

cannon



ITT

Cannon MKJ Series: Reduction in weight and size without the loss of reliability & performance



MKJ0 UN Thread



MKJ1 Double Start



MKJ3 Bayonet



MKJ4 Breakaway



MKJ5 Triple Start

The MKJ family of mini-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.

Cannon MKJ Connectors are offered in a variety of coupling methods—UNC thread, double start, triple start, bayonet and breakaway—in a highly engineered design. The MKJ Series comes with rear accessory threads or integral band platform for direct attachment of cable shield and overmold.

MKJ's versatility, performance and reliability enable unparalleled functionality for multiple applications and markets.

Why ITT

ITT is a focused, multi-industrial company that designs and manufactures highly engineered critical components and customized technology solutions.

ITT's Cannon brand is a leading global manufacturer of connector products serving international customers in aerospace, defense, medical, industrial and transportation end markets. ITT's Connector business, which also includes the Veam and BIW Connector Systems brand, manufactures and supplies a variety of connectors and interconnects that make it possible to transfer data, signal and power in an increasingly connected world.

The CANNON Difference:

- Proven reliability
- High performance design
- Exceptional versatility
- A commitment to delivering the best solution for standard and custom design requirements

Features:

- 71% weight and 52% size reduction without the loss of reliability*
- Available in rear-release crimp, PC tail or solder cup contacts
- Shells and jam nuts available in aluminum alloy or corrosion resistant stainless steel (AMS-QQ-S763)
- Up to 2,000 mating cycles
- Environmentally sealed using fluorosilicone material for the front interfacial seal and rear wire sealing grommet

Markets & Applications



Soldier-Worn Technology & Connectivity



Military Aircraft, UAVs, Surveillance & Missile Systems



Medical Testing & Diagnostics



Industrial & Heavy Equipment

*When compared to the 38999 layouts with size 22 contacts.

How to Order Guide

Configurator

MKJ1	A	7	F	9-19	P	A	**
Series	Class	Shell Style	Material/ Plating	Shell Size Contact Arrangement	Contact Style	Shell Clocking	Modifications

SERIES

MKJ0 - Threaded Coupling, UN Thread
MKJ1 - Threaded Coupling, Double Start ACME Thread
MKJ3 - Bayonet Coupling

MKJ4 - Breakaway/Quick Disconnect
MKJ5 - Threaded Coupling, Triple Start ACME Thread

CLASS

A - Environmental Plug & Receptacle with Banding/Overmolding Attachment
B - Environmental Plug & Receptacle with Threaded Accessory Attachment
C - Back-Potted Plug/Receptacle - PC/Flex/Solder
D - C Filtered Receptacle - Fixed Contacts

E - L Filtered Receptacle - Fixed Contacts
F - Pi Filtered Receptacle - Fixed Contacts
G - Space
H - Hermetically Sealed Receptacle - Fixed Contacts

SHELL STYLE

1 - In-Line Receptacle
2 - Box Mount Receptacle (Square Flange)
3 - Receptacle, Round, Solder Mount
4 - Box Mount Plug (Flange)
6 - Straight Plug
7 - Jam Nut Receptacle - Rear Panel Mount

8 - Jam Nut Receptacle - Front Panel Mount (MKJ4 series only)
9 - Jam Nut Plug - Rear Panel Mount (MKJ4 series only)
10 - Jam Nut Plug - Front Panel Mount (MKJ4 series only)
16 - Straight Plug with Self-Locking Coupling Nut (MKJ0 series only)
26 - Straight Plug with Self-Ratchet Coupling Nut (MKJ1 series only)

MATERIAL/PLATING

C - Aluminum/Anodize, Black
F - Aluminum/Electroless Nickel
K - Stainless Steel/Passivated
T - Aluminum/Teflon Nickel

W - Aluminum/OD Cad
Y - Stainless Steel/Electroless Nickel, Black
N - Stainless Steel/Electroless Nickel

SHELL SIZE & CONTACT ARRANGEMENT

5-3	3	Size	23	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
6-1	1	Size	16	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
6-4	4	Size	23	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
6-6	6	Size	23	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
6-7	7	Size	23	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
6-23	3	Size	20	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
7-1	1	Size	12	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
7-10	10	Size	23	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
7-25	5	Size	20	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
8-1	1	Size	16	Contacts	Series	MKJ5
8-2	2	Size	16	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
8-4	4	Size	23	Contacts	Series	MKJ5
8-6	6	Size	23	Contacts	Series	MKJ5
8-7	7	Size	23	Contacts	Series	MKJ5
8-13	13	Size	23	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
8-23	3	Size	20	Contacts	Series	MKJ5
8-28	8	Size	20	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
9-1	1	Size	12	Contacts	Series	MKJ5
9-4	4	Size	16	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
9-10	10	Size	23	Contacts	Series	MKJ5
9-19	19	Size	23	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
9-25	5	Size	20	Contacts	Series	MKJ5
9-210	10	Size	20	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
10-2	2	Size	16	Contacts	Series	MKJ5
10-2	2	Size	12	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
10-5	5	Size	16	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
10-13	13	Size	23	Contacts	Series	MKJ5
10-26	26	Size	23	Contacts	Series	MKJ0, MKJ1, MKJ3, MKJ4
10-28	8	Size	20	Contacts	Series	MKJ5
11-4	4	Size	16	Contacts	Series	MKJ5
11-19	19	Size	23	Contacts	Series	MKJ5
11-210	10	Size	20	Contacts	Series	MKJ5
12-2	2	Size	12	Contacts	Series	MKJ0, MKJ3, MKJ4, MKJ5
12-3	3	Size	12	Contacts	Series	MKJ0, MKJ3, MKJ4
12-5	5	Size	16	Contacts	Series	MKJ5
12-7	7	Size	16	Contacts	Series	MKJ0, MKJ3, MKJ4

12-26	26	Size	23	Contacts	Series	MKJ5
12-37	37	Size	23	Contacts	Series	MKJ0, MKJ3, MKJ4
12-220	20	Size	20	Contacts	Series	MKJ0, MKJ3, MKJ4
13-2	2	Size	12	Contacts	Series	MKJ1
13-3	3	Size	12	Contacts	Series	MKJ1
13-7	7	Size	16	Contacts	Series	MKJ1
13-37	37	Size	23	Contacts	Series	MKJ1
13-220	20	Size	20	Contacts	Series	MKJ1
14-5	5	Size	12	Contacts	Series	MKJ3, MKJ4
14-12	12	Size	16	Contacts	Series	MKJ3, MKJ4
14-55	55	Size	23	Contacts	Series	MKJ3, MKJ4
14-235	35	Size	20	Contacts	Series	MKJ3, MKJ4
15-2	2	Size	12	Contacts	Series	MKJ5
15-3	3	Size	12	Contacts	Series	MKJ5
15-7	7	Size	16	Contacts	Series	MKJ5
15-37	37	Size	23	Contacts	Series	MKJ5
15-55	55	Size	23	Contacts	Series	MKJ0, MKJ3, MKJ4
15-220	20	Size	20	Contacts	Series	MKJ5
15-241	41	Size	20	Contacts	Series	MKJ3, MKJ4
16-5	5	Size	12	Contacts	Series	MKJ1
16-12	12	Size	16	Contacts	Series	MKJ1
16-55	55	Size	23	Contacts	Series	MKJ1
16-235	35	Size	20	Contacts	Series	MKJ1
17-7	7	Size	12	Contacts	Series	MKJ1
17-14	14	Size	16	Contacts	Series	MKJ1
17-85	85	Size	23	Contacts	Series	MKJ1
17-241	41	Size	20	Contacts	Series	MKJ1
18-5	5	Size	12	Contacts	Series	MKJ5
18-12	12	Size	16	Contacts	Series	MKJ5
18-55	55	Size	23	Contacts	Series	MKJ5
18-235	35	Size	20	Contacts	Series	MKJ5
19-7	7	Size	12	Contacts	Series	MKJ5
19-14	14	Size	16	Contacts	Series	MKJ5
19-85	85	Size	23	Contacts	Series	MKJ5
19-241	41	Size	20	Contacts	Series	MKJ5



CONTACT STYLE

P - Pin, Crimp, Removal (For Class A & B only)
S - Socket, Crimp, Removal (For Class A & B only)
A - Pin, PC Tail, .062 Extension (For Class C through G only)
B - Pin, PC Tail, .109 Extension (For Class C through G only)

C - Socket, PC Tail, .062 Extension (For Class C through G only)
D - Socket, PC Tail, .109 Extension (For Class C through G only)
E - Pin, Solder Cup (For Class C through G only)
F - Socket, Solder Cup (For Class C through G only)

SHELL CLOCKING (POSITION)

MKJ0 Series		N - Normal	
		X - Clocking Position X	
		Y - Clocking Position Y	
		Z - Clocking Position Z	
MKJ1 Series		A - Normal	150° - 210°
		B - Clocking Position B	75° - 210°
		C - Clocking Position C	95° - 230°
		D - Clocking Position D	140° - 275°
		E - Clocking Position E	75° - 275°
		F - Clocking Position F	95° - 210°
MKJ3 Series		N - Normal	150° - 210°
		X - Clocking Position X	75° - 210°
		Y - Clocking Position Y	95° - 230°
		Z - Clocking Position Z	140° - 275°

MKJ4 Series

<i>Omit for Single Key/Keyway</i>	
A - Normal	150° - 210°
B - Clocking Position B	75° - 210°
C - Clocking Position C	95° - 230°
D - Clocking Position D	140° - 275°
E - Clocking Position E	75° - 275°
F - Clocking Position F	95° - 210°
MKJ5 Series	
A - Normal	150° - 210°
B - Clocking Position B	75° - 210°
C - Clocking Position C	95° - 230°
D - Clocking Position D	140° - 275°
E - Clocking Position E	75° - 275°
F - Clocking Position F	95° - 210°

MODIFICATION CODE

F0 - Less Contacts ("F0" not stamped on the connector, but must be included on the P.O.)

518 - Class "C" PC style back potted receptacle connectors with water immersion testing.

Capacitance Codes (pF)

A - 19,000 - 28,000	D - 4,000 - 6,000	F - 400 - 650
B - 16,000 - 22,500	E - 1,650 - 2,500	G - 200 - 300
C - 9,000 - 16,500		

Consult factory for other modification codes

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