

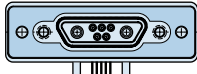
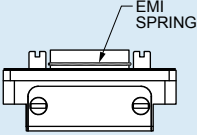
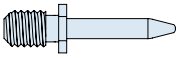
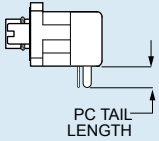
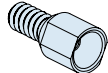
PANEL MOUNT PLUGS, SOCKET CONTACTS, 90° PCB TERMINATION, 790-037S



Lightweight, rugged right angle headers feature gold-plated PC tail contacts for thru-hole printed circuit board termination. 790-037S connectors are designed for rear-panel mounting and are supplied with conductive panel gaskets. 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.

HOW TO ORDER

Sample Part Number

| 790-037S | H-5P5 | M | E | P | B |
|---|---|---|--|--|---------------------------------|
| Part Number | Shell Size - Insert Arr. | Shell Finish | EMI Spring | Hardware Option | PC Tail Length |
| 790-037S Rear Panel Mounted 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 |  G Guide Pin | B .250 inch (6.4 mm.) |
| | | ZNU Zinc-Nickel with Black Chromate <i>tactical applications (non-reflective black)</i> |  P Female Jackpost |  PC TAIL LENGTH | |
| | | Additional shell finishes are listed on page C-9. |  S Female Guide Socket | | |

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, with stainless steel hood |
| 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.

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G-16

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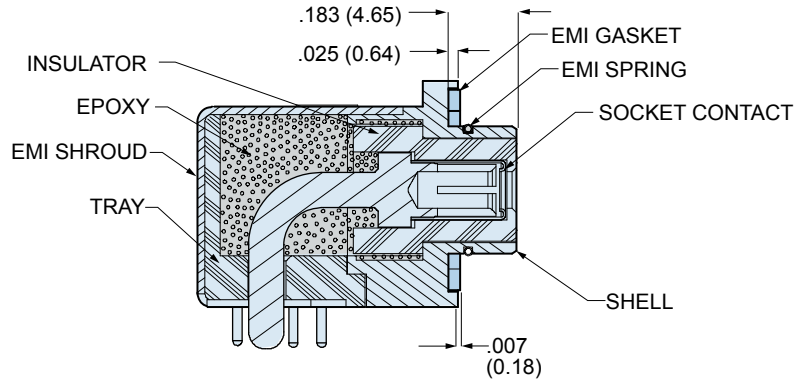
Series 79 Micro-Crimp Section G: Right Angle Printed Circuit Board Connectors



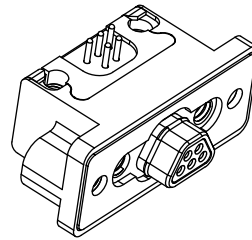
**Table 1
Contact Arrangements**

| 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 790-037S



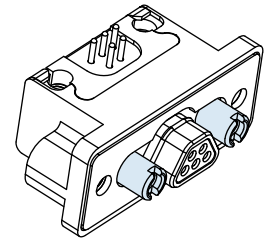
**TABLE 2
HARDWARE OPTION**



N

No Mating Hardware

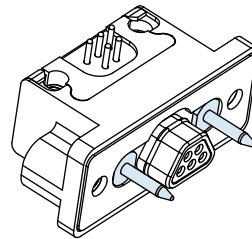
Connector is supplied with blind, tapped holes. Shell sizes H and L have 6-32 UNC-2B thread, other sizes are #4-40. Minimum thread depth is .150" (3.81).



P

Jackposts

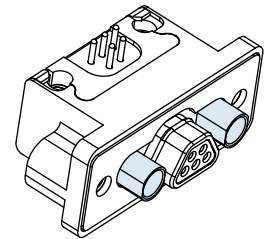
Connector is supplied with non-removable jackposts. Shell sizes H and L have #4-40 UNC-2B thread, other sizes have #2-56 thread.



G

Male Guide Pins

Connector is supplied with stainless steel guide pins to mate with code S guide sockets. Pins are non-removable.



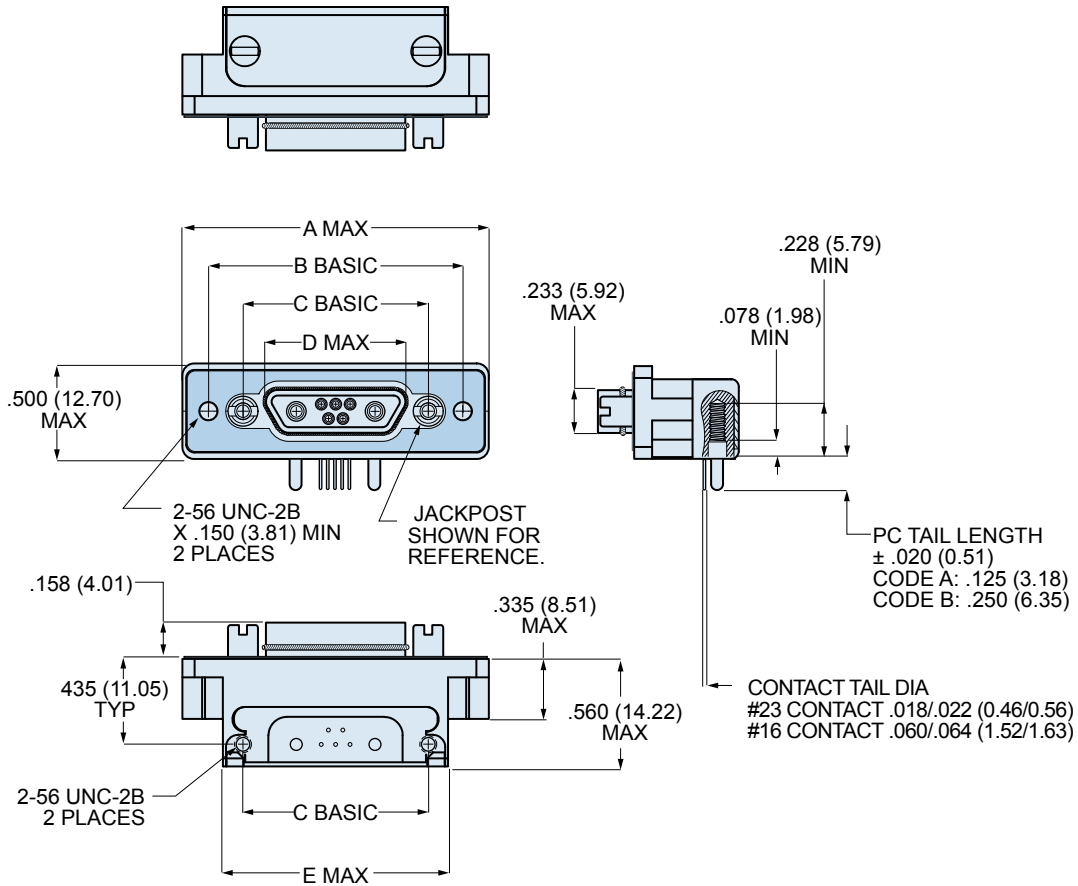
S

Female Guide Sockets

Connector is supplied with stainless steel guide sockets to mate with code G guide pins. Sockets are non-removable.

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

790-037S DIMENSIONS: SHELL SIZE A-F, J AND K



790-037S SHELL SIZES A-F, J AND K

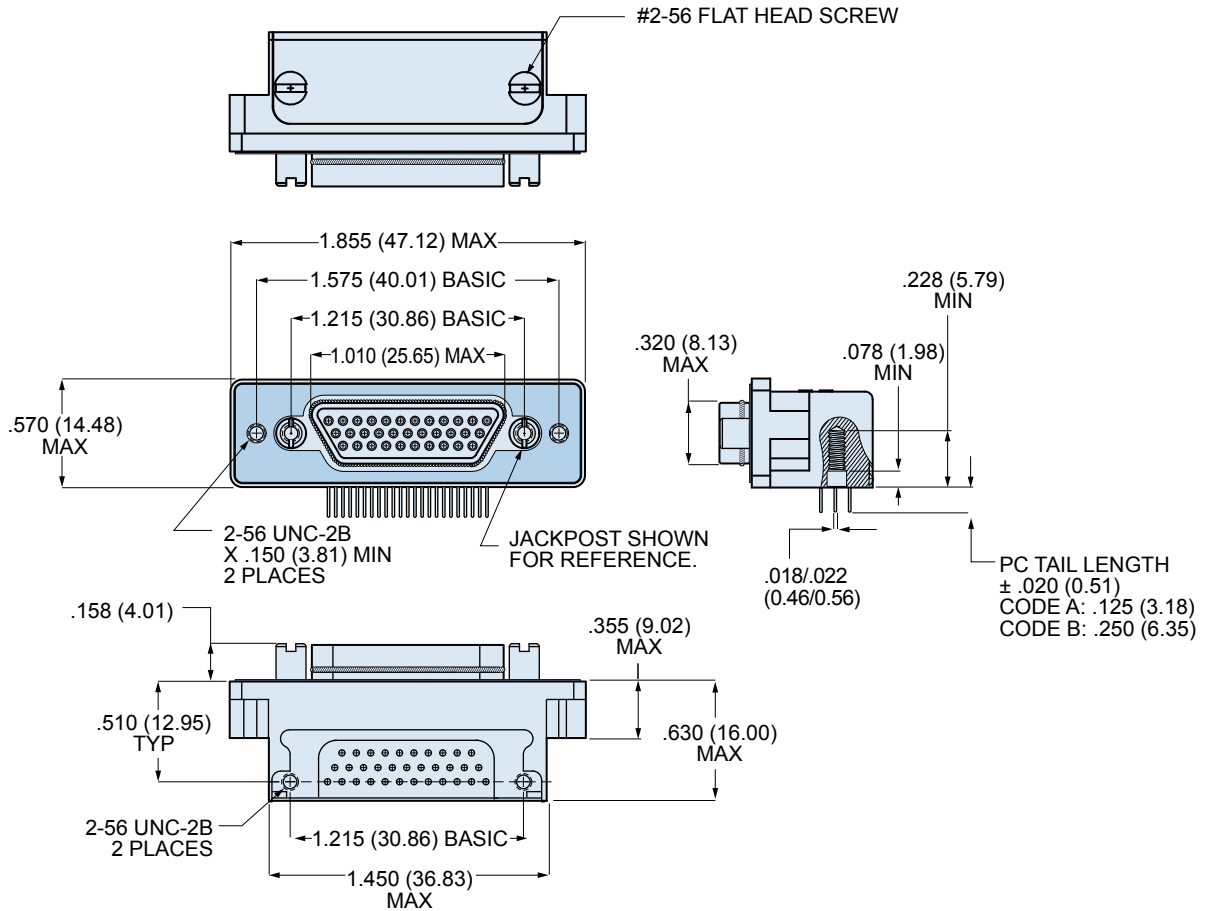
| Shell Size | A Max. | | B Basic | | C Basic | | D Max. | | E Max. | |
|------------|--------|-------|---------|-------|---------|-------|--------|-------|--------|-------|
| | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. |
| A | 1.211 | 30.76 | .925 | 23.50 | .565 | 14.35 | .335 | 8.51 | .760 | 19.30 |
| B | 1.361 | 34.57 | 1.075 | 27.31 | .715 | 18.16 | .485 | 12.32 | .910 | 21.11 |
| C | 1.511 | 38.38 | 1.225 | 31.12 | .865 | 21.97 | .635 | 16.13 | 1.060 | 26.92 |
| D | 1.611 | 40.92 | 1.325 | 33.66 | .965 | 24.51 | .735 | 18.67 | 1.160 | 29.46 |
| E | 1.761 | 44.73 | 1.475 | 37.47 | 1.115 | 28.32 | .885 | 22.48 | 1.310 | 33.27 |
| F | 1.911 | 48.54 | 1.625 | 41.28 | 1.265 | 32.13 | 1.035 | 26.29 | 1.460 | 37.08 |
| J | 2.261 | 57.43 | 1.975 | 50.17 | 1.615 | 41.02 | 1.380 | 35.05 | 1.810 | 45.97 |
| K | 2.661 | 67.59 | 2.375 | 60.33 | 2.015 | 51.18 | 1.783 | 45.29 | 2.210 | 56.13 |

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

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

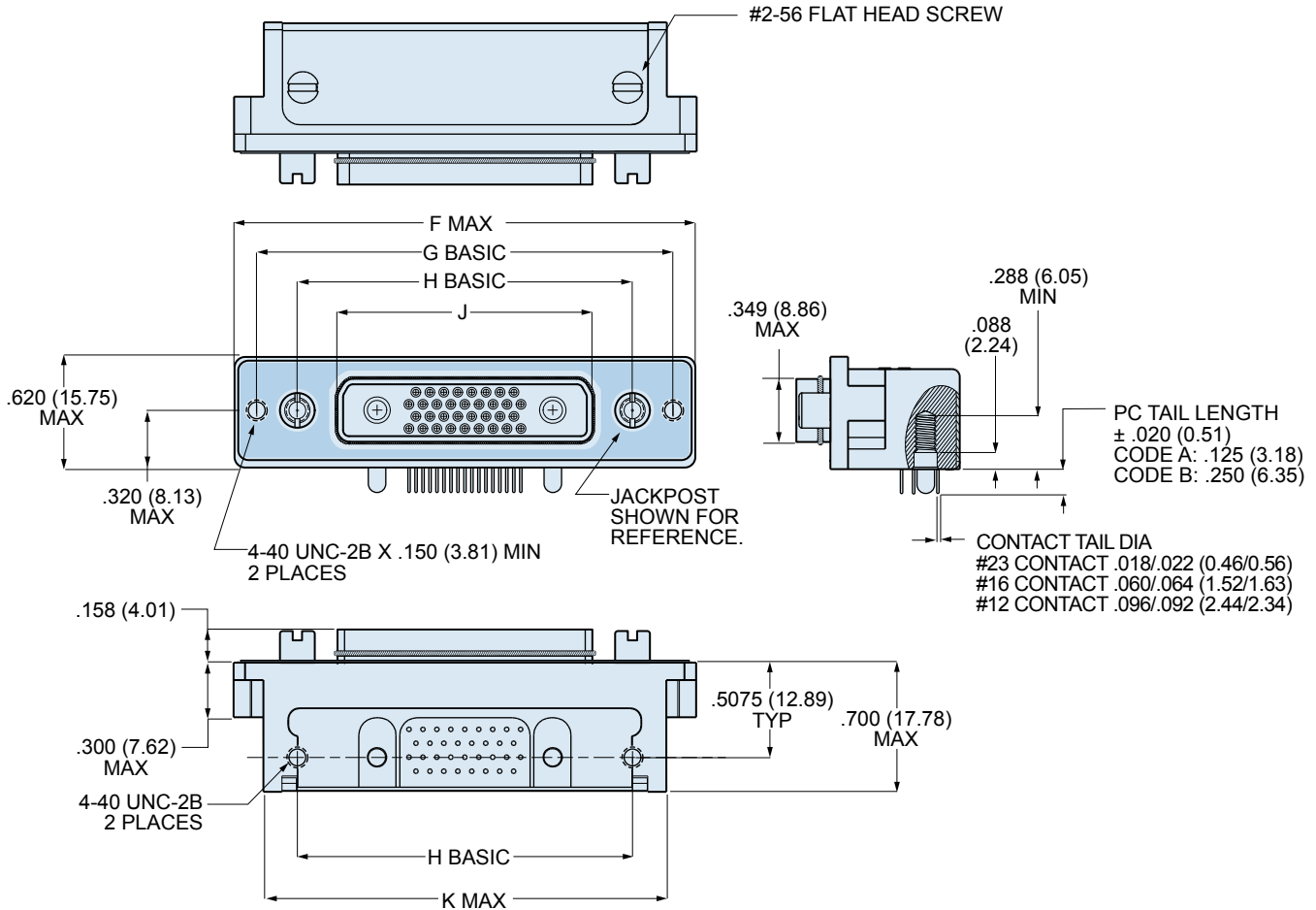


790-037S DIMENSIONS: SHELL SIZE G



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

790-037S DIMENSIONS: SHELL SIZE H AND L



790-037S SHELL SIZES H AND L

| Shell Size | F Max. | | G Basic | | H Basic | | J Max. | | K Max. | |
|------------|--------|-------|---------|-------|---------|-------|--------|-------|--------|-------|
| | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. |
| H | 2.500 | 63.50 | 2.236 | 56.79 | 1.800 | 45.72 | 1.385 | 35.18 | 2.175 | 55.25 |
| L | 2.736 | 69.49 | 2.472 | 62.79 | 2.036 | 51.71 | 1.623 | 41.22 | 2.411 | 61.24 |

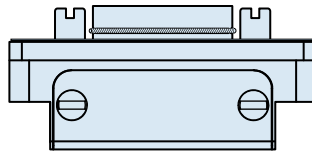
Dimensions in inches (millimeters) and are subject to change without notice.

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 |
|---------------|--|
| <p>H-10P4</p> | |
| <p>H-29P7</p> | |
| <p>H-36P2</p> | |
| <p>H-54P2</p> | |
| <p>H-5P5</p> | |

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 | |
| J-17P4 | |
| J-25P2 | |
| J-33 | |
| J-7P7 | |

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.