

MICRO-CRIMP RECTANGULAR CONNECTORS

Series 790 High-Density

SERIES™
790
HD

790-024

Cable Receptacle with Backshell Groove

- ◆ Crimp, rear-release
- ◆ Pin contacts



Lightweight, harsh environment. 790-024 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). Rear grommet and interfacial seal provide 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

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		790-024P	H-66	M	S
Basic Part Number	790-024P Cable Receptacle, Pin Contacts				
Shell Size-Insert Arr.	See "Insert Arrangements" Table				
Shell Finish	M Electroless Nickel MT Nickel / PTFE N Olive Drab Cadmium TZ Tin-Zinc ZR Black Zinc-Nickel				
Hardware Option <i>Table 1</i>	N Thru-Hole <i>No Hardware</i> K Extended Jackscrews <i>Slot head male</i> L Jackscrews <i>Socket head male</i> P Female Jackposts S Screwlocks <i>Socket head male</i> T Extended Screwlocks <i>Slot head male</i>				

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

- Contacts: Copper alloy, gold over nickel finish
- Shell: Aluminum
- Insulators: High performance thermoplastic
- Wire grommet, face seal: Fluorosilicone/silicone blend
- Contact retaining clip: Beryllium copper, unplated
- Hardware: Stainless steel

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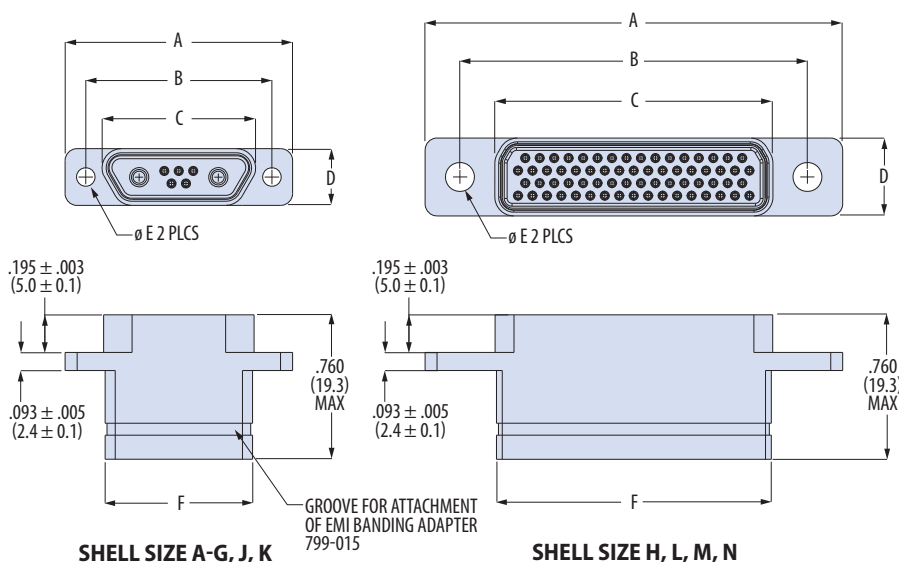
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Application Note

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	.400	10.2	.308	7.8	.092	2.3	.390	9.9
B	.935	23.7	.715	18.2	.551	14.0	.308	7.8	.092	2.3	.540	13.7
C	1.085	27.6	.865	22.0	.701	17.8	.308	7.8	.092	2.3	.690	17.5
D	1.185	30.1	.965	24.5	.801	20.3	.308	7.8	.092	2.3	.790	20.1
E	1.335	33.9	1.115	28.3	.951	24.2	.308	7.8	.092	2.3	.940	23.9
F	1.485	37.7	1.265	32.1	1.101	28.0	.308	7.8	.092	2.3	1.090	27.7
G	1.435	36.4	1.215	30.9	1.079	27.4	.395	10.0	.092	2.3	1.055	26.8
H	2.175	55.2	1.800	45.7	1.450	36.8	.410	10.4	.149	3.8	1.440	36.6
J	1.845	46.9	1.615	41.0	1.460	37.1	.308	7.8	.092	2.3	1.450	36.8
K	2.240	56.9	2.015	51.2	1.860	47.2	.308	7.8	.092	2.3	1.840	46.7
L	2.420	61.5	2.036	51.7	1.686	42.8	.410	10.4	.149	3.8	1.675	42.5
M	2.575	65.4	2.200	55.9	1.745	44.3	.470	11.9	.172	4.4	1.740	44.2
N	3.240	82.3	2.725	69.2	2.145	54.5	.567	14.4	.248	6.3	2.115	53.7

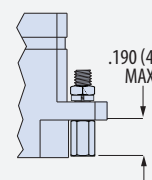
CRIMP CONTACTS AND TOOLS

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.

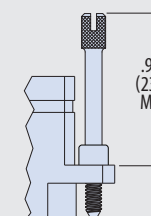
Contact Size	Pin Contact Part No.	AWG Wire Size	Installing and Removal Tool	Tool	Crimp Tools Positioner	Die Assembly
23	809-001	22 – 28	809-088	809-015 (M22520/2-01)	809-005 (K1461)	—
16	809-110	16 – 20	809-131 (M81969/14-03)	809-136 (M22520/1-01)	809-137 (M22520/1-04)	—
12	809-112	12 – 14	809-132 (M81969/14-04)	809-136 (M22520/1-01)	809-137 (M22520/1-04)	—
8	850-014F	8	859-049 (M81969/14-12)	859-025 (M22520/23-01)	859-046 (WA23-395L)	859-026 (M22520/23-02)

HARDWARE DIMENSIONS

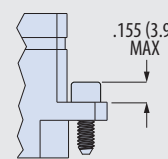
Shell Size	Thread Size
A – G, J, K	#2-56
H, L	#4-40
M	#6-32
N	#10-32



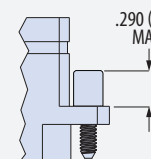
P
Female Jackpost with Hex Nut and Lockwasher



K T
Extended Jackscrew and Screwlock



L
Low Profile Jackscrew Socket Head



S
Low Profile Screwlock Socket Head