

Features

- Operating temperature -195°C to +200°C
- Special low-temperature 300G shock and aerospace vibration testing while submerged in liquid nitrogen
- Triple-start stub ACME mating thread
- High density #20HD arrangements for reduced size and weight plus #16, #12 and #8 standard and hybrid contact layouts
- Aerospace-grade materials, construction
- Band platform or accessory threads

Specifications

- Dielectric withstanding voltage
#20HD contacts: 1800 VAC
#16 contacts: varies, contact factory
#12 contacts: varies, contact factory
#8 contacts: varies, contact factory
- Mating durability: 500 cycles
- Mechanical shock: EIA-364-27, 300g.
- Vibration (sine): MIL-DTL-38999M, 60g.
- Vibration (random) EIA-364-28 Condition VI, Letter J, 43.92 Grms, +200°C
- High Impact shock: MIL-S-901 Grade A
- Humidity: EIA-364-31 Method 4
- Salt spray (dynamic): EIA-364-26, 500 hours (96 hours for nickel-plated versions)
- Fluid immersion: EIA-364-10
- Altitude immersion: EIA-364-03 75,000 feet altitude
- Indirect Lightning Strike: EIA-364-75 Type B Level 2 10kA Peak

Connector Construction

- Shell, hex nut: passivated CRES or Aluminum Alloy
- Contacts: copper alloy, gold plate
- Insulator: high grade rigid dielectric
- Interfacial seal, grommet: Duraelectric K low-temp silicone

Extreme low-temperature 806-085 ThermaRex receptacle connectors are rated to perform in temperatures as low as -195° C. Intended for use in sub-zero harsh applications such as space vehicles or aircraft zones subject to high altitude, while providing size and weight savings compared to conventional aerospace-grade circular connectors. Unique triple-start mating thread provides improved de-coupling resistance under vibration. Pin or socket PC tails or solder cup contacts. Integral PCB stand off with standard 4-40 UNC threads and locatin post.

How To Order ThermaRex Series 806 Mil-Aero Jam-nut Receptacle

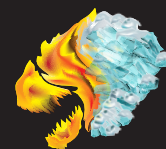
SAMPLE PART NUMBER		806-085	-Z1	11-19	S	M	A
Series / Basic Part No.	806-085 ThermaRex Cryogenic Jam Nut PCB Standoff Receptacle						
Material/Finish	ME = Aluminum Alloy / Electroless Nickel Z1 = Stainless Steel / Passivated						
Shell Size/Insert Arr.	See Table I						
Contact Style	P = Pin E = Solder cup, pin S = Socket F = Solder cup, SKT						
PC Tail Length	1 = .125±.025 Solder Cup = Omit						
Polarization	A, B, C, D, E, F						

Table I: Shell Size - Insert Arrangement

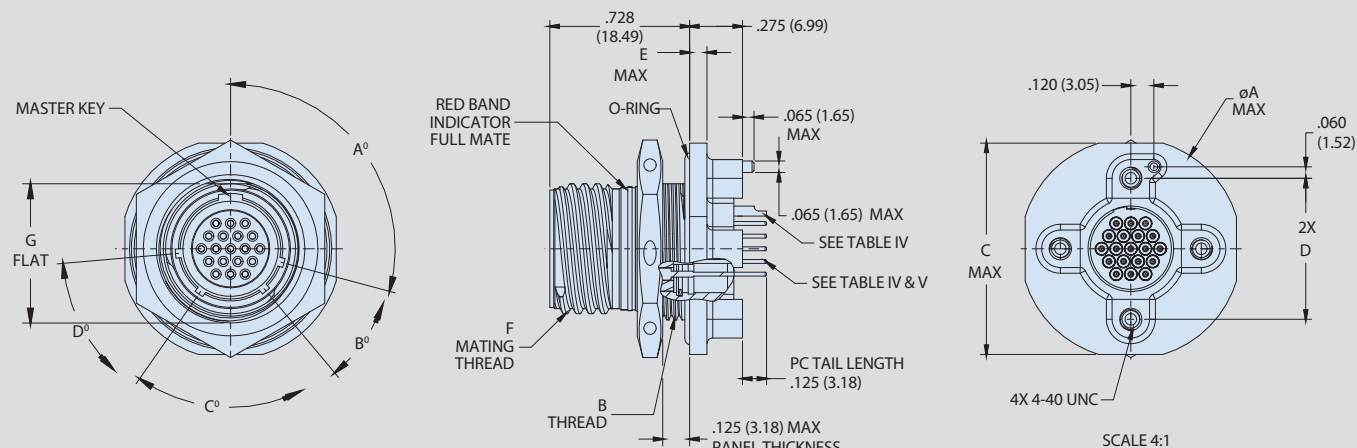
Contact Layout	Number of Contacts				Contact Layout	Number of Contacts				Contact Layout	Number of Contacts			
	20HD	16	12	8		20HD	16	12	8		20HD	16	12	8
8-3	3				10-2		2			16-4			4	
9-5	5				11-4		4			16-7			7	
10-8	8				12-5		5			18-8			8	
11-10	10				14-7		7			20-11			11	
12-15	15				16-12		12			22-13			13	
14-20	20				18-15		15			24-19			19	
16-31	31				20-22		22			10-1				1
18-41	41				22-24		24			16-2				2
20-55	55				24-35		35			18-3				3
22-69	69				9-1			1		20-4				4
24-92	92				12-2			2		22-5				5
8-1		1			14-3			3		24-8				8

Series 806 Mil-Aero Connectors

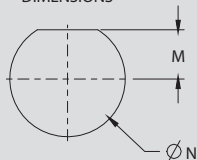
806-085 ThermaRex Cryogenic Jam Nut PCB Standoff Receptacle



ThermaRex™



RECOMMENDED MOUNTING HOLE DIMENSIONS



PC Tail Dimensions

CONTACT SIZE	PC TAIL DIA
8	.180 (4.57)
12	.094 (2.39)
16	.062 (1.57)
20	.030 (0.76)
22	.020 (0.51)

Polarization Keyway 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

Dimensions

SHELL SIZE	A MAX	B THREAD	C MAX	D	E MAX	F MATING THREAD	G FLAT
7	0.848 (21.54)	M8X 1-6g-.100R	0.908 (23.06)	0.489 (12.42)	0.100 (2.54)	.4375-.067P-.2L-TS-2A	0.463 (11.76)
8	0.980 (24.89)	M15 X 1-6g-.100R	0.920 (23.37)	0.534 (13.56)	0.100 (2.54)	.5000-.067P-.2L-TS-2A	0.534 (13.56)
9	1.040 (26.42)	M16 X 1-6g-.100R	0.980 (24.89)	0.579 (14.71)	0.100 (2.54)	.5625-.067P-.2L-TS-2A	0.585 (14.86)
10	1.110 (28.19)	M18 X 1-6g-.100R	1.050 (26.67)	0.679 (17.25)	0.100 (2.54)	.6250-.067P-.2L-TS-2A	0.656 (16.66)
11	1.160 (29.46)	M19 X 1-6g-.100R	1.110 (28.19)	0.734 (18.64)	0.100 (2.54)	.6875-.067P-.2L-TS-2A	0.707 (17.96)
12	1.230 (31.24)	M21 X 1-6g-.100R	1.170 (29.72)	0.804 (20.42)	0.100 (2.54)	.7500-.067P-.2L-TS-2A	0.777 (19.74)
14	1.360 (34.54)	M24 X 1-6g-.100R	1.320 (33.53)	0.891 (22.63)	0.100 (2.54)	.8750-.067P-.2L-TS-2A	0.899 (22.83)
16	1.515 (38.48)	M27 X 1-6g-.100R	1.444 (36.68)	1.049 (26.64)	0.100 (2.54)	1.000-.067P-.2L-TS-2A	1.020 (25.91)
18	1.610 (40.89)	M30 X 1-6g-.100R	1.570 (39.88)	1.148 (29.16)	0.100 (2.54)	1.1250-.067P-.2L-TS-2A	1.142 (29.01)
20	1.850 (46.99)	M34 X 1-6g-.100R	1.760 (44.70)	1.252 (31.80)	0.128 (3.25)	1.250-.067P-.2L-TS-2A	1.283 (32.59)
22	2.010 (51.05)	M37 X 1-6g-.100R	1.913 (48.59)	1.369 (34.77)	0.128 (3.25)	1.3750-.067P-.2L-TS-2A	1.405 (35.69)
24	2.195 (55.75)	M41 X 1-6g-.100R	2.070 (52.58)	1.509 (38.33)	0.128 (3.25)	1.5000-.067P-.2L-TS-2A	1.546 (39.27)

Panel Cutout Dimensions

SHELL SIZE	M +.005 0.000 (0.00)	N +.005 0.00 (0.00)
7	0.224 (5.69)	0.522 (13.26)
8	0.256 (6.50)	0.601 (15.27)
9	0.287 (7.29)	0.640 (16.26)
10	0.318 (8.08)	0.719 (18.26)
11	0.350 (8.89)	0.759 (19.28)
12	0.381 (9.68)	0.837 (21.26)
14	0.443 (11.25)	0.955 (24.26)
16	0.505 (12.83)	1.073 (27.25)
18	0.568 (14.43)	1.192 (30.28)
20	0.630 (16.00)	1.349 (34.26)
22	0.693 (17.60)	1.467 (37.26)
24	0.755 (19.18)	1.624 (41.25)