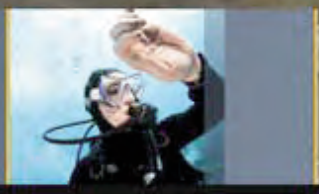
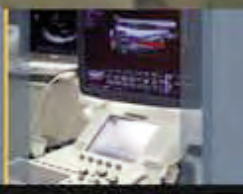
ITT

Interconnect Solutions
Cannon, VEAM, BIW

Enabling miniaturization of critical,
soldier technology applications
through the fielding of the industry's most
innovative mini-circular product lines



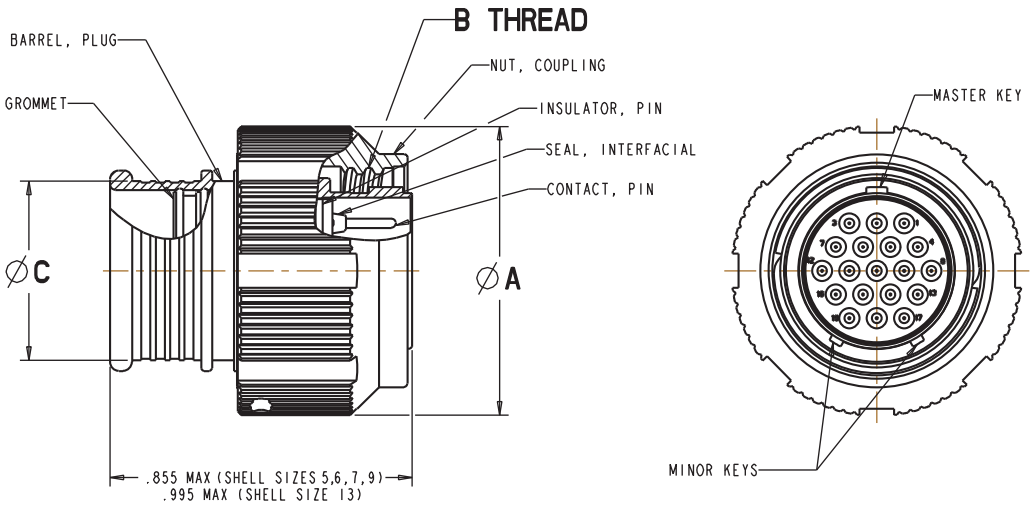
Engineered for life

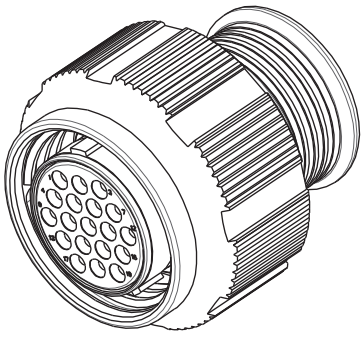
The MKJ1 is a robust connector meeting MIL-DTL-38999 shock and vibration requirements. Plug connector comes with an anti-decoupling spring for vibration resistance. Ideal for harsh environments where a robust electrical connection is required under the most demanding shock and vibration conditions. Proven design for avionics, satellites, and missile systems.

Specifications

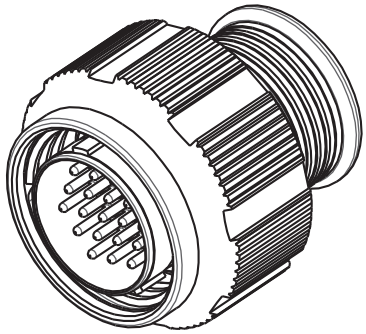
Contact Type	Rear crimp or PCB mount
Contacts	Size 23 (0.076" spacing), Size 16 (.177" spacing)
Wire Size	#22 - #28 AWG (Size 23 Contacts), #16 - #20 AWG (Size 16 Contacts)
Contact Rating	5 Amps Maximum
Voltage Rating	500 VAC RMS sea level
Insulation Resistance	5,000 Megaohms minimum
Operating Temperature	-55°C to +150°C
Contact Resistance	8 Milliohms maximum
Vibration	40 g's in accordance with MIL-STD-1344 Method 2005, Condition IV
Shock	300 g's in accordance with MIL-STD-1344 Method 2004, Condition E
Durability	2,000 mating cycles
Receptacle Mounting	Jam nut or Wall Mount
EMI Shielding	40db attenuation, 100Mhz to 1000Mhz
Coupling	Double Start Threaded
Materials	Shells - Aluminum Alloy or Stainless Steel Insulators - Thermostatic Seals - Flurosilicone Contacts - Copper alloy with gold over nickel plating

MKJ1 Plug (Banding Platform)





Socket Insert

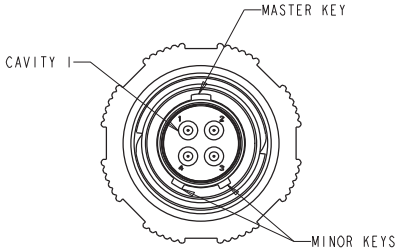


Pin Insert

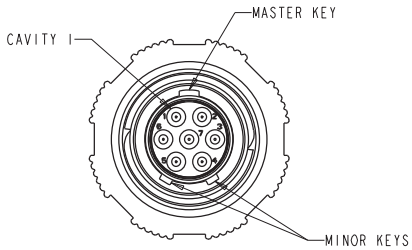
MKJ1 PLUG DIMENSIONS					
LAYOUT	Ø A	B THREAD (ACME DOUBLE START)	Ø C	MAX WEIGHT IN GRAMS	
				PIN	SOCKET
6-4	.600	.375- .05P .1L -2B	.290	5.0	5.5
6-7	.600	.375- .05P .1L -2B	.290	5.1	5.5
7-10	.680	.4375- .05P .1L -2B	.390	6.9	7.7
9-19	.810	.5625- .05P .1L -2B	.500	9.4	10.9
13-37	1.050	.8125- .05P .2L -2B	.650	18.9	21.7

Dimensions shown in inches (mm)
Specifications and dimensions subject to change

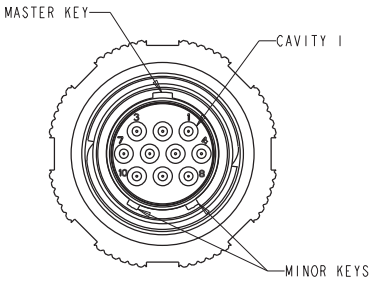
Plug Connector Orientation Front Side



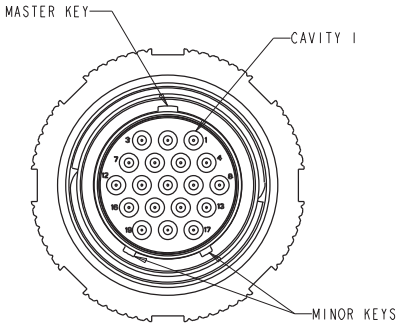
6-4 LAYOUT



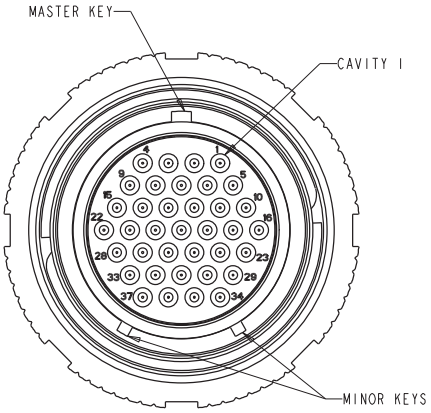
6-7 LAYOUT



7-10 LAYOUT



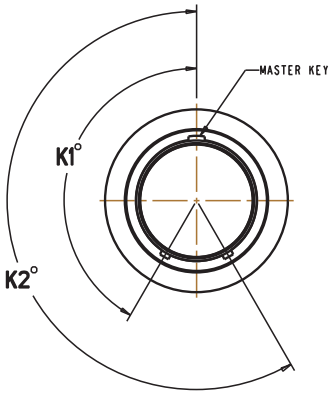
9-19 LAYOUT



13-37 LAYOUT

Note: Pin insert front side shown for reference only. Socket insert is a mirror image.

MKJ1 Plug Barrel Clocking Positions

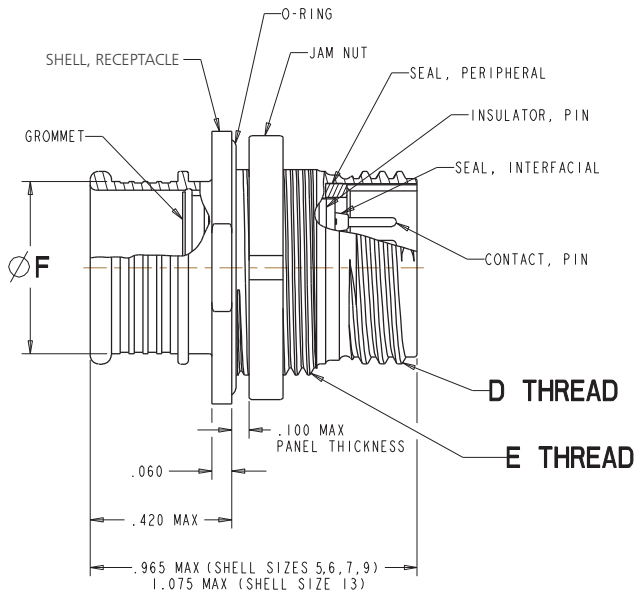


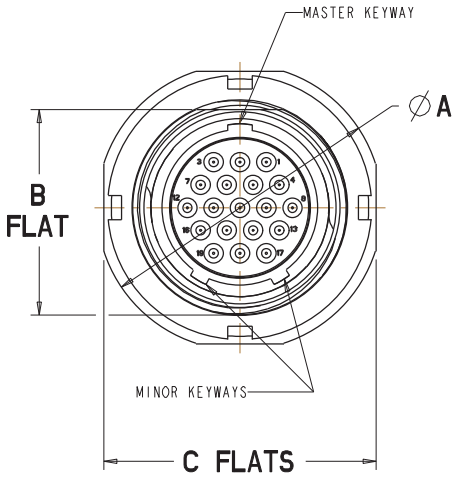
Barrel Clocking
(A- Clocking Shown)

Master keyway remains stationary at top dead center for all sizes and clocking.

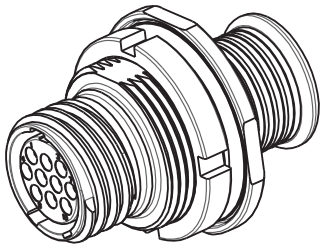
BARREL CLOCKING		
POSITION	**K1°**	**K2°**
A (NORMAL)	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°

MKJ1 Jam Nut Receptacle (Banding Platform)

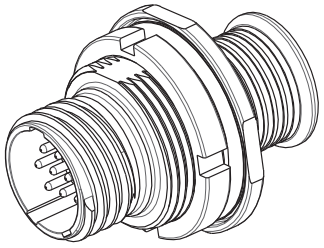




MKJ1 JAM NUT RECEPTACLE DIMENSIONS								
LAYOUT	Ø A FLANGE DIA.	B FLAT	C FLATS	D THREAD (ACME DOUBLE START)	E THREAD UN-2A	Ø F	MAX WEIGHT IN GRAMS	
							PIN	SOCKET
6-4	.635	.410	.595	.375- .05P .1L -2A	.4375-2B	.290	4.1	4.6
6-7	.635	.410	.595	.375- .05P .1L -2A	.4375-2B	.290	4.2	4.6
7-10	.755	.536	.723	.4375- .05P .1L -2A	.5625-2B	.390	6.2	7.0
9-19	.830	.596	.790	.5625- .05P .1L -2A	.625-2B	.500	7.8	9.3
13-37	1.078	.845	1.044	.8125- .1P .2L -2A	.875-2B	.650	14.6	17.3

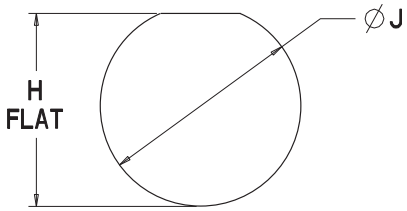


Socket Insert



Pin Insert

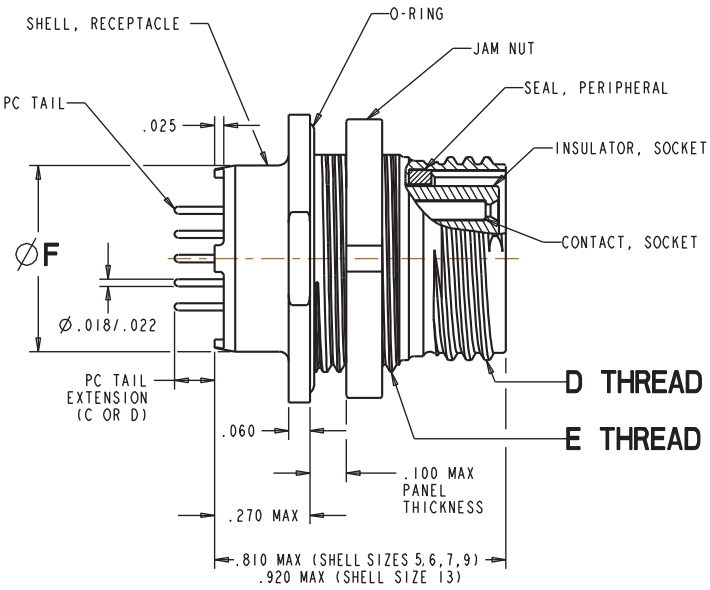
Panel Cutouts

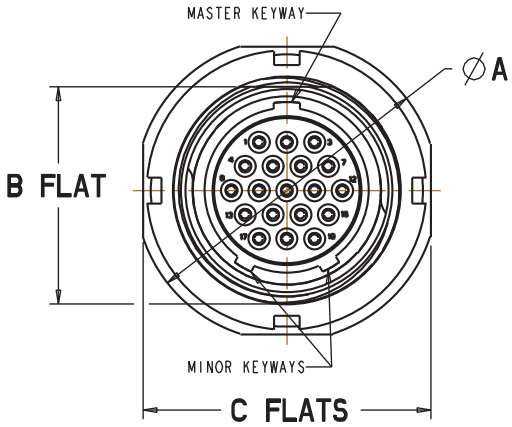


LAYOUT	H FLAT ±.002	Ø J
6 - 4	.420	.448
6 - 7	.420	.448
7 - 10	.551	.573
9 - 19	.609	.635
13 - 37	.859	.885

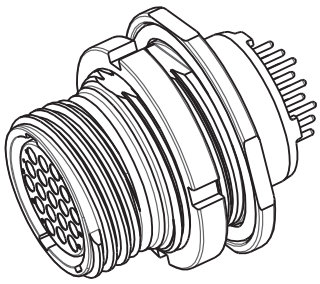
Dimensions shown in inches (mm)
Specifications and dimensions subject to change

MKJ1 PCB Jam Nut Receptacle (PCB Mount)

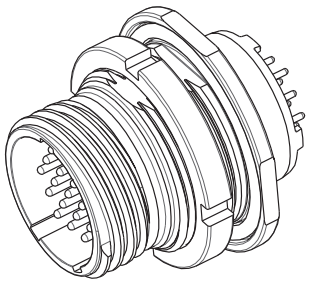




MKJ1 JAM NUT RECEPTACLE DIMENSIONS								
LAYOUT	Ø A FLANGE DIA.	B FLAT	C FLATS	D THREAD (ACME DOUBLE START)	E THREAD UN-2A	Ø F	MAX WEIGHT IN GRAMS	
							PIN	SOCKET
6-4	.635	.410	.595	.375- .05P .1L -2A	.4375-28	.322	4.4	4.9
6-7	.635	.410	.595	.375- .05P .1L -2A	.4375-28	.322	4.7	5.1
7-10	.755	.536	.723	.4375- .05P .1L -2A	.5625-28	.432	6.9	7.7
9-19	.830	.596	.790	.5625- .05P .1L -2A	.625-28	.512	9.2	10.7
13-37	1.078	.845	1.044	.8125- .1P .2L -2A	.875-28	.677	17.1	19.9

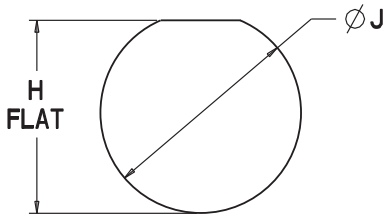


Socket Insert



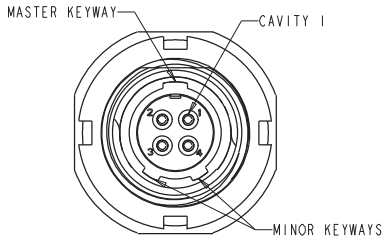
Pin Insert

Panel Cutouts

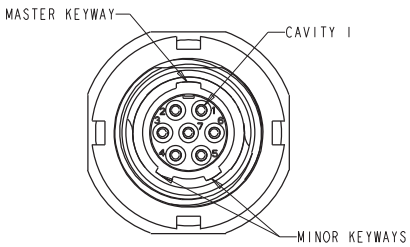


LAYOUT	H FLAT ±.002	Ø J
6 - 4	.420	.448
6 - 7	.420	.448
7 - 10	.551	.573
9 - 19	.609	.635
13 - 37	.859	.885

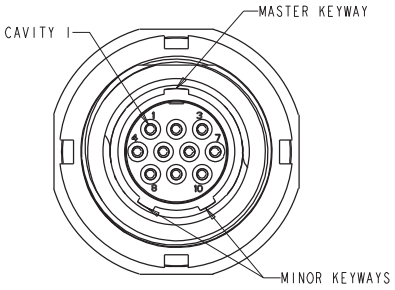
Receptacle Connector Orientation Front Side



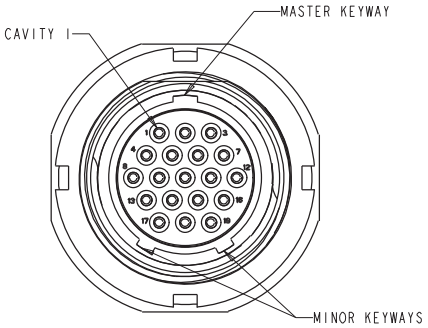
6-4 LAYOUT



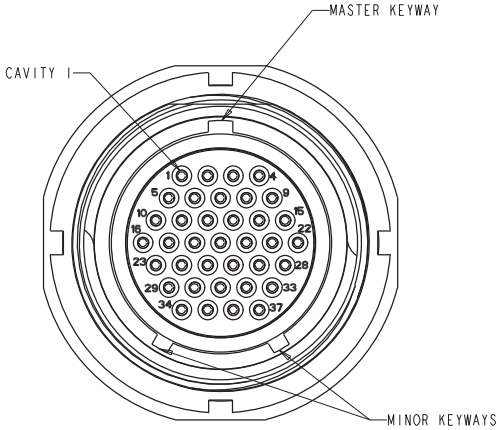
6-7 LAYOUT



7-10 LAYOUT



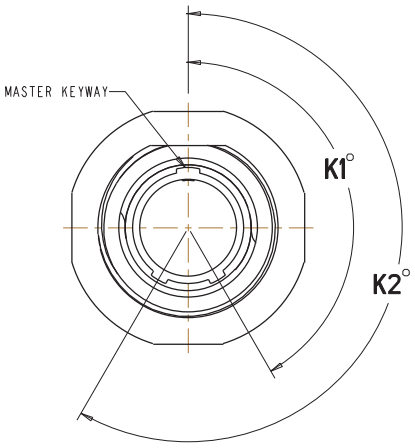
9-19 LAYOUT



13-37 LAYOUT

Note: Socket insert front side shown for reference only. Pin insert is a mirror image.

MKJ1 Receptacle Shell Clocking Positions



Shell Clocking
(A- Clocking Shown)

Master keyway is perpendicular with B Flat for all sizes and remains stationary at top dead center for all clockings.

SHELL CLOCKING		
POSITION	**K1°**	**K2°**
A (NORMAL)	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°