

MICRO-CRIMP RECTANGULAR CONNECTORS

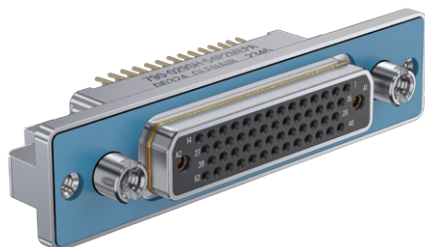
Series 790 High-Density

SERIES™
790
HD

790-029

Panel Plug, Straight PC Tails

- ◆ Straight PCB termination
- ◆ Rear panel mount
- ◆ Socket contacts



790-029 receptacle has straight PC tails. Connector has conductive gasket for rear panel mounting. Contact tails are sealed with epoxy. Machined aluminum shell has integral standoff and threaded holes for attachment to PC board. Optional gold-plated EMI spring. Available in forty insert arrangements with up to 102 contacts. Contact sizes include high-density #23 contacts on .075 inch (1.9mm) centers, #16 contacts, #12 contacts, and #8 contacts.

- Aerospace-grade microminiature PCB connector with M39029-type signal and power contacts
- Epoxy sealed terminals
- Conductive panel gasket
- Environmental

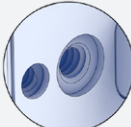
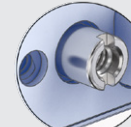
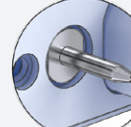
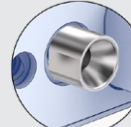
INSERT ARRANGEMENTS

Insert Arrangement	No. of Contacts			
	#23	#16	#12	#8
A-5	5			
B-2P2		2		
B-9	9			
C-13	13			
D-15	15			
D-3P3		3		
D-7P2	5	2		
E-11P2	9	2		
E-19	19			
E-7P3	4	3		
F-14P3	11	3		
F-15P2	13	2		
F-23	23			
F-5P5		5		
G-13P2	11		2	
G-21P1	20		1	
G-3P3			3	
G-33	33			
H-10P4	6		4	
H-29P7	22	7		
H-36P2	34		2	
H-51P1	50		1	
H-54P2	52	2		
H-5P5			5	
H-66	66			
J-17P4	13	4		
J-25P2	23	2		
J-33	33			
J-7P7		7		
K-27P4	23	4		
K-35P2	33	2		
K-43	43			
K-9P9		9		
L-22P4	18		4	
L-48P2	46		2	
L-6P6			6	
L-78	78			
M-17P17		17		
M-102	102			
M-4P4				4

HOW TO ORDER

Sample Part Number		790-029S	J-33	MT	E	G	B
Basic Part Number	790-029S	PCB Plug, Straight Tails, 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					
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>					
PC Tail Length	A	.125 inch (3.2mm)					
	B	.250 inch (6.4mm)					
	C	.375 inch (9.5mm)					

TABLE 1 HARDWARE OPTIONS

 N No Hardware	 P Female Jackpost	 G Guide Pin	 S Guide Socket
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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
■ Insulator: High performance thermoplastic
■ EMI spring: Stainless steel, gold plated
■ Panel gasket: Cho-Seal 1287 silver-plated aluminum filled fluorosilicone
■ Encapsulant: Epoxy
■ Hardware: Stainless steel

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Series 790 High-Density

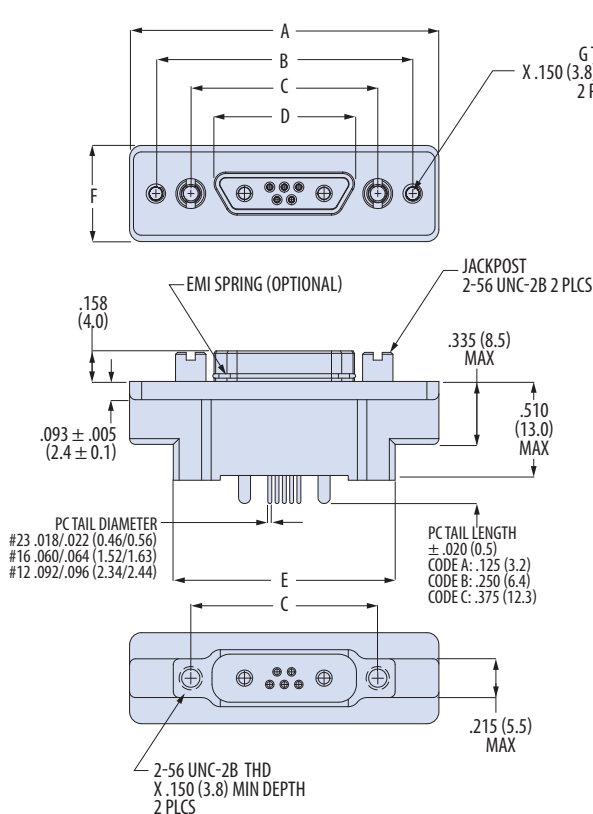


790-029

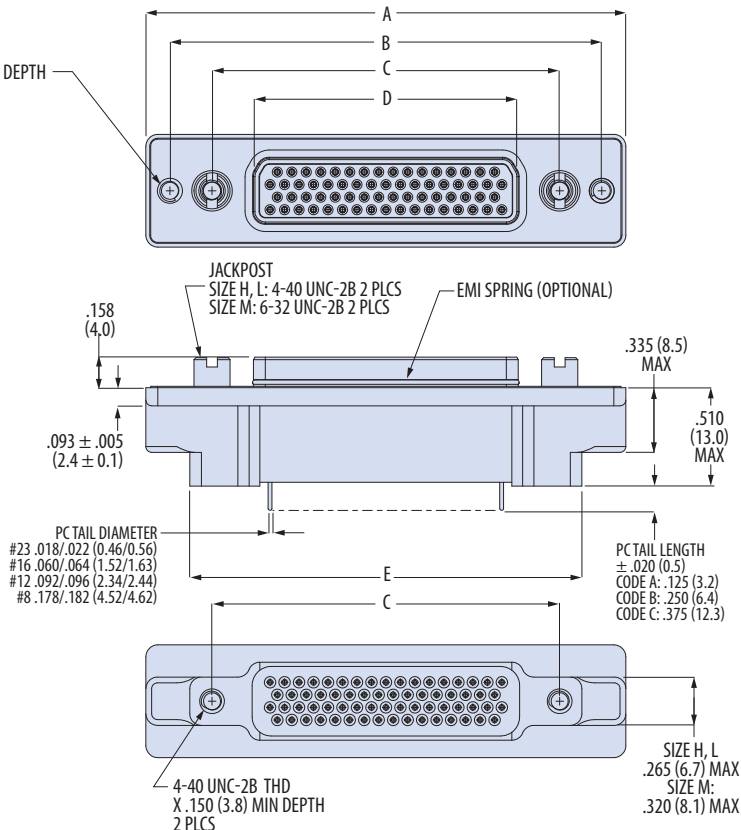
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SERIES 790 HIGH-DENSITY



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
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	UNC-2B
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

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)

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	P Female Jackposts Jackposts are non-removable. Size A-G, J, K = 2-56, H, L = 4-40, M = 6-32.
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.

Application Note

PCB Footprints

See Section **G** for PC board layouts.

Straight tails: pages **G-1 – G-9**
90° tails: pages **G-10 – G-20**

Application Note

Panel Cutouts

See page **A-60** for recommended panel cutout dimensions.