

MICRO-CRIMP RECTANGULAR CONNECTORS

Series 790 High-Density

SERIES™
790
HD

790-050

Float Mount Receptacle

- ◆ Crimp, rear-release
- ◆ Float mount blind mate
- ◆ Pin contacts



Lightweight, harsh environment. 790-050 float mount receptacle has snap-in, rear-release M39029-type crimp contacts. Machined aluminum shell has stainless steel float bushings. 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 face seal provide environmental protection. Shell has rear threads for attaching EMI banding adapter.

- Aerospace-grade microminiature rectangular connector with M39029-type crimp contacts
- Float mount bushings for blind mate rack-to-panel applications
- 40 insert arrangements with up to 102 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

HOW TO ORDER

Sample Part Number		790-050P	L-22P4	M	S	
Basic Part Number	790-050P Cable Receptacle, Float Mount Blind Mate, Pin Contacts					
Shell Size-Insert Arr.	See <i>“Insert Arrangements”</i> Table					
Shell Finish	M Electroless Nickel					
	MT Nickel / PTFE					
	N Olive Drab Cadmium					
	TZ Tin-Zinc					
	ZR Black Zinc-Nickel					
Hardware Option	N No Hardware <i>Threaded holes</i>					
Table 1	G Guide Pins <i>For blind mating</i>					
	S Guide Sockets <i>For blind mating</i>					

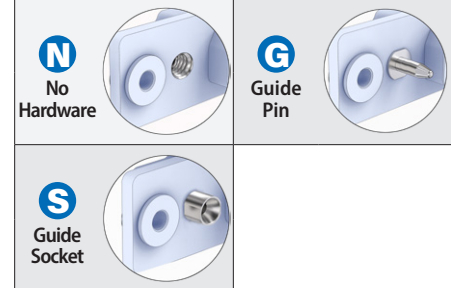
CONSTRUCTION

- 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

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

TABLE 1 HARDWARE OPTIONS



Application Note

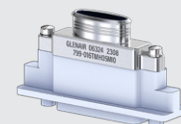
Panel Cutouts

See page A-61 for recommended panel cutout dimensions for Series 790 float mount connectors.

Application Note

EMI Banding Backshell 799-016

See page F-32 for backshell ordering information.



MICRO-CRIMP RECTANGULAR CONNECTORS

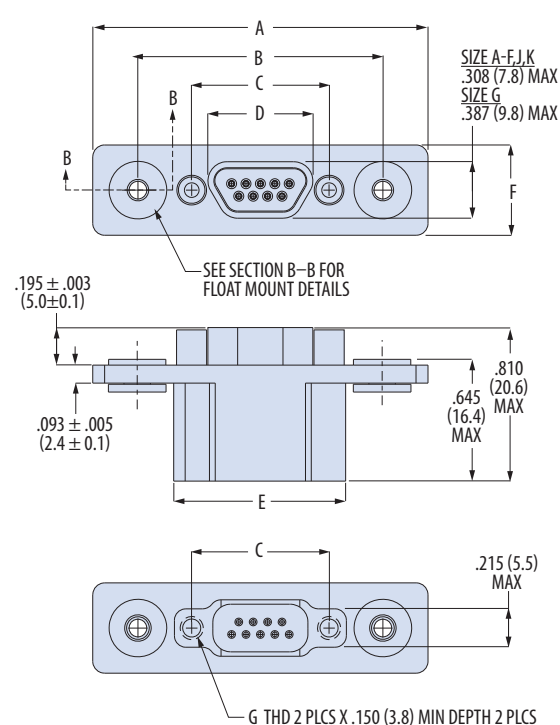
Series 790 High-Density



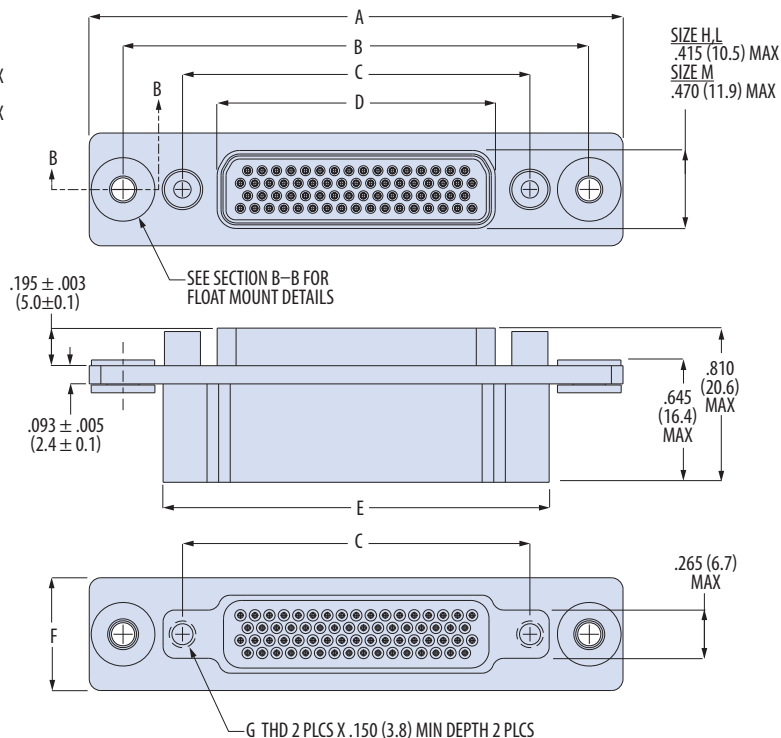
790-050

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SHELL SIZE A-G, J, K



SHELL SIZE H, L, M

Shell Size	A Max	B ± .005 (0.1)	C ± .005 (0.1)	D Max	E Max	F Max	G Thd UNC-2B
	in	mm	in	mm	in	mm	
A	1.600	40.6	1.125	28.6	.565	14.4	.401
B	1.750	44.5	1.275	32.4	.715	18.2	.551
C	1.900	48.3	1.425	36.2	.865	22.0	.701
D	2.000	50.8	1.525	38.7	.965	24.5	.801
E	2.150	54.6	1.675	42.5	1.115	28.3	.951
F	2.300	58.4	1.825	46.4	1.265	32.1	1.101
G	2.250	57.2	1.775	45.1	1.215	30.9	1.079
H	2.780	70.6	2.415	61.3	1.800	45.7	1.450
J	2.650	67.3	2.175	55.2	1.615	41.0	1.456
K	3.050	77.5	2.575	65.4	2.015	51.2	1.860
L	3.016	76.6	2.651	67.3	2.036	51.7	1.686
M	3.330	84.6	2.910	73.9	2.200	55.9	1.745

SECTION B-B					
Shell Size	A Max	B	C		
	in	mm	in	mm	
A-G, J, K	.218	5.5	.138	3.5	.093
H, L	.250	6.4	.170	4.3	.120
M	.270	6.9	.170	4.3	.120

CRIMP CONTACTS AND TOOLS

Contacts are bulk packed with connector. Spare contacts are not included with connector and are ordered separately if required. 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 DETAILS

N No Hardware Tapped holes. Size A-G, J, K = 4-40, H, L = 6-32, M = 8-32. .150 (3.8) min. depth.	G Guide Pins Guide pins for blind mate applications. Non-removable. Requires guide socket (S) on mating plug.	S Guide Sockets Guide sockets for blind mate applications. Non-removable. Requires guide pins (G) on mating plug.
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