

Series 806 Mil-Aero Connectors



806-089 Bulkhead Feedthrough Hermetic Receptacle

Series 806 cryogenic capable hermetic receptacles feature stainless steel shells and glass-to-metal seals. Rated for -195°C to +200°C temperature range. Micro miniature Series 806 connectors save size and weight compared to legacy aerospace-grade hermetic connectors. These high performance connectors are suitable for pressurized bulkhead applications subject to vibration, moisture, and temperature extremes. 806-089 receptacles are equipped with either solder cup or PC tails and are available in box mount, solder mount, jam nut, and weld mount options.

Material/Finish

- Shell & jam-nut: 304L cres / per p/n dev
- Contacts, hermetic: Nickel-iron alloy / gold plate
- Contacts, sockets: Copper alloy / gold plate
- Hoods, sockets: 305 cres / passivate
- Insulator, hermetic: Vitreous glass
- Insulator, socket: High grade dielectric
- Seals & o-rings: Duraelectric™ K

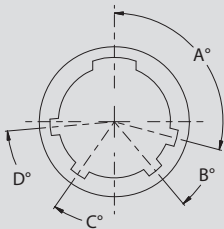
Test Criteria

- Leak rate: <1 X 10⁻⁷ ccHe/sec @ 1 ATM. delta pressure
- DWV: 1300 VAC (#22 contacts)
1800 VAC (#20, #16, #12 contacts)
1000 VAC (#8 contacts)
- I.R. - 5000 MEGOHMS MIN @ 500 VDC

How To Order ThermaRex Series 806 Mil-Aero Jam-nut Receptacle								
SAMPLE PART NUMBER		806-089	-07	Z1	8-7	P	A	-01
Series / Basic Part No.	806-089 Bulkhead Feedthrough Hermetic Receptacle							
Mounting Type	02 = Box Mount 07 = Jam-Nut Mount 13 = Weld Mount							
Finish	Z1 = Passivated ZL = Nickel Plated							
Shell Size - Insert Arr.	See Table I							
Contact Style	P = Pin On Panel Side, Socket Opposite S = Socket On Panel Side, Pin Opposite PP = Pin-Pin Feedthrough SS = Socket-Socket Feedthrough							
Polarization	A, B, C, D							
Panel Thickness	-01 = .125		-02 = .250		-03 = .500			

Please visit the hermetic catalog for a complete offering of our connectors.

Polarization Key Code



POS	A°	B°	C°	D°
A	105°	140°	215°	265°
B	102°	170°	248°	305°
C	80°	150°	230°	295°
D	68°	140°	205°	275°
E	64°	155°	234°	304°
F	72°	120°	200°	298°

Panel Thickness

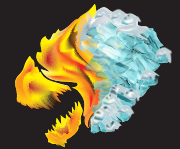
"T" Max	"U" Max
1.275 (32.39)	.750 (19.05)
1.400 (35.56)	.875 (22.23)
1.650 (41.91)	1.125 (28.58)

Table I: Shell Size - Insert Arrangement

Contact Layout	Number of Contacts					Contact Layout	Number of Contacts					Contact Layout	Number of Contacts				
	22HD	20HD	16	12	8		22HD	20HD	16	12	8		22HD	20HD	16	12	8
7-3	3					22-69		69				16-2					2
8-4	4					24-92		92				18-3					3
8-7	7					8-1			1			20-4					4
9-11	11					10-2			2			22-5					5
10-15	15					11-4			4			24-8					8
11-19	19					12-5			5			10-8A	6		2		
12-26	26					14-7			7			11-13	11		2		
14-39	39					16-12			12			12-27	26		1		
16-60	60					18-15			15			14-21	17		4		
18-85	85					20-22			22			16-41	37		4		
20-110	110					22-24			24			18-59	55		4		
22-140	140					24-35			35			11-14	13				1
24-186	186					9-1				1		14-22	20				2
8-3		3				12-2				2		12-14	12				2
9-5		5				14-3				3		16-42	40				2
10-8		8				16-4				4		18-62	60				2
11-10		10				16-7				7		14-20A	19				1
12-15		15				18-8				8		16-22	20				2
14-20		20				20-11				11		18-21	18				3
16-31		31				22-13				13		20-28	24				4
18-41		41				24-19				19		22-44	40				4
20-55		55				10-1					1	24-97	93				4

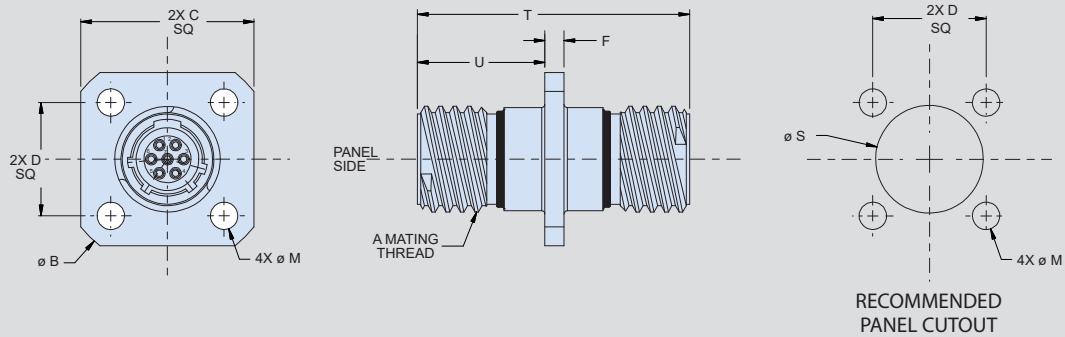
Series 806 Mil-Aero Connectors

806-089 Bulkhead Feedthrough Hermetic Receptacle



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806-089-02 Box Mount Receptacle Dimensions



Shell Size	"A" Thread Mating	"Ø B" Max Flange	"C" Square Max Flange Flats	"D" Square BSC Mounting Holes	"F" Max Flange	"Ø M" Thru MTG Holes
7	.4375-.067P-2L-TS-2A	0.968 (24.59)	0.750 (19.05)	0.469 (11.91)	0.100 (2.54)	0.128 (3.25)
8	.5000-.067P-2L-TS-2A	1.040 (26.42)	0.822 (20.88)	0.531 (13.49)		
9	.5625-.067P-2L-TS-2A	1.130 (28.70)	0.885 (22.48)	0.594 (15.09)		
10	.6250-.067P-2L-TS-2A	1.174 (29.82)	0.913 (23.19)	0.625 (15.88)		
11	.6875-.067P-2L-TS-2A	1.240 (31.50)	0.960 (24.38)	0.670 (17.02)		
12	.7500-.067P-2L-TS-2A	1.354 (34.39)	1.040 (26.42)	0.765 (19.43)		
14	.8750-.067P-2L-TS-2A	1.510 (38.35)	1.133 (28.78)	0.859 (21.82)		
16	1.0000-.067P-2L-TS-2A	1.620 (41.15)	1.227 (31.17)	0.938 (23.83)	0.125 (3.18)	0.154 (3.91)
18	1.1250-.067P-2L-TS-2A	1.784 (45.31)	1.320 (33.53)	1.016 (25.81)		
20	1.2500-.067P-2L-TS-2A	1.910 (48.51)	1.444 (36.68)	1.109 (28.17)		
22	1.3750-.067P-2L-TS-2A	2.083 (52.91)	1.570 (39.88)	1.203 (30.56)		
24	1.5000-.067P-2L-TS-2A	2.200 (55.88)	1.696 (43.08)	1.312 (33.32)		

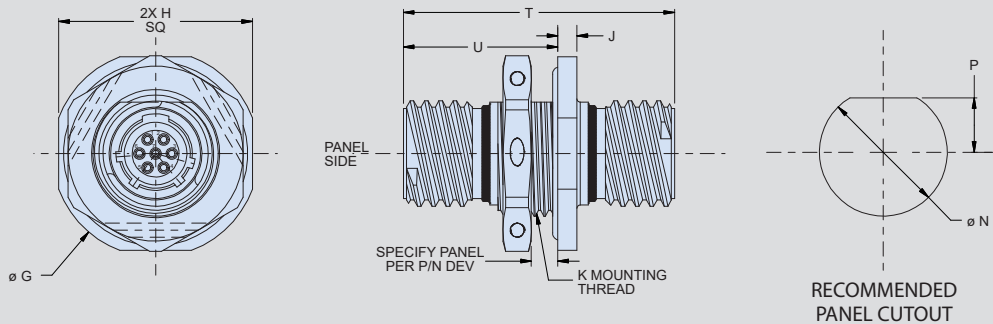
Series 806

Mil-Aero Connectors

806-089 Bulkhead Feedthrough Hermetic Receptacle



806-089-07 Jam-Nut Mount Receptacle Dimensions

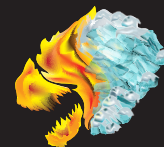


Shell Size	"A" Thread Mating	"ø G" MAX Flange	"H" Square Max Flange Flats	"J" Max Flange	"K" Thread Mounting
7	.4375-.067P-.2L-TS-2A	0.848 (21.54)	0.908 (23.06)	0.100 (2.54)	M13 X 1-6g .100R
8	.5000-.067P-.2L-TS-2A	0.980 (24.89)	0.920 (23.37)		M15 X 1-6g .100R
9	.5625-.067P-.2L-TS-2A	1.040 (26.42)	0.980 (24.89)		M16 X 1-6g .100R
10	.6250-.067P-.2L-TS-2A	1.110 (28.19)	1.050 (26.67)		M18 X 1-6g .100R
11	.6875-.067P-.2L-TS-2A	1.160 (29.46)	1.110 (28.19)		M19 X 1-6g .100R
12	.7500-.067P-.2L-TS-2A	1.230 (31.24)	1.170 (29.72)		M21 X 1-6g .100R
14	.8750-.067P-.2L-TS-2A	1.360 (34.54)	1.320 (33.53)		M24 X 1-6g .100R
16	1.0000-.067P-.2L-TS-2A	1.515 (38.48)	1.444 (36.68)		M27 X 1-6g .100R
18	1.1250-.067P-.2L-TS-2A	1.610 (40.89)	1.570 (39.88)		M30 X 1-6g .100R
20	1.2500-.067P-.2L-TS-2A	1.850 (46.99)	1.760 (44.70)		M34 X 1-6g .100R
22	1.3750-.067P-.2L-TS-2A	2.010 (51.05)	1.913 (48.59)	0.128 (3.25)	M37 X 1-6g .100R
24	1.5000-.067P-.2L-TS-2A	2.195 (55.75)	2.070 (52.58)		M41 X 1-6g .100R

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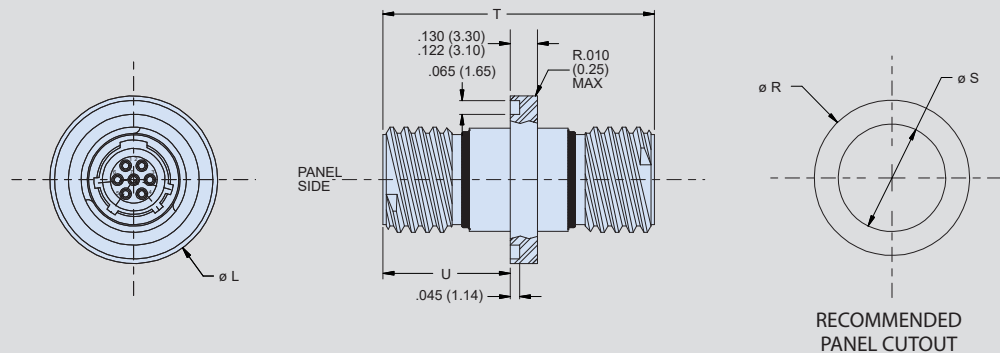
Mil-Aero Connectors

806-089 Bulkhead Feedthrough Hermetic Receptacle



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806-089-13 Weld Mount Receptacle Dimensions



Shell Size	"A" Thread Mating	" ϕL " $\pm .002$ Flange	" ϕR " $\pm .002$ MTG Hole	" ϕS " Thru
7	.4375-.067P-.2L-TS-2A	0.725 (18.42)	0.730 (18.54)	0.445 (11.30)
8	.5000-.067P-.2L-TS-2A	0.788 (20.02)	0.793 (20.14)	0.509 (12.93)
9	.5625-.067P-.2L-TS-2A	0.912 (23.16)	0.917 (23.29)	0.577 (14.66)
10	.6250-.067P-.2L-TS-2A	0.975 (24.76)	0.980 (24.89)	0.645 (16.38)
11	.6875-.067P-.2L-TS-2A	1.038 (26.37)	1.043 (26.49)	0.712 (18.08)
12	.7500-.067P-.2L-TS-2A	1.100 (27.94)	1.105 (28.07)	0.768 (19.51)
14	.8750-.067P-.2L-TS-2A	1.225 (31.12)	1.230 (31.24)	0.890 (22.61)
16	1.0000-.067P-.2L-TS-2A	1.350 (34.29)	1.355 (34.42)	1.015 (25.78)
18	1.1250-.067P-.2L-TS-2A	1.475 (37.47)	1.480 (37.59)	1.125 (28.58)
20	1.2500-.067P-.2L-TS-2A	1.600 (40.64)	1.605 (40.77)	1.275 (32.39)
22	1.3750-.067P-.2L-TS-2A	1.725 (43.82)	1.730 (43.94)	1.400 (35.56)
24	1.5000-.067P-.2L-TS-2A	1.850 (46.99)	1.855 (47.12)	1.525 (38.73)