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MKJ4 Series
Connectors Catalog



ITT

Our connector portfolio remains one of the most extensive in the industry, providing customers with a reliable and cost-effective range of interconnect solutions.

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MKJ4

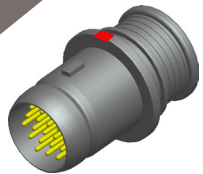
Breakaway Quick Disconnect



Features & Benefits

- Blind mateable connection, and controlled breakaway release.
- Robust configurations with 9 shell sizes and 29 standard arrangements.
- Prevent mismatching with 6 clocking positions.
- Environmentally sealed.
- Various styles available for panel mounting or cable assemblies.

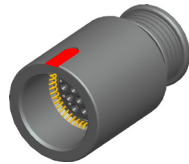
Whether protecting equipment or providing safety for soldiers, breakaway connectors play a critical role. The MKJ4 Series offers a field proven breakaway feature utilizing a canted retention spring disconnect coupling mechanism. This allows for a quick and easy push-pull mating and unmating. MKJ4 is a versatile and durable connector system which reliably supports the high performance protocols needed for critical communication, navigation and high-speed data transmission.



Straight Plug - Banded



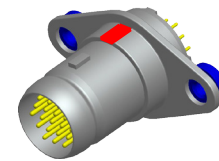
Straight Plug - Threaded



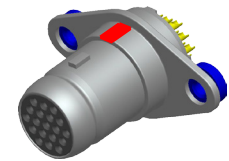
In-Line Receptacle Banded



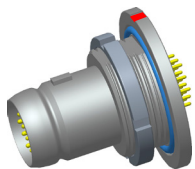
In-Line Receptacle Accessory Thread



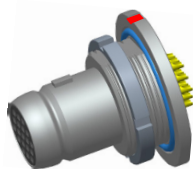
Box Mount Plug (Flange) PCB - PC Tail



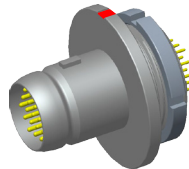
Box Mount Plug (Flange) PCB - Solder Cup



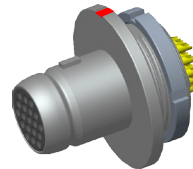
Jam Nut Plug - Rear Panel Mount PCB - PC Tail



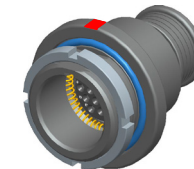
Jam Nut Plug - Rear Panel Mount PCB - Solder Cup



Jam Nut Plug - Front Panel Mount PCB - PC Tail



Jam Nut Plug - Front Panel Mount PCB - Solder Cup



Jam Nut Receptacle Rear Panel Mount - Banded



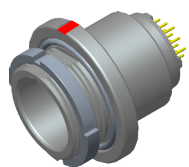
Jam Nut Receptacle Rear Panel Mount - Threaded



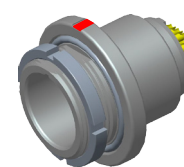
Jam Nut Receptacle Front Panel Mount - Banded



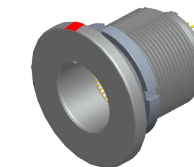
Jam Nut Receptacle Front Panel Mount - Threaded



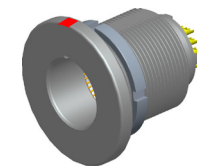
Jam Nut Receptacle Rear Panel PCB - PC Tail



Jam Nut Receptacle Rear Panel PCB - Solder Cup



Jam Nut Receptacle Front Panel PCB - PC Tail



Jam Nut Receptacle Front Panel PCB - Solder Cup

MKJ4 - Ordering Guide

Part Number Configurator

1- Series	2- Coupling	3- Class	4- Shell Style	5- Plating	6- Arrangement	7- Contact Style	8- Clocking	9- MOD Codes
MKJ	4	A	6	F	9-19	P	A	-F0

1- Product	
MKJ	MKJ Series
2- Coupling	
4	Breakaway / Quick Disconnect
3- Class	
A	Environmental with Banding/Overmolding Attachment
B	Environmental with Threaded Accessory Attachment
C	Back-Potted Plug/Receptacle-PC/Flex/Solder
4- Shell Style	
1	In-Line Receptacle
4	Box Mount Plug (Flange)
6	Straight Plug
7	Jam Nut Receptacle-Rear Panel Mount
8	Jam Nut Receptacle-Front Panel Mount
9	Jam Nut Plug-Rear Panel Mount
10	Jam Nut Plug-Front Panel Mount
5- Plating	
C	Aluminum / Anodized, Black
F	Aluminum/Electroless Nickel
K	Stainless Steel / Passivated
N	Stainless Steel/Electroless Nickel
T	Aluminum/Teflon Nickel
W	Aluminum/Olive Drab Cadmium over Electroless Nickel
Y	Stainless Steel / Electroless Nickel, Black
Z	Aluminum/Zinc Nickel, Black

6- Standard Arrangements (For Combo, please reference page 11)			
5-3	3 Size 23 Contacts	6-1	1 Size 16 Contact
6-4	4 Size 23 Contacts	8-2	2 Size 16 Contacts
6-6	6 Size 23 Contacts	9-4	4 Size 16 Contacts
6-7	7 Size 23 Contacts	10-5	5 Size 16 Contacts
7-10	10 Size 23 Contacts	12-7	7 Size 16 Contacts
8-13	13 Size 23 Contacts	14-12	12 Size 16 Contacts
9-19	19 Size 23 Contacts	7-1	1 Size 12 Contact
10-26	26 Size 23 Contacts	10-2	2 Size 12 Contacts
11-31	31 Size 23 Contacts	12-2	2 Size 12 Contact
12-37	37 Size 23 Contacts	12-3	3 Size 12 Contact
14-55	55 Size 23 Contacts	14-4	4 Size 12 Contact
6-23	3 Size 20HD Contacts	14-5	5 Size 12 Contact
7-25	5 Size 20HD Contacts		
8-28	8 Size 20HD Contacts		
9-210	10 Size 20HD Contacts		
12-220	20 Size 20HD Contacts		
14-235	35 Size 20HD Contacts		

7- Contact Style		
P	Pin, Crimp, Removable (Class A & B)	
S	Socket, Crimp, Removable (Class A & B)	
A	Pin, PC-Tail, .062 Extension (Class C)	
B	Pin, PC-Tail, .109 Extension (Class C)	
G	Pin, PC-Tail, .125 Extension (Class C)	
C	Socket, PC Tail, .062 Extension (Class C)	
D	Socket, PC Tail, .109 Extension (Class C)	
H	Socket, PC Tail, .125 Extension (Class C)	
E	Pin, Solder Cup (Class A through C)	
F	Socket, Solder Cup (Class A through C)	
8- Clocking		
Position	K1°	K2°
A (Normal)	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°
E	75°	275°
F	95°	210°
Blank	Master Key Only, No Minor keys	
9- Modification Codes		
-F0	Less Contacts ("F0" not stamped on connector, but must be included on the P.O.)	
-518	Class "C" PC style black potted connectors w/water immersion testing	

Clocking

Plug Shell Clocking Dimensions			
	Position	K1°	K2°
	A (Normal)	150°	210°
	B	75°	210°
	C	95°	230°
	D	140°	275°
	E	75°	275°
	F	95°	210°
Blank	Master Key Only No Minor keys		

Receptacle Shell Clocking Dimensions			
	Position	K1°	K2°
	A (Normal)	150°	210°
	B	75°	210°
	C	95°	230°
	D	140°	275°
	E	75°	275°
	F	95°	210°
Blank	Master Key Only No Minor keys		

For all shell sizes and clockings, the master keyway remains stationary at top center, with minor keys rotating to achieve alternate clocking positions.

Specifications

Environmental Specifications				
Humidity	Operational from 0-100% humidity		Salt Atmosphere	Connector shall operate in and when stored in a salt fog atmosphere without protective covers for 48 hrs
Salt Spray	Connector shall have no exposure of base metal when subjected to salt spray		Rain & Water	The connectors shall remain functional during driving rain
	C - Aluminum/anodized, black >1000 hours		Sand & Dust	The connector shall not suffer greater than cosmetic deterioration due to blowing sand and dust
	F - Aluminum/electroless nickel 48 hours		Water Immersion, Mated Condition	1 meter for 1 hour
	K - Stainless steel/passivated >1000 hours		Fluid Immersion	Unmated connectors immersed in various fuels and oils shall have no damage detrimental to the operation of the connector components
	N - Stainless steel/electroless nickel 500 hours		Fungus	Fungus Inert
	T - Aluminum/teflon nickel 500 hours			
	W - Aluminum/olive drab cadmium 500 hours			
	Y - Stainless steel/electroless nickel, black 500 hours			
	Z - Aluminum/zinc nickel, black 500 hours			
	ZN - Aluminum/zinc nickel, green (not RoHS) 500 hours			
MB - Marine Bronze >1000 hours				

Specifications

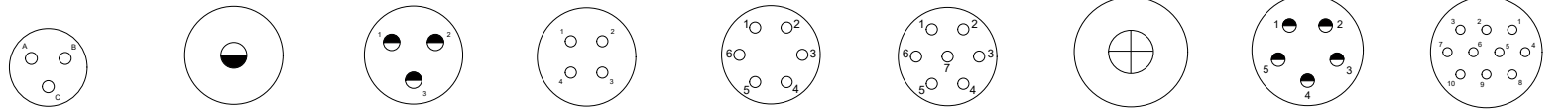
Specifications						
Contact Type	Rear Crimp, Solder Cup, PCB Mount		Max Voltage Drop	Less than 85 mV with contacts in the mated position and an applied load at 16VDC		
Contact Spacing	Size 12: 0.230" Spacing Size 16: 0.170" Spacing	Size 20HD: 0.106" Spacing Size 23: 0.076" Spacing	Shell-to-shell conductivity, after conditioning (48 hours salt spray)	<0.005 Ohms Note: measured on nickel plated connectors		
Wire Accommodation	Size 12: #12 - #14 AWG Size 16: #16 - #20 AWG	Size 20HD: #20 - #24 AWG Size 23: #22 - #28 AWG				
Contact Rating	Size 12: 23 Amps Size 16: 13 Amps	Size 20HD: 7.5 Amps Size 23: 5 Amps	Coupling	Breakaway, Quick Disconnect Coupling		
DWV Voltage (VAC) @ Sea Level	Size 12: 1800 VAC Size 16: 1800 VAC	Size 20HD: 1000 VAC Size 23: 5750 VAC	Recommended Demate Values	Shell Size/Insert Arrangement	In-lbs	
Insulation Resistance	>5000 Megohms @ 500 VDC			5-3	11	
Operating Temperature	-65°C to +175°C			6-4, 6-6, 6-7	11	
Contact Resistance	8 mΩ Maximum			7-10	12	
Shock/Vibration	37 g's Random Vibration; 300 g's Shock			8-13	13	
Altitude	Operational at sea level to 32,000 ft			9-19	14	
Receptacle Mounting	In-Line, flange, jam nut			10-26	16	
Durability	2000 mating cycles		12-37	18		
Contact Retention (Minimum Force)	Size 12: 25 lbs / 111 N Size 16: 25 lbs / 111 N	Size 20HD: 15 lbs / 67 N Size 23: 6 lbs / 27 N	Materials	Shell, barrel, jam nut, coupling nut - Aluminum or stainless steel		
EMI Shielding Effectiveness, low frequency (100 MHz - 1000 MHz)	Requirement			Procedure		
	Frequency	Min. dB Attenuation		MIL-DTL-38999 paragraph 4.5.28.1 Electroless nickel plated connectors		
	100 MHz	75				
	200 MHz	70				
	300 MHz	65				
	400 MHz	63				
800 MHz	58					
1000 MHz	55					
			Insulators - Thermoplastic			
			Grommet, peripheral seal, interfacial seal - Fluorosilicone			
			Contacts - Copper Alloy with Gold over Nickel Plating			

MKJ4 Contact Arrangements

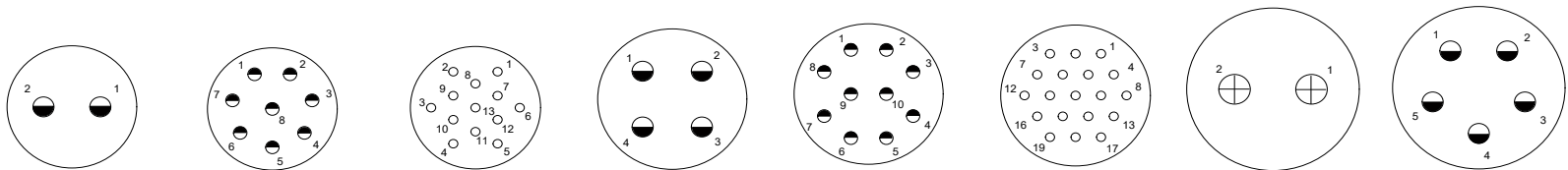
	Insert Arrangements	Contacts					
		#23	#20	#20HD	#16	#12	#8
Size #23 Contacts 5 Amp Max. Current #22-#28 AWG 750 VAC DWV	5-3	3					
	6-4	4					
	6-6	6					
	6-7	7					
	7-10	10					
	8-13	13					
	9-19	19					
	10-26	26					
	11-31	31					
	12-37	37					
14-55	55						
Size #20HD Contacts 7.5 Amp Max. Current #20-#24 AWG 1000 VAC DWV	6-23			3			
	7-25			5			
	8-28			8			
	9-210			10			
	12-220			20			
14-235			35				
Size #16 Contacts 13 Amp Max. Current #16-#20 AWG 1800 VAC DWV	6-1				1		
	8-2				2		
	9-4				4		
	10-5				5		
	12-7				7		
	14-12				12		

	Insert Arrangements	Contacts					
		#23	#20	#20HD	#16	#12	#8
Size #12 Contacts 23 Amp Max. Current #12- #14 AWG 1800 VAC DWV	7-1					1	
	10-2					2	
	12-2					2	
	12-3					3	
	14-4					4	
	14-5					5	
	10-200	12				1	
Combo* Arrangements Using Size #23 Contacts 5 Amp Max. Current #22 - #28 AWG 750 VAC DWV	10-201	4				2	
	12-200	6				2	
	12-201	10				2	
	9-200	4			2		
	10-202	8			2		
	8-200	4	2				
	9-201	8	2				
	12-202	20			2		
Combo* Arrangements Using Size #23 Contacts 5 Amp Max. Current #22 - #28 AWG 1300 VAC DWV	12-203	12			4		
	14-204	40			2		
	14-205	32			4		
	12-204	12				2	
	12-205	4				4	
	14-206	34				2	
	14-207	20				4	
	11-201	18					1
	14-208	32					1

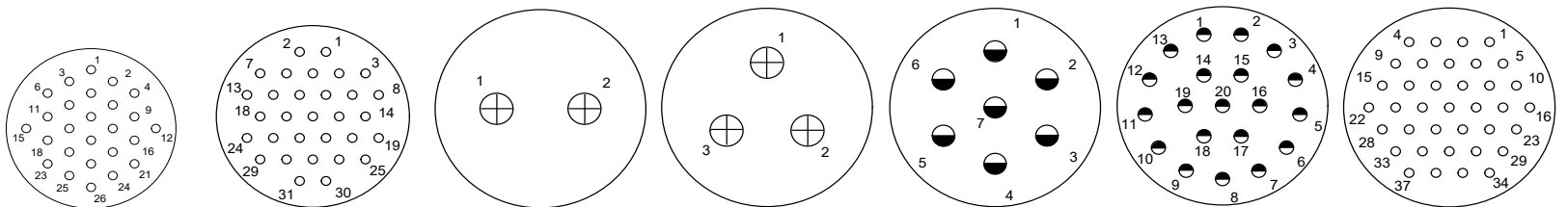
MKJ4 Standard Contact Arrangements



MKJ4	5-3	6-1	6-23	6-4	6-6	6-7	7-1	7-25	7-10
Contact QTY	3	1	3	4	6	7	1	5	10
Contact Size	23	16	20HD	23	23	23	12	20HD	23
Voltage (VAC)	750	1800	1000	750	750	750	1800	1000	750
Current (Amps)	5	13	7.5	5	5	5	23	7.5	5



MKJ4	8-2	8-28	8-13	9-4	9-210	9-19	10-2	10-5
Contact QTY	2	8	13	4	10	19	2	5
Contact Size	16	20HD	23	16	20HD	23	12	16
Voltage (VAC)	1800	1000	750	1800	1000	750	1800	1800
Current (Amps)	13	7.5	5	13	7.5	5	23	13



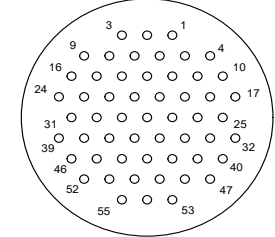
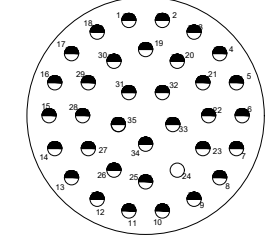
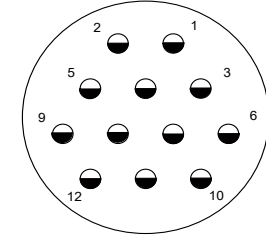
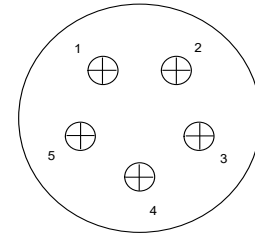
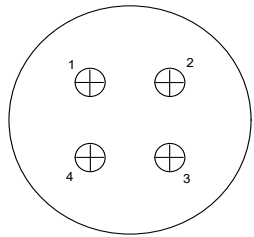
MKJ4	10-26	11-31	12-2	12-3	12-7	12-220	12-37
Contact QTY	26	31	2	3	7	20	37
Contact Size	23	23	12	12	16	20HD	23
Voltage (VAC)	750	750	1800	1800	1800	1000	750
Current (Amps)	5	5	23	23	13	7.5	5

*N/A for MKJ0 and MKJ3

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

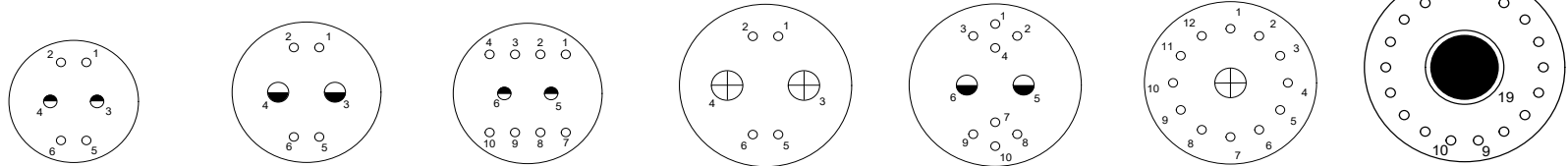
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MKJ4 Standard Contact Arrangements

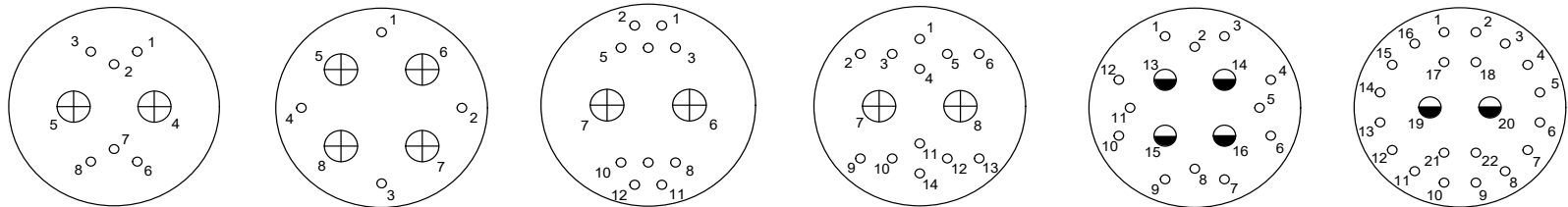


MKJ4	14-4	14-5	14-12	14-235	14-55
Contact QTY	4	5	12	35	55
Contact Size	12	12	16	20HD	23
Voltage (VAC)	1800	1800	1800	750	750
Current (Amps)	23	23	13	7.5	5

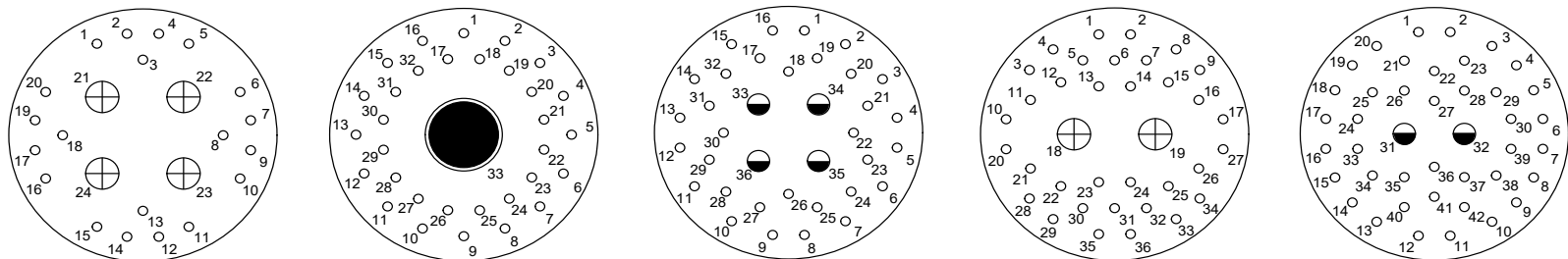
MKJ4 Combo Contact Arrangements



MKJ4	8-200	9-200	9-201	10-201	10-202	10-200	11-201
Contact QTY	6	6	10	6	10	13	19
Contact Size	4 #23 / 2 #20HD	4 #23 / 2 #16	8 #23 / 2 #20HD	4 #23 / 2 #12	8 #23 / 2 #16	12 #23 / 1 #12	18 #23 / 1 #8
Voltage (VAC)	750 VAC DWV	750	750	750	750	750	1300
Current (Amps)	5	5	5	5	5	5	5



MKJ4	12-200	12-205	12-201	12-204	12-203	12-202
Contact QTY	8	8	12	14	16	22
Contact Size	6 #23 / 2 #12	4 #23 / 4 #12	10 #23 / 2 #12	12 #23 / 2 #12	12 #23 / 4 #16	20 #23 / 2 #16
Voltage (VAC)	750	1300	750	1300	1300	1300
Current (Amps)	5	5	5	5	5	5



MKJ4	14-207	14-208	14-205	14-206	14-204
Contact QTY	24	33	36	36	42
Contact Size	20 #23 / 4 #12	32 #23 / 1 #8	32 #23 / 4 #16	34 #23 / 2 #12	40 #23 / 2 #16
Voltage (VAC)	1300	1300	1300	1300	1300
Current (Amps)	5	5	5	5	5

For combo PCB Hole Patterns, please consult the factory.

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

MKJ4 Straight Plug

Part Number Configurator

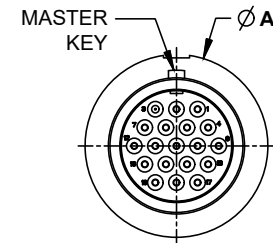
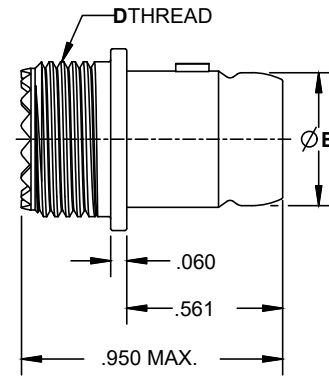
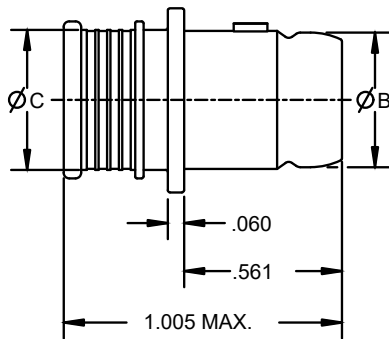
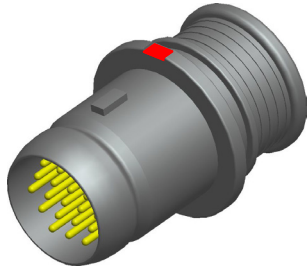
1- Series	2- Coupling	3- Class	4- Shell Style	5- Plating	6- Arrangement	7- Contact Style	8- Clocking	9- MOD Codes
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5-3	3 Size 23 Contacts	6-1	1 Size 16 Contact
6-4	4 Size 23 Contacts	8-2	2 Size 16 Contacts
6-6	6 Size 23 Contacts	9-4	4 Size 16 Contacts
6-7	7 Size 23 Contacts	10-5	5 Size 16 Contacts
7-10	10 Size 23 Contacts	12-7	7 Size 16 Contacts
8-13	13 Size 23 Contacts	14-12	12 Size 16 Contacts
9-19	19 Size 23 Contacts	7-1	1 Size 12 Contact
10-26	26 Size 23 Contacts	10-2	2 Size 12 Contacts
11-31	31 Size 23 Contacts	12-2	2 Size 12 Contact
12-37	37 Size 23 Contacts	12-3	3 Size 12 Contact
14-55	55 Size 23 Contacts	14-4	4 Size 12 Contact
6-23	3 Size 20HD Contacts	14-5	5 Size 12 Contact
7-25	5 Size 20HD Contacts		
8-28	8 Size 20HD Contacts		
9-210	10 Size 20HD Contacts		
12-220	20 Size 20HD Contacts		
14-235	35 Size 20HD Contacts		

7- Contact Style		
P	Pin, Crimp, Removable	
S	Socket, Crimp, Removable	
E	Pin, Solder Cup	
F	Socket, Solder Cup	
8- Clocking		
Position	K1°	K2°
A (Normal)	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°
E	75°	275°
F	95°	210°
Blank	Master Key Only, No Minor keys	
9- Modification Codes		
-F0	Less Contacts ("F0" not stamped on connector, but must be included on the P.O.)	

MKJ4 Straight Plug - Banded and Accessory Thread



MKJ4 Plug with Banding/Overmolding Attachment

MKJ4 Plug with Threaded Accessory Attachment

MKJ4 Straight Plug Dimensions					
SHELL SIZE	ØA	ØB	ØC	D THREAD UNEF-2A	
5	0.422	0.248	0.246	0.2500-32	
6	0.485	0.311	0.290	0.3125-32	
7	0.565	0.381	0.390	0.4375-28	
8	0.607	0.426	0.447	0.5000-28	
9	0.660	0.481	0.500	0.5625-24	
10	0.736	0.561	0.561	0.6250-24	
12	0.851	0.676	0.650	0.6875-24	
14	0.977	0.796	0.806	0.9375-20	

MKJ4 In-Line Receptacle

Part Number Configurator

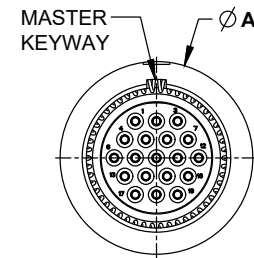
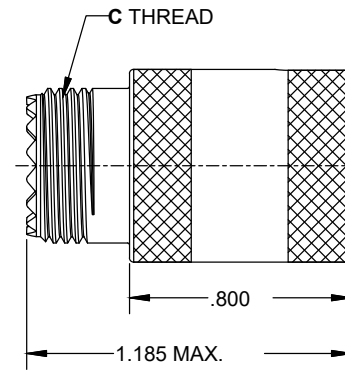
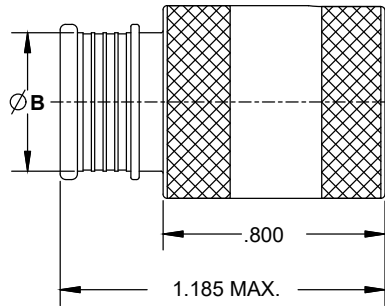
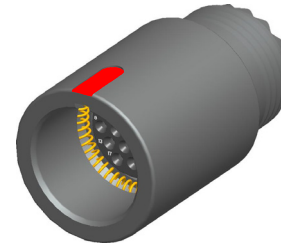
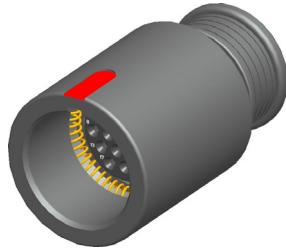
1- Series	2- Coupling	3- Class	4- Shell Style	5- Plating	6- Arrangement	7- Contact Style	8- Clocking	9- MOD Codes
MKJ	4	A	1	F	9-19	P	A	-F0

1- Product	
MKJ	MKJ Series
2- Coupling	
4	Breakaway / Quick Disconnect
3- Class	
A	Environmental with Banding/Overmolding Attachment
B	Environmental with Threaded Accessory Attachment
4- Shell Style	
1	In-Line Receptacle
5- Plating	
C	Aluminum / Anodized, Black
F	Aluminum/Electroless Nickel
K	Stainless Steel / Passivated
N	Stainless Steel/Electroless Nickel
T	Aluminum/Teflon Nickel
W	Aluminum/Olive Drab Cadmium over Electroless Nickel
Y	Stainless Steel / Electroless Nickel, Black
Z	Aluminum/Zinc Nickel, Black

6- Standard Arrangements (For Combo, please reference page 11)			
5-3	3 Size 23 Contacts	6-1	1 Size 16 Contact
6-4	4 Size 23 Contacts	8-2	2 Size 16 Contacts
6-6	6 Size 23 Contacts	9-4	4 Size 16 Contacts
6-7	7 Size 23 Contacts	10-5	5 Size 16 Contacts
7-10	10 Size 23 Contacts	12-7	7 Size 16 Contacts
8-13	13 Size 23 Contacts	14-12	12 Size 16 Contacts
9-19	19 Size 23 Contacts	7-1	1 Size 12 Contact
10-26	26 Size 23 Contacts	10-2	2 Size 12 Contacts
11-31	31 Size 23 Contacts	12-2	2 Size 12 Contact
12-37	37 Size 23 Contacts	12-3	3 Size 12 Contact
14-55	55 Size 23 Contacts	14-4	4 Size 12 Contact
6-23	3 Size 20HD Contacts	14-5	5 Size 12 Contact
7-25	5 Size 20HD Contacts		
8-28	8 Size 20HD Contacts		
9-210	10 Size 20HD Contacts		
12-220	20 Size 20HD Contacts		
14-235	35 Size 20HD Contacts		

7- Contact Style		
P	Pin, Crimp, Removable	
S	Socket, Crimp, Removable	
E	Pin, Solder Cup	
F	Socket, Solder Cup	
8- Clocking		
Position	K1°	K2°
A (Normal)	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°
E	75°	275°
F	95°	210°
Blank	Master Key Only, No Minor keys	
9- Modification Codes		
-F0	Less Contacts ("F0" not stamped on connector, but must be included on the P.O.)	

MKJ4 In-Line Receptacle - Banded and Accessory Thread



MKJ4 In-Line Receptacle
Banding/Overmolding Attachment

MKJ4 In-Line Receptacle
Threaded Accessory Attachment

MKJ4 In-Line Receptacle Dimensions			
SHELL SIZE	ØA	ØB	C THREAD UNEF-2A
5	0.450	0.246	0.2500-32
6	0.480	0.290	0.3125-32
7	0.580	0.390	0.4375-28
8	0.610	0.442	0.5000-28
9	0.695	0.500	0.5625-24
10	0.735	0.564	0.6250-24
12	0.880	0.650	0.6875-24
14	1.010	0.805	0.9375-20

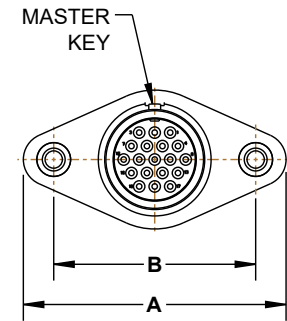
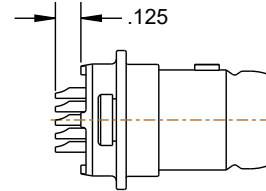
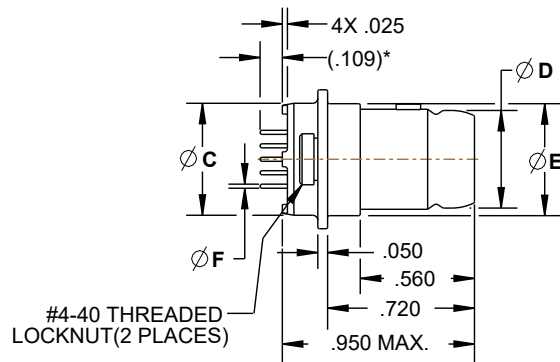
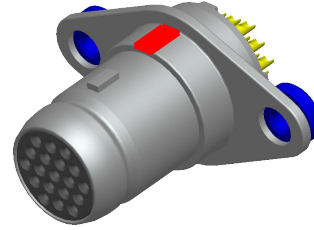
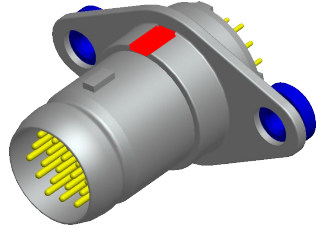
MKJ4 Box Mount Plug (Flange) - PCB

Part Number Configurator

1- Series	2- Coupling	3- Class	4- Shell Style	5- Plating	6- Arrangement	7- Contact Style	8- Clocking	9- MOD Codes
MKJ	4	C	4	F	9-19	B	A	-518

1- Product		6- Standard Arrangements (For Combo, please reference page 11)				7- Contact Style		
MKJ	MKJ Series	5-3	3 Size 23 Contacts	6-1	1 Size 16 Contact	A	Pin, PC-Tail, .062 Extension	
2- Coupling		6-4	4 Size 23 Contacts	8-2	2 Size 16 Contacts	B	Pin, PC-Tail, .109 Extension	
4	Breakaway / Quick Disconnect	6-6	6 Size 23 Contacts	9-4	4 Size 16 Contacts	G	Pin, PC-Tail, .125 Extension	
3- Class		6-7	7 Size 23 Contacts	10-5	5 Size 16 Contacts	C	Socket, PC Tail, .062 Extension	
C	Back-Potted Receptacle-PC/Flex/Solder	6-10	10 Size 23 Contacts	12-7	7 Size 16 Contacts	D	Socket, PC Tail, .109 Extension	
4- Shell Style		8-13	13 Size 23 Contacts	14-12	12 Size 16 Contacts	H	Socket, PC Tail, .125 Extension	
4	Box Mount Plug-Flange PCB	9-19	19 Size 23 Contacts	7-1	1 Size 12 Contact	E	Pin, Solder Cup	
5- Plating		10-26	26 Size 23 Contacts	10-2	2 Size 12 Contacts	F	Socket, Solder Cup	
C	Aluminum / Anodized, Black	11-31	31 Size 23 Contacts	12-2	2 Size 12 Contact	8- Clocking		
F	Aluminum/Electroless Nickel	12-37	37 Size 23 Contacts	12-3	3 Size 12 Contact	Position	K1°	K2°
K	Stainless Steel / Passivated	14-55	55 Size 23 Contacts	14-4	4 Size 12 Contact	A (Normal)	150°	210°
N	Stainless Steel/Electroless Nickel	6-23	3 Size 20HD Contacts	14-5	5 Size 12 Contact	B	75°	210°
T	Aluminum/Teflon Nickel	7-25	5 Size 20HD Contacts			C	95°	230°
W	Aluminum/Olive Drab Cadmium over Electroless Nickel	8-28	8 Size 20HD Contacts			D	140°	275°
Y	Stainless Steel / Electroless Nickel, Black	9-210	10 Size 20HD Contacts			E	75°	275°
Z	Aluminum/Zinc Nickel, Black	12-220	20 Size 20HD Contacts			F	95°	210°
		14-235	35 Size 20HD Contacts			Blank	Master Key Only, No Minor keys	
						9- Modification Codes		
						-F0	Less Contacts ("F0" not stamped on connector, but must be included on the P.O.)	
						-518	Class "C" PC style black potted connectors w/water immersion testing	

MKJ4 Box Mount Plug (Flange) - PCB



* Connector shown with contact style B

MKJ4 Box Mount Plug (Flange) - PCB with PC Tail

MKJ4 Box Mount Plug (Flange) - PCB with Solder Cup

MKJ4 Box Mount Plug (Flange) - PCB Dimensions						
SHELL SIZE	A	B	ØC	ØD	ØE	ØF
5	1.055	0.755	0.244	0.248	0.320	SIZE 23 .018/.022 SIZE 20HD .024/.028 SIZE 16 .060/.064 SIZE 12 .092/.096
6	1.120	0.820	0.330	0.311	0.385	
7	1.185	0.885	0.432	0.381	0.450	
8	1.230	0.930	0.493	0.426	0.495	
9	1.290	0.990	0.551	0.481	0.555	
10	1.360	1.060	0.620	0.561	0.625	
12	1.485	1.185	0.703	0.676	0.750	
14	1.600	1.300	0.863	0.796	0.865	

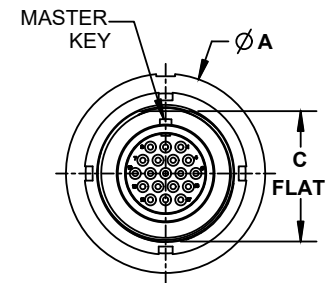
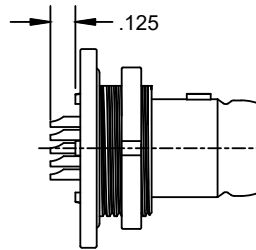
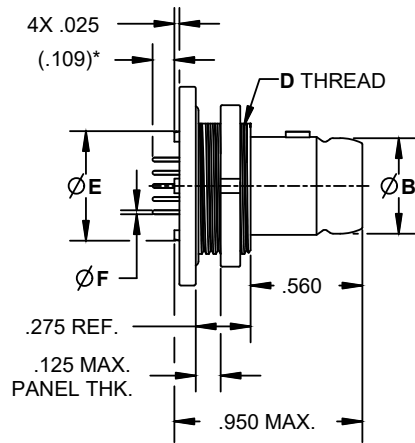
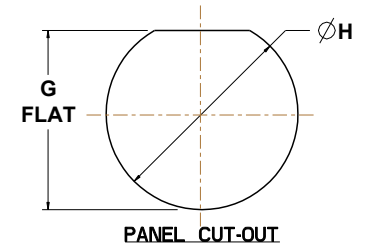
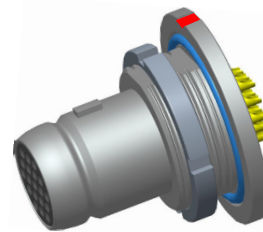
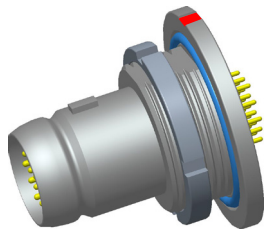
MKJ4 Jam Nut Plug - Rear Panel Mount PCB

Part Number Configurator

1- Series	2- Coupling	3- Class	4- Shell Style	5- Plating	6- Arrangement	7- Contact Style	8- Clocking	9- MOD Codes
MKJ	4	C	9	F	9-19	B	A	-518

1- Product		6- Standard Arrangements (For Combo, please reference page 11)				7- Contact Style		
MKJ	MKJ Series	5-3	3 Size 23 Contacts	6-1	1 Size 16 Contact	A	Pin, PC-Tail, .062 Extension	
2- Coupling		6-4	4 Size 23 Contacts	8-2	2 Size 16 Contacts	B	Pin, PC-Tail, .109 Extension	
4	Breakaway / Quick Disconnect	6-6	6 Size 23 Contacts	9-4	4 Size 16 Contacts	G	Pin, PC-Tail, .125 Extension	
3- Class		6-7	7 Size 23 Contacts	10-5	5 Size 16 Contacts	C	Socket, PC Tail, .062 Extension	
C	Back-Potted Receptacle-PC/Flex/Solder	7-10	10 Size 23 Contacts	12-7	7 Size 16 Contacts	D	Socket, PC Tail, .109 Extension	
4- Shell Style		8-13	13 Size 23 Contacts	14-12	12 Size 16 Contacts	H	Socket, PC Tail, .125 Extension	
9	Jam Nut Plug-Rear Panel Mount PCB	9-19	19 Size 23 Contacts	7-1	1 Size 12 Contact	E	Pin, Solder Cup	
5- Plating		10-26	26 Size 23 Contacts	10-2	2 Size 12 Contacts	F	Socket, Solder Cup	
C	Aluminum / Anodized, Black	11-31	31 Size 23 Contacts	12-2	2 Size 12 Contact	8- Clocking		
F	Aluminum/Electroless Nickel	12-37	37 Size 23 Contacts	12-3	3 Size 12 Contact	Position	K1°	K2°
K	Stainless Steel / Passivated	14-55	55 Size 23 Contacts	14-4	4 Size 12 Contact	A (Normal)	150°	210°
N	Stainless Steel/Electroless Nickel	6-23	3 Size 20HD Contacts	14-5	5 Size 12 Contact	B	75°	210°
T	Aluminum/Teflon Nickel	7-25	5 Size 20HD Contacts			C	95°	230°
W	Aluminum/Olive Drab Cadmium over Electroless Nickel	8-28	8 Size 20HD Contacts			D	140°	275°
Y	Stainless Steel / Electroless Nickel, Black	9-210	10 Size 20HD Contacts			E	75°	275°
Z	Aluminum/Zinc Nickel, Black	12-220	20 Size 20HD Contacts			F	95°	210°
		14-235	35 Size 20HD Contacts			Blank	Master Key Only, No Minor keys	
						9- Modification Codes		
						-F0	Less Contacts ("F0" not stamped on connector, but must be included on the P.O.)	
						-518	Class "C" PC style black potted connectors w/water immersion testing	

MKJ4 Jam Nut Plug - Rear Panel Mount PCB



* Connector shown with contact style B

MKJ4 Jam Nut Plug - Rear Panel Mount PCB with PC Tail

MKJ4 Jam Nut Plug - Rear Panel Mount PCB with Solder Cup

MKJ4 Jam Nut Plug - Rear Panel Mount PCB Dimensions

SHELL SIZE	ØA	ØB	C FLAT	D THREAD UN-2A	ØE	ØF	G FLAT ± .002	ØH +.000/-.005
5	0.790	0.248	0.415	0.4375-28 UNEF	0.244	SIZE 23 .018/.022 SIZE 20HD .024/.028 SIZE 16 .060/.064 SIZE 12 .092/.096	0.423	0.448
6	0.830	0.311	0.467	0.5000-28	0.330		0.477	0.510
7	0.910	0.381	0.594	0.6250-28	0.432		0.602	0.635
8	0.955	0.426	0.594	0.6250-28	0.493		0.602	0.635
9	1.000	0.481	0.655	0.6875-28	0.551		0.663	0.698
10	1.085	0.561	0.721	0.7500-28	0.620		0.729	0.760
12	1.180	0.676	0.843	0.8750-28	0.703		0.851	0.885
14	1.325	0.796	0.968	1.0000-28	0.863		0.976	1.010

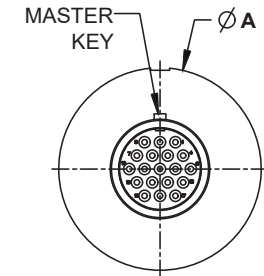
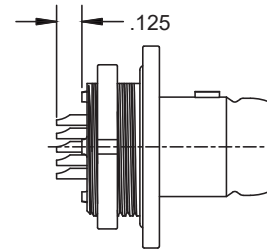
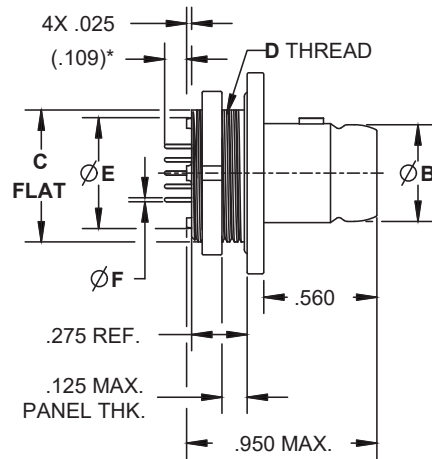
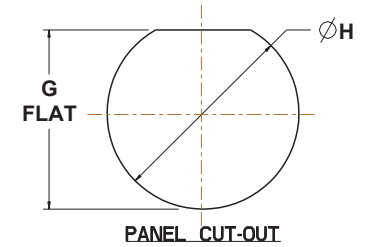
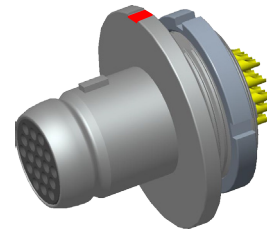
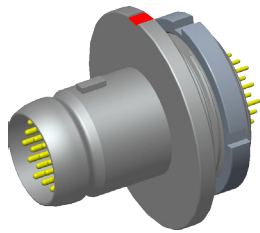
MKJ4 Jam Nut Plug - Front Panel Mount PCB

Part Number Configurator

1- Series	2- Coupling	3- Class	4- Shell Style	5- Plating	6- Arrangement	7- Contact Style	8- Clocking	9- MOD Codes
MKJ	4	C	10	F	9-19	B	A	-518

1- Product		6- Standard Arrangements (For Combo, please reference page 11)				7- Contact Style		
MKJ	MKJ Series	5-3	3 Size 23 Contacts	6-1	1 Size 16 Contact	A	Pin, PC-Tail, .062 Extension	
2- Coupling		6-4	4 Size 23 Contacts	8-2	2 Size 16 Contacts	B	Pin, PC-Tail, .109 Extension	
4	Breakaway / Quick Disconnect	6-6	6 Size 23 Contacts	9-4	4 Size 16 Contacts	G	Pin, PC-Tail, .125 Extension	
3- Class		6-7	7 Size 23 Contacts	10-5	5 Size 16 Contacts	C	Socket, PC Tail, .062 Extension	
C	Back-Potted Receptacle-PC/Flex/Solder	7-10	10 Size 23 Contacts	12-7	7 Size 16 Contacts	D	Socket, PC Tail, .109 Extension	
4- Shell Style		8-13	13 Size 23 Contacts	14-12	12 Size 16 Contacts	H	Socket, PC Tail, .125 Extension	
10	Jam Nut Plug-Front Panel Mount PCB	9-19	19 Size 23 Contacts	7-1	1 Size 12 Contact	E	Pin, Solder Cup	
5- Plating		10-26	26 Size 23 Contacts	10-2	2 Size 12 Contacts	F	Socket, Solder Cup	
C	Aluminum / Anodized, Black	11-31	31 Size 23 Contacts	12-2	2 Size 12 Contact	8- Clocking		
F	Aluminum/Electroless Nickel	12-37	37 Size 23 Contacts	12-3	3 Size 12 Contact	Position	K1°	K2°
K	Stainless Steel / Passivated	14-55	55 Size 23 Contacts	14-4	4 Size 12 Contact	A (Normal)	150°	210°
N	Stainless Steel/Electroless Nickel	6-23	3 Size 20HD Contacts	14-5	5 Size 12 Contact	B	75°	210°
T	Aluminum/Teflon Nickel	7-25	5 Size 20HD Contacts			C	95°	230°
W	Aluminum/Olive Drab Cadmium over Electroless Nickel	8-28	8 Size 20HD Contacts			D	140°	275°
Y	Stainless Steel / Electroless Nickel, Black	9-210	10 Size 20HD Contacts			E	75°	275°
Z	Aluminum/Zinc Nickel, Black	12-220	20 Size 20HD Contacts			F	95°	210°
		14-235	35 Size 20HD Contacts			Blank	Master Key Only, No Minor keys	
						9- Modification Codes		
						-F0	Less Contacts ("F0" not stamped on connector, but must be included on the P.O.)	
						-518	Class "C" PC style black potted connectors w/water immersion testing	

MKJ4 Jam Nut Plug - Front Panel Mount PCB



* Connector shown with contact style B

MKJ4 Jam Nut Plug - Front Panel Mount PCB with PC Tail

MKJ4 Jam Nut Plug - Front Panel Mount PCB with Solder Cup

MKJ4 Jam Nut Plug - Front Panel Mount PCB Dimensions

SHELL SIZE	ØA	ØB	C FLAT	D THREAD UN-2A	ØE	ØF	G FLAT ± .002	ØH +.000/- .005
5	0.790	0.248	0.415	0.4375-28 UNEF	0.244	SIZE 23 .018/.022	0.423	0.448
6	0.830	0.311	0.467	0.5000-28	0.330		0.477	0.510
7	0.910	0.381	0.594	0.6250-28	0.432	SIZE 20HD .024/.028	0.602	0.635
8	0.955	0.426	0.594	0.6250-28	0.493		0.602	0.635
9	1.000	0.481	0.655	0.6875-28	0.551	SIZE 16 .060/.064	0.663	0.698
10	1.085	0.561	0.721	0.7500-28	0.620		0.729	0.760
12	1.180	0.676	0.843	0.8750-28	0.703	SIZE 12 .092/.096	0.851	0.885
14	1.325	0.796	0.968	1.0000-28	0.863		0.976	1.010

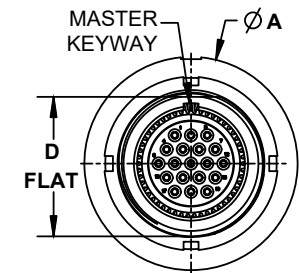
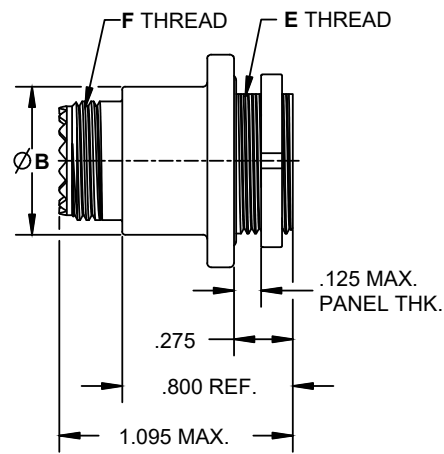
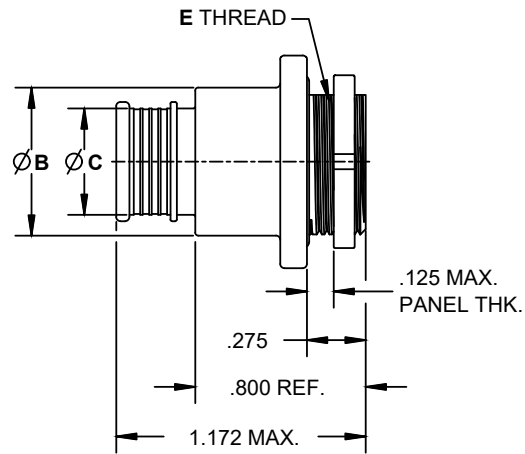
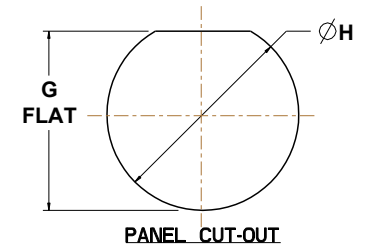
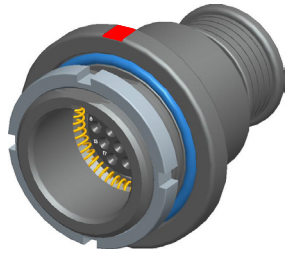
MKJ4 Jam Nut Receptacle - Rear Panel Mount

Part Number Configurator

1- Series	2- Coupling	3- Class	4- Shell Style	5- Plating	6- Arrangement	7- Contact Style	8- Clocking	9- MOD Codes
MKJ	4	B	7	F	9-19	P	A	-F0

1- Product		6- Standard Arrangements (For Combo, please reference page 11)				7- Contact Style					
MKJ	MKJ Series	5-3	3 Size 23 Contacts	6-1	1 Size 16 Contact	P	Pin, Crimp, Removable				
2- Coupling		6-4	4 Size 23 Contacts	8-2	2 Size 16 Contacts	S	Socket, Crimp, Removable				
4	Breakaway / Quick Disconnect	6-6	6 Size 23 Contacts	9-4	4 Size 16 Contacts	E	Pin, Solder Cup				
3- Class		6-7	7 Size 23 Contacts	10-5	5 Size 16 Contacts	F	Socket, Solder Cup				
A	Environmental with Banding/Overmolding Attachment	7-10	10 Size 23 Contacts	12-7	7 Size 16 Contacts	8- Clocking					
B	Environmental with Threaded Accessory Attachment	8-13	13 Size 23 Contacts	14-12	12 Size 16 Contacts	Position	K1°	K2°			
4- Shell Style		9-19	19 Size 23 Contacts	7-1	1 Size 12 Contact	A (Normal)	150°	210°			
7	Jam Nut Receptacle-Rear Panel Mount	10-26	26 Size 23 Contacts	10-2	2 Size 12 Contacts	B	75°	210°			
5- Plating		11-31	31 Size 23 Contacts	12-2	2 Size 12 Contact	C	95°	230°			
C	Aluminum / Anodized, Black	12-37	37 Size 23 Contacts	12-3	3 Size 12 Contact	D	140°	275°			
F	Aluminum/Electroless Nickel	14-55	55 Size 23 Contacts	14-4	4 Size 12 Contact	E	75°	275°			
K	Stainless Steel / Passivated	6-23	3 Size 20HD Contacts	14-5	5 Size 12 Contact	F	95°	210°			
N	Stainless Steel/Electroless Nickel	7-25	5 Size 20HD Contacts						Blank	Master Key Only, No Minor keys	
T	Aluminum/Teflon Nickel	8-28	8 Size 20HD Contacts						9- Modification Codes		
W	Aluminum/Olive Drab Cadmium over Electroless Nickel	9-210	10 Size 20HD Contacts						-F0	Less Contacts ("F0" not stamped on connector, but must be included on the P.O.)	
Y	Stainless Steel / Electroless Nickel, Black	12-220	20 Size 20HD Contacts								
Z	Aluminum/Zinc Nickel, Black	14-235	35 Size 20HD Contacts								

MKJ4 Jam Nut Receptacle - Rear Panel Mount



MKJ4 Jam Nut Receptacle - Rear Mount with Banding/Overmolding Attachment

MKJ4 Jam Nut Receptacle - Rear Mount with Threaded Accessory Attachment

MKJ4 Jam Nut Receptacle - Rear Panel Mount Dimensions

SHELL SIZE	ØA	ØB	ØC	D FLAT	E THREAD UN-2A	F THREAD UNEF-2A	G FLAT ± .002	ØH +.000/-.005
5	0.790	0.450	0.246	0.415	0.4375-28 UNEF	0.2500-32	0.423	0.448
6	0.830	0.520	0.286	0.467	0.5000-32	0.3125-32	0.478	0.510
7	0.910	0.580	0.390	0.594	0.6250-28	0.4375-28	0.602	0.635
8	0.955	0.603	0.442	0.594	0.6250-28	0.5000-28	0.602	0.635
9	1.000	0.695	0.500	0.655	0.6875-28	0.5625-24	0.663	0.698
10	1.085	0.735	0.564	0.721	0.7500-28	0.6250-24	0.729	0.760
12	1.180	0.880	0.650	0.843	0.8750-28	0.6875-24	0.851	0.885
14	1.325	1.010	0.805	0.968	1.0000-28	0.9375-20	0.976	1.010

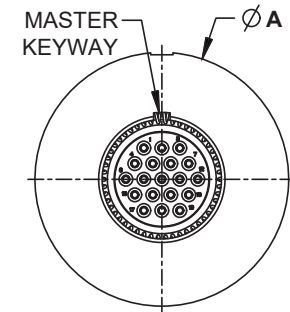
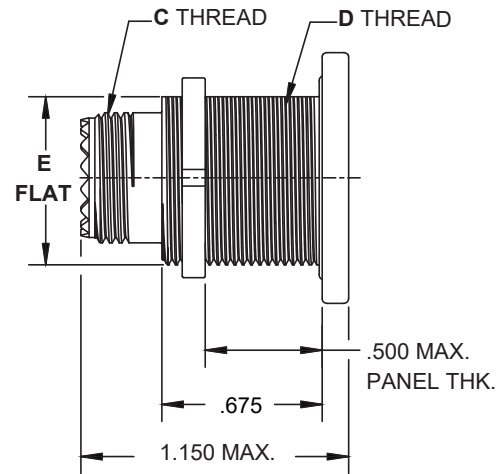
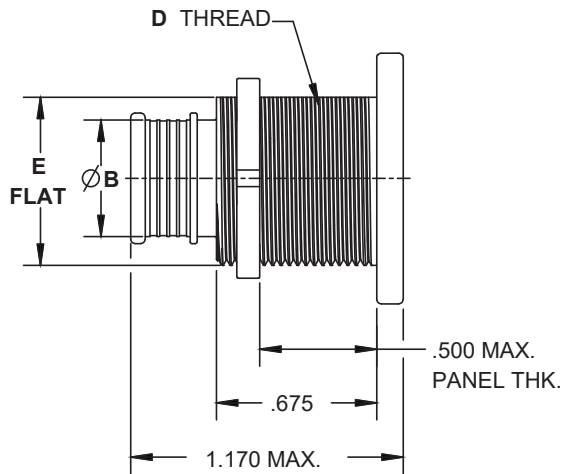
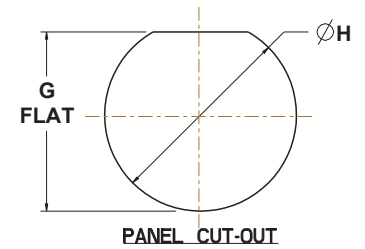
MKJ4 Jam Nut Receptacle - Front Panel Mount

Part Number Configurator

1- Series	2- Coupling	3- Class	4- Shell Style	5- Plating	6- Arrangement	7- Contact Style	8- Clocking	9- MOD Codes
MKJ	4	B	8	F	9-19	P	A	-F0

1- Product		6- Standard Arrangements (For Combo, please reference page 11)				7- Contact Style		
MKJ	MKJ Series	5-3	3 Size 23 Contacts	6-1	1 Size 16 Contact	P	Pin, Crimp, Removable	
2- Coupling		6-4	4 Size 23 Contacts	8-2	2 Size 16 Contacts	S	Socket, Crimp, Removable	
4	Breakaway / Quick Disconnect	6-6	6 Size 23 Contacts	9-4	4 Size 16 Contacts	E	Pin, Solder Cup	
3- Class		6-7	7 Size 23 Contacts	10-5	5 Size 16 Contacts	F	Socket, Solder Cup	
A	Environmental with Banding/Overmolding Attachment	7-10	10 Size 23 Contacts	12-7	7 Size 16 Contacts	8- Clocking		
B	Environmental with Threaded Accessory Attachment	8-13	13 Size 23 Contacts	14-12	12 Size 16 Contacts	Position	K1°	K2°
4- Shell Style		9-19	19 Size 23 Contacts	7-1	1 Size 12 Contact	A (Normal)	150°	210°
8	Jam Nut Receptacle-Front Panel Mount	10-26	26 Size 23 Contacts	10-2	2 Size 12 Contacts	B	75°	210°
5- Plating		11-31	31 Size 23 Contacts	12-2	2 Size 12 Contact	C	95°	230°
C	Aluminum / Anodized, Black	12-37	37 Size 23 Contacts	12-3	3 Size 12 Contact	D	140°	275°
F	Aluminum/Electroless Nickel	14-55	55 Size 23 Contacts	14-4	4 Size 12 Contact	E	75°	275°
K	Stainless Steel / Passivated	6-23	3 Size 20HD Contacts	14-5	5 Size 12 Contact	F	95°	210°
N	Stainless Steel/Electroless Nickel	7-25	5 Size 20HD Contacts			Blank	Master Key Only, No Minor keys	
T	Aluminum/Teflon Nickel	8-28	8 Size 20HD Contacts			9- Modification Codes		
W	Aluminum/Olive Drab Cadmium over Electroless Nickel	9-210	10 Size 20HD Contacts			-F0	Less Contacts ("F0" not stamped on connector, but must be included on the P.O.)	
Y	Stainless Steel / Electroless Nickel, Black	12-220	20 Size 20HD Contacts					
Z	Aluminum/Zinc Nickel, Black	14-235	35 Size 20HD Contacts					

MKJ4 Jam Nut Receptacle - Front Panel Mount



MKJ4 Jam Nut Receptacle - Front Mount with Banding/Overmolding Attachment

MKJ4 Jam Nut Receptacle - Front Mount with Threaded Accessory Attachment

MKJ4 Jam Nut Receptacle - Front Panel Mount Dimensions

SHELL SIZE	ØA	ØB	C THREAD UNEF-2A	D THREAD UN-2A	E FLAT	G FLAT ± .002	ØH +.000/- .005
5	0.830	0.246	0.2500-32	0.5000-28 UNEF	0.470	0.478	0.510
6	0.885	0.286	0.3125-32	0.5625-32	0.530	0.538	0.572
7	0.995	0.390	0.4375-28	0.6875-28	0.663	0.671	0.698
8	0.995	0.442	0.5000-28	0.6875-28	0.663	0.671	0.698
9	1.075	0.500	0.5625-24	0.7500-28	0.715	0.723	0.760
10	1.140	0.564	0.6250-24	0.8125-28	0.788	0.798	0.822
12	1.340	0.650	0.6875-24	1.0000-28	0.970	0.980	1.010
14	1.390	0.805	0.9375-20	1.0625-20	1.020	1.030	1.072

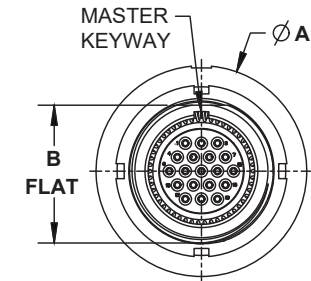
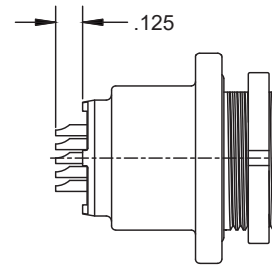
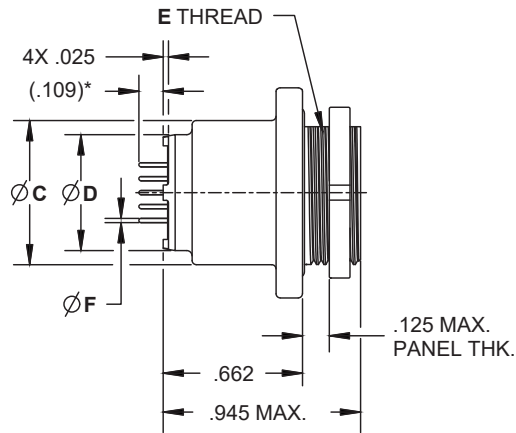
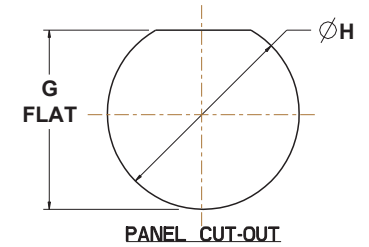
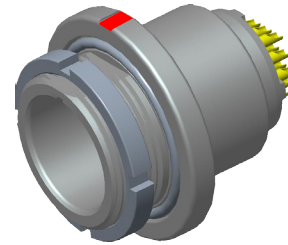
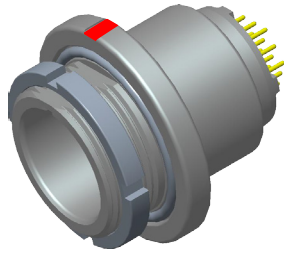
MKJ4 Jam Nut Receptacle - Rear Panel Mount PCB

Part Number Configurator

1- Series	2- Coupling	3- Class	4- Shell Style	5- Plating	6- Arrangement	7- Contact Style	8- Clocking	9- MOD Codes
MKJ	4	C	7	F	9-19	B	A	-518

1- Product		6- Standard Arrangements (For Combo, please reference page 11)				7- Contact Style		
MKJ	MKJ Series -	5-3	3 Size 23 Contacts	6-1	1 Size 16 Contact	A	Pin, PC-Tail, .062 Extension	
2- Coupling		6-4	4 Size 23 Contacts	8-2	2 Size 16 Contacts	B	Pin, PC-Tail, .109 Extension	
4	Breakaway / Quick Disconnect	6-6	6 Size 23 Contacts	9-4	4 Size 16 Contacts	G	Pin, PC-Tail, .125 Extension	
3- Class		6-7	7 Size 23 Contacts	10-5	5 Size 16 Contacts	C	Socket, PC Tail, .062 Extension	
C	Back-Potted Receptacle-PC/Flex/Solder	7-10	10 Size 23 Contacts	12-7	7 Size 16 Contacts	D	Socket, PC Tail, .109 Extension	
4- Shell Style		8-13	13 Size 23 Contacts	14-12	12 Size 16 Contacts	H	Socket, PC Tail, .125 Extension	
7	Jam Nut Receptacle-Rear Panel Mount PCB	9-19	19 Size 23 Contacts	7-1	1 Size 12 Contact	E	Pin, Solder Cup	
5- Plating		10-26	26 Size 23 Contacts	10-2	2 Size 12 Contacts	F	Socket, Solder Cup	
C	Aluminum / Anodized, Black	11-31	31 Size 23 Contacts	12-2	2 Size 12 Contact	8- Clocking		
F	Aluminum/Electroless Nickel	12-37	37 Size 23 Contacts	12-3	3 Size 12 Contact	Position	K1°	K2°
K	Stainless Steel / Passivated	14-55	55 Size 23 Contacts	14-4	4 Size 12 Contact	A (Normal)	150°	210°
N	Stainless Steel/Electroless Nickel	6-23	3 Size 20HD Contacts	14-5	5 Size 12 Contact	B	75°	210°
T	Aluminum/Teflon Nickel	7-25	5 Size 20HD Contacts			C	95°	230°
W	Aluminum/Olive Drab Cadmium over Electroless Nickel	8-28	8 Size 20HD Contacts			D	140°	275°
Y	Stainless Steel / Electroless Nickel, Black	9-210	10 Size 20HD Contacts			E	75°	275°
Z	Aluminum/Zinc Nickel, Black	12-220	20 Size 20HD Contacts			F	95°	210°
		14-235	35 Size 20HD Contacts			Blank	Master Key Only, No Minor keys	
					9- Modification Codes			
						-F0	Less Contacts ("F0" not stamped on connector, but must be included on the P.O.)	
						-518	Class "C" PC style black potted connectors w/water immersion testing	

MKJ4 Jam Nut Receptacle - Rear Panel Mount PCB



* Connector shown with contact style B

MKJ4 Jam Nut Receptacle - Rear Panel Mount PCB with PC Tail

MKJ4 Jam Nut Receptacle - Rear Panel Mount PCB with Solder Cup

MKJ4 Jam Nut Receptacle - Rear Panel Mount PCB Dimensions

SHELL SIZE	ØA	"B FLAT"	ØC	ØD	E THREAD UN-2A	ØF	G (FLAT) ± .002	ØH +.000/-.005
5	0.730	0.415	0.435	0.244	0.4375-28 UNEF	SIZE 23 .018/.022	0.423	0.448
6	0.730	0.467	0.483	0.330	0.5000-28 UNEF		0.478	0.510
7	0.910	0.594	0.570	0.432	0.6250-28	SIZE 20HD .024/.028	0.602	0.635
8	0.955	0.594	0.593	0.493	0.6250-28		0.602	0.635
9	1.000	0.655	0.685	0.551	0.6875-28	SIZE 16 .060/.064	0.663	0.698
10	1.085	0.721	0.725	0.620	0.7500-28		0.729	0.760
12	1.190	0.843	0.850	0.703	0.8750-28	SIZE 12 .092/.096	0.851	0.885
14	1.325	0.968	0.973	0.863	1.0000-28		0.976	1.010

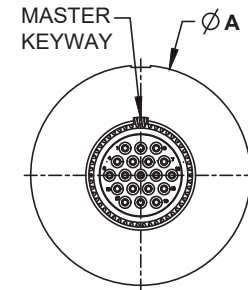
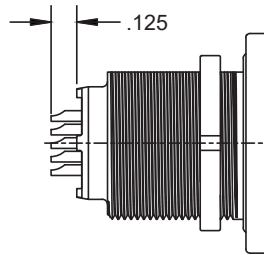
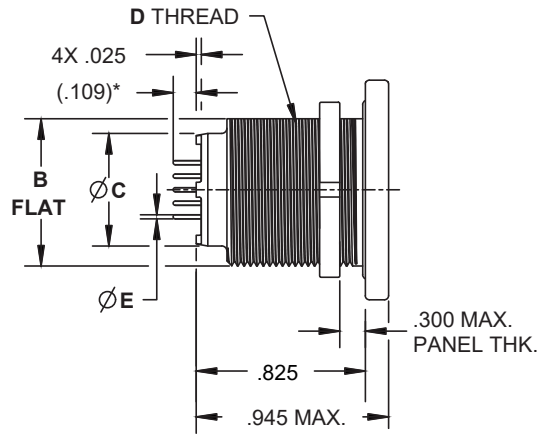
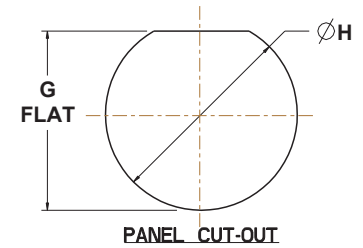
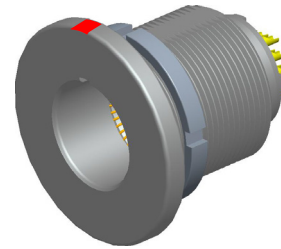
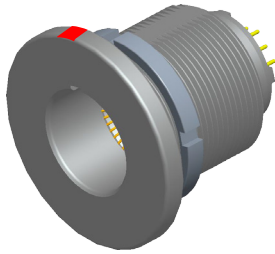
MKJ4 Jam Nut Receptacle - Front Panel Mount PCB

Part Number Configurator

1- Series	2- Coupling	3- Class	4- Shell Style	5- Plating	6- Arrangement	7- Contact Style	8- Clocking	9- MOD Codes
MKJ	4	C	8	F	9-19	B	A	-518

1- Product		6- Standard Arrangements (For Combo, please reference page 11)				7- Contact Style		
MKJ	MKJ Series -	5-3	3 Size 23 Contacts	6-1	1 Size 16 Contact	A	Pin, PC-Tail, .062 Extension	
2- Coupling		6-4	4 Size 23 Contacts	8-2	2 Size 16 Contacts	B	Pin, PC-Tail, .109 Extension	
4	Breakaway / Quick Disconnect	6-6	6 Size 23 Contacts	9-4	4 Size 16 Contacts	G	Pin, PC-Tail, .125 Extension	
3- Class		6-7	7 Size 23 Contacts	10-5	5 Size 16 Contacts	C	Socket, PC Tail, .062 Extension	
C	Back-Potted Receptacle-PC/Flex/Solder	7-10	10 Size 23 Contacts	12-7	7 Size 16 Contacts	D	Socket, PC Tail, .109 Extension	
4- Shell Style		8-13	13 Size 23 Contacts	14-12	12 Size 16 Contacts	H	Socket, PC Tail, .125 Extension	
8	Jam Nut Receptacle-Front Panel Mount PCB	9-19	19 Size 23 Contacts	7-1	1 Size 12 Contact	E	Pin, Solder Cup	
5- Plating		10-26	26 Size 23 Contacts	10-2	2 Size 12 Contacts	F	Socket, Solder Cup	
C	Aluminum / Anodized, Black	11-31	31 Size 23 Contacts	12-2	2 Size 12 Contact	8- Clocking		
F	Aluminum/Electroless Nickel	12-37	37 Size 23 Contacts	12-3	3 Size 12 Contact	Position	K1°	K2°
K	Stainless Steel / Passivated	14-55	55 Size 23 Contacts	14-4	4 Size 12 Contact	A (Normal)	150°	210°
N	Stainless Steel/Electroless Nickel	6-23	3 Size 20HD Contacts	14-5	5 Size 12 Contact	B	75°	210°
T	Aluminum/Teflon Nickel	7-25	5 Size 20HD Contacts			C	95°	230°
W	Aluminum/Olive Drab Cadmium over Electroless Nickel	8-28	8 Size 20HD Contacts			D	140°	275°
Y	Stainless Steel / Electroless Nickel, Black	9-210	10 Size 20HD Contacts			E	75°	275°
Z	Aluminum/Zinc Nickel, Black	12-220	20 Size 20HD Contacts			F	95°	210°
		14-235	35 Size 20HD Contacts			Blank	Master Key Only, No Minor keys	
					9- Modification Codes			
						-F0	Less Contacts ("F0" not stamped on connector, but must be included on the P.O.)	
						-518	Class "C" PC style black potted connectors w/water immersion testing	

MKJ4 Jam Nut Receptacle - Front Panel Mount PCB



* Connector shown with contact style B

MKJ4 Jam Nut Receptacle - Front Panel Mount PCB with PC Tail


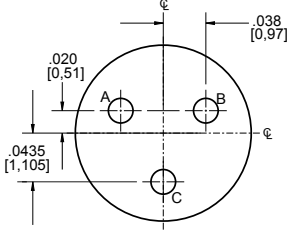
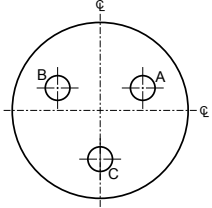
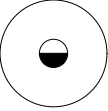
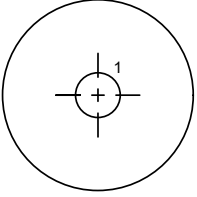
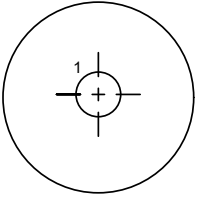

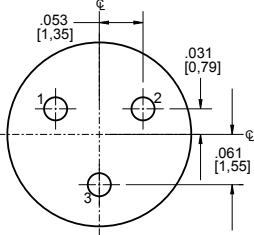
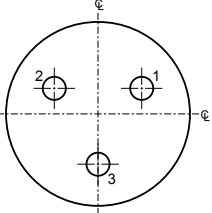
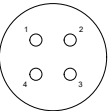
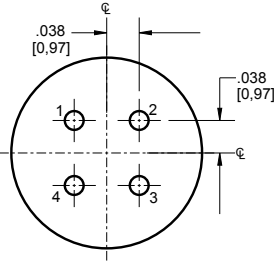
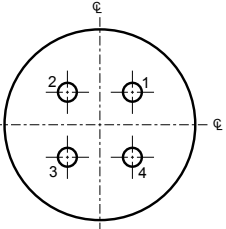
MKJ4 Jam Nut Receptacle - Front Panel Mount PCB with Solder Cup

MKJ4 Jam Nut Receptacle - Front Panel Mount PCB Dimensions

SHELL SIZE	ØA	B FLAT	ØC	D THREAD UN-2A	ØE	G FLAT ± .002	ØH +.000/- .005
5	0.830	0.470	0.275	0.5000-28 UNEF-2A	SIZE 23 .018/.022 SIZE 20HD .024/.028 SIZE 16 .060/.064 SIZE 12 .092/.096	0.478	0.510
6	0.885	0.530	0.330	0.5625-32		0.538	0.572
7	0.995	0.663	0.432	0.6875-28		0.671	0.698
8	0.995	0.663	0.493	0.6875-28		0.671	0.698
9	1.075	0.715	0.551	0.7500-28		0.723	0.760
10	1.140	0.788	0.620	0.8125-28		0.798	0.822
12	1.340	0.970	0.703	1.0000-28		0.980	1.010
14	1.390	1.020	0.863	1.0625-20		1.030	1.072

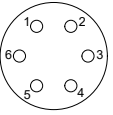
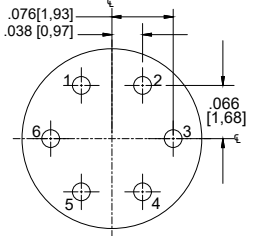
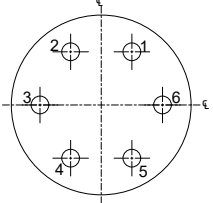
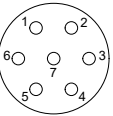
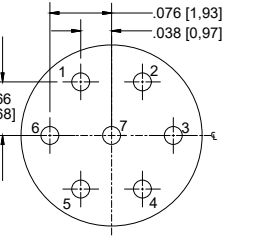
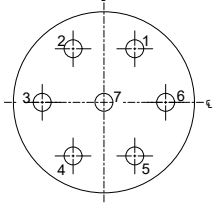
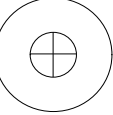
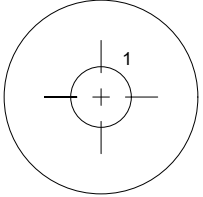
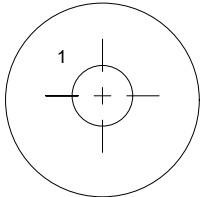
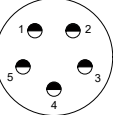
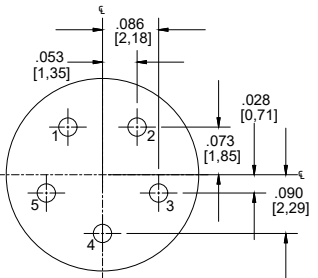
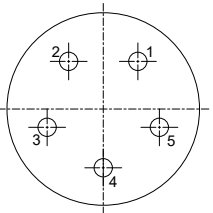
MKJ4 PCB Hole Patterns - Standard Arrangements

Face View of Pin Insulators (Socket layouts reversed)

Layout		Pin	Socket
			
Layout	5-3		
Contact QTY	3		
Contact Size	23		
			
Layout	6-1		
Contact QTY	1		
Contact Size	16		
			
Layout	6-23		
Contact QTY	3		
Contact Size	20HD		
			
Layout	6-4		
Contact QTY	4		
Contact Size	23		

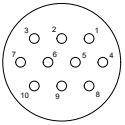
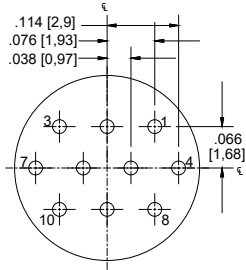
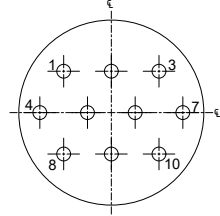
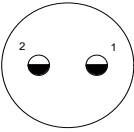
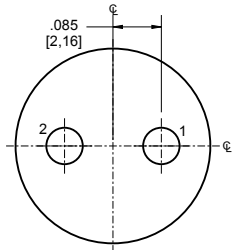
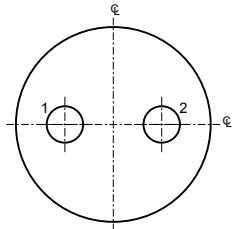
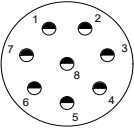
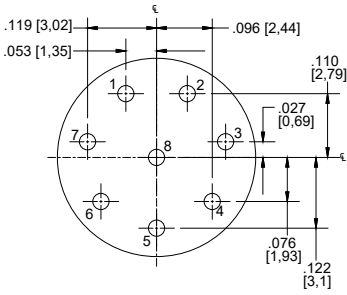
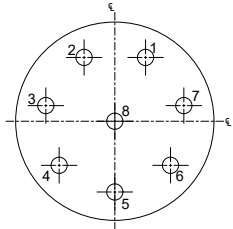
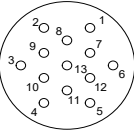
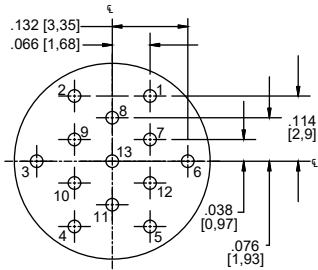
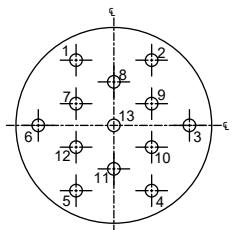
MKJ4 PCB Hole Patterns - Standard Arrangements

Face View of Pin Insulators (Socket layouts reversed)

Layout		Pin	Socket
			
Layout	6-6		
Contact QTY	6		
Contact Size	23		
			
Layout	6-7		
Contact QTY	7		
Contact Size	23		
			
Layout	7-1		
Contact QTY	1		
Contact Size	12		
			
Layout	7-25		
Contact QTY	5		
Contact Size	20HD		

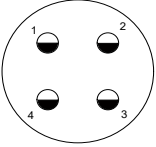
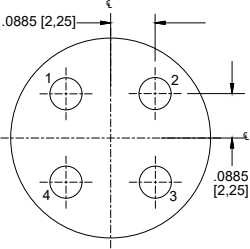
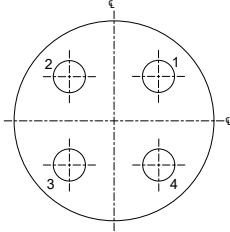
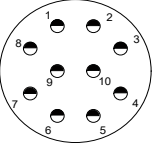
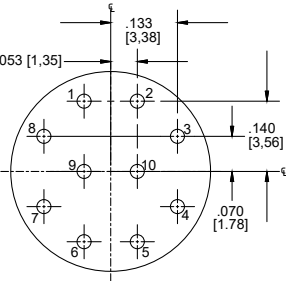
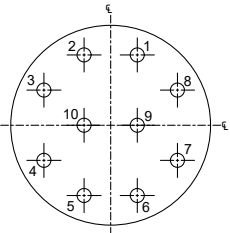
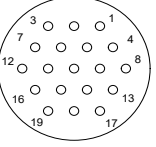
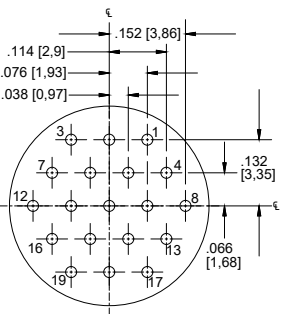
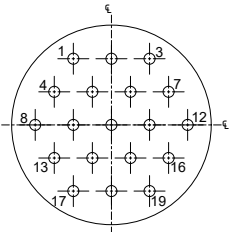
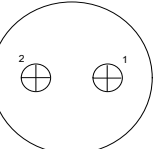
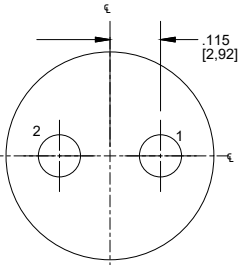
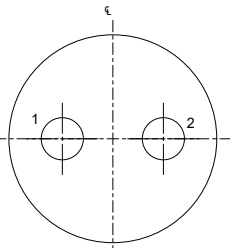
MKJ4 PCB Hole Patterns - Standard Arrangements

Face View of Pin Insulators (Socket layouts reversed)

Layout		Pin	Socket
			
Layout	7-10		
Contact QTY	10		
Contact Size	23		
			
Layout	8-2		
Contact QTY	2		
Contact Size	16		
			
Layout	8-28		
Contact QTY	8		
Contact Size	20HD		
			
Layout	8-13		
Contact QTY	13		
Contact Size	23		

MKJ4 PCB Hole Patterns - Standard Arrangements

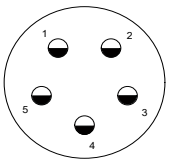
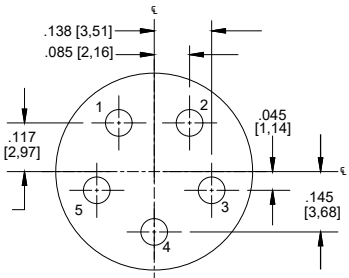
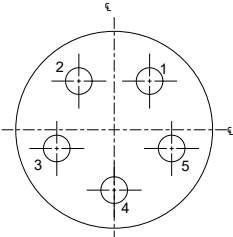
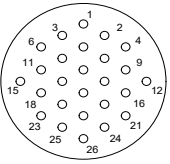
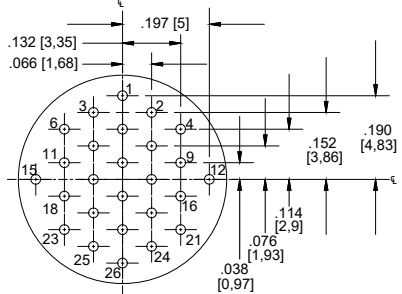
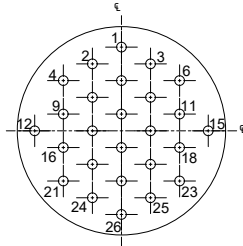
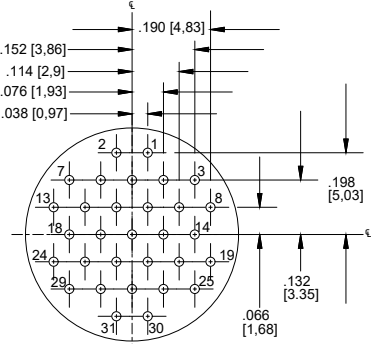
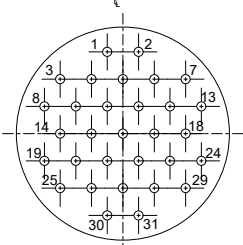
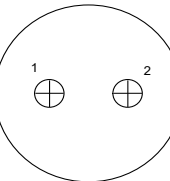
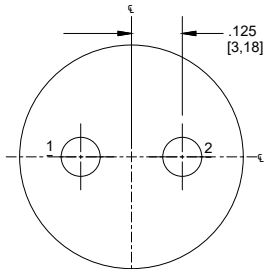
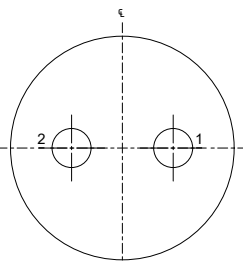
Face View of Pin Insulators (Socket layouts reversed)

Layout		Pin	Socket
			
Layout	9-4		
Contact QTY	4		
Contact Size	16		
			
Layout	9-210		
Contact QTY	10		
Contact Size	20HD		
			
Layout	9-19		
Contact QTY	19		
Contact Size	23		
			
Layout	10-2		
Contact QTY	2		
Contact Size	12		

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

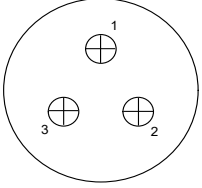
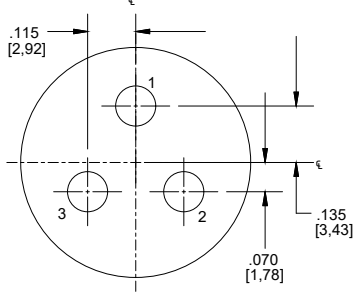
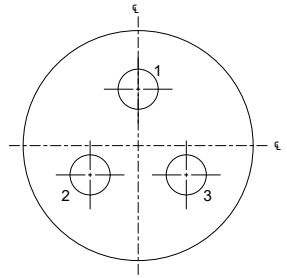
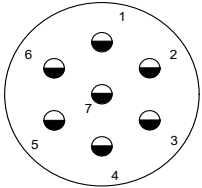
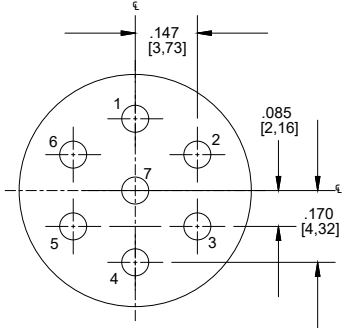
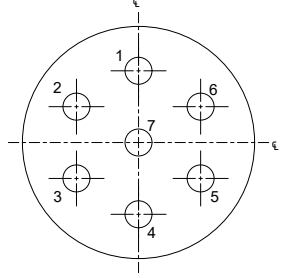
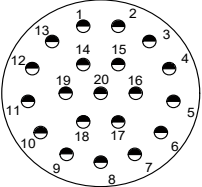
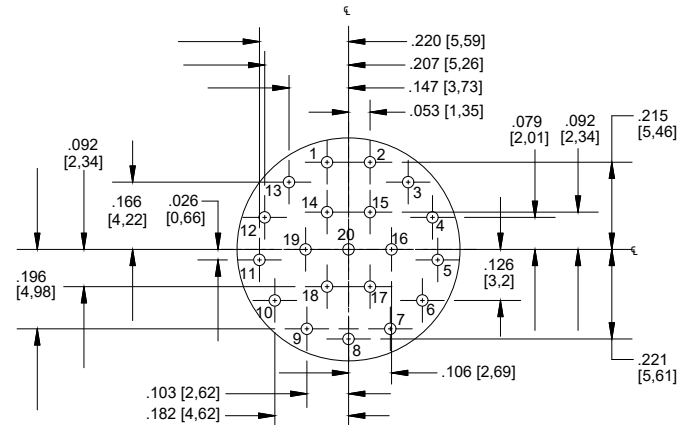
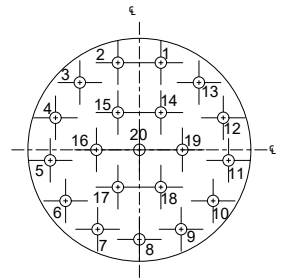
MKJ4 PCB Hole Patterns - Standard Arrangements

Face View of Pin Insulators (Socket layouts reversed)

Layout		Pin	Socket
			
Layout	10-5		
Contact QTY	5		
Contact Size	16		
			
Layout	10-26		
Contact QTY	26		
Contact Size	23		
			
Layout	11-31		
Contact QTY	31		
Contact Size	23		
			
Layout	12-2		
Contact QTY	2		
Contact Size	12		

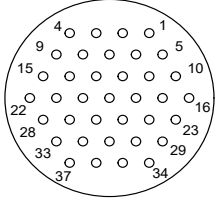
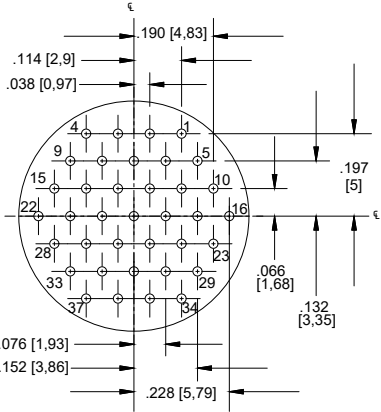
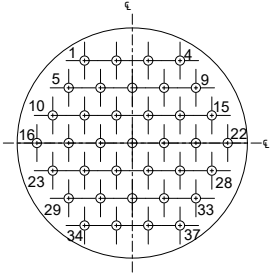
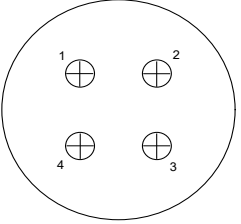
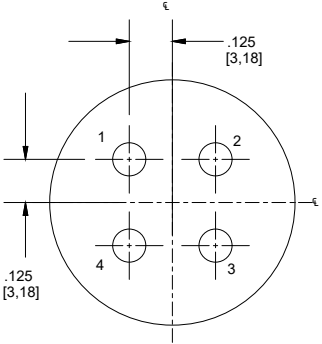
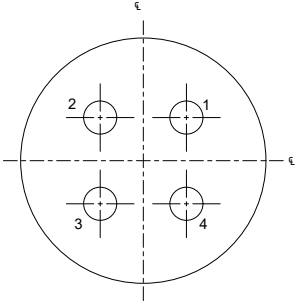
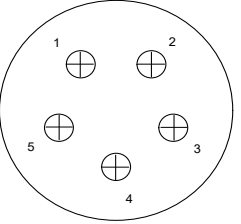
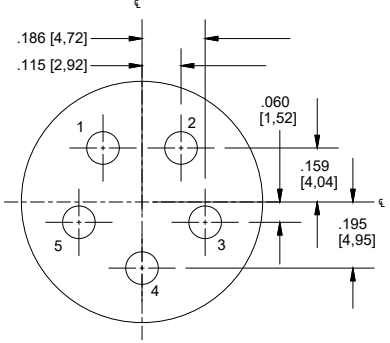
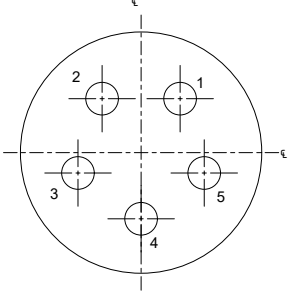
MKJ4 PCB Hole Patterns - Standard Arrangements

Face View of Pin Insulators (Socket layouts reversed)

Layout		Pin	Socket
			
Layout	12-3		
Contact QTY	3		
Contact Size	12		
			
Layout	12-7		
Contact QTY	7		
Contact Size	16		
			
Layout	12-220		
Contact QTY	20		
Contact Size	20HD		

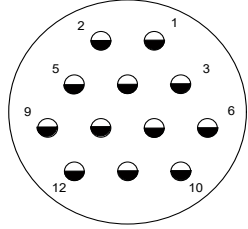
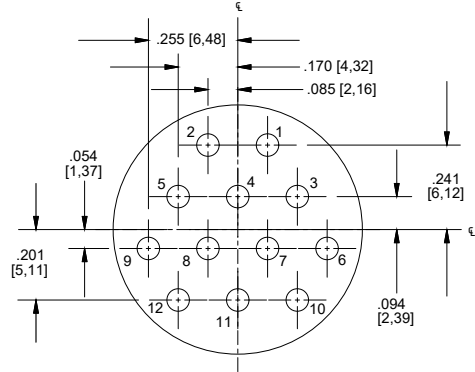
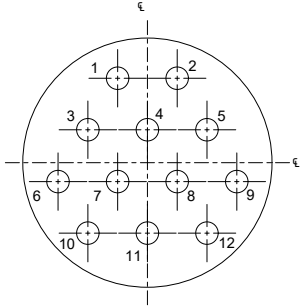
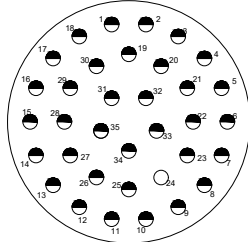
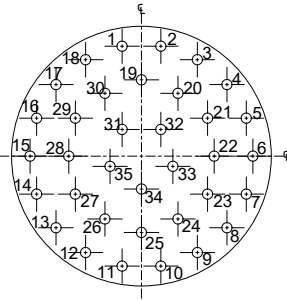
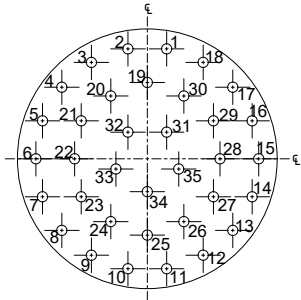
MKJ4 PCB Hole Patterns - Standard Arrangements

Face View of Pin Insulators (Socket layouts reversed)

Layout		Pin	Socket
			
Layout	12-37		
Contact QTY	37		
Contact Size	23		
			
Layout	14-4		
Contact QTY	4		
Contact Size	12		
			
Layout	14-5		
Contact QTY	5		
Contact Size	12		

MKJ4 PCB Hole Patterns - Standard Arrangements

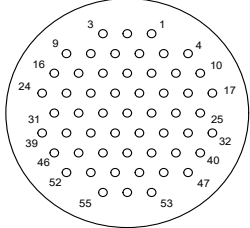
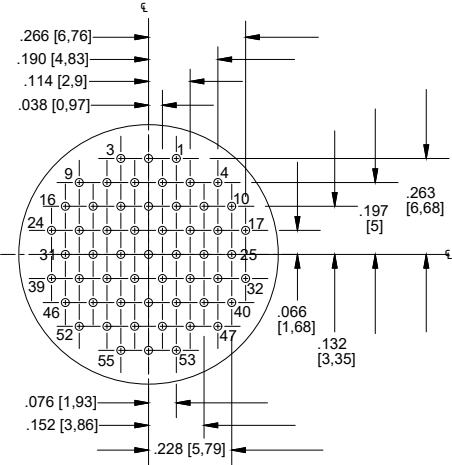
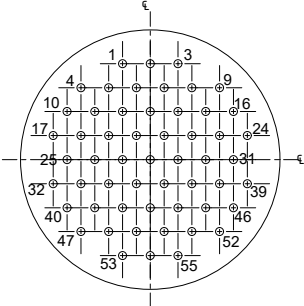
Face View of Pin Insulators (Socket layouts reversed)

Layout		Pin	Socket
			
Layout	14-12		
Contact QTY	12		
Contact Size	16		
			
Layout	14-235		
Contact QTY	35		
Contact Size	20HD		

14-235														
Pin. No.	X		Y		Pin. No.	X		Y		Pin. No.	X		Y	
	in.	mm.	in.	mm.		in.	mm.	in.	mm.		in.	mm.	in.	mm.
1	-.053	-1.35	.301	7.65	13	-.234	-5.94	-.196	-4.98	25	.000	.00	-.209	-5.31
2	.053	1.35	.301	7.65	14	-.287	-7.29	-.104	-2.64	26	-.100	-2.54	-.172	-4.37
3	.153	3.89	.264	6.71	15	-.305	-7.75	.000	.00	27	-.181	-4.60	-.104	-2.64
4	.234	5.94	.196	4.98	16	-.287	-7.29	.104	2.64	28	-.199	-5.05	.000	0.00
5	.287	7.29	.104	2.64	17	-.234	-5.94	.196	4.98	29	-.181	-4.60	.104	2.64
6	.305	7.75	.000	.00	18	-.153	-3.89	.264	6.71	30	-.100	-2.54	.172	4.37
7	.287	7.29	-.104	-2.64	19	.000	.00	.209	5.31	31	-.053	-1.35	.073	1.85
8	.234	5.94	-.196	-4.98	20	.100	2.54	.172	4.37	32	.053	1.35	.073	1.85
9	.153	3.89	-.264	-6.71	21	.181	4.60	.104	2.64	33	.086	2.18	-.028	-0.71
10	.053	1.35	-.301	-7.65	22	.199	5.05	.000	.00	34	.000	.00	-.090	-2.29
11	-.053	-1.35	-.301	-7.65	23	.181	4.60	-.104	-2.64	35	-.086	-2.18	-.028	-0.71
12	-.153	-3.89	-.264	-6.71	24	.100	2.54	-.172	-4.37					

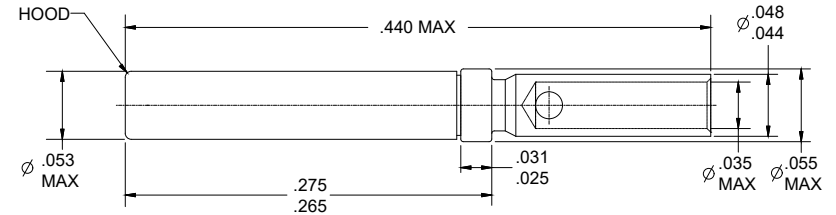
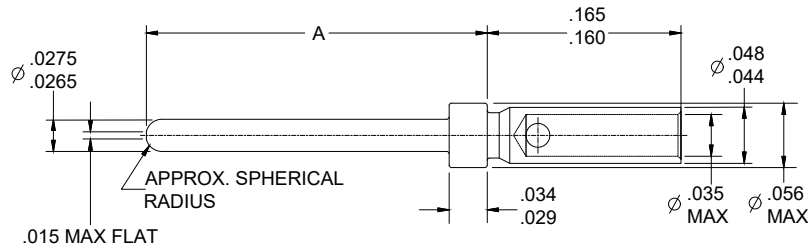
MKJ4 PCB Hole Patterns - Standard Arrangements

Face View of Pin Insulators (Socket layouts reversed)

Layout		Pin	Socket
			
Layout	14-55		
Contact QTY	55		
Contact Size	23		

MKJ Crimp Contact Drawings

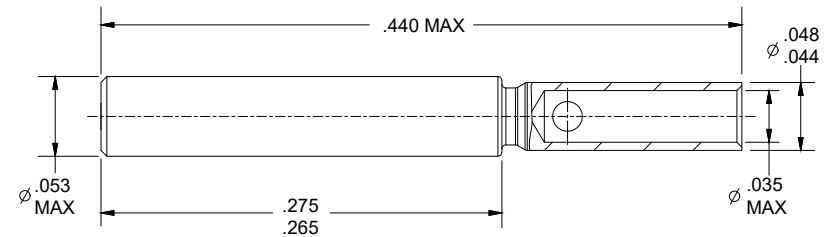
Size #23 Contacts - 5 Amp Max. / Current 750 VAC / #22-#28 AWG



Socket - 031-9750-040 WITH STAINLESS STEEL HOOD

Part Number	A (Dim)	Contact Area Plating	Wire Size
030-9649-000	.283 - .289	50 Micro Inches Gold over Nickel	#22-28 AWG Wire
030-9649-011*	.323 - .327	50 Micro Inches Gold over Nickel	#22-28 AWG Wire
030-9649-100	.283 - .289	50 Micro Inches Gold over Nickel	#26-30 AWG Wire

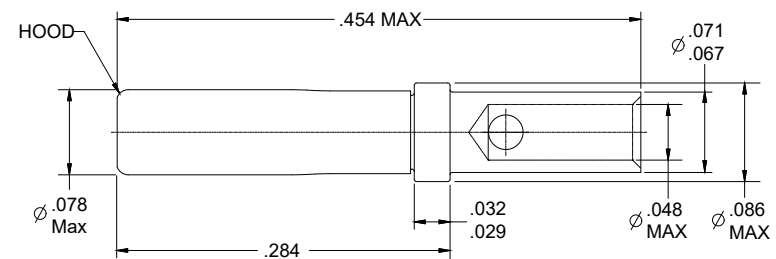
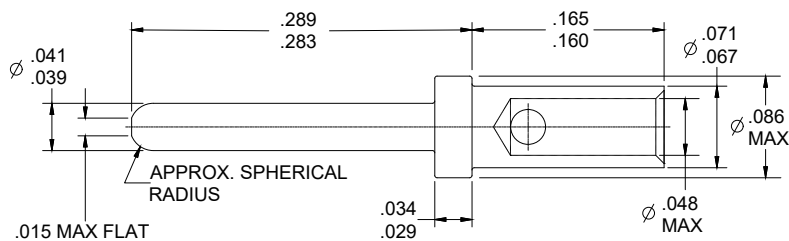
*First-Mate-Last-Break crimp contact.



Socket - 031-9750-000 CONTACT Assembly, CRIMP, SIZE 23

Pin - 030-9649-000/-011/-100

Size #20HD Contacts- 7.5 Amp Max. / Current 1000 VAC / #20-#24 AWG

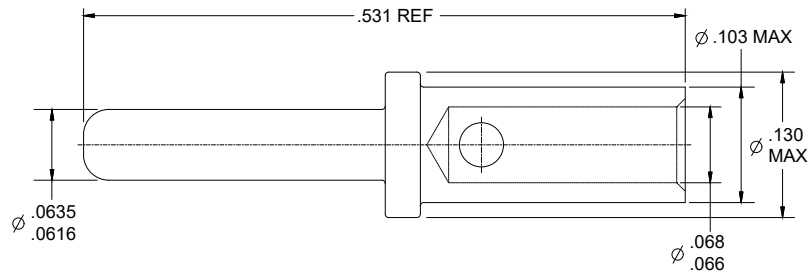


Pin - 030-9661-000

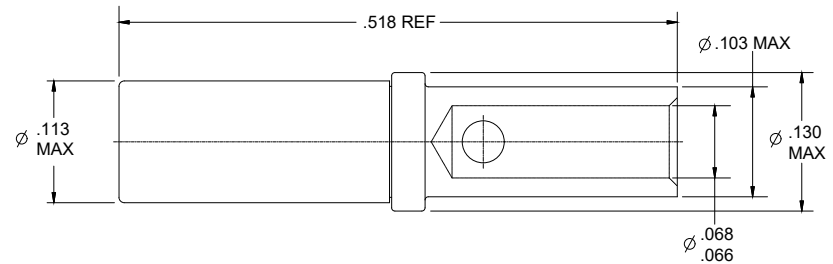
Socket - 031-9766-000

MKJ Crimp Contact Drawings

Size #16 Contacts - 13 Amp Max. / Current 1800 VAC / #16-#20 AWG

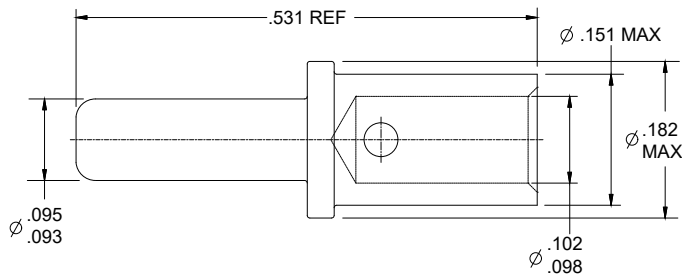


Pin- 980-0008-880

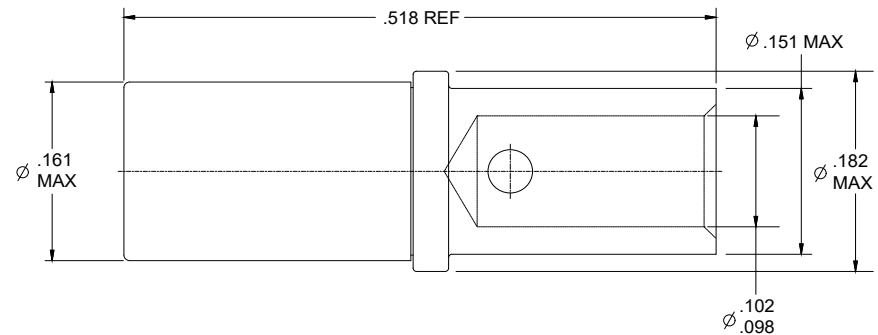


Socket - 980-0008-876

Size #12 Contacts- 23 Amp Max. / Current 1800 VAC / #12-14 AWG



Pin - 980-0008-881



Socket - 980-0008-877

Notes: Non-removable solder cup and PC tail contacts are supplied with the connectors.
Crimp contacts are supplied with the connector, but not installed. Bulk crimp contacts can be ordered separately.

MKJ4 Series - Accessories

Crimp Tooling



Locator Standard - 995-0002-297

Contact Size	Crimp Tools		Locators	
	ITT Part Number	Military Part number	ITT Part Number	Military Part number
23	995-0002-293	-	995-0002-297	-
20HD	995-0002-293	-	995-0002-303	-
16	995-0001-585	M22520/1-01	-	M22520/1-04
12	995-0001-585	M22520/1-01	-	M22520/1-04

Additional Tooling



1/8" Bands - 995-0002-299

Tooling	
Tooling Type	Part Number
Insertion Tool	995-0002-295
Extraction Tool	995-0002-294
Hand Banding Tool	995-0002-298
Hand Banding Tool	995-0002-306
1/8" Bands (100 pk)	995-0002-299



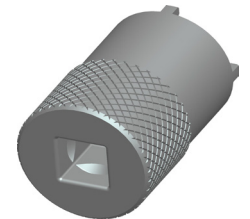
Hand Banding Tool - 995-0002-298



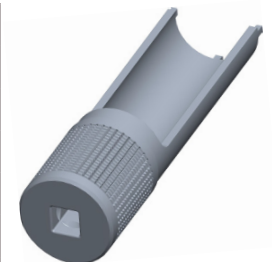
Hand Banding Tool - 995-0002-306

Spanner Nut Tool		
Plug Size	Receptacle Size*	Part Number
5	5R	317-2187-000
-	6F	317-2187-001
7, 8	7R, 8R	317-2187-002
12	12R	317-2187-003
10	9F, 10R	317-2187-007
6	5F, 6R	317-2187-011
9	7F, 8F, 9R	317-2187-012
-	10F	317-2187-014
14	12F, 14R	317-2187-015
-	14F	317-2187-016

*R= Rear Mount, F= Front Mount

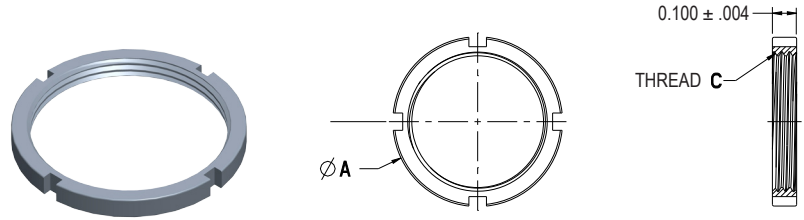


Front Mount (Wire/Cable) Spanner Nut Tool	
Shell Size	Part Number
6	317-2187-030
5	317-2187-031
10	317-2187-032
12	317-2187-033
14	317-2187-034



MKJ4 Series - Accessories

Jam Nut

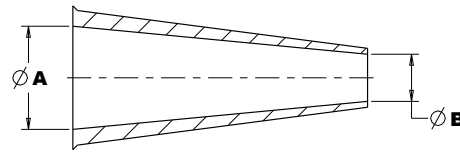
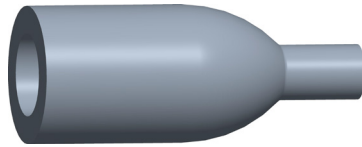


Jam Nut								
Plug Size	Receptacle Size*	Material and Finish					ØA ±.005	Thread C
		Aluminum/ Electroless Nickel	Aluminum/ O.D CAD over Nickel	Aluminum/ Teflon Nickel	Aluminum/ Black Zinc Nickel	Stainless Steel/ Electroless Nickel		
5	5R	217-9652-000	217-9652-001	217-9652-002	217-9652-003	217-9652-020	.574	.4375-28 UNEF-2B
6	5F, 6R	217-9667-000	217-9667-001	217-9667-002	217-9667-003	217-9667-020	.625	.5000 -28 UNEF-2B
-	6F	217-9653-000	217-9653-001	217-9653-002	217-9653-003	217-9653-020	.688	.5625-32 UN-2B
7, 8	7R, 8R	217-9655-000	217-9655-001	217-9655-002	217-9655-003	217-9655-020	.762	.6250-28 UN-2B
9	7F, 8F, 9R	217-9658-000	217-9658-001	217-9658-002	217-9658-003	217-9658-020	.814	.6875-28 UN-2B
10	9F, 10R	217-9654-000	217-9654-001	217-9654-002	217-9654-003	217-9654-020	.858	.7500-28 UN-2B
-	10F	217-9659-000	217-9659-001	217-9659-002	217-9659-003	217-9659-020	.939	.8125-28 UN-2B
12	12R	217-9656-000	217-9656-001	217-9656-002	217-9656-003	217-9656-020	1.006	.8750-28 UN-2B
14	12F, 14R	217-9665-000	217-9665-001	217-9665-002	217-9665-003	217-9665-020	1.123	1.000-28 UN-2B
-	14F	217-9701-000	217-9701-001	217-9701-002	217-9701-003	217-9701-020	1.190	1.0625-20 UN-28

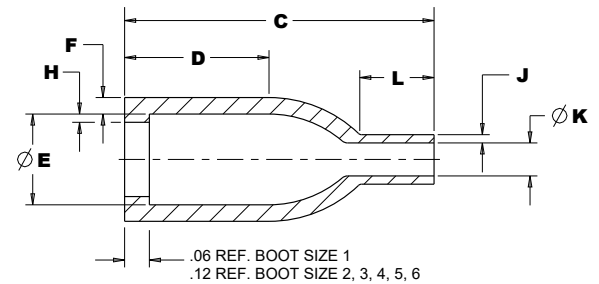
*R= Rear Mount (Shell Style 7), F= Front Mount (Shell Style 8)

MKJ4 Accessories

Heat Shrink Boot - Straight Angle



STRAIGHT BOOT
(AS PURCHASED, EXPANDED)



STRAIGHT BOOT (AS RECOVERED)

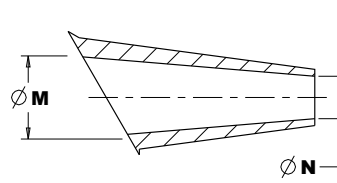
Heat Shrink Boot - Straight Angle Dimensions															
ITT BOOT SIZE	MIL SPEC	FITS SIZE MKJ4	MATERIAL	ITT PART NUMBER	Ø A MIN	Ø B MIN	C ±10%	D ±10%	Ø E MAX	F ±10%	H ±10%	J ±10%	Ø K MAX	L ±10%	
1	-	5	High performance, High-Temp epoxy	078-2000-000	0.35	0.16	.75	.35	.22	.04	.02	.02	.08	.18	
			Non-Halogen, Hot melt adhesive	078-2000-006	0.35	0.16	.75	.35	.22	.04	.02	.02	.08	.18	
			High performance, Hot melt adhesive	078-2000-012	0.35	0.16	.75	.35	.22	.04	.02	.02	.08	.18	
2	-	6, 7	High performance, High-Temp epoxy	078-2000-001	0.65	0.65	1.00	.56	.31	.05	.04	.05	.15	.27	
			Non-Halogen, Hot melt adhesive	078-2000-007	0.65	0.65	1.00	.56	.31	.05	.04	.05	.15	.27	
			High performance, Hot melt adhesive	078-2000-013	0.65	0.65	1.00	.56	.31	.05	.04	.05	.15	.27	
3	MS3109-11	8, 9	High performance, High-Temp epoxy	078-2000-002	0.92	0.92	1.50	.90	.41	.06	.04	.06	.22	.40	
			Non-Halogen, Hot melt adhesive	078-2000-008	0.92	0.92	1.50	.90	.41	.06	.04	.06	.22	.40	
			High performance, Hot melt adhesive	078-2000-014	0.92	0.92	1.50	.90	.41	.06	.04	.06	.22	.40	
4	MS3109-12	10, 12	High performance, High-Temp epoxy	078-2000-003	1.22	1.22	2.17	.90	.56	.06	.04	.06	.26	.40	
			Non-Halogen, Hot melt adhesive	078-2000-009	1.22	1.22	2.17	.90	.56	.06	.04	.06	.26	.40	
			High performance, Hot melt adhesive	078-2000-015	1.22	1.22	2.17	.90	.56	.06	.04	.06	.26	.40	
5	MS3109-13	14	High performance, High-Temp epoxy	078-2000-004	1.22	1.22	2.60	1.50	.70	.08	.04	.08	.28	.70	
			Non-Halogen, Hot melt adhesive	078-2000-010	1.22	1.22	2.60	1.50	.70	.08	.04	.08	.28	.70	
			High performance, Hot melt adhesive	078-2000-016	1.22	1.22	2.60	1.50	.70	.08	.04	.08	.28	.70	

Notes:

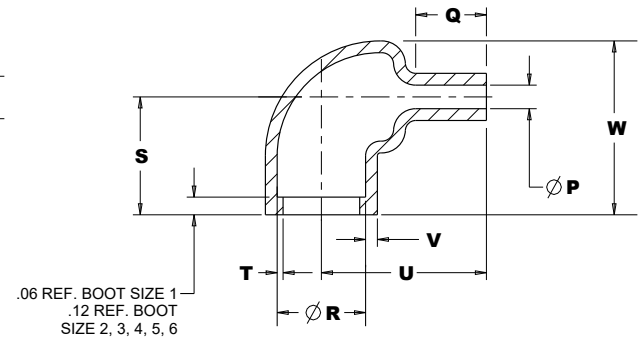
- Material: **High performance:** Fluid resistance flame retarded elastomer, color black. Temperature range: -75°C to 150°C.
Non-Halogen: Flexible zero-halogen limited fire hazard, color black. Temperature range: -55°C to 105°C.
- Minimum dimensions are as purchased, unrecovered. • Maximum dimensions shown represent the dimension at the boots maximum shrink.
- Boot size applicable only to standard ITT MKJ banded connectors. Consult factory for other size applications.
- Boot has a pre-applied polyamide hot melt adhesive or 1 part epoxy. A. Hot melt adhesive is halogen free. Operating range is -55°C to 120°C.
B. High-Temp epoxy has an operating temperature of -75°C to 200°C.

MKJ4 Series - Accessories

Heat Shrink Boot - Right Angle



RIGHT ANGLE BOOT
(AS PURCHASED, EXPANDED)



.06 REF. BOOT SIZE 1
.12 REF. BOOT
SIZE 2, 3, 4, 5, 6

RIGHT ANGLE BOOT (AS RECOVERED)

Heat Shrink Boot - Right Angle Dimensions														
ITT BOOT SIZE	MIL SPEC	FITS SIZE MKJ4	MATERIAL	ITT PART NUMBER	Ø M MIN	Ø N MIN	Ø P MAX	Q ±10%	Ø R MAX	S ±10%	T ±20%	U ±10%	V ±20%	W ±10%
1	-	5	High performance, High-Temp epoxy	078-2100-000	0.47	0.24	.08	.24	.30	.41	.01	.56	.04	.51
			Non-Halogen, Hot melt adhesive	078-2100-006	0.47	0.24	.08	.24	.30	.41	.01	.56	.04	.51
			High performance, Hot melt adhesive	078-2100-012	0.47	0.24	.08	.24	.30	.41	.01	.56	.04	.51
2	-	6, 7	High performance, High-Temp epoxy	078-2100-001	0.65	0.65	.15	.16	.31	.60	.04	.68	.04	.79
			Non-Halogen, Hot melt adhesive	078-2100-007	0.65	0.65	.15	.16	.31	.60	.04	.68	.04	.79
			High performance, Hot melt adhesive	078-2100-013	0.65	0.65	.15	.16	.31	.60	.04	.68	.04	.79
3	MS3117-11	8, 9	High performance, High-Temp epoxy	078-2100-002	0.92	0.92	.22	.23	.41	.60	.04	.80	.05	.90
			Non-Halogen, Hot melt adhesive	078-2100-008	0.92	0.92	.22	.23	.41	.60	.04	.80	.05	.90
			High performance, Hot melt adhesive	078-2100-014	0.92	0.92	.22	.23	.41	.60	.04	.80	.05	.90
4	MS3117-12	10, 12	High performance, High-Temp epoxy	078-2100-003	1.12	1.12	.25	.28	.56	.84	.04	1.17	.06	1.12
			Non-Halogen, Hot melt adhesive	078-2100-009	1.12	1.12	.25	.28	.56	.84	.04	1.17	.06	1.12
			High performance, Hot melt adhesive	078-2100-015	1.12	1.12	.25	.28	.56	.84	.04	1.17	.06	1.12
5	MS3117-13	14	High performance, High-Temp epoxy	078-2100-004	1.22	1.22	.28	.34	.70	.81	.04	1.40	.07	1.20
			Non-Halogen, Hot melt adhesive	078-2100-010	1.22	1.22	.28	.34	.70	.81	.04	1.40	.07	1.20
			High performance, Hot melt adhesive	078-2100-016	1.22	1.22	.28	.34	.70	.81	.04	1.40	.07	1.20

Notes:

- Material: **High performance:** Fluid resistance flame retarded elastomer, color black. Temperature range: -75°C to 150°C.
Non-Halogen: Flexible zero-halogen limited fire hazard, color black. Temperature range: -55°C to 105°C.
- Minimum dimensions are as purchased, unrecovered. • Maximum dimensions shown represent the dimension at the boots maximum shrink.
- Boot size applicable only to standard ITT MKJ banded connectors. Consult factory for other size applications.
- Boot has a pre-applied polyamide hot melt adhesive or 1 part epoxy. A. Hot melt adhesive is halogen free. Operating range is -55°C to 120°C.
B. High-Temp epoxy has an operating temperature of -75°C to 200°C.

MKJ Series Overview

Up to 71% weight and 52% size reduction in an industry-leading quick disconnect*

ITT Cannon continues its tradition of innovation with the MKJ line of miniature circular connectors. Bringing together a unique combination of design, functionality and flexibility, Cannon's MKJ Series offers proven, reliable and cost-effective interconnect solutions that enable critical communication, navigation and high speed data transmission—at half the size and weight of traditional D38999. Choose from UNC thread, double-start, triple-start, bayonet, breakaway and clip-lock latching coupling methods in a cost-efficient, lightweight and highly engineered design.



MKJ0 UNC Thread



MKJ3 Bayonet



MKJ5 Triple Start



MKJ1 Double Start



MKJ4 Breakaway



MKJ Clip Lock



MKJ Warrior

Key Features

- Versatile and proven for use in military, industrial and medical applications where safety and reliability are critical
- A number of connectors in the MKJ Series offer up to 2,000 mating cycles, making them the perfect solution for ruggedized computers and hand-held communications equipment
- Multiple coupling mechanisms enable connectivity for navigation and telemetry applications
- Plugs and receptacles are environmentally sealed for use in the harshest environments
- Teflon nickel, black zinc nickel and olive drab cadmium plating maintain robust reliability for 500 hours of salt spray
- RoHS Compliant plating and part numbers available
- Qualified to GOSSRA and design per Nett Warrior

Cables to Outfit Your MKJ Connector

Value-Added Cabling Solutions from ITT Cannon

Let ITT Cannon complete your solution with our custom cable products. A complement to the reduction in size of the connectors is the reduction in weight and thickness in cabling. Choose from several available options to help customize your application. Improving on our high reliability connectors, we offer over molds that are suitable for military requirements in harsh environments.



Note: Polyurethane jacketed round cables and silicon jacket high-flex flat cables with overmolds.

Braiding

- EMI shielded metal to light weight, textile braiding for abrasion protection

Overmolding

- Injection molding with polyurethane, Santoprene, and polyimide
- Transfer molding with Cannon's Super Jacketing System (SJS Series), Viton, Neoprene, EPDM, and alternative molding compounds
- Low pressure and prototype molding including M24041, poly urethane, Polyimide, and custom compounds

Shrink Boots

- Customized solution for all connector-to-cable transition type including straight, 90 and 45 degree.

Backshells

- Integration of commercial and MIL-Spec backshell and molding adapters

Cable Jacket

- Blown-on jacketing for multi leg cables using SJS jacket, Viton Neoprene, EPDM, and various other tubing jackets
- RONDENT proof extruded jackets using SJS jacket, poly urethane, Santoprene and Neoprene.
- Textile braids and heat shrink jackets

Integrated Assembly

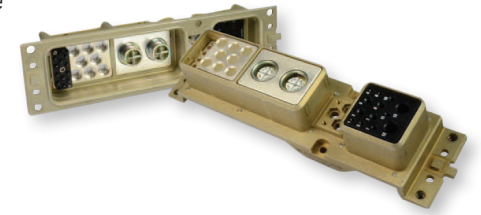
- Integrated connector and cabling into box system
- Ribbon cable assembly
- Cable/Wire harnesses in boxes or as an LRU
- Machined & integrated high volume Die Cast housing

Amazing things happen

when great things connect

ITT Cannon is a leading global manufacturer of connector products serving international customers in the aerospace and defense, medical, energy, transportation and industrial end markets. Whether delivering critical specs to aircraft pilots, streaming data through communications satellites or enabling ultrasound technology that gives an expectant mother the first glimpse of her unborn child, Cannon connects the world's most important information with the people who need it.

With over 100 years of interconnect excellence and seven decades of global presence from the Defense and Medical Industry, we are a committed partner among today's critical equipment manufacturers.



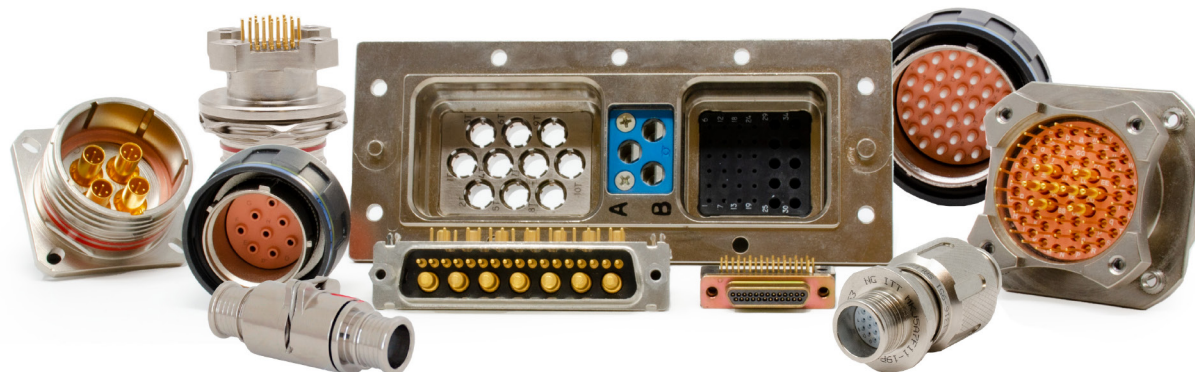
A Century of Connections

In 2015, Cannon marked its 100th Anniversary of Innovation. Cannon products were used in the first "talking" movies and helped transmit the first messages back to earth when we landed on the moon. Today we proudly continue our legacy of innovating to connect the world and inspire the successes of the next century – because amazing things happen when great things connect.

Visit ittcannon.com to learn more.

About ITT

ITT is a diversified leading manufacturer of highly engineered critical components and customized technology solutions for the transportation, industrial, and oil and gas markets. Building on its heritage of innovation, ITT partners with its customers to deliver enduring solutions to the key industries that underpin our modern way of life.



ITT Cannon Defense Solutions

Meet Some of Our Most Innovative Connectors



Cu Light Series

Size #8 TOSA-ROSA for 10 Gbps
Copper-to-Fiber conversion in
military circular connectors



C5 Warrior Series

Ultra-High-Density, 10 Gbps Solution,
4 times smaller than D38999
connectors for USB-C, DisplayPort,
HDMI & Gb Ethernet protocols



MKJ Display Port Series

Vibration resistant Display Port with
5.4 Gbps data lanes, optimized imped-
ance-controlled contact system, and
low-smoke zero-halogen cabling



KJ Series (38999-style)

- High contact density pin count
- Moisture resistant
- Quick connect & disconnect
- Fiber Optic, Hermetic, Filter



CA Bayonet Series

- 1 to 140 contact arrangements
- Shell size #10SL to #36
- Reverse bayonet up to IP69K
- CAB/VG95234 & CGE/VG96929



Nemesis Series

- 20+ meter sealing
- Dual coupling or Breakaway
- Power, signal & data
- Blind mating design



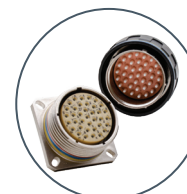
KP Series

- 10 shell size, with up to 40
layouts from 2 to 61 contacts
- Sealing up to IP67
- VG95238 & MIL-DTL-26482



CA Threaded / 5015 Series

- 5 polarizations
- Individual wire sealing grommet
- RoHS compliant options
- MIL-DTL-5015 (SAE-AS50151)



Fiber Optic Series

- Termini, savers and cable as-
semblies integrations in M29504,
D38999, M28876, Jewel, NGCON,
DSUB, Micro, PHD and ARINC



D-Sub Series

- Mixed Signal / Power, M24308,
Crimp, Solder, PC Tail, Double
Density, Filter/ Hermetic
- Up to 104 contact



HDx Series

- High-Density, Small Form Factor
- High speed data - USB@ 3.1 Gen1 up
to 5Gbit/s, Ethernet up to 10Gbit/s,
HDMI@ up to 8.16 Gbit/s



Micro Series

- High Temperature (+230°C)
- Low profile configuration
- Mixed power, coax and signal
layouts & M83513



MKJ Series

- High-density, miniature footprint
- UNC thread, double start, triple
start, bayonet, breakaway and clip
lock latching

Product Safety

This note must be read in conjunction with the Product Data Sheet / Catalog. Failure to observe the advice in this information sheet and the operating conditions specified in the Product Data Sheet / Catalog could result in hazardous situations.

1. MATERIAL CONTENT & PHYSICAL FORM

Electrical connectors do not usually contain hazardous materials. They contain conducting and non-conducting materials and can be divided into two groups:

- a) Printed circuit types and low cost audio types which employ all plastic insulators and casings.
- b) Rugged, Fire Barrier and High Reliability types with metal casings and either natural rubber, synthetic rubber, plastic or glass insulating materials. Contact materials vary with type of connector and also application and are usually manufactured from either: Copper, copper alloys, nickel, alumel, chromel or steel. In special applications, other alloys may be specified.

2. FIRE CHARACTERISTICS AND ELECTRIC SHOCK HAZARD

There is no fire hazard when the connector is correctly wired and used within the specified parameters.

Incorrect wiring or assembly of the connector or careless use of metal tools or conductive fluids, or transit damage to any of the component parts may cause electric shock or burns. Live circuits must not be broken by separating mated connectors as this may cause arcing, ionization and burning. Heat dissipation is greater at maximum resistance in a circuit. Hot spots may occur when resistance is raised locally by damage, e.g. cracked or deformed contacts, broken strands of wire. Local over-heating may also result from the use of the incorrect application tools or from poor quality soldering or slack screw terminals. Overheating may occur if the ratings in the product Data Sheet/Catalog are exceeded and can cause breakdown of insulation and hence electric shock. If heating is allowed to continue it intensifies by further increasing the local resistance through loss of temper of spring contacts, formation of oxide film on contacts and wires and leakage currents through carbonization of insulation and tracking paths. Fire can then result in the presence of combustible materials and this may release noxious fumes. Overheating may not be visually apparent. Burns may result from touching overheated components.

3. HANDLING

Care must be taken to avoid damage to any component parts of electrical connectors during installation and use. Although there are normally no sharp edges, care must be taken when handling certain components to avoid injury to fingers. Electrical connectors may be damaged in transit to the customers, and damage may result in creation of hazards. Products should therefore be examined prior to installation/use and rejected if found to be damaged.

4. DISPOSAL

Incineration of certain materials may release noxious or even toxic fumes.

5. APPLICATION

Connectors with exposed contacts should not be selected for use on the current supply side of an electrical circuit, because an electric shock could result from touching exposed contacts on an unmated connector. Voltages in excess of 30 V ac or 42.5 V dc are potentially hazardous and care should be taken to ensure that such voltages cannot be transmitted in any way to exposed metal parts of the connector body. The connector and wiring should be checked, before making live, to have no damage to metal parts or insulators, no solder blobs, loose strands, conducting lubricants, swarf, or any other undesired conducting particles. Circuit resistance and continuity check should be made to make certain that there are no high resistance joints or spurious conducting paths. Always use the correct application tools as specified in the Data Sheet/Catalog. Do not permit untrained personnel to wire, assemble or tamper with connectors. For operation voltage please see appropriate national regulations.

6. IMPORTANT GENERAL INFORMATION

6.1 Air and creepage paths/operating voltage. The admissible operating voltages depend on the individual applications and the valid national and other applicable safety regulations. For this reason the air and creepage path data are only reference values. Observe reduction of air and creepage paths due to PC board and/or harnessing.

6.2 Temperature. All information given are temperature limits. The operation temperature depends on the individual application.

6.3 Other important information. Cannon continuously endeavors to improve their products. Therefore, Cannon products may deviate from the description, technical data and shape as shown in this catalog and data sheets.

7. MISCELLANEOUS

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