

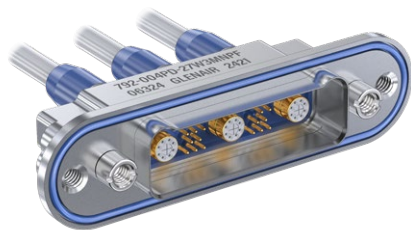
# MICRO-CRIMP RECTANGULAR CONNECTORS

## Series 792 High-Speed

**SERIES™**  
**792**  
High-Speed

### 792-004 Panel Receptacle

- ◆ Crimp, rear-release
- ◆ Pin contacts



#### Twinax, quadrax or El Ochito® contacts.

792-004 panel receptacle has size #8 cavities for snap-in high speed data contacts (purchased separately). Combo arrangements have size #23 contacts (included with connector). Keyed inserts and scoop-proof duo-lobe shell provide precise alignment of contacts for problem-free mating. #8-32 screwlocks or jackposts are 300 series stainless steel. Shell has tapped holes for attaching backshell.

- Aerospace-grade rectangular connector with high speed size 8 datalink contacts
- 1–9 data ports
- Rugged duo-lobe aluminum shell
- Environmental

#### INSERT ARRANGEMENTS

| Thermoplastic Insert | Grounded All-Aluminum | No. of Contacts |     |
|----------------------|-----------------------|-----------------|-----|
|                      |                       | #8              | #23 |
| A-1W1                | A-1G1                 | 1               | –   |
| A-3W1                |                       | 1               | 2   |
| B-23W1               |                       | 1               | 22  |
| B-2W2                | B-2G2                 | 2               | –   |
| B-6W2                |                       | 2               | 4   |
| C-24W2               |                       | 2               | 22  |
| C-3W3                | 3G3                   | 3               | –   |
| C-9W3                |                       | 3               | 6   |
| D-27W3               |                       | 3               | 24  |
| D-4W4                | D-4G4                 | 4               | –   |
| D-12W4               |                       | 4               | 8   |
| E-5W5                | E-5G5                 | 5               | –   |
| E-15W5               |                       | 5               | 10  |
| E-45W3               |                       | 3               | 42  |
| F-9W9                | F-9G9                 | 9               | –   |
| F-31W9               |                       | 9               | 22  |

#### #8 PIN CONTACTS

#8 Contacts are not included with connector. See Section E for contact ordering information.



| Contact Type           | Application                                   | Contact Part Number              |
|------------------------|-----------------------------------------------|----------------------------------|
| Diff. Twinax           | 77 Ohm<br>100 Ohm                             | <b>853-076</b>                   |
| Quadrax                | 100BASE-T, ARINC 664                          | <b>854-047</b>                   |
| Octaxial<br>El Ochito® | Ethernet:<br>1000BASE-T, 10Gb, 40Gb           | <b>858-045</b><br><b>858-043</b> |
|                        | USB 3.0                                       | <b>858-047</b><br><b>858-071</b> |
|                        | Multi-Gig 100 Ohm:<br>HDMI, DisplayPort, SATA | <b>858-049</b><br><b>858-065</b> |
| Coaxial                | 50 Ohm                                        | <b>852-149</b>                   |
|                        | 75 Ohm                                        | <b>852-151</b>                   |
| Power                  | #8 AWG                                        | <b>850-159</b>                   |

#### HOW TO ORDER

| Sample Part Number         |                                                                                                                                               | 792-004P | B-2W2 | M | E | P | C | B |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|---|---|---|---|---|
| Basic Part Number          | 792-004P Panel Receptacle, Pin Contacts                                                                                                       |          |       |   |   |   |   |   |
| Shell Size-Insert Arr.     | See "Insert Arrangements" Table                                                                                                               |          |       |   |   |   |   |   |
| Shell Finish               | <b>M</b> Electroless Nickel<br><b>MT</b> Nickel / PTFE<br><b>NF</b> Olive Drab Cadmium<br><b>TZ</b> Tin-Zinc<br><b>ZR</b> Black Zinc-Nickel   |          |       |   |   |   |   |   |
| EMI Spring                 | <b>E</b> EMI Spring<br><b>N</b> No EMI Spring                                                                                                 |          |       |   |   |   |   |   |
| Hardware Option<br>Table 1 | <b>N</b> No Hardware <u>Threaded holes</u><br><b>P</b> Female Jackposts<br><b>B</b> Guide Bushing <u>For blind mating</u>                     |          |       |   |   |   |   |   |
| Panel O-Ring               | <b>N</b> No O-ring<br><b>C</b> Conductive Fluorosilicone O-ring<br><b>F</b> Fluorosilicone O-ring                                             |          |       |   |   |   |   |   |
| Polarization Key Option    | Enter Letter Designator for Position <b>A, B, C, D, E, F, G, H, J, or K</b> per Mod Code 1104 (see page C-8 for details) <b>Omit</b> for none |          |       |   |   |   |   |   |

#### TABLE 1 HARDWARE OPTION

|                                                                                  |                                             |                            |
|----------------------------------------------------------------------------------|---------------------------------------------|----------------------------|
| <br><b>N</b> No Hardware<br>Threaded Hole<br>10-32 UNF-2B .150 (3.81) min. depth | <br><b>P</b> Female Jackpost<br>8-32 UNC-2B | <br><b>B</b> Guide Bushing |
|----------------------------------------------------------------------------------|---------------------------------------------|----------------------------|

#### RATINGS

- Voltage (DWV): size 23 contacts 750 VAC
- Current: #23 5A
- Operating temperature: -65 to +150 °C
- Durability: 500 mating cycles
- Shock: 300 g
- Vibration: 20 g random

#### CONSTRUCTION

- Contacts: Copper alloy, gold over nickel finish
- Shell: Aluminum
- Insulators: High performance thermoplastic
- Ground spring: BeCu, electroless nickel plated
- Grommet, face seal: Fluorosilicone/silicone blend
- O-ring: Code F- fluorosilicone, Code C- conductive fluorosilicone
- Contact retaining clip: Beryllium copper, unplated
- Hardware: Stainless steel

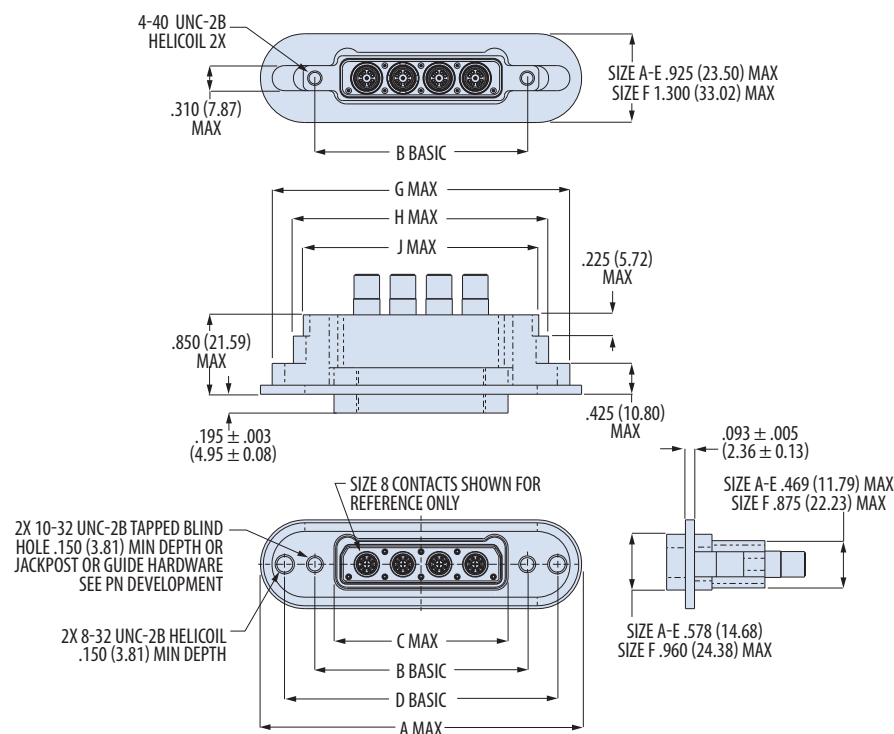
# MICRO-CRIMP RECTANGULAR CONNECTORS

## Series 792 High-Speed



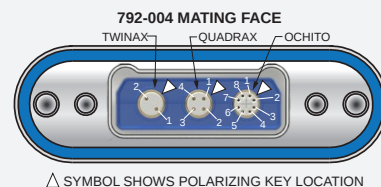
### 792-004 Panel Receptacle

- ◆ Crimp, rear-release
- ◆ Pin contacts



#### CONTACT POLARIZING KEY LOCATION

Series 792 size 8 contact cavities have a polarizing keyway. This keyway orients and aligns twinax, quadax and El Ochito® contacts. The connector keyway is rotated 45° from top dead center. This illustration shows the location of the polarizing key and the contact numbers when looking at the mating face of the plug (socket) connector.

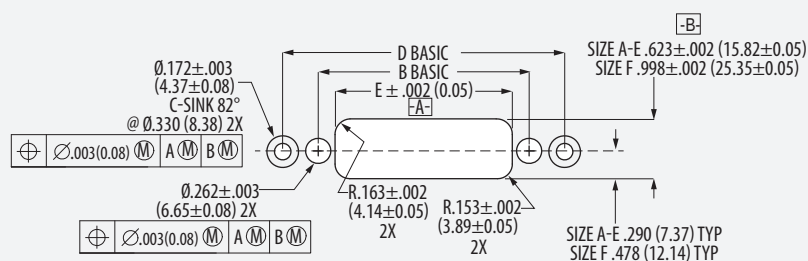


#### SIZE 23 PIN CONTACT

Size #23 contacts are bulk packed with connector. Spare contacts are not included and should be ordered separately if required. See "Contacts and Tools" section for additional information.

| Contact Part No. | Crimp Tool                      | Positioner                |
|------------------|---------------------------------|---------------------------|
| <b>850-163</b>   | <b>809-015</b><br>(M22520/2-01) | <b>859-214</b><br>(K2104) |

#### PANEL CUTOUT



#### INSTALLING AND REMOVAL TOOLS

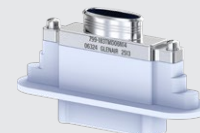
| Insertion/ Removal Tool for Size 23 Contact | Removal Tool for Size 8 Contact  |
|---------------------------------------------|----------------------------------|
| <b>809-088</b>                              | <b>859-049</b><br>(M22520/14-12) |



#### Application Note

##### EMI Banding Backshell 799-183

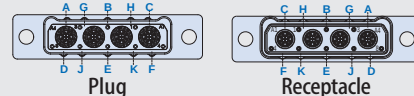
See page F-37 for backshell ordering information.



#### Application Note

##### Polarization Key Positions

See Mod Code 1104 pg. C-8 for details



| Shell Size | A Max | B Basic | C Max | D Basic | E ± .002(0.06) | G Max | H Max | J Max |
|------------|-------|---------|-------|---------|----------------|-------|-------|-------|
|            | in    | mm      | in    | mm      | in             | mm    | in    | mm    |
| A          | 2.220 | 56.39   | 1.075 | 27.31   | .690           | 17.53 | 1.699 | 43.15 |
| B          | 2.595 | 65.91   | 1.450 | 36.83   | 1.065          | 27.05 | 2.074 | 52.68 |
| C          | 2.970 | 75.44   | 1.825 | 46.36   | 1.440          | 36.58 | 2.449 | 62.20 |
| D          | 3.345 | 84.96   | 2.200 | 55.88   | 1.815          | 46.10 | 2.824 | 71.73 |
| E          | 3.720 | 94.49   | 2.575 | 65.41   | 2.190          | 55.63 | 3.199 | 81.25 |
| F          | 3.720 | 94.49   | 2.575 | 65.41   | 2.190          | 55.63 | 3.199 | 81.25 |

# MICRO-CRIMP RECTANGULAR CONNECTORS

## Series 792 High-Speed



### Series 792 Insert Arrangements

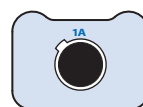
#### SERIES 792 INSERT ARRANGEMENTS

| Thermoplastic Insert | Grounded All-Aluminum | No. of Contacts |     |
|----------------------|-----------------------|-----------------|-----|
|                      |                       | #8              | #23 |
| A-1W1                | A-1G1                 | 1               | —   |
| A-3W1                |                       | 1               | 2   |
| B-23W1               |                       | 1               | 22  |
| B-2W2                | B-2G2                 | 2               | —   |
| B-6W2                |                       | 2               | 4   |
| C-24W2               |                       | 2               | 22  |
| C-3W3                | 3G3                   | 3               | —   |
| C-9W3                |                       | 3               | 6   |
| D-27W3               |                       | 3               | 24  |
| D-4W4                | D-4G4                 | 4               | —   |
| D-12W4               |                       | 4               | 8   |
| E-5W5                | E-5G5                 | 5               | —   |
| E-15W5               |                       | 5               | 10  |
| E-45W3               |                       | 3               | 42  |
| F-9W9                | F-9G9                 | 9               | —   |
| F-31W9               |                       | 9               | 22  |

#### Grounded Insert Arrangements

Series 792 connectors are available with thermoplastic inserts ("A-1W1" for example), or with all-aluminum construction for grounding datalink contacts together with the connector shell ("A-1G1").

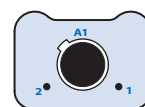
**⚠ Cavity Numbers**  
Cavity numbers shown are for mating face of plug (socket) connector. Receptacle (pin) numbers are reversed.



1 #8

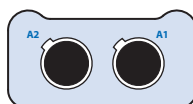
**A-1W1**

**A-1G1** Grounded



1 #8, 2 #23

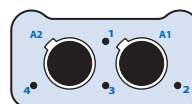
**A-3W1**



2 #8

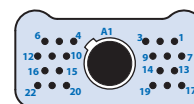
**B-2W2**

**B-2G2** Grounded



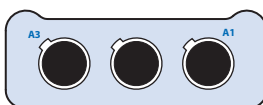
2 #8, 4 #23

**B-6W2**



1 #8, 22 #23

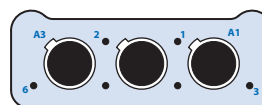
**B-23W1**



3 #8

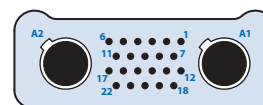
**C-3W3**

**C-3G3** Grounded



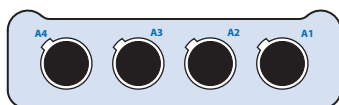
3 #8, 6 #23

**C-9W3**



2 #8, 22 #23

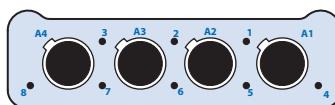
**C-24W2**



4 #8

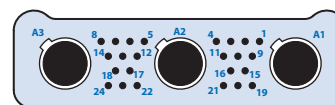
**D-4W4**

**D-4G4** Grounded



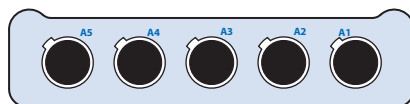
4 #8, 8 #23

**D-12W4**



3 #8, 24 #23

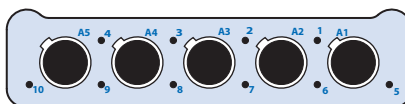
**D-27W3**



5 #8

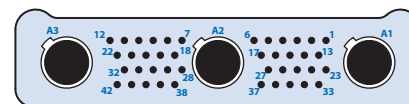
**E-5W5**

**E-5G5** Grounded



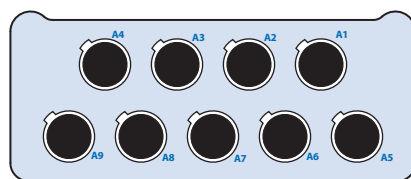
5 #8, 10 #23

**E-15W5**



3 #8, 42 #23

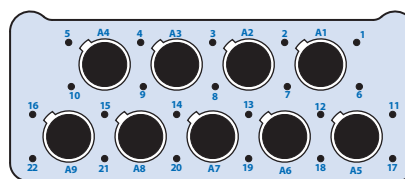
**E-45W3**



9 #8

**F-9W9**

**F-9G9** Grounded



9 #8, 22 #23

**F-31W9**

SERIES 792 HIGH-SPEED

# MICRO-CRIMP RECTANGULAR CONNECTORS

## Series 792 High-Speed



### Series 792 Material and Finish Options

SERIES 792 HIGH-SPEED

The Series 792 High-Speed connector is available in five preferred finishes: **electroless nickel, nickel-PTFE, tin-zinc, cadmium, and zinc-nickel.**

Additional material and finish options are available. Replace the preferred plating code with the alternate code from the table below.

#### TIN-ZINC PLATING

The United States Department of Defense (DOD) has mandated the elimination of cadmium from DOD weapons systems because of toxicity concerns. The European Union has also restricted the use of cadmium on electronics equipment (RoHS). Tin-Zinc is a RoHS cadmium-free sacrificial finish that offers high conductivity and shielding performance, corrosion resistance, solderability, and proven compatibility with legacy cadmium and zinc-nickel finishes. Tin-Zinc is DLA-qualified and RoHS compliant.

#### SERIES 79 PREFERRED FINISH OPTIONS

|                               | Electroless Nickel | Nickel-PTFE    | Tin-Zinc       | Olive Drab Cadmium | Black Zinc-Nickel |
|-------------------------------|--------------------|----------------|----------------|--------------------|-------------------|
| Glenair Code                  | <b>M</b>           | <b>MT</b>      | <b>TZ</b>      | <b>N</b>           | <b>ZR</b>         |
| Corrosion Resistance          | Fair               | Excellent      | Excellent      | Excellent          | Excellent         |
| Temperature Range             | -65 to +200 °C     | -65 to +175 °C | -65 to +175 °C | -65 to +175 °C     | -65 to +175 °C    |
| Salt Spray Hours              | 48                 | 500            | 500            | 500                | 500               |
| Conductivity                  | Excellent          | Excellent      | Very Good      | Very Good          | Very Good         |
| RoHS Compliant <sup>(1)</sup> | Yes                | Yes            | Yes            | No                 | Yes               |

<sup>(1)</sup> Does not contain cadmium or hexavalent chromium. Meets EU requirements.

#### ALTERNATE SHELL MATERIAL AND FINISH CODES

| Code                   | Shell Material | Shell Finish        | Finish Specification | Salt Spray Hrs. | Electrical Conductivity | RoHS <sup>(1)</sup> |
|------------------------|----------------|---------------------|----------------------|-----------------|-------------------------|---------------------|
| <b>C</b>               | Alum           | Anodize, Black      | MIL-PRF-8625         | 48              | Non-Conductive          | ✓                   |
| <b>E<sup>(2)</sup></b> | Alum           | Chem Film, Gold     | MIL-DTL-5541         | 168             | Conductive              |                     |
| <b>J</b>               | Alum           | Cadmium, Yellow     | AMS-QQ-P-416         | 500             | Conductive              |                     |
| <b>Z1</b>              | SST            | Passivate           | AMS2700              | 500             | Conductive              | ✓                   |
| <b>Z2</b>              | Alum           | Gold                | MIL-DTL-45204        | 48              | Conductive              | ✓                   |
| <b>ZM</b>              | SST            | Electroless Nickel  | AMS-C-26074          | 500             | Conductive              | ✓                   |
| <b>ZMT</b>             | SST            | Nickel-PTFE         | AMS2454              | 1000            | Conductive              | ✓                   |
| <b>ZW</b>              | SST            | Cadmium, Olive Drab | AMS-QQ-P-416         | 500             | Conductive              |                     |
| <b>ZZR</b>             | SST            | Zinc-Nickel, Black  | ASTM B841            | 500             | Conductive              | ✓                   |

<sup>(1)</sup> Does not contain cadmium or hexavalent chromium. Meets EU requirements.

<sup>(2)</sup> Maximum temperature = +125°C

# MICRO-CRIMP RECTANGULAR CONNECTORS

## Series 792 High-Speed



### Specifications

SERIES 792 HIGH-SPEED

#### CONSTRUCTION

|                         |                                             |
|-------------------------|---------------------------------------------|
| Contacts                | Copper alloy, gold over nickel finish       |
| Hood, socket contact    | Stainless steel, passivated                 |
| Clip, contact retaining | Beryllium copper                            |
| Clip, insert retaining  | Beryllium copper                            |
| Insulators              | High performance thermoplastic              |
| Grommet and face seal   | Fluorosilicone/silicone blend               |
| Shell                   | Aluminum                                    |
| O-ring                  | Fluorosilicone                              |
| EMI spring              | Beryllium copper, electroless nickel plated |
| EMI shroud (90° PCB)    | Aluminum                                    |
| Encapsulant (PCB)       | Epoxy                                       |
| Hardware                | Stainless steel, passivated                 |

#### RATINGS

|                                        |                                                                                                                                             |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Voltage (DWV)                          | Size 23 contacts: 750 VAC<br>Datalink contact outer body to shell: 1800 VAC (ungrounded insert)<br>Quadax and Ochito inner contact: 500 VAC |
| Current Rating                         | Size 23 contacts: 5 amps                                                                                                                    |
| Operating Temperature                  | -65 to +150 °C                                                                                                                              |
| Durability                             | 500 mating cycles                                                                                                                           |
| Datalink differential Impedance (nom.) | Quadax: 100 ohms<br>Ochito white, red: 100 ohms<br>Ochito blue: 90 ohms                                                                     |

#### PRODUCT SPECIFICATIONS

| Description                        | Requirement                                              | Procedure                                        |
|------------------------------------|----------------------------------------------------------|--------------------------------------------------|
| Contact Resistance                 | SAE AS39029 Table V                                      | EIA-364-06                                       |
| Low Level Contact Resistance       | SAE AS39029 Table IV                                     | EIA-364-23                                       |
| Insulation Resistance              | 5000 megohms minimum                                     | EIA-364-21                                       |
| Dielectric Withstanding Voltage    | #23 contacts 750 volts                                   | EIA-364-20                                       |
| Current Rating                     | #23: 5A                                                  | EIA-364-70 Method 1                              |
| Shell-to-shell Resistance          | 2.5 millivolt drop maximum (connector with EMI spring)   | EIA-364-83                                       |
| Shielding Effectiveness            | 100 – 1000MHz: >75 dB, 1 – 4GHz: >60dB, 4 – 10GHz: >40dB | EIA-364-66                                       |
| Vibration, Sine                    | 20 g                                                     | EIA-364-28 Test Condition IV                     |
| Vibration, Random                  | 16.91 g rms                                              | EIA-364-28 Test Condition VI Letter J            |
| Mechanical Shock                   | 300 g                                                    | EIA-364-27 Condition D                           |
| Thermal Shock                      | -65 to +150 °C                                           | EIA-364-32 Test Condition IV,                    |
| Humidity                           | 10 Day, +25 to +65° C                                    | EIA-364-31 Method IV, Step 7b vibration deleted. |
| Mechanical Durability              | 500 mating cycles                                        | EIA-364-09                                       |
| Salt Spray                         | Plating code M: 48 hours, MT, ZR, N, TZ: 500 hours       | EIA-364-26                                       |
| Solderability, PC Tail Contacts    | 95% solder coverage. Smooth, bright and even finish.     | EIA-364-52 Category 3, 8 hours steam aging       |
| Resistance To Soldering Heat (PCB) | 260° C, 10 seconds                                       | EIA-364-56                                       |
| Fluid Immersion                    | No damage from immersion in various fuels and oils.      | EIA-364-10                                       |
| Contact Retention                  | MIL-DTL-38999 Table XVIII                                | EIA-364-29                                       |
| Contact Separation Force           | SAE AS39029 Table 9                                      | EIA-364-37                                       |
| Magnetic Permeability              | 2 μ maximum.                                             | EIA-364-54                                       |

# MICRO-CRIMP RECTANGULAR CONNECTORS

## Series 792 High-Speed



### Series 792 Polarization Keying Option

#### OPTIONAL POLARIZATION KEYS



To prevent mis-mating of identical shell size and insert arrangement connectors

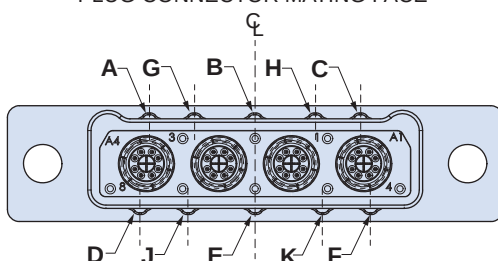
Series 792 connectors are available with an integral polarizing key. Keyed plug connectors have a raised boss on the shell. Receptacles have corresponding keyway. Ordering is simple—just add the keying position letter designator to the end of the part number.

*Note: keyed receptacles will mate with unkeyed plugs.*

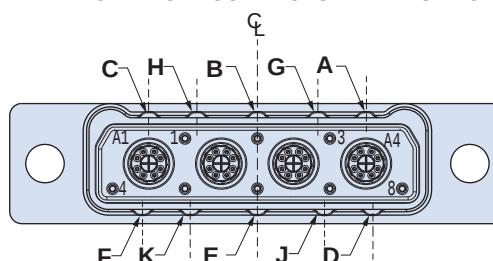
#### HOW TO ORDER

|        |                                                                                                  |                  |
|--------|--------------------------------------------------------------------------------------------------|------------------|
| Step 1 | Create a Series 792 connector part number:                                                       | 792-001SD-4G4MS  |
| Step 2 | Add the keying position letter designator<br>A, B, C, D, E, F, G, H, J, or K to the part number. | 792-001SD-4G4MSB |

MOD-1104 POLARIZING KEY LOCATIONS  
PLUG CONNECTOR MATING FACE



MOD-1104 POLARIZING KEY LOCATIONS  
RECEPTACLE CONNECTOR MATING FACE



#### KEY LOCATIONS

##### Key Position Offset From Vertical Centerline

| Shell Size | Position A |       | Position B |     | Position C |       | Position D |       | Position E |     | Position F |       | Position G                                                           |      | Position H |      | Position J |      | Position K |      |
|------------|------------|-------|------------|-----|------------|-------|------------|-------|------------|-----|------------|-------|----------------------------------------------------------------------|------|------------|------|------------|------|------------|------|
|            | in         | mm    | in         | mm  | in         | mm    | in         | mm    | in         | mm  | in         | mm    | in                                                                   | mm   | in         | mm   | in         | mm   | in         | mm   |
| A          | .025       | 0.64  | .000       | .00 | .025       | 0.64  | .100       | 2.54  | .000       | .00 | .100       | 2.54  | POSITIONS G, H, J AND K ARE NOT AVAILABLE FOR SHELL SIZES A, B AND C |      |            |      |            |      |            |      |
| B          | .200       | 2.29  | .000       | .00 | .200       | 2.29  | .325       | 8.26  | .000       | .00 | .325       | 8.26  |                                                                      |      |            |      |            |      |            |      |
| C          | .375       | 9.53  | .000       | .00 | .375       | 9.53  | .500       | 12.70 | .000       | .00 | .500       | 12.70 |                                                                      |      |            |      |            |      |            |      |
| D          | .550       | 13.97 | .000       | .00 | .550       | 13.97 | .600       | 15.24 | .000       | .00 | .600       | 15.24 | .315                                                                 | 8.00 | .315       | 8.00 | .350       | 8.89 | .350       | 8.89 |
| E          | .700       | 17.78 | .000       | .00 | .700       | 17.78 | .750       | 19.05 | .000       | .00 | .750       | 19.05 | .315                                                                 | 8.00 | .315       | 8.00 | .350       | 8.89 | .350       | 8.89 |
| F          | .700       | 17.78 | .000       | .00 | .700       | 17.78 | .750       | 19.05 | .000       | .00 | .750       | 19.05 | .315                                                                 | 8.00 | .315       | 8.00 | .350       | 8.89 | .350       | 8.89 |