

MICRO-CRIMP RECTANGULAR CONNECTORS

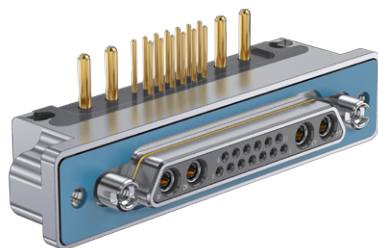
Series 790 High-Density

SERIES™
790
HD

790-037

Panel Plug, 90° PC Tails

- ◆ 90° PCB termination
- ◆ Rear panel mount
- ◆ Socket contacts



790-037 plug has gold-plated right angle contacts for thru-hole printed circuit board termination. Connector flange has conductive EMI gasket and threaded holes for rear panel mounting. Contacts are sealed with epoxy. Machined aluminum shell has integral standoff and threaded holes for attachment to PC board. EMI shroud improves shielding. Available in forty insert arrangements with up to 102 contacts.

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

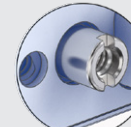
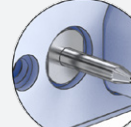
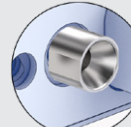
INSERT ARRANGEMENTS

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		790-037S	H-66	M	E	P	A
Basic Part Number	790-037S	90° PCB 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						
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

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
- EMI shroud: Aluminum
- Encapsulant: Epoxy
- Hardware: Stainless steel

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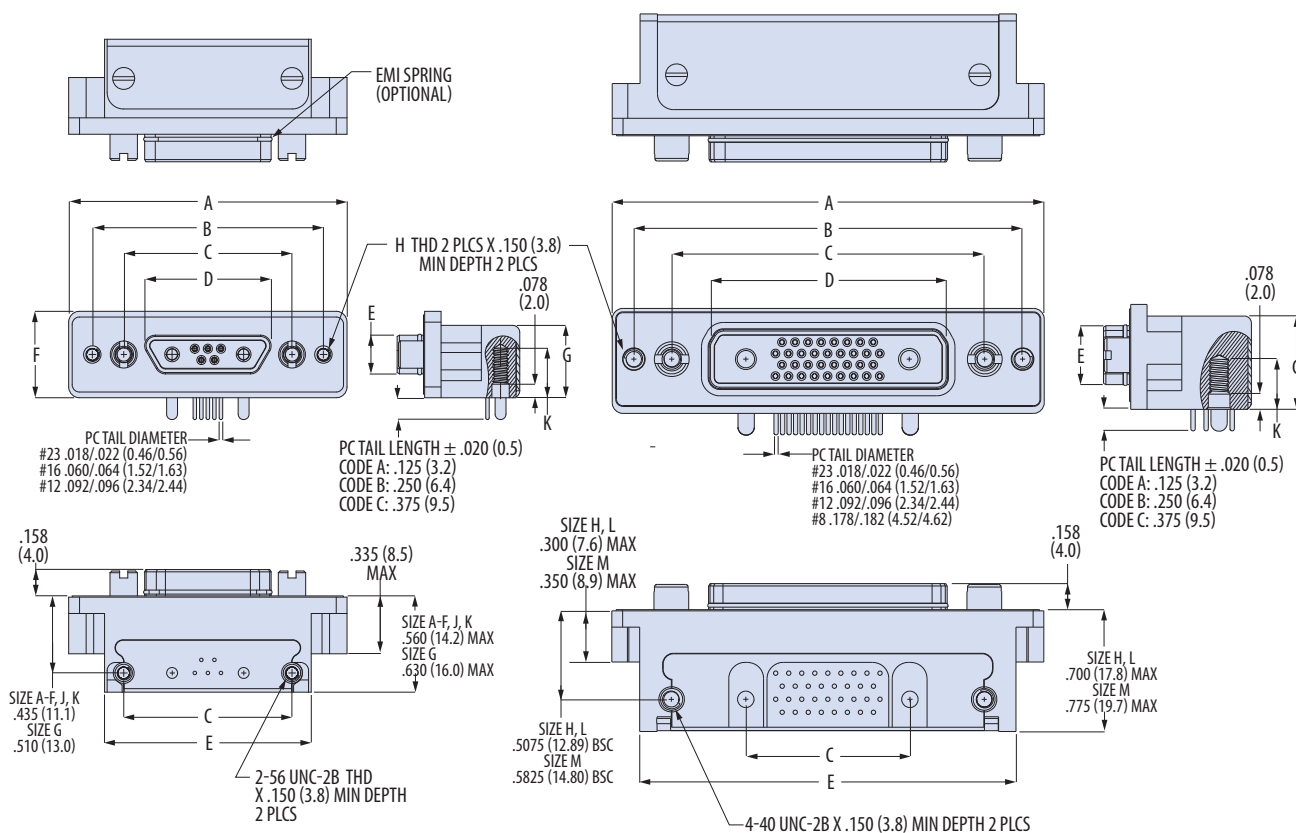
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SHELL SIZE A-G, J, K

SHELL SIZE H, L, M

Shell Size	A Max	B ± .005 (0.1)	C ± .005 (0.1)	D Max	E Max	F Max	G ± .010 (0.3)	H Thd	K Min
	in	mm	in	mm	in	mm	in	mm	in
A	1.211	30.8	.925	23.5	.565	14.4	.335	8.5	.800
B	1.361	34.6	1.075	27.3	.715	18.2	.485	12.3	.950
C	1.511	38.4	1.225	31.1	.865	22.0	.635	16.1	1.100
D	1.611	40.9	1.325	33.7	.965	24.5	.735	18.7	1.200
E	1.761	44.7	1.475	37.5	1.115	28.3	.885	22.5	1.350
F	1.911	48.5	1.625	41.3	1.265	32.1	1.035	26.3	1.500
G	1.855	47.1	1.575	40.0	1.215	30.9	1.010	25.7	1.450
H	2.500	63.5	2.236	56.8	1.800	45.7	1.385	35.2	2.175
J	2.261	57.4	1.975	50.2	1.615	41.0	1.390	35.3	1.850
K	2.661	67.6	2.375	60.3	2.015	51.2	1.795	45.6	2.250
L	2.736	69.5	2.472	62.8	2.036	51.7	1.623	41.2	2.411
M	3.085	78.4	2.770	70.4	2.200	55.9	1.675	42.5	2.575

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.
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Application Note

Panel Cutout

See page A-60 for recommended panel cutout dimensions.

Application Note

PCB Footprints

See Section G

Straight tails: pp. G-1 – G-9

90° tails: pp. G-10 – G-20