

MICRO-CRIMP RECTANGULAR CONNECTORS

Series 790 High-Density

SERIES™
790
HD

790-027 Panel Plug

- ◆ Crimp, rear-release
- ◆ Rear panel mount
- ◆ Socket contacts



Lightweight, harsh environment. 790-027 rear panel mount plug 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). Conductive fluorosilicone panel gasket provides low resistance panel bonding and ingress protection. Rear grommet provides environmental protection.

- 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		790-027S	F-15P2	MT	E	P
Basic Part Number	790-027S Panel Plug, Socket 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					
EMI Spring	E EMI Spring <i>Shell finishes M and MT only</i> N No EMI Spring					
Hardware Option Table 1	N No Hardware <i>Threaded holes</i> G Guide Pins <i>For blind mating</i> P Female Jackposts S Guide Sockets <i>For blind mating</i>					

TABLE 1 HARDWARE OPTIONS

N No Hardware		P Female Jackpost	
G Guide Pin		S Guide Socket	

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

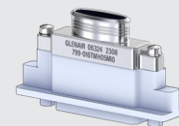
CONSTRUCTION

- Contacts: Copper alloy, gold over nickel finish
- Shell: Aluminum
- Insulators: High performance thermoplastic
- Wire grommet: Fluorosilicone/silicone blend
- Panel gasket: Cho-Seal 1287 silver-plated aluminum filled fluorosilicone
- Contact retaining clip: Beryllium copper, unplated
- Hardware: Stainless steel

⚠ Application Note

EMI Banding Backshell 799-016

See page F-32 for backshell ordering information.



⚠ Application Note

Panel Cutout

See page A-60 for panel cutout dimensions.

MICRO-CRIMP RECTANGULAR CONNECTORS

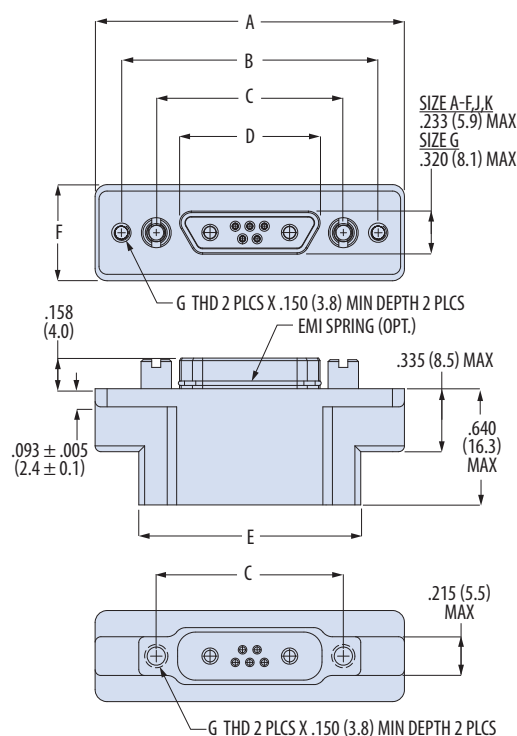
Series 790 High-Density



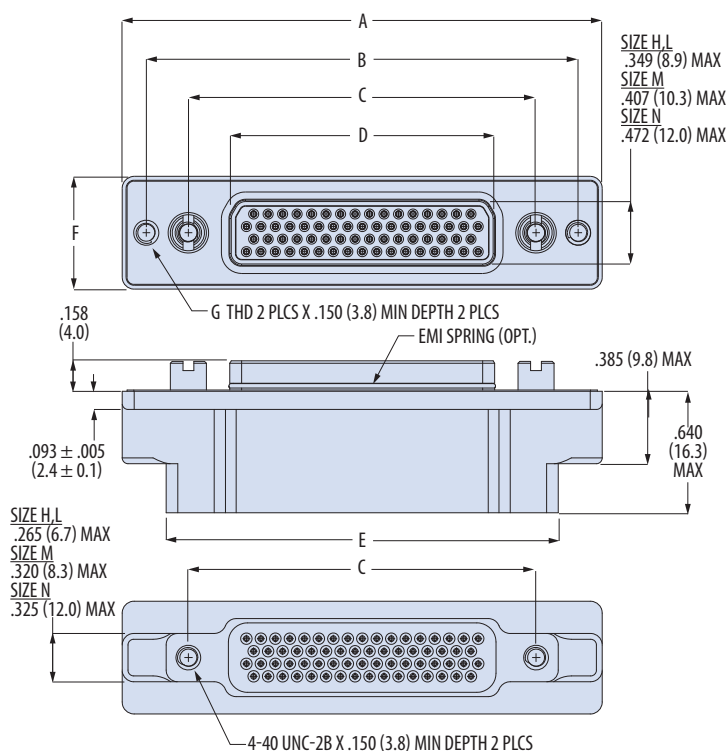
790-027

Panel Plug

- ◆ Crimp, rear-release
- ◆ Rear panel mount
- ◆ Socket contacts



SHELL SIZE A-G, J, K



SHELL SIZE H, L, M, N

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	1.211	30.8	.925	23.5	.565	14.4	.335 8.5 .760 19.3 .485 12.3 2-56
B	1.361	34.6	1.075	27.3	.715	18.2	.485 12.3 .910 23.1 .485 12.3 2-56
C	1.511	38.4	1.225	31.1	.865	22.0	.635 16.1 1.060 26.9 .485 12.3 2-56
D	1.611	40.9	1.325	33.7	.965	24.5	.735 18.7 1.160 29.5 .485 12.3 2-56
E	1.761	44.7	1.475	37.5	1.115	28.3	.885 22.5 1.310 33.3 .485 12.3 2-56
F	1.911	48.5	1.625	41.3	1.265	32.1	1.035 26.3 1.460 37.1 .485 12.3 2-56
G	1.861	47.3	1.575	40.0	1.215	30.9	1.010 25.7 1.410 35.8 .575 14.6 2-56
H	2.500	63.5	2.236	56.8	1.800	45.7	1.385 35.2 2.045 51.9 .600 15.2 4-40
J	2.261	57.4	1.975	50.2	1.615	41.0	1.390 35.3 1.810 46.0 .485 12.3 2-56
K	2.661	67.6	2.375	60.3	2.015	51.2	1.795 45.6 2.210 56.1 .485 12.3 2-56
L	2.736	69.5	2.472	62.8	2.036	51.7	1.623 41.2 2.281 57.9 .600 15.2 4-40
M	3.085	78.4	2.770	70.4	2.200	55.9	1.675 42.5 2.485 63.1 .660 16.8 6-32
N	3.740	95.0	3.365	85.5	2.725	69.2	2.050 52.1 2.645 67.2 .724 18.4 8-32

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	Socket Contact Part No.	AWG Wire Size	Installing and Removal Tool	Tool	Crimp Tools	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, N = 10-32. .150 (3.8) min. depth	P Female Jackposts Jackposts are non-removable. Size A-G, J, K = 2-56, H, L = 4-40, M = 6-32, N = 8-32.
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.

BLIND MATE TOLERANCES

Shell Size	Allowable Misalignment from Centerline
A - G, J, K	± .030 (0.8)
H, L	± .040 (1.0)
M, N	± .050 (1.3)