



Hermetic and Filter Receptacles

970-025 Hermetic Jam Nut Receptacle



970-025 hermetic receptacle has stainless steel shell, fused glass insulator and iron-nickel alloy contacts. Contacts are three types: solder cup, bus bar or lug termination. Coupling threads are triple-start ACME quick-disconnect. PowerTrip connectors feature low resistance LouverBand contacts and are designed to withstand extreme environments.

- Quick-disconnect self-locking aerospace-grade power connector
- 2000 VAC (DWV)
- -65° to +200°C
- Fused glass hermetic seal
- High shock, high vibration

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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	970-025	ZL	20-4	P	1	-1
Basic Part Number	970-025 Hermetic Square Flange Receptacle					
Material/Finish	Z1 = Stainless Steel / Passivated ZL = Stainless Steel / Electrodeposited Nickel					
Shell Size-Insert Arr.	See "Insert Arrangements" Table					
Contact Type	P = Pin Contacts, Solder Cup S = Socket Contacts, Solder Cup PA = Pin Contacts, Bus Bar* SA = Socket Contacts, Bus Bar* PC = Pin Contacts, Lug* SC = Socket Contacts, Lug* <i>* Size 12 and 16 contacts are solder cup</i>					
Contact Plating	1 = Silver 2 = Gold					
Keyway Position	-1, -2, -3, -4, -5, or -6					

RATINGS
Voltage (DWV): 2000 Volts AC
Current: Size 16 contact 10 amps Size 12 contact 17 amps Size 8 contact 30 amps Size 4 contact 60 amps Size 1/0 contact 125 amps Size 2/0 contact 150 amps
Operating temperature: -65° to +200°C
Hermeticity: 1E-7 cm ³ /s max leak rate @ 1 atmos
Durability: 500 mating cycles
EMI shielding effectiveness: 65 dB min. 100 MHz to 10 GHz
Shock: 50 g
Vibration: per MIL-DTL-38999 Series III
MIL-S-901 high impact shock: Grade A
Blowing sand and dust: MIL-STD-810, method 510.5
Altitude immersion: 75,000 feet
Ingress protection: IP67
Pressure rating: 200 PSI

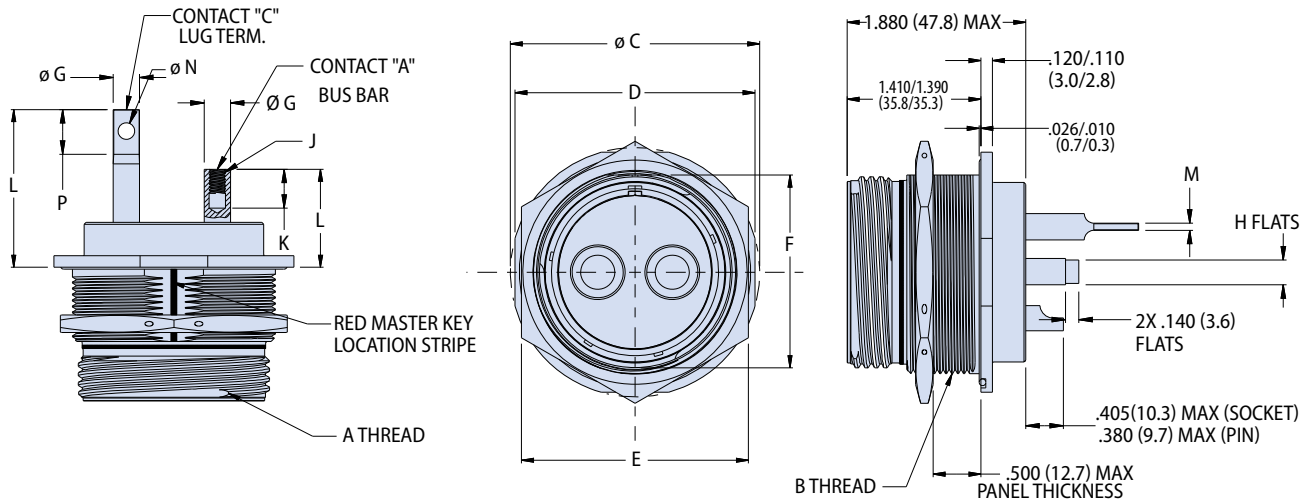
CONSTRUCTION
Contacts: iron-nickel alloy, gold or silver plated. Socket contacts have BeCu springs.
Shell, jam nut: stainless steel, passivated or electrodeposited nickel
Insulator: vitreous glass. Socket connectors have additional thermoplastic insulator.
Seals: fluorosilicone

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

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DIMENSIONS												
Shell Size	A Mating Thd.		B Jam-Nut Thd.		ø C		D		E		F	
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.		
18	1.125	28.54	1.250	31.75	1.733	44.02	1.639	41.63	1.438	36.53	1.212	30.78
20	1.250	31.75	1.4375	36.48	1.921	48.79	1.827	46.41	1.625	41.28	1.399	35.53
24	1.500	38.10	1.625	41.65	2.108	53.54	2.014	51.16	1.822	46.28	1.587	40.31
28	1.750	44.45	1.9375	49.20	2.425	61.60	2.327	59.11	2.188	55.58	1.899	48.23
32	2.000	50.80	2.125	54.00	2.607	66.24	2.513	63.86	2.375	60.33	2.084	53.01
36	2.250	57.15	2.375	60.30	2.857	72.57	2.763	70.18	2.625	66.68	2.323	59.00
40	2.500	63.50	2.625	66.75	3.107	78.92	3.013	76.53	2.875	73.03	2.548	64.72

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

CONTACT STYLE "A" BUS BAR									
Contact Size	ø G		H Flat (ref)		J THD UNF 2B	K depth		L Length	
	In.	mm.	In.	mm.		In.	mm.	In.	mm.
00	.609	15.5	1/2	12.7	5/16-24	.539	13.7	1.356/1.231	34.4/31.3
0	.562	14.3	1/2	12.7	5/16-24	.539	13.7	1.232/1.107	31.3/28.1
4	.386	9.8	5/16	7.9	10-32	.460	11.7	1.236/1.107	32.0/28.1
8	.275	7.0	5/16	7.9	8-36	.407	10.3	1.236/1.107	32.0/28.1

CONTACT STYLE "C" LUG TERMINATION										
Contact Size	ø G		M Thk		ø N Thru		P Flat		L Length	
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.
00	.609	15.5	.120	3.0	.330	8.4	.946	24.0	2.496/2.371	63.4/60.2
0	.562	14.3	.115	2.9	.330	8.4	.836	21.2	2.262/2.137	57.5/54.3
4	.386	9.8	.085	2.2	.198	5.0	.552	14.0	1.978/1.853	50.2/47.1
8	.275	7.0	.075	1.9	.173	4.4	.468	11.9	1.844/1.719	46.8/43.7

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