

MICRO-CRIMP RECTANGULAR CONNECTORS

Series 790 High-Density

SERIES™
790
HD

790-025

Cable Plug with Backshell Groove

- ◆ Crimp, rear-release
- ◆ Socket contacts



Lightweight, harsh environment. 790-025 cable receptacle has snap-in, rear-release M39029-type crimp contacts. High-density size 23 contacts are on .075 inch (1.9mm) centers and accept AWG 22-28 wire. Size 16 and size 12 cavities accept power contacts (supplied with connector) or coaxial RF contacts (ordered separately). Optional gold-plated EMI spring. Wire grommet provides environmental protection. Machined aluminum shell has groove for attaching EMI banding backshell (799-015, sold separately).

- Aerospace-grade microminiature connector with M39029-type crimp contacts
- 42 insert arrangements with up to 153 contacts
- Environmental
- Optional EMI spring

INSERT ARRANGEMENTS

FULL COMPLEMENT OF CONTACTS	#8, #12 OR #16 CONTACTS PURCHASED SEPARATELY	No. of Contacts			
		#23	#16	#12	#8
A-5		5			
B-2P2	B-2W2		2		
B-9		9			
C-13		13			
D-15		15			
D-3P3	D-3W3		3		
D-7P2	D-7W2	5	2		
E-11P2	E-11W2	9	2		
E-19		19			
E-7P3	E-7W3	4	3		
F-14P3	F-14W3	11	3		
F-15P2	F-15W2	13	2		
F-23		23			
F-5P5	F-5W5		5		
G-13P2	G-13W2	11		2	
G-21P1	G-21W1	20		1	
G-3P3	G-3W3			3	
G-33		33			
H-10P4	H-10W4	6		4	
H-29P7	H-29W7	22	7		
H-36P2	H-36W2	34		2	
H-51P1	H-51W1	50		1	
H-54P2	H-54W2	52	2		
H-5P5	H-5W5			5	
H-66		66			
J-17P4	J-17W4	13	4		
J-25P2	J-25W2	23	2		
J-33		33			
J-7P7	J-7W7		7		
K-27P4	K-27W4	23	4		
K-35P2	K-35W2	33	2		
K-43		43			
K-9P9	K-9W9		9		
L-22P4	L-22W4	18		4	
L-48P2	L-48W2	46		2	
L-6P6	L-6W6			6	
L-78		78			
M-17P17	M-17W17		17		
M-102		102			
M-4P4	M-4W4				4
N-13P13	N-13W13			13	
N-153		153			

HOW TO ORDER

Sample Part Number

790-025S

J-17P4

E

M

L

Basic Part Number

790-025S Cable Plug, Socket Contacts

Shell Size-Insert Arr.

See "Insert Arrangements" Table

EMI Spring

E EMI Spring Shell finishes M and MT only
N No EMI Spring

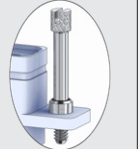
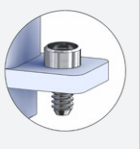
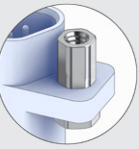
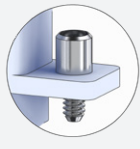
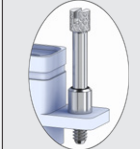
Shell Finish

M Electroless Nickel
MT Nickel / PTFE
N Olive Drab Cadmium
TZ Tin-Zinc
ZR Black Zinc-Nickel

Hardware Option
Table 1

N Thru-Hole No hardware
K Extended Jackscrews Slot head male
L Jackscrews Socket head male
P Female Jackposts
S Screwlocks Socket head male
T Extended Screwlocks Slot head male

TABLE 1 HARDWARE OPTIONS

					
N	K	L	P	S	T
No Hardware Thru Mounting Holes	Extended Jackscrew Slot Head	Jackscrew Socket Head	Female Jackpost With Nut and Lockwasher	Screwlock Socket Head	Extended Screwlock Slot Head

Screwlocks allow connector to be plugged in before the screws are tightened. Jackscrews must be tightened in order to mate connector.

RATINGS

- Voltage (DWV): size 23 contacts 750 VAC, Size 8, 12 and 16: 1800 VAC
- Current: #23 5A, #16 13A, #12 23A, #8 46A
- Operating temperature: -65 to +150 °C
- Durability: 500 mating cycles
- Shock: 300 g
- Vibration: 20 g random
- Altitude immersion: 75,000 feet
- Ingress protection: IP67

CONSTRUCTION

- Socket Contacts: Copper alloy, gold over nickel finish. Stainless steel hood.
- Shell: Aluminum
- Insulators: High performance thermoplastic
- Wire grommet: Fluorosilicone/silicone blend
- EMI spring: Stainless steel, gold plated
- Contact retaining clip: Beryllium copper, unplated
- Hardware: Stainless steel

MICRO-CRIMP RECTANGULAR CONNECTORS

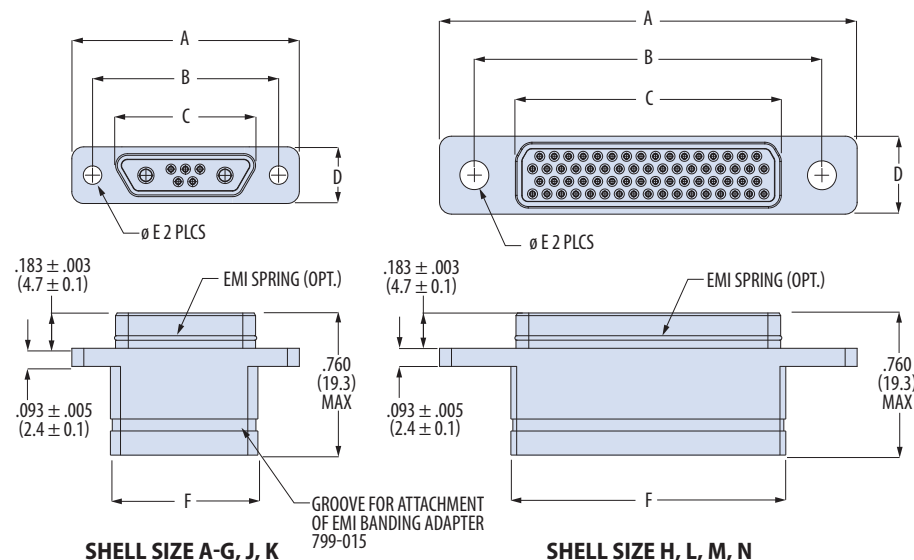
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Application Note

Panel Mounting

For panel mounting, specify connector with Hardware Option N (thru-holes). Use rear panel mount jackpost **799-117**. See page F-18 for jackpost ordering information, page F-19 for panel cutout dimensions.

Application Note

EMI Banding Backshells



799-011

See page F-24 for backshell ordering information



799-015

See page F-26 for backshell ordering information

Shell Size	A Max		B ± .005 (0.1)		C Max		D Max		ø E ± .004 (0.1)		F Max	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
A	.785	19.9	.565	14.4	.335	8.5	.308	7.8	.092	2.3	.390	9.9
B	.935	23.7	.715	18.2	.485	12.3	.308	7.8	.092	2.3	.540	13.7
C	1.085	27.6	.865	22.0	.635	16.1	.308	7.8	.092	2.3	.690	17.5
D	1.185	30.1	.965	24.5	.735	18.7	.308	7.8	.092	2.3	.790	20.1
E	1.335	33.9	1.115	28.3	.885	22.5	.308	7.8	.092	2.3	.940	23.9
F	1.485	37.7	1.265	32.1	1.035	26.3	.308	7.8	.092	2.3	1.090	27.7
G	1.435	36.4	1.215	30.9	1.010	25.7	.395	10.0	.092	2.3	1.055	26.8
H	2.175	55.2	1.800	45.7	1.385	35.2	.410	10.4	.149	3.8	1.440	36.6
J	1.845	46.9	1.615	41.0	1.390	35.3	.308	7.8	.092	2.3	1.450	36.8
K	2.240	56.9	2.015	51.2	1.795	45.6	.308	7.8	.092	2.3	1.840	46.7
L	2.420	61.5	2.036	51.7	1.623	41.2	.410	10.4	.149	3.8	1.675	42.5
M	2.575	65.4	2.200	55.9	1.675	42.5	.470	11.9	.172	4.4	1.740	44.2
N	3.240	82.3	2.725	69.2	2.070	52.6	.567	14.4	.248	6.3	2.115	53.7

CRIMP CONTACTS AND TOOLS

Contacts are bulk packed with connector. Spare contacts are not included with connector and are ordered separately. See "Contacts and Tools" section for additional information.

Contact Size	Socket Contact Part No.	AWG Wire Size	Installing and Removal Tool	Tool	Crimp Tools Positioner	Die Assembly
23	809-002	22 – 28	809-088	809-015 (M22520/2-01)	809-005 (K1461)	—
16	857-448-16	16 – 20	809-131 (M81969/14-03)	809-136 (M22520/1-01)	809-137 (M22520/1-04)	—
12	857-448-12	12 – 14	809-132 (M81969/14-04)	809-136 (M22520/1-01)	809-137 (M22520/1-04)	—
8	850-138F	8	859-049 (M81969/14-12)	859-025 (M22520/23-01)	859-046 (WA23-395L)	859-026 (M22520/23-02)

HARDWARE DIMENSIONS

Shell Size	Thread Size
A – G, J, K	#2-56
H, L	#4-40
M	#6-32
N	#10-32

