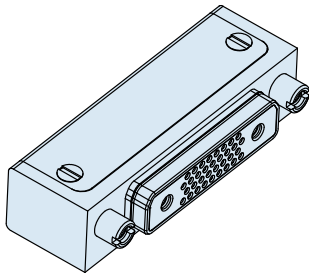


Series 79 Micro-Crimp Section G: Right Angle Printed Circuit Board Connectors



BOARD MOUNT PLUGS, SOCKET CONTACTS, 90° PCB TERMINATION, 790-042S



Free-standing rugged right angle headers feature gold-plated PC tail contacts for thru-hole printed circuit board termination. Not for panel mounting. Contacts are permanently installed and are sealed with epoxy. Shells are aluminum alloy. EMI shroud improves shielding performance. Threaded board mounting holes and integral standoffs simplify installation. Available in 29 different contact arrangements, these connectors feature size #23 signal contacts along with #16 and #12 power contacts for up to 23 amps current rating. Optional EMI spring improves shell-to-shell conductivity and shielding performance. Mates with 790-024p cable receptacles.

HOW TO ORDER

Sample Part Number

790-042S

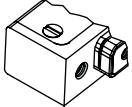
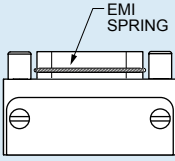
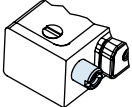
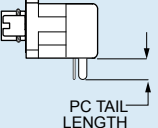
L-6P6

M

E

P

A

Part Number	Shell Size - Insert Arr.	Shell Finish	EMI Spring	Hardware Option	PC Tail Length
790-042S Right Angle Plug with 90° PC Tail Contacts for Termination to Backplanes or Flexible Circuits	See Table 1 for Available Insert Arrangements	M Electroless Nickel <i>general purpose applications</i>	E EMI Spring	 N No Hardware	A .125 Inch (3.2 mm.)
		MT Nickel-PTFE 1000 Hour Grey™ <i>maximum corrosion protection and durability (non-reflective grey)</i>	N No Spring		B .250 inch (6.4 mm.)
		ZNU Zinc-Nickel with Black Chromate <i>tactical applications (non-reflective black)</i>	 EMI SPRING	 P Female Jackpost	 PC TAIL LENGTH
		Additional shell finishes are listed on page C-9.			

SPECIFICATIONS

Current Rating	#23 5 AMPS, #16 13 A., #12 23 A.
Dielectric Withstanding Voltage	#23 500 VAC RMS, #12 and #16 1800 VAC RMS
Insulation Resistance	5000 megohms minimum
Operating Temperature	-65° C. to +150° C.
Shock	300 g.
Vibration	37 g.

MATERIALS AND FINISHES

Shell	Aluminum alloy
Contacts	Copper alloy, gold plated
Insulator	Liquid crystal polymer (LCP)
PCB Tray	Thermoplastic
EMI Shroud	Aluminum alloy
Hardware	300 series stainless steel
Panel Gasket	Fluorosilicone, conductive
Encapsulant	Epoxy

Dimensions in inches (millimeters) and are subject to change without notice.

Table 1 Contact Arrangements

Layout	Contact Quantity			Face View
	#23	#16	#12	
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-15P2	13	2		
F-23	23			
F-5P5		5		
G-33	33			
H-10P4	6	4		
H-29P7	22	7		
H-36P2	34	2		
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-6P6		6		

CROSS-SECTIONAL VIEW OF 790-042S

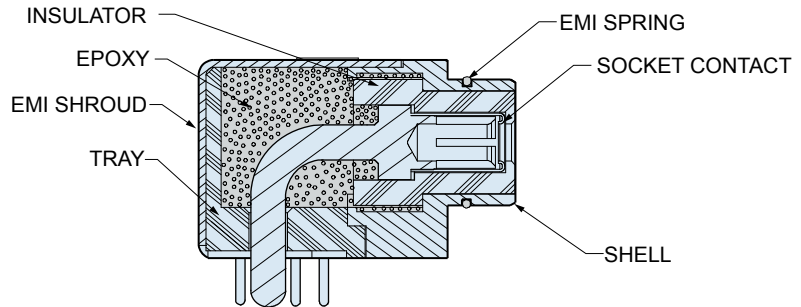
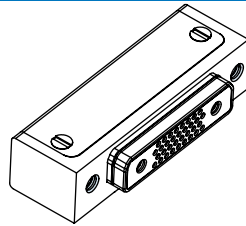


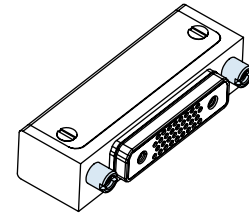
TABLE 2 HARDWARE OPTION



N

No Mating Hardware

Connector is supplied with threaded holes. Shell sizes H and L have #6-32 threads, other sizes have #4-40 threads. Thread depth is .150" (3.8).



P

Jackposts

Connector is supplied with non-removable stainless steel jackposts. Shell sizes H and L have #4-40 UNC thread, other sizes have #2-56 thread.

Dimensions in inches (millimeters) and are subject to change without notice.

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G-22

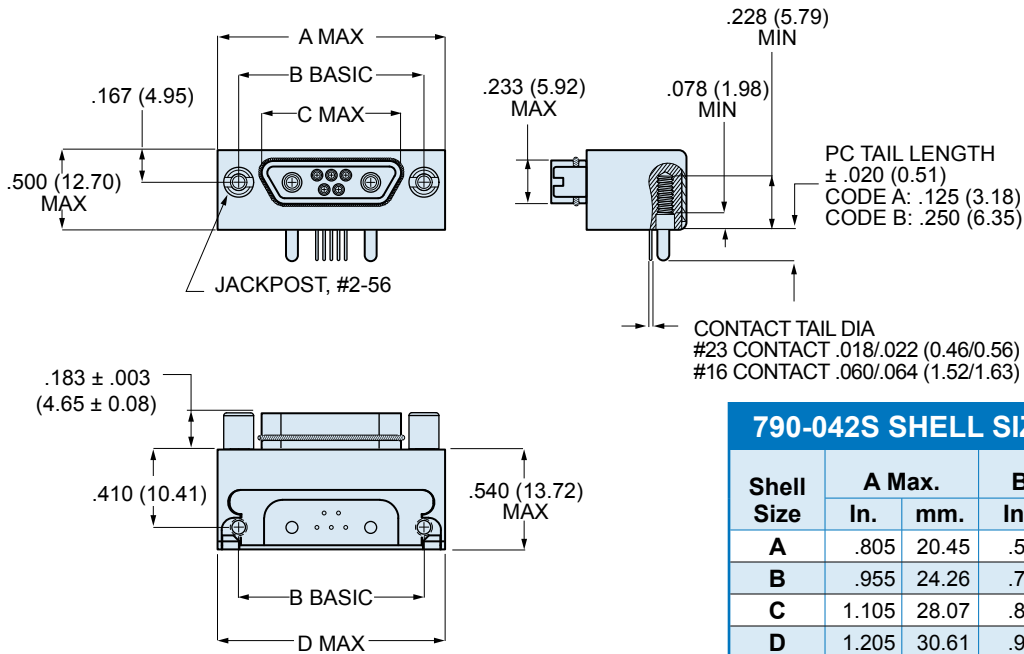
E-Mail: sales@glenair.com

Rev. 04-July-2009

Series 79 Micro-Crimp Section G: Right Angle Printed Circuit Board Connectors



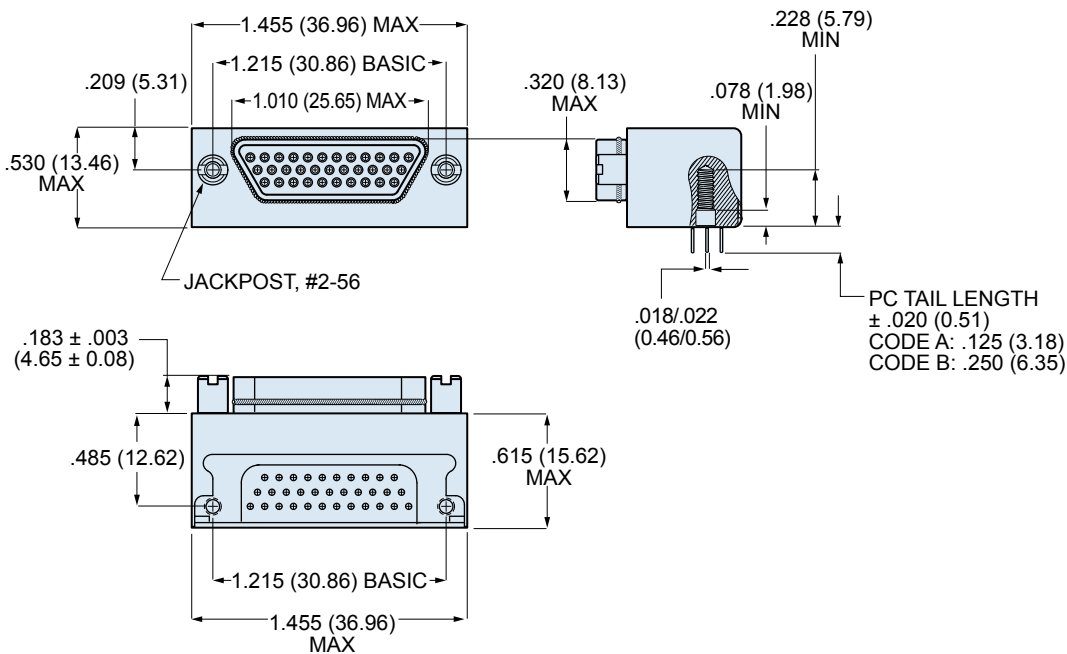
790-042S DIMENSIONS: SHELL SIZE A-F, J AND K



790-042S SHELL SIZES A-F, J AND K

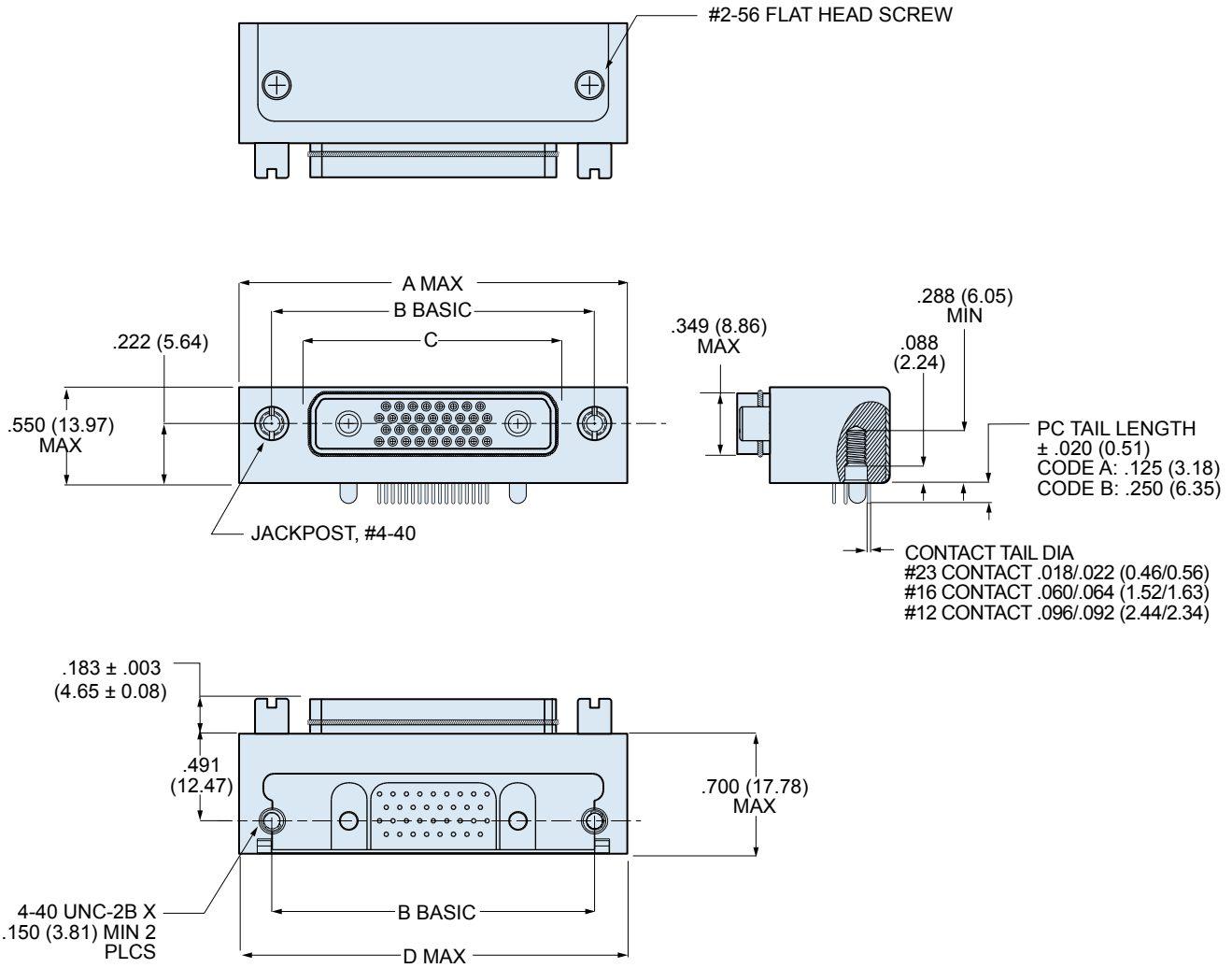
Shell Size	A Max.		B Basic		C Max.	
	In.	mm.	In.	mm.	In.	mm.
A	.805	20.45	.565	14.35	.335	8.51
B	.955	24.26	.715	18.16	.485	12.32
C	1.105	28.07	.865	21.97	.635	16.13
D	1.205	30.61	.965	24.51	.735	18.67
E	1.355	34.42	1.115	28.32	.885	22.48
F	1.505	38.23	1.265	32.13	1.035	26.29
J	1.855	47.12	1.615	41.02	1.380	35.05
K	2.255	57.28	2.015	51.18	1.783	45.29

790-042S DIMENSIONS: SHELL SIZE G



Dimensions in inches (millimeters) and are subject to change without notice.

790-042S DIMENSIONS: SHELL SIZES H & L



790-042S SHELL SIZES H AND L

Shell Size	A Max.		B Basic		C Max.	
	In.	mm.	In.	mm.	In.	mm.
H	2.185	55.50	1.800	45.72	1.385	35.18
L	2.430	61.72	2.036	51.71	1.623	41.22

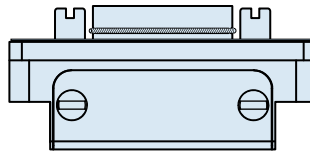
Dimensions in inches (millimeters) and are subject to change without notice.

Series 79 Micro-Crimp Section G: Right Angle Printed Circuit Board Connectors



PCB Hole Patterns for 790-037S and 790-042S Plugs

This section contains printed circuit board footprints for right angle Series 79 plugs. The contact identification numbers are shown for the connector mounting side of the PC board. Contact tails are gold over nickel plated.



CONNECTOR ORIENTATION

Contact Size	PC Tail Diameter	
	In.	Ø Diameter mm.
#23	.018-.022	0.46-0.56
#16	.060-.064	1.52-1.63
#12	.092-.096	2.34-2.44

790-037S AND 790-042S PRINTED CIRCUIT BOARD PATTERNS

Insert Arr.	Component Mounting Side of PCB Mating Face of Connector is Toward Top of Page
A-5	
B-2P2	
B-9	
C-13	

Dimensions in inches (millimeters) and are subject to change without notice.

790-037S AND 790-042S PRINTED CIRCUIT BOARD PATTERNS

Insert Arr.	Component Mounting Side of PCB Mating Face of Connector is Toward Top of Page
D-15	
D-3P3	
D-7P2	
E-11P2	
E-19	

Dimensions in inches (millimeters) and are subject to change without notice.

Series 79 Micro-Crimp Section G: Right Angle Printed Circuit Board Connectors



790-037S AND 790-042S PRINTED CIRCUIT BOARD PATTERNS

Insert Arr.	Component Mounting Side of PCB Mating Face of Connector is Toward Top of Page
E-7P3	
F-15P2	
F-23	
F-5P5	
G-33	

Dimensions in inches (millimeters) and are subject to change without notice.

790-037S AND 790-042S PRINTED CIRCUIT BOARD PATTERNS

Insert Arr.	Component Mounting Side of PCB Mating Face of Connector is Toward Top of Page
H-10P4	
H-29P7	
H-36P2	
H-54P2	
H-5P5	

Dimensions in inches (millimeters) and are subject to change without notice.

Series 79 Micro-Crimp Section G: Right Angle Printed Circuit Board Connectors



790-037S AND 790-042S PRINTED CIRCUIT BOARD PATTERNS

Insert Arr.	Component Mounting Side of PCB Mating Face of Connector is Toward Top of Page
H-66	<p>Dimensions: $.125 \pm .003$ (3.18 ± 0.08) 2x; $.900$ (22.86); 1.800 (45.72); $.075$ (1.91) TYP; $.0375$ (0.95) TYP; $.075$ (1.91) TYP.</p> <p>Notes: (HOLE TO ACCEPT $.022$ (0.56) MAX DIA CONTACT 66x); $\Phi \varnothing .003$ (M) (A) (M).</p>
J-17P4	<p>Dimensions: $.094 \pm .003$ (2.39 ± 0.08) 2x; $.8075$ (20.51); 1.615 (41.02); $.3725$ (9.46); $.075$ (1.91) TYP; $.0375$ (0.95) TYP; $.175$ (4.45) TYP; $.075$ (1.91) TYP.</p> <p>Notes: (HOLE TO ACCEPT $.064$ (1.63) MAX DIA CONTACT 4x); (HOLE TO ACCEPT $.022$ (0.56) MAX DIA CONTACT 13x); $\Phi \varnothing .003$ (M) (A) (M).</p>
J-25P2	<p>Dimensions: $.094 \pm .003$ (2.39 ± 0.08) 2x; $.8075$ (20.51); 1.615 (41.02); $.5475$ (13.91); $.075$ (1.91) TYP; $.0375$ (0.95) TYP; $.075$ (1.91) TYP.</p> <p>Notes: (HOLE TO ACCEPT $.064$ (1.63) MAX DIA CONTACT 2x); (HOLE TO ACCEPT $.022$ (0.56) MAX DIA CONTACT 23x); $\Phi \varnothing .003$ (M) (A) (M).</p>
J-33	<p>Dimensions: $.094 \pm .003$ (2.39 ± 0.08) 2x; $.8075$ (20.51); 1.615 (41.02); $.075$ (1.91) TYP; $.0375$ (0.95) TYP; $.075$ (1.91) TYP.</p> <p>Notes: (HOLE TO ACCEPT $.022$ (0.56) MAX DIA CONTACT 33x); $\Phi \varnothing .003$ (M) (A) (M).</p>
J-7P7	<p>Dimensions: $.094 \pm .003$ (2.39 ± 0.08) 2x; $.8075$ (20.51); 1.615 (41.02); $.175$ (4.45) 6x.</p> <p>Notes: (HOLE TO ACCEPT $.064$ (1.63) MAX DIA CONTACT 7x); $\Phi \varnothing .003$ (M) (A) (M).</p>

Dimensions in inches (millimeters) and are subject to change without notice.

790-037S AND 790-042S PRINTED CIRCUIT BOARD PATTERNS

Insert Arr.	Component Mounting Side of PCB Mating Face of Connector is Toward Top of Page
K-27P4	
K-35P2	
K-43	
K-9P9	
L-6P6	

Dimensions in inches (millimeters) and are subject to change without notice.