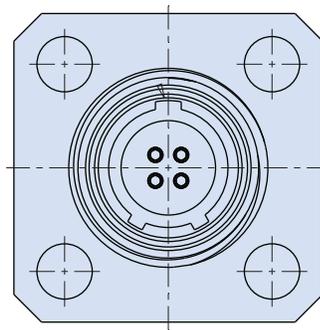
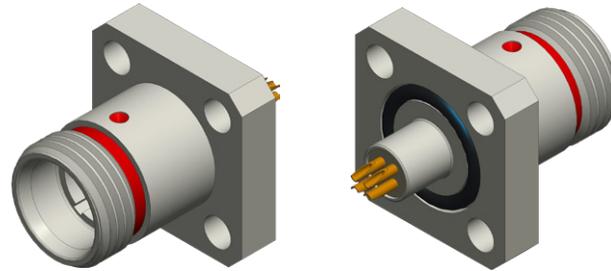


10K PSI SOLUTION Micro-PSI High-Speed, High Pressure I/I Connector Receptacles



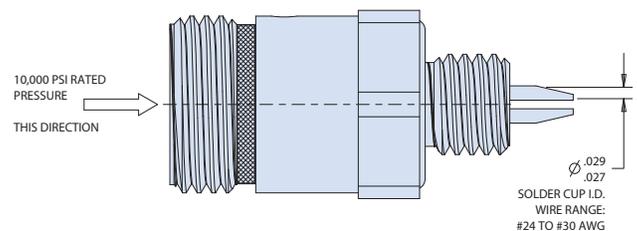
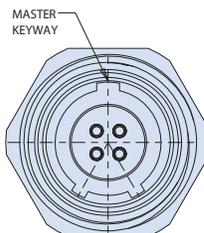
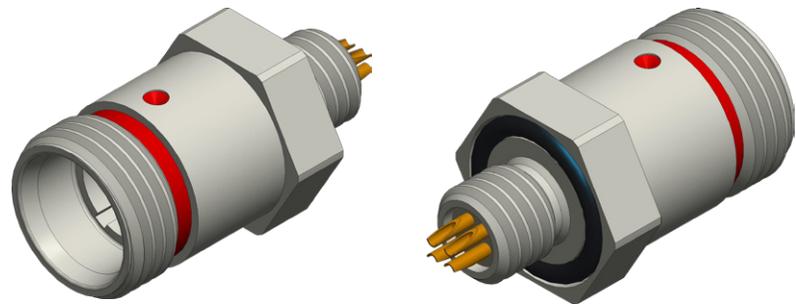
707-0264-6 MICRO-PSI FLANGE MOUNT RECEPTACLE

- 10K PSI open-face rated
- Glass-to-metal sealed, $<1 \times 10^{-7}$ scc He/sec hermeticity
- Operating temperature -20° to $+150^{\circ}$ C
- Alignment and full-mate indicators
- Ultra small form-factor
- Flying lead option available
- Mates with 707-0264-1 CCP Plugs



707-0264-7 MICRO-PSI BULKHEAD MOUNT RECEPTACLE

- 10K PSI open-face rated
- Glass-to-metal sealed, $<1 \times 10^{-7}$ scc He/sec hermeticity
- Operating temperature -20° to $+150^{\circ}$ C
- Alignment and full-mate indicators
- Flying lead option available
- Mates with 707-0264-1 CCP Plugs





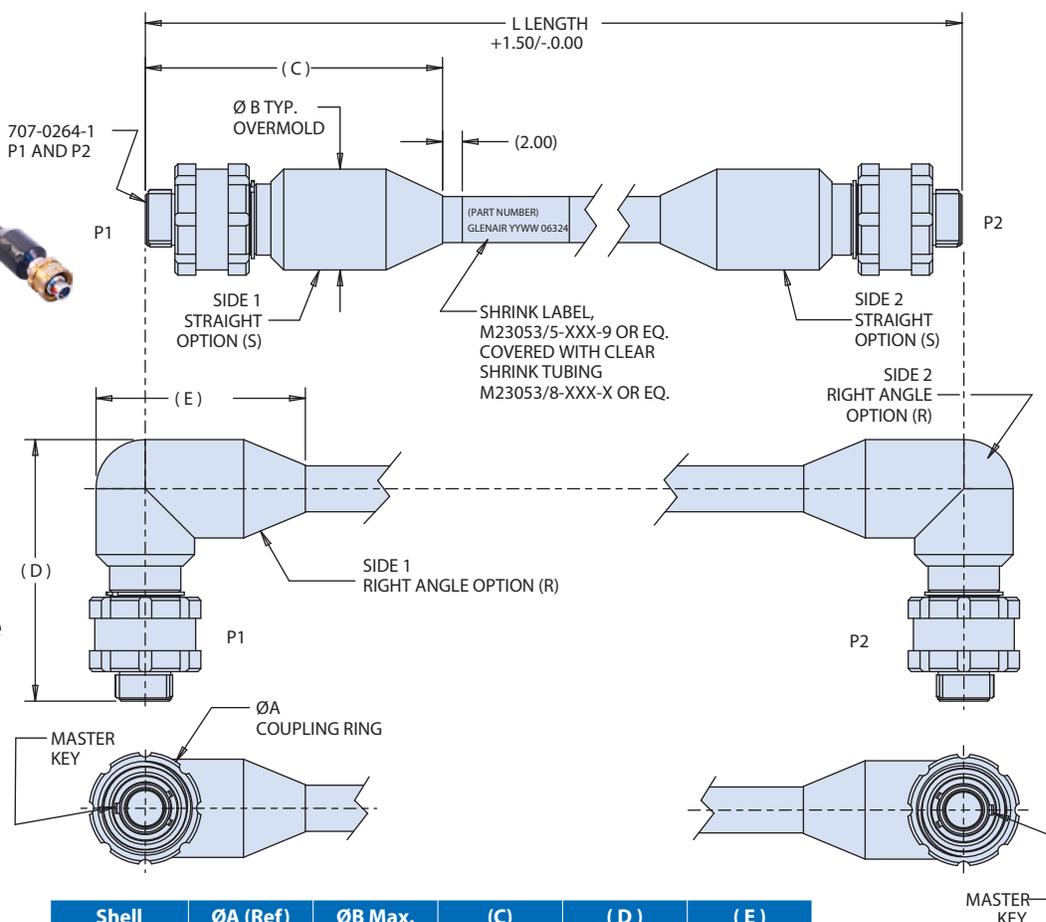
10K PSI SOLUTION Micro-PSI High-Speed, High Pressure ILI Connector



Overmolded and pigtail cable assemblies

7071-0069 MICRO-PSI OVERMOLDED PLUG-TO-PLUG / PIGTAIL CABLE ASSEMBLY

Micro-PSI - How To Order								
Sample Part Number	7071-0069	-S	R	-ME4	-Z1	U	N	-4
Series / Basic P/N	7071-0069 = Back-to-Back or Pigtail Plug Cable Assembly							
Overmold Style (P1)	R = Right Angle S = Straight							
Overmold Style (P2)	R = Right Angle S = Straight N = None (pigtail assembly)							
Shell Size / Contact Layout	ME1, ME4, ME6, MG10, MK19 (See Insert Arrangements diagram pg. 57)							
Plug Shell Material	Z1 = Stainless Steel							
Overmold and Jacket Mtrl	V = Viton U = Polyurethane							
Clocking Position	N = Normal, A, B, C (See page 59)							
Length (inches)	Length in inches, i.e. 4 equals 4 inches							



- Connectors and overmold assembly pressure-rated to 10K PSI
- 100% electrical test for shorts, DWV at 750 VAC and insulation resistance IAW MIL-STD-202

Shell Size	ØA (Ref) Cplg Ring	ØB Max. Overmold	(C) Overmold	(D) Overmold	(E) 90° Length
ME1 (Coax)	.550	.545	1.50	1.50	1.00
ME4 and ME6			2.25	1.50	1.60
MG	.675	.675	2.25	1.50	1.60
MK	.750	.750	2.25	1.65	1.80



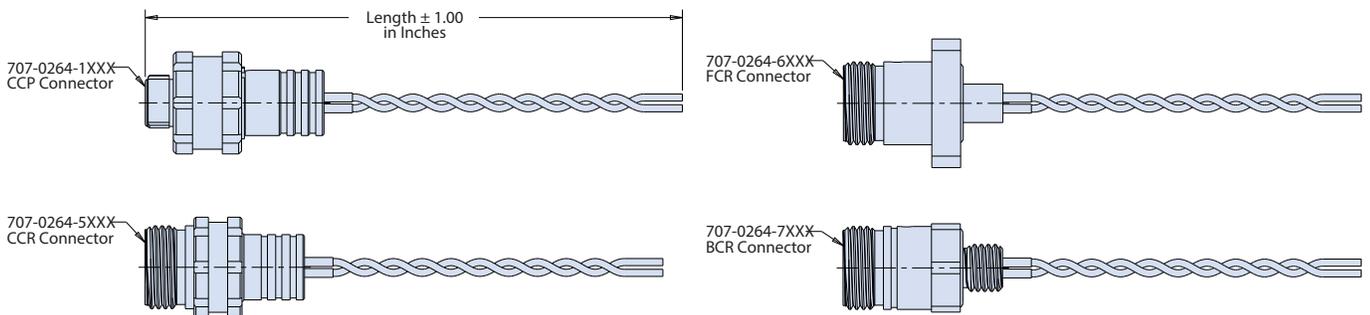
10K PSI SOLUTION Micro-PSI High-Speed, High Pressure ILI Connector



Flying-lead pigtail assemblies/protective covers

7071-0572 MICRO-PSI FLYING-LEAD PIGTAIL ASSEMBLY

Micro-PSI - How To Order	
Sample Part Number	7071-0572 7 -ME4 -Z1 S N -16
Series / Basic P/N	7071-0572 = Flying-Lead Pigtail Cable Assembly
Connector Style	1 = CCP 5 = CCR 6 = FCR 7 = BCR
Shell Size / Contact Layout	ME1, ME4, ME6, MG10, MK19 (See Insert Arrangements diagram pg. 57)
Plug Shell Material	Z1 = Stainless Steel
Contact and Termination Style	S = Socket Contacts (for receptacles) P = Pin Contacts (for plug)
Clocking Position	N = Normal
Flying Lead Length (inches)	Length in inches (tolerance ± 1.00 inches. Minimum 4 inches.)



- Plugs rated 10K PSI mated condition
- Receptacles rated 10K PSI open-face and mated
- 100% electrical test for shorts, DWV at 750 VAC and insulation resistance IAW MIL-STD-202

709-100 MICRO-PSI PRESSURE-RATED PROTECTIVE COVERS: 709-101 PLUG / 709-100 RECEPTACLE

- 10K PSI rated, mated condition
- Red alignment indicator on receptacle cover for accurate mating, full-mate indicator on plug cover
- Serviceable O-ring on receptacle cover for reliable sealing and easy maintenance

