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## Superseal 1.0 Connectors

### Superseal 1.0 Connector Overview

The Superseal 1.0 mm connectors are designed to meet the increasing need for dependable printed circuit board applications in harsh environments. The Superseal headers are available with straight or right-angle pins. Various locking latch options and keying configurations are available.



### APPLICABLE PRODUCT DOCUMENTATION

Additional documentation is available for assistance with Superseal 1.0 products. The following TE document numbers may be helpful:

1308072-2 (Catalog Section)  
108-78140 (Product Specification)  
114-78011 (Application Specification)

### SUPERSEAL 1.0 CONNECTOR PERFORMANCE SPECIFICATIONS

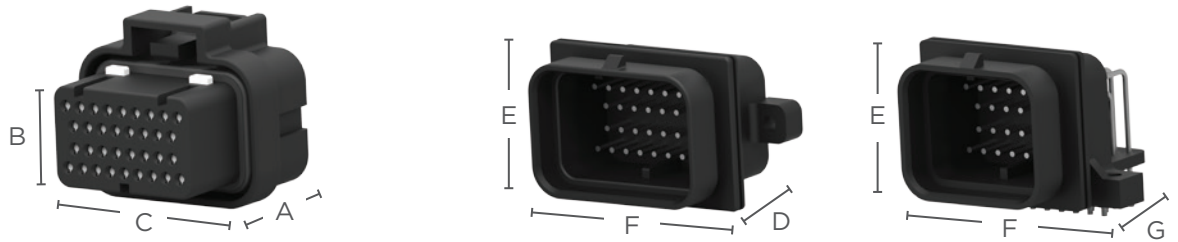
|   |  |
|---|--|
| <b>Current:</b>                         | Up to 15 amps  |
| <b>Temperature:</b>                     | Operating at temperatures -40°C to +125°C  |
| <b>Durability:</b>                      | After cap housing is connected, the plug housing is mated and then 78.4 N force is applied in a rocking motion. 25 test cycles.          |
| <b>Insulation Resistance:</b>           | 100 megohms minimum. Test between adjacent contacts and between contact and earth with insulation resistance meter of 500 volts DC.      |
| <b>Immersion:</b>                       | Per JIS D0203  |
| <b>Random Vibration:</b>                | Tested in each of three mutually perpendicular axis. See Fig 8 in product document 108-78140.  |
| <b>Dielectric Withstanding Voltage:</b> | Insulation does not breakdown at 1000 volts AC or 1600 volts DC for duration of 1 minute between contacts and between contact and earth. |
| <b>Voltage:</b>                         | 250 volts AC, DC   |

### MATERIAL SPECIFICATIONS

|                 |                         |
|-----------------|-------------------------|
| <b>Grommet:</b> | Silicone rubber         |
| <b>Housing:</b> | Thermoplastic           |
| <b>TPA:</b>     | Thermoplastic polyester |

# Superseal 1.0 Connectors

## DIMENSIONS



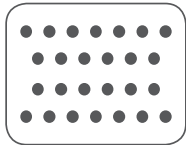
**Superseal 1.0 Plug Housing**

**Superseal 1.0 Pin Header**

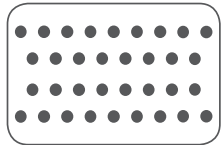
| Cavity | Overall Length<br>A | Overall Height<br>B | Overall Width<br>C | Overall Length Vertical<br>D | Overall Height<br>E | Overall Width<br>F | Overall Length 90°<br>G |
|--------|---------------------|---------------------|--------------------|------------------------------|---------------------|--------------------|-------------------------|
| 26     | 1.26 (32.1)         | 1.36 (34.5)         | 1.26 (32.1)        | 1.14 (29.0)                  | 1.23 (31.4)         | 1.55 (39.5)        | 1.44 (36.5)             |
| 34     | 1.26 (32.1)         | 1.49 (38.0)         | 1.50 (38.2)        | 1.14 (29.0)                  | 1.23 (31.4)         | 1.79 (45.5)        | 1.44 (36.5)             |
| 60     | -                   | -                   | -                  | -                            | 1.23 (31.4)         | 3.07 (78.0)        | 1.44 (36.5)             |

Dimensions are for reference only.

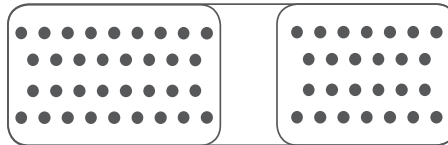
## CONFIGURATIONS



**26 Positions**  
26 size 1.0 mm



**34 Positions**  
34 size 1.0 mm



**60 Positions**  
60 size 1.0 mm

## ORDERING INFORMATION

| Position | Pin Header  | Plug Housing                            | Keying Type         | Locking |
|----------|-------------|---|---------------------|---------|
| 26       | 9-6437287-8 | 3-1437290-7                             | 1 (4 row)           | Upper   |
|          | 9-6437287-9 | 3-1437290-8                             | 2 (4 row)           | Upper   |
|          | 6473423-1   | 1473416-1                               | 3 (4 row)           | Upper   |
|          | 6473423-2   | 1473416-2                               | 4 (4 row)           | Upper   |
|          | 5-6447223-0 | 3-1437290-7                             | 1 (4 row)           | Lower   |
|          | 6437288-4   | 3-1437290-8                             | 2 (4 row)           | Lower   |
|          | 2-6437285-8 | 2-1437285-2                             | 1 (4 row)           | Double  |
|          | 2-6437285-9 | 1-1447232-7                             | 2 (4 row)           | Double  |
|          | 6437288-6   | 3-1437290-7                             | 1 (4 row, vertical) | Upper   |
|          | 6473418-1   | 3-1437290-8                             | 2 (4 row, vertical) | Upper   |
|          | 6473418-2   | 1473416-1                               | 3 (4 row, vertical) | Upper   |
|          | 6473711-1   | 1473712-1                               | 1 (2 row)           | Upper   |
|          | 6473711-2   |   | 1 (2 row)           | Lower   |
| 34       | 6437288-1   | 4-1437290-0                             | 1 (4 row)           | Upper   |
|          | 6437288-2   | 4-1437290-1                             | 2 (4 row)           | Upper   |
|          | 2-6437285-5 | 4-1437290-0                             | 1 (4 row)           | Lower   |
|          | 2-6437285-6 | 4-1437290-1                             | 2 (4 row)           | Lower   |
|          | 3-6437285-0 | 2-1437285-3                             | 1 (4 row)           | Double  |
|          | 3-6437285-1 | 3-1437290-9                             | 2 (4 row)           | Double  |
|          | 2-6447232-3 | 4-1437290-0                             | 1 (4 row, vertical) | Upper   |
|          | 2-6447232-4 | 4-1437290-1                             | 2 (4 row, vertical) | Upper   |
| 60       | 6437288-3   | 3-1437290-7 (26P),<br>4-1437290-0 (34P) | 1 (4 row)           | Upper   |
|          | 6473427-1   | 1473416-1 (26P),<br>4-1437290-1 (34P)   | 2 + 3 (4 row)       | Upper   |
|          | 6437288-5   | 3-1437290-7 (26P),<br>4-143790-0 (34P)  | 1 (4 row)           | Lower   |
|          | 3-6437285-2 | 2-1437285-2 (26P),<br>2-1437285-3 (34P) | 1 (4 row)           | Double  |

## Superseal 1.0 Connectors

### Contacts

The Superseal 1.0 mm connectors commonly use the AMP Superseal double spring, stamped & formed contact system.

### 1.0 MM CONTACT PERFORMANCE SPECIFICATIONS

#### Durability

25 cycles, per “Kojiri” (rocking motion) durability test

#### Contact Retention (between contact and housing)

1.0mm  $\geq$  58.8N

#### Current Rating

Up to 15 amps, consult TE product specification 108-78140

#### Crimp Tensile Strength

| Contact Size         | Tensile Strength |
|----------------------|------------------|
| .5mm <sup>2</sup>    | $\geq$ 88.2N     |
| .85 mm <sup>2</sup>  | $\geq$ 127.4N    |
| 1.25 mm <sup>2</sup> | $\geq$ 176.4N    |

### 1.0 MM STAMPED & FORMED CONTACTS FOR SUPERSEAL 1.0



Stamped & Formed Receptacles - 1.0 mm

| Size   | Receptacle Strip Form | Wire Size (mm <sup>2</sup> ) | Insulation Diameter (mm) | Finish   |
|--------|-----------------------|------------------------------|--------------------------|--|
| 1.0 mm | 3-1447221-4           | 0.5                          | 1.6-2.2                  | Copper alloy<br>Gold over nickel (contact part),<br>Tin over Nickel (crimp area) |
|        | 3-1447221-3           | .75-.85                      | 1.6-2.4                  |  |
|        |                       | 1.25                         | 1.9-2.2                  |  |

### SEALING PLUGS

Open cavities provide pathways for contaminants to enter the connectors. To maintain seal integrity, any unused cavity must be filled with the appropriate size sealing plug.



| Contact Size | Color | Part Number |
|--------------|-------|-------------|
| 1.0 mm       | White | 4-1437284-3 |

## Superseal 1.0 Connectors

### Tooling

Tools are specific to the contact style. To create a proper crimp and achieve the highest performance specifications, contacts must be crimped with the recommended tooling.

#### HAND TOOLS FOR 1.0 MM CONTACTS



| Receptacle P/N             | Tool P/N  | Description   |
|----------------------------|-----------|---|
| 3-1447221-3<br>3-1447221-4 | 1454509-1 | CERTI-CRIMP straight action hand tool with fixed dies |

#### AUTOMATED TOOLING FOR 1.0 MM CONTACTS



| Receptacle P/N             | Applicator P/N | Description                                    |
|----------------------------|----------------|--|
| 3-1447221-3<br>3-1447221-4 | 2151705-1      | OCEAN end feed applicator with mechanical feed |
|                            | 2151705-2      | OCEAN end feed applicator with pneumatic feed  |

Note: Applicators with additional feed styles are available, contact your representative