



## Hermetic and Filter Receptacles

### 970-038 Hermetic Receptacle with Crimp Contacts



970-038 hermetic receptacle has stainless steel shell, fused glass insulator and iron-nickel alloy contacts. Crimp, rear-release contacts are packaged with connector body. Coupling threads are triple-start ACME quick-disconnect. Accessory threads accept Adapter Code P backshells and clamps. 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
- Crimp, rear-release contacts
- High shock, high vibration

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 → 970-038 -H2 Z1 32-5 P 2 -1							
Basic Number	970-038 = Crimp Removable Receptacle						
Shell Style	-H2 = Square Flange -H7 = Jam Nut Mount						
Finish	Z1 = Stainless steel, passivate ZL = Stainless steel, electrodeposited nickel						
Shell Size-Insert Arr.	See "Insert Arrangements" Table						
Contact Style	P = Pin S = Socket						
Contact Plating	-1 = Silver (Size 12 and 16 contacts are gold plated) -2 = Gold						
Keyway Position	-1, -2, -3, -4, -5, or -6						

RATINGS
<b>Voltage (DWV):</b> 2000 Volts AC
<b>Current:</b> 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
<b>Operating temperature:</b> -65° to +200°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>Pressure rating:</b> 200 PSI

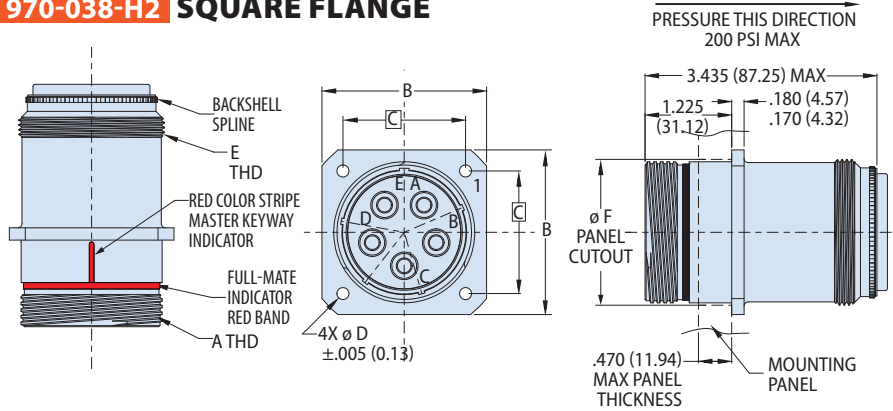
CONSTRUCTION
<b>Contacts, hermetic:</b> iron-nickel alloy, gold or silver plated.
<b>Contacts, crimp:</b> Copper alloy, gold or silver plated
<b>Shell, jam nut:</b> stainless steel, passivated or electrodeposited nickel
<b>Insulator, hermetic:</b> vitreous glass
<b>Insulator, crimp:</b> rigid dielectric
<b>Seals, grommet:</b> fluorosilicone

Hermetic and Filter Receptacles

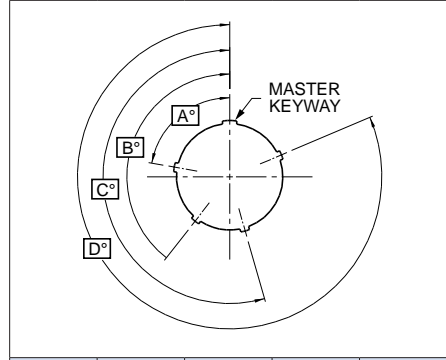
970-038 Hermetic Receptacle, Crimp Rear-Release Contacts

HERMETIC AND FILTER RECEPTACLES

**970-038-H2 SQUARE FLANGE**



**KEY POSITIONS**

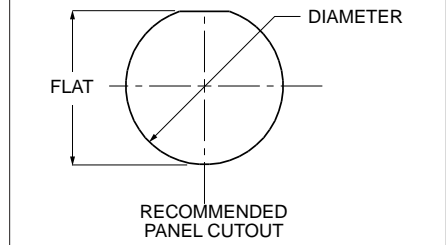


Position	A°	B°	C°	D°
1	80	142	196	293
2	135	170	200	310
3	49	169	200	244
4	66	140	200	257
5	62	145	180	280
6	79	153	197	272

**DIMENSIONS**

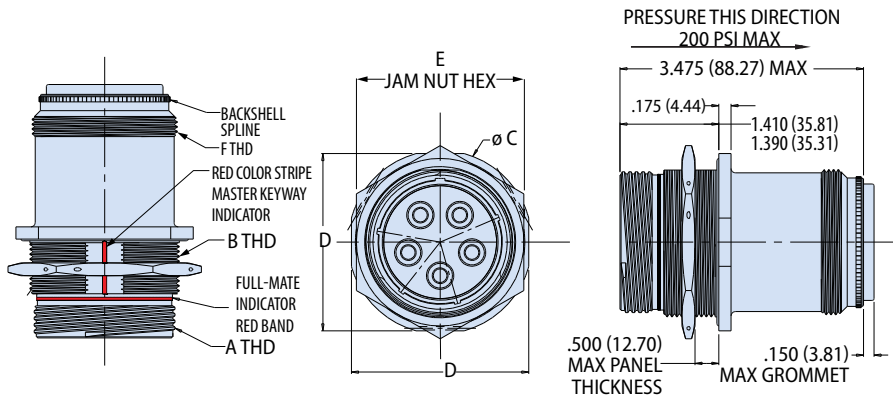
Shell Size	A Mating Thd.		B		C		ø D	E Acc. Thread	ø F
	In.	mm.	In.	mm.	In.	mm.			
18	1.125-.1P-.3L-TS-2A	1.383	35.13	1.015	25.78	.146	1.1250-18 UNEF-2A	1.187	
20	1.250-.1P-.3L-TS-2A	1.508	38.30	1.140	28.96	.146	1.2500-18 UNEF-2A	1.374	
24	1.500-.1P-.3L-TS-2A	1.718	43.64	1.281	32.54	.146	1.4375-18 UNEF-2A	1.562	
28	1.750-.1P-.3L-TS-2A	2.138	54.31	1.588	40.34	.170	1.8125-16 UN-2A	1.874	
32	2.000-.1P-.3L-TS-2A	2.328	59.13	1.734	44.04	.170	2.0625-16 UNS-2A	2.062	
36	2.250-.1P-.3L-TS-2A	2.578	65.48	1.984	50.39	.170	2.2500-16 UN-2A	2.302	
40	2.500-.1P-.3L-TS-2A	2.828	71.83	2.234	56.74	.170	2.5000-16 UN-2A	2.562	

**970-038-H7 PANEL CUTOUT**



Shell Size	Diameter		Flat	
	In. ±.005	mm. ± 0.13	In. ±.005	mm. ± 0.13
18	1.270	32.26	1.222	31.04
20	1.457	37.01	1.414	35.92
24	1.645	41.78	1.601	40.67
28	1.957	49.71	1.915	48.64
32	2.145	54.48	2.097	53.26
36	2.395	60.83	2.347	59.61
40	2.645	67.18	2.562	65.07

**970-038-H7 JAM NUT MOUNT**



**DIMENSIONS**

Shell Size	A Mating Thd.		B Mtng. Thd.		ø C		D Flat		E Hex		F Access. Thd.
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	
18	1.125-.1P-.3L-TS-2A	1.2500-18 UNEF-2A	1.723	43.76	1.639	41.63	1.438	36.53	1.1250-18 UNEF-2A		
20	1.250-.1P-.3L-TS-2A	1.4375-18 UNEF-2A	1.921	48.79	1.827	46.41	1.625	41.28	1.2500-18 UNEF-2A		
24	1.500-.1P-.3L-TS-2A	1.6250-18 UNEF-2A	2.108	53.54	2.014	51.16	1.822	46.28	1.4375-18 UNEF-2A		
28	1.750-.1P-.3L-TS-2A	1.9375-16 UN-2A	2.425	61.59	2.327	59.11	2.188	55.58	1.8125-16 UN-2A		
32	2.000-.1P-.3L-TS-2A	2.1250-16 UN-2A	2.607	66.22	2.513	63.83	2.375	60.33	2.0625-16 UNS-2A		
36	2.250-.1P-.3L-TS-2A	2.3750-16 UN-2A	2.857	72.57	2.763	70.18	2.625	66.68	2.2500-16 UN-2A		
40	2.500-.1P-.3L-TS-2A	2.6250-16 UN-2A	3.107	78.92	2.875	73.02	2.875	73.02	2.5000-16 UN-2A		

**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