

# MICRO-CRIMP RECTANGULAR CONNECTORS

## Series 791 Scoop-Proof



### 791-012

#### Panel Plug, 90° PC Tails



790-012 receptacle has right angle PC tails. Rear panel mounting flange has O-ring for ingress protection. Contact tails are sealed with epoxy. Shell has integral standoff and threaded holes for attachment to PC board. Available in 42 insert arrangements with up to 153 contacts. Contact sizes include high-density #23 contacts on .075 inch (1.9mm) centers, #16 contacts, #12 contacts, and #8 contacts.

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

- Aerospace-grade ultraminiature connector with scoop-proof duo-lobe shell
- Epoxy-sealed right angle terminals with EMI shroud
- 42 insert arrangements with M39029-type contacts
- 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  |
| N-13P13             |                 |     | 13  |    |
| N-153               | 153             |     |     |    |

| HOW TO ORDER               |                                                                                                                                                                                  |          |       |    |   |   |   |   |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|----|---|---|---|---|
| Sample Part Number         |                                                                                                                                                                                  | 791-012S | L-6P6 | MT | G | C | A | B |
| Basic Part Number          | 790-012S Panel Plug, Socket Contacts, Straight PCB Tails                                                                                                                         |          |       |    |   |   |   |   |
| Shell Size-Insert Arr.     | See “Insert Arrangements” Table                                                                                                                                                  |          |       |    |   |   |   |   |
| Shell Finish               | <div>M Electroless Nickel</div> <div>MT Nickel / PTFE</div> <div>NF Olive Drab Cadmium</div> <div>TZ Tin-Zinc</div> <div>ZR Black Zinc-Nickel</div>                              |          |       |    |   |   |   |   |
| Hardware Option<br>Table 1 | <div>B Guide Bushings <i>For blind mating</i></div> <div>G Guide Pins <i>For blind mating</i></div> <div>N No Hardware <i>Threaded holes</i></div> <div>P Female Jackposts</div> |          |       |    |   |   |   |   |
| Panel O-Ring               | <div>N No O-ring</div> <div>C Conductive Fluorosilicone O-ring</div> <div>F Fluorosilicone O-ring</div>                                                                          |          |       |    |   |   |   |   |
| PC Tail Length             | <div>A .125 (3.2)</div> <div>B .250 (6.4)</div> <div>C .375 (9.5)</div>                                                                                                          |          |       |    |   |   |   |   |
| Polarization Key Option    | Enter Letter Designator for Position <b>A, B, C, D, E</b> , or <b>F</b> per Mod Code 555 (see page B-8 for details) <b>Omit</b> for none                                         |          |       |    |   |   |   |   |

| TABLE 1 HARDWARE OPTION |                          |                    |                        |
|-------------------------|--------------------------|--------------------|------------------------|
|                         |                          |                    |                        |
| <b>N</b> No Hardware    | <b>P</b> Female Jackpost | <b>G</b> Guide Pin | <b>B</b> Guide Bushing |

| RATINGS                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Voltage (DWV): size 23 contacts 750 VAC, Size 8, 12 and 16: 1800 VAC</li> <li>Current: #23 5A, #16 13A, #12 23A, #8 46A</li> <li>Operating temperature: -65 to +150 °C</li> <li>Durability: 500 mating cycles</li> <li>Shock: 300 g</li> <li>Vibration: 20 g random</li> <li>Altitude immersion: 75,000 feet</li> <li>Ingress protection: IP67</li> </ul> |

| CONSTRUCTION                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Contacts: Copper alloy, gold over nickel finish</li> <li>Shell: Aluminum</li> <li>EMI shroud: Aluminum</li> <li>Insulator: High performance thermoplastic</li> <li>O-ring: Code F- fluorosilicone, Code C- conductive fluorosilicone</li> <li>Hardware: Stainless steel</li> </ul> |

# MICRO-CRIMP RECTANGULAR CONNECTORS

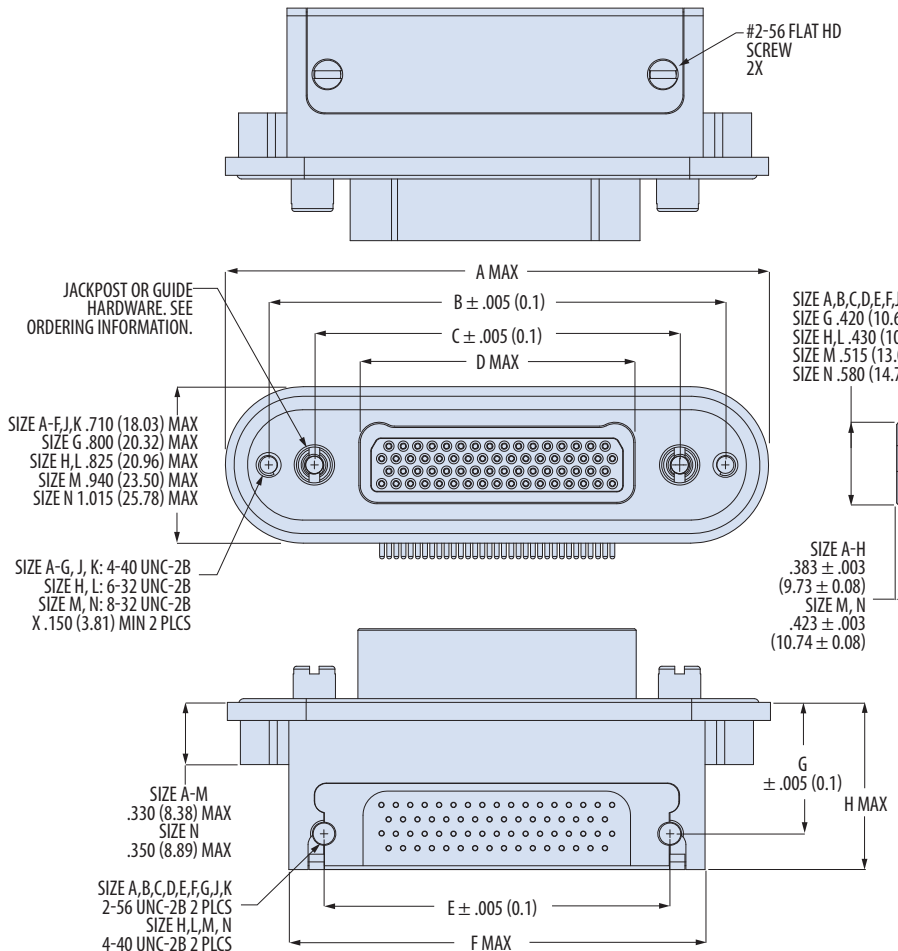
## Series 791 Scoop-Proof



### 791-012

#### Panel Plug, 90° PC Tails

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



**Application Note**  
**Polarization Key Positions**  
See Mod Code 555 pg. B-8 for details

Plug      Receptacle

| BLIND MATE TOLERANCES |                                        |
|-----------------------|----------------------------------------|
| Shell Size            | Allowable Misalignment from Centerline |
| A – G, J, K           | ± .030 (0.8)                           |
| H, L                  | ± .040 (1.0)                           |
| M                     | ± .050 (1.3)                           |

SIZE A, B, C, D, E, F, J, K: .320 (8.13) MAX  
SIZE G: .420 (10.67) MAX  
SIZE H, L: .430 (10.92) MAX  
SIZE M: .515 (13.08) MAX  
SIZE N: .580 (14.73) MAX

SIZE A-H: .383 ± .003 (9.73 ± 0.08)  
SIZE M, N: .423 ± .003 (10.74 ± 0.08)

PC TAIL LENGTH ± .020 (0.51)  
CODE A: .125 (3.18)  
CODE B: .250 (6.35)  
CODE C: .375 (9.53)

ADD .025 (0.64) TO TAIL LENGTH FOR M-4P4 ARRANGEMENT WITH #8 CONTACTS

PC TAIL DIAMETER  
SIZE 23: .018/.022 (0.46/0.56)  
SIZE 16: .060/.064 (1.52/1.63)  
SIZE 12: .092/.096 (2.34/2.44)  
SIZE 8: .178/.182 (4.52/4.62)

| Shell Size | A Max | B ± .005 (0.1) | C ± .005 (0.1) | D Max | E ± .005 (0.1) | F Max | G ± .005 (0.1) | H Max |
|------------|-------|----------------|----------------|-------|----------------|-------|----------------|-------|
|            | in    | mm             | in             | mm    | in             | mm    | in             | mm    |
| A          | 1.565 | 39.8           | 1.150          | 29.2  | .750           | 19.1  | .415           | 10.5  |
| B          | 1.715 | 43.6           | 1.300          | 33.0  | .900           | 22.9  | .565           | 14.4  |
| C          | 1.865 | 47.4           | 1.450          | 36.8  | 1.050          | 26.7  | .715           | 18.2  |
| D          | 1.940 | 49.3           | 1.525          | 38.7  | 1.125          | 28.6  | .790           | 20.1  |
| E          | 2.090 | 53.1           | 1.675          | 42.5  | 1.275          | 32.4  | .940           | 23.9  |
| F          | 2.240 | 56.9           | 1.825          | 46.4  | 1.425          | 36.2  | 1.090          | 27.7  |
| G          | 2.200 | 55.9           | 1.785          | 45.3  | 1.388          | 35.3  | 1.052          | 26.7  |
| H          | 2.835 | 72.0           | 2.375          | 60.3  | 1.900          | 48.3  | 1.442          | 36.6  |
| J          | 2.615 | 66.4           | 2.200          | 55.9  | 1.800          | 45.7  | 1.465          | 37.2  |
| K          | 2.990 | 75.9           | 2.575          | 65.4  | 2.175          | 55.2  | 1.840          | 46.7  |
| L          | 3.075 | 78.1           | 2.611          | 66.3  | 2.136          | 54.3  | 1.678          | 42.6  |
| M          | 3.345 | 85.0           | 2.824          | 71.7  | 2.200          | 55.9  | 1.745          | 44.3  |
| N          | 3.775 | 95.9           | 3.240          | 82.3  | 2.600          | 66.0  | 2.115          | 53.7  |

**HARDWARE DETAILS**

**N** No Hardware  
Tapped holes.  
Size A-G, J, K: 6-32 UNC-2B  
H, L: 8-32 UNC-2B  
M: 10-32 UNF-2B  
N: 12-24 UNC-2B  
150 (3.8) min. depth

**P** Female Jackposts  
Jackposts are non-removable.  
Size A-G, J, K: 4-40 UNC-2B  
H, L: 6-32 UNC-2B  
M: 8-32 UNC-2B  
N: 10-32 UNF-2B

**G** Guide Pins  
Guide pins for blind mate applications. Non-removable. Requires guide bushing (B) on mating plug.

**B** Guide Bushings  
Guide sockets for blind mate applications. Non-removable. Requires guide pins (G) on mating plug.

**Application Note**  
**PCB Footprints**  
See Section **G** for PC board layouts.

**Application Note**  
**Panel Cutout**  
See page B-53 for recommended panel cutout dimensions for connectors.

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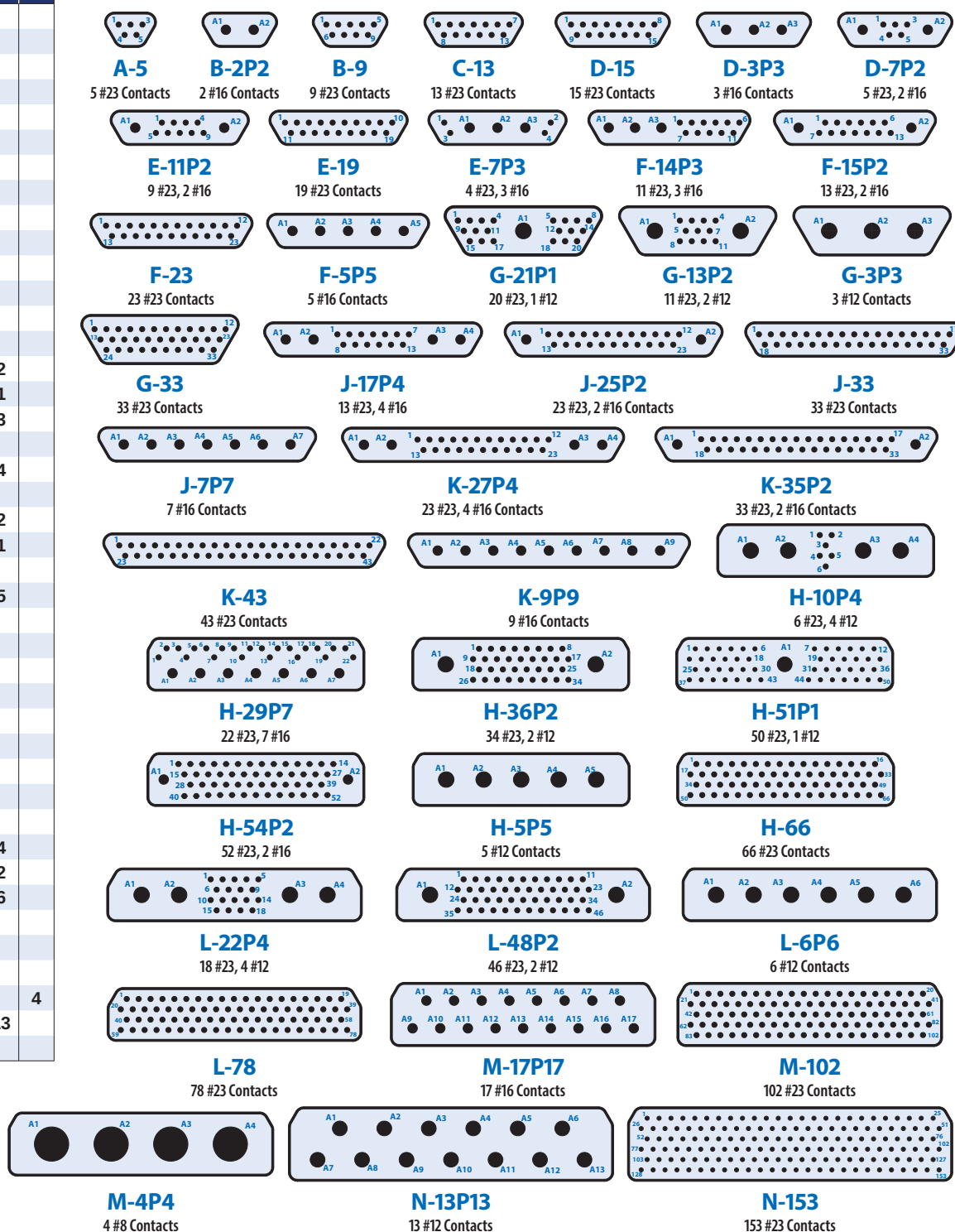


### Insert Arrangements

| INSERT ARRANGEMENTS |                 |     |     |    |
|---------------------|-----------------|-----|-----|----|
| Insert Arr.         | 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  |
| N-13P13             |                 |     | 13  |    |
| N-153               | 153             |     |     |    |

#### ⚠ Cavity Numbers

Cavity numbers shown are for mating face of receptacle (pin) connector. Plug (socket) numbers are reversed.



# MICRO-CRIMP RECTANGULAR CONNECTORS

## Series 791 Scoop-Proof



### Series 791 Material and Finish Options

SERIES 791 SCOOP-PROOF

The Series 791 Scoop-Proof 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 SHELL 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         |
| 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 791 Scoop-Proof



## Specifications

### 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>Size 8, 12 and 16 contacts: 1800 VAC |             |
| Current Rating        | Contact Size                                                      | Current (A) |
|                       | #23                                                               | 5           |
|                       | #16                                                               | 13          |
|                       | #12                                                               | 23          |
|                       | #8                                                                | 46          |
| Operating Temperature | -65 to +150 °C                                                    |             |
| Ingress Protection    | IP67                                                              |             |
| Durability            | 500 mating cycles                                                 |             |

### PRODUCT SPECIFICATIONS

| Description                     | Requirement                                               | Procedure                                       |
|---------------------------------|-----------------------------------------------------------|-------------------------------------------------|
| Contact Resistance              | SAE AS39029 Table 5                                       | EIA-364-06                                      |
| Low Level Contact Resistance    | SAE AS39029 Table 4                                       | EIA-364-23                                      |
| Insulation Resistance           | 5000 megohms minimum                                      | EIA-364-21                                      |
| Dielectric Withstanding Voltage | #23 contacts 750 volts, #8, 12 & 16 contacts 1800 volts   | EIA-364-20                                      |
| Current Rating                  | #23: 5A, #16: 13A, #12: 23A, #8: 46A                      | 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: >50 dB, 1 – 4GHz: >41dB, 4 – 10GHz: >35 dB | EIA-364-66                                      |
| Ingress Protection              | IP67 rating                                               | IEC-60529                                       |
| Vibration, Sine                 | 20 g                                                      | EIA-364-28 Test Condition IV                    |
| Vibration, Random               | 16.91 g rms                                               | EIA-364-28 Test Condition V Letter E            |
| 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    | 260° C, 10 seconds                                        | EIA-364-56                                      |
| Fluid Immersion                 | No damage from immersion in various fuels and oils.       | EIA-364-10                                      |
| Altitude Immersion              | 75,000 feet                                               | EIA-364-03                                      |
| 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 791 Scoop-Proof



### Panel Cutout, 791 Panel Mount Connectors

PANEL CUTOUT FOR SERIES 791 PANEL MOUNT CONNECTORS

*This cutout is compatible with:*

**Panel Mount Connectors**

**791-019**  
**791-020**

**Panel Mount PCB Connectors**

**791-011**  
**791-012**  
**791-021**  
**791-033**

$\oplus \varnothing .003(0.08) \text{ (M) } \text{A (M) } \text{B (M)}$

**SIZE A - G, J, K:**  $\varnothing .120 \pm .002 (3.05 \pm 0.05)$    
C-SINK 82° @  $\varnothing .19(4.83)$  2X

**SIZE H, L:**  $\varnothing .144 \pm .003 (3.66 \pm 0.08)$    
C-SINK 82° @  $\varnothing .239 (6.07)$  2X

**SIZE M, N:**  $\varnothing .172 \pm .003 (4.37 \pm 0.08)$   
C-SINK 82° @  $\varnothing .330 (8.38)$  2X

NON-STANDARD UNDERSIZED DIAMETER FOR FLATHEAD SCREW.

TWO FLATHEAD SCREWS ARE INCLUDED WITH CONNECTOR

$\oplus \varnothing .003(0.08) \text{ (M) } \text{A (M) } \text{B (M)}$

E  
TYP.

| Shell Size | ± .002 (0.05) |       | ± .002 (0.05) |       | C Basic |       | D Basic |       | E Typ |      | ± .002 (0.05) |      | G Rad ± .002 (0.05) |      | H Rad ± .002 (0.05) |      |
|------------|---------------|-------|---------------|-------|---------|-------|---------|-------|-------|------|---------------|------|---------------------|------|---------------------|------|
|            | in            | mm    | in            | mm    | in      | mm    | in      | mm    | in    | mm   | in            | mm   | in                  | mm   | in                  | mm   |
| A          | .505          | 12.83 | .418          | 10.62 | .750    | 19.05 | 1.150   | 29.21 | .199  | 5.05 | .210          | 5.33 | .110                | 2.79 | .164                | 4.17 |
| B          | .655          | 16.64 | .418          | 10.62 | .900    | 22.86 | 1.300   | 33.02 | .199  | 5.05 | .210          | 5.33 | .110                | 2.79 | .164                | 4.17 |
| C          | .805          | 20.45 | .418          | 10.62 | 1.050   | 26.67 | 1.450   | 36.83 | .199  | 5.05 | .210          | 5.33 | .110                | 2.79 | .164                | 4.17 |
| D          | .880          | 22.35 | .418          | 10.62 | 1.125   | 28.58 | 1.525   | 38.74 | .199  | 5.05 | .210          | 5.33 | .110                | 2.79 | .164                | 4.17 |
| E          | 1.030         | 26.16 | .418          | 10.62 | 1.275   | 32.39 | 1.675   | 42.55 | .199  | 5.05 | .210          | 5.33 | .110                | 2.79 | .164                | 4.17 |
| F          | 1.180         | 29.97 | .418          | 10.62 | 1.425   | 36.20 | 1.825   | 46.36 | .199  | 5.05 | .210          | 5.33 | .110                | 2.79 | .164                | 4.17 |
| G          | 1.142         | 29.01 | .506          | 12.85 | 1.388   | 35.26 | 1.785   | 45.34 | .244  | 6.20 | .210          | 5.33 | .110                | 2.79 | .164                | 4.17 |
| H          | 1.531         | 38.89 | .521          | 13.23 | 1.900   | 48.26 | 2.375   | 60.33 | .250  | 6.35 | .236          | 5.99 | .150                | 3.81 | .139                | 3.53 |
| J          | 1.555         | 39.50 | .418          | 10.62 | 1.800   | 45.72 | 2.200   | 55.88 | .199  | 5.05 | .210          | 5.33 | .110                | 2.79 | .164                | 4.17 |
| K          | 1.930         | 49.02 | .418          | 10.62 | 2.175   | 55.25 | 2.575   | 65.41 | .199  | 5.05 | .210          | 5.33 | .110                | 2.79 | .164                | 4.17 |
| L          | 1.767         | 44.88 | .521          | 13.23 | 2.136   | 54.25 | 2.611   | 66.32 | .250  | 6.35 | .236          | 5.99 | .150                | 3.81 | .139                | 3.53 |
| M          | 1.850         | 46.99 | .623          | 15.82 | 2.200   | 55.88 | 2.824   | 71.73 | .290  | 7.37 | .262          | 6.65 | .163                | 4.14 | .153                | 3.89 |
| N          | 2.244         | 57.00 | .708          | 17.98 | 2.600   | 66.04 | 3.240   | 82.30 | .332  | 8.43 | .295          | 7.49 | .163                | 4.14 | .153                | 3.89 |

# SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

## PCB Footprints for Series 790 and 791

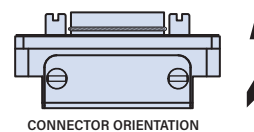
**SERIES**  
**79**  
TM

### 90° PCB Footprints for Series 790 and 791 Connectors



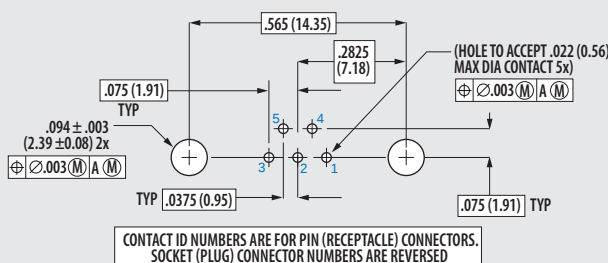
#### PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

PCB hole patterns are shown for the *component mounting side* of the circuit board.  
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



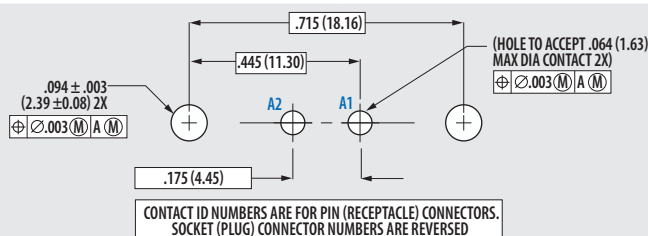
**A-5**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



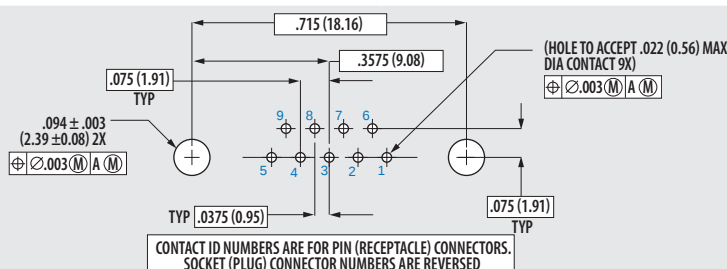
**B-2P2**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



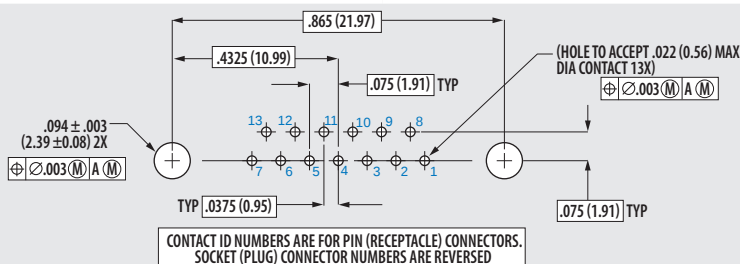
**B-9**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



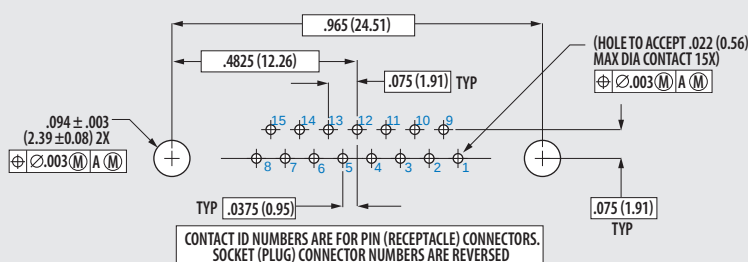
**C-13**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



**D-15**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



# SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

## PCB Footprints for Series 790 and 791

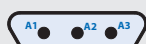
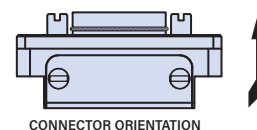


### 90° PCB Footprints for Series 790 and 791 Connectors

#### PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

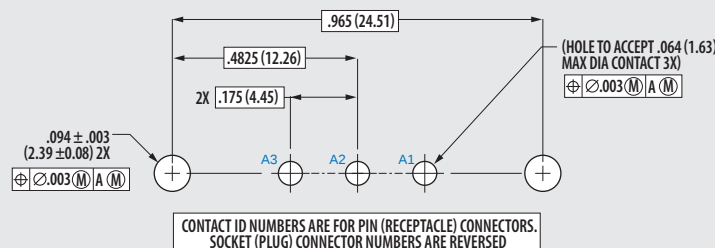


PCB hole patterns are shown for the *component mounting side* of the circuit board.  
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



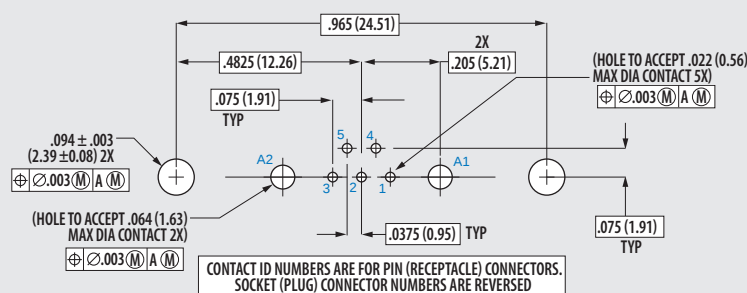
#### D-3P3

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



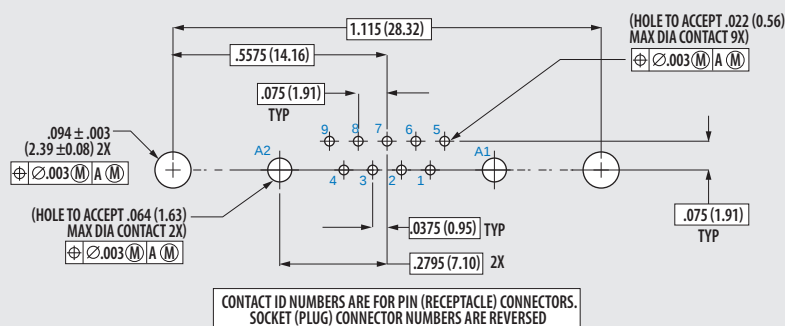
#### D-7P2

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



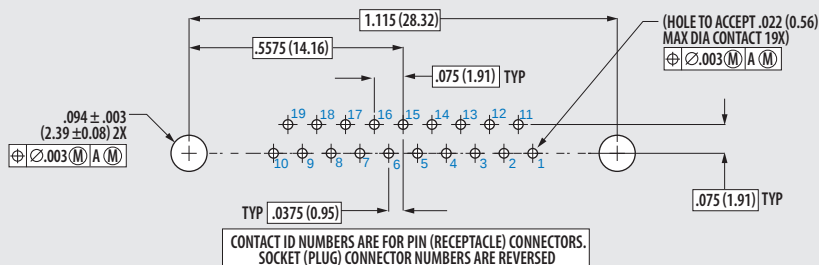
#### E-11P2

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



#### E-19

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



# SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

## PCB Footprints for Series 790 and 791

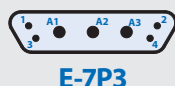
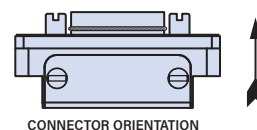
**SERIES**  
**79**  
TM

### 90° PCB Footprints for Series 790 and 791 Connectors



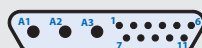
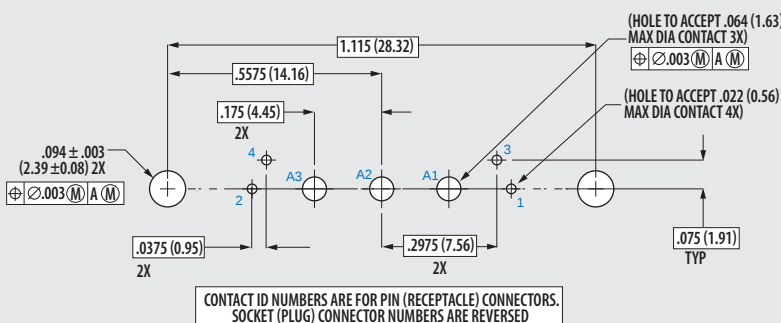
#### PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

PCB hole patterns are shown for the *component mounting side* of the circuit board.  
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



**E-7P3**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.

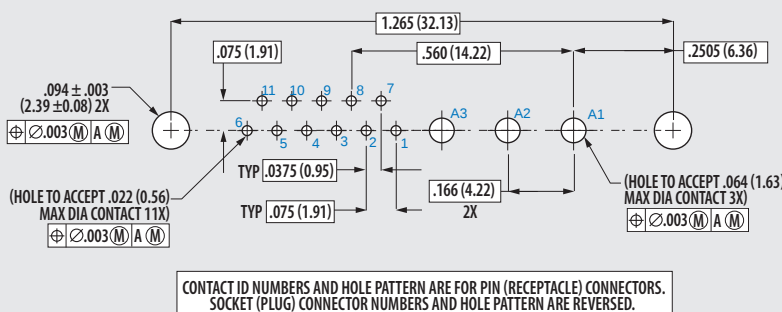


**F-14P3**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.

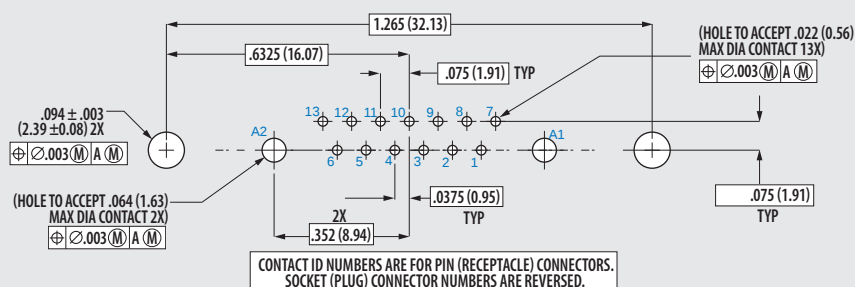


**Non-symmetrical arrangement**  
Pattern must be reversed for use with plug (socket) connector.



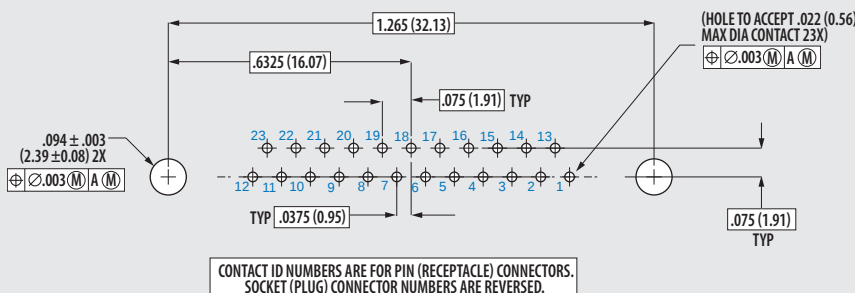
**F-15P2**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



**F-23**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



# SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

## PCB Footprints for Series 790 and 791

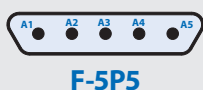
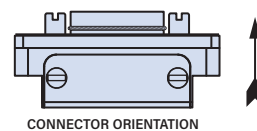


### 90° PCB Footprints for Series 790 and 791 Connectors

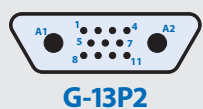
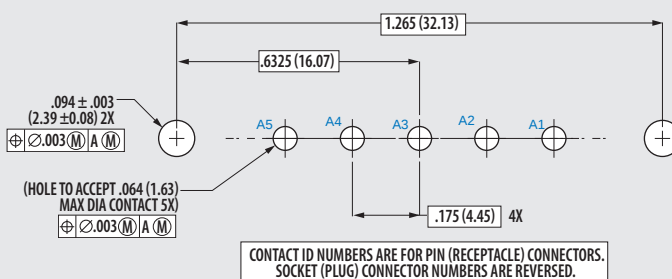
#### PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS



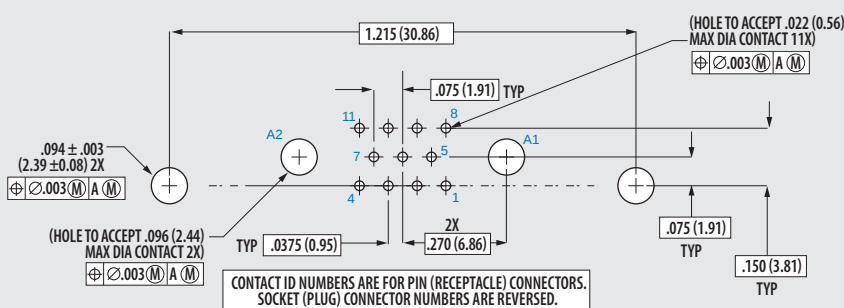
PCB hole patterns are shown for the *component mounting side* of the circuit board.  
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



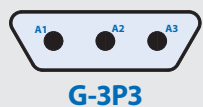
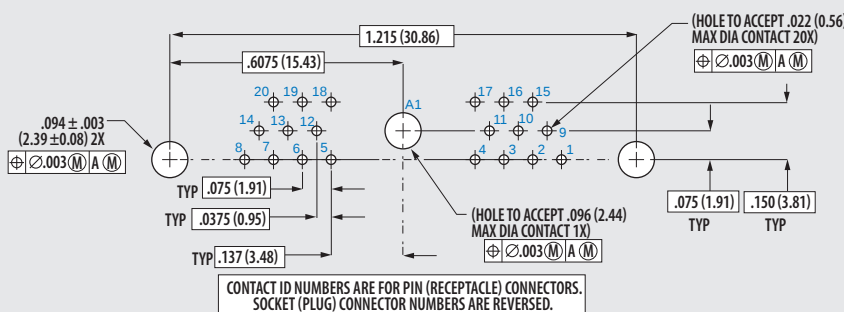
Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



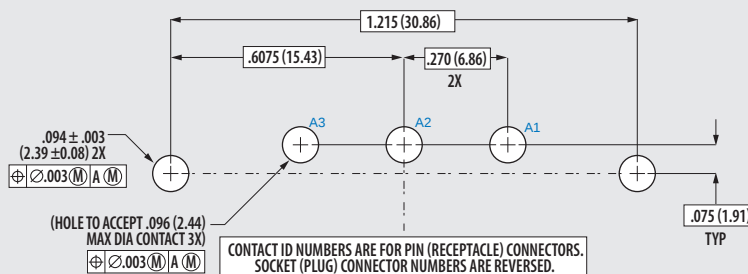
Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



# SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

## PCB Footprints for Series 790 and 791

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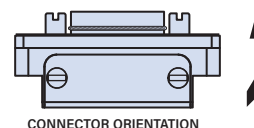
### 90° PCB Footprints for Series 790 and 791 Connectors



#### PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

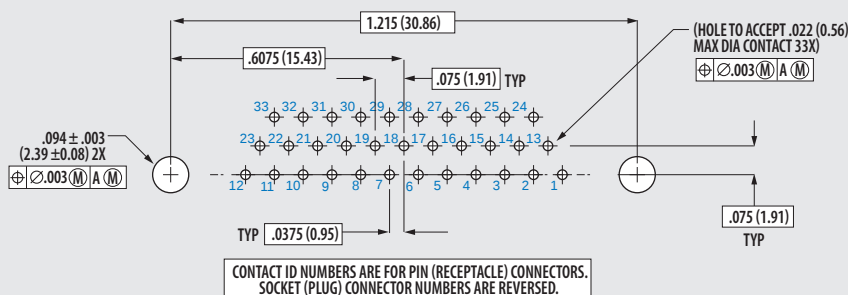
PCB hole patterns are shown for the **component mounting side** of the circuit board.

Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



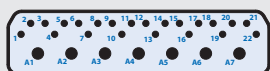
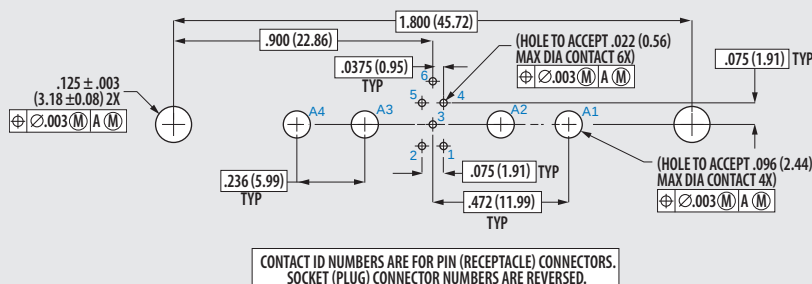
**G-33**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



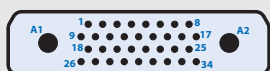
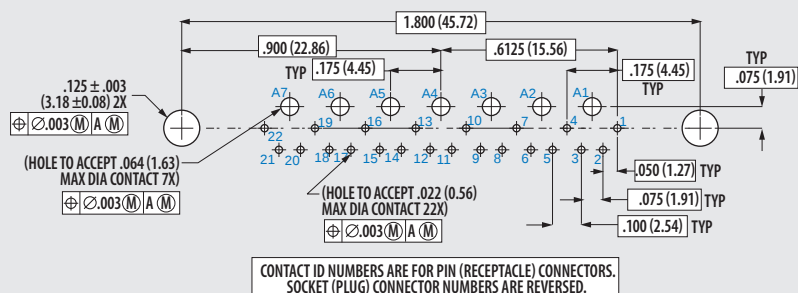
**H-10P4**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



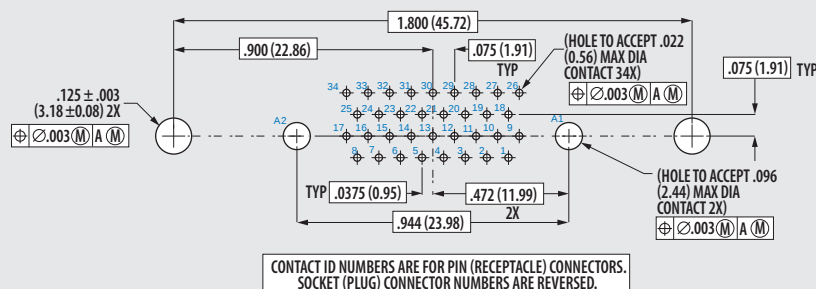
**H-29P7**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



**H-36P2**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



# SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

## PCB Footprints for Series 790 and 791

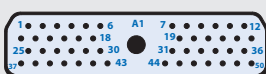
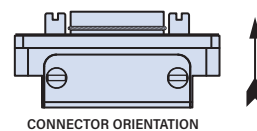


### 90° PCB Footprints for Series 790 and 791 Connectors

#### PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

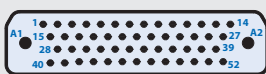
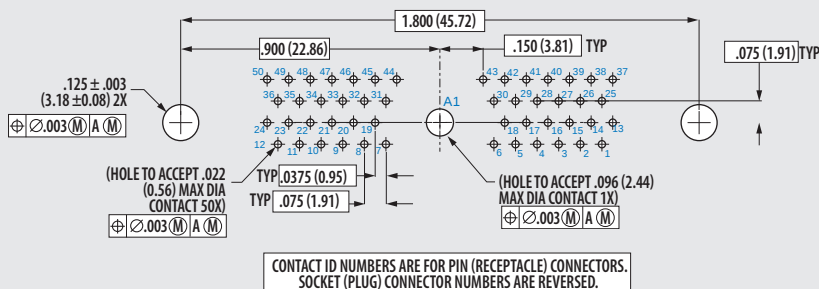


PCB hole patterns are shown for the *component mounting side* of the circuit board.  
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



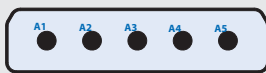
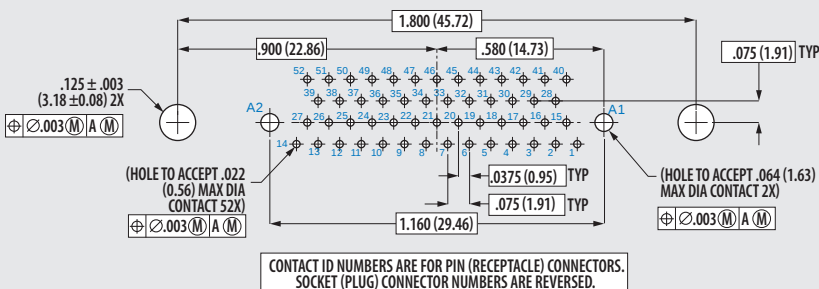
**H-51P1**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



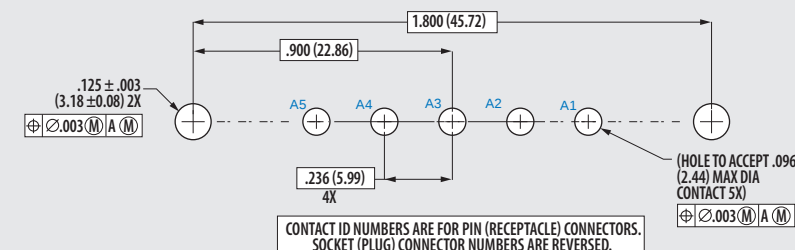
**H-54P2**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



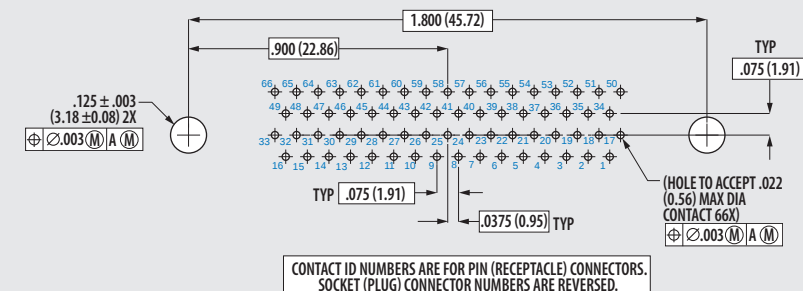
**H-5P5**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



**H-66**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



# SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

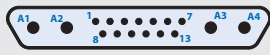
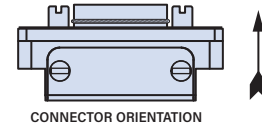
## PCB Footprints for Series 790 and 791

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### 90° PCB Footprints for Series 790 and 791 Connectors

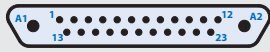
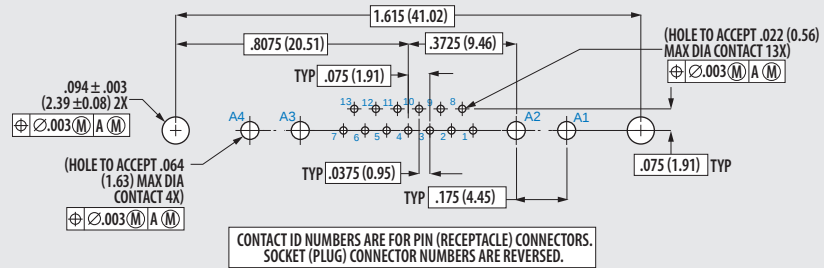


PCB hole patterns are shown for the *component mounting side* of the circuit board.  
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



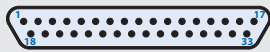
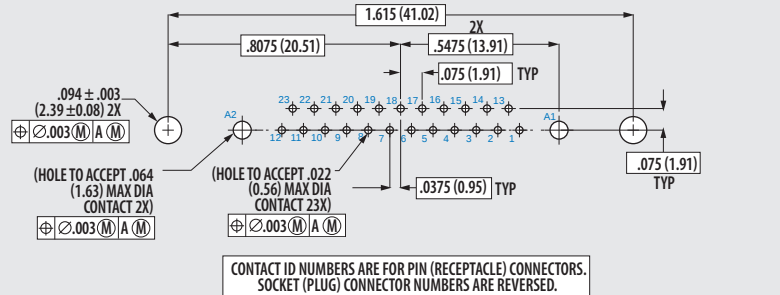
**J-17P4**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



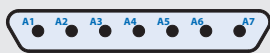
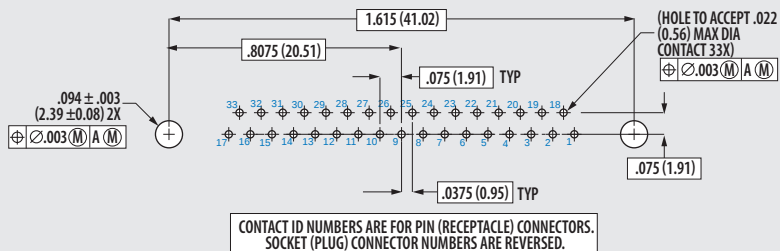
**J-25P2**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



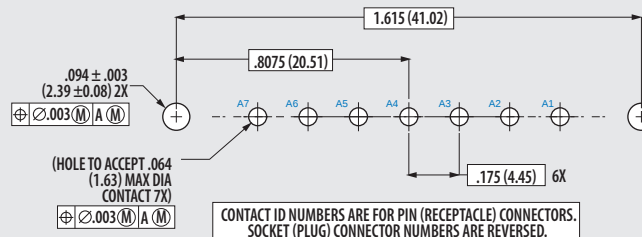
**J-33**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



**J-7P7**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



# SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

## PCB Footprints for Series 790 and 791

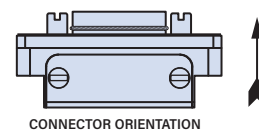


### 90° PCB Footprints for Series 790 and 791 Connectors

#### PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

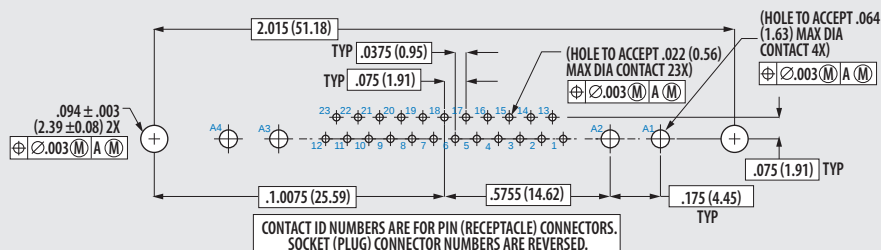


PCB hole patterns are shown for the *component mounting side* of the circuit board.  
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



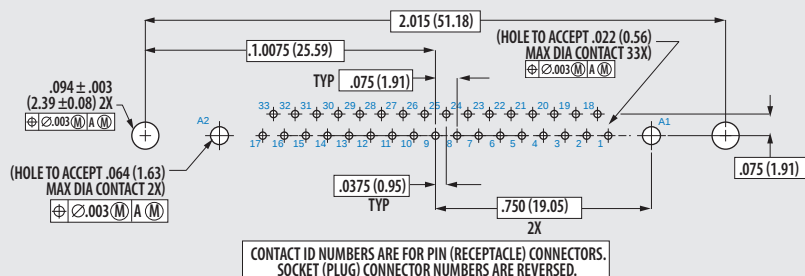
#### K-27P4

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



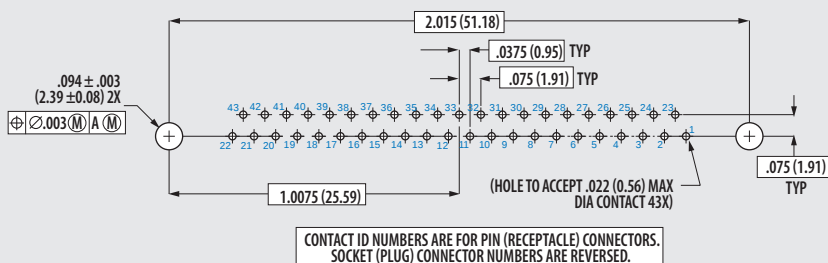
#### K-35P2

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



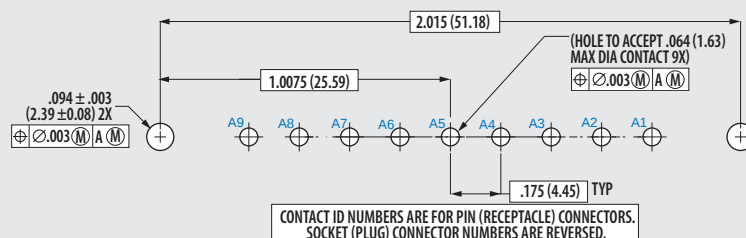
#### K-43

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



#### K-9P9

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



# SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

## PCB Footprints for Series 790 and 791

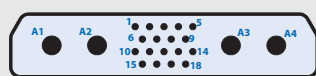
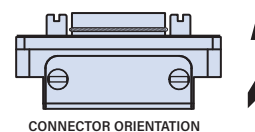
**SERIES**  
**79**  
TM

### 90° PCB Footprints for Series 790 and 791 Connectors



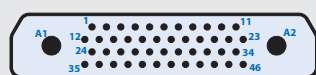
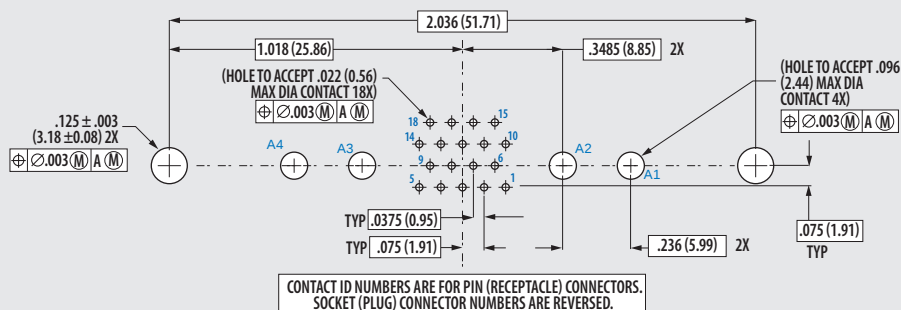
#### PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

PCB hole patterns are shown for the *component mounting side* of the circuit board.  
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



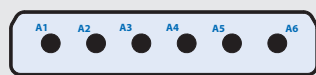
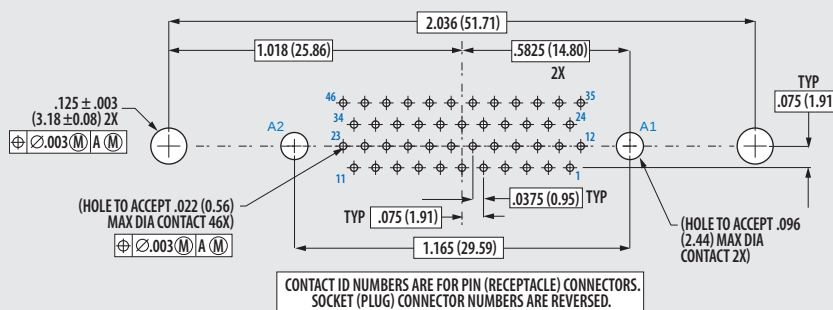
**L-22P4**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



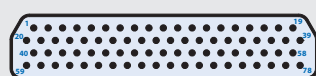
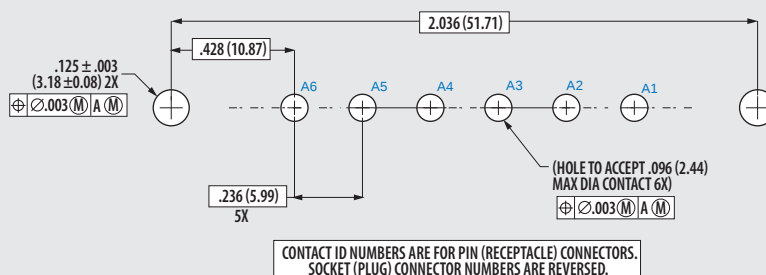
**L-48P2**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



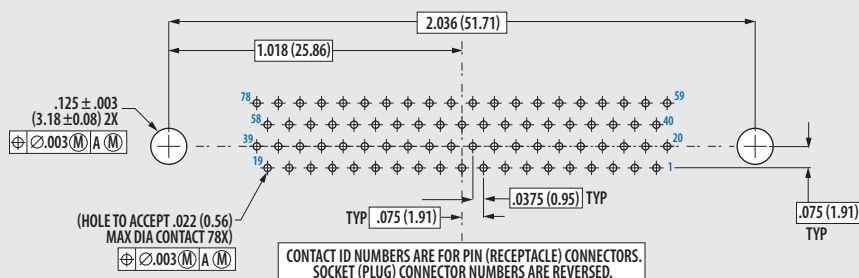
**L-6P6**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



**L-78**

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



# SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

## PCB Footprints for Series 790 and 791

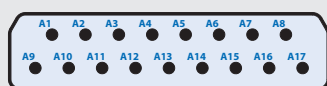
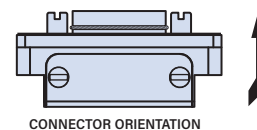


### 90° PCB Footprints for Series 790 and 791 Connectors

#### PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

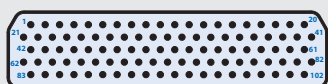
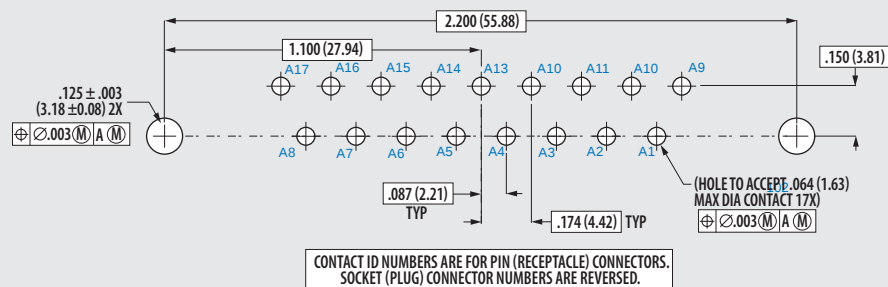


PCB hole patterns are shown for the *component mounting side* of the circuit board.  
Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



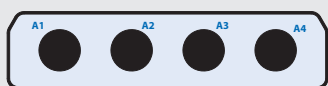
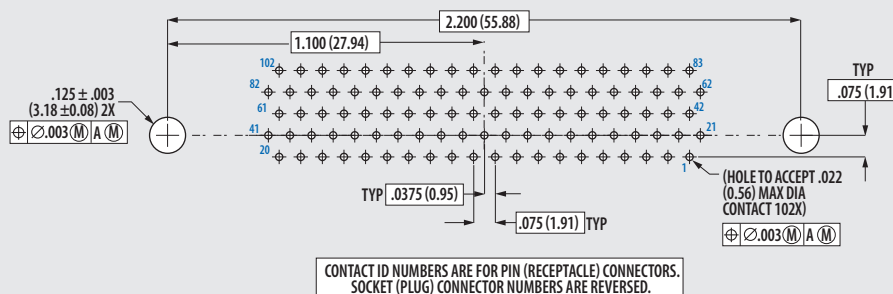
#### M-17P17

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



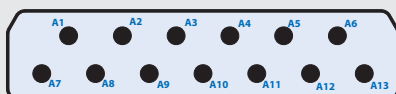
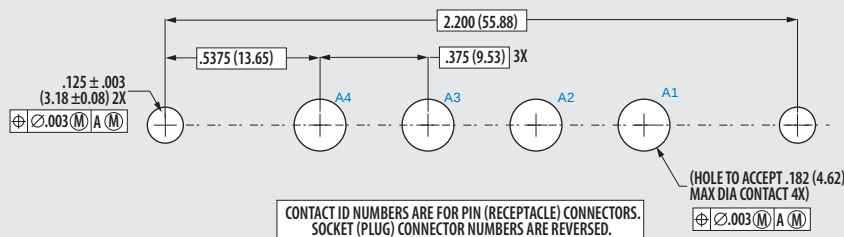
#### M-102

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



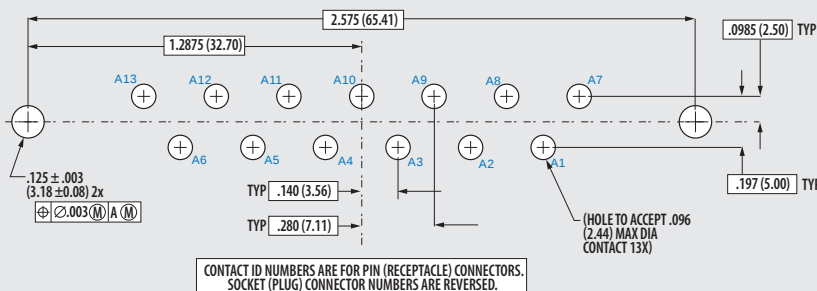
#### M-4P4

Contact numbers are mating face of pin connector.  
Socket connector contact numbers are reversed.



#### N-13P13

Contact numbers are mating face of pin connector. Socket connector contact numbers are reversed.



# SERIES 79 MICRO-CRIMP RECTANGULAR CONNECTORS

## PCB Footprints for Series 790 and 791

SERIES  
**79**

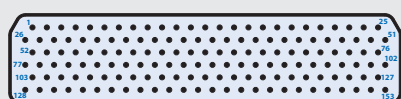
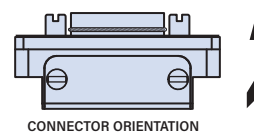
### 90° PCB Footprints for Series 790 and 791 Connectors



#### PCB FOOTPRINTS FOR SERIES 790 AND 791 CONNECTORS WITH 90° TAILS

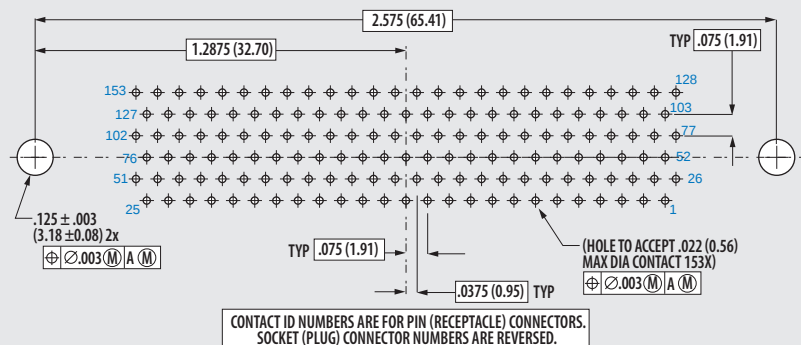
PCB hole patterns are shown for the *component mounting side* of the circuit board.

Circuit board drill patterns for Series 790 and 791 connectors with 90° tails: 790-036, 790-037, 790-041, 790-042, 791-011, 791-012, 791-016, 791-032



**N-153**

Contact numbers are mating face of pin connector. Socket connector contact numbers are reversed.



PCB FOOTPRINTS FOR SERIES 790, 791

# MICRO-CRIMP RECTANGULAR CONNECTORS

## Series 791 Scoop-Proof



### Series 791 Polarization Keying Option

#### OPTIONAL POLARIZATION KEYS



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

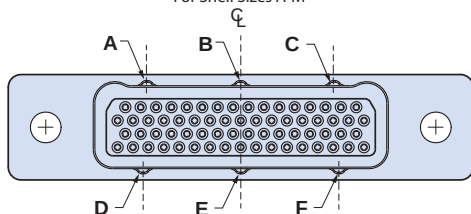
Series 791 connectors are available with an integral polarizing key. Keyed plug connectors have a raised boss on the shell. Receptacles have corresponding keyway. Ordering is simple—just add the keying position letter designator to the end of the part number.

*Note: keyed receptacles will mate with unkeyed plugs. Additional polarization keying positions are available, consult the factory for designators and key locations.*

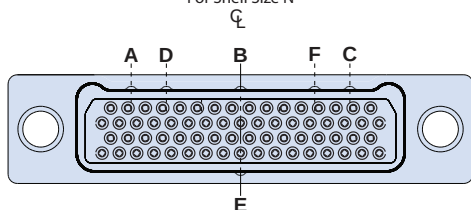
#### HOW TO ORDER

|        |                                                                                      |                 |
|--------|--------------------------------------------------------------------------------------|-----------------|
| Step 1 | Create a Series 791 connector part number:                                           | 791-003SH-66MP  |
| Step 2 | Add the keying position letter designator<br>A, B, C, D, E, or F to the part number. | 791-003SH-66MPB |

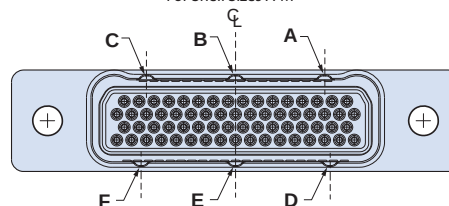
MOD-555 KEY LOCATIONS PLUG CONNECTOR MATING FACE  
For Shell Sizes A-M



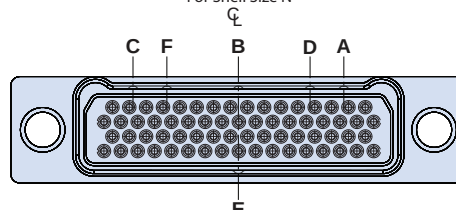
MOD-555 KEY LOCATIONS PLUG CONNECTOR MATING FACE  
For Shell Size N



MOD-555 KEY LOCATIONS RECEPTACLE CONNECTOR MATING FACE  
For Shell Sizes A-M



MOD-555 KEY LOCATIONS RECEPTACLE CONNECTOR MATING FACE  
For Shell Size N



#### POLARIZING KEY LOCATIONS SHELL SIZES A-M

| Shell Size | Key Position Offset From Vertical Centerline |       |            |      |            |       |            |       |            |      |            |       |
|------------|----------------------------------------------|-------|------------|------|------------|-------|------------|-------|------------|------|------------|-------|
|            | Position A                                   |       | Position B |      | Position C |       | Position D |       | Position E |      | Position F |       |
|            | in                                           | mm    | in         | mm   | in         | mm    | in         | mm    | in         | mm   | in         | mm    |
| A          | N/A                                          | N/A   | .000       | 0.00 | N/A        | N/A   | .025       | 0.64  | .000       | 0.00 | .025       | 0.64  |
| B          | .090                                         | 2.29  | .000       | 0.00 | .090       | 2.29  | .050       | 1.27  | .000       | 0.00 | .050       | 1.27  |
| C          | .130                                         | 3.30  | .000       | 0.00 | .130       | 3.30  | .100       | 2.54  | .000       | 0.00 | .100       | 2.54  |
| D          | .180                                         | 4.57  | .000       | 0.00 | .180       | 4.57  | .125       | 3.18  | .000       | 0.00 | .125       | 3.18  |
| E          | .200                                         | 5.08  | .000       | 0.00 | .200       | 5.08  | .150       | 3.81  | .000       | 0.00 | .150       | 3.81  |
| F          | .300                                         | 7.62  | .000       | 0.00 | .300       | 7.62  | .250       | 6.35  | .000       | 0.00 | .250       | 6.35  |
| G          | .300                                         | 7.62  | .000       | 0.00 | .300       | 7.62  | .200       | 5.08  | .000       | 0.00 | .200       | 5.08  |
| H          | .450                                         | 11.43 | .000       | 0.00 | .450       | 11.43 | .500       | 12.70 | .000       | 0.00 | .500       | 12.70 |
| J          | .450                                         | 11.43 | .000       | 0.00 | .450       | 11.43 | .400       | 10.16 | .000       | 0.00 | .400       | 10.16 |
| K          | .650                                         | 16.51 | .000       | 0.00 | .650       | 16.51 | .550       | 13.97 | .000       | 0.00 | .550       | 13.97 |
| L          | .550                                         | 13.97 | .000       | 0.00 | .550       | 13.97 | .600       | 15.24 | .000       | 0.00 | .600       | 15.24 |
| M          | .550                                         | 13.97 | .000       | 0.00 | .550       | 13.97 | .600       | 15.24 | .000       | 0.00 | .600       | 15.24 |
| N          | .700                                         | 17.78 | .000       | 0.00 | .700       | 17.78 | .475       | 12.06 | .000       | 0.00 | .475       | 12.06 |