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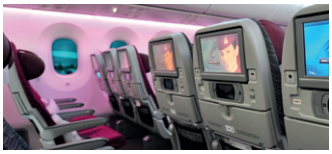
ITT

MKJ Series Overview

Versatility, performance and reliability in a miniaturized footprint, enables unparalleled functionality.



The MKJ family of miniature circular connectors provides similar electrical and mechanical characteristics as larger and heavier Military Standard Environmental connectors, but in a smaller form factor. Bringing together a unique combination of design, functionality and flexibility, Cannon's MKJ connectors excel in delivering proven and reliable solutions that perform even in the harshest environments. The MKJ series comes with rear accessory threads or integral band platform for direct attachment of cable shield and overmold.

Key Features

- Plugs and receptacles are environmentally sealed for use in the harshest environments
- RoHS-compliant configurations
- Teflon nickel, black zinc nickel and olive drab cadmium plating maintain robust reliability for 500 hours of salt spray
- Qualified to US Nett Warrior specification, European GOSSRA and NATO STANAG 4695 standards
- EMI shielding - up to 40dB attenuation, 100MHz to 1000MHz
- PCB mount jam nut for enhanced EMI and vibration resistance performance
- Cable assemblies and application specific shell configurations available

Configuration	MKJ0	MKJ1	MKJ3	MKJ4	MKJ5	MKJ Clip Lock	MKJ Warrior
Coupling	UNC thread	Double start	Bayonet	Breakaway	Triple start	Clip latching	Breakaway
Hardware	Aluminum/stainless steel						
Mating cycles	2000	2000	250 Aluminum 2000 Stainless Steel	2000	500	500	2000
Materials	Shells - Aluminum alloy or stainless steel I Insulators - thermoplastic Seals - fluorosilicone I Contacts - copper alloy with gold over nickel plating						
Plating	Black anodized - black passivated, teflon nickel, OD cadmium over electroless nickel, electroless nickel - black, Zinc nickel-black (RoHS-compliant), zinc nickel-black (non-RoHS-compliant), selective plating (MKJ Warrior)						
EMI shielding	Good	Good	Good	Excellent	Excellent	N/A	Excellent

ITT Cannon MKJ Ordering Guide

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

1 - Series

MKJ	MKJ Series - Miniature circular connector

2 - Coupling*

0	Threaded coupling, UN thread	3	Bayonet	5	Threaded coupling, triple start
1	Threaded coupling, double start thread	4	Breakaway/quick disconnect	CL1	Clip Lock, locking

3- Class

A	Environmental w/banding/overmold attachment	B	Environmental with threaded accessory attachment	C-	Back-potted plug/receptacle - PC/flex/solder
J	Non-enviornmental w/banding/overmold attachment (MKJCL1 only)	K	Non-enviornmental w/threaded accessory attachment (MKJCL1 only)		

4 - Shell style

1	In-Line receptacle	7	Jam nut receptacle - rear panel mount	12	Box mount plug (flange), 45-deg rotation (MKJCL1 only)
2	Box mount receptacle (square flange)	8	Jam nut receptacle - front panel mount (MKJ4 only)	16	Straight plug w/self-locking coupling nut (MKJ0 only)
3	Receptacle, round, solder mount	9	Jam nut plug - rear panel mount (MKJ4 only)	26	Straight plug w/self-ratchet coupling nut (MKJ1 only)
4	Box mount plug (flange)	10	Jam nut plug - front panel mount (MKJ4 only)	75	Dual flange mount - Jam nut receptacle with secondary PCB mounting (class C and MKJ1/MKJ5 only)
6	Straight plug	11	Box mount plug (flange) , 30-deg rotation (MKJCL1 only)		

5 - Plating

C	Aluminum/anodized, black	T	Aluminum/teflon nickel	ZN	Aluminum/zinc nickel, green (not RoHS)
F	Aluminum/electroless nickel	W	Aluminum/olive drab cadmium		
K	Stainless steel/passivated	Y	Stainless steel/electroless nickel, black		
N	Stainless steel/electroless nickel	Z	Aluminum/zinc nickel, black		

6- Standard arrangements for combo arrangements, please contact the factory

Contact size	QTY	MKJ1	MKJ0, 3, 4, CL	MKJ5	Contact size	QTY	MKJ1	MKJ0, 3, 4, CL	MKJ5	Contact size	QTY	MKJ1	MKJ0, 3, 4, CL	MKJ5
23	3	5-3	5-3	N/A	20HD	5	7-25	7-25	9-25	16	19	19-19	19-19	21-19
23	4	6-4	6-4	8-4	20HD	8	8-28	8-28	10-28	16	22	21-22	21-22	23-22
23	6	6-6	6-6	8-6	20HD	10	9-210	9-210	11-210	12	1	7-1	7-1	9-1
23	7	6-7	6-7	8-7	20HD	20	13-220	12-220	15-220	12	2	10-2	10-2	12-2
23	10	7-10	7-10	9-10	20HD	35	16-235	14-235	18-235	12	2	13-2	12-2	15-2
23	13	8-13	8-13	10-13	20HD	41	17-241	N/A	19-241	12	3	13-3	12-3	15-3
23	19	9-19	9-19	11-19	20HD	55	19-255	N/A	21-255	12	4	16-4	14-4	18-4
23	26	10-26	10-26	12-26	20HD	69	21-269	N/A	23-269	12	5	16-5	14-5	18-5
23	31	11-31	11-31	13-31	16	1	6-1	6-1	8-1	12	7	17-7	N/A	19-7
23	37	13-37	12-37	15-37	16	2	8-2	8-2	10-2	12	12	21-12	N/A	23-12
23	55	16-55	14-55	18-55	16	4	9-4	9-4	11-4					
23	85	17-85	N/A	19-85	16	5	10-5	10-5	12-5					
23	100	19-100	N/A	21-100	16	7	13-7	12-7	15-7					
23	130	21-130	N/A	23-130	16	12	16-12	14-12	18-12					
20HD	3	6-23	6-23	8-23	16	14	17-14	15-14	19-14					

7 - Contact style

P	Pin, crimp, removeable (class A&B)	A	Pin, PC-tail, .062 extension (class C)	D	Socket, PC-tail, .109 extension (class C)
S	Socket, crimp, removeable (class A&B)	B	Pin, PC-tail, .109 extension (class C)	H	Socket, PC-tail, .125 extension (class C)
E	Pin, solder cup	G	Pin, PC-tail, .125 extension (class C)		
F	Socket, solder cup	C	Socket, PC-tail, .062 extension (class C)		

8- Clocking

MKJ0 and MKJ3		MKJ1, MKJ4, MKJ5,		MKJCL1	
Position	K1° / K2°	Position	K1° / K2°	Position	K1° / K2°
N	150° / 210°	A (Normal)	150° / 210°	A	150° / 210°
X	75° / 210°	B	75° / 210°	B	95° / 210°
Y	95° / 230°	C	95° / 230°	C	135° / 270°
Z	140° / 275°	D	140° / 275°	D	110° / 245°
		E	75° / 275°	E	150° / 285°
		F	95° / 210°	F	105° / 255°
		MKJ4 Omit for single key / Keyway option		MKJCL1 Omit for master key/keyway only	

9 - Modification code

F0 -	Less Contacts ("F0" not stamped on connector, but must be included on the P.O.)	518 -	Class "C" PC style back potted connectors w/ water immersion testing		

Please reference MKJ Warrior catalog for available part numbers

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