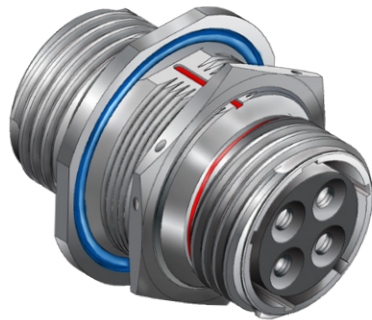




## Hermetic and Filter Receptacles

### 970-041 Lightweight Hermetic Jam Nut Feed-Thru Receptacle



- Quick-disconnect self-locking aerospace-grade power connector
- 2000 VAC (DWV)
- -65° to +200°C
- High shock, high vibration
- Safety interlock insert arrangements

970-041 jam nut hermetic bulkhead feedthrough receptacle accepts plugs on both sides. Code Red sealing process yields higher current rating and lighter weight compared to glass-sealed hermetic versions. Coupling threads are triple-start ACME quick-disconnect. PowerTrip connectors feature low resistance LouverBand contacts and are designed to withstand extreme environments.

## CODE RED

CODE RED is an innovative sealing process — invented by Glenair — that provides durable hermetic sealing in a lightweight aluminum package. CODE RED allows for the use of conventional gold-plated copper alloy contacts, significantly improving electrical performance. These connectors deliver reliable, life-of-system  $1 \times 10^{-7}$  max leak-rate hermetic sealing.

HERMETIC AND FILTER RECEPTACLES

INSERT ARRANGEMENTS						
Insert Arr.	Contact Size and Quantity					
	#16	#12	#8	#4	#1/0	#2/0
18-2			2			
18-4		2	2			
20-3			3			
20-4			4			
20-5		2	3			
20-7	4		3			
24-1					1	
24-2				2		
24-3				3		
24-5			5			
24-6		4		2		
24-A1						1
24-A6		3		3		
28-12	6		6			
28-15	15					
28-4				4		
28-8		1	7			
28-9	5			4		
32-12	2		10			
32-2					2	
32-20	1	19				
32-3					3	
32-4				2	2	
32-5				5		
32-6		3			3	
32-7				7		
32-A22		22				
36-16	3		13			
36-2						2
36-4					4	
36-9	14	14	2	1		
36-A8				8		
36-B8	4				4	
40-10	16		9	4		
40-21			21			
40-5					5	

HOW TO ORDER							
Sample Part Number →		970-041	ME	32-2	P	2	-1
<b>Basic Part Number</b>	970-041 Bulkhead Feedthrough Hermetic Jam Nut Receptacle						
<b>Material/Finish</b>	ME = Aluminum / Electroless Nickel NF = Aluminum / Olive Drab Cadmium ZR = Aluminum / Black Zinc-Nickel Z1 = Stainless Steel / Passivated						
<b>Shell Size-Insert Arr.</b>	See "Insert Arrangements" Table						
<b>Contact Designator</b>	P = Pin Contacts on Jam Nut Side (sockets opposite) S = Socket Contacts on Jam Nut Side (pins opposite)						
<b>Contact Plating</b>	2 = Gold						
<b>Keyway Position</b>	-1, -2, -3, -4, -5, or -6						

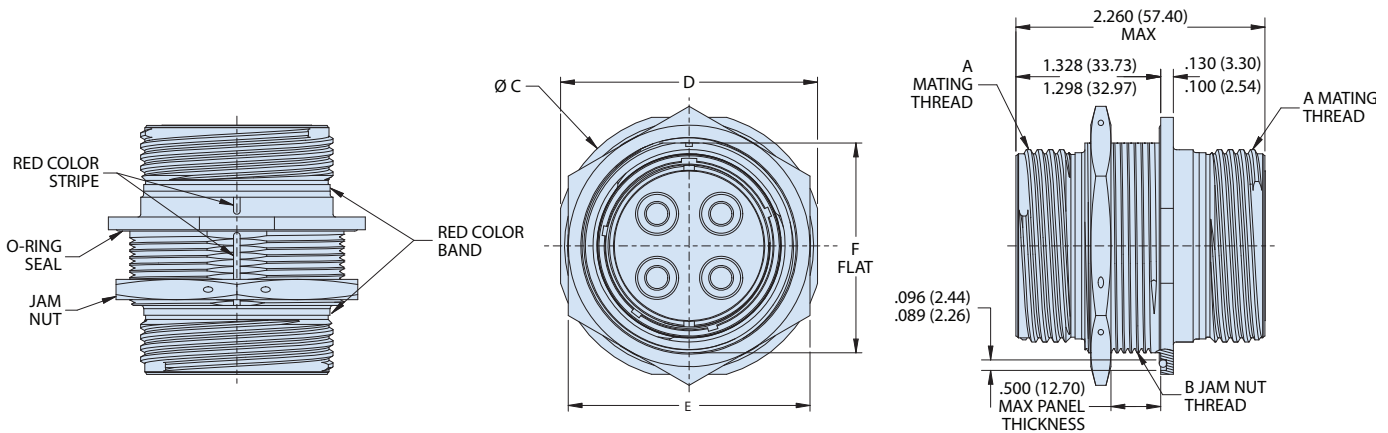
RATINGS
<b>Voltage (DWV):</b> 2000 Volts AC
<b>Current:</b> Size 16 contact 13 amps Size 12 contact 23 amps Size 8 contact 60 amps Size 4 contact 100 amps Size 1/0 contact 175 amps Size 2/0 contact 205 amps
<b>Operating temperature:</b> Matl/Finish Code ME, Z1: -65° to +200°C Codes NF, ZR: -65 to +175 °C
<b>Hermeticity:</b> 1E-7 cm <sup>3</sup> /s max leak rate @ 1 atmos
<b>Durability:</b> 500 mating cycles
<b>EMI shielding effectiveness:</b> 65 dB min. 100 MHz to 10 GHz
<b>Shock:</b> 50 g
<b>Vibration:</b> per MIL-DTL-38999 Series III
<b>MIL-S-901 high impact shock:</b> Grade A
<b>Blowing sand and dust:</b> MIL-STD-810, method 510.5
<b>Altitude immersion:</b> 75,000 feet
<b>Ingress protection:</b> IP67
<b>Water pressure:</b> 6 feet, 48 hours

CONSTRUCTION
<b>Contacts:</b> size #8 and larger: high conductivity copper alloy, gold plated. Size #12, #16: copper alloy, gold plated
<b>Shell, Jam Nut:</b> Aluminum or stainless steel, see How to Order
<b>Insulator:</b> Glass-filled thermoset epoxy
<b>Face seal, O-ring, peripheral seal:</b> fluorosilicone
<b>Insert retainer ring:</b> aluminum or stainless steel, see How to Order
<b>Sealing compound:</b> polymer encapsulant

Hermetic and Filter Receptacles

970-041 Lightweight Hermetic Jam Nut Feed-Thru Receptacle

HERMETIC AND FILTER RECEPTACLES



DIMENSIONS										
Shell Size	A Mating Thread	B Jam Nut Thread	Ø C		D		E		F	
			In.	mm.	In.	mm.	In.	mm.	In.	mm.
18	1.125-0.1P-0.3L-TS-2A	1.250-18UNEF-2A	1.733	44.02	1.639	41.63	1.438	36.53	1.212	30.78
20	1.250-0.1P-0.3L-TS-2A	1.4375-18UNEF-2A	1.921	48.79	1.827	46.41	1.625	41.28	1.399	35.53
24	1.500-0.1P-0.3L-TS-2A	1.625-18UNEF-2A	2.108	53.54	2.014	51.16	1.822	46.28	1.587	40.31
28	1.750-0.1P-0.3L-TS-2A	1.9375-16UN-2A	2.425	61.60	2.327	59.11	2.188	55.58	1.899	48.23
32	2.000-0.1P-0.3L-TS-2A	2.125-16UN-2A	2.607	66.24	2.513	63.86	2.375	60.33	2.084	53.00
36	2.250-0.1P-0.3L-TS-2A	2.375-16UN-2A	2.857	72.57	2.763	70.18	2.625	66.68	2.323	59.00
40	2.500-0.1P-0.3L-TS-2A	2.625-16UN-2A	3.107	78.92	3.013	76.53	2.875	73.03	2.548	54.72

KEY POSITIONS				
Position	A°	B°	C°	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

PANEL CUTOUT				
Shell Size	Diameter		Flat	
	In.	mm.	In.	mm.
18	-0.0/+0.010	-0.0/+0.25	-0.0/+0.010	-0.0/+0.25
20	1.265	32.13	1.217	30.91
24	1.452	36.88	1.409	35.79
28	1.640	41.66	1.596	40.54
32	1.952	49.58	1.910	48.51
36	2.140	54.36	2.092	53.14
40	2.390	60.71	2.342	59.49
40	2.640	67.06	2.557	64.95

RECOMMENDED JAM NUT TORQUE	
Shell Size	Min-Max (in-lb.)
18	80-85
20	100-110
24	110-120
28	145-155
32	170-180
36	190-200
40	210-220