

MICRO-CRIMP RECTANGULAR CONNECTORS

Series 790 High-Density

SERIES™
790
HD

790-049

Panel Plug, Float Mount

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



Lightweight, harsh environment. 790-049 float mount plug 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 provides environmental protection.

- Aerospace-grade microminiature 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		790-049S	F-15P2	MT	E	G
Basic Part Number	790-049S Float Mount Plug, Socket 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				
EMI Spring	E	EMI Spring <i>Shell finishes M and MT only</i>				
	N	No EMI Spring				
Guide Pins Table 1	N	No Hardware <i>Threaded holes</i>				
	G	Guide Pins				
	S	Guide Sockets				

TABLE 1 HARDWARE OPTIONS

N No Hardware		G Guide Pin	
S Guide Socket			

CONSTRUCTION

- Socket Contacts: Copper alloy, gold over nickel finish. Stainless steel hood.
- Shell: Aluminum
- Insulators: High performance thermoplastic
- EMI spring: Stainless steel, gold plated
- Wire grommet: 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

Application Note

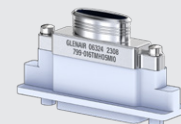
Panel Cutout

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

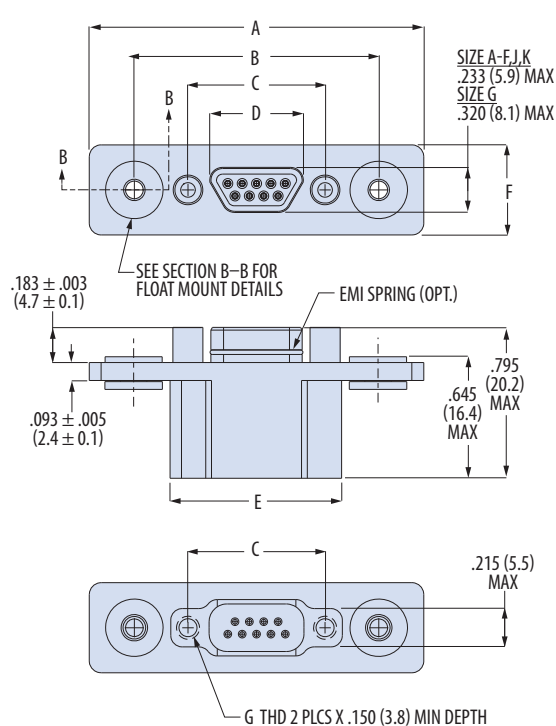
Series 790 High-Density



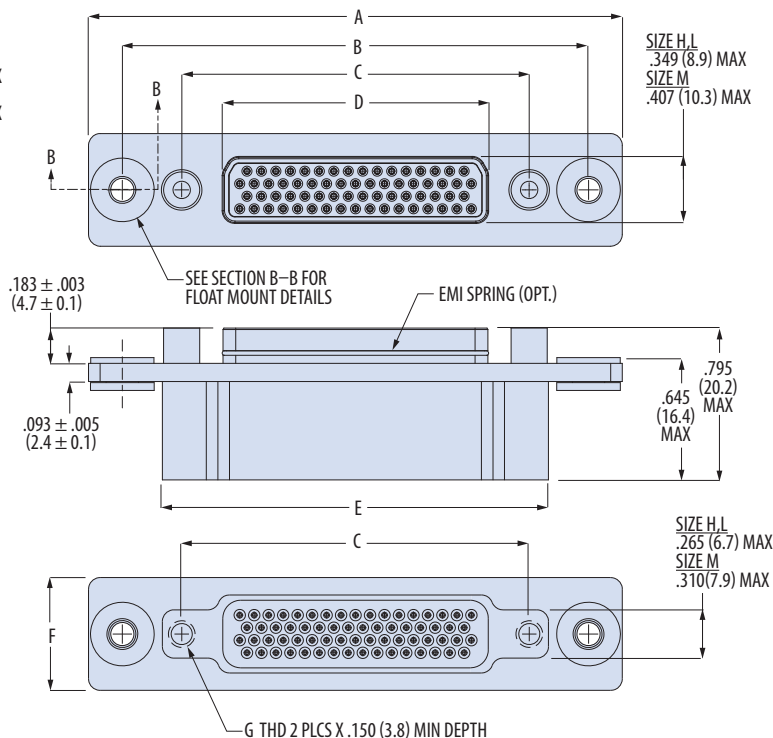
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- ◆ Float mount blind mate
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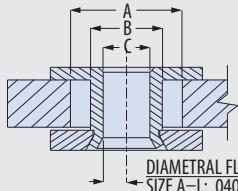


SHELL SIZE A-G, J, K

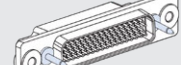
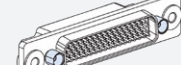


SHELL SIZE H, L, M

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	in	mm	in	mm	in	mm	
A	1.600	40.6	1.125	28.6	.565	14.4	.335	8.5	.760	19.3	.485	12.3	2-56
B	1.750	44.5	1.275	32.4	.715	18.2	.485	12.3	.910	23.1	.485	12.3	2-56
C	1.900	48.3	1.425	36.2	.865	22.0	.635	16.1	1.060	26.9	.485	12.3	2-56
D	2.000	50.8	1.525	38.7	.965	24.5	.735	18.7	1.160	29.5	.485	12.3	2-56
E	2.150	54.6	1.675	42.5	1.115	28.3	.885	22.5	1.310	33.3	.485	12.3	2-56
F	2.300	58.4	1.825	46.4	1.265	32.1	1.035	26.3	1.460	37.1	.485	12.3	2-56
G	2.250	57.2	1.775	45.1	1.215	30.9	1.010	25.7	1.410	35.8	.570	14.4	2-56
H	2.780	70.6	2.415	61.3	1.800	45.7	1.385	35.2	2.045	51.9	.600	15.2	4-40
J	2.650	67.3	2.175	55.2	1.615	41.0	1.390	35.3	1.810	46.0	.485	12.3	2-56
K	3.050	77.5	2.575	65.4	2.015	51.2	1.795	45.6	2.210	56.1	.485	12.3	2-56
L	3.016	76.6	2.651	67.3	2.036	51.7	1.623	41.2	2.281	57.9	.600	15.2	4-40
M	3.330	84.6	2.910	73.9	2.200	55.9	1.675	42.5	2.485	63.1	.660	16.8	6-32

SECTION B-B						
						
DIAMETRAL FLOAT SIZE A-L: .040 ± .040 (1.0) Size M: .050 ± .050 (1.3)						
Shell Size	A Max	B	C			
	in	mm	in	mm	in	mm
A-G, J, K	.218	5.5	.138	3.5	.093	2.4
H, L	.250	6.4	.170	4.3	.120	3.0
M	.270	6.9	.170	4.3	.120	3.0

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 PN	AWG Wire Size	Installing and Removal Tool	Crimp Tools		
				Tool	Positioner	Die Assembly
23	809-002	22 - 28	809-088	809-015	809-005	—
16	857-448-16	16 - 20	809-131	809-136	809-137	—
12	857-448-12	12 - 14	809-132	809-136	809-137	—
8	850-138F	8	859-049	859-025	859-046	859-026

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.