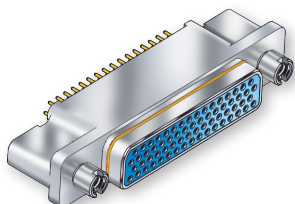


**790-044S**  
**Straight PCB Terminated**  
**Free Standing Plugs, Socket Contacts**  
**How To Order**

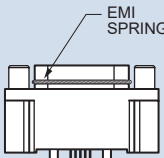
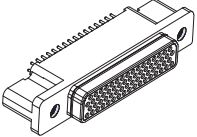
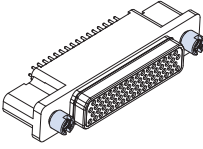
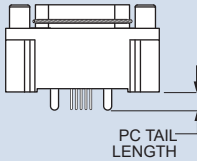


## 790-044S Straight PCB Free-Standing Plugs

### SOCKET CONTACTS WITH STRAIGHT PCB TERMINATION



Free-standing, rugged vertical mount headers feature gold-plated PC tail contacts for thru-hole printed circuit board termination. Contacts are permanently installed and are sealed with epoxy. Shells are aluminum alloy. 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. Stainless steel jackposts are non-removable.

| HOW TO ORDER                                                                                                        |                                               |                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                             |                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sample Part Number                                                                                                  |                                               |                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                             |                                                                                                                                                             |
| 790-044S                                                                                                            | D-15                                          | MT                                                                                                                                                                                                                                                                                                                                                                     | E                                                                                                                                                                                                                                                | P                                                                                                                                                                                                                                           | B                                                                                                                                                           |
| Part Number                                                                                                         | Shell Size - Insert Arrangements              | Shell Finish                                                                                                                                                                                                                                                                                                                                                           | EMI Spring                                                                                                                                                                                                                                       | Hardware Option                                                                                                                                                                                                                             | PC Tail Length                                                                                                                                              |
| <b>790-044S</b><br>Plug with Straight Thru-Hole PC Tail Contacts for Termination to Backplanes or Flexible Circuits | See Table 1 for Available Insert Arrangements | <b>M</b><br>Electroless Nickel<br><i>general purpose applications</i><br><br><b>MT</b><br>Nickel-PTFE<br><i>1000 Hour Grey™ maximum corrosion protection and durability (non-reflective grey)</i><br><br><b>ZNU</b><br>Zinc-Nickel with Black Chromate<br><i>tactical applications (non-reflective black)</i><br><br>Additional shell finishes are listed on page C-9. | <b>E</b><br>EMI Spring<br><b>N</b><br>No Spring<br><br><b>Note:</b><br>EMI Spring is not compatible with chromate finishes including cadmium and zinc-nickel | <br><b>N</b><br>No Hardware<br><br><br><b>P</b><br>Female Jackpost | <b>A</b><br>.125 Inch (3.2 mm.)<br><b>B</b><br>.250 inch (6.4 mm.)<br> |

| SPECIFICATIONS                  |                                           |
|---------------------------------|-------------------------------------------|
| Current Rating                  | #23 5 AMPS, #16 13 A., #12 23 A.          |
| Dielectric Withstanding Voltage | #23 750 VAC RMS, #12 and #16 1800 VAC RMS |
| Insulation Resistance           | 5000 megohms minimum                      |
| Operating Temperature           | -65° C. to +150° C.                       |
| Shock                           | 300 g.                                    |
| Vibration                       | 20 g.                                     |

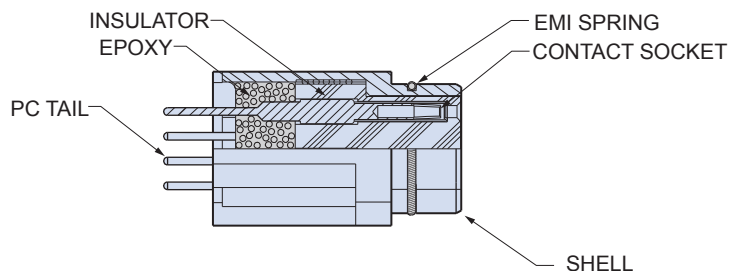
| MATERIALS AND FINISHES |                                                                |
|------------------------|----------------------------------------------------------------|
| Shell                  | Aluminum alloy                                                 |
| Contacts               | Copper alloy, 50 microinches gold plated, stainless steel hood |
| Insulator              | Liquid crystal polymer (LCP)                                   |
| Jackposts              | 300 series stainless steel                                     |
| Encapsulant            | Epoxy                                                          |

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

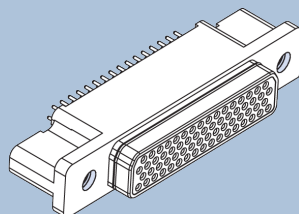
**Table 1 Contact Arrangements**

| Layout | Contact Quantity<br>#23 #16 #12 |   |  | Face View |
|--------|---------------------------------|---|--|-----------|
| 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 |  |           |
| L-78   | 78                              |   |  |           |
| M-102  | 102                             |   |  |           |

**CROSS-SECTIONAL VIEW OF 790-044S**



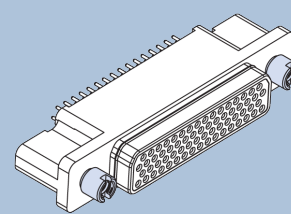
**TABLE 2 HARDWARE OPTION**



**N**

**No Mating Hardware**

Connector is supplied with threaded holes. Shell size M has #8-32 threads, shell sizes H and L have #6-32 threads, other sizes have #4-40 threads. Thread depth is .150" (3.8).



**P**

**Jackposts**

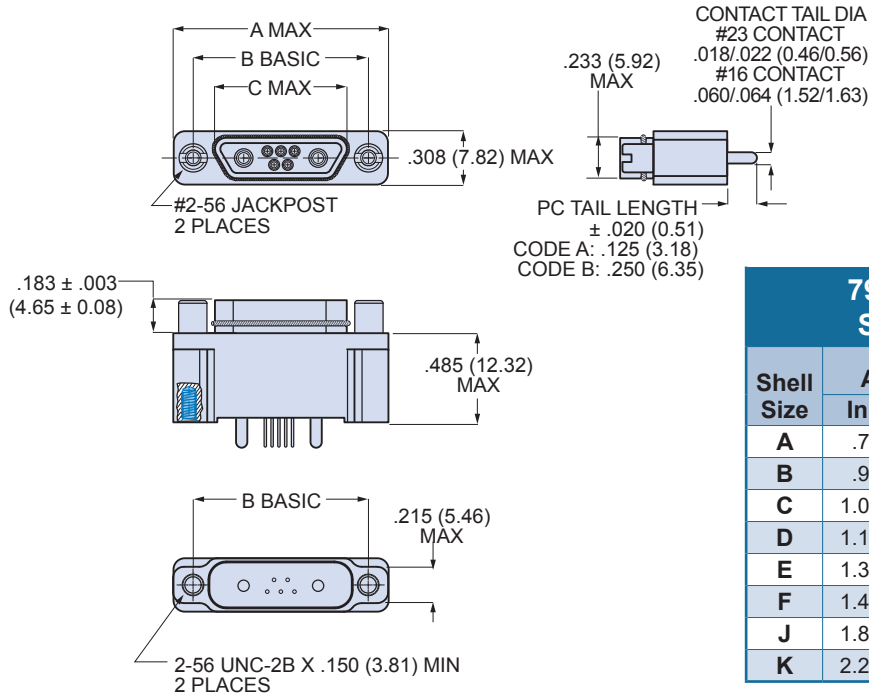
Connector is supplied with non-removable stainless steel jackposts. Shell size M has #6-32 threads, shell sizes H and L have #4-40 UNC thread, other sizes have #2-56 thread.

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

**790-044S**  
**Straight PCB Terminated**  
**Free Standing Plugs, Socket Contacts**  
**Dimensions**



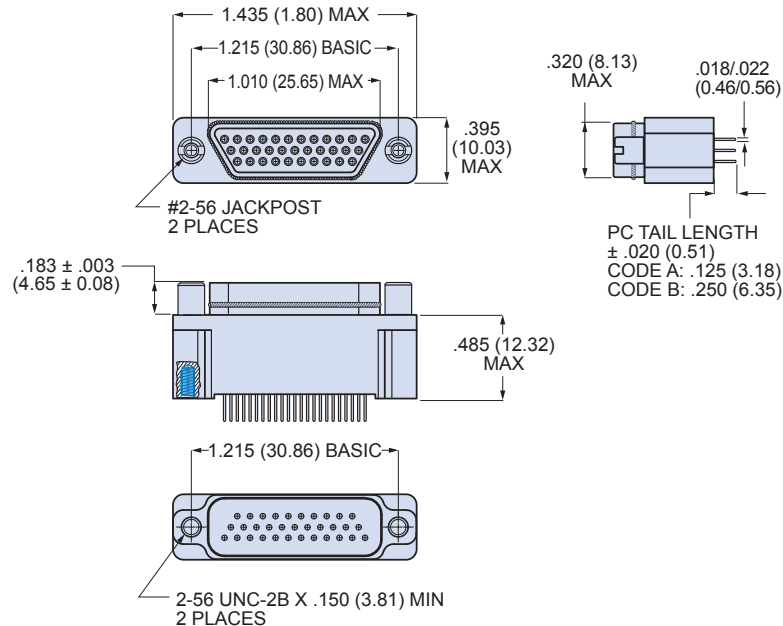
## 790-044S Shell Size A, B, C, D, E, F, J and K Dimensions



**790-044S DIMENSIONS**  
**SHELL SIZE A-G, J, K**

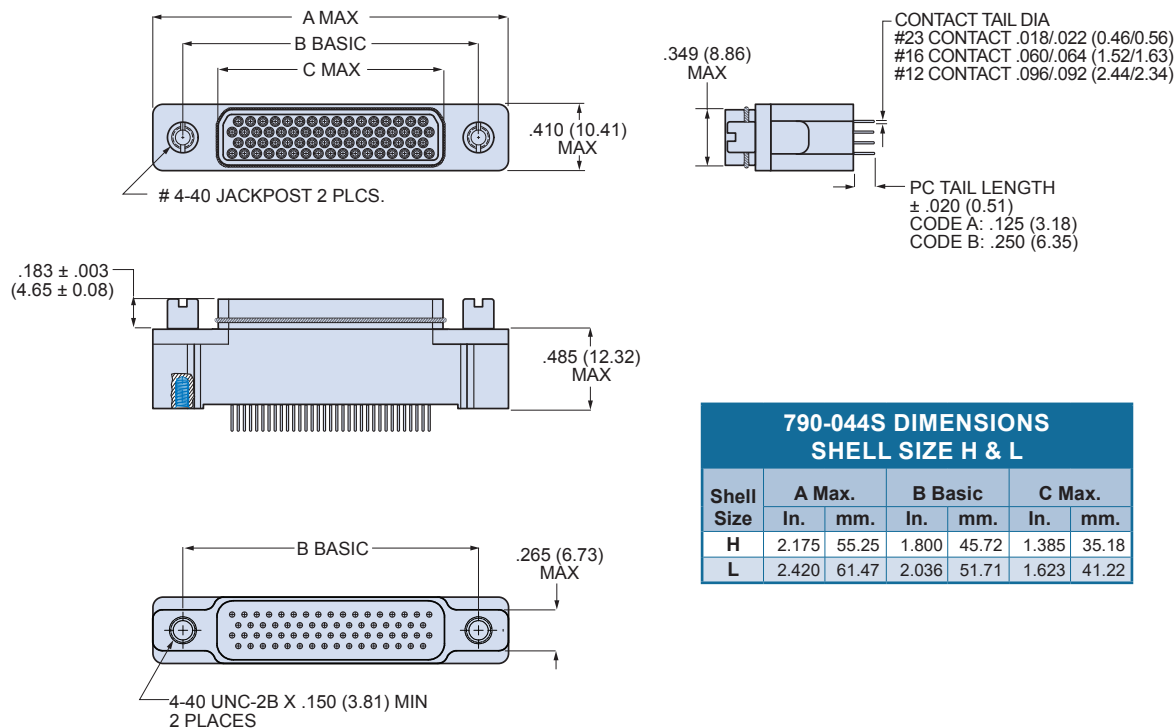
| Shell Size | A Max. |       | B Basic |       | C Max. |       |
|------------|--------|-------|---------|-------|--------|-------|
|            | In.    | mm.   | In.     | mm.   | In.    | mm.   |
| A          | .785   | 19.94 | .565    | 14.35 | .335   | 8.51  |
| B          | .935   | 23.75 | .715    | 18.16 | .485   | 12.32 |
| C          | 1.085  | 27.56 | .865    | 21.97 | .635   | 16.13 |
| D          | 1.185  | 30.10 | .965    | 24.51 | .735   | 18.67 |
| E          | 1.335  | 33.91 | 1.115   | 28.32 | .885   | 22.48 |
| F          | 1.485  | 37.72 | 1.265   | 32.13 | 1.035  | 26.29 |
| J          | 1.845  | 46.86 | 1.615   | 41.02 | 1.390  | 35.61 |
| K          | 2.240  | 56.90 | 2.015   | 51.18 | 1.795  | 45.59 |

## 790-044S Shell Size G Dimensions

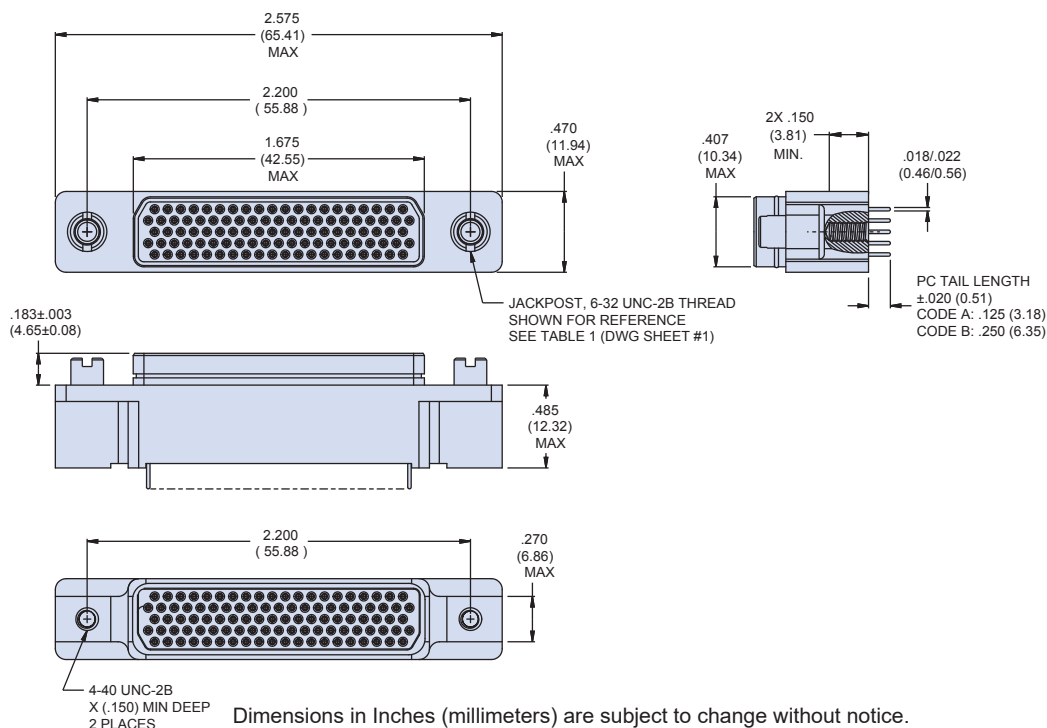


Dimensions in Inches (millimeters) are subject to change without notice.

## 790-044S Shell Size H & L Dimensions



## 790-044S Shell Size M Dimensions



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