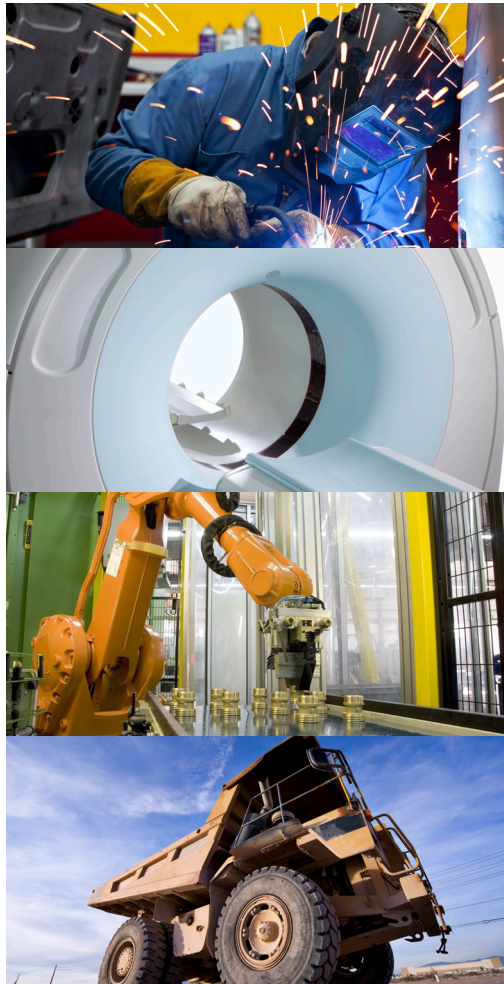


# Amphenol®



## PT Series

Miniature Cylindrical Connectors

12-070-20

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**Proprietary/MIL-DTL-26482 Series 1 connectors covered in this catalog are widely used in general duty and environmental applications, both industrial and military. Markets that use this family of connectors include:**

- Instrumentation
- Monitoring Equipment
- Machine Tool, Factory Automation
- Communications
- Geophysical
- Industrial Controls and Robotics
- Oil and Petrochemical Industries
- Rail/Mass Transit
- Military/Aerospace

If more information is needed concerning the connectors covered in this publication, or if there are special application needs, please contact:

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Please go to the Amphenol websites to view, download and save this catalog and most all of Amphenol interconnection product literature.

**[www.amphenol-industrial.com](http://www.amphenol-industrial.com)**

Some miniature connector styles are available in RoHS Compliant versions. Please contact Amphenol Industrial Operations for more information.

Amphenol operates Quality Systems that are certified to ISO 9001:2015; ISO 14001:2015; ISO/TS 16949:2016 by third party registrars.

#### **NOTE:**

The connector products in this brochure were formerly known as Bendix® products. These products are now manufactured and sold under the Amphenol® brand name. The name "Amphenol" will replace the name "Bendix" on products and literature in the future.

#### **NOTE:**

The Miniature MIL-DTL-26482, Series 2 connectors PTS-DR and MS/PTS-DR (formerly in this catalog) are no longer supplied with these designations. Amphenol now supplies the Amphenol®/Matrix® MIL-DTL-26482, Series 2. (Military numbers include MS3470 - MS3472, MS3474, - MS3476).

# Amphenol® Miniature Cylindrical Connectors

## Proprietary/MIL-DTL-26482, Series 1

Amphenol® Miniature Cylindrical connectors offer twice the number of contacts in just half the size of a Standard connector. These miniature connectors, are available in several series, each with varying design characteristics and customer options to meet cost considerations and provide maximum design flexibility. There are two styles within the family that are MS approved and qualified to MIL-DTL-26482, Series 1, and in addition there are several proprietary styles.

Common features of all styles:

- All are for general duty applications and environmental sealing is achieved with the grommet and clamp design.
- Operating temperature is from -55°C to +125°; Operating voltage to 1000 VAC (RMS) at sea level.
- Pin and socket contacts are machined from low loss copper alloy and gold plated to eliminate contact corrosion and provide an indefinite shelf life.
- All have resilient inserts which provide high dielectric strength and moisture barrier.
- A variety of shell finishes (including non-cadmium) and a variety of back-end accessories are available within the styles.



**PT Solder  
jam nut receptacle and  
mated straight plug**



**PT Solder  
wall mount receptacle**



**PT-SE Crimp  
wall mount receptacle  
and mated straight plug**

### Bayonet Coupling with Solder Contact Termination

#### PT, MS/PT (solder)

- MS and proprietary versions
- Factory installed solder contacts
- 3 point bayonet coupling and 5 key/key-way mating.
- Intermateable with all miniature series connectors.
- MS/PT meets MIL-DTL-26482 Series 1, service classes E, F and P.
- MS/PT is UL recognized.

#### Options

- 7 shell styles with 60 insert patterns
- Hermetic seal (glass fusion) receptacle styles available
- Pressurized thru bulkhead receptacle style available
- Per-installed coax solder contacts are available
- Printed circuit board contacts are available

#### SP (solder)

- SP Series is a modification of the PT with same features except a wider flange for back panel mounting

### Bayonet Coupling with Crimp Contact Termination

#### PT-SE, MS/PT-SE (crimp)

- MS and proprietary versions
- Crimp rear insertable/front release contact termination. (closed entry socket insert prevents probe damage).
- 3 point bayonet coupling and 5 key/key-way mating.
- Intermateable with all miniature series connectors.
- MS/PT-SE meets MIL-DTL-26482 Series 1, service classes E, F, P.

#### Options

- 6 shell styles with 47 insert patterns
- Coax and thermocouple contacts are available

#### SP-SE (crimp)

- Modification of the PT-SE with wider flange for back panel mounting

# Amphenol Miniature Cylindrical

## design flexibility

The large family of miniature proprietary and MS style connectors provides for many optional features and designs. In addition to the choices of bayonet or threaded shells, solder or crimp termination within the style variations, there are additional options that are shown here.

### Hermetics

Hermetically sealed receptacles have fused compression glass sealed inserts which provide environmental moisture sealing. There are three hermetic styles within the PT bayonet series.

### Coaxial Contacts

Amphenol Miniature connectors can incorporate shielded coax contacts. Size 8 and 12 crimp coax contacts are available in PT-SE, SP-SE, MS/PT-SE. Factory installed size 8 and 12 solder type coax contacts are available in PT, SP, MS/PT connectors. See coax contact information pages at the end of this catalog.

### Printed Circuit Board Tail Contacts

PT bayonet connectors in box mounting receptacle and jam nut receptacle styles are available with printed circuit board contacts. Standard PCB tails for MIL-DTL-26482 connectors have gold plating, .0050 inches over nickel. See page 20 and call Amphenol for further information.

### Flex Circuitry

Flex termination assemblies for attaching cylindrical connectors to printed circuit boards are available through the Amphenol division ACT, Advanced Circuit Technology. Flex can be used with miniature 26482 connectors and it can be designed to meet specific length, current carrying capacity and to fit the precise geometric shape of the connector to board package. Flex circuitry plugs into a printed circuit board and creates a self-locking terminal pad which eliminates the need for an additional interconnect to the PCB.

### Filter Protection

Amphenol offers the FPT Series which combines the miniature PT series with an EMI filter. Designed to provide EMI protection for sensitive circuits, each circuit is individually filtered within the connector, eliminating the need for costly and bulky exterior network filters. Filter contacts are available in MF, HF, VHF, and UHF ranges and are intermateable and intermountable with MIL-DTL-26482 connectors. For further information see catalog 12-120, Amphenol EMI Filter Transient Protection Connectors.

### Overmolded Cable

Overmold seals and cables can be designed for almost any industrial application. A variety of materials are available: neoprene, hypalon and others; and a variety of lengths can be designed to meet customer specifications. Overmold seals to the rear of the connector and to the cable jacket providing moisture sealing.



**PT Connector with Hermetic Seal Insert and Coax Contacts**



**PT Connector with PC Tail Contacts**



**PT Connector with Flex**



**PT Connector with EMI Filter Protection**



**PT Connector with Overmolded Cable**



# Amphenol Miniature Cylindrical

## connector selection guide

The accompanying chart is provided to assist the user in selecting the appropriate type of miniature connector to meet the application requirements. Further information can be found in specific sections of this catalog.

| CHARACTERISTICS                     |                                        | Solder |       |    | Crimp     |       |
|-------------------------------------|----------------------------------------|--------|-------|----|-----------|-------|
|                                     |                                        | PT     | MS/PT | SP | MS/ PT-SE | PT-SE |
| Intermateable†                      |                                        | O      | O     | O  | O         | O     |
| Contacts                            | Solder                                 | •      | •     | •  |           |       |
|                                     | Crimp Ri/FR                            |        |       |    | •         | •     |
| Contact Retention System            | Non-Removable                          | •      | •     | •  |           |       |
|                                     | Removable                              |        |       |    | •         | •     |
| Coupling                            | Bayonet                                | •      | •     | •  | •         | •     |
| Standard Finishes††                 | Olive Drab Cadmium (003)               | •      | •     |    | •         | •     |
|                                     | Anodic Coated (005)                    |        |       | •  |           |       |
| Temperature Range                   | Resilient Dielectric (-55°C to +125°C) | •      | •     | •  | •         | •     |
| Wide Mounting Flange                |                                        |        |       | •  |           |       |
| Hermetic Seal                       |                                        | •      | •     | •  |           |       |
| SHELL STYLE AVAILABILITY            |                                        |        |       |    |           |       |
| Wall Mounting Receptacle "00"       |                                        | •      | •     | •  | •         | **•   |
| Cable Connecting Receptacle "01"*** |                                        | •      | •     |    | •         | •     |
| Box Mounting Receptacle "02"        |                                        | *•     | •     | •  | •         | **•   |
| Straight Plug "06"                  |                                        | •      | •     | •  | •         | •     |
| Jam Nut receptacle "07"             |                                        | *•     | * •   | •  | •         | •     |
| thru-bulkhead Receptacle "TB"       |                                        | •      |       | •  |           |       |
| Solder Mount Receptacle "I"         |                                        | *•     | * •   |    |           |       |
| 90° Plug "08"                       |                                        | •      |       | •  |           | •     |

RI/FR = Rear Insertion/Front Releasable

† o intermates with o

†† Optional finishes available. See "how to order" sections.

\* Available in hermetic version

\*\* Dual mounting holes

\*\*\* This connector style is sometimes referred to as a cable connecting "plug." It does, however, mate with either a straight or 90 degree plug.

# Amphenol Miniature Cylindrical

## insert availability

| Insert<br>Arrangement | Solder Termination |    |    |                         | Crimp<br>Termination       | Screw<br>Termination | Total<br>Contacts | Contact Size |    |    |    |   |      |   |                   |
|-----------------------|--------------------|----|----|-------------------------|----------------------------|----------------------|-------------------|--------------|----|----|----|---|------|---|-------------------|
|                       | MS/PT              | PT | SP | Hermetic<br>PT<br>MS-PT | MS/PT-SE<br>PT-SE<br>SP-SE | PT                   |                   | 20           | 16 | 12 | 10 | 8 | Coax |   | Service<br>Rating |
|                       |                    |    |    |                         |                            |                      |                   |              |    |    |    |   | 12   | 8 |                   |
| 6-1                   |                    | X  | X  | X*                      |                            |                      | 1                 | 1            |    |    |    |   |      |   | I                 |
| 8-2                   | X                  | X  | X  | X                       |                            |                      | 2                 | 2            |    |    |    |   |      |   | I                 |
| 8-3                   | X                  | X  | X  | X                       |                            |                      | 3                 | 3            |    |    |    |   |      |   | I                 |
| 8-4                   | X                  | X  | X  | X                       |                            |                      | 4                 | 4            |    |    |    |   |      |   | I                 |
| 8-33                  | X                  | X  | X  | X                       | X                          |                      | 3                 | 3            |    |    |    |   |      |   | I                 |
| 8-98                  |                    | X  | X  |                         |                            |                      | 3                 | 3            |    |    |    |   |      |   | I                 |
| 10-2                  |                    | X  | X  |                         |                            |                      | 2                 |              | 2  |    |    |   |      |   | I                 |
| 10-5                  |                    | X  | X  | X*                      |                            |                      | 5                 | 5            |    |    |    |   |      |   | I                 |
| 10-6                  | X                  | X  | X  | X                       | X                          |                      | 6                 | 6            |    |    |    |   |      |   | I                 |
| 10-7                  |                    | X  | X  | X                       |                            |                      | 7                 | 7            |    |    |    |   |      |   | I                 |
| 10-70                 |                    | X  | X  |                         |                            |                      | 1                 |              |    |    |    |   |      | 1 | Coax              |
| 10-98                 | X                  | X  | X  | X*                      |                            |                      | 6                 | 6            |    |    |    |   |      |   | I                 |
| 12-3*                 | X                  | X  | X  | X                       | X                          |                      | 3                 |              | 3  |    |    |   |      |   | II                |
| 12-4                  |                    | X  | X  | X*                      |                            |                      | 4                 |              | 4  |    |    |   |      |   | I                 |
| 12-8                  | X                  | X  | X  | X*                      | X                          |                      | 8                 | 8            |    |    |    |   |      |   | I                 |
| 12-10                 | X                  | X  | X  | X                       | X                          |                      | 10                | 10           |    |    |    |   |      |   | I                 |
| 12-14                 |                    | X  | X  |                         |                            |                      | 14                | 14           |    |    |    |   |      |   | I                 |
| 12-98                 |                    | X  | X  |                         |                            |                      | 10                | 10           |    |    |    |   |      |   | I                 |
| 14-2                  |                    | X  | X  |                         |                            |                      | 2                 |              |    | 2  |    |   |      |   | II                |
| 14-4                  |                    | S  | S  | X                       |                            |                      | 4                 |              |    | 4  |    |   |      |   | I                 |
| 14-5                  | X                  | X  | X  | X                       | X                          |                      | 5                 |              | 5  |    |    |   |      |   | II                |
| 14-8                  |                    | X  | X  |                         |                            |                      | 8                 | 6            |    | 2  |    |   |      |   | I                 |
| 14-12                 | X                  | X  | X  | X                       | X                          |                      | 12                | 8            | 4  |    |    |   |      |   | I                 |
| 14-15                 | X                  | X  | X  | X                       | X                          |                      | 15                | 14           | 1  |    |    |   |      |   | I                 |
| 14-18                 | X                  | X  | X  | X*                      | X                          |                      | 18                | 18           |    |    |    |   |      |   | I                 |
| 14-19                 | X                  | X  | X  | X                       | X                          |                      | 19                | 19           |    |    |    |   |      |   | I                 |
| 14-22                 |                    |    |    |                         | X*                         |                      | 5                 | 1            |    | 4  |    |   |      |   | I                 |
| 14-71                 |                    | P  | X  |                         |                            |                      | 4                 |              | 3  |    |    |   |      |   | I                 |
| 14-91 HV              |                    | S  | X  |                         | X*                         |                      | 3                 | 3            |    |    |    |   |      | 1 | **                |
| 14-AA                 |                    | X  | X  | X                       |                            |                      | 4                 |              |    | 4  |    |   |      |   | I                 |
| 16-8                  | X                  | X  | X  | X                       | X                          |                      | 8                 |              | 8  |    |    |   |      |   | II                |
| 16-23                 | X                  | X  | X  |                         | X                          |                      | 23                | 22           | 1  |    |    |   |      |   | I                 |
| 16-26                 | X                  | X  | X  | X                       | X                          |                      | 26                | 26           |    |    |    |   |      |   | I                 |
| 16-70                 |                    | X  | X  |                         |                            |                      | 15                | 14           |    |    |    |   |      | 1 | N/A               |
| 16-76†††              |                    |    |    |                         | X*                         |                      | 14                | 8            |    | 1  |    |   |      | 5 | ***               |
| 16-99                 | X                  | X  | X  |                         | X                          |                      | 23                | 21           | 2  |    |    |   |      |   | I                 |
| 18-2                  |                    | X  | X  | X                       |                            |                      | 2                 |              |    |    |    | 2 |      |   | II                |
| 18-3                  |                    | X  | X  | X                       |                            | X                    | 3                 |              |    |    | 3  |   |      |   | II                |
| 18-5                  |                    | X  | X  |                         | X*                         |                      | 5                 |              |    | 5  |    |   |      |   | II                |
| 18-8                  |                    | X  |    |                         |                            |                      | 8                 |              |    | 8  |    |   |      |   | I                 |
| 18-11                 | X                  | X  | X  | X                       | X                          |                      | 11                |              | 11 |    |    |   |      |   | II                |
| 18-30                 | X                  | X  | X  | X*                      | X                          |                      | 30                | 29           | 1  |    |    |   |      |   | I                 |

\*Not available in MS version

\*\*Flashover voltage 5,000 VAC (RMS)

\*\*\*1500 VAC (RMS)

S designates Socket insert only.

P designates Pin insert only.

†Size 12 contacts for #10 wire

††Not presently tooled

†††Contacts must be ordered separately

# Amphenol Miniature Cylindrical

insert availability, cont.

| Insert<br>Arrangement | Solder Termination |    |    |                         | Crimp Termination          | Total<br>Contacts | Contact Size |    |    |      |   |                   |
|-----------------------|--------------------|----|----|-------------------------|----------------------------|-------------------|--------------|----|----|------|---|-------------------|
|                       | MS/PT              | PT | SP | Hermetic<br>PT<br>MS-PT | MS/PT-SE<br>PT-SE<br>SP-SE |                   | 20           | 16 | 12 | Coax |   | Service<br>Rating |
|                       |                    |    |    |                         |                            |                   |              |    |    | 12   | 8 |                   |
| 18-32                 | X                  | X  | X  | X                       | X                          | 32                | 32           |    |    |      |   | I                 |
| 18-71                 |                    |    |    |                         | X*                         | 9                 |              | 8  |    |      | 1 | Coax, II          |
| 18-72                 |                    | X  | X  |                         |                            | 14                | 10           |    |    | 4    |   | N/A               |
| 18-75                 |                    | X  | X  |                         |                            | 4                 |              |    |    |      | 4 | Coax              |
| 18-76                 |                    |    |    |                         |                            | 4                 |              |    |    | 3    | 1 | II                |
| 18-80                 |                    | X  | X  |                         |                            | 8                 | 6            |    |    |      | 2 | Coax, I           |
| 18-91 HV              |                    |    |    |                         | X*                         | 6                 | 6            |    |    |      |   | **                |
| 20-16                 | X                  | X  | X  | X                       | X                          | 16                |              | 16 |    |      |   | II                |
| 20-24                 | X                  | X  | X  |                         |                            | 24                | 24           |    |    |      |   | I                 |
| 20-25                 |                    | X  | X  |                         |                            | 25                | 25           |    |    |      |   | I                 |
| 20-26                 |                    | X  | X  |                         |                            | 26                | 20           |    | 6  |      |   | I                 |
| 20-27                 | X                  | X  | X  |                         |                            | 27                | 27           |    |    |      |   | I                 |
| 20-39                 | X                  | X  | X  | X                       | X                          | 39                | 39           | 2  |    |      |   | I                 |
| 20-41                 | X                  | X  | X  | X                       | X                          | 41                | 41           |    |    |      |   | I                 |
| 20-70                 |                    |    |    |                         |                            | 14                | 10           |    |    |      | 4 | Coax              |
| 20-90 HV              |                    | X  | X  |                         |                            | 7                 | 7            |    |    |      |   | Hi-Voltage        |
| 22-7                  |                    | X  | X  |                         | X*                         | 7                 |              |    |    |      | 7 | Coax              |
| 22-21                 | X                  | X  | X  | X                       | X                          | 21                |              | 21 |    |      |   | II                |
| 22-25                 |                    |    |    |                         | X*                         | 25                |              | 25 |    |      |   | I                 |
| 22-32                 | X                  | X  | X  |                         | X                          | 32                | 32           |    |    |      |   | I                 |
| 22-34                 |                    | X  | X  |                         |                            | 34                | 34           |    |    |      |   | I                 |
| 22-36                 |                    | X  | X  |                         |                            | 36                | 36           |    |    |      |   | I                 |
| 22-41                 | X                  | X  | X  | X                       | X                          | 41                | 27           | 14 |    |      |   | I                 |
| 22-55                 | X                  | X  | X  | X                       | X                          | 55                | 55           |    |    |      |   | I                 |
| 22-70                 |                    | X  | X  |                         |                            | 19                | 13           |    |    |      | 6 | I, Coax           |
| 22-71                 |                    |    |    |                         |                            | 9                 | 2            |    |    |      | 7 | I, Coax           |
| 22-72                 |                    | X  | X  |                         |                            | 19                | 12           | 4  |    |      | 3 | N/A               |
| 22-78†††              |                    |    |    |                         | X*                         | 7                 |              |    |    |      | 7 | Coax              |
| 22-96                 |                    |    |    |                         | X*                         | 7                 |              |    | 7† |      |   | II                |
| 24-31                 |                    | X  | X  |                         |                            | 31                |              | 31 |    |      |   | I                 |
| 24-51†††              |                    |    |    |                         | X*                         | 51                | 47           |    |    | 4    |   | I                 |
| 24-61                 | X                  | X  | X  | X                       | X                          | 61                | 61           |    |    |      |   | I                 |
| 24-71                 |                    | X  | X  |                         |                            | 49                | 45           | 2  |    |      | 2 | N/A               |
| 24-79                 |                    |    |    |                         |                            | 1                 | 1            |    |    |      | 5 | Coax              |

\*Not available in MS version

\*\*Flashover voltage 5,000 VAC (RMS)

\*\*\*1500 VAC (RMS)

†Size 12 contacts for #10 wire

††Not presently tooled

†††Contacts must be ordered separately

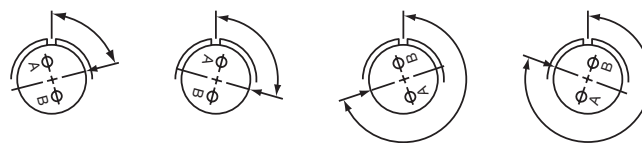
# Amphenol Miniature Cylindrical

## alternate positioning

### Alternate Positioning

To avoid cross-plugging problems in applications requiring the use of more than one miniature cylindrical connector of the same size and arrangement, alternate insert rotations are available as indicated in the accompanying chart.

As shown in the diagram at right, the front face of the pin insert is rotated within the shell in a clockwise direction from the normal shell key. The socket insert would be rotated counterclockwise the same number of degrees in respect to the normal shell key.



Position W

Position X

Position Y

Position Z

Views looking into front face of pin insert or rear of socket insert.

| Shell Size | Insert Arrangement | Insert Rotation |     |     |     |
|------------|--------------------|-----------------|-----|-----|-----|
|            |                    | Degrees         |     |     |     |
|            |                    | W               | X   | Y   | Z   |
| 6          | 6-1                | -               | -   | -   | -   |
| 8          | 8-2*               | 58              | 122 | -   | -   |
| 8          | 8-3                | 60              | 210 | -   | -   |
| 8          | 8-4*               | 45              | 97  | 184 | -   |
| 8          | 8-33*              | 90              | -   | -   | -   |
| 8          | 8-98               | -               | -   | -   | -   |
| 10         | 10-2               | 45              | 90  | 315 | -   |
| 10         | 10-5*              | 45              | 151 | 180 | 270 |
| 10         | 10-6*              | 90              | -   | -   | -   |
| 10         | 10-7               | 90              | -   | -   | -   |
| 10         | 10-70              | -               | -   | -   | -   |
| 10         | 10-98*             | 90              | 180 | 240 | 270 |
| 12         | 12-3               | -               | -   | 180 | -   |
| 12         | 12-4*              | 38              | -   | -   | -   |
| 12         | 12-8               | 90              | 112 | 203 | 292 |
| 12         | 12-10*             | 60              | 155 | 270 | 295 |
| 12         | 12-14              | -               | -   | -   | -   |
| 12         | 12-98*             | 61              | 135 | 189 | 340 |
| 14         | 14-2               | 58              | 122 | -   | -   |
| 14         | 14-4*              | 45              | -   | -   | -   |
| 14         | 14-5*              | 40              | 92  | 184 | 273 |
| 14         | 14-8               | 48              | 162 | 189 | 312 |
| 14         | 14-12*             | 43              | 90  | -   | -   |
| 14         | 14-15*             | 17              | 110 | 155 | 234 |
| 14         | 14-18*             | 15              | 90  | 180 | 270 |
| 14         | 14-19*             | 30              | 165 | 315 | -   |
| 14         | 14-22              | 45              | -   | -   | -   |
| 14         | 14-71              | -               | -   | -   | -   |
| 14         | 14-91HV            | -               | 60  | -   | -   |
| 14         | 14-AA*             | 45              | -   | -   | -   |
| 16         | 16-8*              | 54              | 152 | 180 | 331 |
| 16         | 16-23              | 158             | 270 | -   | -   |
| 16         | 16-26*             | 60              | -   | 275 | 338 |
| 16         | 16-70              | 41              | 122 | 216 | 286 |
| 16         | 16-76              | -               | -   | -   | -   |
| 16         | 16-99*             | 66              | 156 | 223 | 340 |
| 18         | 18-2               | 58              | 122 | -   | -   |
| 18         | 18-3               | -               | -   | 180 | -   |

| Shell Size | Insert Arrangement | Insert Rotation |     |     |     |
|------------|--------------------|-----------------|-----|-----|-----|
|            |                    | Degrees         |     |     |     |
|            |                    | W               | X   | Y   | Z   |
| 18         | 18-5               | 55              | 97  | 263 | 315 |
| 18         | 18-8               | 180             | -   | -   | -   |
| 18         | 18-11*             | 62              | 119 | 241 | 340 |
| 18         | 18-30*             | 180             | 193 | 285 | 350 |
| 18         | 18-32*             | 85              | 138 | 222 | 265 |
| 18         | 18-71              | 18              | 108 | 127 | 215 |
| 18         | 18-72              | 53              | 102 | 213 | 293 |
| 18         | 18-75              | 45              | -   | -   | -   |
| 18         | 18-76              | -               | -   | -   | -   |
| 18         | 18-80              | 45              | 90  | 135 | 160 |
| 18         | 18-91HV            | 90              | 180 | 240 | 270 |
| 20         | 20-16*             | 238             | 318 | 333 | 347 |
| 20         | 20-24              | 70              | 145 | 215 | 290 |
| 20         | 20-25              | 72              | 144 | 216 | 288 |
| 20         | 20-26              | 13              | 107 | 210 | 322 |
| 20         | 20-27              | 72              | 144 | 216 | 288 |
| 20         | 20-39*             | 63              | 144 | 252 | 333 |
| 20         | 20-41*             | 45              | 126 | 225 | -   |
| 20         | 20-70              | 63              | 135 | 222 | 335 |
| 20         | 20-90              | 45              | 135 | 225 | 315 |
| 22         | 22-7               | 19              | 41  | -   | -   |
| 22         | 22-21*             | 16              | 135 | 175 | 349 |
| 22         | 22-25              | 60              | 125 | 211 | 336 |
| 22         | 22-32              | 72              | 145 | 215 | 288 |
| 22         | 22-34              | 62              | 142 | 218 | 298 |
| 22         | 22-36              | 72              | 144 | 216 | 288 |
| 22         | 22-41              | 39              | 135 | 264 | -   |
| 22         | 22-55*             | 30              | 142 | 226 | 314 |
| 22         | 22-70              | 30              | 82  | 218 | 312 |
| 22         | 22-71              | 33              | 191 | 236 | 270 |
| 22         | 22-72              | 42              | 200 | 277 | 339 |
| 22         | 22-78              | 19              | 41  | -   | -   |
| 22         | 22-96*             | 19              | 41  | -   | -   |
| 24         | 24-31              | 90              | 225 | 255 | -   |
| 24         | 24-51              | 22              | 171 | 313 | -   |
| 24         | 24-61*             | 90              | 180 | 270 | 324 |
| 24         | 24-71              | 39              | 131 | 205 | 281 |
| 24         | 24-79              | -               | -   | -   | -   |

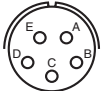
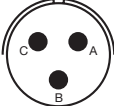
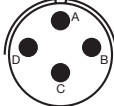
\* Available in Hermetic Class

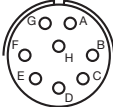
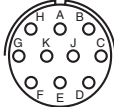
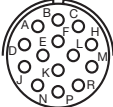
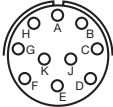
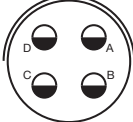
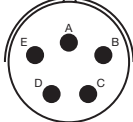


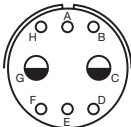
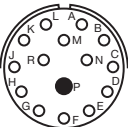
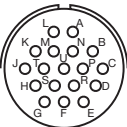
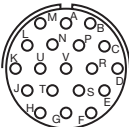
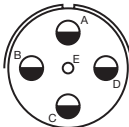
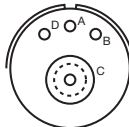
# Amphenol Miniature Cylindrical

## insert arrangements

|                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                    |  |  |  |  |  |  |  |
| Insert Arrangement | 6-1                                                                               | 8-2                                                                               | 8-3                                                                               | 8-4                                                                               | 8-33                                                                                | 8-98                                                                                | 10-2                                                                                |
| Service Rating     | I                                                                                 | I                                                                                 | I                                                                                 | I                                                                                 | I                                                                                   | I                                                                                   | I                                                                                   |
| Number of Contacts | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 3                                                                                   | 3                                                                                   | 2                                                                                   |
| Contact Size       | 20                                                                                | 20                                                                                | 20                                                                                | 20                                                                                | 20                                                                                  | 20                                                                                  | 16                                                                                  |

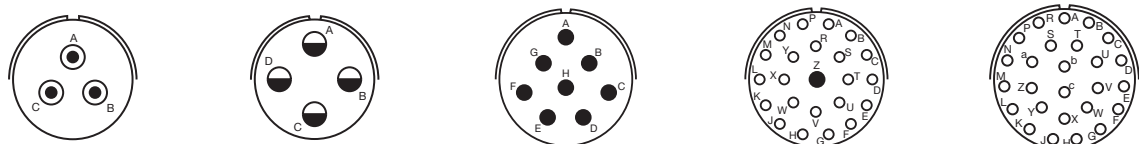
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|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                    |  |  |  |  |  |  |  |
| Insert Arrangement | 10-5                                                                              | 10-6                                                                              | 10-7                                                                              | 10-70                                                                             | 10-98                                                                               | 12-3                                                                                | 12-4                                                                                |
| Service Rating     | I                                                                                 | I                                                                                 | I                                                                                 | COAX                                                                              | I                                                                                   | II                                                                                  | I                                                                                   |
| Number of Contacts | 5                                                                                 | 6                                                                                 | 7                                                                                 | 1                                                                                 | 6                                                                                   | 3                                                                                   | 4                                                                                   |
| Contact Size       | 20                                                                                | 20                                                                                | 20                                                                                | 8 COAX                                                                            | 20                                                                                  | 16                                                                                  | 16                                                                                  |

|                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                       |                                                                                       |                                                                                       |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                    |  |  |  |  |  |  |  |
| Insert Arrangement | 12-8                                                                                | 12-10                                                                               | 12-14                                                                               | 12-98                                                                               | 14-2                                                                                  | 14-4                                                                                  | 14-5                                                                                  |
| Service Rating     | I                                                                                   | I                                                                                   | I                                                                                   | I                                                                                   | II                                                                                    | I                                                                                     | II                                                                                    |
| Number of Contacts | 8                                                                                   | 10                                                                                  | 14                                                                                  | 10                                                                                  | 2                                                                                     | 4                                                                                     | 5                                                                                     |
| Contact Size       | 20                                                                                  | 20                                                                                  | 20                                                                                  | 20                                                                                  | 12                                                                                    | 12                                                                                    | 16                                                                                    |

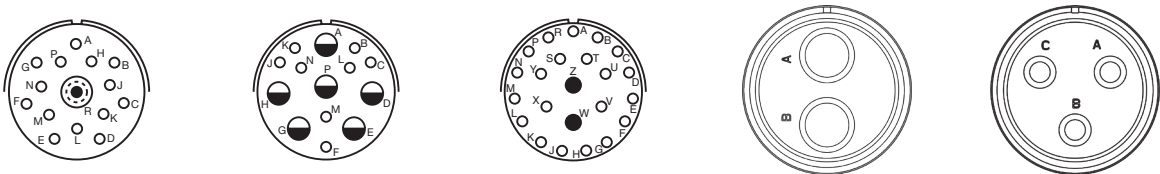
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|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----|-------|----|-------|--------|-------|--|
|                    |  |  |  |  |  |  |  |    |       |    |       |        |       |  |
| Insert Arrangement | 14-8                                                                                |                                                                                     | 14-12                                                                               |                                                                                     | 14-15                                                                                 |                                                                                       | 14-18                                                                                 |    | 14-19 |    | 14-22 |        | 14-71 |  |
| Service Rating     | I                                                                                   |                                                                                     | I                                                                                   |                                                                                     | I                                                                                     |                                                                                       | I                                                                                     |    | I     |    | I     |        | I     |  |
| Number of Contacts | 6                                                                                   | 2                                                                                   | 8                                                                                   | 4                                                                                   | 14                                                                                    | 1                                                                                     | 18                                                                                    | 19 | 1     | 4  | 3     | 1      |       |  |
| Contact Size       | 20                                                                                  | 12                                                                                  | 20                                                                                  | 16                                                                                  | 20                                                                                    | 16                                                                                    | 20                                                                                    | 20 | 20    | 12 | 16    | 8 COAX |       |  |

# Amphenol Miniature Cylindrical

## insert arrangements

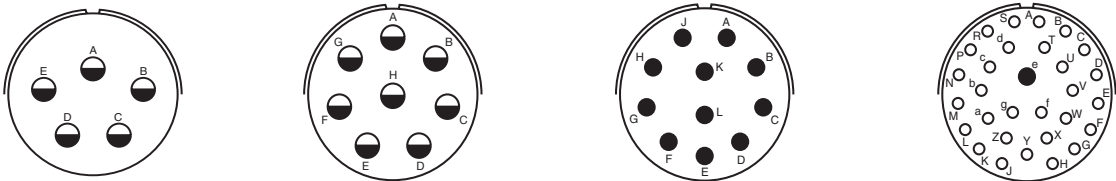


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|--------------------|------------------------------|--|-------|--|------|--|-------|----|-------|--|
| Insert Arrangement | 14-91HV                      |  | 14-AA |  | 16-8 |  | 16-23 |    | 16-26 |  |
| Service Rating     | Flashover<br>5,000 VAC (RMS) |  | I     |  | II   |  | I     |    | I     |  |
| Number of Contacts | 3                            |  | 4     |  | 8    |  | 22    | 1  | 26    |  |
| Contact Size       | 20                           |  | 12    |  | 16   |  | 20    | 16 | 20    |  |



|                    |       |         |                              |     |        |       |    |      |  |      |  |
|--------------------|-------|---------|------------------------------|-----|--------|-------|----|------|--|------|--|
| Insert Arrangement | 16-70 |         | 16-76                        |     |        | 16-99 |    | 18-2 |  | 18-3 |  |
| Service Rating     | N/A   |         | Flashover<br>1,500 VAC (RMS) |     |        | I     |    | II   |  | II   |  |
| Number of Contacts | 14    | 1       | 8                            | 1   | 5      | 21    | 2  | 2    |  | 3    |  |
| Contact Size       | 20    | 12 COAX | 20                           | 12* | 2 COAX | 20    | 16 | 8    |  | 10   |  |

\*Contact Positions Optional



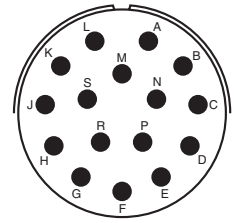
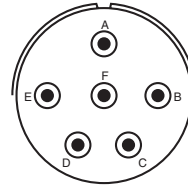
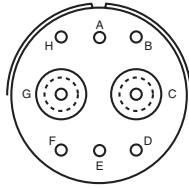
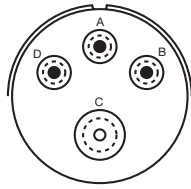
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|--------------------|------|--|------|--|-------|--|-------|----|
| Insert Arrangement | 18-5 |  | 18-8 |  | 18-11 |  | 18-30 |    |
| Service Rating     | II   |  | I    |  | II    |  | I     |    |
| Number of Contacts | 5    |  | 8    |  | 11    |  | 29    | 1  |
| Contact Size       | 12   |  | 12   |  | 16    |  | 20    | 16 |



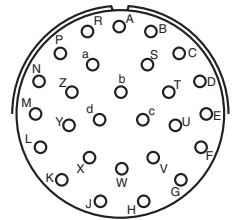
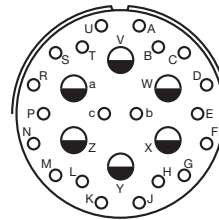
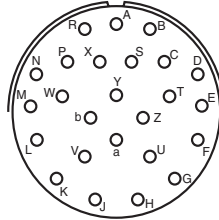
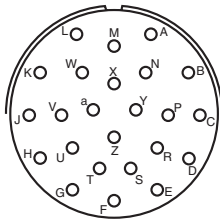
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|--------------------|-------|--|----------|--------|-------|---------|--------|--|
| Insert Arrangement | 18-32 |  | 18-71    |        | 18-72 |         | 18-75  |  |
| Service Rating     | I     |  | II, COAX |        | N/A   |         | COAX   |  |
| Number of Contacts | 32    |  | 8        | 1      | 10    | 4       | 4      |  |
| Contact Size       | 20    |  | 16       | 8 COAX | 20    | 12 COAX | 8 COAX |  |

# Amphenol Miniature Cylindrical

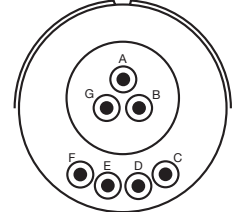
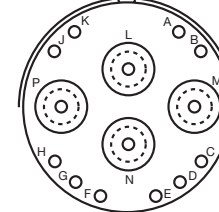
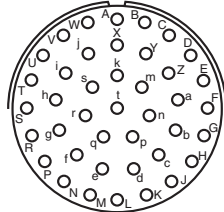
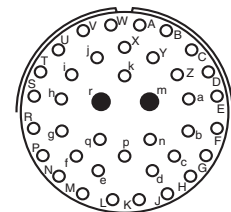
## insert arrangements



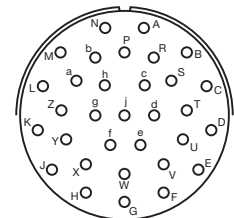
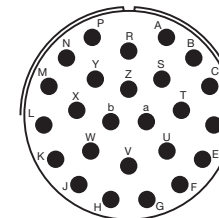
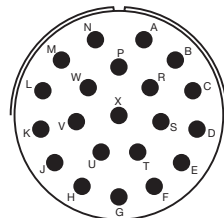
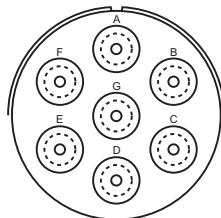
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|--------------------|---------|--------|---------|--------|------------------------------|--|-------|
| Insert Arrangement | 18-76   |        | 18-80   |        | 18-91 HV                     |  | 20-16 |
| Service Rating     | II      |        | I, COAX |        | Flashover<br>5,000 VAC (RMS) |  | II    |
| Number of Contacts | 3       | 1      | 6       | 2      | 6                            |  | 16    |
| Contact Size       | 12 COAX | 8 COAX | 20      | 8 COAX | 20                           |  | 16    |



|                    |       |  |       |  |       |    |       |
|--------------------|-------|--|-------|--|-------|----|-------|
| Insert Arrangement | 20-24 |  | 20-25 |  | 20-26 |    | 20-27 |
| Service Rating     | I     |  | I     |  | I     |    | I     |
| Number of Contacts | 24    |  | 25    |  | 20    | 6  | 27    |
| Contact Size       | 20    |  | 20    |  | 20    | 12 | 20    |



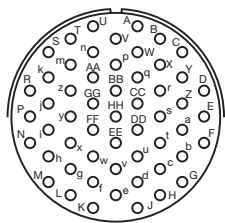
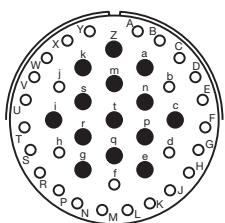
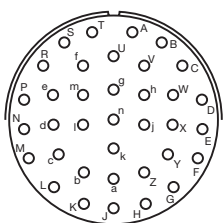
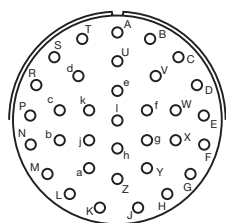
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|--------------------|-------|----|-------|--|-------|--------|------------|
| Insert Arrangement | 20-39 |    | 20-41 |  | 20-70 |        | 20-90      |
| Service Rating     | I     |    | I     |  | COAX  |        | HI-VOLTAGE |
| Number of Contacts | 37    | 2  | 41    |  | 10    | 4      | 7          |
| Contact Size       | 20    | 16 | 20    |  | 20    | 8 COAX | 20         |



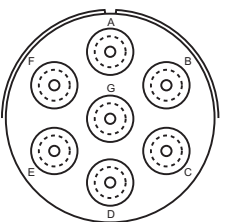
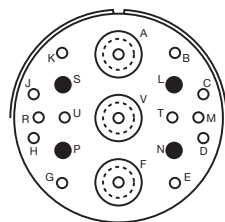
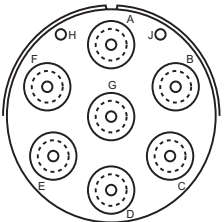
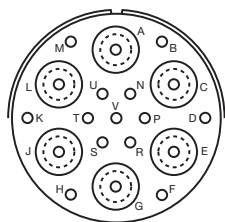
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|--------------------|--------|--|-------|--|-------|--|-------|
| Insert Arrangement | 22-7   |  | 22-21 |  | 22-25 |  | 22-32 |
| Service Rating     | COAX   |  | II    |  | I     |  | I     |
| Number of Contacts | 7      |  | 21    |  | 25    |  | 32    |
| Contact Size       | 8 COAX |  | 16    |  | 16    |  | 20    |

# Amphenol Miniature Cylindrical

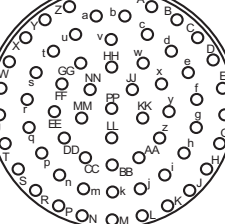
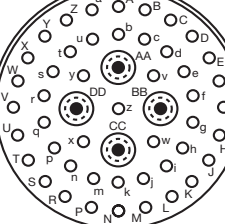
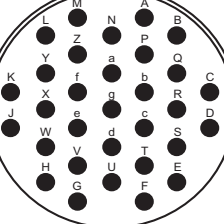
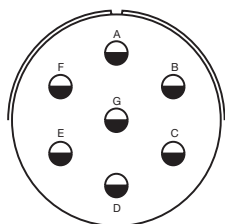
## insert arrangements



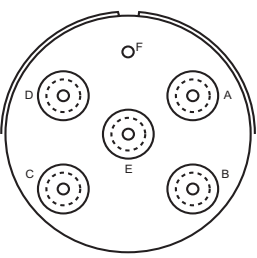
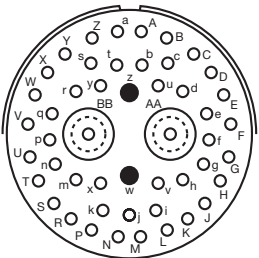
|                    |       |  |       |  |       |    |       |
|--------------------|-------|--|-------|--|-------|----|-------|
| Insert Arrangement | 22-34 |  | 22-36 |  | 22-41 |    | 22-55 |
| Service Rating     | I     |  | I     |  | I     |    | I     |
| Number of Contacts | 34    |  | 36    |  | 27    | 14 | 55    |
| Contact Size       | 20    |  | 20    |  | 20    | 16 | 20    |



|                    |         |        |         |        |       |    |        |
|--------------------|---------|--------|---------|--------|-------|----|--------|
| Insert Arrangement | 22-70   |        | 22-71   |        | 22-72 |    | 22-78  |
| Service Rating     | i, COAX |        | I, COAX |        | N/A   |    | COAX   |
| Number of Contacts | 12      | 6      | 2       | 7      | 12    | 4  | 7      |
| Contact Size       | 20      | 8 COAX | 20      | 8 COAX | 20    | 16 | 8 COAX |



|                    |                 |  |       |  |       |         |       |
|--------------------|-----------------|--|-------|--|-------|---------|-------|
| Insert Arrangement | 22-96           |  | 24-31 |  | 24-51 |         | 24-61 |
| Service Rating     | II              |  | I     |  | I     |         | I     |
| Number of Contacts | 7               |  | 31    |  | 47    | 4       | 61    |
| Contact Size       | 12 for #10 WIRE |  | 16    |  | 20    | 12 COAX | 20    |



|                    |       |    |        |       |        |
|--------------------|-------|----|--------|-------|--------|
| Insert Arrangement | 24-71 |    |        | 24-79 |        |
| Service Rating     | N/A   |    |        | COAX  |        |
| Number of Contacts | 45    | 2  | 2      | 1     | 5      |
| Contact Size       | 20    | 16 | 8 COAX | 20    | 8 COAX |

| Contact Legend |              |
|----------------|--------------|
| Symbol         | Contact Size |
|                | 20           |
|                | 16           |
|                | 12           |
|                | HV           |
|                | 12 COAX      |
|                | 8 COAX       |

# Amphenol PT, SP, MS/PT

Proprietary/MIL-DTL-26482, Series 1

bayonet coupling and solder termination

**Amphenol® solder contact miniature cylindrical connectors meet the most critical application needs. Design versatility combined with high reliability performance makes these series of Miniature Cylindrical Connectors ideal for environmental sealing or pressurized applications.**

wall mounting  
receptacle



The MS/PT Series is qualified to MIL-DTL-26482, Series 1 and has all the outstanding design characteristics and quality of the PT Series. The SP Series is a modification of the PT, providing special shells with a wide mounting flange for back panel mounting.

cable  
connecting  
receptacle\*



A corrosion resistant electrically conductive finish of cadmium plate with an olive drab chromate after-treatment is used on the PT and MS/PT. The SP is given a durable non-conductive hard anodic "Alumilite"® coating which provides abrasion protection and resistance to corrosion.

**\*\*NEW\*\*** 500 hour corrosion resistance, RoHS compliant harsh environment conductive plating. Gray Zinc over an Electroless Nickel (Gray ZnNi) base, with a Light Gun Metal Gray appearance.

box mounting  
receptacle



Shell components for these series are aluminum. The dependable 5 key/keyway polarization with bayonet lock coupling assures positive mating with no chance of cross plugging. Spring tension provided by a wave washer in the coupling nut ensures maintenance of interfacial seal between mating halves.

Both the insert and main joint gasket are molded from resilient neoprene. This provides excellent moisture sealing at the gasket and superior electrical isolation of the contact in the insert.

straight plug



Both pins and sockets are machined from a copper alloy and are gold plated. This gold plating eliminates contact corrosion and offers an indefinite shelf life. Socket contacts for these series are a closed entry design. A breakaway style plug is available in the PT solder series. Hermetics receptacles are available in PT and MS/PT solder series. Receptacles with printed circuit board contacts are also available.

PT Solder is UL recognized under file #E115497, Vol. 1, Sec. 5. The PT, SP and MS/PT Series are intermateable and intermountable with all existing Miniature Cylindrical Series connectors.

Refer to pages 4-10 for insert arrangement availability.

## PT, SP, MS/PT

Table 1: CONTACT DATA/CONNECTOR RATINGS

| Contact Specifications |                                               |                               |                      |                 |                        |
|------------------------|-----------------------------------------------|-------------------------------|----------------------|-----------------|------------------------|
| Contact Size           | Test Current                                  | Maximum Millivolt Drop†       | Solder Well Diameter |                 | Solder Well Depth      |
| 20                     | 7.5                                           | 55                            | .046                 | +0.004<br>-.000 | .125<br>+.031<br>-.000 |
| 16                     | 13.0                                          | 50                            | .078                 | +0.005<br>-.003 | .188<br>+.031<br>-.000 |
| 12                     | 23.0                                          | 42                            | .116                 | +0.004<br>-.002 | .188<br>+.031<br>-.000 |
| Service Rating         |                                               |                               |                      |                 |                        |
| Service Rating         | Recommended Operating AC Voltage at Sea Level | Test Voltage AC (RMS), 60 cps |                      |                 |                        |
|                        |                                               | Sea Level                     | 50,000 ft.           | 70,000 ft.      | 110,000 ft.            |
| I                      | 600                                           | 1,500                         | 500                  | 375             | 200                    |
| II                     | 1,000                                         | 2,300                         | 750                  | 500             | 200                    |

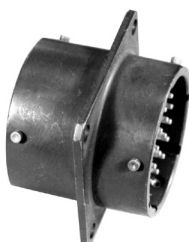
† Silver plated wire per MIL-DTL-26482

\* This connector style is sometimes referred to as a cable connecting "plug." It does, however, mate with a straight or 90 degree plug.

jam nut  
receptacle



thru bulkhead  
receptacle



# Amphenol PT, SP, MS/PT

## Proprietary/MIL-DTL-26482, Series 1

### bayonet coupling and solder termination, cont.

#### PT, SP Service Classes

PT and SP connectors are available in the service classes listed below. Each class, with the exception of hermetic, offers one or more means of terminating or supporting a cable or wire bundle.

"A" General duty; back shell is threaded for conduit attachment of MS3057 cable clamp

"A" (SR) General duty, with strain relief clamp for cable or wire bundle support

"C" Pressurized receptacle; less than 1 cu. in. per hour leakage at 30 psi over a temperature range of -65°F to +257°F

"E" Environmental resistant connectors - supplied with a multi-holed grommet and clamping nut for moisture-proofing individual open wires

"E" (SR) Environmental resistant strain relief clamp and grommet for moisture proofing individual wires; provides added wire bundle support

"P" Translucent nylon boot for retaining customer-applied potting compounds; held in place by a threaded ring

"P" (SR) Strain relief clamp suitable for retaining customer applied potting compounds, with provision for wire support

"PG" Compressing cable gland for moisture proofing jacketed cables.

"H"\* Hermetically sealed with compression glass inserts (see pages 22-25)

Style with printed circuit board contacts- see page 20.

#### MS/PT Service Classes

The MS/PT Miniature connector is available in the following certified service classes:

"E" Environmental resistant connectors - supplied with a multi-holed grommet and clamping nut for moisture-proofing individual open wires

"F" Grommet seal with strain relief clamp

"J" Compressing clamp and neoprene gland for moisture proofing multi-conductor jacketed cable and strain relief. Telescoping sleeves (MS 3420A) can be used to adapt to cables smaller than minimum close-down.

"P" Translucent nylon boot for retaining customer-applied potting compounds; held in place by a threaded ring

"A" general duty



"E" (SR),  
MS/"F"  
strain relief



"E",  
MS/"E"  
open wire seal



"P"  
MS/ "P"  
potting boot



"PG"  
cable gland  
seal

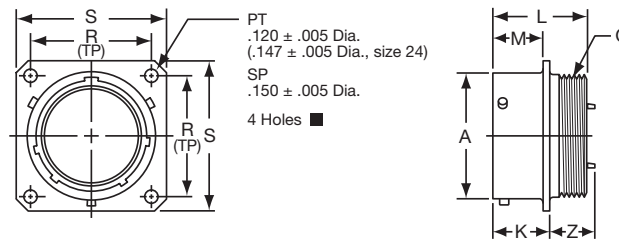




# PT00 (MS3110)

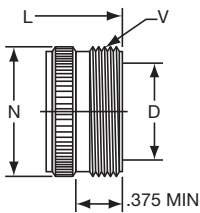
## SP00

### wall mounting receptacle



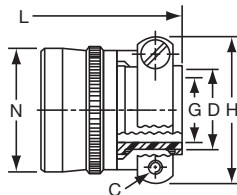
#### TERMINATION ASSEMBLIES

"A" General Duty/  
"C" Pressurized"



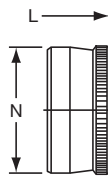
PT00A-XX-XXX  
SP00A-XX-XXX  
PT00C-XX-XXX

"A" (SR), "E" (SR), "P" (SR),  
MS / "F" Strain Relief



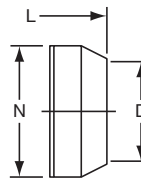
PT00A-XX-XXX (SR)  
SP00A-XX-XXX (SR)  
PT00E-XX-XXX (SR)  
SP00E-XX-XXX (SR)  
PT00P-XX-XXX (SR)  
SP00P-XX-XXX (SR)  
MS3110F-XX-XXX

"E" Open Wire Seal



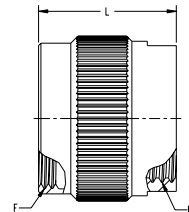
PT00E-XX-XXX  
SP00E-XX-XXX  
MS3110E-XX-XXX

"P" Potting Boot



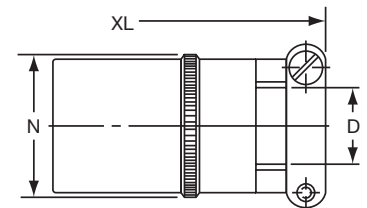
PT00P-XX-XXX  
SP00P-XX-XXX  
MS3110P-XX-XXX

"PG" Cable Gland Seal



PT00PG-XX-XXX

"J" Cable Seal



MS3110J-XX-XXX

To complete part number see how to order on page 25.  
■ (MMC) located within .0025 of (TP)

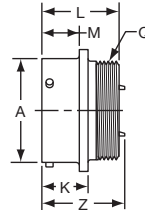
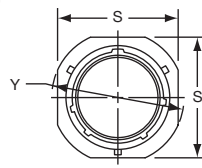
| Shell<br>Size | Receptacle Front View |       |           |       | Receptacle Side View |                  |      |        |                  |      |                         |           |      |        | Class "A", "C" |           |                        |  |
|---------------|-----------------------|-------|-----------|-------|----------------------|------------------|------|--------|------------------|------|-------------------------|-----------|------|--------|----------------|-----------|------------------------|--|
|               | R<br>(TP)             |       | S<br>Max. |       | A<br>+.001<br>-.005  | K +.020<br>-.010 |      | L Max. | M +.010<br>-.000 |      | Q<br>Thread<br>Class 2A | Z<br>Max. |      | D Min. | L<br>Max.      | N<br>Max. | V<br>Thread<br>Class A |  |
|               | PT                    | SP    | PT        | SP    | PT                   | SP               | PT   |        | SP               | PT   |                         | SP        |      |        |                |           |                        |  |
| 6             | .469                  | .641  | .688      | .953  | .348                 | .493             | .524 | .906   | .431             | .462 | .3125-32 NEF            | .468      | .438 | .175   | 1.553          | .462      | .3750-32 NEF           |  |
| 8             | .594                  | .734  | .812      | 1.047 | .473                 | .493             | .524 | .906   | .431             | .462 | .4375-28 UNEF           | .468      | .438 | .297   | 1.553          | .590      | .5000-28 UNEF          |  |
| 10            | .719                  | .812  | .938      | 1.125 | .590                 | .493             | .524 | .906   | .431             | .462 | .5625-24 NEF            | .468      | .438 | .421   | 1.553          | .717      | .6250-24 NEF           |  |
| 12            | .812                  | .938  | 1.031     | 1.250 | .750                 | .493             | .524 | .906   | .431             | .462 | .6875-24 NEF            | .468      | .438 | .546   | 1.553          | .834      | .7500-20 UNEF          |  |
| 14            | .906                  | 1.031 | 1.125     | 1.344 | .875                 | .493             | .524 | .906   | .431             | .462 | .8125-20 UNEF           | .468      | .438 | .663   | 1.553          | .970      | .8750-20 UNEF          |  |
| 16            | .969                  | 1.125 | 1.219     | 1.438 | 1.000                | .493             | .524 | .906   | .431             | .462 | .9375-20 UNEF           | .468      | .438 | .787   | 1.553          | 1.088     | 1.0000-20 UNEF         |  |
| 18            | 1.062                 | 1.203 | 1.312     | 1.516 | 1.125                | .493             | .524 | .906   | .431             | .462 | 1.0625-18 NEF           | .531      | .438 | .879   | 1.553          | 1.216     | 1.1875-18 NEF          |  |
| 20            | 1.156                 | 1.297 | 1.438     | 1.672 | 1.250                | .650             | .650 | 1.125  | .556             | .556 | 1.1875-18 NEF           | .531      | .531 | 1.014  | 1.703          | 1.332     | 1.1875-18 NEF          |  |
| 22            | 1.250                 | 1.375 | 1.562     | 1.750 | 1.375                | .650             | .650 | 1.125  | .556             | .556 | 1.3125-18 NEF           | .531      | .531 | 1.134  | 1.703          | 1.460     | 1.4375-18 NEF          |  |
| 24            | 1.375                 | 1.500 | 1.688     | 1.875 | 1.500                | .650             | .650 | 1.125  | .589             | .556 | 1.4375-18 NEF           | .498      | .498 | 1.259  | 1.765          | 1.585     | 1.4375-18 NEF          |  |

| Shell Size | Class "A" (SR), "E" (SR), "P" (SR), MS/"F" |           |           |           |           |           | Class "e",<br>MS/"E" |           | Class "P", MS/"P" |           |           | Class "J" |      |           |            | Class "PG"  |           |
|------------|--------------------------------------------|-----------|-----------|-----------|-----------|-----------|----------------------|-----------|-------------------|-----------|-----------|-----------|------|-----------|------------|-------------|-----------|
|            | C<br>Thread                                | D<br>Min. | G<br>Max. | H<br>Max. | L<br>Max. | N<br>Max. | L<br>Max.            | N<br>Max. | D<br>Min.         | L<br>Max. | N<br>Max. | D         |      | N<br>Max. | XL<br>Max. | B<br>Thread | L<br>Max. |
|            |                                            |           |           |           |           |           |                      |           |                   |           |           | Closed    | Free |           |            |             |           |
| 6          | -                                          | -         | -         | -         | -         | -         | 1.266                | .440      | .192              | 1.438     | .484      | -         | -    | -         | -          | -           | -         |
| 8          | 6-32                                       | .240      | .125      | .812      | 1.922     | .550      | 1.266                | .560      | .317              | 1.438     | .608      | .168      | .230 | .547      | 2.271      | M12x1.5-6H  | .936      |
| 10         | 6-32                                       | .302      | .188      | .875      | 1.922     | .675      | 1.266                | .685      | .434              | 1.438     | .734      | .205      | .312 | .675      | 2.271      | M16x1.5-6H  | .936      |
| 12         | 6-32                                       | .428      | .312      | 1.000     | 1.922     | .803      | 1.266                | .813      | .548              | 1.438     | .858      | .338      | .442 | .812      | 2.411      | M16x1.5-6H  | .936      |
| 14         | 6-32                                       | .552      | .375      | 1.125     | 1.922     | .920      | 1.266                | .930      | .673              | 1.438     | .984      | .416      | .539 | .940      | 2.599      | M18x1.5-6H  | .936      |
| 16         | 6-32                                       | .615      | .500      | 1.188     | 2.047     | 1.047     | 1.266                | 1.057     | .798              | 1.438     | 1.110     | .550      | .616 | 1.067     | 2.943      | M22x1.5-6H  | .936      |
| 18         | 8-32                                       | .740      | .625      | 1.438     | 2.078     | 1.165     | 1.266                | 1.175     | .899              | 1.438     | 1.234     | .600      | .672 | 1.194     | 3.172      | M25x1.5-6H  | .936      |
| 20         | 8-32                                       | .740      | .625      | 1.438     | 2.344     | 1.290     | 1.516                | 1.301     | 1.024             | 1.656     | 1.360     | .635      | .747 | 1.322     | 3.610      | M25x1.5-6H  | 1.180     |
| 22         | 8-32                                       | .928      | .750      | 1.625     | 2.344     | 1.418     | 1.516                | 1.430     | 1.149             | 1.656     | 1.484     | .670      | .846 | 1.449     | 3.766      | M32x1.5-6H  | 1.180     |
| 24         | 8-32                                       | .990      | .800      | 1.719     | 2.406     | 1.543     | 1.578                | 1.555     | 1.274             | 1.717     | 1.610     | .740      | .894 | 1.576     | 3.985      | M32x1.5-6H  | 1.180     |

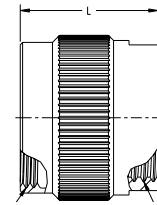
All dimensions for reference only.

# PT01 (MS3111)

## cable connecting receptacle

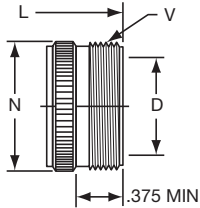


"PG" Cable Gland Seal



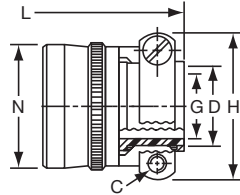
**PT01PG-XX-XXX**

"A" General Duty



**PT01A-XX-XXX**

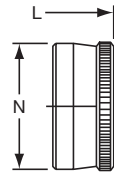
"A" (SR), "E" (SR), "P" (SR),  
MS / "F" Strain Relief



**PT01A-XX-XXX (SR)**  
**PT01E-XX-XXX (SR)**  
**PT01P-XX-XXX (SR)**  
**MS3111F-XX-XXX**

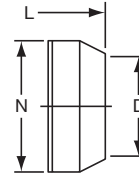
### TERMINATION ASSEMBLIES

"E" Open Wire Seal



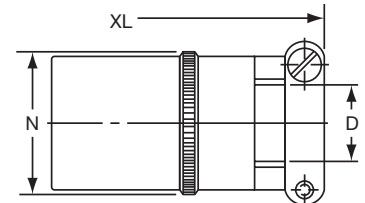
**PT01E-XX-XXX**  
**MS3111E-XX-XXX**

"P" Potting Boot



**PT01P-XX-XXX**  
**MS3111P-XX-XXX**

"J" Cable Seal



**MS3116J-XX-XXX**

Note: This connector style is sometimes referred to as a cable connecting "plug".

It does, however, mate with either a straight or 90 degree plug.

To complete part number see how to order on page 25.

| Shell Size | Receptacle Front View |            | Receptacle Side View |                     |        |                     |                         |           | Class "A", "C" |           |           |                        |
|------------|-----------------------|------------|----------------------|---------------------|--------|---------------------|-------------------------|-----------|----------------|-----------|-----------|------------------------|
|            | S<br>±.020            | Y<br>±.020 | A<br>+.001<br>-.005  | K<br>+.020<br>-.010 | L Max. | M<br>+.016<br>-.000 | Q<br>Thread<br>Class 2A | Z<br>Max. | D<br>Min.      | L<br>Max. | N<br>Max. | V<br>Thread<br>Class A |
| 6          | .688                  | .812       | .348                 | .494                | .906   | .400                | .3125-32 NEF            | .948      | .175           | 1.553     | .462      | .3750-32 NEF           |
| 8          | .812                  | .938       | .473                 | .494                | .906   | .400                | .4375-28 UNEF           | .948      | .297           | 1.553     | .590      | .5000-28 UNEF          |
| 10         | .938                  | 1.062      | .590                 | .494                | .906   | .400                | .5625-24 NEF            | .948      | .421           | 1.553     | .717      | .6250-24 NEF           |
| 12         | 1.031                 | 1.156      | .750                 | .494                | .906   | .400                | .6875-24 NEF            | .948      | .546           | 1.553     | .834      | .6250-24 NEF           |
| 14         | 1.125                 | 1.250      | .875                 | .494                | .906   | .400                | .8125-20 UNEF           | .948      | .663           | 1.553     | .970      | .8750-20 UNEF          |
| 16         | 1.219                 | 1.344      | 1.000                | .494                | .906   | .400                | .9375-20 UNEF           | .948      | .787           | 1.553     | 1.088     | 1.0000-20 UNEF         |
| 18         | 1.312                 | 1.438      | 1.125                | .494                | .906   | .400                | 1.0625-18 NEF           | .948      | .879           | 1.553     | 1.216     | 1.1875-18 NEF          |
| 20         | 1.438                 | 1.562      | 1.250                | .650                | 1.125  | .535                | 1.1875-18 NEF           | 1.166     | 1.041          | 1.703     | 1.332     | 1.1875-18 NEF          |
| 22         | 1.562                 | 1.688      | 1.375                | .650                | 1.125  | .535                | 1.3125-18 NEF           | 1.166     | 1.135          | 1.703     | 1.460     | 1.4375-18 NEF          |
| 24         | 1.688                 | 1.812      | 1.500                | .683                | 1.188  | .568                | 1.4375-18 NEF           | 1.166     | 1.259          | 1.703     | 1.585     | 1.4375-18 NEF          |

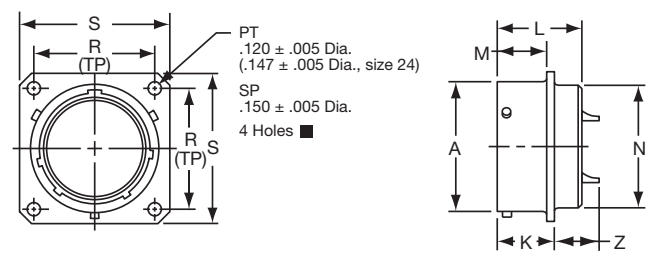
| Shell Size | Class "A" (SR), "E" (SR), "P" (SR), MS/"F" |           |           |           |           |           | Class "e", MS/"E" |           | Class "P", MS/"P" |           |           | Class "J" |      |           |            | Class "PG"  |           |
|------------|--------------------------------------------|-----------|-----------|-----------|-----------|-----------|-------------------|-----------|-------------------|-----------|-----------|-----------|------|-----------|------------|-------------|-----------|
|            | C<br>Thread                                | D<br>Min. | G<br>Max. | H<br>Max. | L<br>Max. | N<br>Max. | L<br>Max.         | N<br>Max. | D<br>Min.         | L<br>Max. | N<br>Max. | D         |      | N<br>Max. | XL<br>Max. | B<br>Thread | L<br>Max. |
| 6          | -                                          | -         | -         | -         | -         | -         | 1.266             | .440      | .192              | 1.438     | .484      | -         | -    | -         | -          | -           | -         |
| 8          | 6-32                                       | .240      | .125      | .812      | 1.922     | .550      | 1.266             | .560      | .317              | 1.438     | .608      | .168      | .230 | .547      | 2.271      | M12x1.5-6H  | .936      |
| 10         | 6-32                                       | .302      | .188      | .875      | 1.922     | .675      | 1.266             | .685      | .434              | 1.438     | .734      | .205      | .312 | .675      | 2.271      | M16x1.5-6H  | .936      |
| 12         | 6-32                                       | .428      | .312      | 1.000     | 1.922     | .803      | 1.266             | .813      | .548              | 1.438     | .548      | .338      | .442 | .812      | 2.411      | M16x1.5-6H  | .936      |
| 14         | 6-32                                       | .552      | .375      | 1.125     | 1.922     | .920      | 1.266             | .930      | .673              | 1.438     | .673      | .416      | .539 | .940      | 2.599      | M18x1.5-6H  | .936      |
| 16         | 6-32                                       | .615      | .500      | 1.188     | 2.047     | 1.047     | 1.266             | 1.057     | .798              | 1.438     | .798      | .550      | .616 | 1.067     | 2.943      | M22x1.5-6H  | .936      |
| 18         | 8-32                                       | .740      | .625      | 1.438     | 2.078     | 1.165     | 1.266             | 1.175     | .899              | 1.438     | .899      | .600      | .672 | 1.194     | 3.172      | M25x1.5-6H  | .936      |
| 20         | 8-32                                       | .740      | .625      | 1.438     | 2.344     | 1.290     | 1.516             | 1.301     | 1.024             | 1.656     | 1.024     | .635      | .747 | 1.322     | 3.610      | M25x1.5-6H  | 1.180     |
| 22         | 8-32                                       | .928      | .750      | 1.625     | 2.344     | 1.418     | 1.516             | 1.430     | 1.149             | 1.656     | 1.149     | .670      | .846 | 1.449     | 3.766      | M32x1.5-6H  | 1.180     |
| 24         | 8-32                                       | .990      | .800      | 1.719     | 2.406     | 1.543     | 1.516             | 1.555     | 1.274             | 1.717     | 1.274     | .740      | .894 | 1.576     | 3.985      | M32x1.5-6H  | 1.180     |

All dimensions for reference only.

# PT02 (MS3112)

## SP02

box mounting receptacle



PT02A-XX-XXX  
SP02A-XX-XXX  
\* PT02C-XX-XXX  
\* SP02C-XX-XXX  
\* PT02E-XX-XXX  
\* SP02E-XX-XXX  
MS3112E-XX-XXX  
\* PT02P-XX-XXX  
\* SP02P-XX-XXX  
MS3112P-XX-XXX

To complete part number see how to order on page 25.

■ (MMC) located within .0025 of (TP)

\* The PT02 and SP02 box mounting receptacles are made only to complete a series;  
no provision is made for accessories or potting on the rear skirt.

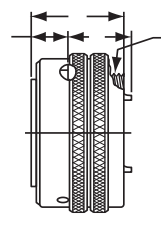
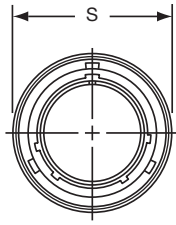
| Shell Size | Receptacle Front View |       |       |       | Receptacle Side View |                     |      |        |                     |      |                |           |      |
|------------|-----------------------|-------|-------|-------|----------------------|---------------------|------|--------|---------------------|------|----------------|-----------|------|
|            | R (TP)                |       | S     |       | A<br>+.001<br>-.005  | K<br>+.020<br>-.010 |      | L Max. | M<br>+.031<br>-.000 |      | N Dia.<br>Max. | Z<br>Max. |      |
|            | PT                    | SP    | PT    | SP    |                      | PT                  | SP   |        | PT                  | SP   |                | PT        | SP   |
| 6          | .469                  | .641  | .688  | .953  | .348                 | .493                | .524 | .825   | .431                | .462 | .323           | .465      | .438 |
| 8          | .594                  | .734  | .812  | 1.047 | .473                 | .493                | .524 | .825   | .431                | .462 | .449           | .465      | .438 |
| 10         | .719                  | .812  | .938  | 1.125 | .590                 | .493                | .524 | .825   | .431                | .462 | .573           | .465      | .438 |
| 12         | .812                  | .938  | 1.031 | 1.250 | .750                 | .493                | .524 | .825   | .431                | .462 | .699           | .465      | .438 |
| 14         | .906                  | 1.031 | 1.125 | 1.344 | .875                 | .493                | .524 | .825   | .431                | .462 | .823           | .465      | .438 |
| 16         | .969                  | 1.125 | 1.219 | 1.438 | 1.000                | .493                | .524 | .825   | .431                | .462 | .949           | .465      | .438 |
| 18         | 1.062                 | 1.219 | 1.312 | 1.516 | 1.125                | .493                | .524 | .825   | .431                | .462 | 1.073          | .465      | .438 |
| 20         | 1.156                 | 1.312 | 1.438 | 1.672 | 1.250                | .650                | .650 | 1.076  | .556                | .556 | 1.199          | .526      | .531 |
| 22         | 1.250                 | 1.438 | 1.562 | 1.750 | 1.375                | .650                | .650 | 1.076  | .556                | .556 | 1.323          | .526      | .531 |
| 24         | 1.375                 | 1.562 | 1.688 | 1.875 | 1.500                | .683                | .683 | 1.109  | .589                | .589 | 1.449          | .493      | .497 |

All dimensions for reference only.

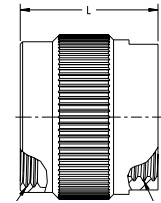
# PT06 (MS3116)

## SP06

### straight plug

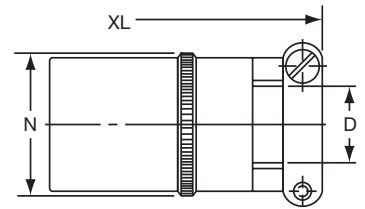


"PG" Cable Gland Seal



PT06PG-XX-XXX

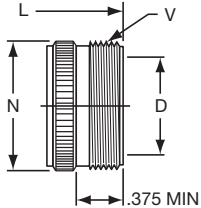
"J" Cable Seal



MS3116J-XX-XXX

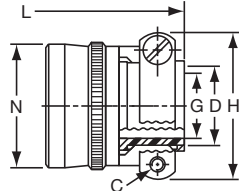
#### TERMINATION ASSEMBLIES

"A" General Duty



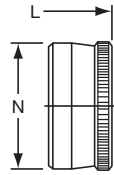
PT06A-XX-XXX  
SP06A-XX-XXX  
PTG06A-XX-XXX

"A" (SR), "E" (SR), "P" (SR),  
MS / "F" Strain Relief



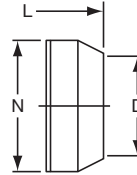
PT06A-XX-XXX (SR)  
SP06A-XX-XXX (SR)  
PTG06A-XX-XXX (SR)  
PT06E-XX-XXX (SR)  
SP06E-XX-XXX (SR)  
PTG06E-XX-XXX (SR)  
PT06P-XX-XXX (SR)  
SP06P-XX-XXX (SR)  
PTG06P-XX-XXX (SR)  
MS3116F-XX-XXX

"E" Open Wire Seal



PT06E-XX-XXX  
SP06E-XX-XXX  
PTG06E-XX-XXX  
MS3116E-XX-XXX

"P" Potting Boot



PT06P-XX-XXX  
SP06P-XX-XXX  
PTG06P-XX-XXX  
MS3116P-XX-XXX

To complete part number see how to order on page 25.

| Shell Size | Plug Front View | Plug Side View |        |                   |        | Class "A" |        |        |                  |
|------------|-----------------|----------------|--------|-------------------|--------|-----------|--------|--------|------------------|
|            | S Max.          | J              | L Max. | Q Thread Class 2A | Z Max. | D Min.    | L Max. | N Max. | V Thread Class A |
| 6          | .625            | .353           | .906   | .3125-32 NEF      | .594   | .175      | 1.609  | .462   | 1.4375-18 NEF    |
| 8          | .750            | .353           | .906   | .4375-28 UNEF     | .594   | .297      | 1.609  | .590   | .5000-28 UNEF    |
| 10         | .859            | .353           | .906   | .5625-24 NEF      | .594   | .421      | 1.609  | .717   | .6250-24 NEF     |
| 12         | 1.013           | .353           | .906   | .6875-24 NEF      | .594   | .546      | 1.609  | .834   | .7500-20 UNEF    |
| 14         | 1.156           | .353           | .906   | .8125-20 UNEF     | .594   | .663      | 1.609  | .970   | .8750-20 UNEF    |
| 16         | 1.281           | .353           | .906   | .9375-20 UNEF     | .594   | .787      | 1.609  | 1.088  | 1.0000-20 UNEF   |
| 18         | 1.391           | .353           | .906   | 1.0625-18 NEF     | .594   | .879      | 1.609  | 1.216  | 1.1875-18 NEF    |
| 20         | 1.531           | .415           | 1.062  | 1.1875-18 NEF     | .672   | 1.014     | 1.656  | 1.332  | 1.1875-18 NEF    |
| 22         | 1.656           | .415           | 1.062  | 1.3125-18 NEF     | .672   | 1.135     | 1.656  | 1.460  | 1.4375-18 NEF    |
| 24*        | 1.776           | .415           | 1.125  | 1.4375-18 NEF     | .672   | 1.259     | 1.750  | 1.587  | 1.4375-18 NEF    |

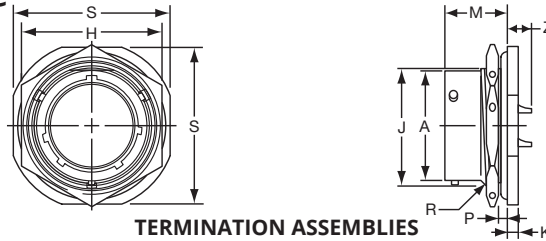
| Shell Size | Class "A" (SR), "E" (SR), "P" (SR), MS/"F" |        |        |        |        |        | Class "e", MS/"E" |        | Class "P", MS/"P" |        |        | Class "J" |      |        |         | Class "PG" |        |
|------------|--------------------------------------------|--------|--------|--------|--------|--------|-------------------|--------|-------------------|--------|--------|-----------|------|--------|---------|------------|--------|
|            | C Thread                                   | D Min. | G Max. | H Max. | L Max. | N Max. | L Max.            | N Max. | D Min.            | L Max. | N Max. | D         |      | N Max. | XL Max. | B Thread   | L Max. |
| 6          | -                                          | -      | -      | -      | -      | -      | 1.266             | .440   | .192              | 1.438  | .484   | -         | -    | -      | -       | -          | -      |
| 8          | 6-32                                       | .240   | .125   | .812   | 1.922  | .550   | 1.266             | .560   | .317              | 1.438  | .608   | .168      | .230 | .547   | 2.271   | M12x1.5-6H | .936   |
| 10         | 6-32                                       | .302   | .188   | .875   | 1.922  | .675   | 1.266             | .685   | .434              | 1.438  | .734   | .205      | .312 | .675   | 2.271   | M16x1.5-6H | .936   |
| 12         | 6-32                                       | .428   | .312   | 1.000  | 1.922  | .803   | 1.266             | .813   | .548              | 1.438  | .858   | .338      | .442 | .812   | 2.411   | M16x1.5-6H | .936   |
| 14         | 6-32                                       | .552   | .375   | 1.125  | 1.922  | .920   | 1.266             | .930   | .673              | 1.438  | .984   | .416      | .539 | .940   | 2.599   | M18x1.5-6H | .936   |
| 16         | 6-32                                       | .615   | .500   | 1.188  | 2.047  | 1.047  | 1.266             | 1.057  | .798              | 1.438  | 1.110  | .550      | .616 | 1.067  | 2.943   | M22x1.5-6H | .936   |
| 18         | 8-32                                       | .740   | .625   | 1.438  | 2.078  | 1.165  | 1.266             | 1.175  | .899              | 1.438  | 1.234  | .600      | .672 | 1.194  | 3.172   | M25x1.5-6H | .936   |
| 20         | 8-32                                       | .740   | .625   | 1.438  | 2.344  | 1.290  | 1.516             | 1.301  | 1.024             | 1.656  | 1.360  | .635      | .747 | 1.322  | 3.610   | M25x1.5-6H | 1.180  |
| 22         | 8-32                                       | .928   | .750   | 1.625  | 2.344  | 1.418  | 1.516             | 1.430  | 1.149             | 1.656  | 1.484  | .670      | .846 | 1.449  | 3.766   | M32x1.5-6H | 1.180  |
| 24         | 8-32                                       | .990   | .800   | 1.719  | 2.406  | 1.543  | 1.578             | 1.555  | 1.274             | 1.717  | 1.610  | .740      | .894 | 1.576  | 3.985   | M32x1.5-6H | 1.180  |

All dimensions for reference only.

# PT07 (MS3114)

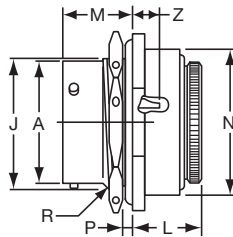
## SP07

### jam nut receptacle



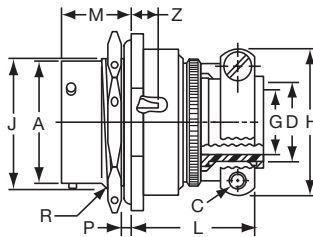
"A" General Duty/  
"C" Pressurized Receptacle  
**PT07A-XX-XXX**  
**PT07C-XX-XXX**

"E" Open Wire Seal



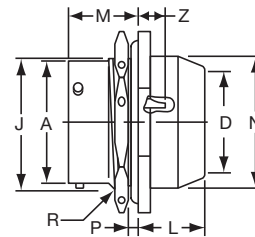
**PT07E-XX-XXX**  
**SP07E-XX-XXX**  
**MS3114E-XX-XXX**

"A" (SR), "E" (SR), "P" (SR),  
MS / "F" Strain Relief



**PT07A-XX-XXX (SR)**  
**SP07A-XX-XXX (SR)**  
**PT07E-XX-XXX (SR)**  
**MS3114F-XX-XXX**

"P" Potting Boot



**PT07P-XX-XXX**  
**MS3114P-XX-XXX**

To complete part number see how to order on page 25.

| Shell Size | Recept. Front View |       | Receptacle Side View     |                          |                     |      |                 |      |                              | Class "E", MS/"E" |           |      |           |            |
|------------|--------------------|-------|--------------------------|--------------------------|---------------------|------|-----------------|------|------------------------------|-------------------|-----------|------|-----------|------------|
|            | H<br>±.016         | S     | A Dia.<br>+.001<br>-.005 | J Flat<br>+.000<br>-.010 | K<br>+.011<br>-.010 | M    | Panel Thickness |      | R Thread<br>Class 2A<br>UNEF | Z<br>Max.         | L<br>Max. | M    | N<br>Max. | Z<br>±.040 |
|            |                    |       |                          |                          |                     |      | Min.            | Max. |                              |                   |           |      |           |            |
| 6          | .625               | .812  | .348                     | .405                     | .125                | .696 | .062            | .125 | .4375-28                     | .231              | .568      | .696 | .604      | .191       |
| 8          | .750               | .938  | .473                     | .530                     | .125                | .696 | .062            | .125 | .5625-24                     | .231              | .568      | .696 | .729      | .191       |
| 10         | .875               | 1.062 | .590                     | .655                     | .125                | .696 | .062            | .125 | .6875-24                     | .231              | .568      | .696 | .854      | .191       |
| 12         | 1.062              | 1.250 | .750                     | .818                     | .125                | .696 | .062            | .125 | .8750-20                     | .231              | .568      | .696 | .979      | .191       |
| 14         | 1.188              | 1.375 | .875                     | .942                     | .125                | .696 | .062            | .125 | 1.0000-20                    | .231              | .568      | .696 | 1.104     | .191       |
| 16         | 1.312              | 1.500 | 1.000                    | 1.066                    | .125                | .696 | .062            | .125 | 1.1250-18                    | .231              | .568      | .696 | 1.229     | .191       |
| 18         | 1.438              | 1.625 | 1.125                    | 1.191                    | .125                | .696 | .062            | .125 | 1.2500-18                    | .231              | .568      | .696 | 1.354     | .191       |
| 20         | 1.562              | 1.812 | 1.250                    | 1.316                    | .156                | .884 | .062            | .250 | 1.3750-18                    | .261              | .630      | .884 | 1.510     | .221       |
| 22         | 1.688              | 1.938 | 1.375                    | 1.441                    | .156                | .884 | .062            | .250 | 1.5000-18                    | .261              | .630      | .884 | 1.635     | .221       |
| 24         | 1.816              | 2.062 | 1.500                    | 1.566                    | .156                | .917 | .062            | .250 | 1.6250-18                    | .228              | .660      | .917 | 1.760     | .188       |

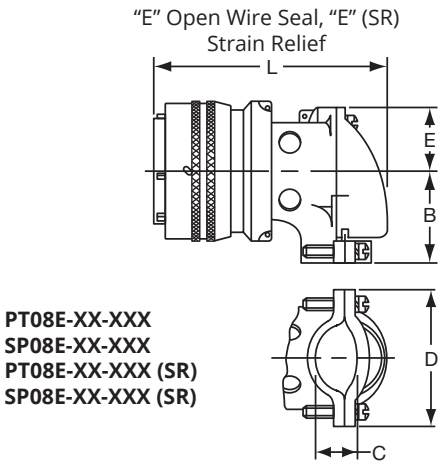
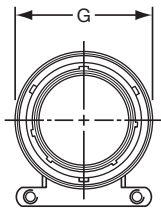
| Shell Size | Class "A" (SR), "E" (SR), "P" (SR), MS/"F" |        |      |       |       |      | Class "E" (SR) |        |      |       |       |      | Class "P", MS/"P" |                  |      |       |      |
|------------|--------------------------------------------|--------|------|-------|-------|------|----------------|--------|------|-------|-------|------|-------------------|------------------|------|-------|------|
|            | C Thread                                   | D Max. | G    | H     | L     | M    | C Thread       | D Max. | G    | H     | L     | M    | D Max.            | L +.010<br>-.026 | M    | N     | Z    |
| 6          | -                                          | -      | -    | -     | -     | -    | -              | -      | -    | -     | -     | -    | .202              | .593             | .696 | .484  | .191 |
| 8          | 6-32                                       | .250   | .125 | .781  | 1.062 | .696 | 6-32           | .250   | .125 | .775  | 1.029 | .696 | .327              | .593             | .696 | .608  | .191 |
| 10         | 6-32                                       | .312   | .188 | .844  | 1.062 | .696 | 6-32           | .312   | .188 | .837  | 1.029 | .696 | .444              | .593             | .696 | .734  | .191 |
| 12         | 6-32                                       | .438   | .312 | .969  | 1.062 | .696 | 6-32           | .438   | .312 | .963  | 1.029 | .696 | .558              | .593             | .696 | .858  | .191 |
| 14         | 6-32                                       | .562   | .375 | 1.094 | 1.062 | .696 | 6-32           | .562   | .375 | 1.087 | 1.029 | .696 | .683              | .593             | .696 | .984  | .191 |
| 16         | 6-32                                       | .625   | .500 | 1.156 | 1.188 | .696 | 6-32           | .625   | .500 | 1.150 | 1.161 | .696 | .808              | .593             | .696 | 1.110 | .191 |
| 18         | 8-32                                       | .750   | .625 | 1.406 | 1.188 | .696 | 8-32           | .750   | .625 | 1.400 | 1.161 | .696 | .909              | .593             | .696 | 1.234 | .191 |
| 20         | 8-32                                       | .750   | .625 | 1.406 | 1.250 | .884 | 8-32           | .750   | .625 | 1.400 | 1.224 | .884 | 1.034             | .718             | .884 | 1.360 | .221 |
| 22         | 8-32                                       | .938   | .750 | 1.594 | 1.250 | .884 | 8-32           | .938   | .750 | 1.587 | 1.224 | .884 | 1.159             | .718             | .884 | 1.484 | .221 |
| 24         | 8-32                                       | 1.000  | .800 | 1.594 | 1.250 | .917 | 8-32           | 1.000  | .800 | 1.681 | 1.320 | .917 | 1.284             | .718             | .917 | 1.610 | .188 |

\*Size 24 strain relief available in PT only

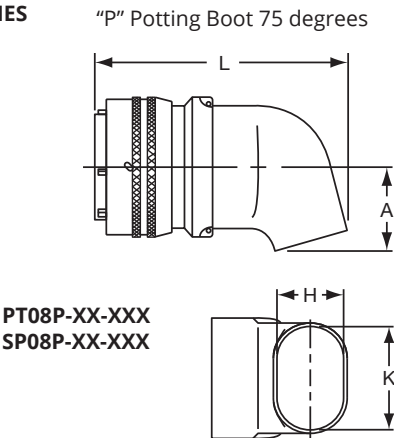
# PT08 E

## SP08 E

### 90 degree plug



#### TERMINATION ASSEMBLIES



To complete part number see how to order on page 25.  
All lockwire holes are .044 Dia. Min.

| Shell Size | Plug Front View | Plug Side View      |                  |         |                  |         |           |         |         |        |
|------------|-----------------|---------------------|------------------|---------|------------------|---------|-----------|---------|---------|--------|
|            | G Dia. Max      | Class "E", "E" (SR) |                  |         |                  |         | Class "P" |         |         |        |
|            |                 | B ±.031             | C +.010<br>-.025 | D ±.062 | E +.047<br>-.025 | L ±.057 | A ±.025   | H ±.015 | K ±.015 | L Max. |
| 8          | .796            | .655                | .169             | .941    | .339             | 1.786   | .469      | .312    | .438    | 1.656  |
| 10         | .921            | .749                | .170             | 1.191   | .393             | 1.880   | .547      | .438    | .562    | 1.781  |
| 12         | 1.046           | .812                | .264             | 1.191   | .450             | 1.965   | .625      | .516    | .688    | 1.843  |
| 14         | 1.171           | .905                | .310             | 1.254   | .519             | 2.113   | .734      | .625    | .781    | 1.953  |
| 16         | 1.297           | 1.030               | .330             | 1.316   | .583             | 2.315   | .750      | .656    | .890    | 2.000  |
| 18         | 1.422           | 1.015               | .444             | 1.562   | .621             | 2.423   | .781      | .703    | 1.000   | 2.046  |
| 20         | 1.562           | 1.077               | .510             | 1.625   | .683             | 2.695   | .859      | .766    | 1.125   | 2.218  |
| 22         | 1.672           | 1.139               | .515             | 1.719   | .739             | 2.742   | .906      | .812    | 1.234   | 2.265  |
| 24         | 1.797           | 1.265               | .656             | 1.751   | .797             | 2.980   | 1.169     | .918    | 1.374   | 2.624  |

All dimensions for reference only.

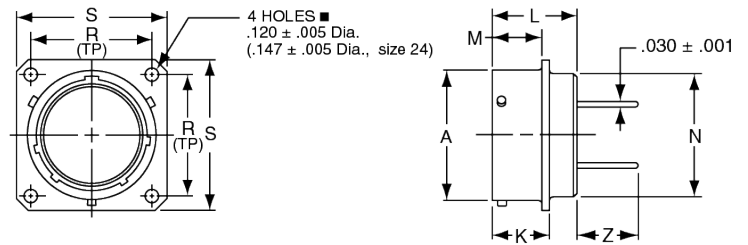


# PT Connectors with Printed Circuit Board Contacts

## Box Mounting Receptacle (PT02) with PCB Contacts

Order by applicable part number in chart below; add insert arrangement number. Refer to insert availability on pages 4-10.

■ (MMC) located within .0025 of (TP)



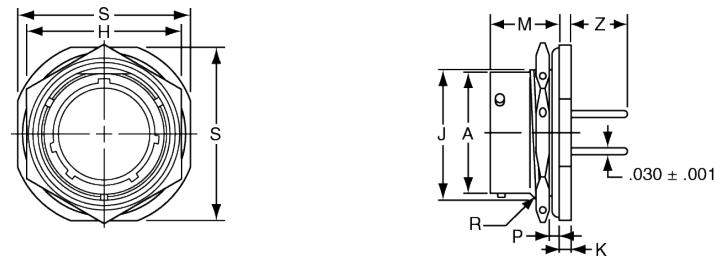
| Shell Size | Part Number*<br>PT02 with PCB Contacts | Receptacle Front View |                     | Receptacle Side View |                     |           |                     |                   |                     |
|------------|----------------------------------------|-----------------------|---------------------|----------------------|---------------------|-----------|---------------------|-------------------|---------------------|
|            |                                        | R (TP)                | S<br>+.011<br>-.010 | A<br>+.001<br>-.005  | K<br>+.021<br>-.010 | L<br>Max. | M<br>+.031<br>-.000 | N<br>Dia.<br>Max. | Z<br>+.040<br>-.050 |
| 6          | 71-570120-XXX                          | .469                  | .688                | .348                 | .493                | .825      | .431                | .323              | .380                |
| 8          | 71-570121-XXX                          | .594                  | .812                | .473                 | .493                | .825      | .431                | .449              | .380                |
| 10         | 71-570122-XXX                          | .719                  | .938                | .590                 | .493                | .825      | .431                | .573              | .380                |
| 12         | 71-570123-XXX                          | .812                  | 1.031               | .750                 | .493                | .825      | .431                | .699              | .380                |
| 14         | 71-570124-XXX                          | .906                  | 1.125               | .875                 | .493                | .825      | .431                | .823              | .380                |
| 16         | 71-570125-XXX                          | .969                  | 1.219               | 1.000                | .493                | .825      | .431                | .949              | .380                |
| 18         | 71-570126-XXX                          | 1.062                 | 1.312               | 1.125                | .493                | .825      | .431                | 1.073             | .380                |
| 20         | 71-570127-XXX                          | 1.156                 | 1.438               | 1.250                | .650                | 1.076     | .556                | 1.199             | .286                |
| 22         | 71-570128-XXX                          | 1.250                 | 1.562               | 1.375                | .650                | 1.076     | .556                | 1.323             | .286                |
| 24         | 71-570129-XXX                          | 1.375                 | 1.688               | 1.500                | .683                | 1.109     | .589                | 1.449             | .253                |

All dimensions for reference only.

## Jam Nut Receptacle (PT07) with PCB Contacts

All lockwire holes are .044 Dia. Min.

Order by applicable part number in chart below; add insert arrangement number. Refer to insert availability on pages 4-10.



| Shell Size | Part Number*<br>PT07 with PCB<br>Contacts | Receptacle Front View |            | Receptacle Side View     |                          |                     |            |                      |      |                         |                     |
|------------|-------------------------------------------|-----------------------|------------|--------------------------|--------------------------|---------------------|------------|----------------------|------|-------------------------|---------------------|
|            |                                           | H<br>+.017<br>-.016   | S<br>±.010 | A Dia.<br>+.001<br>-.005 | J Flat<br>+.000<br>-.010 | K<br>+.011<br>-.010 | M<br>±.010 | P Panel<br>Thickness |      | R<br>Thread<br>Class 2A | Z<br>+.025<br>-.035 |
|            |                                           | Min.                  | Max.       |                          |                          |                     |            |                      |      |                         |                     |
| 6          | 71-533720-XXX                             | .625                  | .812       | .348                     | .405                     | .125                | .696       | .062                 | .125 | .4375-28 UNEF           | .376                |
| 8          | 71-533721-XXX                             | .750                  | .938       | .473                     | .530                     | .125                | .696       | .062                 | .125 | .5625-24 UNEF           | .376                |
| 10         | 71-533722-XXX                             | .875                  | 1.062      | .590                     | .655                     | .125                | .696       | .062                 | .125 | .6875-24 UNEF           | .376                |
| 12         | 71-533723-XXX                             | 1.062                 | 1.250      | .750                     | .818                     | .125                | .696       | .062                 | .125 | .8750-20 UNEF           | .376                |
| 14         | 71-533724-XXX                             | 1.188                 | 1.375      | .875                     | .942                     | .125                | .696       | .062                 | .125 | 1.0000-20 UNEF          | .376                |
| 16         | 71-533725-XXX                             | 1.312                 | 1.500      | 1.000                    | 1.066                    | .125                | .696       | .062                 | .125 | 1.1250-18 UNEF          | .376                |
| 18         | 71-533726-XXX                             | 1.438                 | 1.625      | 1.125                    | 1.191                    | .125                | .696       | .062                 | .125 | 1.2500-18 UNEF          | .376                |
| 20         | 71-533727-XXX                             | 1.562                 | 1.812      | 1.250                    | 1.316                    | .156                | .884       | .062                 | .250 | 1.3750-18 UNEF          | .367                |
| 22         | 71-533728-XXX                             | 1.688                 | 1.938      | 1.375                    | 1.441                    | .156                | .884       | .062                 | .250 | 1.5000-18 UNEF          | .367                |
| 24         | 71-533729-XXX                             | 1.816                 | 2.062      | 1.500                    | 1.556                    | .156                | .917       | .062                 | .250 | 1.6250-18 UNEF          | .334                |

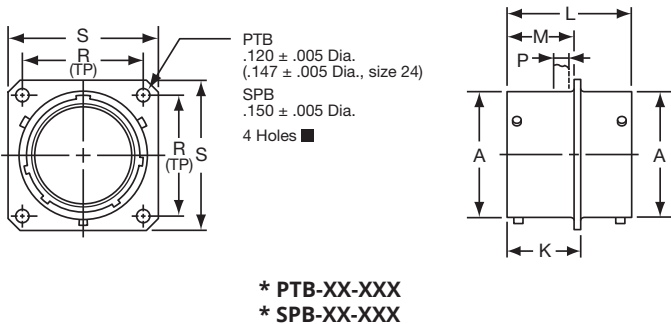
All dimensions for reference only.

\* For RoHS compliance connectors with PCB contacts change "71"- to:  
"FL" designates conductive gray zinc nickel plating  
"93" designates black zinc cobalt plating

# PTB

# SPB

## thru bulkhead receptacle



\* To complete part number add desired arrangement number (refer to pages 4 and 5 for insert availability) and add “PS”;  
Example: PTB-18-32PS. If a rotation is required, use PTB-18-32PS and add W, X, Y or Z. Example: PTB-18-32 PSW.  
The socket end of the insert always appears at the “P” dimension end of shell.

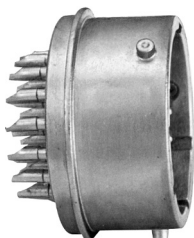
■(MMC) located within .0025 of (TP)

| Shell Size | Receptacle Front View |       |       |       | Receptacle Side View |                     |            |                     |        |      |
|------------|-----------------------|-------|-------|-------|----------------------|---------------------|------------|---------------------|--------|------|
|            | R (TP)                |       | S     |       | A<br>+.001<br>-.005  | K<br>+.016<br>-.000 | L<br>±.005 | M<br>+.010<br>-.000 | P Max. |      |
|            | PTB                   | SPB   | PTB   | SPB   |                      |                     |            |                     | PTB    | SPB  |
| 6          | .469                  | .641  | .688  | .953  | .348                 | .625                | 1.050      | .562                | .125   | .188 |
| 8          | .594                  | .734  | .812  | 1.047 | .473                 | .625                | 1.050      | .562                | .125   | .188 |
| 10         | .719                  | .812  | .938  | 1.125 | .590                 | .625                | 1.050      | .562                | .125   | .188 |
| 12         | .812                  | .938  | 1.031 | 1.250 | .750                 | .625                | 1.050      | .562                | .125   | .188 |
| 14         | .906                  | 1.031 | 1.125 | 1.344 | .875                 | .625                | 1.050      | .562                | .125   | .188 |
| 16         | .969                  | 1.125 | 1.219 | 1.438 | 1.000                | .625                | 1.050      | .562                | .125   | .188 |
| 18         | 1.062                 | 1.203 | 1.312 | 1.516 | 1.125                | .625                | 1.050      | .562                | .125   | .188 |
| 20         | 1.156                 | 1.297 | 1.438 | 1.672 | 1.250                | .781                | 1.330      | .688                | .125   | .312 |
| 22         | 1.250                 | 1.375 | 1.562 | 1.750 | 1.375                | .781                | 1.330      | .688                | .125   | .312 |
| 24         | 1.375                 | 1.500 | 1.688 | 1.875 | 1.500                | .781                | 1.330      | .688                | .125   | .312 |

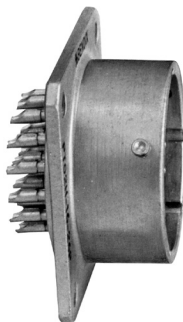
# PT

## hermetic

solder  
mounting  
receptacle



box mounting  
receptacle



jam nut  
receptacle



**Three shell styles are available in the hermetic PT bayonet series:**

- PTIH (MS3113H)
- PT02H
- PT07H (MS3114H)

These hermetic connectors are only available with solder cup or flat eyelet pin contacts in the MS/PT version. Socket contacts are available in some proprietary PT versions. Other design characteristics of the PT hermetic connector series are as follows:

Shell sizes: 8 through 24 (tin plated)

Contact count: 2 through 61. Refer to pages 4 and 5 for insert availability for hermetics.

Current: 5.0 amp each #20 contact  
10 amp each #16 contact  
17 amp each #12 contact

Contacts are tin plated for PT; gold is optional

Dielectric Withstanding Voltage (sea level):  
1500 volts (RMS) 60 cps, Service Rating I  
2300 volts (RMS) 60 cps, Service Rating II

Compression glass inserts, permanently lettered

Helium Leakage: Less than  $1.0 \times 10^{-6}$  cc/sec.  
at 15 psi differential

Physical Shock: 100 G's

Vibration: Exceeds MIL-E-5272 Procedure II

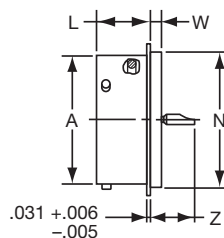
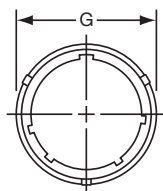
Thermal Shock: No deterioration or failure after 5 cycles  
at -55°F to +257°F

Intermateability: Mates with MS3116 and PT06

Refer to pages 4-10 for insert arrangement availability.

# PTIH (MS3113H)

## hermetic solder mounting receptacle



\* PTIH-XX-XXX  
 \*\* PTIY-XX-XXX  
 \*\* MS3113H-XXCXXX  
 † PTIH-XX-XXX (100)  
 †† PTIY-XX-XXX (100)  
 †† MS3113H-XXYXXX

To complete part number see how to order on page 25.

\* Solder cup pin contacts without interfacial seal

\*\* Solder cup pin contacts with interfacial seal

† Flat eyelet pin contacts without interfacial seal

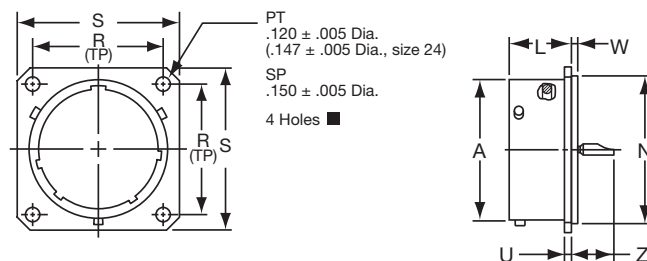
†† Flat eyelet pin contacts with interfacial seal

| Shell Size | Recept.<br>Front View | Receptacle Side View     |                     |                          |                     |           |
|------------|-----------------------|--------------------------|---------------------|--------------------------|---------------------|-----------|
|            | G Dia.<br>Max.        | A Dia.<br>+.001<br>-.005 | L<br>+.025<br>-.016 | N Dia.<br>+.001<br>-.005 | W<br>+.001<br>-.010 | Z<br>Max. |
| 6          | .511                  | .348                     | .447                | .438                     | .094                | .386      |
| 8          | .636                  | .473                     | .447                | .562                     | .094                | .386      |
| 10         | .761                  | .590                     | .447                | .672                     | .094                | .386      |
| 12         | .855                  | .750                     | .447                | .781                     | .094                | .386      |
| 14         | .980                  | .875                     | .447                | .906                     | .094                | .386      |
| 16         | 1.105                 | 1.000                    | .447                | 1.031                    | .094                | .386      |
| 18         | 1.229                 | 1.125                    | .447                | 1.156                    | .094                | .386      |
| 20         | 1.323                 | 1.250                    | .509                | 1.250                    | .094                | .386      |
| 22         | 1.449                 | 1.375                    | .509                | 1.375                    | .125                | .418      |
| 24         | 1.574                 | 1.500                    | .542                | 1.500                    | .125                | .418      |

All dimensions for reference only.

# PT02H

## hermetic box mounting receptacle



\* PT02H-XX-XXX  
 \*\* PT02Y-XX-XXX  
 † PT02H-XX-XXX (100)  
 †† PT02Y-XX-XXX (100)

To complete part number see how to order on page 25.

\* Solder cup pin contacts without interfacial seal

\*\* Solder cup pin contacts with interfacial seal

† Flat eyelet pin contacts without interfacial seal

†† Flat eyelet pin contacts with interfacial seal

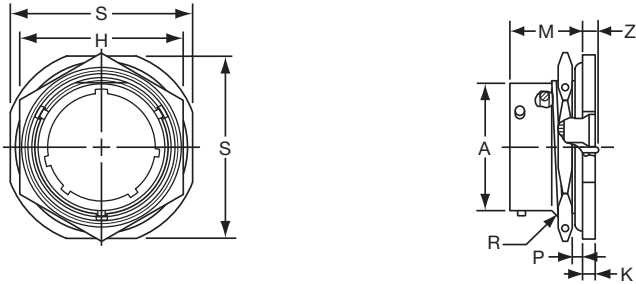
■ (MMC) located within .0025 of (TP)

| Shell Size | Recept. Front View |            | Receptacle Side View     |            |                     |                          |                     |           |
|------------|--------------------|------------|--------------------------|------------|---------------------|--------------------------|---------------------|-----------|
|            | R<br>(TP)          | S<br>±.016 | A Dia.<br>+.001<br>-.005 | K<br>±.015 | L<br>+.025<br>-.015 | N Dia.<br>+.001<br>-.005 | U<br>+.011<br>-.010 | Z<br>Max. |
| 6          | .469               | .688       | .348                     | .047       | .494                | .438                     | .062                | .344      |
| 8          | .594               | .812       | .473                     | .047       | .494                | .562                     | .062                | .344      |
| 10         | .719               | .938       | .590                     | .047       | .494                | .672                     | .062                | .344      |
| 12         | .812               | 1.031      | .750                     | .047       | .494                | .781                     | .062                | .344      |
| 14         | .906               | 1.125      | .875                     | .047       | .494                | .906                     | .062                | .344      |
| 16         | .969               | 1.219      | 1.000                    | .047       | .494                | 1.031                    | .062                | .344      |
| 18         | 1.062              | 1.312      | 1.125                    | .047       | .494                | 1.156                    | .062                | .344      |
| 20         | 1.156              | 1.438      | 1.250                    | .047       | .556                | 1.250                    | .062                | .344      |
| 22         | 1.250              | 1.562      | 1.375                    | .079       | .556                | 1.375                    | .062                | .377      |
| 24         | 1.375              | 1.688      | 1.500                    | .079       | .588                | 1.500                    | .062                | .377      |

All dimensions for reference only.

# PT07H (MS3114H)

## hermetic jam nut receptacle



- \* PT07H-XX-XXX
- \*\* PT07Y-XX-XXX
- \*\* MS3114H-XXCXXX
- † PT07H-XX-XXX (100)
- †† PT07Y-XX-XXX (100)
- †† MS3114H-XXYXXX

To complete part number see how to order on page 25.

\* Solder cup pin contacts without interfacial seal

\*\* Solder with pin contacts with interfacial seal

† Flat eyelet pin contacts without interfacial seal

†† Flat eyelet pin contacts with interfacial seal

| Shell Size | Recept. Front View |                         | Receptacle Side View |                     |                     |                   |      |                         |        |
|------------|--------------------|-------------------------|----------------------|---------------------|---------------------|-------------------|------|-------------------------|--------|
|            | S<br>±.016         | H Hex<br>+.017<br>-.016 | A<br>+.001<br>-.005  | K<br>+.043<br>-.016 | M<br>+.031<br>-.000 | P Panel Thickness |      | R<br>Thread<br>Class 2A | Z Max. |
|            |                    |                         |                      |                     |                     | Max.              | Min. |                         |        |
| 6          | .812               | .625                    | .348                 | .094                | .696                | .125              | .062 | .4375-28 UNEF           | .206   |
| 8          | .938               | .750                    | .473                 | .094                | .696                | .125              | .062 | .5625-24 NEF            | .206   |
| 10         | 1.062              | .875                    | .590                 | .094                | .696                | .125              | .062 | .6875-24 NEF            | .206   |
| 12         | 1.250              | 1.062                   | .750                 | .094                | .696                | .125              | .062 | .8750-20 UNEF           | .206   |
| 14         | 1.375              | 1.188                   | .875                 | .094                | .696                | .125              | .062 | 1.0000-20 UNEF          | .206   |
| 16         | 1.500              | 1.312                   | 1.000                | .094                | .696                | .125              | .062 | 1.1250-18 NEF           | .206   |
| 18         | 1.625              | 1.438                   | 1.125                | .094                | .696                | .125              | .062 | 1.2500-18 NEF           | .206   |
| 20         | 1.812              | 1.562                   | 1.250                | .125                | .884                | .250              | .062 | 1.3750-18 NEF           | .081   |
| 22         | 1.938              | 1.688                   | 1.375                | .125                | .884                | .250              | .062 | 1.5000-18 NEF           | .081   |
| 24         | 2.062              | 1.812                   | 1.500                | .125                | .917                | .250              | .062 | 1.6250-18 NEF           | .048   |

All dimensions for reference only.

# PT, SP, MS/PT

## how to order

### PT,SP

Ex: PT00A-20-41PW003

| 1.             | 2.          | 3.            | 4.         | 5.                 | 6.                    | 7.              | 8.     |
|----------------|-------------|---------------|------------|--------------------|-----------------------|-----------------|--------|
| Connector Type | Shell Style | Service Class | Shell Size | Insert Arrangement | Contact Configuration | Insert Rotation | Finish |
| PT             | 00          | A             | 20         | 41                 | P                     | W               | 003    |

| 1. Connector Type |                                                                                                                                                          |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| PT                | standard olive drab, electrically conductive cadmium plate bayonet lock connector with solder contacts                                                   |
| SP                | electrically non-conductive, hard anodic coated bayonet lock connector with solder contacts and larger flange and mounting holes for back panel mounting |
| PTG               | plug with grounding fingers                                                                                                                              |

| 2. Shell Style |                                         |
|----------------|-----------------------------------------|
| 00             | Wall mounting receptacle                |
| 01             | Cable connecting receptacle             |
| 02             | Box mounting receptacle                 |
| 06             | Straight plug                           |
| 07             | Jam nut receptacle                      |
| 08             | 90 degree plug cable support            |
| B              | thru bulkhead receptacle (pressurized)  |
| I              | Solder mount receptacle (Hermetic only) |

| 3. Service Class |                                                              |
|------------------|--------------------------------------------------------------|
| A                | General duty back shell                                      |
| C                | Pressurized receptacle                                       |
| E                | Environmental resisting open wire seal with grommet and nut  |
| P                | Assembly with potting boot                                   |
| PG               | Adapter for cable glad for moisture proofing jacketed cables |
| H                | Hermetic* without interfacial seal                           |
| Y                | Hermetic* with interfacial seal                              |

| 4. Shell Size                |
|------------------------------|
| Shell sizes 6 - 24 available |

| 5. Insert Arrangement                                                                  |
|----------------------------------------------------------------------------------------|
| Refer to pages 4-10 for insert availability (Use only the number following the hyphen) |

| 6. Contact Configuration                                                 |                 |
|--------------------------------------------------------------------------|-----------------|
| P                                                                        | Pin contacts    |
| S                                                                        | Socket contacts |
| For ordering connectors with printed circuit board contacts, see pg. 19. |                 |

| 7. Insert Rotation                        |                 |
|-------------------------------------------|-----------------|
| No letter is required for normal position |                 |
| W                                         | Refer to page 6 |
| X                                         |                 |
| Y                                         |                 |
| Z                                         |                 |

| 8. Finish                              |                                                                |
|----------------------------------------|----------------------------------------------------------------|
| SR                                     | Designates a strain relief clamp                               |
| Indicate optional finishes as follows: |                                                                |
| 100                                    | Suffix added for flat eyelet pin contacts in hermetic versions |
| OR                                     |                                                                |
| 005                                    | * Anodic coating - Aluminite® (standard on "SP")               |
| 023                                    | * Electroless nickel                                           |
| 025                                    | * Black zinc cobalt plating                                    |
| 072                                    | * Conductive gray zinc nickel plating                          |
| 424                                    | * Electroless nickel finish with strain relief                 |
| 470                                    | * Black zinc cobalt plating with strain relief                 |
| 725                                    | * Gray zinc nickel plating with strain relief                  |

\* RoHS Compliant finish

**Note:** Olive drab cadmium is the default plating. If required on SP type use suffix (003).

### MS/PT

MIL-DTL-26482, Series 1

Ex: MS3110E20-41PW

| 1.             | 2.                   | 3.          | 4.            | 5.         | 6.                 | 7.                    | 8.              |
|----------------|----------------------|-------------|---------------|------------|--------------------|-----------------------|-----------------|
| Connector Type | Specification Number | Shell Style | Service Class | Shell Size | Insert Arrangement | Contact Configuration | Insert Rotation |
| MS             | 311                  | 0           | E             | 20         | 41                 | P                     | W               |

| 1. Connector Type |                   |
|-------------------|-------------------|
| MS                | Military standard |

| 2. Specification Number |                                                             |
|-------------------------|-------------------------------------------------------------|
| 311                     | Basic family number for MIL-DTL-26482, Series 1 solder type |

| 3. Shell Style |                                         |
|----------------|-----------------------------------------|
| 0              | Wall mounting receptacle                |
| 1              | Cable connecting receptacle             |
| 2              | Box mounting receptacle                 |
| 3              | Solder mount receptacle (Hermetic only) |
| 4              | Jam nut receptacle                      |
| 6              | Straight plug                           |

| 4. Service Class |                                                                                |
|------------------|--------------------------------------------------------------------------------|
| E                | Environmental resisting connector                                              |
| F                | Environmental resisting connectors with strain relief                          |
| J                | Clamp assembly for moisture proofing multi-jacketed cables, with strain relief |
| P                | Potted type with potting boot                                                  |
| H                | Hermetic                                                                       |

| 5. Shell Size                |
|------------------------------|
| Shell sizes 8 - 24 available |

| 6. Insert Arrangement                                                                                      |                          |
|------------------------------------------------------------------------------------------------------------|--------------------------|
| Refer to pages 4-10 for insert availability (Use only the number following the hyphen)                     |                          |
| Hermetic Version:                                                                                          |                          |
| In this version a letter replaces the hyphen between the Shell Size and Insert Arrangement (Steps 5 and 6) |                          |
| Y                                                                                                          | Flat eyelet pin contacts |
| C                                                                                                          | Solder cup pin contacts  |

| 7. Contact Configuration                                                 |                 |
|--------------------------------------------------------------------------|-----------------|
| P                                                                        | Pin contacts    |
| S                                                                        | Socket contacts |
| For ordering connectors with printed circuit board contacts, see pg. 19. |                 |

| 8. Insert Rotation                        |                 |
|-------------------------------------------|-----------------|
| No letter is required for normal position |                 |
| W                                         | Refer to page 6 |
| X                                         |                 |
| Y                                         |                 |
| Z                                         |                 |

\* Hermetic connectors are supplied with tin plated shells.  
\*\* This connector style is sometimes referred to as a cable connecting "plug". It does, however, mate with either a straight or 90 degree plug.



# Amphenol PT-SE, SP-SE, MS/PT-SE

Proprietary/MIL-DTL-26482, Series 1

bayonet coupling and crimp termination

wall mounting  
receptacle



**Amphenol® SE crimp type miniature connectors provide performance and versatility needed for applications demanding high reliability and crimp removable contacts. These crimp contacts are rear insertable/front release and are held in position by an MS approved spring tower retention system.**

The MS/PT-SE Series is qualified to MIL-DTL-26482, Series 1 and has all the outstanding design characteristics and quality of the PT Series.

cable  
connecting  
receptacle\*



The SP-SE Series is a modification of the PT-SE, providing special shells with a wide mounting flange for back panel mounting.

A corrosion resistant electrically conductive finish of cadmium plate with an olive drab chromate after-treatment is used on the PT-SE and MS/PT-SE. The SP-SE is given a durable non-conductive hard anodic "Alumilite"® coating which provides abrasion protection and resistance to corrosion.

box mounting  
receptacle



500 hour corrosion resistance, RoHS compliant harsh environment conductive plating. Gray Zinc over an Electroless Nickel (Gray ZnNi) base, with a Light Gun Metal Gray appearance.

Shell components for these series are aluminum. The dependable 5 key/keyway polarization with bayonet lock coupling assures positive mating with no chance of cross plugging. Spring tension provided by a wave washer in the coupling nut ensures maintenance of interfacial seal between mating halves.

straight plug



Both the insert and main joint gasket are molded from resilient neoprene. This provides excellent moisture sealing at the gasket and superior electrical isolation of the contact in the insert.

Both pins and sockets are machined from a copper alloy and are gold plated. This gold plating eliminates contact corrosion and offers an indefinite shelf life. Socket contacts for these series are closed entry design.

jam nut  
receptacle



Breakaway style plug is available in PT-SE crimp.

The PT-SE, SP-SE and MS/PT-SE Series are intermateable and intermountable with all existing Miniature Cylindrical Series connectors.

Refer to pages 4-10 for insert arrangement availability.

\* This connector style is sometimes referred to as a cable connecting "plug". It does, however, mate with either a straight or 90 degree plug.

# PT-SE, SP-SE, MS/PT-SE

| Contact Specifications |              |                         |                     |                    |
|------------------------|--------------|-------------------------|---------------------|--------------------|
| Contact Size           | Test Current | Maximum Millivolt Drop† | Crimp Well Diameter | Minimum Well Depth |
| 20                     | 7.5          | 55                      | .049±.001           | .267               |
| 16                     | 13.0         | 49                      | .067±.001           | .236               |
| 12                     | 23.0         | 42                      | .100±.002           | .236               |

| Service Rating |                                               |                               |            |            |             |
|----------------|-----------------------------------------------|-------------------------------|------------|------------|-------------|
| Service Rating | Recommended Operating AC Voltage at Sea Level | Test Voltage AC (RMS), 60 cps |            |            |             |
|                |                                               | Sea Level                     | 50,000 ft. | 70,000 ft. | 110,000 ft. |
| I              | 600                                           | 1,500                         | 500        | 375        | 200         |
| II             | 1,000                                         | 2,300                         | 750        | 500        | 200         |

† Silver plated wire per MIL-DTL-26482

**"SE",  
MS / "E"  
open wire seal**



## PT-SE and SP-SE Service Classes

PT-SE and SP-SE connectors are available in the three service classes listed below.

- "SE"** Open wire sealing - environmental resistant, with a nut and grommet for moisture proofing individual wires
- "SE (SR)"** Strain relief clamp - environmental resistant strain relief clamp and grommet for moisture proofing individual wires; provides added wire bundle support
- "SP"** Translucent nylon boot for retaining customer applied potting compounds; held in place by a threaded ring

**"SE" (SR),  
MS / "F"  
strain relief  
clamp**



## MS/PT-SE Service Classes

MS-SE series connectors are available in the following certified service classes:

- "E"** Open wire sealing - environmental resisting connectors are supplied with a multi-hole grommet and clamping nut for moisture proofing individual open wires
- "F"** Environmental resistant strain relief clamp and grommet for moisture proofing individual wires; provides added wire bundle support
- "P"** Potting applications - these connectors are supplied with a translucent nylon boot for retention of customer applied potting compound

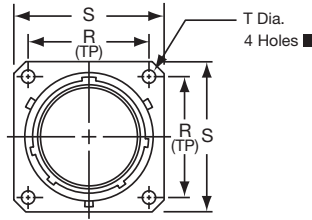
**"SP",  
MS / "P"  
potting boot**



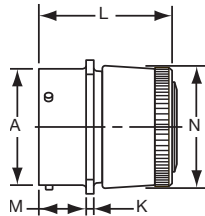
# PT00 SE (MS3120)

## SP00 SE

### wall mounting receptacle



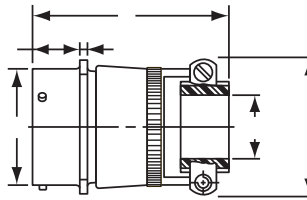
"SE" Open Wire Seal



PT00SE-XX-XXX  
SP00SE-XX-XXX  
MS3120E-XX-XXX

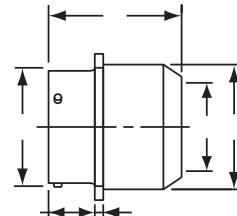
#### TERMINATION ASSEMBLIES

"SE" (SR), MS / "F" Strain Relief



PT00SE-XX-XXX (SR)  
SP00SE-XX-XXX (SR)  
MS3120F-XX-XXX

"SP" Potting Boot



PT00SP-XX-XXX  
SP00SP-XX-XXX

To complete part number see how to order on page 36.

■(MMC) located within .005 of (TP)

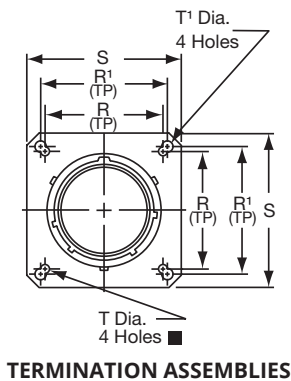
| Shell Size | Receptacle Front View |       |        |       |              |      | Receptacle Side View |         |               |      |                    |      |
|------------|-----------------------|-------|--------|-------|--------------|------|----------------------|---------|---------------|------|--------------------|------|
|            | R (TP)                |       | S Max. |       | T Dia. ±.005 |      | A Dia. +.001 -.005   | K ±.016 | M +.010 -.000 |      | P* Panel Thickness |      |
|            | PT                    | SP    | PT     | SP    | PT           | SP   |                      |         | PT            | SP   | PT                 | SP   |
| 8          | .594                  | -     | .828   | -     | .120         | -    | .473                 | .062    | .431          | -    | .094               | -    |
| 10         | .719                  | .812  | .954   | 1.141 | .120         | .150 | .590                 | .062    | .431          | .462 | .094               | .125 |
| 12         | .812                  | .938  | 1.047  | 1.226 | .120         | .150 | .750                 | .062    | .431          | .462 | .094               | .125 |
| 14         | .906                  | 1.031 | 1.141  | 1.360 | .120         | .150 | .875                 | .062    | .431          | .462 | .094               | .125 |
| 16         | .969                  | 1.125 | 1.234  | 1.453 | .120         | .150 | 1.000                | .062    | .431          | .462 | .094               | .125 |
| 18         | 1.062                 | 1.203 | 1.328  | 1.532 | .120         | .150 | 1.125                | .062    | .431          | .462 | .094               | .125 |
| 20         | 1.156                 | 1.297 | 1.453  | 1.688 | .120         | .150 | 1.250                | .094    | .556          | .556 | .219               | .219 |
| 22         | 1.250                 | 1.375 | 1.578  | 1.766 | .120         | .150 | 1.375                | .094    | .556          | .556 | .219               | .219 |
| 24         | 1.375                 | 1.500 | 1.703  | 1.891 | .147         | .150 | 1.500                | .094    | .589          | .589 | .219               | .219 |

| Shell Size | Class "SE", MS/"E" |            | Class "SE"(SR), MS/"F" |        |        | Class "SP", MS/"P" |        |             |
|------------|--------------------|------------|------------------------|--------|--------|--------------------|--------|-------------|
|            | L Max.             | N Dia. Max | G Dia.                 | L Max. | N Max. | D Dia. Max.        | L Max. | N Dia. Max. |
| 8          | 1.328              | .560       | .125                   | 2.422  | .781   | -                  | -      | -           |
| 10         | 1.328              | .704       | .188                   | 2.422  | .844   | .444               | 1.656  | .734        |
| 12         | 1.328              | .825       | .312                   | 2.422  | .969   | .558               | 1.656  | .858        |
| 14         | 1.328              | .954       | .375                   | 2.422  | 1.094  | .683               | 1.656  | .984        |
| 16         | 1.328              | 1.080      | .500                   | 2.537  | 1.156  | .808               | 1.656  | 1.110       |
| 18         | 1.328              | 1.204      | .625                   | 2.537  | 1.406  | .909               | 1.656  | 1.234       |
| 20         | 1.359              | 1.330      | .625                   | 2.824  | 1.406  | 1.034              | 1.750  | 1.360       |
| 22         | 1.359              | 1.454      | .750                   | 2.824  | 1.594  | 1.159              | 1.750  | 1.484       |
| 24         | 1.422              | 1.580      | .800                   | 2.900  | 1.688  | 1.284              | 1.782  | 1.610       |

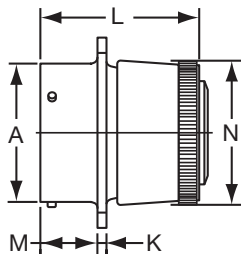
\* Back panel mounting  
All dimensions for reference only.

# MF00 SE (MS3128)

## wall mounting receptacle

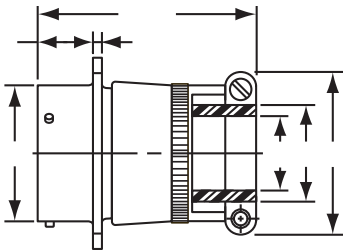


“SE” Open Wire Seal



MF00SE-XX-XXX  
MS3128E-XX-XXX

MS / “F” Strain Relief



MF00SE-XX-XXX (SR)  
MS3128F-XX-XXX

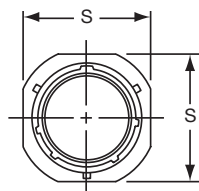
| Shell<br>Size | Receptacle Front View |                |           |                 |                              | Receptacle Side View     |            |                     |               |           |               |           |           |           |  |
|---------------|-----------------------|----------------|-----------|-----------------|------------------------------|--------------------------|------------|---------------------|---------------|-----------|---------------|-----------|-----------|-----------|--|
|               | R                     | R <sup>1</sup> | S<br>Max. | T Dia.<br>±.005 | T <sup>1</sup> Dia.<br>±.005 | A Dia.<br>+.001<br>-.000 | K<br>±.016 | M<br>+.010<br>-.000 | Class MS/ "E" |           | Class MS/ "F" |           |           |           |  |
|               |                       |                |           |                 |                              |                          |            |                     | L<br>Max.     | N<br>Max. | F<br>Min.     | G<br>Dia. | L<br>Max. | N<br>Max. |  |
| 10            | .719                  | .812           | 1.141     | .120            | .150                         | .590                     | .062       | .462                | 1.328         | .685      | .297          | .188      | 1.906     | .891      |  |
| 12            | .812                  | .938           | 1.266     | .120            | .150                         | .750                     | .062       | .462                | 1.328         | .813      | .422          | .312      | 1.906     | 1.016     |  |
| 14            | .906                  | 1.031          | 1.360     | .120            | .150                         | .875                     | .062       | .462                | 1.328         | .930      | .547          | .375      | 1.906     | 1.141     |  |
| 16            | .969                  | 1.125          | 1.453     | .120            | .150                         | 1.000                    | .062       | .462                | 1.328         | 1.057     | .609          | .500      | 2.000     | 1.203     |  |
| 18            | 1.062                 | 1.203          | 1.532     | .120            | .150                         | 1.125                    | .062       | .462                | 1.28          | 1.175     | .734          | .625      | 2.000     | 1.469     |  |
| 20            | 1.156                 | 1.297          | 1.688     | .120            | .150                         | 1.250                    | .094       | .556                | 1.359         | 1.301     | .734          | .625      | 2.172     | 1.469     |  |
| 22            | 1.250                 | 1.375          | 1.766     | .120            | .150                         | 1.375                    | .094       | .556                | 1.359         | 1.428     | .922          | .750      | 2.172     | 1.656     |  |
| 24            | 1.375                 | 1.500          | 1.891     | .147            | .150                         | 1.500                    | .094       | .589                | 1.422         | 1.533     | .984          | .800      | 2.234     | 1.750     |  |

All dimensions for reference only.

# PT01 SE (MS3121)

## SP01 SE

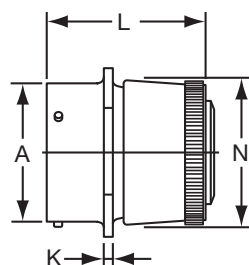
### cable connecting receptacle



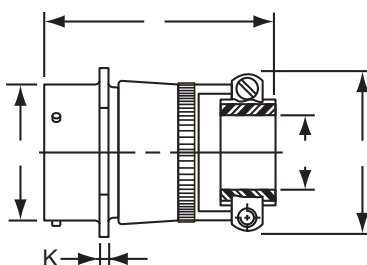
#### TERMINATION ASSEMBLIES

"SE" (SR), MS / "F" Strain Relief

"SE" Open Wire Seal

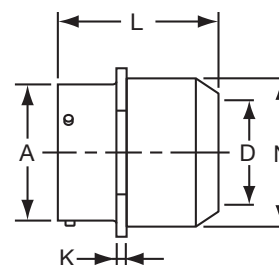


PT01SE-XX-XXX  
SP01SE-XX-XXX  
MS3121E-XX-XXX



PT01SE-XX-XXX (SR)  
SP01SE-XX-XXX (SR)  
MS3121F-XX-XXX

"SP", MS / "P" Potting Boot



PT01SP-XX-XXX  
SP01SP-XX-XXX  
MS3121P-XX-XXX

Note: This connector style is sometimes referred to as a cable connecting "plug".

It does, however, mate with either a straight or 90 degree plug.

To complete part number see how to order on page 36.

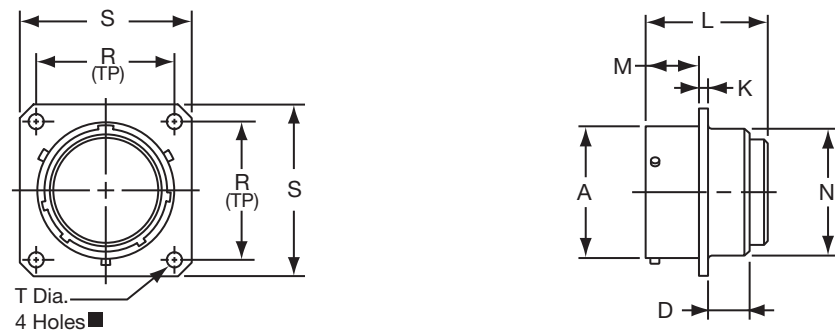
| Shell Size | Receptacle Front View | Receptacle Side View  |         |        |             |                         |        |        |                    |        |             |
|------------|-----------------------|-----------------------|---------|--------|-------------|-------------------------|--------|--------|--------------------|--------|-------------|
|            | S Max.                | Class "SE", MS/ "E"   |         |        |             | Class "SE" (SR), MS/"F" |        |        | Class "SP", MS/"P" |        |             |
|            |                       | A Dia. +.001<br>-.005 | K ±.018 | L Max. | N Dia. Max. | G Dia.                  | L Max. | N Max. | D Dia.             | L Max. | N Dia. Max. |
| 8          | .832                  | .473                  | .094    | 1.522  | .560        | .125                    | 2.422  | .828   | -                  | -      | -           |
| 10         | .975                  | .590                  | .094    | 1.522  | .685        | .188                    | 2.422  | .891   | .444               | 1.656  | .734        |
| 12         | 1.068                 | .750                  | .094    | 1.522  | .813        | .312                    | 2.422  | 1.016  | .558               | 1.656  | .858        |
| 14         | 1.162                 | .875                  | .094    | 1.522  | .930        | .375                    | 2.422  | 1.141  | .683               | 1.656  | .984        |
| 16         | 1.256                 | 1.000                 | .094    | 1.522  | 1.057       | .500                    | 2.537  | 1.203  | .808               | 1.656  | 1.110       |
| 18         | 1.349                 | 1.125                 | .094    | 1.522  | 1.175       | .625                    | 2.537  | 1.469  | .909               | 1.656  | 1.234       |
| 20         | 1.475                 | 1.250                 | .115    | 1.709  | 1.301       | .625                    | 2.824  | 1.469  | 1.034              | 1.750  | 1.360       |
| 22         | 1.599                 | 1.375                 | .115    | 1.709  | 1.428       | .750                    | 2.824  | 1.656  | 1.159              | 1.750  | 1.484       |
| 24         | 1.729                 | 1.500                 | .115    | 1.709  | 1.555       | .800                    | 2.900  | 1.750  | 1.284              | 1.782  | 1.610       |

All dimensions for reference only.

# PT02 SE (MS3122)

## SP02 SE

### box mounting receptacle



PT02SE-XX-XXX  
 SP02SE-XX-XXX  
 MS3122E-XX-XXX

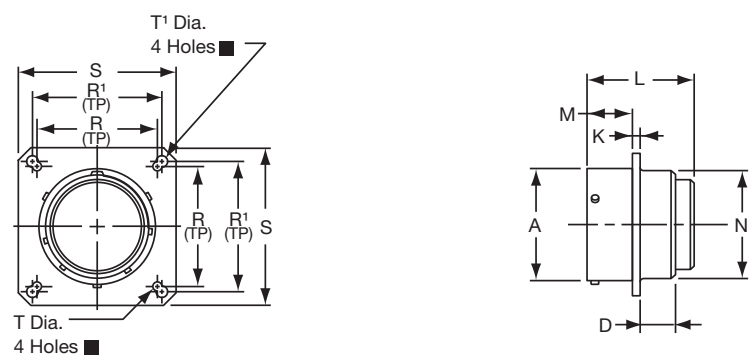
To complete part number see how to order on page 36.  
 ■ (MMC) located within .0025 of (TP)

| Shell<br>Size | Receptacle Front View |       |           |       |                    |      | Receptacle Side View        |           |      |            |           |                     |      |                             |
|---------------|-----------------------|-------|-----------|-------|--------------------|------|-----------------------------|-----------|------|------------|-----------|---------------------|------|-----------------------------|
|               | R                     |       | S<br>Max. |       | T<br>Dia.<br>±.005 |      | A<br>Dia.<br>+.001<br>-.005 | D<br>Max. |      | K<br>±.025 | L<br>Max. | M<br>+.010<br>-.000 |      | N<br>Dia.<br>+.011<br>-.000 |
|               | PT                    | SP    | PT        | SP    | PT                 | SP   |                             | PT        | SP   |            |           | PT                  | SP   |                             |
| 8             | .594                  | -     | .828      | -     | .120               | -    | .473                        | .312      | -    | .062       | 1.358     | .431                | -    | .438                        |
| 10            | .719                  | .812  | .954      | 1.141 | .120               | .150 | .590                        | .312      | .219 | .062       | 1.296     | .431                | .462 | .562                        |
| 12            | .812                  | .938  | 1.047     | 1.266 | .120               | .150 | .750                        | .312      | .219 | .062       | 1.296     | .431                | .462 | .688                        |
| 14            | .906                  | 1.031 | 1.141     | 1.360 | .120               | .150 | .875                        | .312      | .219 | .062       | 1.296     | .431                | .462 | .812                        |
| 16            | .969                  | 1.125 | 1.234     | 1.453 | .120               | .150 | 1.000                       | .312      | .219 | .062       | 1.296     | .431                | .462 | .938                        |
| 18            | 1.062                 | 1.203 | 1.328     | 1.532 | .120               | .150 | 1.125                       | .312      | .219 | .062       | 1.296     | .431                | .462 | 1.062                       |
| 20            | 1.156                 | 1.297 | 1.453     | 1.688 | .120               | .150 | 1.250                       | .406      | .344 | .094       | 1.358     | .556                | .556 | 1.188                       |
| 22            | 1.250                 | 1.375 | 1.578     | 1.766 | .120               | .150 | 1.375                       | .406      | .344 | .094       | 1.358     | .556                | .556 | 1.312                       |
| 24            | 1.375                 | 1.500 | 1.703     | 1.891 | .147               | .150 | 1.500                       | .406      | .344 | .094       | 1.358     | .589                | .589 | 1.438                       |

All dimensions for reference only.

# MF02 SE (MS3127)

## box mounting receptacle



MF02SE-XX-XXX  
MS3127E-XX-XXX

To complete part number see how to order on page 36.  
 ■ (MMC) located within .0025 of (TP)

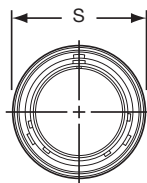
| Shell Size | Receptacle Front View    |       |                |        |         |                      | Receptacle Side View     |        |         |        |                     |
|------------|--------------------------|-------|----------------|--------|---------|----------------------|--------------------------|--------|---------|--------|---------------------|
|            | N Dia.<br>+.011<br>-.000 | R     | R <sup>1</sup> | S Max. | T ±.005 | T <sup>1</sup> ±.005 | A Dia.<br>+.001<br>-.005 | D Max. | K ±.016 | L Max. | M<br>+.010<br>-.000 |
| 10         | .562                     | .719  | .812           | 1.141  | .120    | .150                 | .590                     | .219   | .062    | 1.266  | .462                |
| 12         | .688                     | .812  | .938           | 1.266  | .120    | .150                 | .750                     | .219   | .062    | 1.266  | .462                |
| 14         | .812                     | .906  | 1.031          | 1.360  | .120    | .150                 | .875                     | .219   | .062    | 1.266  | .462                |
| 16         | .938                     | .969  | 1.125          | 1.453  | .120    | .150                 | 1.000                    | .219   | .062    | 1.266  | .462                |
| 18         | 1.062                    | 1.062 | 1.203          | 1.532  | .120    | .150                 | 1.125                    | .219   | .062    | 1.266  | .462                |
| 20         | 1.188                    | 1.156 | 1.297          | 1.688  | .120    | .150                 | 1.250                    | .344   | .094    | 1.328  | .556                |
| 22         | 1.312                    | 1.250 | 1.375          | 1.766  | .120    | .150                 | 1.375                    | .344   | .094    | 1.328  | .556                |
| 24         | 1.438                    | 1.375 | 1.500          | 1.891  | .147    | .150                 | 1.500                    | .344   | .094    | 1.328  | .589                |

All dimensions for reference only.

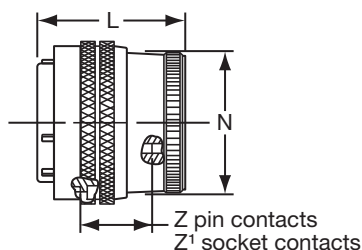
# PT06 SE (MS3126)

## SP06 SE

### straight plug



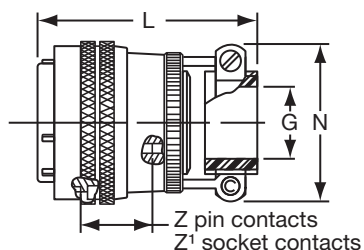
"SE", MS / "E" Open Wire Seal



PT06SE-XX-XXX  
SP06SE-XX-XXX  
PTG06SE-XX-XXX  
MS3126E-XX-XXX

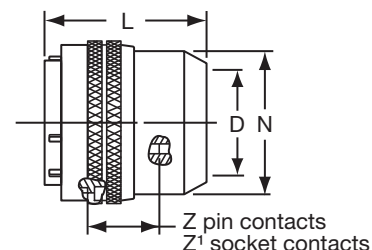
#### TERMINATION ASSEMBLIES

"SE" (SR), MS / "F" Strain Relief



PT06SE-XX-XXX (SR)  
SP06SE-XX-XXX (SR)  
PTG06SE-XX-XXX (SR)  
MS3126F-XX-XXX

"SP", MS / "P" Potting Boot



PT06SP-XX-XXX  
SP06SP-XX-XXX  
PTG06SP-XX-XXX  
MS3126P-XX-XXX

To complete part number see how to order on page 36.

| Shell Size | Plug Front View | Plug Side View |             |                    |        |                         |           |           |                    |           |                |
|------------|-----------------|----------------|-------------|--------------------|--------|-------------------------|-----------|-----------|--------------------|-----------|----------------|
|            | S Dia.<br>Max.  | Z<br>±.045     | Z'<br>±.045 | Class "SE", MS/"E" |        | Class "SE" (SR), MS/"F" |           |           | Class "SP", MS/"P" |           |                |
|            |                 |                |             | L Max.             | N Max. | G<br>Dia.               | L<br>Max. | N<br>Max. | D<br>Dia.          | L<br>Max. | N Dia.<br>Max. |
| 8*         | .734            | .640           | .579        | 1.328              | .540   | .125                    | 2.413     | .828      | .327               | 1.750     | .578           |
| 10         | .859            | .640           | .579        | 1.328              | .685   | .188                    | 2.413     | .891      | .444               | 1.750     | .734           |
| 12         | 1.031           | .640           | .579        | 1.328              | .813   | .312                    | 2.413     | 1.016     | .558               | 1.750     | .858           |
| 14         | 1.156           | .640           | .579        | 1.328              | .930   | .375                    | 2.413     | 1.141     | .683               | 1.750     | .984           |
| 16         | 1.281           | .640           | .579        | 1.328              | 1.057  | .500                    | 2.528     | 1.203     | .808               | 1.750     | 1.110          |
| 18         | 1.391           | .640           | .579        | 1.328              | 1.175  | .625                    | 2.528     | 1.469     | .909               | 1.750     | 1.234          |
| 20         | 1.531           | .640           | .579        | 1.297              | 1.301  | .625                    | 2.753     | 1.469     | 1.034              | 1.750     | 1.360          |
| 22         | 1.656           | .640           | .579        | 1.297              | 1.428  | .750                    | 2.753     | 1.656     | 1.159              | 1.750     | 1.484          |
| 24         | 1.777           | .640           | .579        | 1.359              | 1.533  | .800                    | 2.830     | 1.750     | 1.284              | 1.766     | 1.610          |

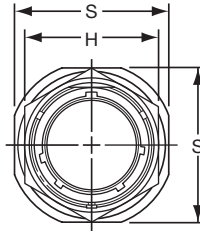
\* PT-SE, MS-SE and MS-SP only.  
All dimensions for reference only.



# PT07 SE (MS3124)

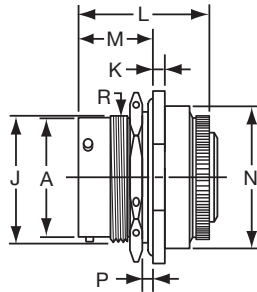
## SP07 SE

jam nut receptacle



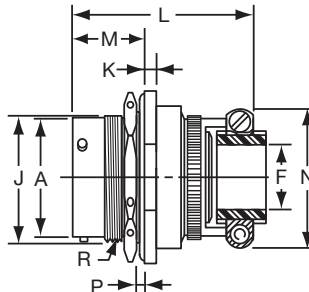
### TERMINATION ASSEMBLIES

"SE", MS / "E" Open Wire Seal



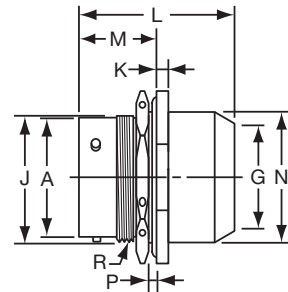
PT07SE-XX-XXX  
SP07SE-XX-XXX  
MS3124E-XX-XXX

"SE" (SR), MS / "F" Strain Relief



PT07SE-XX-XXX (SR)  
SP07SE-XX-XXX (SR)  
MS3124F-XX-XXX

"SP", MS / "P" Potting Boot



PT07SP-XX-XXX  
SP07SP-XX-XXX  
MS3124P-XX-XXX

To complete part number see how to order on page 36.  
All lockwire holes are .044 Dia. Min.

| Shell Size | Receptacle Front View |           | Receptacle Side View     |                          |                     |            |                      |      |                         |
|------------|-----------------------|-----------|--------------------------|--------------------------|---------------------|------------|----------------------|------|-------------------------|
|            | H Hex<br>Max.         | S<br>Max. | A Dia.<br>+.001<br>-.005 | J Flat<br>+.000<br>-.010 | K<br>+.011<br>-.010 | M<br>±.005 | P<br>Panel Thickness |      | R<br>Thread<br>Class 2A |
|            |                       |           |                          |                          |                     |            | Min.                 | Max. |                         |
| 8          | .767                  | .954      | .473                     | .530                     | .125                | .696       | .062                 | .125 | .5625-24 UNEF           |
| 10         | .892                  | 1.078     | .590                     | .655                     | .125                | .696       | .062                 | .125 | .6875-24 NEF            |
| 12         | 1.079                 | 1.266     | .750                     | .818                     | .125                | .696       | .062                 | .125 | .8750-20 UNEF           |
| 14         | 1.205                 | 1.391     | .875                     | .942                     | .125                | .696       | .062                 | .125 | 1.0000-20 UNEF          |
| 16         | 1.329                 | 1.516     | 1.000                    | 1.066                    | .125                | .696       | .062                 | .125 | 1.1250-18 NEF           |
| 18         | 1.455                 | 1.641     | 1.125                    | 1.191                    | .125                | .696       | .062                 | .125 | 1.2500-18 NEF           |
| 20         | 1.579                 | 1.828     | 1.250                    | 1.316                    | .156                | .884       | .062                 | .250 | 1.3750-18 NEF           |
| 22         | 1.705                 | 1.954     | 1.375                    | 1.441                    | .156                | .884       | .062                 | .250 | 1.5000-18 NEF           |
| 24         | 1.829                 | 2.078     | 1.500                    | 1.556                    | .156                | .917       | .062                 | .250 | 1.6250-18 NEF           |

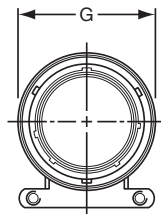
| Shell Size | Class "SE", MS/"E" |           | Class "SE" (SR), MS/"F" |                |           |           | Class "SP", MS/"P" |           |                |
|------------|--------------------|-----------|-------------------------|----------------|-----------|-----------|--------------------|-----------|----------------|
|            | L<br>Max.          | N<br>Max. | F<br>Min.               | G Dia.<br>Free | L<br>Max. | N<br>Max. | G<br>Dia.          | L<br>Max. | N Dia.<br>Max. |
| 8          | 1.438              | .749      | .234                    | .125           | 1.922     | .828      | -                  | -         | -              |
| 10         | 1.438              | .874      | .297                    | .188           | 1.922     | .891      | .444               | 1.656     | .734           |
| 12         | 1.438              | .999      | .422                    | .312           | 1.922     | 1.016     | .558               | 1.656     | .858           |
| 14         | 1.438              | 1.124     | .547                    | .375           | 1.922     | 1.141     | .683               | 1.656     | .984           |
| 16         | 1.438              | 1.249     | .609                    | .500           | 2.000     | 1.203     | .808               | 1.656     | 1.110          |
| 18         | 1.438              | 1.374     | .734                    | .625           | 2.000     | 1.469     | .909               | 1.656     | 1.234          |
| 20         | 1.625              | 1.530     | .734                    | .625           | 2.172     | 1.469     | 1.034              | 1.922     | 1.360          |
| 22         | 1.625              | 1.655     | .922                    | .750           | 2.172     | 1.656     | 1.159              | 1.922     | 1.484          |
| 24         | 1.688              | 1.780     | .984                    | .800           | 2..234    | 1.750     | 1.284              | 1.951     | 1.610          |

All dimensions for reference only.

# PT08 SE

## SP08 SE

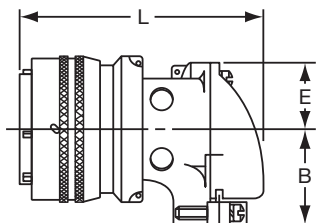
### 90 degree plug



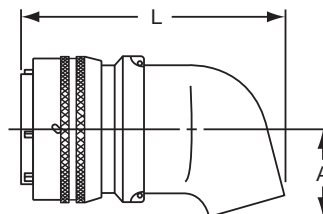
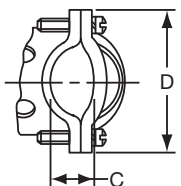
"SE" Open Wire Seal, "SE" (SR) Strain Relief

#### TERMINATION ASSEMBLIES

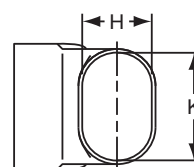
"SP" Potting Boot 75 degrees



PT08SE-XX-XXX  
SP08SE-XX-XXX  
PT08SE-XX-XXX (SR)  
SP08SE-XX-XXX (SR)



PT08SP-XX-XXX  
SP08SP-XX-XXX



To complete part number see how to order on page 36.  
All lockwire holes are .044 Dia. Min.

| Shell Size | Plug Front View | Plug Side View |                     |            |                     |           |            |            |            |           |
|------------|-----------------|----------------|---------------------|------------|---------------------|-----------|------------|------------|------------|-----------|
|            | G Dia.<br>Max.  | B<br>±.031     | C<br>+.010<br>-.025 | D<br>±.062 | E<br>+.047<br>-.025 | L<br>Max. | A<br>±.025 | H<br>±.015 | K<br>±.015 | L<br>Max. |
| 10         | .921            | .749           | .170                | 1.191      | .393                | 2.137     | .547       | .438       | .562       | 2.031     |
| 12         | 1.046           | .812           | .264                | 1.191      | .450                | 2.222     | .625       | .516       | .688       | 2.093     |
| 14         | 1.171           | .905           | .310                | 1.254      | .519                | 2.370     | .734       | .625       | .781       | 2.203     |
| 16         | 1.297           | 1.030          | .330                | 1.316      | .583                | 2.572     | .750       | .656       | .890       | 2.250     |
| 18         | 1.422           | 1.015          | .444                | 1.562      | .621                | 2.680     | .781       | .703       | 1.000      | 2.296     |
| 20         | 1.562           | 1.077          | .510                | 1.625      | .683                | 2.753     | .859       | .766       | 1.125      | 2.343     |
| 22         | 1.672           | 1.139          | .515                | 1.719      | .739                | 2.799     | .906       | .812       | 1.234      | 2.390     |
| 24         | 1.797           | 1.250          | .656                | 1.750      | .787                | 3.037     | 1.181      | .918       | 1.374      | 2.624     |

All dimensions for reference only.

# PT-SE, SP-SE, MS/PT-SE

## how to order

### PT-SE, SP-SE

Ex: PT00SE-20-41PW003

| 1.             | 2.          | 3.            | 4.         | 5.                 | 6.                    | 7.              | 8.     |
|----------------|-------------|---------------|------------|--------------------|-----------------------|-----------------|--------|
| Connector Type | Shell Style | Service Class | Shell Size | Insert Arrangement | Contact Configuration | Insert Rotation | Finish |
| PT             | 00          | SE            | 20         | 41                 | P                     | W               | 003    |

| 1. Connector Type |                                                                                                                                                          |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PT</b>         | standard olive drab, electrically conductive cadmium plate bayonet lock connector with solder contacts                                                   |
| <b>MF</b>         | standard olive drab, electrically conductive cadmium plated, bayonet lock connector with dual mounting holes, and crimp contacts                         |
| <b>SP</b>         | electrically non-conductive, hard anodic coated bayonet lock connector with solder contacts and larger flange and mounting holes for back panel mounting |

| 2. Shell Style |                             |
|----------------|-----------------------------|
| <b>00</b>      | Wall mounting receptacle    |
| <b>01</b>      | Cable connecting receptacle |
| <b>02</b>      | Box mounting receptacle     |
| <b>06</b>      | Straight plug               |
| <b>07</b>      | Jam nut receptacle          |
| <b>08</b>      | 90 degree plug              |

| 3. Service Class                                                                                                                                                                                  |                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| <b>SE</b>                                                                                                                                                                                         | Environmental crimp                                           |
| <b>SP</b>                                                                                                                                                                                         | potted type crimp                                             |
| Both of the above are Amphenol proprietary versions of the MILDTL-26482, Series 1 crimp contact connector and offer 15 lbs. contact retention for size 20 contacts; 25 lbs. for size 16 contacts. |                                                               |
| <b>PG</b>                                                                                                                                                                                         | adapter for cable gland for moisture proofing jacketed cables |
| <b>SQ</b>                                                                                                                                                                                         | Braided shield termination                                    |
| <b>G</b>                                                                                                                                                                                          | Heatshrink termination                                        |

| 4. Shell Size                |  |
|------------------------------|--|
| Shell sizes 8 - 24 available |  |

| 5. Insert Arrangement                                                                  |  |
|----------------------------------------------------------------------------------------|--|
| Refer to pages 4-10 for insert availability (Use only the number following the hyphen) |  |

| 6. Contact Configuration |                 |
|--------------------------|-----------------|
| <b>P</b>                 | Pin contacts    |
| <b>S</b>                 | Socket contacts |

| 7. Insert Rotation                        |                 |
|-------------------------------------------|-----------------|
| No letter is required for normal position |                 |
| <b>W</b>                                  | Refer to page 6 |
| <b>X</b>                                  |                 |
| <b>Y</b>                                  |                 |
| <b>Z</b>                                  |                 |

| 8. Finish                              |                                                                |
|----------------------------------------|----------------------------------------------------------------|
| <b>SR</b>                              | Designates a strain relief clamp                               |
| Indicate optional finishes as follows: |                                                                |
| <b>100</b>                             | Suffix added for flat eyelet pin contacts in hermetic versions |
| OR                                     |                                                                |
| <b>005</b>                             | * Anodic coating - Aluminite® (standard on "SP")               |
| <b>023</b>                             | * Electroless nickel                                           |
| <b>025</b>                             | * Black zinc cobalt plating                                    |
| <b>072</b>                             | * Conductive gray zinc nickel plating                          |
| <b>424</b>                             | * Electroless nickel finish with strain relief                 |
| <b>470</b>                             | * Black zinc cobalt plating with strain relief                 |
| <b>725</b>                             | * Gray zinc nickel plating with strain relief                  |

\* RoHS Compliant finish

**Note:** Olive drab cadmium is the default plating. If required on SP type use suffix (003).

### MS/PT-SE

#### MIL-DTL-26482, Series 1

Ex: MS3120E20-41PW

| 1.             | 2.                   | 3.          | 4.            | 5.         | 6.                 | 7.                    | 8.              |
|----------------|----------------------|-------------|---------------|------------|--------------------|-----------------------|-----------------|
| Connector Type | Specification Number | Shell Style | Service Class | Shell Size | Insert Arrangement | Contact Configuration | Insert Rotation |
| MS             | 311                  | 0           | E             | 20         | 41                 | P                     | W               |

| 1. Connector Type |                   |
|-------------------|-------------------|
| <b>MS</b>         | Military standard |

| 2. Specification Number |                                                     |
|-------------------------|-----------------------------------------------------|
| <b>312</b>              | basic family for MIL-DTL-26482, Series 1 crimp type |

| 3. Shell Style |                                                   |
|----------------|---------------------------------------------------|
| <b>0</b>       | Wall mounting receptacle                          |
| <b>1</b>       | Cable connecting receptacle*                      |
| <b>2</b>       | Box mounting receptacle                           |
| <b>4</b>       | Jam nut receptacle                                |
| <b>6</b>       | Straight plug                                     |
| <b>7</b>       | box mounting receptacle with dual mounting holes  |
| <b>8</b>       | wall mounting receptacle with dual mounting holes |

| 4. Service Class |                                                       |
|------------------|-------------------------------------------------------|
| <b>E</b>         | Environmental resisting connector                     |
| <b>F</b>         | Environmental resisting connectors with strain relief |
| <b>P</b>         | Potted type with potting boot                         |
| <b>SQ</b>        | Braided shield termination                            |
| <b>G</b>         | Heatshrink termination                                |

| 5. Shell Size                |  |
|------------------------------|--|
| Shell sizes 8 - 24 available |  |

| 6. Insert Arrangement                                                                  |  |
|----------------------------------------------------------------------------------------|--|
| Refer to pages 4-10 for insert availability (Use only the number following the hyphen) |  |

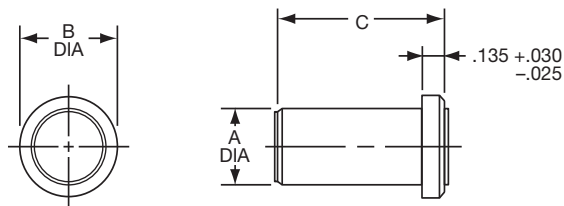
| 7. Contact Configuration |                 |
|--------------------------|-----------------|
| <b>P</b>                 | Pin contacts    |
| <b>S</b>                 | Socket contacts |

| 8. Insert Rotation                        |                 |
|-------------------------------------------|-----------------|
| No letter is required for normal position |                 |
| <b>W</b>                                  | Refer to page 6 |
| <b>X</b>                                  |                 |
| <b>Y</b>                                  |                 |
| <b>Z</b>                                  |                 |

\* This connector style is sometimes referred to as a cable connecting "plug". It does, however, mate with either a straight or 90 degree plug.

# PT & SP

accessories – sealing plugs, flange gaskets,  
potting boots

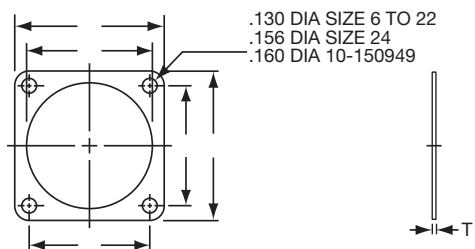


**SEALING PLUG**  
**MS27488-XX**  
**10-405996-XX**

## SEALING PLUGS- FOR PT & SP

| Contact Size | Amphenol® Part Number | MS Number  | A Dia. $\pm .010$ | B Dia. $\pm .005$ | C $\pm .010$ | Color Code |
|--------------|-----------------------|------------|-------------------|-------------------|--------------|------------|
| 12           | 10-405996-12          | MS27488-12 | .121              | .171              | .564         | Yellow     |
| 16           | 10-405996-16          | MS27488-16 | .083              | .133              | .564         | Blue       |
| 20           | 10-405996-16          | MS27488-20 | .060              | .090              | .564         | Red        |

How to Order: Order by 10- (Proprietary) or MS part number as shown in chart above.

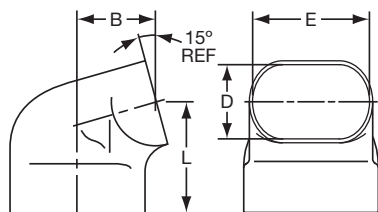


**MOUNTING FLANGE GASKET**  
**10-101949-XX**  
**10-150949-XX**

## MOUNTING FLANGE GASKETS – FOR PT & SP

| Shell Size | PT<br>10-101949 |              | SP<br>10-150949 |              | PT & SP<br>10-101949<br>10-150949 |              |
|------------|-----------------|--------------|-----------------|--------------|-----------------------------------|--------------|
|            | R $\pm .010$    | S $\pm .010$ | R $\pm .010$    | S $\pm .010$ | F $+.016$<br>$-.000$              | T $\pm .008$ |
| 6          | .469            | .688         | .641            | .953         | .375                              | .024         |
| 8          | .594            | .812         | .734            | 1.047        | .500                              | .024         |
| 10         | .719            | .938         | .812            | 1.125        | .625                              | .024         |
| 12         | .813            | 1.031        | .938            | 1.250        | .750                              | .024         |
| 14         | .906            | 1.125        | 1.031           | 1.344        | .875                              | .024         |
| 16         | .969            | 1.219        | 1.125           | 1.438        | 1.000                             | .024         |
| 18         | 1.063           | 1.312        | 1.203           | 1.516        | 1.125                             | .024         |
| 20         | 1.156           | 1.438        | 1.297           | 1.672        | 1.250                             | .024         |
| 22         | 1.250           | 1.563        | 1.375           | 1.750        | 1.375                             | .024         |
| 24         | 1.375           | 1.688        | 1.500           | 1.875        | 1.500                             | .024         |

How to Order: For PT: 10-101949-XX (complete order number with desired shell size).  
For SP: 10-150949-XX (complete order number with desired shell size).



**75° POTTING BOOT**  
**10-101988-XX**

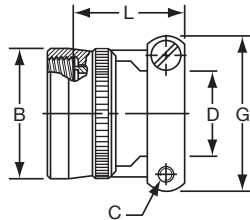
## 75° POTTING BOOTS – FOR PT & SP

| Shell Size | B Max. | D $\pm .015$ | E $\pm .015$ | L Max. |
|------------|--------|--------------|--------------|--------|
| 8          | .433   | .312         | .438         | .766   |
| 10         | .493   | .438         | .562         | .830   |
| 12         | .552   | .516         | .688         | .861   |
| 14         | .643   | .625         | .781         | .916   |
| 16         | .658   | .656         | .890         | .936   |
| 18         | .689   | .703         | 1.000        | .959   |
| 20         | .750   | .766         | 1.125        | 1.052  |
| 22         | .794   | .812         | 1.234        | 1.073  |
| 24         | 1.070  | .918         | 1.374        | 1.310  |

How to Order: 10-101988-XX (complete order number with desired shell size).

All dimensions for reference only

# PT & SP accessories – clamps



**CLASS "E" STRAIN RELIEF CLAMP**  
**10-101971-XX**

## CLASS "E" STRAIN RELIEF CLAMP – FOR PT & SP

| Shell Size | B Max. | C Thread Class 2B | D Min. | G Max. | L Max. |
|------------|--------|-------------------|--------|--------|--------|
| 8          | .550   | 6-32 NC           | .240   | .812   | .930   |
| 10         | .675   | 6-32 NC           | .302   | .875   | .930   |
| 12         | .803   | 6-32 NC           | .428   | 1.000  | .930   |
| 14         | .920   | 6-32 NC           | .552   | 1.125  | .930   |
| 16         | 1.047  | 6-32 NC           | .615   | 1.188  | 1.062  |
| 18         | 1.165  | 8-32 NC           | .740   | 1.438  | 1.062  |
| 20         | 1.291  | 8-32 NC           | .740   | 1.438  | 1.093  |
| 22         | 1.418  | 8-32 NC           | .928   | 1.719  | 1.093  |
| 24         | 1.533  | 8-32 NC           | .928   | 1.719  | 1.093  |

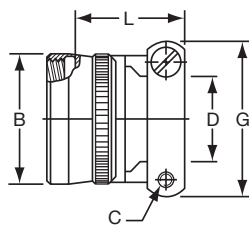
How to Order:

10-101971-XX X

Add desired  
shell size

Add desired finish suffix†  
"3" designates olive drab cadmium  
"5" designates Aluminite®

Not for use with jam nut style connectors



**CLASSES "A" & "P" STRAIN  
RELIEF CLAMP**  
**10-101980-XX**

## CLASSES "A" & "P" STRAIN RELIEF CLAMP – FOR PT & SP

| Shell Size | B Max. | C Thread Class 2B | D Min. | G Max. | L<br>+.010<br>-.020 |
|------------|--------|-------------------|--------|--------|---------------------|
| 8          | .540   | 6-32 NC           | .240   | .812   | .843                |
| 10         | .665   | 6-32 NC           | .302   | .875   | .843                |
| 12         | .793   | 6-32 NC           | .428   | 1.000  | .843                |
| 14         | .910   | 6-32 NC           | .552   | 1.125  | .843                |
| 16         | 1.037  | 6-32 NC           | .614   | 1.188  | .975                |
| 18         | 1.155  | 8-32 NC           | .740   | 1.438  | .975                |
| 20         | 1.281  | 8-32 NC           | .740   | 1.438  | 1.007               |
| 22         | 1.408  | 8-32 NC           | .928   | 1.719  | 1.007               |
| 24         | 1.533  | 8-32 NC           | .938   | 1.719  | 1.007               |

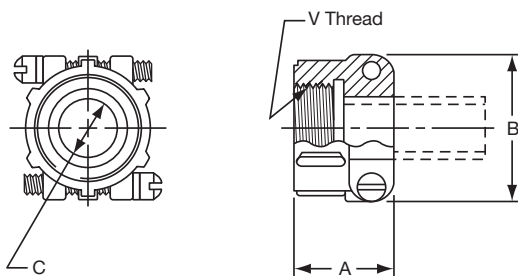
How to Order:

10-101980-XX X

Add desired  
shell size

Add desired finish suffix†  
"3" designates olive drab cadmium  
"5" designates Aluminite®

Not for use with jam nut style connectors



**CLASS "A" CABLE CLAMP**  
**97-3057-XXXX**

## CLASS "A" CABLE CLAMPS – FOR PT & SP

| Shell Size | Amphenol® Part Number | A ±.031 | B Max. | C Dia. Min. | V Thread  |
|------------|-----------------------|---------|--------|-------------|-----------|
| 10         | 97-3057-1004          | .795    | .842   | .3125       | .6250-24  |
| 12         | 97-3057-1007          | .850    | .995   | .4375       | .7500-20  |
| 14         | 97-3057-1008          | .920    | 1.120  | .5625       | .8750-20  |
| 16         | 97-3057-1010          | .920    | 1.216  | .6250       | 1.0000-20 |
| 18/20      | 97-3057-1012          | .927    | 1.403  | .7500       | 1.1875-18 |
| 22/24      | 97-3057-1016          | 1.015   | 1.683  | .9375       | 1.4375-18 |

How to Order: Order by 97-3057-XXXX number listed above. Standard finish is olive drab zinc alloy. Consult Amphenol, Sidney, NY for alternate finishes.

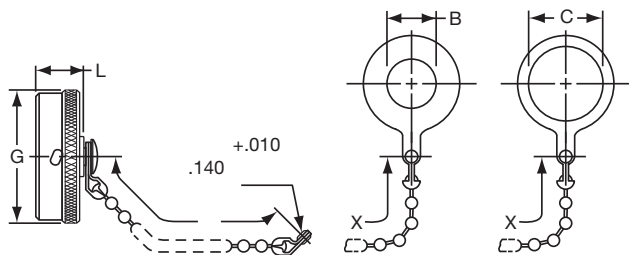
† Standard accessory finishes are "3" olive drab cadmium for PT and MS/PT types, "5" Aluminite® for SP types. Electroless nickel plating is also available on some items; consult Amphenol, Sidney, NY

All dimensions for reference only.

# PT, SP, MS/PT

## accessories – protection caps

### RECEPTACLE PROTECTION CAPS – FOR PT, SP, MS/PT



**RECEPTACLE PROTECTION CAP  
FOR PT, SP, MS/PT CONNECTORS**

**10-101960-XXX  
MS3181-XXX  
(Wall Receptacle)**

**10-101961-XXX  
(Cable Connecting  
Receptacle)**

**10-101964-XXX  
MS3181-XXX  
(Jam Nut Receptacle)**

| Shell<br>Size | B Dia.<br>+.010<br>-.000 | C Dia.<br>+.010<br>-.000 | G<br>Dia.<br>Max. | L<br>+.020<br>-.000 | X<br>Std. & MS<br>RA, CA, NA | X<br>MS only<br>RAL/CAL/NAL |
|---------------|--------------------------|--------------------------|-------------------|---------------------|------------------------------|-----------------------------|
| 6             | .328                     | .454                     | .577              | .563                | 3.000                        | 5.000                       |
| 8             | .454                     | .578                     | .706              | .563                | 3.000                        | 5.000                       |
| 10            | .578                     | .703                     | .816              | .563                | 3.000                        | 5.000                       |
| 12            | .703                     | .891                     | 1.000             | .563                | 3.500                        | 5.000                       |
| 14            | .844                     | 1.016                    | 1.128             | .563                | 3.500                        | 5.000                       |
| 16            | .969                     | 1.141                    | 1.257             | .563                | 3.500                        | 5.000                       |
| 18            | 1.094                    | 1.266                    | 1.367             | .563                | 3.500                        | 5.000                       |
| 20            | 1.219                    | 1.391                    | 1.496             | .563                | 4.000                        | 5.000                       |
| 22            | 1.343                    | 1.516                    | 1.624             | .563                | 4.000                        | 5.000                       |
| 24            | 1.453                    | 1.614                    | 1.747             | .603                | 4.000                        | 5.000                       |

How to Order Proprietary Receptacle Caps:

Wall Receptacle Caps: 10-101960- XX X

Cable Connecting Receptacle Caps: 10-101961- XX X

Jam Nut Receptacle Caps: 10-101964- XX X

Add desired shell size \_\_\_\_\_

Add desired finish suffix† \_\_\_\_\_

"FL" designates gray zinc nickel

"3" designates olive drab cadmium

"5" designates Alumilite®

Proprietary caps are supplied with standard bead chains only (as shown in drawing at left). For other chain options, an MS version cap should be ordered.

How to Order MS Version Receptacle Caps:

Wall Receptacle Caps: MS3181- XX

-CA for sash chain

-CAL for long sash chain

-RA for rope chain

-RAL for long rope chain

-NA for sash chain

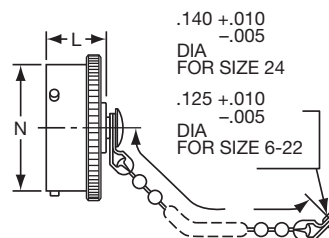
-NAL for long sash chain

Jam Nut Recept. Caps: MS3181- XX

Shell size \_\_\_\_\_

MS versions are supplied with standard anodize finish only. For other finish options a proprietary cap should be ordered.

### PLUG PROTECTION CAPS – FOR PT, SP, MS/PT



**PLUG PROTECTION CAP  
FOR PT, SP, MS/PT CONNECTORS**

**MS3180-XXX  
10-101957-XXX**

| Shell<br>Size | N Dia.<br>+.001<br>-.005 | L Dia.<br>+.025<br>-.015 | X<br>Std. & MS<br>CA, RA | X<br>MS only<br>CAL/ RAL |
|---------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6             | .348                     | .532                     | 3.000                    | 5.000                    |
| 8             | .473                     | .532                     | 3.000                    | 5.000                    |
| 10            | .590                     | .532                     | 3.000                    | 5.000                    |
| 12            | .750                     | .532                     | 3.500                    | 5.000                    |
| 14            | .875                     | .532                     | 3.500                    | 5.000                    |
| 16            | 1.000                    | .532                     | 3.500                    | 5.000                    |
| 18            | 1.125                    | .532                     | 3.500                    | 5.000                    |
| 20            | 1.250                    | .594                     | 4.000                    | 5.000                    |
| 22            | 1.375                    | .594                     | 4.000                    | 5.000                    |
| 24            | 1.500                    | .627                     | 4.000                    | 5.000                    |

How to Order Proprietary Plug Caps:

Add desired shell size \_\_\_\_\_ 10-101957-XX X

Add desired finish suffix† \_\_\_\_\_

"FL" designates gray zinc nickel

"3" designates olive drab cadmium

"5" designates Alumilite®

Proprietary caps are supplied with standard bead chains only (as shown in drawing at left). For other chain options an MS version cap should be ordered.

How to Order

MS Version Plug Caps:

MS3180- XX

-CA for sash chain

-CAL for long sash chain

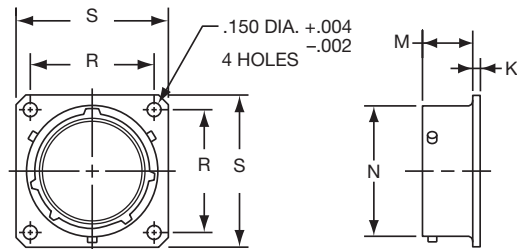
-RA for rope chain

-RAL for long rope chain

Shell size \_\_\_\_\_

# PT & SP

accessories – dummy receptacles, “O” rings,  
plastic dust caps



## DUMMY RECEPTACLE FOR PT, SP, MS/PT CONNECTORS

MS3115-XXX  
10-150921-XXX

## DUMMY RECEPTACLES – FOR PT, SP, MS/PT

| Shell Size | K<br>$\pm .010$ | M<br>$\begin{smallmatrix} +.030 \\ -.000 \end{smallmatrix}$ | N<br>$\begin{smallmatrix} +.001 \\ -.005 \end{smallmatrix}$ | Proprietary Version |                 | MS Version             |                        |
|------------|-----------------|-------------------------------------------------------------|-------------------------------------------------------------|---------------------|-----------------|------------------------|------------------------|
|            |                 |                                                             |                                                             | R<br>$\pm .005$     | S<br>$\pm .010$ | R <sup>1</sup><br>(TP) | S <sup>1</sup><br>(TP) |
| 8          | .062            | .462                                                        | .473                                                        | .734                | 1.047           | .594                   | .828                   |
| 10         | .062            | .462                                                        | .590                                                        | .812                | 1.125           | .719                   | .954                   |
| 12         | .062            | .462                                                        | .750                                                        | .938                | 1.250           | .812                   | 1.047                  |
| 14         | .062            | .462                                                        | .875                                                        | 1.031               | 1.344           | .906                   | 1.141                  |
| 16         | .062            | .462                                                        | 1.000                                                       | 1.125               | 1.438           | .969                   | 1.234                  |
| 18         | .062            | .462                                                        | 1.125                                                       | 1.203               | 1.516           | 1.062                  | 1.328                  |
| 20         | .062            | .556                                                        | 1.250                                                       | 1.297               | 1.672           | 1.156                  | 1.453                  |
| 22         | .062            | .556                                                        | 1.375                                                       | 1.375               | 1.750           | 1.250                  | 1.578                  |
| 24         | .062            | .589                                                        | 1.500                                                       | 1.500               | 1.875           | 1.375                  | 1.703                  |

How to Order Proprietary Dummy Receptacles: 10-150921-XX X

Add desired shell size

Add desired finish suffix†

“FL” designates gray zinc nickel

“3” designates olive drab cadmium

“5” designates Alumilite®

How to Order MS Version Dummy Receptacles: MS3115-XX X

Add desired shell size

Add desired finish suffix†

-A designates Alumilite®

-L designates electroless nickel

-W designates olive drab cadmium

## PLASTIC DUST CAPS – FOR PT, SP

| Shell Size | Plug Plastic Dust Cap | Receptacle Plastic Dust Cap |
|------------|-----------------------|-----------------------------|
| 6          | 10-70500-8            | 10-70506-8S                 |
| 8          | 10-70506-12           | 10-70506-10                 |
| 10         | 10-70500-12           | 10-70506-12                 |
| 12         | 10-70506-16           | 10-70506-14                 |
| 14         | 10-70506-18           | 10-70506-16                 |
| 16         | 10-70506-20           | 10-70506-18                 |
| 18         | 10-70506-22           | 10-70506-20                 |
| 20         | 10-70506-24           | 10-79506-22                 |
| 22         | 10-70524-1            | 10-70506-24                 |
| 24         | 10-70506-28           | 10-70524-1                  |

How to Order Plastic Dust Caps:

To the basic order number add the dust cap size to match connector plug or receptacle shell size, as shown in the tables above.

Example: 10-70506-12 would be the correct order number for a plastic dust cap for a PT00 receptacle, shell size 10.

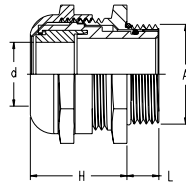
All dimensions for reference only.

# PT accessories

## glands

### Nylon Cable Glands

**Material:** Nylon 66 (UL Approved 94V-2)  
**Seal ring:** UL 94V-2 (UL Approved 94V-2)  
**Thread Type:** Metric; PG, NPT  
**Temp Range:** Static: -40° to +100°C  
Dynamic: -20° to +80°C  
Short Term: +120°C  
**Current Colors:** Gray, Black

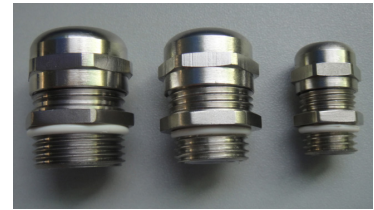
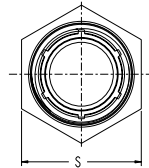


| AIO Part     | Thread "A" | M "d" (mm) | Cable Range (mm) | Thread "L" (mm) | Clamp "H" (mm) | Spanner "S" (mm) |
|--------------|------------|------------|------------------|-----------------|----------------|------------------|
| AIO-CSM12    | M12 x1.5   | 8          | 3-6.5            | 8               | 20             | 15               |
| AIO-CSM16    | M16 x 1.5  | 8          | 4-8              | 8               | 22             | 19               |
| AIO-CSM18    | M18 x 1.5  | 10         | 5-10             | 9               | 25             | 22               |
| AIO-CSM20    | M20 x 1.5  | 12         | 6-12             | 9               | 30             | 24               |
| AIO-CSM22    | M22 x 1.5  | 14         | 10-14            | 10              | 30             | 27               |
| AIO-CSM24    | M24 x 1.5  | 14         | 10-14            | 10              | 30             | 27               |
| AIO-CSM25    | M25 x 1.5  | 18         | 13-18            | 10              | 30             | 33               |
| AIO-CSM30    | M30 x 2.0  | 18         | 13-18            | 11              | 33             | 33               |
| AIO-CSM32    | M32 x 1.5  | 25         | 18-25            | 11              | 38             | 42               |
| AIO-CSM33    | M33 x 2.0  | 25         | 18-25            | 11              | 39             | 42               |
| AIO-CSM40    | M40 x 1.5  | 32         | 22-32            | 13              | 48             | 54               |
| AIO-CSM50    | M50 x 1.5  | 38         | 32-38            | 14              | 50             | 60               |
| AIO-CSM72    | M72 x 2.0  | 57         | 51-57            | 16              | 75             | 80               |
| AIO-CSIN1/2  | NPT1/2"    | 12         | 6-12             | 13.6            | 28             | 24               |
| AIO-CSIN3/4  | NPT 3/4"   | 18         | 13-18            | 14.1            | 32             | 33               |
| AIO-CSIN3/2  | NPT 1 1/2" | 32         | 22-32            | 17.3            | 50             | 54               |
| AIO-CSGIN1/2 | G 1/2"     | 12         | 6-12             | 9               | 26             | 24               |
| AIO-CSGIN3/4 | G 3/4"     | 18         | 13-18            | 11              | 27             | 33               |
| AIO-CSGIN1   | G1"        | 25         | 18-25            | 11              | 33             | 42               |
| AIO-CSGIN5/4 | G1 1/4"    | 28         | 21-28            | 13              | 48             | 54               |
| AIO-CSGIN3/2 | G1 1/2"    | 32         | 22-32            | 13              | 48             | 54               |
| AIO-CSGIN5/2 | G2 1/2"    | 57         | 51-57            | 14              | 75             | 80               |
| AIO-CSPG7    | PG7        | 6.5        | 3-6.5            | 8               | 20             | 15               |
| AIO-CSPG9    | PG9        | 8          | 4-8              | 8               | 22             | 19               |
| AIO-CSPG11   | PG11       | 10         | 5-10             | 8               | 24             | 22               |
| AIO-CSPG13.5 | PG13.5     | 12         | 6-12             | 9               | 26             | 24               |
| AIO-CSPG16   | PG16       | 14         | 10-14            | 10              | 28             | 27               |
| AIO-CSPG21   | PG21       | 18         | 13-18            | 11              | 33             | 33               |
| AIO-CSPG29   | PG29       | 25         | 18-25            | 11              | 38             | 42               |
| AIO-CSPG36   | PG36       | 32         | 22-32            | 13              | 48             | 54               |
| AIO-CSPG42   | PG42       | 38         | 32-38            | 14              | 52             | 60               |

### Metal Cable Glands

**Material:** Brass with Nickel; Brass with Tin/Nickel  
**Clamping:** UL approved PA6, 94V-0  
**Seal Ring:** UL 94V-2 (UL approved NBR, 94V-2; UL approved DOW CORNING RUBBER, 94V-0)  
**Thread Type:** Metric, PG, NPT  
**Protective:** IP68 (tighten with o-ring)  
**Temp Range:** -40° to +100°C

Torque Value (N-M) of hex and cap nuts: 3.0-4.5 N-M M12, M16, M20 are UL recognized under file #E339605



| AIO Part       | Thread "A" | M "d" (mm) | Cable Range (mm) | Thread "L" (mm) | Clamp "H" (mm) | Spanner "S" (mm) |
|----------------|------------|------------|------------------|-----------------|----------------|------------------|
| AIO-CSJM12     | M12x1.5    | 6.5        | 3-6.5            | 6.2             | 15             | 14               |
| AIO-CSJM14     | M14x1.5    | 8          | 4-8              | 5               | 19             | 15               |
| AIO-CSJM16     | M16x1.5    | 9          | 6-9              | 6.3             | 20             | 18               |
| AIO-CSJM18     | M18x1.5    | 10         | 5-10             | 7               | 20             | 22               |
| AIO-CSJM20     | M20x1.5    | 12         | 6-12             | 8.3             | 20             | 22               |
| AIO-CSJM22     | M22x1.5    | 14         | 10-14            | 8               | 24             | 24               |
| AIO-CSJM24     | M24x1.5    | 14         | 10-14            | 8               | 24             | 27               |
| AIO-CSJM25     | M25x1.5    | 18         | 13-18            | 7.8             | 23             | 30               |
| AIO-CSJM27     | M27x1.5    | 18         | 13-18            | 8               | 26             | 30               |
| AIO-CSJM30     | M30x2.0    | 18         | 13-18            | 8               | 26             | 32               |
| AIO-CSJM32     | M32x1.5    | 25         | 18-25            | 10              | 27             | 40               |
| AIO-CSJM36     | M36x2.0    | 25         | 18-25            | 10              | 34             | 40               |
| AIO-CSJM40     | M40x1.5    | 32         | 22-32            | 10              | 39             | 50               |
| AIO-CSJM50     | M50x1.5    | 38         | 32-38            | 11              | 39             | 60               |
| AIO-CSJM63     | M63x1.5    | 44         | 37-44            | 12              | 43             | 67               |
| AIO-CSJM72     | M72x1.5    | 52         | 46-52            | 16              | 47             | 75               |
| AIO-CSJM80     | M80x2.0    | 60         | 52-60            | 20              | 57             | 90               |
| AIO-CSJM90     | M90x2.0    | 70         | 62-70            | 20              | 57             | 100              |
| AIO-CSJIN1/2   | NPT 1/2"   | 12         | 6-12             | 13.6            | 25             | 24               |
| AIO-CSJIN3/4   | NPT 3/4"   | 18         | 13-18            | 14.1            | 26             | 30               |
| AIO-CSJIN5/4   | NPT 1 1/4" | 32         | 22-32            | 17.3            | 41             | 50               |
| AIO-CSJIN3/2   | NPT 1 1/2" | 32         | 22-32            | 17.3            | 46             | 50               |
| AIO-CSJIN2     | NPT2"      | 44         | 37-44            | 17.7            | 46             | 65               |
| AIO-CSJIN5/2   | NPT2 1/2"  | 52         | 46-52            | 23.7            | 58             | 80               |
| AIO-CSJIN3     | NPT3"      | 70         | 62-70            | 26              | 58             | 100              |
| AIO-CSJGIN1/2  | G1/2"      | 12         | 6-12             | 8               | 24             | 24               |
| AIO-CSJGIN3/4  | G3/4"      | 18         | 13-18            | 8               | 27             | 30               |
| AIO-CSJGIN1    | G1"        | 25         | 18-25            | 10              | 34             | 40               |
| AIO-CSJGIN5/4  | G1 1/4"    | 32         | 22-32            | 10              | 39             | 50               |
| AIO-CSJGIN3/2  | G1 1/2"    | 32         | 22-32            | 10              | 39             | 50               |
| AIO-CSJGIN2    | G2"        | 44         | 37-44            | 12              | 44             | 65               |
| AIO-CSJGIN 5/2 | G2 1/2"    | 52         | 46-52            | 16              | 47             | 82               |
| AIO-CSJPG7     | PG7        | 6.5        | 3-6.5            | 6               | 18             | 14               |
| AIO-CSJPG9     | PG9        | 8          | 4-8              | 7               | 21             | 18               |
| AIO-CSJPG11    | PG11       | 10         | 5-10             | 7               | 20             | 22               |
| AIO-CSJPG13.5  | PG13.5     | 12         | 6-12             | 8               | 24             | 22               |
| AIO-CSJPG16    | PG16       | 14         | 10-14            | 8               | 25             | 24               |
| AIO-CSJPG21    | PG21       | 18         | 13-18            | 8               | 26             | 30               |
| AIO-CSJPG36    | PG36       | 32         | 22-32            | 10              | 38             | 50               |
| AIO-CSJPG42    | PG42       | 38         | 32-38            | 11              | 42             | 60               |
| AIO-CSJPG48    | PG48       | 44         | 37-44            | 12              | 44             | 65               |

For additional information on other products available refer to our Cord grips & Cable Glands, Catalog 12-055



# Application Tools

## “SE”

The following data includes information pertaining to the application tools for crimping, inserting and removing size 20, 16, and 12 contacts incorporated in Amphenol® Miniature Cylindrical Connectors.

All crimping tools included are the “full cycling” type, and when used as specified by the manufacturer, provide reliable crimped wire to contact termination.

Tool frames and turret heads are available from approved tool manufacturers; consult Amphenol, Sidney, NY for listings.

Assembly instructions are available online at [www.amphenol-industrial.com](http://www.amphenol-industrial.com)

See the following:

L-786 for SE assembly instructions

L-555 for solder type instructions

### CRIMPING TOOLS

#### FOR PT-SE, SP-SE, MS/PT-SE (MIL-DTL-26482, Series 1) Connectors

| Contact Size | MS Tool Part Number |             |
|--------------|---------------------|-------------|
|              | Tool From           | Turret Head |
| 20           | M22520/1-01         | M22520/1-02 |
| 16           | M22520/1-01         | M22520/1-02 |
| 12           | M22520/1-01         | M22520/1-02 |

### INSERTION/REMOVAL TOOLS

#### FOR PT-SE, SP-SE, MS/PT-SE (MIL-DTL-26482, Series 1) Connectors

| Contact Size | Insertion Tool                           |                                        |                                               | Removal Tool                         |                                              |
|--------------|------------------------------------------|----------------------------------------|-----------------------------------------------|--------------------------------------|----------------------------------------------|
|              | Amphenol®<br>Contact<br>Insertion Pliers | Amphenol®<br>Contact Insertion<br>Tool | MS<br>Part Number Con-<br>tact Insertion Tool | Amphenol®<br>Contact<br>Removal Tool | MS<br>Part Number<br>Contact Removal<br>Tool |
| 20           | 11-8107-20                               | 11-7401-20                             | M81969/17-03                                  | 11-7880-20                           | M81969/19-07                                 |
| 16           | 11-8107-16                               | 11-7401-16                             | M81969/17-04                                  | 11-7880-16                           | M81969/19-08                                 |
| 12           | -                                        | -                                      | M81969/17-05                                  | -                                    | M81969/19-09                                 |

# Contacts - Power and Thermocouple Crimp

## for miniature cylindrical connectors

The following tables provide part number information for crimp contacts used in Amphenol® Miniature Cylindrical Connectors. For additional information, consult Amphenol, Sidney, NY.

### CRIMP CONTACTS for MIL-DTL-26482, Series 1 (PT-SE, SP-SE) Connectors

| Contact Size | Accommodates Wire Size | Pins          |                              | Sockets       |                              |
|--------------|------------------------|---------------|------------------------------|---------------|------------------------------|
|              |                        | MS Number     | Amphenol® Proprietary Number | MS Number     | Amphenol® Proprietary Number |
| 20           | 20, 22 & 24 AWG        | M39029/31-240 | 10-683787-20P                | M39029/32-259 | 10-731210-3D1                |
| 16           | 16, 18 & 20 AWG        | M39029/31-228 | 10-683788-16P                | M39029/32-247 | 10-679379-16D                |
| 12           | 12 & 14 AWG            | M39029/31-235 | 10-807100-125                | M39029/32-254 | 10-807103-125                |
| 20-16        | 16 AWG                 |               | 10-330930-20F                |               | 10-807155-205                |
| 16-20        | 20 AWG                 |               | 10-330932-16F                |               | 10-330933-16F                |
| 12-10        | 12 AWG                 |               | 10-330938-12F                |               | 10-330939-12F                |

### THERMOCOUPLE CONTACTS for Miniature Connectors

| Size                 | Material   | Pins<br>Proprietary Part Number | Sockets<br>Proprietary Part Number |
|----------------------|------------|---------------------------------|------------------------------------|
|                      |            | SE                              | SE                                 |
| 16 Crimp Termination | Chromel    | 10-330940-21P                   | 10-330940-21S                      |
|                      | Alumel     | 10-330940-22P                   | 10-330940-22S                      |
| 20 Crimp Termination | Chromel    | 10-330940-1P                    | 10-330940-1S                       |
|                      | Alumel     | 10-330940-2P                    | 10-330940-2S                       |
|                      | Iron       | 10-330940-3P                    | 10-330940-3S                       |
|                      | Constantan | 10-330940-4P                    | 10-330940-4S                       |

See L-776 for thermocouple contact termination instructions. These are online at [www.amphenol-industrial.com](http://www.amphenol-industrial.com)  
For PCB contacts for miniature connectors, see page 20.

# Coaxial Contacts

## for miniature cylindrical connectors

Amphenol® Miniature Connectors can incorporate shielded coax contacts. The Miniature family is built around MIL-DTL-26482 specifications, with Mil-approved and proprietary styles offered. Normal operating voltage for Miniature cylindricals with power only contacts is up to 1,000 VAC (RMS) at sea level.

### Table 1: Miniature Cylindricals offer these features for contact termination flexibility:

- Several insert arrangements that can incorporate:
- Size 8 & 12 Crimp Coax contacts for Crimp type
- Size 8 & 12 Solder Coax contacts for Solder type
- Wide selection of connector shell styles and sizes
- Standard power contact options within the various connector styles include: solder type, crimp front release, crimp rear release
- Coax contacts are designed to the same high performance standards as power contacts. Coax and power contacts may be intermixed with no degradation of connector reliability.
- No mis-mating or cross-plugging with insert rotation and keyway polarization.

### Table 2: GENERAL ORDERING INFORMATION

Amphenol Miniature Cylindricals are normally supplied with a full complement of power contacts, separately packaged. Coax contacts are ordered by part number as referenced in the part number charts on the following pages of this catalog, and are substituted for the power contacts at the time of the cable or equipment assembly. If the application is for coax only, the connector may be ordered less contacts and no power contacts will be supplied.

Installation instructions for the coax contacts for Miniature Connectors are provided in Amphenol documents as follows: L-633 for solder type; L-613 for SE type.

### HOW TO ORDER:

- Select the coax contacts designed for the cable being used from the applicable charts in this catalog for each Miniature type (solder, SE).
- Select a connector insert from those shown on pages 4-5 which will accommodate the quantity and size of coaxial contacts needed plus any power contacts required. Note: Size 8S and 12S contacts are used with connector inserts through shell size 18 only. For larger connector shell sizes, use size 8L contacts.
- Determine the Miniature Cylindrical type, shell style, finish, service class and insert rotation required for your application.
- Consult Amphenol, Sidney NY with the pertinent cable, contact, insert arrangement and connector style choices for complete connector part number.



**Solder Coax Contact**  
for use in Miniature Solder Type Connectors



**Pin Crimp Coax Contact**  
for use in Miniature Crimp SE Type Connectors



**Socket Crimp Coax Contact**  
for use in Miniature Crimp SE Type Connectors

# Coaxial Contacts

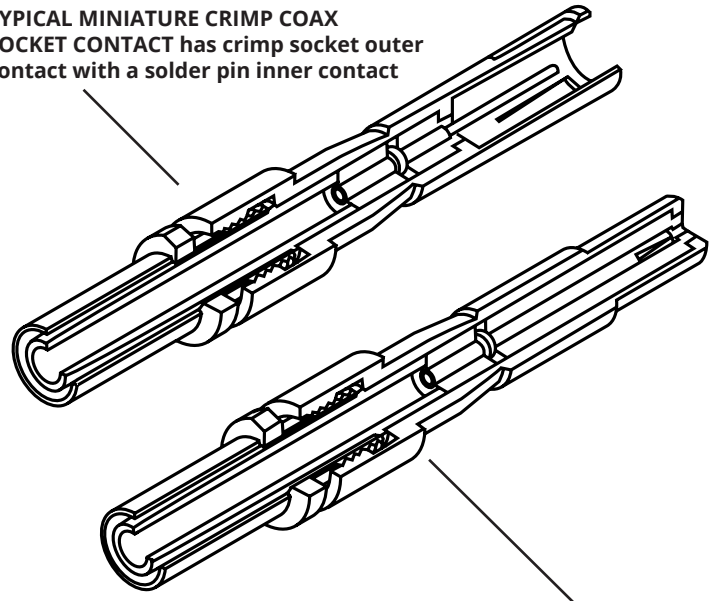
for miniature cylindrical connectors, cont.

**Amphenol® Coaxial Contacts** designed for use in Miniature Cylindrical Connectors offer the same durability advantages and design benefits for reliable interconnection as the Amphenol coax contacts used in high performance D38999 connectors. A variety of military and commercial shielded cables are accommodated within the miniature cylindrical series. Amphenol supplies coax contacts for solder and crimp SE connector styles.

Other features of the coax for miniature cylindricals include:

- Miniature coax design has an outside nut within the assembly for fast, reliable assembly of contact to cable.
- All types feature solder style inner contacts and crimp style outer contacts for reliable cable termination
- Miniature coax crimp type contacts are designed for use in Miniature crimp series connectors
- Miniature coax solder type contacts are designed for use in Miniature solder series connectors. These come pre-installed into the solder connector.

**TYPICAL MINIATURE CRIMP COAX SOCKET CONTACT** has crimp socket outer contact with a solder pin inner contact



**TYPICAL MINIATURE CRIMP COAX PIN CONTACT** has crimp pin outer contact with a solder socket inner contact

## TYPICAL ELECTRICAL PERFORMANCE Size 8 and 12 Coax Contacts

### Contact Resistance:

Center @ 1 Amp, 170 millivolts max. voltage drop @ 25°C  
Outer @ 12 Amps, 150 millivolts max. voltage drop @ 25°C

### Dielectric Withstanding Voltage:

Size 8: 1,300 VAC Rms @ sea level  
Size 12: 1,000 VAC Rms @ sea level  
Size 8 & 12: 250 VAC Rms @ 50,000 ft.

### Insulation Resistance

5,000 megohms minimum @ 25°C  
Typical VSWR for size 8 & 12 PT-SE Types II & III only:  
1.2 + .12F (GHz) up to 10 GHz

### EXPLANATION OF TYPE CLASSIFICATIONS:

PT-SE Type I is moisture seal design with internal O-ring.  
PT-SE Type II is 50 ohm impedance matched version. Contacts terminated to other than 50 ohm cables are therefore not matched.

PT-SE Type III is 50 ohm contact, non-serviceable after assembly.  
Solders are non-impedance matched contacts.

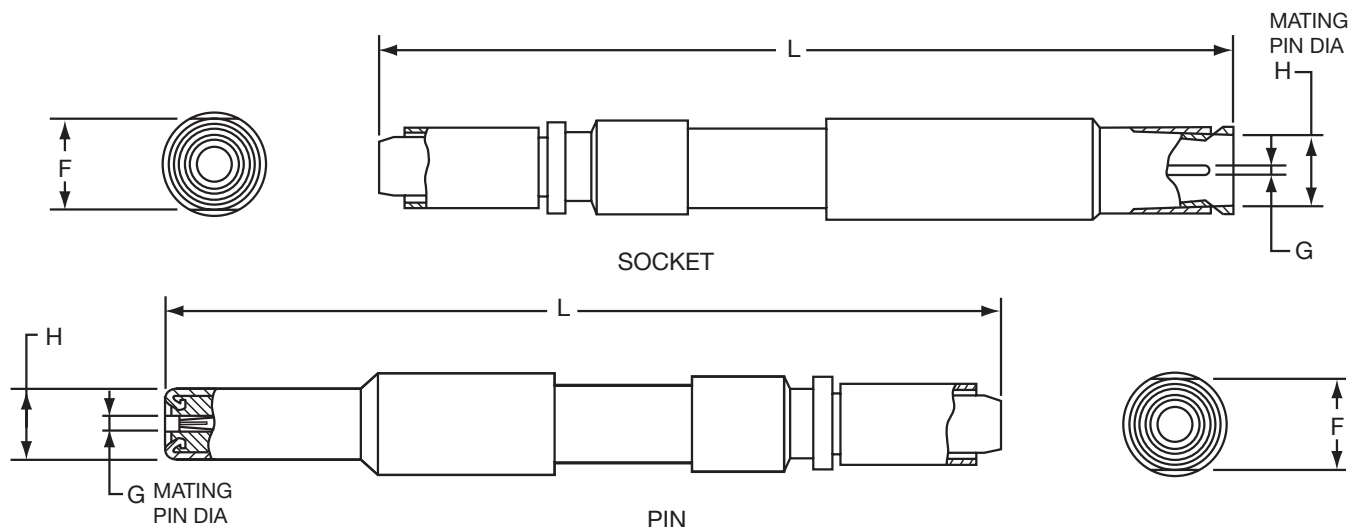
### CONTACT FINISHES:

| Suffix Finish |                                                        |
|---------------|--------------------------------------------------------|
| 1             | 0.00020 min. silver over copper flash                  |
| 2             | 0.00005 min. gold (Knoop hardness 130-200) over silver |
| 3             | 0.00010 min. gold (Knoop hardness 130-200) over silver |
| 4             | 0.00010 min. gold (Knoop hardness 130-200) over copper |
| 5             | 0.00005 min. gold (Knoop hardness 130-200) over nickel |
| E             | 0.00005 min. gold (Knoop hardness 90 max.) over copper |
| F             | 0.00005 min. gold (Knoop hardness 130-200) over copper |
| H             | 0.00010 min. gold (Knoop hardness 130-200) over copper |

# Coaxial Contacts

for miniature cylindrical connectors, cont.

solder (MIL-DTL-26482 Series 1 type) - application data



| SOLDER COAX CONTACTS<br>For use in Miniature Solder Type Connectors: PT, SP, and MS/PT Styles |                     |              |              |                                          |                  |                          |               |        |                                                  |                                                       |                                                    |                     |
|-----------------------------------------------------------------------------------------------|---------------------|--------------|--------------|------------------------------------------|------------------|--------------------------|---------------|--------|--------------------------------------------------|-------------------------------------------------------|----------------------------------------------------|---------------------|
| Cable                                                                                         | Contact Part Number |              | Contact Size | Dimensional Data<br>(See Drawings above) |                  |                          |               |        | Crimp Ferrule Tools                              |                                                       |                                                    | Retainer Nut Wrench |
|                                                                                               | Pin                 | Socket       |              | G Dia.                                   | H Dia.<br>±0.001 | F Across Flats<br>±0.004 | L Length Ref. |        | MIL-T-22910/7-1 Tool<br>Use with Die Part Number | MIL-C-22520/5-01 Tool<br>Use with Die Part Number     | MIL-C-22520/10-01 Tool<br>Use with Die Part Number |                     |
|                                                                                               |                     |              |              |                                          |                  |                          | Pin           | Socket |                                                  |                                                       |                                                    |                     |
| RG-58C/U,<br>RG-141A/U,<br>RG-303/U                                                           | 21-33020-2          | 21-33019-2   | 8S           | 0.040<br>± 0.001                         | 0.219            | 0.280                    | 1.114         | 1.115  | M22910/7-15 (B)                                  | M22520/5-05 (B)<br>M22520/5-41 (B)                    | M22520/10-07 (B)                                   | 11-8676-2           |
| RG-59B/U,<br>RG-62A/U,<br>RG-62B/U,<br>RG-210/U                                               | 21-33020-1          | 21-33019-1   | 8L           | 0.040<br>± 0.001                         | 0.219            | 0.280                    | 1.176         | 1.177  | M22910/7-18 (B)                                  | M22520/5-45 (B)                                       |                                                    | 11-8676-3           |
|                                                                                               | 21-33020-3          | 21-33019-3   | 8S           | 0.040<br>± 0.001                         | 0.219            | 0.280                    | 1.114         | 1.115  |                                                  |                                                       |                                                    |                     |
| RG-142B/U,<br>Times MI51115                                                                   | 21-33020-7*         | 21-33019-7*  | 8S           | 0.040<br>± 0.001                         | 0.219            | 0.280                    | 1.114         | 1.115  | M22910/7-16 (B)                                  | M22520/5-43 (B)                                       |                                                    | 11-8678-2           |
| RG-161/U,<br>RG-174A/U,<br>RG-179B/U,<br>RG-187A/U,<br>RG-188A/U,<br>RG-316/U                 | 21-33020-32*        | 21-33019-32* | 12S          | 0.0300<br>± 0.0005                       | 0.140            | 0.172                    | 1.092         | 1.093  | M22910/7-12 (B)                                  | M22520/5-03 (A)<br>M22520/5-08 (A)<br>M22520/5-35 (B) | M22520/10-05 (A)                                   | 11-8676-1           |
| RG-178B/U                                                                                     | 21-33020-4          | 21-33019-4*  | 8S           | 0.040<br>± 0.001                         | 0.219            | 0.280                    | 1.114         | 1.115  | M22910/7-11 (B)                                  | M22520/5-03 (B)<br>M22520/5-33 (B)                    | M22520/10-05 (B)                                   | 11-8676-2           |
| RG-196A/U                                                                                     | 21-33020-31†        | 21-33061-31† | 12S          | 0.0300<br>± 0.0005                       | 0.140            | 0.172                    | 1.092         | 1.093  | M22910/7-11 (B)                                  | M22520/5-03 (B)<br>M22520/5-33 (B)                    | M22520/10-05 (B)                                   | 11-8676-1           |
| RG-180B/U,<br>RG-195A/U,<br>Raychem 5022D1312-9                                               | 21-33020-5*         | 21-33019-5*  | 8S           | 0.040<br>± 0.001                         | 0.219            | 0.280                    | 1.114         | 1.115  | M22910/7-15 (B)                                  | M22520/5-05 (B)<br>M22520/5-41 (B)                    | M22520/10-07 (B)                                   | 11-8676-2           |
| Raychem 5021D1331-9                                                                           | 21-33020-6*         | 21-33019-6*  | 8S           | 0.040<br>± 0.001                         | 0.219            | 0.280                    | 1.114         | 1.115  | M22910/7-15 (B)                                  | M22520/5-05 (B)<br>M22520/5-41 (B)                    | M22520/10-07 (B)                                   | 11-8676-2           |
| Thermatics 2929-29                                                                            | 21-33020-33         | 21-33061-33  | 12S          | 0.0200<br>± 0.0005                       | 0.140            | 0.172                    | 1.092         | 1.093  | M22910/7-13 (B)                                  | M22520/5-37 (B)                                       |                                                    | 11-8676-1           |

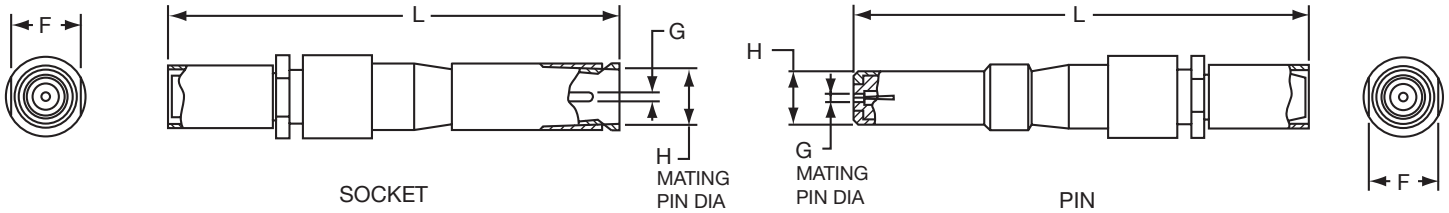
NOTE: Contacts can be ordered by part numbers given in chart  
 NOTE: Size 8S and 12S contacts are used with connector inserts through shell size 18 only. For larger connector shell sizes, use size 8L contacts.  
 CONTACT FINISH: For all contacts in this series feature 0.000050 minimum gold (Knoop hardness 130-200).

\* Consult Amphenol, Sidney NY for availability  
 CRIMPING TOOLS: Italicized letters in parenthesis that follow positioner part numbers indicate applicable die closure. Commercial equivalents with the same die closure dimension may be used.  
 † 21-33020-31 and 21-33061-31 only mate with each other

# Coaxial Contacts

for miniature cylindrical connectors, cont.

crimp SE (MIL-DTL-26482 Series 1 type) - application data



NOTE: All contacts of the same size and the same inner and outer contact diameters (G & H) will mate with each other.

| SE CRIMP COAX CONTACTS<br>For use in Miniature Crimp Type Connectors: PT-SE, SP-SE, and MS/PT-SE Styles |                     |                |              |      |                        |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|---------------------------------------------------------------------------------------------------------|---------------------|----------------|--------------|------|------------------------|---------------------------------------|---------------|-----------------------|---------------|--------|-----------------------------------------------|-------------------------------------------------------|------------------------------------------------|---------------------|------------------------|-------------------------|
| Cable                                                                                                   | Contact Part Number |                | Contact Size | Type | Finish on Mating Parts | Dimensional Data (See Drawings above) |               |                       |               |        | Crimp Ferrule Tools                           |                                                       |                                                | Retainer Nut Wrench | Installation Tools     |                         |
|                                                                                                         | Pin                 | Socket         |              |      |                        | G Dia.                                | H Dia. ±0.001 | F Across Flats ±0.004 | L Length Ref. |        | MIL-T-22910/7-1 Tool Use with Die Part Number | MIL-C-22520/5-01 Tool Use with Die Part Number        | MIL-C-22520/10-0 Tool Use with Die Part Number |                     | Insertion              | Removal                 |
|                                                                                                         |                     |                |              |      |                        |                                       |               |                       | Pin           | Socket |                                               |                                                       |                                                |                     |                        |                         |
| RG-55B/U,<br>RG-142A/U,<br>RG-142B/U,<br>RG-223/U                                                       | 21-33012-21         | 21-33011-21    | 8            | I    | 2                      | 0.0355 ±0.0010                        | 0.218         | 0.280                 | 1.156         | 1.144  | M22910/7-17 (B)                               | M22520/5-05 (A)<br>M22520/5-19 (B)                    | M22520/10-07 (A)                               | 11-8676-2           | 11-8369-5<br>11-8660-5 | 11-7880-8<br>11-8154-1  |
|                                                                                                         | 21-33012-25         | 21-33011-25    | 8            | II   | 4                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33038-21         | 21-33037-21    | 8            | I    | 4                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33038-25*        | 21-33037-25    | 8            | II   | 4                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
| RG-58C/U,<br>RG-141A/U,<br>RG-303/U                                                                     | 21-33138-21(*)      | 21-33137-21(*) | 8            | I    | **                     | 0.0355 ±0.0010                        | 0.218         | 0.280                 | 1.156         | 1.144  | M22910/7-15 (B)                               | M22520/5-05 (B)<br>M22520/5-41 (B)                    | M22520/10-07 (B)                               | 11-8676-2           | 11-8369-4<br>11-8660-4 | 11-7880-8<br>11-8154-1  |
|                                                                                                         | 21-33138-25(*)      | 21-33137-25(*) | 8            | II   | **                     |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33012-22         | 21-33011-22    | 8            | I    | 2                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33012-26         | 21-33011-26    | 8            | II   | 4                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
| RG-59B/U,<br>RG-62A/U,<br>RG-62B/U,<br>RG-210/U                                                         | 21-33038-22*        | 21-33037-22    | 8            | I    | 4                      | 0.0355 ±0.0010                        | 0.218         | 0.280                 | 1.156         | 1.144  | M22910/7-18 (B)                               | M22520/5-45 (B)                                       | M22520/10-07 (B)                               | 11-8676-3           | 11-8369-5<br>11-8660-5 | 11-7880-8<br>11-8154-1  |
|                                                                                                         | 21-33038-26*        | 21-33037-26*   | 8            | II   | 4                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-22(*)      | 21-33137-22(*) | 8            | I    | **                     |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-26(*)      | 21-33137-26(*) | 8            | II   | **                     |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
| RG-140/U,<br>RG-302/U                                                                                   | 21-33012-36         | 21-33011-36    | 8            | II   | 2                      | 0.0355 ±0.0010                        | 0.218         | 0.280                 | 1.156         | 1.144  | M22910/7-18 (B)                               | M22520/5-45 (B)                                       | M22520/10-07 (B)                               | 11-8676-3           | 11-8369-5<br>11-8660-5 | 11-7880-8<br>11-8154-1  |
|                                                                                                         | 21-33038-36*        | 21-33037-36    | 8            | II   | 4                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-36(*)      | 21-33137-36(*) | 8            | II   | **                     |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33012-37*        | 21-33011-37*   | 8            | II   | 2                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
| RG-161/U,<br>RG-174A/U,<br>RG-179B/U,<br>RG-187A/U,<br>RG-188A/U,<br>RG-316/U                           | 21-33038-37*        | 21-33037-37*   | 8            | II   | 4                      | 0.0355 ±0.0010                        | 0.218         | 0.280                 | 1.156         | 1.144  | M22910/7-17 (B)                               | M22520/5-05 (A)<br>M22520/5-19 (B)                    | M22520/10-07 (A)                               | 11-8676-2           | 11-8369-5<br>11-8660-5 | 11-7880-8<br>11-8154-1  |
|                                                                                                         | 21-33138-37(*)      | 21-33137-37(*) | 8            | II   | **                     |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33012-34         | 21-33011-34    | 8            | I    | 2                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33012-30         | 21-33011-30    | 8            | II   | 4                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
| RG-178B/U,<br>RG-196A/U                                                                                 | 21-33038-30         | 21-33037-30    | 8            | II   | 4                      | 0.0355 ±0.0010                        | 0.218         | 0.280                 | 1.156         | 1.144  | M22910/7-12 (B)                               | M22520/5-03 (A)<br>M22520/5-08 (A)<br>M22520/5-35 (B) | M22520/10-05 (A)                               | 11-8676-2           | 11-8369-2<br>11-8660-2 | 11-7880-8<br>11-8154-1  |
|                                                                                                         | 21-33138-34(*)      | 21-33137-34(*) | 8            | I    | **                     |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-30(*)      | 21-33137-30(*) | 8            | II   | **                     |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33012-1          | 21-33011-1     | 12           | I    | 2                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
| RG-178B/U,<br>RG-196A/U                                                                                 | 21-33012-4          | 21-33011-4     | 12           | II   | 4                      | 0.0200 ±0.0005                        | 0.128         | 0.172                 | 1.092         | 1.072  | M22910/7-12 (B)                               | M22520/5-03 (A)<br>M22520/5-08 (A)<br>M22520/5-35 (B) | M22520/10-05 (A)                               | 11-8676-1           | 11-8369-2<br>11-8660-2 | 11-7880-12<br>11-8154-2 |
|                                                                                                         | 21-33038-1*         | 21-33037-1*    | 12           | I    | 4                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33038-4          | 21-33037-4*    | 12           | II   | 4                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-1(*)       | 21-33137-1(*)  | 12           | I    | **                     |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
| RG-178B/U,<br>RG-196A/U                                                                                 | 21-33138-4(*)       | 21-33137-4(*)  | 12           | II   | **                     | 0.0200 ±0.0005                        | 0.128         | 0.172                 | 1.092         | 1.072  | M22910/7-12 (B)                               | M22520/5-03 (A)<br>M22520/5-08 (A)<br>M22520/5-35 (B) | M22520/10-05 (A)                               | 11-8676-1           | 11-8369-2<br>11-8660-2 | 11-7880-12<br>11-8154-2 |
|                                                                                                         | 21-33012-35         | 21-33011-35    | 8            | I    | 2                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33038-35         | 21-33037-35    | 8            | I    | 4                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-35(*)      | 21-33137-35(*) | 8            | II   | **                     |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
| RG-178B/U,<br>RG-196A/U                                                                                 | 21-33012-3*         | 21-33011-3*    | 12           | I    | 2                      | 0.0355 ±0.0010                        | 0.218         | 0.280                 | 1.156         | 1.144  | M22910/7-11 (B)                               | M22520/5-03 (B)<br>M22520/5-33 (B)                    | M22520/10-05 (A)                               | 11-8676-2           | 11-8369-1<br>11-8660-1 | 11-7880-8<br>11-7880-8  |
|                                                                                                         | 21-33012-5          | 21-33011-5     | 12           | II   | 2                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33038-3*         | 21-33037-3*    | 12           | I    | 4                      |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33038-5          | 21-33037-5*    | 12           | II   | **                     |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |
| RG-178B/U,<br>RG-196A/U                                                                                 | 21-33138-3(*)       | 21-33137-3(*)  | 12           | I    | **                     | 0.0200 ±0.0005                        | 0.128         | 0.172                 | 1.092         | 1.072  | M22910/7-11 (B)                               | M22520/5-03 (B)<br>M22520/5-33 (B)                    | M22520/10-05 (A)                               | 11-8676-1           | 11-8369-1<br>11-8660-1 | 11-7880-12<br>11-8154-2 |
|                                                                                                         | 21-33138-5(*)       | 21-33137-5(*)  | 12           | II   | **                     |                                       |               |                       |               |        |                                               |                                                       |                                                |                     |                        |                         |

NOTE: Contacts can be ordered by part numbers given in chart  
 \*\* See finish options for SE crimp Miniature contacts listed on page 44. Replace the parenthesis of the contact part number with the finish suffix number. However, you should consult Amphenol, Sidney, NY regarding the availability of all finish choices for each part number.

\* Consult Amphenol, Sidney NY for availability

CRIMPING TOOLS: Italicized letters in parenthesis that follow positioner part numbers indicate applicable die closure. Commercial equivalents with the same die closure dimension may be used.

CHART CONTINUES ON NEXT PAGE

# Coaxial Contacts

for miniature cylindrical connectors, cont.

crimp SE (MIL-MDL-26482 Series 1 type) - application data, cont.

| SE CRIMP COAX CONTACTS<br>For use in Miniature Crimp Type Connectors: PT-SE, SP-SE, and MS/PT-SE Styles |                                  |                                  |              |         |                        |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
|---------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------|--------------|---------|------------------------|------------------|---------------|-----------------------|---------------|--------|----------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------|---------------------|------------------------|-------------------------|
| Cable                                                                                                   | Contact Part Number              |                                  | Contact Size | Type    | Finish on Mating parts | Dimensional Data |               |                       |               |        | Crimp Ferrule Tools                                                              |                                                       |                                                | Retainer Nut Wrench | Installation Tools     |                         |
|                                                                                                         |                                  |                                  |              |         |                        | G Dia.           | H Dia. ±0.001 | F Across Flats ±0.004 | L Length Ref. |        |                                                                                  |                                                       |                                                |                     | Insertion              | Removal                 |
|                                                                                                         | Pin                              | Socket                           |              |         |                        |                  |               |                       | Pin           | Socket | MIL-T-22910/7-1 Tool Use with Die Part Number                                    | 47MIL-C-22520/5-01 Tool Use with Die Part Number      | MIL-C-22520/10-0 Tool Use with Die Part Number |                     |                        |                         |
| RG-180B/U, RG-195A/U                                                                                    | 21-33012-24<br>21-33012-46*      | 21-33011-24<br>21-33011-46*      | 8<br>8       | I<br>II | 2                      | 0.0355 ± 0.0010  | 0.218         | 0.280                 | 1.156         | 1.114  | M22520/7-15 (B)                                                                  | M22520/5-05 (B)<br>M22520/5-41 (B)                    | M22520/10-07 (B)                               | 11-8676-2           | 11-8369-4<br>11-8660-4 | 11-7880-8<br>11-8154-1  |
|                                                                                                         | 21-33038-24<br>21-33038-46*      | 21-33037-24<br>21-33037-46*      | 8<br>8       | I<br>II | 4                      |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-24(*)<br>21-33138-46(*) | 21-33137-24(*)<br>21-33137-46(*) | 8<br>8       | I<br>II | **                     |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
| Raychem 9527E1118, RG-180B/U, RG-195A/U                                                                 | 21-33106-40()                    | 21-33105-40()                    | 12           | III     | **                     | 0.0200 ± 0.0005  | 0.128         |                       | 0.899         | 0.879  | Daniels GS200 Tool with G2P330 or M22520/31-01 Tool with Positioner M22520/31-02 |                                                       |                                                |                     | 11-8674-2              | 11-7880-12<br>11-8154-2 |
| RG-188 or RG-316 Double Braid                                                                           | 21-33012-6*<br>21-33012-7*       | 21-33011-6*<br>21-33011-7*       | 12<br>12     | I<br>II | 2                      | 0.0200 ± 0.0005  | 0.128         | 0.172                 | 1.092         | 1.072  | M22910/7-13 (B)                                                                  | M22520/5-37 (B)                                       |                                                | 11-8676-1           | 11-8369-2<br>11-8660-2 | 11-7880-12<br>11-8154-2 |
|                                                                                                         | 21-33038-6*<br>21-33038-7*       | 21-33037-6*<br>21-33037-7*       | 12<br>12     | I<br>II | 4                      |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-6(*)<br>21-33138-7(*)   | 21-33137-6(*)<br>21-33137-7(*)   | 12<br>12     | I<br>II | **                     |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
| Thermox 50C-25ADS-1                                                                                     | 21-33012-44                      | 21-33011-44                      | 8            | II      | 2                      | 0.0355 ± 0.0010  | 0.128         | 0.280                 | 1.156         | 1.144  |                                                                                  |                                                       |                                                | 11-8676-2           | 11-8369-4<br>11-8660-4 | 11-7880-8<br>11-8154-1  |
|                                                                                                         | 21-33038-44*                     | 21-33037-44*                     | 8            | II      | 4                      |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-44(*)                   | 21-33137-44(*)                   | 8            | II      | **                     |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
| RG-195 Double Braid                                                                                     | 21-33012-28                      | 21-33011-28                      | 8            | I       | 2                      | 0.0355 ± 0.0010  | 0.128         | 0.280                 | 1.156         | 1.144  | M22910/7-16 (B)                                                                  | M22520/5-43 (B)                                       |                                                | 11-8676-2           | 11-8369-4<br>11-8660-4 | 11-7880-8<br>11-8154-1  |
|                                                                                                         | 21-33038-28*                     | 21-33037-28*                     | 8            | I       | 4                      |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-28(*)                   | 21-33137-28(*)                   | 8            | I       | **                     |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
| RG-122/U, Raychem 5022E5111                                                                             | 21-33012-23<br>21-33012-27       | 21-33011-23<br>21-33011-27       | 8<br>8       | I<br>II | 2                      | 0.0355 ± 0.0010  | 0.218         | 0.280                 | 1.156         | 1.144  | M22520/7-15 (B)                                                                  | M22520/5-05 (B)<br>M22520/5-41 (B)                    | M22520/10-07 (B)                               | 11-8676-2           | 11-8369-4<br>11-8660-4 | 11-7880-8<br>11-8154-1  |
|                                                                                                         | 21-33038-23*<br>21-33038-27      | 21-33037-23*<br>21-33037-27      | 8<br>8       | I<br>II | 4                      |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-23(*)<br>21-33138-27(*) | 21-33137-23(*)<br>21-33137-27(*) | 8<br>8       | I<br>II | **                     |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
| Raychem 9530D5314                                                                                       | 21-33012-31                      | 21-33011-31                      | 8            | I       | 2                      | 0.0355 ± 0.0010  | 0.218         | 0.280                 | 1.156         | 1.144  | M22910/7-15 (B)                                                                  | M22520/5-05 (B)<br>M22520/5-41 (B)                    | M22520/10-07 (B)                               | 11-8676-2           | 11-8369-4<br>11-8660-4 | 11-7880-8<br>11-8154-1  |
|                                                                                                         | 21-33038-31                      | 21-33037-31                      | 8            | I       | 4                      |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-31(*)                   | 21-33137-31(*)                   | 8            | I       | **                     |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
| Raychem 9527A1317                                                                                       | 21-33012-39                      | 21-33011-39                      | 8            | II      | 2                      | 0.0355 ± 0.0010  | 0.218         | 0.280                 | 1.156         | 1.144  | M22910/7-15 (B)                                                                  | M22520/5-05 (B)<br>M22520/5-41 (B)                    | M22520/10-07 (B)                               | 11-8676-2           | 11-8369-4<br>11-8660-4 | 11-7880-8<br>11-8154-1  |
|                                                                                                         | 21-33038-39*                     | 21-33037-39*                     | 8            | II      | 4                      |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-39(*)                   | 21-33137-39(*)                   | 8            | II      | **                     |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
| Raychem 7527A1318                                                                                       | 21-33012-40*                     | 21-33011-40                      | 8            | II      | 2                      | 0.0355 ± 0.0010  | 0.218         | 0.280                 | 1.156         | 1.144  | M22910/7-12 (B)                                                                  | M22520/5-03 (A)<br>M22520/5-08 (A)<br>M22520/5-35 (B) | M22520/10-05 (A)                               | 11-8676-2           | 11-8369-2<br>11-8660-2 | 11-7880-8<br>11-8154-1  |
|                                                                                                         | 21-33038-40*                     | 21-33037-40*                     | 8            | II      | 4                      |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-40*                     | 21-33137-40(*)                   | 8            | II      | **                     |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
| Westrex 199-49-1, Tensolite 30850/87T-1                                                                 | 21-33012-43                      | 21-33011-43                      | 12           | II      | 2                      | 0.0200 ± 0.0005  | 0.128         | 0.172                 | 1.092         | 1.072  | M22910/7-11 (B)                                                                  | M22520/5-03 (B)<br>M22520/5-33 (B)                    | M22520/10-05 (B)                               | 11-8676-1           | 11-8369-1<br>11-8660-1 | 11-7880-12<br>11-8154-2 |
|                                                                                                         | 21-33038-43                      | 21-33037-43                      | 12           | II      | 4                      |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |
|                                                                                                         | 21-33138-43(*)                   | 21-33137-43(*)                   | 12           | II      | **                     |                  |               |                       |               |        |                                                                                  |                                                       |                                                |                     |                        |                         |

NOTE: Contacts can be ordered by part numbers given in chart

\*\* See finish options for SE crimp Miniature contacts listed on page 44.

Replace the parenthesis of the contact part number with the finish suffix number. However, you should consult Amphenol, Sidney, NY regarding the availability of all finish choices for each part number.

\* Consult Amphenol, Sidney NY for availability

CRIMPING TOOLS: Italicized letters in parenthesis that follow positioner part numbers indicate applicable die closure.

Commercial equivalents with the same die closure dimension may be used.

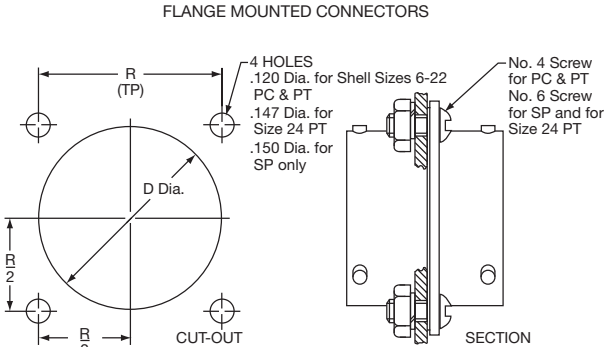
# Mounting Recommendations

## for miniature cylindrical connectors

### FLANGE MOUNTED CONNECTORS

All flange mounting PT connectors use standard MS mounting dimensions. They cannot be back panel mounted due to coupling clearance. The PTB (thru-bulkhead) type connector must also be back panel mounted on one side. Flange gaskets are available for both series, see page 37.

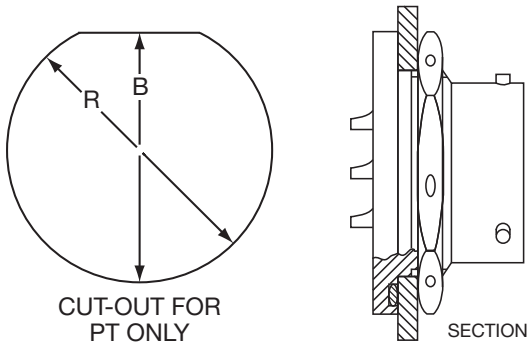
| Shell Size | R (TP)  |       | D Dia. |         |
|------------|---------|-------|--------|---------|
|            | PT, PTB | SP    | PT     | SP, PTB |
| 6          | .469    | .641  | .323   | .439    |
| 8          | .594    | .734  | .449   | .563    |
| 10         | .719    | .812  | .573   | .680    |
| 12         | .812    | .938  | .699   | .859    |
| 14         | .906    | 1.031 | .823   | .984    |
| 16         | .969    | 1.125 | .949   | 1.108   |
| 18         | 1.062   | 1.203 | 1.073  | 1.233   |
| 20         | 1.156   | 1.297 | 1.199  | 1.358   |
| 22         | 1.250   | 1.375 | 1.323  | 1.483   |
| 24         | 1.375   | 1.449 | 1.449  | -       |



### JAM NUT MOUNTINGS

The jam nut design has become very popular because it allows bench wiring of harness assemblies. The labor saving often offsets the added cost of the jam nut receptacle which is due to the self contained "O" ring and the extra nut.

| Shell Size | R<br>+.010<br>-.000 | B<br>+.000<br>-.010 | F<br>±.010 | P Panel Thickness |      |
|------------|---------------------|---------------------|------------|-------------------|------|
|            |                     |                     |            | Min.              | Max. |
| 6          | .447                | .420                | .286       | .062              | .125 |
| 8          | .572                | .542                | .331       | .062              | .125 |
| 10         | .697                | .669                | .375       | .062              | .125 |
| 12         | .884                | .830                | .442       | .062              | .125 |
| 14         | 1.007               | .955                | .486       | .062              | .125 |
| 16         | 1.134               | 1.084               | .530       | .062              | .125 |
| 18         | 1.259               | 1.208               | .573       | .062              | .125 |
| 20         | 1.384               | 1.333               | .641       | .062              | .250 |
| 22         | 1.507               | 1.459               | .685       | .062              | .250 |
| 24         | 1.634               | 1.575               | -          | .062              | .250 |



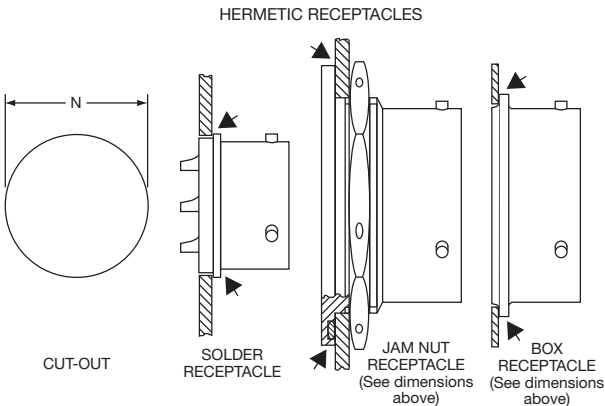
### HERMETIC RECEPTACLE MOUNTINGS

This series must be mounted in such a way as to preserve the hermetic seal provided by the glass insert. Mounting data for box and jam nut receptacles is given above. Cut-out required for solder mounting receptacles (N) is given below.

The finish of each of these hermetic receptacles is fused electro-deposited tin for easy solderability, and protected by a special lacquer for optimum shelf life. The lacquer will not interfere with any soldering operation.

Low temperature solder should be used and the addition of a solder fillet at arrow points on drawing at right is recommended. Care must be taken that the operating temperature of the final assembly does not rise above the melting point of tin (440° F).

| Shell Size | N Max. |
|------------|--------|
| 6          | .458   |
| 8          | .582   |
| 10         | .692   |
| 12         | .801   |
| 14         | .926   |
| 16         | 1.051  |
| 18         | 1.176  |
| 20         | 1.395  |
| 22         | 1.375  |
| 24         | 1.520  |





# Other Amphenol Miniature Cylindrical Connectors

## Geophysical Miniature Cylindricals

Designed for the Geophysical industry's rugged environments, the Amphenol® RPT Series connector has custom features that provide reliability in extreme temperature and moisture conditions.

The unique shell design provides stronger shells along with an anodized (non-conductive) finish for greater salt, corrosion and abrasion resistance. Coupling nuts are manufactured with round detent holes and are sold separately for greater customer flexibility. See product data sheet #146.



## RJ Field Bayonet Cylindricals

Amphenol PCD division provides MIL-DTL-26482 bayonet coupling cylindrical connectors with an RJ45 Ethernet interface\*. These are designed for use in all levels of harsh environments from industrial to mil-aero applications providing IP67 protection from dust, fluids, vibration, shock and traction. The Amphenol® RJ Field allows the use of Ethernet Class D/Cat 5 and Cat 5e connections for 10 BaseT, 100 Base TX, or 1000 BaseT networks. It works with any standard RJ45 cordset with no extra tooling. It also offers reinforced EMI protection.

For more information go online to [www.rjfield.com](http://www.rjfield.com) or ask for the Field Series brochure.

\* RJ Field Bayonet and other Field Series products are available through Amphenol PCD. These include RJF TV within MIL-DTL-38999 Series III threaded coupling connectors, and RJF 544 within ECTA push-pull plastic shell coupling.





MIL-DTL-26482 SERIES I  
HE 301 • VG95328



**Amphenol**  
Socapex



## PT/451 Products

Subminiature cylindrical connectors  
*Connecteurs circulaires subminiatures*



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### Presentation / *Présentation*

You will find in this document the PT/451 connectors in accordance with the American MIL-DTL-26482 series I standard in crimp, solder, wire wrap, PCB versions, with different sealing levels which are well known in aeronautics, military and industrial applications. PT/451 Series provides you with a multitude of possibilities through their different backshell possibilities, contact terminations, insert arrangements.

The same product can be ordered with different designations. The standard P/N includes both connector body and rear accessory. Please refer to PT and 451 ordering information on pages 14 to 17 to create your own part number.

- For specific needs, you can order the connector body without rear accessory. In this case, refer to page 43 for specific ordering information.
- We do not provide connectors with MS marking. Please have a look at the cross references chart mentioned on pages 18 and 19 to define your Amphenol equivalent part numbers.

*Vous trouverez dans ce document les connecteurs PT/451 conformes à la norme américaine MIL-DTL-26482 série I en version à sertir, à souder, à wrapper ou à piquer avec différents niveaux d'étanchéité, utilisés pour les applications aéronautiques, militaires et industrielles. La série PT/451 vous offre une gamme étendue de connecteurs proposant différentes possibilités de raccords, de terminaisons de contacts et arrangements de contacts.*

*Vous pouvez commander le même produit sous différentes désignations. La référence standard correspond au connecteur avec son raccord arrière. Veuillez vous référer aux pages 14 à 17 pour définir vos propres références.*

- *En fonction de vos besoins, vous pouvez commander le connecteur sans raccord arrière. Dans ce cas, reportez vous à la page 43 pour définir les références.*
- *Nous ne réalisons pas le marquage MS. Veuillez ainsi vous référer au tableau comparatif pages 18 et 19 pour définir vos références Amphenol équivalentes.*

### Applications / *Applications*

#### Industrial and military applications / *Applications industrielles et militaires*

- |                                 |                                                     |
|---------------------------------|-----------------------------------------------------|
| ■ Outdoor Industry Applications | ■ <i>Applications industrielles extérieures</i>     |
| ■ Oil & Gas                     | ■ <i>Recherche et prospection de pétrole et gaz</i> |
| ■ RMT                           | ■ <i>Industrie ferroviaire</i>                      |
| ■ C4ISR                         | ■ <i>C4ISR</i>                                      |
| ■ Ground Vehicles               | ■ <i>Véhicules de terrain</i>                       |
| ■ Measure / Instrumentation     | ■ <i>Mesure / Instrumentation</i>                   |



## General Characteristics / *Caractéristiques générales*

### Shell Material / *Matière du boîtier*

- Aluminium alloy
- Carbon steel (for hermetic receptacles)
- Stainless steel (please consult us)
- *Alliage d'Aluminium*
- *Acier (pour embases hermétiques)*
- *Acier inoxydable (veuillez nous contacter)*

### Shell Finish / *Protection du boîtier*

- Olive drab cadmium plating
- Electroless nickel plating - RoHS compliant
- Tin plating (for hermetic receptacles)
- Others, please consult us (bright cadmium, black anodic coating, black electrophoretic coating, cadmium free versions)
- *Revêtement cadmié vert-olive*
- *Revêtement Nickel - Conforme RoHS*
- *Revêtement étamé (pour embases hermétiques)*
- *Autres, veuillez nous consulter (cadmium blanc, anodisation noire, électrophorèse noire, versions sans cadmium)*

### 9 shell sizes from 8 to 24 / *9 tailles de boîtiers de 8 à 24*

### Contacts / *Contacts*

- 36 different arrangements of contacts
- Contacts size 20 and 16
- Signal (7,5 A): wire soldering, crimp, PCB, wire wrap
- Power (13 A): wire soldering, crimp, PCB
- *36 arrangements différents de contacts*
- *Contacts tailles 20 et 16*
- *Signal (7,5 A) : à souder sur fil, à sertir, à piquer, à wrapper*
- *Puissance (13 A) : à souder sur fil, à sertir, à piquer*

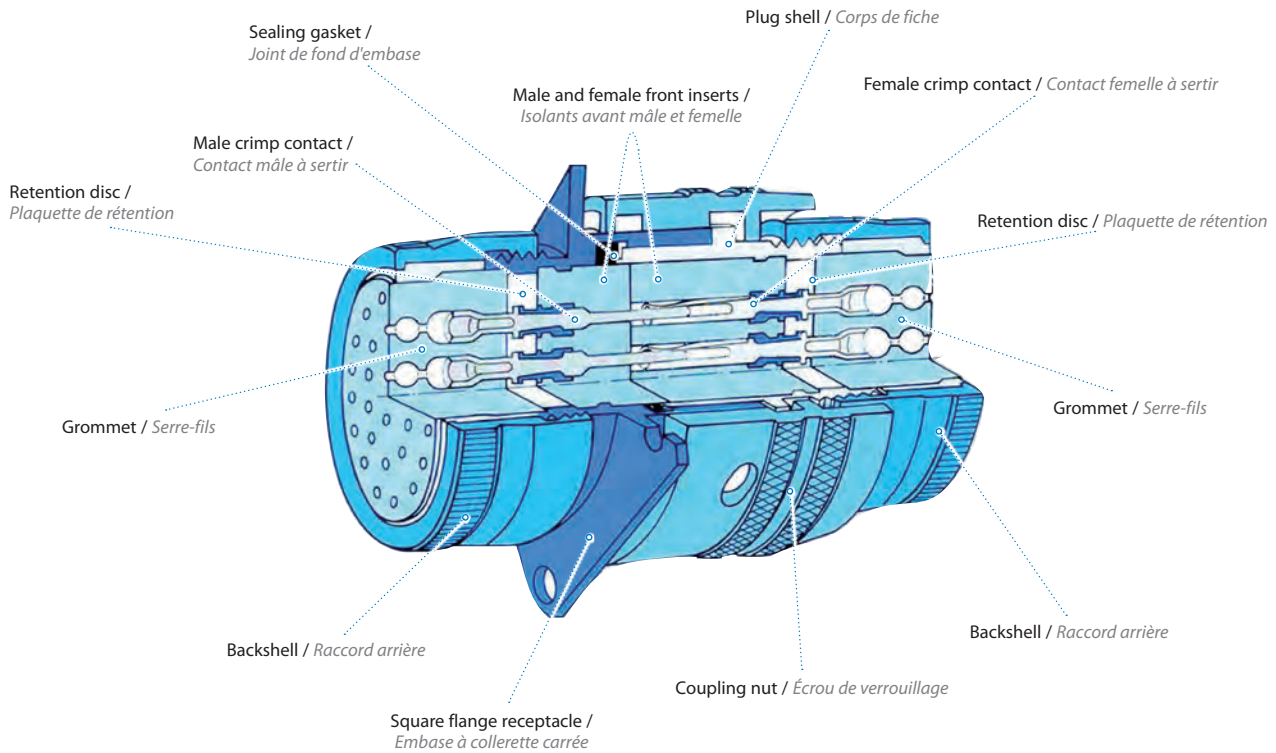
### EMI/RFI protection / *Protection EMI/RFI*

- Grounding ring on the plug shell for PTG06 / 45136 type
- *Bague de blindage sur le corps de fiche pour les types PTG06 / 45136*





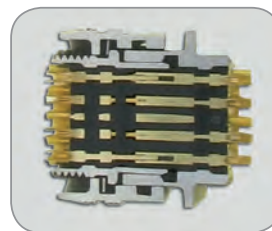
### PT/451 connectors section / *Coupe de connecteurs PT/451*



### Crimp version section (mated pair) *Coupe de version à sertir (connecteurs assemblés)*



PCB receptacle section  
*Coupe d'embase PCB*



Solder version section (mated pair)  
*Coupe de version à souder (connecteurs assemblés)*

## Mechanical characteristics / *Caractéristiques mécaniques*

### Insert and grommet / *Isolant et serre-fils*

#### Solder and PCB versions:

- 36 different insert arrangements
- Insert in Neoprene elastomer (Insert in Viton: please consult us)
- Rear elastomer grommet independent of the insert to allow soldering process

#### Crimp version:

- 25 different insert arrangements
- Insert in three parts: front insert, retention disc and grommet
- Retention of the contacts in the insert ensured by a hard retention disc

#### Versions à souder et à piquer :

- 36 arrangements d'isolants différents
- Isolant en néoprène élastomère (Isolant en Viton : nous consulter)
- Serre-fils indépendant de l'isolant pour permettre le process de soudure

#### Version à sertir :

- 25 arrangements d'isolants différents
- Isolant en trois parties : isolant avant, plaquette de rétention et serre-fils.
- Le maintien des contacts dans l'isolant est assuré par une plaquette de rétention

### Contacts / *Contacts*

#### Solder and PCB versions:

- Size 20 and 16 non-removable gold plated contacts

#### Crimp version:

- Size 20 and 16 crimp removable gold plated contacts, front release (delivered non-mounted in the insert to allow crimping process)

#### Versions à souder et à piquer :

- Contacts dorés non démontables taille 20 et 16

#### Version à sertir :

- Contacts à sertir dorés, démontables (par l'avant) taille 20 et 16 (livrés non montés dans l'isolant pour permettre l'opération de sertissage)

#### Contact retention in the insert:

##### *Rétention des contacts dans l'isolant :*

|                          | Size 20 / <i>Taille 20</i> | Size 16 / <i>Taille 16</i> |
|--------------------------|----------------------------|----------------------------|
| Solder / <i>A souder</i> | 67 N                       | 110 N                      |
| Crimp / <i>A sertir</i>  | 67 N                       | 110 N                      |

**Durability:** 500 cycles (full mating - unmating)

**Endurance mécanique :** 500 cycles (verrouillage - déverrouillage)

## Environmental characteristics / *Caractéristiques environnementales*

- **Operating temperature:** -55°C / +125°C
- **Salt spray exposure:** from 48h (nickel plating) to 500h (olive drab cadmium plating)
- **Sealing:** air leakage <16 cm<sup>3</sup> per hour under 2 bar of differential pressure (for solder and PCB versions)
- **Hermeticity:** leak ≤ 10<sup>-6</sup> cm<sup>3</sup>.s<sup>-1</sup> under 1 bar differential pressure (for hermetic versions)
- **Température d'utilisation :** -55°C / +125°C
- **Résistance au brouillard salin :** de 48h (traitement nickel) à 500h (traitement cadmium vert olive)
- **Étanchéité :** fuite <16 cm<sup>3</sup> par heure sous 2 bar de pression différentielle (en version à souder et PCB)
- **Herméticité :** fuite ≤ 10<sup>-6</sup> cm<sup>3</sup>.s<sup>-1</sup> sous 1 bar de pression différentielle (pour les versions hermétiques)



## Electrical characteristics / *Caractéristiques électriques*

|                                                                                                         | Size 20 contacts (ø 1mm)<br><i>Contacts taille 20</i> | Size 16 contacts (ø 1,57mm)<br><i>Contacts taille 16</i> |           |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------|-----------|
|                                                                                                         |                                                       | Service 1                                                | Service 2 |
| Recommended operating voltage at sea level<br><i>Tension de service recommandée au niveau de la mer</i> | 600 Vrms                                              | 600 Vrms                                                 | 1000 Vrms |
| Test voltage at sea level<br><i>Tension d'essai au niveau de la mer</i>                                 | 1500 Vrms                                             | 1500 Vrms                                                | 2300 Vrms |
| Test voltage at 21000m<br><i>Tension d'essai à 21000m</i>                                               | 375 Vrms                                              | 375 Vrms                                                 | 500 Vrms  |
| Current rating per contact*<br><i>Intensité max par contact*</i>                                        | 7.5 A                                                 | 13 A                                                     |           |
| Insulation resistance at ambient<br><i>Résistance d'isolement (air ambiant)</i>                         | ≥ 5000 MOhm                                           | ≥ 5000 MOhm                                              |           |
| Contact resistance at ambient<br><i>Résistance de contact (air ambiant)</i>                             | ≤ 2 mOhm                                              | ≤ 1.5 mOhm                                               |           |

\*: Current rating must not be applied at the same time to 50% of the contacts of the connector.

\*: L'intensité maximale ne doit pas être appliquée en même temps à plus de 50% des contacts d'un même connecteur.

## Contact dimensions and wire sizes

### *Dimensions des contacts et taille des conducteurs*

| Contacts                 |                      |         | Jauge<br>Mil-W-5086 | Section<br>(mm²) | Diameter in mm / <i>Diamètre en mm</i> |      |                                   |      |
|--------------------------|----------------------|---------|---------------------|------------------|----------------------------------------|------|-----------------------------------|------|
|                          |                      |         |                     |                  | on conductor / <i>sur âme</i>          |      | on insulator / <i>sur isolant</i> |      |
| Type                     | Size / <i>Taille</i> | ø in mm |                     |                  | min.                                   | max. | min.                              | max. |
| Solder / <i>A souder</i> | 20                   | 1       | 22 to 18            | 0.38-0.93        | -                                      | 1.3  | 1.2                               | 2.4  |
|                          | 16                   | 1.57    | 20 to 14            | 0.60-1.91        | -                                      | 1.6  | 1.6                               | 2.8  |
| Crimp / <i>A sertir</i>  | 20                   | 1       | 24* to 18           | 0.22*-0.93       | 0.6                                    | 1.3  | 1.2                               | 2.4  |
|                          | 16                   | 1.57    | 22 to 14            | 0.38-1.91        | -                                      | 1.6  | 1.6                               | 2.8  |

\*: Possible when used with reducing sleeves (see page 56 for ordering information).

\*: Possible lorsqu'il est utilisé avec des manchons réducteurs (voir page 56 pour commander).

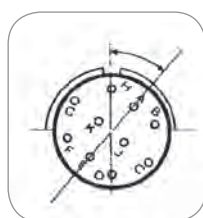
## Coding system / Alternate insert position

### Système de codage / Orientation de l'isolant

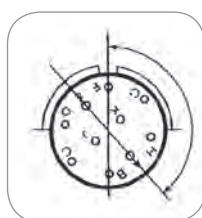
To avoid cross-plugging issues in applications requiring the use of more than one PT/451 connector of the same size and arrangement, alternate coding positions are available as indicated in the chart below.

As shown in the diagram below, the front face of the pin insert is rotated within the shell in a clockwise direction from the main shell key.

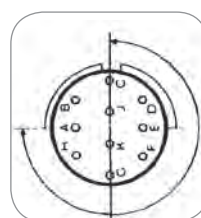
Afin d'éviter les problèmes d'inversion de branchement dans les applications qui nécessitent plus d'un connecteur PT/451 de la même taille et avec le même arrangement, il est possible de configurer des positions de codage tel qu'indiqué dans le tableau ci-dessous. Les schémas ci-dessous montrent que la face avant de l'isolant mâle a été tournée dans le boîtier dans le sens des aiguilles d'une montre par rapport à la clé principale du boîtier.



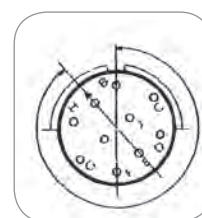
Position W



Position X



Position Y



Position Z

Diagrams show front face of pin insert or rear face of socket insert  
Vues de la face avant de l'isolant mâle ou de la face arrière de l'isolant femelle

| Shell size<br>Taille du boîtier | Insert arrangement<br>Arrangement de contact | Insert rotation (in degrees) /<br>Rotation de l'isolant (en degrés) |     |     |     |
|---------------------------------|----------------------------------------------|---------------------------------------------------------------------|-----|-----|-----|
|                                 |                                              | W                                                                   | X   | Y   | Z   |
| 8                               | 8-2                                          | 58                                                                  | 122 | -   | -   |
| 8                               | 8-3                                          | 60                                                                  | 210 | -   | -   |
| 8                               | 8-3A                                         | 60                                                                  | -   | -   | -   |
| 8                               | 8-33                                         | 90                                                                  | -   | -   | -   |
| 8                               | 8-4                                          | 45                                                                  | -   | -   | -   |
| 10                              | 10-6                                         | 90                                                                  | -   | -   | -   |
| 10                              | 10-7                                         | -                                                                   | -   | -   | -   |
| 10                              | 10-98                                        | 90                                                                  | 180 | 240 | 270 |
| 12                              | 12-3                                         | -                                                                   | -   | 180 | -   |
| 12                              | 12-8                                         | 90                                                                  | 112 | 203 | 292 |
| 12                              | 12-10                                        | 60                                                                  | 155 | 270 | 295 |
| 12                              | 12-14                                        | -                                                                   | -   | -   | -   |
| 14                              | 14-5                                         | 40                                                                  | 92  | 184 | 273 |
| 14                              | 14-12                                        | 43                                                                  | 90  | -   | -   |
| 14                              | 14-15                                        | 17                                                                  | 110 | 155 | 234 |
| 14                              | 14-18                                        | 15                                                                  | 90  | 180 | 270 |
| 14                              | 14-19                                        | 30                                                                  | 165 | 315 | -   |
| 16                              | 16-8                                         | 54                                                                  | 152 | 180 | 331 |

| Shell size<br>Taille du boîtier | Insert arrangement<br>Arrangement de contact | Insert rotation (in degrees) /<br>Rotation de l'isolant (en degrés) |     |     |     |
|---------------------------------|----------------------------------------------|---------------------------------------------------------------------|-----|-----|-----|
|                                 |                                              | W                                                                   | X   | Y   | Z   |
| 16                              | 16-23                                        | 158                                                                 | 270 | -   | -   |
| 16                              | 16-26                                        | 60                                                                  | -   | 275 | 338 |
| 18                              | 18-11                                        | 62                                                                  | 119 | 241 | 340 |
| 18                              | 18-30                                        | 180                                                                 | 193 | 285 | 350 |
| 18                              | 18-32                                        | 85                                                                  | 138 | 222 | 265 |
| 20                              | 20-16                                        | 238                                                                 | 318 | 333 | 347 |
| 20                              | 20-24                                        | 70                                                                  | 145 | 215 | 290 |
| 20                              | 20-25                                        | 72                                                                  | 144 | 216 | 288 |
| 20                              | 20-27                                        | 72                                                                  | 144 | 216 | 288 |
| 20                              | 20-39                                        | 63                                                                  | 144 | 252 | 333 |
| 20                              | 20-41                                        | 45                                                                  | 126 | 225 | -   |
| 22                              | 22-21                                        | 16                                                                  | 135 | 175 | 349 |
| 22                              | 22-32                                        | 72                                                                  | 145 | 215 | 288 |
| 22                              | 22-34                                        | 62                                                                  | 142 | 218 | 298 |
| 22                              | 22-36                                        | 72                                                                  | 144 | 216 | 288 |
| 22                              | 22-41                                        | 39                                                                  | 135 | 264 | -   |
| 22                              | 22-55                                        | 30                                                                  | 142 | 226 | 314 |
| 24                              | 24-61                                        | 90                                                                  | 180 | 270 | 324 |

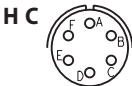
|                    |            |
|--------------------|------------|
| 45100RTxxx x * 50  | HE301L     |
| 45100RPhxxx x * 50 | HE301L     |
| 45101Axxx x * 50   | HE301B01A  |
| 45101ACxxx x * 50  | HE301B01AC |
| 45101Axxx x * PG50 | HE301B01A  |
| 45101Exxx x * 50   | HE301B01E  |
| 45101ECxxx x * 50  | HE301B01EC |
| 45101Jxxx x * 50   | HE301B01J  |
| 45101EKxxx x * 50  | HE301B01EK |
| 45101KMxxx x * 50  | HE301B01KM |
| 45101Pxxx x * 50   | HE301B01P  |
| 45101Jxxx x * 50   | HE301B01J  |
| 45101Rxxx x * 50   | HE301B01R  |
| 45101RCxxx x * 50  | HE301B01RC |
| 45101RTxxx x * 50  | HE301B01RT |
| 45101SKxxx x * 50  | HE301B01SK |

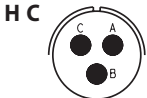
### Insert arrangements - Front view of male insert

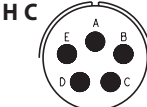
### Arrangements de contacts - Vue face avant de l'isolant mâle

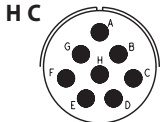
| 1 | Insert arrangement reference / Arrangements de contacts | 3 | Number of contacts / Nombre de contacts |
|---|---------------------------------------------------------|---|-----------------------------------------|
| 2 | Service rating / Service                                | 4 | Contact size / Taille des contacts      |

|    |   |                                                                                   |            |            |                    |             |            |
|----|---|-----------------------------------------------------------------------------------|------------|------------|--------------------|-------------|------------|
| 08 | 1 |  | <b>8-2</b> | <b>8-3</b> | <b>8-3A (8-98)</b> | <b>8-33</b> | <b>8-4</b> |
|    | 2 |                                                                                   | 1          | 1          | 1                  | 1           | 1          |
|    | 3 |                                                                                   | 2          | 3          | 3                  | 3           | 4          |
|    | 4 |                                                                                   | 20         | 20         | 20                 | 20          | 20         |

|    |   |                                                                                   |             |              |             |
|----|---|-----------------------------------------------------------------------------------|-------------|--------------|-------------|
| 10 | 1 |  | <b>10-6</b> | <b>10-98</b> | <b>10-7</b> |
|    | 2 |                                                                                   | 1           | 1            | 1           |
|    | 3 |                                                                                   | 6           | 6            | 7           |
|    | 4 |                                                                                   | 20          | 20           | 20          |

|    |   |                                                                                     |             |             |              |              |
|----|---|-------------------------------------------------------------------------------------|-------------|-------------|--------------|--------------|
| 12 | 1 |  | <b>12-3</b> | <b>12-8</b> | <b>12-10</b> | <b>12-14</b> |
|    | 2 |                                                                                     | 2           | 1           | 1            | 1            |
|    | 3 |                                                                                     | 3           | 8           | 10           | 14           |
|    | 4 |                                                                                     | 16          | 20          | 20           | 20           |

|    |   |                                                                                     |             |              |              |              |              |
|----|---|-------------------------------------------------------------------------------------|-------------|--------------|--------------|--------------|--------------|
| 14 | 1 |  | <b>14-5</b> | <b>14-12</b> | <b>14-15</b> | <b>14-18</b> | <b>14-19</b> |
|    | 2 |                                                                                     | 2           | 1            | 1            | 1            | 1            |
|    | 3 |                                                                                     | 5           | 8 4          | 14 1         | 18           | 19           |
|    | 4 |                                                                                     | 16          | 20 16        | 20 16        | 20           | 20           |

|    |   |                                                                                     |             |              |              |
|----|---|-------------------------------------------------------------------------------------|-------------|--------------|--------------|
| 16 | 1 |  | <b>16-8</b> | <b>16-23</b> | <b>16-26</b> |
|    | 2 |                                                                                     | 2           | 1            | 1            |
|    | 3 |                                                                                     | 8           | 22 1         | 26           |
|    | 4 |                                                                                     | 16          | 20 16        | 20           |

**H:** Available in hermetic version  
**H:** Disponible en version hermétique

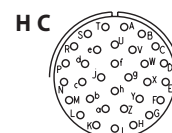
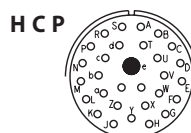
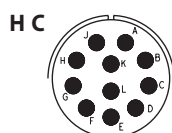
**C:** Available in crimp version  
**C:** Disponible en version à sertir

**P:** For those arrangements, please contact us for available configurations. Only available with PT marking  
**P:** Pour ces arrangements, nous consulter pour les configurations possibles. Marquage PT seulement

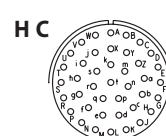
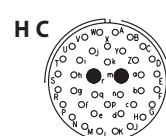
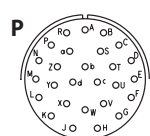
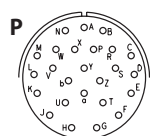
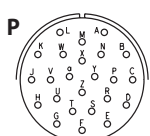
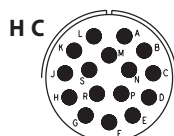
Top-runners / Les plus standard

### Contact Legend / Légende des contacts

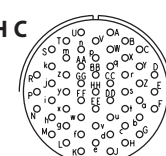
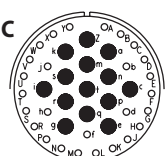
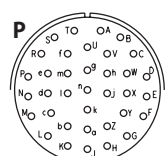
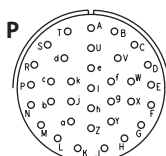
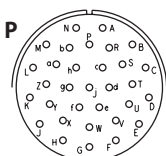
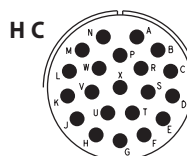
| Symbol / Symbole | Contact size / Taille du contact |
|------------------|----------------------------------|
| ○                | 20                               |
| ●                | 16                               |



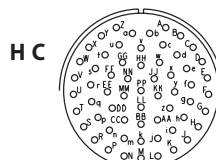
|    |   |              |              |              |
|----|---|--------------|--------------|--------------|
| 18 | ① | <b>18-11</b> | <b>18-30</b> | <b>18-32</b> |
|    | ② | 2            | 1            | 1            |
|    | ③ | 11           | 29           | 32           |
|    | ④ | 16           | 20           | 20           |



|    |   |              |              |              |              |              |              |
|----|---|--------------|--------------|--------------|--------------|--------------|--------------|
| 20 | ① | <b>20-16</b> | <b>20-24</b> | <b>20-25</b> | <b>20-27</b> | <b>20-39</b> | <b>20-41</b> |
|    | ② | 2            | 1            | 1            | 1            | 1            | 1            |
|    | ③ | 16           | 24           | 25           | 27           | 37           | 41           |
|    | ④ | 16           | 20           | 20           | 20           | 20           | 20           |



|    |   |              |              |              |              |              |              |
|----|---|--------------|--------------|--------------|--------------|--------------|--------------|
| 22 | ① | <b>22-21</b> | <b>22-32</b> | <b>22-34</b> | <b>22-36</b> | <b>22-41</b> | <b>22-55</b> |
|    | ② | 2            | 1            | 1            | 1            | 1            | 1            |
|    | ③ | 21           | 32           | 34           | 36           | 27           | 55           |
|    | ④ | 16           | 20           | 20           | 20           | 20           | 20           |



|    |   |              |
|----|---|--------------|
| 24 | ① | <b>24-61</b> |
|    | ② | 1            |
|    | ③ | 61           |
|    | ④ | 20           |

- Caution: 8-3A and 8-3 insert arrangements are not intermatable
- All insert arrangements mentioned are available in solder version
- Contact us for availability of other insert arrangements

- Attention: les arrangements 8-3A et 8-3 ne peuvent pas s'accoupler
- Tous les arrangements de contacts existents en version à souder
- Veuillez nous contacter pour les arrangements ne figurant pas dans ce tableau

## Shells and backshells, possible combinations

## Boîtiers et raccords, combinaisons possibles

Solder version / Version à souder

|                                                                                                                                                                                                            | Simple backshell<br>Raccord simple                                                      |                                                                                   | Cable clamp backshell<br>Raccord serre-câble                                      |                                                                                   | Sealed backshell<br>Raccord étanche                                               |                                                                                   |                                                                                    |                                                                                     | Braid clamping backshell<br>Raccord pour reprise de tresse                          |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| PT<br>451                                                                                                                                                                                                  |        |  |  |  |  |  |  |  |  |  |
| PT<br>451                                                                                                                                                                                                  | A<br>A                                                                                  | E<br>E                                                                            | A (SR)<br>AC                                                                      | E (SR)<br>EC                                                                      | W<br>J                                                                            | P<br>P                                                                            | E (J)<br>T                                                                         | A (PG)<br>A (PG)                                                                    | G                                                                                   | E (SQ)<br>G                                                                         |
| 00<br><br>Square flange receptacle<br>Embase à collerette carrée                                                          | ✓                                                                                       | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                  | ✓                                                                                   |                                                                                     | ✓                                                                                   |
| 01<br><br>Inline receptacle<br>Prolongateur                                                                               | ✓                                                                                       | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                  | ✓                                                                                   |                                                                                     | ✓                                                                                   |
| 02<br><br>Square flange receptacle<br>without rear accessory possibility<br>Embase carrée sans<br>possibilité de raccord | PT02A/ PT02E/ PT02C<br>45102E<br>No rear accessory<br>Ne comporte pas de<br>raccord     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| 06<br><br>Straight plug / Fiche droite                                                                                  | ✓                                                                                       | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                  | ✓                                                                                   | ✓                                                                                   | ✓<br>PTG06 / 45136                                                                  |
| 07<br><br>Jam nut receptacle<br>Embase à fixation par écrou                                                             | PT07A/<br>PT07C<br>45107A<br>No rear<br>accessory<br>Ne com-<br>porte pas<br>de raccord | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 |                                                                                   | ✓                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| 09<br><br>Square flange receptacle<br>with locking ring<br>Embase carrée à écrou                                        | PT09A<br>45109E<br>No rear<br>accessory<br>Ne com-<br>porte pas<br>de raccord           |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |

|                                                                                                                                                         | Cable clamp backshell<br>Raccord serre-câble                                        | Potting<br>Potting                                                                  | Braid clamping backshell<br>Raccord pour reprise de tresse                           |                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| PT / 451                                                                                                                                                |  |  |  |  |
| PT / 451                                                                                                                                                | E(SR) / EC                                                                          | P / P                                                                               | G                                                                                    | PTSA                                                                                  |
| 08<br><br>Plug for right angle backshell<br>Fiche pour raccord coudé | ✓                                                                                   | ✓                                                                                   | ✓                                                                                    |                                                                                       |
| G55<br><br>Straight plug / Fiche droite                              |                                                                                     |                                                                                     |                                                                                      | ✓                                                                                     |

Crimp version / *Version à sertir*

|                                                                                                                                                                                                             | Simple backshell<br><i>Raccord simple</i>                                         |                                                                                   | Cable clamp backshell<br><i>Raccord serre-câble</i>                               | Sealed backshell<br><i>Raccord étanche</i>                                        |                                                                                     |                                                                                     | Braid clamping backshell<br><i>Raccord pour reprise de tresse</i>                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                                                                                                                                             |  |  |  |  |  |  |  |
| PT 451                                                                                                                                                                                                      | RA                                                                                | SE R                                                                              | SE (SR) RC                                                                        | SP RP                                                                             | SE (J) RT                                                                           | SE (PG) R (PG)                                                                      | SE (SQ) RG                                                                          |
| 00<br><br>Square flange receptacle<br><i>Embase à collerette carrée</i>                                                    | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                   | ✓                                                                                   | ✓                                                                                   |
| 01<br><br>Inline receptacle<br><i>Prolongateur</i>                                                                         | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                   | ✓                                                                                   | ✓                                                                                   |
| 02<br><br>Square flange receptacle without rear accessory possibility<br><i>Embase carrée sans possibilité de raccord</i> |                                                                                   | PT02SE 45102R<br>No rear accessory<br><i>Ne comporte pas de raccord</i>           |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| 06<br><br>Straight plug / <i>Fiche droite</i>                                                                            | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                   | ✓                                                                                   | ✓<br>PTG06 / 45136                                                                  |
| 07<br><br>Jam nut receptacle<br><i>Embase à fixation par écrou</i>                                                       |                                                                                   | ✓                                                                                 | ✓                                                                                 | ✓                                                                                 |                                                                                     |                                                                                     | ✓                                                                                   |

|                                                                                                                                                                 | Cable clamp backshell<br><i>Raccord serre-câble</i> | Braid clamping backshell<br><i>Raccord pour reprise de tresse</i>                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| PT 451<br>                                                                   | SE (SR) RC                                          | PTSA<br> |
| 08<br><br>Plug for right angled backshell<br><i>Fiche pour raccord coudé</i> | ✓                                                   |                                                                                               |
| G55<br><br>Straight plug / <i>Fiche droite</i>                               |                                                     | ✓                                                                                             |

Note: EK, KM, SK backshells are not indicated in these charts because they are not often used for new developments.

Note : Les raccords EK, KM, SK ne sont pas mentionnés dans ces tableaux car ils ne sont pas souvent utilisés pour les nouveaux développements.

## HOW TO ORDER - Amphenol Designation: PT

Solder, Crimp, PCB, wire wrap versions. Connector with rear accessory

| PT Series                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | PT | 00 | E | 12 | 10 | P | - | - | - |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|---|----|----|---|---|---|---|
| <b>Shell type:</b><br><b>00:</b> Square flange receptacle with rear accessory possibility<br><b>01:</b> Inline receptacle<br><b>02:</b> Square flange receptacle without rear accessory possibility<br><b>06:</b> Straight plug<br><b>G06:</b> Straight plug with grounding ring for braid clamping backshell<br><b>07:</b> Jam nut receptacle<br><b>08:</b> Right angled plug<br><b>09:</b> Square flange receptacle with locking ring<br><b>I:</b> Solder mounting receptacle (hermetic version)<br><b>B:</b> Through bulkhead receptacle                                                                                                                                                                                                                                                                                                                                                                                             |    |    |   |    |    |   |   |   |   |
| <b>Service class and rear accessory capability:</b><br><b>Solder version:</b><br><b>A:</b> Intermediate backshell<br><b>Exception for PT02, PT07, PT09:</b> no rear accessory*<br><b>E:</b> Backnut<br><b>Exception for PT02:</b> no rear accessory*<br><b>C:</b> Air leakage controlled for PT02 & PT07, no rear accessory<br><b>A + SR:</b> Cable clamp backshell delivered without grommet<br><b>E + SR/J/SQ:</b> Backshell delivered with grommet (see «rear accessory particularity» for the backshell type)<br><b>A+PG:</b> PG backshell (see «rear accessory particularity» for the description)<br><b>W:</b> Sealing gland backshell - IP68<br><b>P:</b> Backshell for potting<br><b>G:</b> Braid soldering backshell<br><b>H:</b> Hermetic version<br><b>EK(x)*:</b> Immersion proof sealing gland backshell with strong cable grip<br><b>KM(x)*:</b> Rain proof sealing gland backshell with strong cable grip and earth line |    |    |   |    |    |   |   |   |   |
| <b>Crimp version:</b><br><b>SE:</b> Backnut<br><b>Exception for PT02:</b> no rear accessory (standard version)<br><b>SE + SR/J/PG/SQ:</b> See «rear accessory particularity» for the backshell type<br><b>SP:</b> Backshell for potting<br><b>SK(x)*:</b> Immersion proof sealing gland backshell with strong cable grip                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |    |    |   |    |    |   |   |   |   |
| <b>Other versions:</b><br><b>Y/YS/GS:</b> PCB version (see page 38)<br><b>MW:</b> Wire wrap version (see page 39)<br><b>Blank:</b> for through bulkhead receptacle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |    |   |    |    |   |   |   |   |
| <b>Shell size:</b> 8/10/12/14/16/18/20/22/24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |    |   |    |    |   |   |   |   |
| <b>Contact insert arrangement:</b> See page 10 & 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |    |   |    |    |   |   |   |   |
| <b>Contact type:</b><br><b>P:</b> Pin<br><b>S:</b> Socket<br><b>PS:</b> For through bulkhead receptacle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |    |   |    |    |   |   |   |   |
| <b>Coding / Insert alternate positioning:</b><br>Blank for normal or W, X, Y, Z (see coding system page 9)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |    |   |    |    |   |   |   |   |
| <b>Rear accessory particularity:</b><br><b>SR:</b> Cable clamp backshell<br><b>J:</b> Backnut for heatshrink moulded piece<br><b>PG:</b> Straight adaptor terminated by a PG type plastic sealing gland<br><b>SQ:</b> Braid clamping backshell                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    |    |   |    |    |   |   |   |   |
| <b>Shell finish:</b><br>Omit for standard olive drab cadmium. Hermetic connectors are all supplied with tin plated shells.<br><b>01:</b> Bright cadmium<br><b>02:</b> Black anodised - ROHS compliant<br><b>023:</b> Electroless nickel - ROHS compliant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |    |    |   |    |    |   |   |   |   |

\*: Replace «x» after EK, KM or SK by the number of the corresponding gasket (refer to end of page 34).

\*: PT02A and PT02E designations are equivalent

## COMMENT COMMANDER - Désignation Amphenol : PT

Versions à souder, à sertir, à piquer, à wrapper. Connecteur avec raccord arrière

| Série PT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PT | 00 | E | 12 | 10 | P | - | - | - |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|---|----|----|---|---|---|---|
| <b>Type de boîtier :</b><br><b>00 :</b> Embase à collerette carrée avec possibilité de raccord<br><b>01 :</b> Prolongateur<br><b>02 :</b> Embase à collerette carrée sans possibilité de raccord<br><b>06 :</b> Fiche droite<br><b>G06 :</b> Fiche droite avec bague de masse pour raccord à reprise de tresse<br><b>07 :</b> Embase à fixation par écrou<br><b>08 :</b> Fiche coudée<br><b>09 :</b> Embase à collerette carrée avec écrou de verouillage<br><b>I :</b> Embase à fixation par brasage (version hermétique)<br><b>B :</b> Traversée de cloison<br><br><b>Type de raccord arrière :</b><br><b>Version à souder :</b><br><b>A :</b> Raccord intermédiaire<br><b>Exception en PT02, PT07, PT09 :</b> sans possibilité de raccord arrière*<br><b>E :</b> Ecrou serre-fils<br><b>Exception en PT02 :</b> sans possibilité de raccord arrière*<br><b>C :</b> Etanchéité contrôlée pour PT02 et PT07, sans possibilité de raccord arrière<br><b>A + SR :</b> Serre câble fourni sans serre-fils<br><b>E + SR/J/SQ :</b> Raccord fourni avec serre-fils (voir «particularité des raccords arrières» pour le type de raccord)<br><b>A+PG :</b> Raccord PG (voir «particularité des raccords arrières» pour la description)<br><b>W :</b> Raccord presse-étoupe - IP68<br><b>P :</b> Raccord pour potting<br><b>G :</b> Raccord pour reprise de tresse avec terminaison étamée pour soudure de la tresse<br><b>H :</b> Version hermétique<br><b>EK(x)* :</b> Raccord presse-étoupe étanche à l'immersion<br><b>KM(x)* :</b> Raccord presse-étoupe étanche au ruissellement et continuité de masse<br><br><b>Version à sertir :</b><br><b>SE :</b> Ecrou serre-fils<br><b>Exception en PT02 :</b> sans possibilité de raccord arrière<br><b>SE + SR/J/PG/SQ :</b> voir «particularité des raccords arrières» pour le type de raccord<br><b>SP :</b> Raccord pour potting<br><b>SK(x)* :</b> Raccord presse-étoupe étanche à l'immersion<br><br><b>Autres versions :</b><br><b>Y/YS/GS :</b> Version à piquer sur circuit imprimé (voir page 38)<br><b>MW :</b> Version à wrapper (voir page 39)<br><b>Néant :</b> Pour traversée de cloison<br><br><b>Taille de boîtier :</b> 8/10/12/14/16/18/20/22/24<br><br><b>Arrangement de contact :</b> voir page 10 et 11<br><br><b>Type de contact :</b><br><b>P :</b> Mâle<br><b>S :</b> Femelle<br><b>PS :</b> Pour traversée de cloison<br><br><b>Codage / Orientation de l'isolant :</b><br>Néant pour normal ou W, X, Y, Z (voir le système de codage page 9)<br><br><b>Particularité des raccords arrières :</b><br><b>SR :</b> Serre-câble<br><b>J :</b> Raccord pour pièce moulée thermorétractable<br><b>PG :</b> Raccord intermédiaire raccordé à un presse-étoupe PG plastique<br><b>SQ :</b> Raccord pour reprise de tresse<br><br><b>Traitement du boîtier :</b><br>Néant pour le cadmié vert olive. Les connecteurs hermétiques sont tous fournis avec un boîtier étamé.<br><b>01 :</b> Cadmié blanc<br><b>02 :</b> Oxydation anodique noire - conforme ROHS<br><b>023 :</b> Nickel chimique - conforme ROHS |    |    |   |    |    |   |   |   |   |

\* : Remplacer «x» après EK, KM ou SK par le numéro de joint correspondant (se référer au bas de la page 34).

.: Les désignations PT02A et PT02E sont équivalentes.



## HOW TO ORDER - NFL 54125 Designation: 451

Solder, Crimp, PCB, Wire wrap versions. Connector with rear accessory

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |           |           |           |           |          |          |          |           |          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|-----------|-----------|-----------|----------|----------|----------|-----------|----------|
| <b>451 Series</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>451</b> | <b>00</b> | <b>EC</b> | <b>12</b> | <b>10</b> | <b>P</b> | <b>-</b> | <b>-</b> | <b>50</b> | <b>-</b> |
| <b>Shell type:</b><br><b>00:</b> Square flange receptacle with rear accessory possibility<br><b>01:</b> Inline receptacle<br><b>02:</b> Square flange receptacle without rear accessory possibility<br><b>06:</b> Straight plug<br><b>36:</b> Straight plug with grounding ring for braid clamping backshell<br><b>07:</b> Jam nut receptacle<br><b>08:</b> Right angled plug<br><b>09:</b> Square flange receptacle with locking ring                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |           |           |           |           |          |          |          |           |          |
| <b>Service class and rear accessory capability:</b><br><br><b>Solder version:</b><br><b>A:</b> Intermediate backshell<br><b>Exception for 451 07:</b> no rear accessory<br><b>E:</b> Backnut<br><b>Exception for 451 02 and 451 09:</b> no rear accessory<br><b>A+PG:</b> PG backshell (see «rear accessory particularity» for the description)<br><b>AC:</b> Cable clamp backshell delivered without grommet<br><b>EC:</b> Cable clamp delivered with grommet<br><b>J:</b> Sealing gland backshell - IP68<br><b>T:</b> Backnut for heatshrink moulded piece<br><b>P:</b> Backshell for potting<br><b>G:</b> Braid clamping backshell<br><b>EK(x)*:</b> Immersion proof sealing gland backshell with strong cable grip<br><b>KM(x)*:</b> Rain proof sealing gland backshell with strong cable grip and earth line<br><br><b>Crimp version:</b><br><b>R:</b> Backnut<br><b>Exception for 451 02:</b> no rear accessory<br><b>R+PG:</b> PG backshell (see «rear accessory particularity» for the description)<br><b>RA:</b> Intermediate backshell<br><b>RC:</b> Cable clamp backshell<br><b>RT:</b> Backnut for heatshrink moulded piece<br><b>RP:</b> Backshell for potting<br><b>RG:</b> Braid clamping backshell<br><b>SK(x)*:</b> Immersion proof sealing gland backshell with strong cable grip<br><br><b>Other versions:</b><br><b>Y/YS/GS:</b> PCB version (see page 38)<br><b>MW:</b> Wire wrap version (see page 39)<br><b>Blank:</b> for through bulkhead receptacle<br><br><b>Shell size:</b> 8/10/12/14/16/18/20/22/24<br><br><b>Contact insert arrangement:</b> See page 10 and 11<br><br><b>Contact type:</b><br><b>P:</b> Pin<br><b>S:</b> Socket<br><b>PS:</b> For through bulkhead receptacle<br><br><b>Coding / Insert alternate positioning:</b><br>Blank for normal or W, X, Y, Z (see coding system page 9)<br><br><b>Rear accessory particularity:</b><br><b>PG:</b> Straight adaptor terminated by a PG type plastic sealing gland<br><br><b>50:</b> Obligatory suffix |            |           |           |           |           |          |          |          |           |          |
| <b>Shell finish:</b><br>Blank for standard olive drab cadmium.<br><b>01:</b> Bright cadmium<br><b>02:</b> Black anodised - ROHS compliant<br><b>70:</b> Electroless nickel - ROHS compliant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |           |           |           |           |          |          |          |           |          |

\*: Replace «x» after EK, KM or SK by the number of the corresponding gasket (refer to end of page 34).

## COMMENT COMMANDER - Désignation NFL 54125: 451

Versions à souder, à sertir, à piquer, à wrapper. Connecteur avec raccord arrière

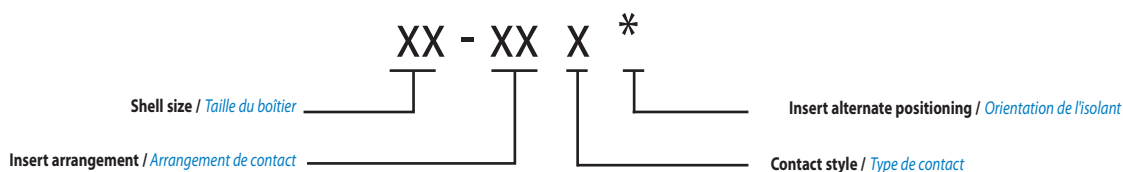
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |           |           |           |           |          |          |          |           |          |
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| <b>Série 451</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>451</b> | <b>00</b> | <b>EC</b> | <b>12</b> | <b>10</b> | <b>P</b> | <b>-</b> | <b>-</b> | <b>50</b> | <b>-</b> |
| <b>Type de boîtier :</b><br><b>00 :</b> Embase à collerette carrée avec possibilité de raccord<br><b>01 :</b> Prolongateur<br><b>02 :</b> Embase à collerette carrée sans possibilité de raccord<br><b>06 :</b> Fiche droite<br><b>36 :</b> Fiche droite avec bague de masse pour raccord à reprise de tresse<br><b>07 :</b> Embase à fixation par écrou<br><b>08 :</b> Fiche coudée<br><b>09 :</b> Embase à collerette carrée avec écrou de verouillage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |           |           |           |           |          |          |          |           |          |
| <b>Type de raccord arrière :</b><br><br><b>Version à souder :</b><br><b>A :</b> Raccord intermédiaire<br><b>Exception en 451 07 :</b> sans possibilité de raccord arrière<br><b>E :</b> Ecrou serre-fils<br><b>Exception en 451 02 et 451 09 :</b> sans possibilité de raccord arrière<br><b>A+PG :</b> Raccord PG (voir «particularité des raccords arrières» pour la description)<br><b>AC :</b> Serre câble fourni sans serre-fils<br><b>EC :</b> Serre câble fourni avec serre-fils<br><b>J :</b> Raccord presse-étoupe - IP68<br><b>T :</b> Raccord pour pièce moulée thermorétractable<br><b>P :</b> Raccord pour potting<br><b>G :</b> Raccord pour reprise de tresse<br><b>EK(x)* :</b> Raccord presse-étoupe étanche à l'immersion<br><b>KM(x)* :</b> Raccord presse-étoupe étanche au ruissellement et continuité de masse<br><br><b>Version à sertir :</b><br><b>R :</b> Ecrou serre-fils<br><b>Exception en 451 02 :</b> sans possibilité de raccord arrière<br><b>R+PG :</b> Raccord PG (voir «particularité des raccords arrières» pour la description)<br><b>RA :</b> Raccord intermédiaire<br><b>RC :</b> Raccord serre-câble<br><b>RT :</b> Raccord pour pièce moulée thermorétractable<br><b>RP :</b> Raccord pour potting<br><b>RG :</b> Raccord pour reprise de tresse<br><b>SK(x)* :</b> Raccord presse-étoupe étanche à l'immersion<br><br><b>Autres versions :</b><br><b>Y/YS/GS :</b> Version à piquer sur circuit imprimé (voir page 38)<br><b>MW :</b> Version à wrapper (voir page 39) |            |           |           |           |           |          |          |          |           |          |
| <b>Taille de boîtier :</b> 8/10/12/14/16/18/20/22/24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |           |           |           |           |          |          |          |           |          |
| <b>Arrangement de contact :</b> voir page 10 et 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |           |           |           |           |          |          |          |           |          |
| <b>Type de contact :</b><br><b>P :</b> Mâle<br><b>S :</b> Femelle<br><b>PS :</b> Pour traversée de cloison                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |           |           |           |           |          |          |          |           |          |
| <b>Codage / Orientation de l'isolant :</b><br>Néant pour normal ou W, X, Y, Z (voir le système de codage page 9)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |           |           |           |           |          |          |          |           |          |
| <b>Particularité des raccords arrières :</b><br><b>PG :</b> Raccord intermédiaire raccordé à un presse-étoupe PG plastique                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |           |           |           |           |          |          |          |           |          |
| <b>50 :</b> Suffixe obligatoire                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |           |           |           |           |          |          |          |           |          |
| <b>Traitement du boîtier :</b><br>Néant pour le cadmié vert olive standard.<br><b>01 :</b> Cadmié blanc<br><b>02 :</b> Oxydation anodique noire - conforme ROHS<br><b>70 :</b> Nickel chimique - conforme ROHS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |           |           |           |           |          |          |          |           |          |

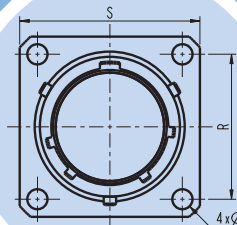
\* : Remplacer «x» après EK, KM ou SK par le numéro de joint correspondant (se référer au bas de la page 34).

Cross references chart / *Tableau d'équivalence*

| AMPHENOL<br>PT designation | BNAE NF. L54125<br>451 designation | NFC 93422<br>HE301 designation | MIL-DTL-26482<br>Series I | VG 95328           |
|----------------------------|------------------------------------|--------------------------------|---------------------------|--------------------|
| PT00A xx-xx x*             | 45100A xx-xx x* 50                 | HE301B00A xx-xx x* 1A          |                           |                    |
| PT00A xx-xx x* SR          | 45100AC xx-xx x* 50                | HE301B00AC xx-xx x* 1A         |                           |                    |
| PT00A xx-xx x* PG          | 45100A xx-xx x* PG 50              |                                |                           |                    |
| PT00E xx-xx x*             | 45100E xx-xx x* 50                 | HE301B00E xx-xx x* 1A          | MS3110E xx-xx x*          |                    |
| PT00E xx-xx x* SR          | 45100EC xx-xx x* 50                | HE301B00EC xx-xx x* 1A         | MS3110F xx-xx x*          |                    |
| PT00E xx-xx x* J           | 45100T xx-xx x* 50                 |                                |                           |                    |
| PT00P xx-xx x*             | 45100P xx-xx x* 50                 | HE301B00P xx-xx x* 1A          | MS3110P xx-xx x*          |                    |
| PT00W xx-xx x*             | 45100J xx-xx x* 50                 | HE301B00J xx-xx x* 1A          |                           |                    |
| PT00SE xx-xx x*            | 45100R xx-xx x* 50                 | HE301B00R xx-xx x* 1A          | MS3120E xx-xx x*          | VG 95328A xx-xx x* |
| PT00SE xx-xx x* SR         | 45100RC xx-xx x* 50                | HE301B00RC xx-xx x* 1A         | MS3120F xx-xx x*          | VG 95328B xx-xx x* |
| PT00SE xx-xx x* J          | 45100RT xx-xx x* 50                |                                |                           |                    |
| PT00SP xx-xx x*            | 45100RP xx-xx x* 50                | HE301B00RP xx-xx x* 1A         | MS3120P xx-xx x*          |                    |
| PT00SE xx-xx x* SQ         | 45100RG xx-xx x* 50                |                                |                           | VG 95328R xx-xx x* |
| PT01A xx-xx x*             | 45101A xx-xx x* 50                 | HE301B01A xx-xx x* 1A          |                           |                    |
| PT01A xx-xx x* SR          | 45101AC xx-xx x* 50                | HE301B01AC xx-xx x* 1A         |                           |                    |
| PT01A xx-xx x* PG          | 45101A xx-xx x* PG50               |                                |                           |                    |
| PT01E xx-xx x*             | 45101E xx-xx x* 50                 | HE301B01E xx-xx x* 1A          | MS3111E xx-xx x*          |                    |
| PT01E xx-xx x* SR          | 45101EC xx-xx x* 50                | HE301B01EC xx-xx x* 1A         | MS3111F xx-xx x*          |                    |
| PT01E xx-xx x* J           | 45101T xx-xx x* 50                 |                                |                           |                    |
| PT01EK (x) xx-xx x*        | 45101EK (x) xx-xx x* 50            |                                |                           |                    |
| PT01KM (x) xx-xx x*        | 45101KM (x) xx-xx x* 50            |                                |                           |                    |
| PT01P xx-xx x*             | 45101P xx-xx x* 50                 | HE301B01P xx-xx x* 1A          | MS3111P xx-xx x*          |                    |
| PT01W xx-xx x*             | 45101J xx-xx x* 50                 | HE301B01J xx-xx x* 1A          |                           |                    |
| PT01SE xx-xx x*            | 45101R xx-xx x* 50                 | HE301B01R xx-xx x* 1A          | MS3121E xx-xx x*          |                    |
| PT01SE xx-xx x* SR         | 45101RC xx-xx x* 50                | HE301B01RC xx-xx x* 1A         | MS3121F xx-xx x*          |                    |
| PT01SE xx-xx x* J          | 45101RT xx-xx x* 50                |                                |                           |                    |
| PT01SK (x) xx-xx x*        | 45101SK (x) xx-xx x* 50            |                                |                           |                    |
| PT01SP xx-xx x*            | 45101RP xx-xx x* 50                | HE301B01RP xx-xx x* 1A         | MS3121P xx-xx x*          |                    |
| PTIH xx-xx x*              |                                    |                                |                           |                    |
| PT02A xx-xx x*             | 45102Exx-xx x* 50                  | HE301B02Exx-xx x* 1A           | MS3112E xx-xx x*          | VG 95328H xx-xx x* |
| PT02C xx-xx x*             |                                    |                                |                           |                    |
| PT02E xx-xx x*             | 45102Exx-xx x* 50                  | HE301B02Exx-xx x* 1A           | MS3112E xx-xx x*          | VG 95328H xx-xx x* |
| PT02SE xx-xx x*            | 45102Rxx-xx x* 50                  | HE301B02R xx-xx x* 1A          | MS3122E xx-xx x*          | VG 95328C xx-xx x* |
| PT02H xx-xx x*             |                                    |                                |                           |                    |
| PT02MW xx-xx x*            | 45102MW xx-xx x* 50                |                                |                           |                    |
| PT02Y xx-xx x*             | 45102Y xx-xx x* 50                 |                                |                           |                    |
| PT02YS xx-xx x*            | 45102YS xx-xx x* 50                |                                |                           |                    |
| PT02GS xx-xx x*            | 45102GS xx-xx x* 50                |                                |                           |                    |

| AMPHENOL<br>PT designation | BNAE NF. L54125<br>451 designation | NFC 93422<br>HE301 designation | MIL-DTL-26482<br>Series I | VG 95328           |
|----------------------------|------------------------------------|--------------------------------|---------------------------|--------------------|
| PT06A xx-xx x*             | 45106A xx-xx x* 50                 | HE301B06A xx-xx x* 1A          |                           |                    |
| PT06A xx-xx x* SR          | 45106ACxx-xx x* 50                 | HE301B06AC xx-xx x* 1A         |                           |                    |
| PT06A xx-xx x* PG          | 45106Axx-xx x* PG 50               |                                |                           |                    |
| PT006E xx-xx x*            | 45106Exx-xx x* 50                  | HE301B06E xx-xx x* 1A          | MS3116E xx-xx x*          |                    |
| PT06E xx-xx x* SR          | 45106ECxx-xx x* 50                 | HE301B06EC xx-xx x* 1A         | MS3116F xx-xx x*          |                    |
| PT06E xx-xx x* J           | 45106Txx-xx x* 50                  |                                |                           |                    |
| PT06EK (x) xx-xx x*        | 45106EK(x)xx-xx x* 50              |                                |                           |                    |
| PT06KM (x) xx-xx x*        | 45106KM(x)xx-xx x* 50              |                                |                           |                    |
| PT06G xx-xx x*             |                                    |                                |                           |                    |
| PT06P xx-xx x*             | 45106P xx-xx x* 50                 | HE301B06P xx-xx x* 1A          | MS3116P xx-xx x*          |                    |
| PT06W xx-xx x*             | 45106J xx-xx x* 50                 | HE301B06J xx-xx x* 1A          |                           |                    |
| PT06SE xx-xx x*            | 45106R xx-xx x* 50                 | HE301B06R xx-xx x* 1A          | MS3126E xx-xx x*          |                    |
| PT06SE xx-xx x* SR         | 45106RC xx-xx x* 50                | HE301B06RC xx-xx x* 1A         | MS3126F xx-xx x*          | VG 95328K xx-xx x* |
| PT06SE xx-xx x* J          | 45106RT xx-xx x* 50                |                                |                           | VG 95328J xx-xx x* |
| PT06SK (x) xx-xx x*        | 45106SK xx-xx x* 50                |                                |                           |                    |
| PT06SP xx-xx x*            | 45106RP xx-xx x* 50                | HE301B06RP xx-xx x* 1A         | MS3126P xx-xx x*          |                    |
| PTG06SE xx-xx x* SQ        | 45136RG xx-xx x* 50                |                                |                           | VG 95328M xx-xx x* |
| PT07A xx-xx x*             | 45107A xx-xx x* 50                 | HE301B07A xx-xx x* 1A          |                           |                    |
| PT07A xx-xx x* SR          | 45107AC xx-xx x* 50                | HE301B07AC xx-xx x* 1A         |                           |                    |
| PT07C xx-xx x*             |                                    |                                |                           |                    |
| PT07E xx-xx x*             | 45107E xx-xx x* 50                 | HE301B07E xx-xx x* 1A          | MS3114E xx-xx x*          |                    |
| PT07E xx-xx x* SR          | 45107EC xx-xx x* 50                | HE301B07EC xx-xx x* 1A         | MS3114F xx-xx x*          |                    |
| PT07P xx-xx x*             | 45107P xx-xx x* 50                 | HE301B07P xx-xx x* 1A          | MS3114P xx-xx x*          |                    |
| PT07SE xx-xx x*            | 45107R xx-xx x* 50                 | HE301B07R xx-xx x* 1A          | MS3124E xx-xx x*          | VG 95328D xx-xx x* |
| PT07SE xx-xx x* SR         | 45107RC xx-xx x* 50                | HE301B07RC xx-xx x* 1A         | MS3124F xx-xx x*          | VG 95328E xx-xx x* |
| PT07SP xx-xx x*            | 45107RP xx-xx x* 50                | HE301B07RP xx-xx x* 1A         | MS3124P xx-xx x*          |                    |
| PT07SE xx-xx x* SQ         | 45107RG xx-xx x* 50                |                                |                           | VG 95328T xx-xx x* |
| PT07H xx-xx x*             |                                    |                                |                           |                    |
| PT07MW xx-xx x*            | 45107MW xx-xx x* 50                |                                |                           |                    |
| PT07Y xx-xx x*             | 45107Y xx-xx x* 50                 |                                |                           |                    |
| PT07YS xx-xx x*            | 45107YS xx-xx x* 50                |                                |                           |                    |
| PT07GS xx-xx x*            | 45107GS xx-xx x* 50                |                                |                           |                    |
| PT08E xx-xx x* SR          | 45108EC xx-xx x* 50                | HE301B08EC xx-xx x* 1A         |                           |                    |
| PT08P xx-xx x*             | 45108P xx-xx x* 50                 | HE301B08P xx-xx x* 1A          |                           |                    |
| PT08SE xx-xx x* SR         | 45108RC xx-xx x* 50                | HE301B08RC xx-xx x* 1A         |                           |                    |
| PT09A xx-xx x*             | 45109E xx-xx x* 50                 |                                |                           |                    |
| PTB xx-xx x*               |                                    |                                |                           |                    |





### Square flange receptacle 02 type

#### Embase carrée type 02

|                   |                       |        |          |
|-------------------|-----------------------|--------|----------|
| Solder / A souder | PT02A / PT02E / PT02C | 45102E | VG95328H |
| Crimp / A sertir  | PT02SE                | 45102R | VG95328C |

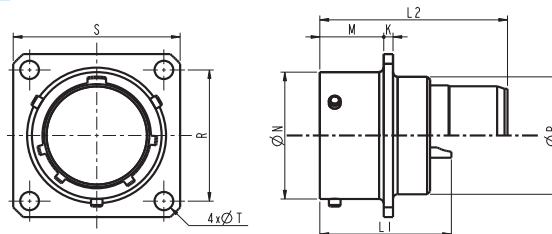
Square flange receptacle without rear accessory possibility.  
Embase à collerette carrée sans possibilité de raccord.



Solder / A souder



Crimp / A sertir



| Shell size<br>Taille du boîtier | K max. | L1 max.<br>Solder / Souder | L2 max.<br>Crimp / Sertir | M     | Ø N   | Ø P max. | R     | S    | Ø T<br>± 0.1 |
|---------------------------------|--------|----------------------------|---------------------------|-------|-------|----------|-------|------|--------------|
| 8                               | 1.57   | 22.6                       | 32.3                      | 10.95 | 12.01 | 11.4     | 15.09 | 20.6 | 3.2          |
| 10                              | 1.57   | 22.6                       | 32.3                      | 10.95 | 14.99 | 14.6     | 18.26 | 23.8 | 3.2          |
| 12                              | 1.57   | 22.6                       | 32.3                      | 10.95 | 19.05 | 17.8     | 20.62 | 26.2 | 3.2          |
| 14                              | 1.57   | 22.6                       | 32.3                      | 10.95 | 22.23 | 20.9     | 23.01 | 28.6 | 3.2          |
| 16                              | 1.57   | 22.6                       | 32.3                      | 10.95 | 25.40 | 24.1     | 24.61 | 31.0 | 3.2          |
| 18                              | 1.57   | 22.6                       | 32.3                      | 10.95 | 28.58 | 27.3     | 26.97 | 33.3 | 3.2          |
| 20                              | 2.39   | 28.1                       | 33.9                      | 14.12 | 31.75 | 30.5     | 29.36 | 36.5 | 3.2          |
| 22                              | 2.39   | 28.1                       | 33.9                      | 14.12 | 34.93 | 33.6     | 31.75 | 39.7 | 3.2          |
| 24                              | 2.39   | 28.1                       | 35.4                      | 14.96 | 38.10 | 36.8     | 34.93 | 42.9 | 3.73         |

### Square flange receptacle 00 type

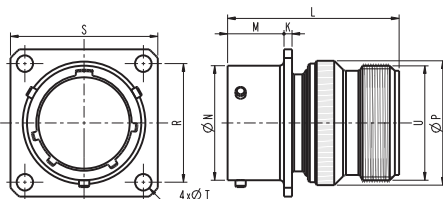
#### Embase carrée type 00

|                   |       |         |
|-------------------|-------|---------|
| Solder / A souder | PT00A | 45100A  |
| Crimp / A sertir  | -     | 45100RA |

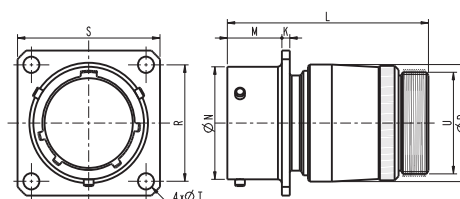
Square flange receptacle with intermediate backshell.  
Embase à collerette carrée avec raccord intermédiaire.



A type (solder)  
Type A (à souder)



RA type (crimp)  
Type RA (à sertir)



| Shell size<br>Taille du boîtier | K max. | L max. |      | M     | Ø N   | Ø P max. |      | R     | S    | Ø T<br>± 0.1 | U Thread (class 2A)<br>Filetage U (classe 2A) |                 |
|---------------------------------|--------|--------|------|-------|-------|----------|------|-------|------|--------------|-----------------------------------------------|-----------------|
|                                 |        | A      | RA   |       |       | A        | RA   |       |      |              | A type (solder)                               | RA type (crimp) |
| 8                               | 1.57   | 34.3   | 41.5 | 10.95 | 12.01 | 14.7     | 13.9 | 15.09 | 20.6 | 3.2          | 0.5000-28UNEF                                 | 0.4375-28UNEF   |
| 10                              | 1.57   | 34.3   | 41.5 | 10.95 | 14.99 | 17.9     | 17.1 | 18.26 | 23.8 | 3.2          | 0.6250-24UNEF                                 | 0.5625-24UNEF   |
| 12                              | 1.57   | 34.3   | 41.5 | 10.95 | 19.05 | 20.9     | 20.3 | 20.62 | 26.2 | 3.2          | 0.7500-20UNEF                                 | 0.6875-24UNEF   |
| 14                              | 1.57   | 34.3   | 41.5 | 10.95 | 22.23 | 24.3     | 23.3 | 23.01 | 28.6 | 3.2          | 0.8750-20UNEF                                 | 0.8125-20UNEF   |
| 16                              | 1.57   | 34.3   | 41.5 | 10.95 | 25.40 | 27.3     | 26.5 | 24.61 | 31.0 | 3.2          | 1.0000-20UNEF                                 | 0.9375-20UNEF   |
| 18                              | 1.57   | 34.3   | 41.5 | 10.95 | 28.58 | 30.6     | 29.5 | 26.97 | 33.3 | 3.2          | 1.1875-18UNEF                                 | 1.0625-18UNEF   |
| 20                              | 2.39   | 40.7   | 45.0 | 14.12 | 31.75 | 33.5     | 32.7 | 29.36 | 36.5 | 3.2          | 1.1875-18UNEF                                 | 1.1875-18UNEF   |
| 22                              | 2.39   | 40.7   | 45.0 | 14.12 | 34.93 | 36.8     | 36.0 | 31.75 | 39.7 | 3.2          | 1.4375-18UNEF                                 | 1.3125-18UNEF   |
| 24                              | 2.39   | 42.3   | 46.5 | 14.96 | 38.10 | 40.0     | 39.2 | 34.93 | 42.9 | 3.73         | 1.4375-18UNEF                                 | 1.4375-18UNEF   |

To mount the receptacle on the panel, please refer to page 58 for panel drilling and thickness.

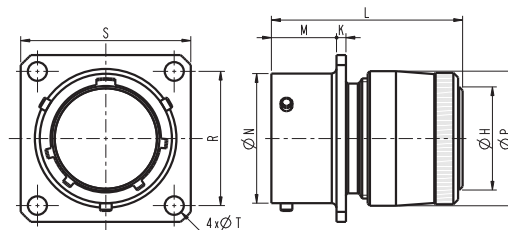
Pour le montage des embases sur panneau, se référer à la page 58 pour le perçage et l'épaisseur des panneaux.

all dimensions are in mm

|                   |        |        |          |
|-------------------|--------|--------|----------|
| Solder / A souder | PT00E  | 45100E | -        |
| Crimp / A sertir  | PT00SE | 45100R | VG95328A |



Square flange receptacle with grommet backnut.  
Embase à collerette carrée avec écrou serre-fils.

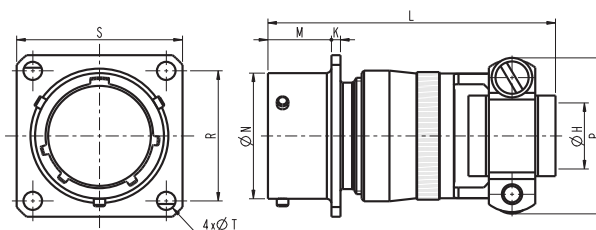


| Shell size<br>Taille du boîtier | Ø H  | K max. | L max. | M     | Ø N   | Ø P max. | R     | S    | Ø T<br>± 0.1 |
|---------------------------------|------|--------|--------|-------|-------|----------|-------|------|--------------|
| 8                               | 9.3  | 1.57   | 32.7   | 10.95 | 12.01 | 13.9     | 15.09 | 20.6 | 3.2          |
| 10                              | 12.3 | 1.57   | 32.7   | 10.95 | 14.99 | 17.1     | 18.26 | 23.8 | 3.2          |
| 12                              | 15.2 | 1.57   | 32.7   | 10.95 | 19.05 | 20.3     | 20.62 | 26.2 | 3.2          |
| 14                              | 18.5 | 1.57   | 32.7   | 10.95 | 22.23 | 23.3     | 23.01 | 28.6 | 3.2          |
| 16                              | 21.7 | 1.57   | 32.7   | 10.95 | 25.40 | 26.5     | 24.61 | 31.0 | 3.2          |
| 18                              | 24.2 | 1.57   | 32.7   | 10.95 | 28.58 | 29.5     | 26.97 | 33.3 | 3.2          |
| 20                              | 27.4 | 2.39   | 34.2   | 14.12 | 31.75 | 32.7     | 29.36 | 36.5 | 3.2          |
| 22                              | 30.6 | 2.39   | 34.2   | 14.12 | 34.93 | 36.0     | 31.75 | 39.7 | 3.2          |
| 24                              | 33.8 | 2.39   | 35.8   | 14.96 | 38.10 | 39.2     | 34.93 | 42.9 | 3.73         |

|                   |                         |                   |          |
|-------------------|-------------------------|-------------------|----------|
| Solder / A souder | PT00A (SR) / PT00E (SR) | 45100AC / 45100EC | -        |
| Crimp / A sertir  | PT00SE (SR)             | 45100RC           | VG95328B |



Square flange receptacle with cable clamp backshell.  
Embase à collerette carrée avec raccord serre-câble.



| Shell size<br>Taille du boîtier | ØH   | K max. | L max. | M     | ØN    | P max. | R     | S    | ØT<br>± 0.1 |
|---------------------------------|------|--------|--------|-------|-------|--------|-------|------|-------------|
| 8                               | 3.2  | 1.57   | 49.0   | 10.95 | 12.01 | 19.3   | 15.09 | 20.6 | 3.2         |
| 10                              | 4.8  | 1.57   | 49.0   | 10.95 | 14.99 | 20.8   | 18.26 | 23.8 | 3.2         |
| 12                              | 7.9  | 1.57   | 49.0   | 10.95 | 19.05 | 24.0   | 20.62 | 26.2 | 3.2         |
| 14                              | 9.5  | 1.57   | 49.0   | 10.95 | 22.23 | 27.2   | 23.01 | 28.6 | 3.2         |
| 16                              | 12.7 | 1.57   | 52.4   | 10.95 | 25.40 | 28.8   | 24.61 | 31.0 | 3.2         |
| 18                              | 15.9 | 1.57   | 52.4   | 10.95 | 28.58 | 35.1   | 26.97 | 33.3 | 3.2         |
| 20                              | 15.9 | 2.39   | 54.8   | 14.12 | 31.75 | 35.1   | 29.36 | 36.5 | 3.2         |
| 22                              | 19.1 | 2.39   | 54.8   | 14.12 | 34.93 | 39.9   | 31.75 | 39.7 | 3.2         |
| 24                              | 20.3 | 2.39   | 56.4   | 14.96 | 38.10 | 42.3   | 34.93 | 42.9 | 3.73        |

Note: for the version without grommet A + SR (PT) or AC (451), use the nylon ring delivered with the cable clamp to screw your backshell at the rear of the receptacle.

Pour la version sans serre-fil A + SR (PT) ou AC (451), utiliser la bague en nylon livrée avec le serre-câble pour visser votre raccord à l'arrière de l'embase.

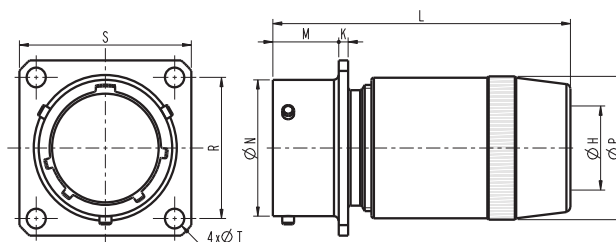
To mount the receptacle on the panel, please refer to page 58 for panel drilling and thickness.

Pour le montage des embases sur panneau, se référer à la page 58 pour le perçage et l'épaisseur des panneaux.

all dimensions are in mm

|                   |        |        |
|-------------------|--------|--------|
| Solder / A souder | PT00 W | 45100J |
| Crimp / A sertir  | -      | -      |

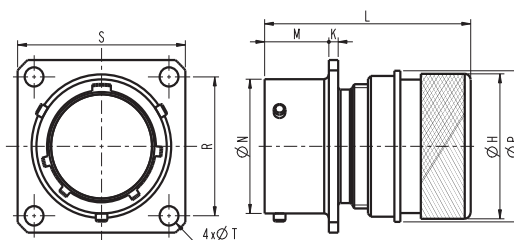
Square flange receptacle with metal sealing gland backshell.  
*Embase à collerette carrée avec raccord presse-étoupe métallique.*



| Shell size<br><i>Taille du boîtier</i> | Ø H  |      | K max. | L max. | M     | Ø N   | Ø P max. | R     | S    | Ø T<br>± 0.1 |
|----------------------------------------|------|------|--------|--------|-------|-------|----------|-------|------|--------------|
|                                        | min. | max. |        |        |       |       |          |       |      |              |
| 8                                      | 4.3  | 5.8  | 1.57   | 40.8   | 10.95 | 12.01 | 13.6     | 15.09 | 20.6 | 3.2          |
| 10                                     | 5.2  | 7.9  | 1.57   | 41.8   | 10.95 | 14.99 | 16.8     | 18.26 | 23.8 | 3.2          |
| 12                                     | 8.6  | 11.2 | 1.57   | 45.4   | 10.95 | 19.05 | 20.3     | 20.62 | 26.2 | 3.2          |
| 14                                     | 10.6 | 13.7 | 1.57   | 50.3   | 10.95 | 22.23 | 23.6     | 23.01 | 28.6 | 3.2          |
| 16                                     | 14.0 | 15.6 | 1.57   | 55.8   | 10.95 | 25.40 | 26.8     | 24.61 | 31.0 | 3.2          |
| 18                                     | 15.2 | 17.1 | 1.57   | 61.6   | 10.95 | 28.58 | 30.0     | 26.97 | 33.3 | 3.2          |
| 20                                     | 16.1 | 19.0 | 2.39   | 72.7   | 14.12 | 31.75 | 33.3     | 29.36 | 36.5 | 3.2          |
| 22                                     | 17.0 | 21.5 | 2.39   | 76.8   | 14.12 | 34.93 | 36.5     | 31.75 | 39.7 | 3.2          |
| 24                                     | 18.8 | 22.7 | 2.39   | 82.5   | 14.96 | 38.10 | 39.7     | 34.93 | 42.9 | 3.73         |

|                   |            |         |
|-------------------|------------|---------|
| Solder / A souder | PT00E (J)  | 45100T  |
| Crimp / A sertir  | PT00SE (J) | 45100RT |

Square flange receptacle with backnut for heatshrink moulded piece.  
*Embase à collerette carrée avec raccord pour pièce moulée thermorétractable.*



| Shell size<br><i>Taille du boîtier</i> | Ø H  | K max. | L max. | M     | Ø N   | Ø P max. | R     | S    | Ø T<br>± 0.1 |
|----------------------------------------|------|--------|--------|-------|-------|----------|-------|------|--------------|
| 8                                      | 15.6 | 1.57   | 35.0   | 10.95 | 12.01 | 15.4     | 15.09 | 20.6 | 3.2          |
| 10                                     | 18.4 | 1.57   | 35.0   | 10.95 | 14.99 | 18.6     | 18.26 | 23.8 | 3.2          |
| 12                                     | 23.7 | 1.57   | 35.0   | 10.95 | 19.05 | 21.8     | 20.62 | 26.2 | 3.2          |
| 14                                     | 24.5 | 1.57   | 35.0   | 10.95 | 22.23 | 25.0     | 23.01 | 28.6 | 3.2          |
| 16                                     | 29.8 | 1.57   | 37.5   | 10.95 | 25.40 | 28.2     | 24.61 | 31.0 | 3.2          |
| 18                                     | 32.0 | 1.57   | 37.5   | 10.95 | 28.58 | 31.3     | 26.97 | 33.3 | 3.2          |
| 20                                     | 36.1 | 2.39   | 47.5   | 14.12 | 31.75 | 34.5     | 29.36 | 36.5 | 3.2          |
| 22                                     | 38.5 | 2.39   | 47.5   | 14.12 | 34.93 | 37.7     | 31.75 | 39.7 | 3.2          |
| 24                                     | 41.5 | 2.39   | 47.5   | 14.96 | 38.10 | 40.9     | 34.93 | 42.9 | 3.73         |

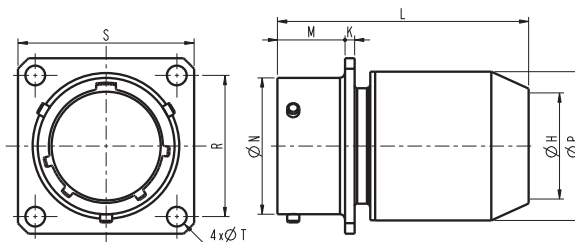
To mount the receptacle on the panel, please refer to page 58 for panel drilling and thickness.

*Pour le montage des embases sur panneau, se référer à la page 58 pour le perçage et l'épaisseur des panneaux.*

all dimensions are in mm

|                   |        |         |
|-------------------|--------|---------|
| Solder / A souder | PT00P  | 45100P  |
| Crimp / A sertir  | PT00SP | 45100RP |

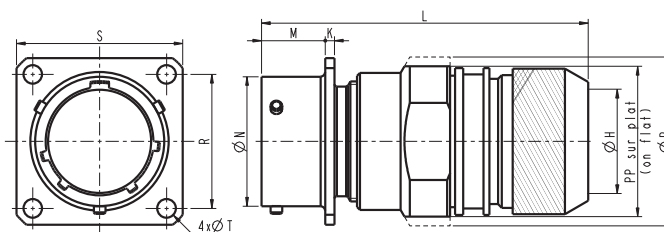
Square flange receptacle with straight backshell for potting.  
Embase à collerette carrée avec raccord pour potting.



| Shell size<br>Taille du boîtier | Ø H  | K max. | L max. |       | M     | Ø N   | Ø P max. | R     | S    | Ø T<br>± 0.1 |
|---------------------------------|------|--------|--------|-------|-------|-------|----------|-------|------|--------------|
|                                 |      |        | Solder | Crimp |       |       |          |       |      |              |
| 8                               | 8.3  | 1.57   | 32     | 44    | 10.95 | 12.01 | 14.9     | 15.09 | 20.6 | 3.2          |
| 10                              | 11.3 | 1.57   | 32     | 44    | 10.95 | 14.99 | 18.1     | 18.26 | 23.8 | 3.2          |
| 12                              | 14.2 | 1.57   | 32     | 44    | 10.95 | 19.05 | 21.3     | 20.62 | 26.2 | 3.2          |
| 14                              | 17.3 | 1.57   | 32     | 44    | 10.95 | 22.23 | 24.5     | 23.01 | 28.6 | 3.2          |
| 16                              | 20.5 | 1.57   | 32     | 44    | 10.95 | 25.40 | 27.7     | 24.61 | 31.0 | 3.2          |
| 18                              | 23.1 | 1.57   | 32     | 44    | 10.95 | 28.58 | 30.8     | 26.97 | 33.3 | 3.2          |
| 20                              | 26.3 | 2.39   | 36     | 48    | 14.12 | 31.75 | 34.0     | 29.36 | 36.5 | 3.2          |
| 22                              | 29.4 | 2.39   | 36     | 48    | 14.12 | 34.93 | 37.2     | 31.75 | 39.7 | 3.2          |
| 24                              | 32.6 | 2.39   | 37     | 49    | 14.96 | 38.10 | 40.3     | 34.93 | 42.9 | 3.73         |

|                   |             |         |          |
|-------------------|-------------|---------|----------|
| Solder / A souder | PT00E (SQ)  | 45100G  | -        |
| Crimp / A sertir  | PT00SE (SQ) | 45100RG | VG95328R |

Square flange receptacle with SQ braid clamping backshell  
Embase à collerette carrée avec raccord SQ pour reprise de tresse



| Shell size<br>Taille du boîtier | Ø H  | K    | L max. | M     | Ø N   | Ø P | PP   | R     | S    | Ø T<br>± 0.1 |
|---------------------------------|------|------|--------|-------|-------|-----|------|-------|------|--------------|
|                                 |      |      |        |       |       |     |      |       |      |              |
| 8                               | 6.7  | 1.57 | 53     | 10.95 | 12.01 | 20  | 16.8 | 15.09 | 20.6 | 3.2          |
| 10                              | 9.2  | 1.57 | 53     | 10.95 | 14.99 | 24  | 20.8 | 18.26 | 23.8 | 3.2          |
| 12                              | 12.2 | 1.57 | 54     | 10.95 | 19.05 | 26  | 22.8 | 20.62 | 26.2 | 3.2          |
| 14                              | 15.2 | 1.57 | 54     | 10.95 | 22.23 | 29  | 25.8 | 23.01 | 28.6 | 3.2          |
| 16                              | 18.3 | 1.57 | 54     | 10.95 | 25.40 | 32  | 28.8 | 24.61 | 31.0 | 3.2          |
| 18                              | 20.0 | 1.57 | 54     | 10.95 | 28.58 | 35  | 31.8 | 26.97 | 33.3 | 3.2          |
| 20                              | 23.0 | 2.39 | 58     | 14.12 | 31.75 | 38  | 35.8 | 29.36 | 36.5 | 3.2          |
| 22                              | 26.0 | 2.39 | 58     | 14.12 | 34.93 | 42  | 38.8 | 31.75 | 39.7 | 3.2          |
| 24                              | 28.8 | 2.39 | 60     | 14.96 | 38.10 | 45  | 41.8 | 34.93 | 42.9 | 3.73         |

SQ backshell description: see page 35  
Description du raccord SQ : Voir page 35

To mount the receptacle on the panel, please refer to page 58 for panel drilling and thickness.  
Pour le montage des embases sur panneau, se référer à la page 58 pour le perçage et l'épaisseur des panneaux.

all dimensions are in mm

information & contact : [www.451-connectors.com](http://www.451-connectors.com)

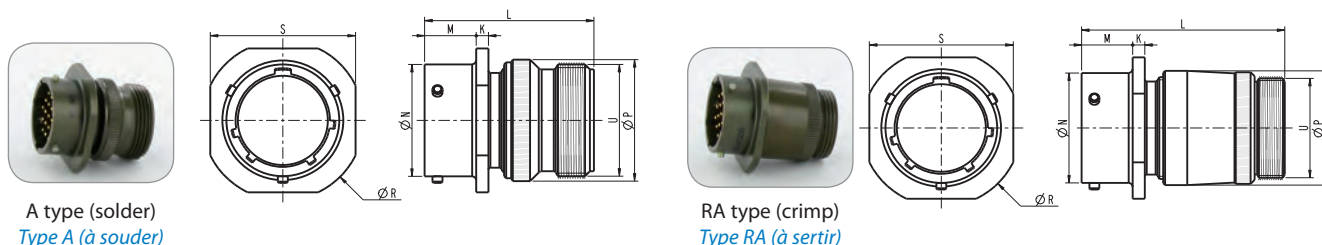


## Inline receptacle 01 type

### Prolongateur type 01

|                   |       |         |
|-------------------|-------|---------|
| Solder / A souder | PT01A | 45101A  |
| Crimp / A sertir  | -     | 45101RA |

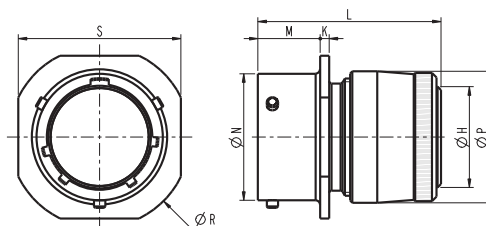
Inline receptacle with intermediate backshell.  
Prolongateur avec raccord intermédiaire.



| Shell size<br>Taille du boîtier | K   | L max |      | M     | Ø N   | Ø P  |      | Ø R  | S    | U Thread (class 2A)<br>Filetage U (classe 2A) |                 |
|---------------------------------|-----|-------|------|-------|-------|------|------|------|------|-----------------------------------------------|-----------------|
|                                 |     | A     | RA   |       |       | A    | RA   |      |      | A type (solder)                               | RA type (crimp) |
| 8                               | 2.4 | 34.3  | 41.5 | 10.16 | 12.01 | 14.7 | 13.9 | 23.8 | 20.6 | 0.5000-28UNEF                                 | 0.4375-28UNEF   |
| 10                              | 2.4 | 34.3  | 41.5 | 10.16 | 14.99 | 17.9 | 17.1 | 27.0 | 23.8 | 0.6250-24UNEF                                 | 0.5625-24UNEF   |
| 12                              | 2.4 | 34.3  | 41.5 | 10.16 | 19.05 | 20.9 | 20.3 | 29.4 | 26.2 | 0.7500-20UNEF                                 | 0.6875-24UNEF   |
| 14                              | 2.4 | 34.3  | 41.5 | 10.16 | 22.23 | 24.3 | 23.3 | 31.8 | 28.6 | 0.8750-20UNEF                                 | 0.8125-20UNEF   |
| 16                              | 2.4 | 34.3  | 41.5 | 10.16 | 25.40 | 27.3 | 26.5 | 34.1 | 31.0 | 1.0000-20UNEF                                 | 0.9375-20UNEF   |
| 18                              | 2.4 | 34.3  | 41.5 | 10.16 | 28.58 | 30.6 | 29.5 | 36.5 | 33.3 | 1.1875-18UNEF                                 | 1.0625-18UNEF   |
| 20                              | 2.9 | 40.7  | 45.0 | 13.59 | 31.75 | 33.5 | 32.7 | 39.7 | 36.5 | 1.1875-18UNEF                                 | 1.1875-18UNEF   |
| 22                              | 2.9 | 40.7  | 45.0 | 13.59 | 34.93 | 36.8 | 36.0 | 42.9 | 39.7 | 1.4375-18UNEF                                 | 1.3125-18UNEF   |
| 24                              | 2.9 | 42.3  | 46.5 | 14.43 | 38.10 | 40.0 | 39.2 | 46.0 | 42.9 | 1.4375-18UNEF                                 | 1.4375-18UNEF   |

|                   |        |        |
|-------------------|--------|--------|
| Solder / A souder | PT01E  | 45101E |
| Crimp / A sertir  | PT01SE | 45101R |

Inline receptacle with grommet backnut.  
Prolongateur avec écrou serre-fils.

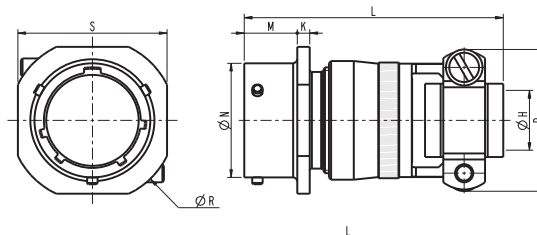


| Shell size<br>Taille du boîtier | Ø H  | K   | L max. | M     | Ø N   | Ø P max. | Ø R  | S    |
|---------------------------------|------|-----|--------|-------|-------|----------|------|------|
| 8                               | 9.3  | 2.4 | 32.7   | 10.16 | 12.01 | 13.9     | 23.8 | 20.6 |
| 10                              | 12.3 | 2.4 | 32.7   | 10.16 | 14.99 | 17.1     | 27.0 | 23.8 |
| 12                              | 15.2 | 2.4 | 32.7   | 10.16 | 19.05 | 20.3     | 29.4 | 26.2 |
| 14                              | 18.5 | 2.4 | 32.7   | 10.16 | 22.23 | 23.3     | 31.8 | 28.6 |
| 16                              | 21.7 | 2.4 | 32.7   | 10.16 | 25.40 | 26.5     | 34.1 | 31.0 |
| 18                              | 24.2 | 2.4 | 32.7   | 10.16 | 28.58 | 29.5     | 36.5 | 33.3 |
| 20                              | 27.4 | 2.9 | 34.2   | 13.59 | 31.75 | 32.7     | 39.7 | 36.5 |
| 22                              | 30.6 | 2.9 | 34.2   | 13.59 | 34.93 | 36.0     | 42.9 | 39.7 |
| 24                              | 33.8 | 2.9 | 35.8   | 14.43 | 38.10 | 39.2     | 46.0 | 42.9 |

all dimensions are in mm

|                   |                         |                   |
|-------------------|-------------------------|-------------------|
| Solder / A souder | PT01A (SR) / PT01E (SR) | 45101AC / 45101EC |
| Crimp / A sertir  | PT01SE (SR)             | 45101RC           |

Inline receptacle with cable clamp backshell.  
*Prolongateur avec raccord serre câble.*



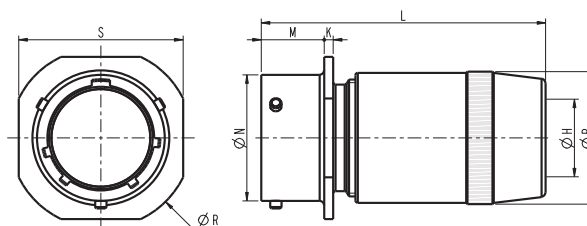
| Shell size<br><i>Taille du boîtier</i> | Ø H  | K   | L max. | M     | Ø N   | P max. | Ø R  | S    |
|----------------------------------------|------|-----|--------|-------|-------|--------|------|------|
| 8                                      | 3.2  | 2.4 | 49.0   | 10.16 | 12.01 | 19.3   | 23.8 | 20.6 |
| 10                                     | 4.8  | 2.4 | 49.0   | 10.16 | 14.99 | 20.8   | 27.0 | 23.8 |
| 12                                     | 7.9  | 2.4 | 49.0   | 10.16 | 19.05 | 24.0   | 29.4 | 26.2 |
| 14                                     | 9.5  | 2.4 | 49.0   | 10.16 | 22.23 | 27.2   | 31.8 | 28.6 |
| 16                                     | 12.7 | 2.4 | 52.4   | 10.16 | 25.40 | 28.8   | 34.1 | 31.0 |
| 18                                     | 15.9 | 2.4 | 52.4   | 10.16 | 28.58 | 35.1   | 36.5 | 33.3 |
| 20                                     | 15.9 | 2.9 | 54.8   | 13.59 | 31.75 | 35.1   | 39.7 | 36.5 |
| 22                                     | 19.1 | 2.9 | 54.8   | 13.59 | 34.93 | 39.9   | 42.9 | 39.7 |
| 24                                     | 20.3 | 2.9 | 56.4   | 14.43 | 38.10 | 42.3   | 46.0 | 42.9 |

Note: for the version without grommet A + SR (PT) or AC (451), use the nylon ring delivered with the cable clamp to screw your backshell at the rear of the receptacle.

*Pour la version sans serre-fil A + SR (PT) ou AC (451), utiliser la bague en nylon livrée avec le serre-câble pour visser votre raccord à l'arrière de l'embase.*

|                   |       |        |
|-------------------|-------|--------|
| Solder / A souder | PT01W | 45101J |
| Crimp / A sertir  | -     | -      |

Inline receptacle with metal sealing gland backshell.  
*Prolongateur avec raccord presse-étoupe métallique.*



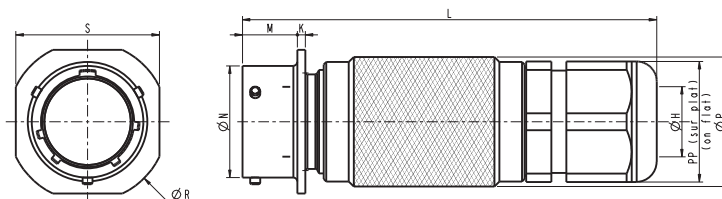
| Shell size<br><i>Taille du boîtier</i> | Ø H  |      | K   | L max. | M     | Ø N   | Ø P max. | Ø R  | S    |
|----------------------------------------|------|------|-----|--------|-------|-------|----------|------|------|
|                                        | min. | max. |     |        |       |       |          |      |      |
| 8                                      | 4.3  | 5.8  | 2.4 | 40.8   | 10.16 | 12.01 | 13.6     | 23.8 | 20.6 |
| 10                                     | 5.2  | 7.9  | 2.4 | 41.8   | 10.16 | 14.99 | 16.8     | 27.0 | 23.8 |
| 12                                     | 8.6  | 11.2 | 2.4 | 45.4   | 10.16 | 19.05 | 20.3     | 29.4 | 26.2 |
| 14                                     | 10.6 | 13.7 | 2.4 | 50.3   | 10.16 | 22.23 | 23.6     | 31.8 | 28.6 |
| 16                                     | 14.0 | 15.6 | 2.4 | 55.8   | 10.16 | 25.40 | 26.8     | 34.1 | 31.0 |
| 18                                     | 15.2 | 17.1 | 2.4 | 61.6   | 10.16 | 28.58 | 30.0     | 36.5 | 33.3 |
| 20                                     | 16.1 | 19.0 | 2.9 | 72.7   | 13.59 | 31.75 | 33.3     | 39.7 | 36.5 |
| 22                                     | 17.0 | 21.5 | 2.9 | 76.8   | 13.59 | 34.93 | 36.5     | 42.9 | 39.7 |
| 24                                     | 18.8 | 22.7 | 2.9 | 82.5   | 14.43 | 38.10 | 39.7     | 46.0 | 42.9 |

all dimensions are in mm

|                   |             |             |
|-------------------|-------------|-------------|
| Solder / A souder | PT01A (PG)  | 45101A (PG) |
| Crimp / A sertir  | PT01SE (PG) | 45101R (PG) |

Inline receptacle with straight adaptor terminated by a PG type plastic sealing gland.

*Prolongateur avec raccord intermédiaire raccordé à un presse-étoupe plastique type PG.*

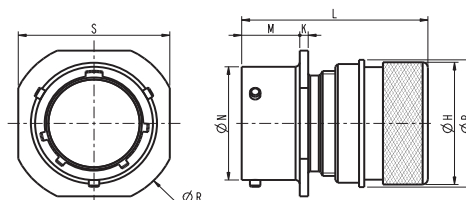


| Shell size<br><i>Taille du boîtier</i> | Ø H<br>min-max | K   | L max. | M     | Ø N   | Ø P max. | PG     | PP | Ø R  | S    |
|----------------------------------------|----------------|-----|--------|-------|-------|----------|--------|----|------|------|
| 8                                      | 2.5 - 6.5      | 2.4 | 75.5   | 10.16 | 12.01 | 16.6     | PG7    | 15 | 23.8 | 20.6 |
| 10                                     | 3.5 - 8        | 2.4 | 79.5   | 10.16 | 14.99 | 19.5     | PG9    | 19 | 27.0 | 23.8 |
| 12                                     | 4 - 10         | 2.4 | 81.5   | 10.16 | 19.05 | 22.8     | PG11   | 22 | 29.4 | 26.2 |
| 14                                     | 5 - 12         | 2.4 | 88.5   | 10.16 | 22.23 | 25.8     | PG13.5 | 24 | 31.8 | 28.6 |
| 16                                     | 9 - 14         | 2.4 | 90.5   | 10.16 | 25.40 | 28.9     | PG16   | 27 | 34.1 | 31.0 |
| 18                                     | 9 - 14         | 2.4 | 95.5   | 10.16 | 28.58 | 32.0     | PG16   | 27 | 36.5 | 33.3 |
| 20                                     | 9 - 14         | 2.9 | 101    | 13.59 | 31.75 | 35.2     | PG16   | 27 | 39.7 | 36.5 |
| 22                                     | 13 - 18        | 2.9 | 110    | 13.59 | 34.93 | 38.3     | PG21   | 33 | 42.9 | 39.7 |
| 24                                     | 13 - 18        | 2.9 | 111.5  | 14.43 | 38.10 | 41.6     | PG21   | 33 | 46.0 | 42.9 |

|                   |            |         |
|-------------------|------------|---------|
| Solder / A souder | PT01E (J)  | 45101T  |
| Crimp / A sertir  | PT01SE (J) | 45101RT |

Inline receptacle with backnut for heatshrink moulded piece.

*Prolongateur avec raccord pour pièce moulée thermorétractable.*

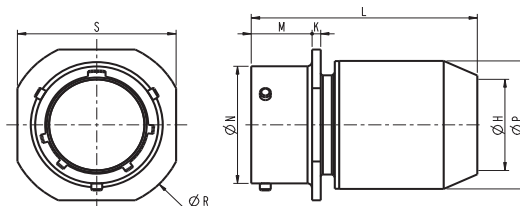


| Shell size<br><i>Taille du boîtier</i> | Ø H max. | K   | L max. | M     | Ø N   | Ø P max. | Ø R  | S    |
|----------------------------------------|----------|-----|--------|-------|-------|----------|------|------|
| 8                                      | 15.6     | 2.4 | 35.0   | 10.16 | 12.01 | 15.4     | 23.8 | 20.6 |
| 10                                     | 18.4     | 2.4 | 35.0   | 10.16 | 14.99 | 18.6     | 27.0 | 23.8 |
| 12                                     | 23.7     | 2.4 | 35.0   | 10.16 | 19.05 | 21.8     | 29.4 | 26.2 |
| 14                                     | 24.5     | 2.4 | 35.0   | 10.16 | 22.23 | 25.0     | 31.8 | 28.6 |
| 16                                     | 29.8     | 2.4 | 37.5   | 10.16 | 25.40 | 28.2     | 34.1 | 31.0 |
| 18                                     | 32.0     | 2.4 | 37.5   | 10.16 | 28.58 | 31.3     | 36.5 | 33.3 |
| 20                                     | 36.1     | 2.9 | 47.5   | 13.59 | 31.75 | 34.5     | 39.7 | 36.5 |
| 22                                     | 38.5     | 2.9 | 47.5   | 13.59 | 34.93 | 37.7     | 42.9 | 39.7 |
| 24                                     | 41.5     | 2.9 | 47.5   | 14.43 | 38.10 | 40.9     | 46.0 | 42.9 |

all dimensions are in mm

|                   |        |         |
|-------------------|--------|---------|
| Solder / A souder | PT01P  | 45101P  |
| Crimp / A sertir  | PT01SP | 45101RP |

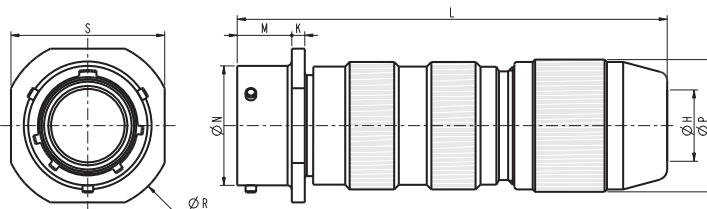
Inline receptacle with straight backshell for potting.  
*Prolongateur avec raccord pour potting.*



| Shell size<br><i>Taille du boîtier</i> | Ø H  | K   | L max. |       | M     | Ø N   | Ø P max. | Ø R  | S    |
|----------------------------------------|------|-----|--------|-------|-------|-------|----------|------|------|
|                                        |      |     | Solder | Crimp |       |       |          |      |      |
| 8                                      | 8.3  | 2.4 | 32     | 44    | 10.16 | 12.01 | 14.9     | 23.8 | 20.6 |
| 10                                     | 11.3 | 2.4 | 32     | 44    | 10.16 | 14.99 | 18.1     | 27.0 | 23.8 |
| 12                                     | 14.2 | 2.4 | 32     | 44    | 10.16 | 19.05 | 21.3     | 29.4 | 26.2 |
| 14                                     | 17.3 | 2.4 | 32     | 44    | 10.16 | 22.23 | 24.5     | 31.8 | 28.6 |
| 16                                     | 20.5 | 2.4 | 32     | 44    | 10.16 | 25.40 | 27.7     | 34.1 | 31.0 |
| 18                                     | 23.1 | 2.4 | 32     | 44    | 10.16 | 28.58 | 30.8     | 36.5 | 33.3 |
| 20                                     | 26.3 | 2.9 | 36     | 48    | 13.59 | 31.75 | 34.0     | 39.7 | 36.5 |
| 22                                     | 29.4 | 2.9 | 36     | 48    | 13.59 | 34.93 | 37.2     | 42.9 | 39.7 |
| 24                                     | 32.6 | 2.9 | 37     | 49    | 14.43 | 38.10 | 40.3     | 46.0 | 42.9 |

|                   |                 |                   |
|-------------------|-----------------|-------------------|
| Solder / A souder | PT01EK / PT01KM | 45101EK / 45101KM |
| Crimp / A sertir  | PT01SK          | 45101SK           |

Inline receptacle with rain proof or immersion proof sealing gland backshell with strong grip.  
*Prolongateur avec raccord presse-étoupe étanche au ruissellement ou à l'immersion.*

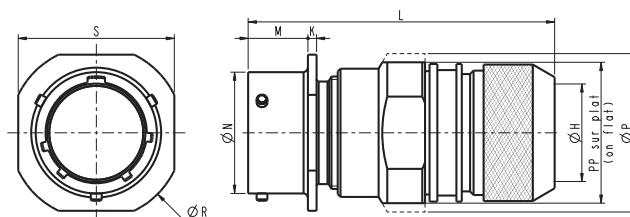


| Shell size<br><i>Taille du boîtier</i> | K   | L max.  |            | M     | Ø N   | Ø P max. | Ø R  | S    |
|----------------------------------------|-----|---------|------------|-------|-------|----------|------|------|
|                                        |     | EK type | KM/SK type |       |       |          |      |      |
| 8                                      | 2.4 | 71.5    | 81.5       | 10.16 | 12.01 | 17.0     | 23.8 | 20.6 |
| 10                                     | 2.4 | 71.5    | 81.5       | 10.16 | 14.99 | 19.0     | 27.0 | 23.8 |
| 12                                     | 2.4 | 71.5    | 81.5       | 10.16 | 19.05 | 25.0     | 29.4 | 26.2 |
| 14                                     | 2.4 | 79.5    | 94.5       | 10.16 | 22.23 | 27.0     | 31.8 | 28.6 |
| 16                                     | 2.4 | 79.5    | 94.5       | 10.16 | 25.40 | 28.5     | 34.1 | 31.0 |
| 18                                     | 2.4 | 79.5    | 94.5       | 10.16 | 28.58 | 31.5     | 36.5 | 33.3 |
| 20                                     | 2.9 | 91.5    | 107        | 13.59 | 31.75 | 34.5     | 39.7 | 36.5 |
| 22                                     | 2.9 | 94      | 109.5      | 13.59 | 34.93 | 34.5     | 42.9 | 39.7 |
| 24                                     | 2.9 | 95      | 110        | 14.43 | 38.10 | 36.0     | 46.0 | 42.9 |

Please refer to end of page 34 for dimension **H** depending on the gasket number.  
*Veuillez vous référer au bas de la page 34 pour la dimension **H** selon le numéro de joint utilisé.*

|                   |             |         |
|-------------------|-------------|---------|
| Solder / A souder | PT01E (SQ)  | 45101G  |
| Crimp / A sertir  | PT01SE (SQ) | 45101RG |

Inline receptacle with SQ braid clamping backshell.  
*Prolongateur avec raccord SQ pour reprise de tresse.*



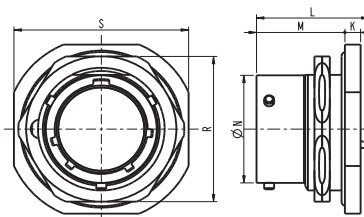
| Shell size<br><i>Taille du boîtier</i> | Ø H  | K   | L max. | M     | Ø N   | Ø P | PP   | Ø R  | S    |
|----------------------------------------|------|-----|--------|-------|-------|-----|------|------|------|
| 8                                      | 6.7  | 2.4 | 53     | 10.16 | 12.01 | 20  | 16.8 | 23.8 | 20.6 |
| 10                                     | 9.2  | 2.4 | 53     | 10.16 | 14.99 | 24  | 20.8 | 27.0 | 23.8 |
| 12                                     | 12.2 | 2.4 | 54     | 10.16 | 19.05 | 26  | 22.8 | 29.4 | 26.2 |
| 14                                     | 15.2 | 2.4 | 54     | 10.16 | 22.23 | 29  | 25.8 | 31.8 | 28.6 |
| 16                                     | 18.3 | 2.4 | 54     | 10.16 | 25.40 | 32  | 28.8 | 34.1 | 31.0 |
| 18                                     | 20.0 | 2.4 | 54     | 10.16 | 28.58 | 35  | 31.8 | 36.5 | 33.3 |
| 20                                     | 23.0 | 2.9 | 58     | 13.59 | 31.75 | 38  | 35.8 | 39.7 | 36.5 |
| 22                                     | 26.0 | 2.9 | 58     | 13.59 | 34.93 | 42  | 38.8 | 42.9 | 39.7 |
| 24                                     | 28.8 | 2.9 | 60     | 14.43 | 38.10 | 45  | 41.8 | 46.0 | 42.9 |

SQ backshell description: see page 35  
*Description du raccord SQ : Voir page 35*

## Jam nut receptacle 07 type *Embase à écrou type 07*

|                   |               |        |
|-------------------|---------------|--------|
| Solder / A souder | PT07A / PT07C | 45107A |
| Crimp / A sertir  | -             | -      |

Jam nut receptacle.  
*Embase à fixation par écrou.*



| Shell size<br><i>Taille du boîtier</i> | K   | L max. | M    | Ø N   | R  | S    |
|----------------------------------------|-----|--------|------|-------|----|------|
| 8                                      | 3.2 | 23.0   | 17.7 | 12.01 | 19 | 23.8 |
| 10                                     | 3.2 | 23.0   | 17.7 | 14.99 | 22 | 27.0 |
| 12                                     | 3.2 | 23.0   | 17.7 | 19.05 | 27 | 31.8 |
| 14                                     | 3.2 | 23.0   | 17.7 | 22.23 | 30 | 34.9 |
| 16                                     | 3.2 | 23.0   | 17.7 | 25.40 | 33 | 38.1 |
| 18                                     | 3.2 | 23.0   | 17.7 | 28.58 | 37 | 41.3 |
| 20                                     | 4.0 | 29.0   | 22.5 | 31.75 | 40 | 46.0 |
| 22                                     | 4.0 | 29.0   | 22.5 | 34.93 | 43 | 49.2 |
| 24                                     | 4.0 | 29.0   | 23.3 | 38.10 | 46 | 52.4 |

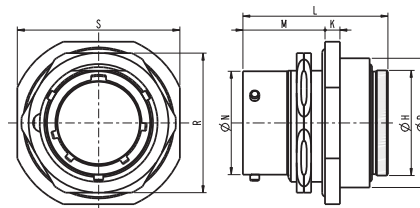
To mount the receptacle on the panel, please refer to page 58 for panel drilling and thickness.  
*Pour le montage des embases sur panneau, se référer à la page 58 pour le perçage et l'épaisseur des panneaux.*

all dimensions are in mm

|                   |        |        |          |
|-------------------|--------|--------|----------|
| Solder / A souder | PT07E  | 45107E | -        |
| Crimp / A sertir  | PT07SE | 45107R | VG95328D |

Jam nut receptacle with grommet backnut.

Embase à fixation par écrou avec écrou serre-fils.

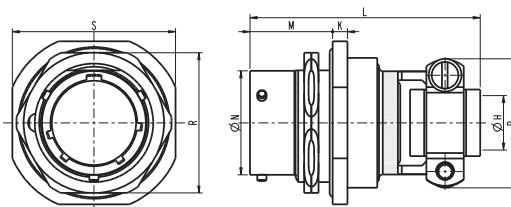


| Shell size<br><i>Taille du boîtier</i> | Ø H  | K   | L max. | M    | Ø N   | Ø P max. | R  | S    |
|----------------------------------------|------|-----|--------|------|-------|----------|----|------|
| 8                                      | 16.4 | 3.2 | 35.0   | 17.7 | 12.01 | 18.5     | 19 | 23.8 |
| 10                                     | 19.6 | 3.2 | 35.0   | 17.7 | 14.99 | 21.6     | 22 | 27.0 |
| 12                                     | 22.6 | 3.2 | 35.0   | 17.7 | 19.05 | 24.8     | 27 | 31.8 |
| 14                                     | 25.8 | 3.2 | 35.0   | 17.7 | 22.23 | 28.0     | 30 | 34.9 |
| 16                                     | 28.8 | 3.2 | 35.0   | 17.7 | 25.40 | 31.2     | 33 | 38.1 |
| 18                                     | 32.0 | 3.2 | 35.0   | 17.7 | 28.58 | 34.3     | 37 | 41.3 |
| 20                                     | 38.2 | 4.0 | 41.2   | 22.5 | 31.75 | 38.3     | 40 | 46.0 |
| 22                                     | 41.4 | 4.0 | 41.2   | 22.5 | 34.93 | 41.5     | 43 | 49.2 |
| 24                                     | 44.4 | 4.0 | 42.8   | 23.3 | 38.10 | 44.7     | 46 | 52.4 |

|                   |             |         |          |
|-------------------|-------------|---------|----------|
| Solder / A souder | PT07E (SR)  | 45107EC | -        |
| Crimp / A sertir  | PT07SE (SR) | 45107RC | VG95328E |

Jam nut receptacle with cable clamp backshell.

Embase à fixation par écrou avec raccord serre-câble.



| Shell size<br><i>Taille du boîtier</i> | Ø H  | K   | L max. | M    | Ø N   | P max. | R  | S    |
|----------------------------------------|------|-----|--------|------|-------|--------|----|------|
| 8                                      | 3.2  | 3.2 | 49.5   | 17.7 | 12.01 | 19.3   | 19 | 23.8 |
| 10                                     | 4.8  | 3.2 | 49.5   | 17.7 | 14.99 | 20.8   | 22 | 27.0 |
| 12                                     | 7.9  | 3.2 | 50.0   | 17.7 | 19.05 | 24.0   | 27 | 31.8 |
| 14                                     | 9.5  | 3.2 | 50.0   | 17.7 | 22.23 | 27.2   | 30 | 34.9 |
| 16                                     | 12.7 | 3.2 | 52.6   | 17.7 | 25.40 | 28.8   | 33 | 38.1 |
| 18                                     | 15.9 | 3.2 | 52.6   | 17.7 | 28.58 | 35.1   | 37 | 41.3 |
| 20                                     | 15.9 | 4.0 | 56.5   | 22.5 | 31.75 | 35.1   | 40 | 46.0 |
| 22                                     | 19.1 | 4.0 | 56.5   | 22.5 | 34.93 | 39.9   | 43 | 49.2 |
| 24                                     | 20.3 | 4.0 | 58.2   | 23.3 | 38.10 | 42.3   | 46 | 52.5 |

To mount the receptacle on the panel, please refer to page 58 for panel drilling and thickness.

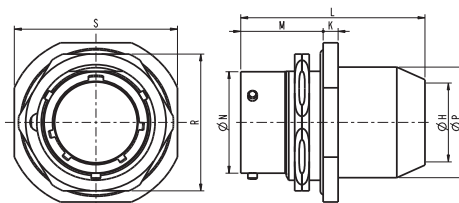
Pour le montage des embases sur panneau, se référer à la page 58 pour le perçage et l'épaisseur des panneaux.

all dimensions are in mm

|                   |        |         |
|-------------------|--------|---------|
| Solder / A souder | PT07P  | 45107P  |
| Crimp / A sertir  | PT07SP | 45107RP |

Jam nut receptacle with straight backshell for potting.

Embase à fixation par écrou avec raccord pour potting.

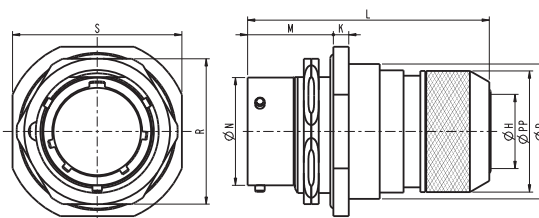


| Shell size<br>Taille du boîtier | Ø H  | K   | L max. |       | M    | Ø N   | Ø P max. | R  | S    |
|---------------------------------|------|-----|--------|-------|------|-------|----------|----|------|
|                                 |      |     | Solder | Crimp |      |       |          |    |      |
| 8                               | 8.3  | 3.2 | 34.5   | 39.9  | 17.7 | 12.01 | 14.9     | 19 | 25.8 |
| 10                              | 11.3 | 3.2 | 34.5   | 39.9  | 17.7 | 14.99 | 18.1     | 22 | 27.0 |
| 12                              | 14.2 | 3.2 | 34.5   | 39.9  | 17.7 | 19.05 | 21.3     | 27 | 31.8 |
| 14                              | 17.3 | 3.2 | 34.5   | 39.9  | 17.7 | 22.23 | 24.5     | 30 | 34.9 |
| 16                              | 20.5 | 3.2 | 34.5   | 39.9  | 17.7 | 25.40 | 27.7     | 33 | 38.1 |
| 18                              | 23.1 | 3.2 | 34.5   | 39.9  | 17.7 | 28.58 | 30.8     | 37 | 41.3 |
| 20                              | 26.3 | 4.0 | 42.0   | 47.1  | 22.5 | 31.75 | 34.0     | 40 | 46.0 |
| 22                              | 29.4 | 4.0 | 42.0   | 47.1  | 22.5 | 34.93 | 37.2     | 43 | 49.2 |
| 24                              | 32.6 | 4.0 | 42.7   | 47.9  | 23.3 | 38.10 | 40.3     | 46 | 52.4 |

|                   |             |         |
|-------------------|-------------|---------|
| Solder / A souder | -           | -       |
| Crimp / A sertir  | PT07SE (SQ) | 45107RG |

Jam nut receptacle with SQ braid clamping backshell.

Embase à fixation par écrou avec raccord SQ pour reprise de tresse.



| Shell size<br>Taille du boîtier | Ø H  | K   | L max. | M    | Ø N   | Ø P max. | Ø PP | R  | S    |
|---------------------------------|------|-----|--------|------|-------|----------|------|----|------|
| 8                               | 6.7  | 3.2 | 49.6   | 17.7 | 12.01 | 18.5     | 16   | 19 | 25.8 |
| 10                              | 9.2  | 3.2 | 49.6   | 17.7 | 14.99 | 21.6     | 18   | 22 | 27.0 |
| 12                              | 12.2 | 3.2 | 50.6   | 17.7 | 19.05 | 24.8     | 22   | 27 | 31.8 |
| 14                              | 15.2 | 3.2 | 50.6   | 17.7 | 22.23 | 28.0     | 25   | 30 | 34.9 |
| 16                              | 18.3 | 3.2 | 50.6   | 17.7 | 25.40 | 31.2     | 28   | 33 | 38.1 |
| 18                              | 20.0 | 3.2 | 50.6   | 17.7 | 28.58 | 34.3     | 32   | 37 | 41.3 |
| 20                              | 23.0 | 4.0 | 55.8   | 22.5 | 31.75 | 38.3     | 34   | 40 | 46.0 |
| 22                              | 26.0 | 4.0 | 55.8   | 22.5 | 34.93 | 41.5     | 38   | 43 | 49.2 |
| 24                              | 28.8 | 4.0 | 57.5   | 23.3 | 38.10 | 44.7     | 41   | 46 | 52.4 |

To mount the receptacle on the panel, please refer to page 58 for panel drilling and thickness.

Pour le montage des embases sur panneau, se référer à la page 58 pour le perçage et l'épaisseur des panneaux.

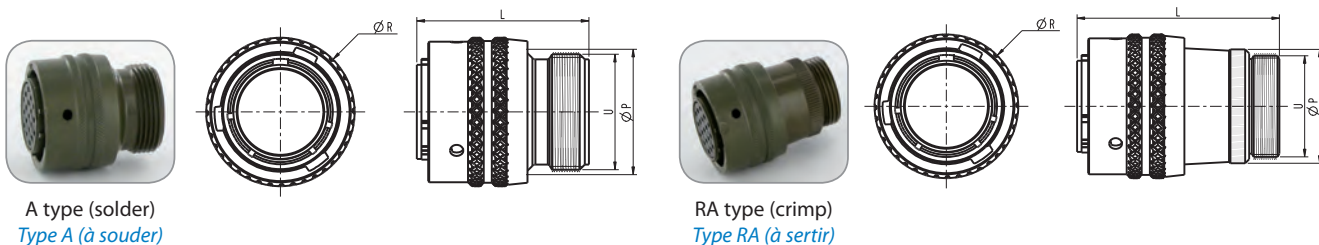
all dimensions are in mm

## Plug 06 type

### Fiche type 06

|                   |       |         |
|-------------------|-------|---------|
| Solder / A souder | PT06A | 45106A  |
| Crimp / A sertir  | -     | 45106RA |

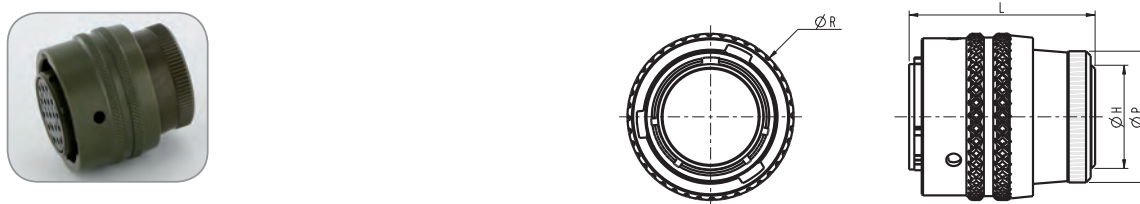
Straight plug with intermediate backshell.  
Fiche droite avec raccord intermédiaire.



| Shell size<br>Taille du boîtier | L max. |      | Ø P  |      | Ø R  | U Thread (class 2A)<br>Filetage U (classe 2A) |                 |
|---------------------------------|--------|------|------|------|------|-----------------------------------------------|-----------------|
|                                 | A      | RA   | A    | RA   |      | A type (solder)                               | RA type (crimp) |
| 8                               | 34.3   | 41.5 | 14.7 | 13.9 | 18.6 | 0.5000-28 UNEF                                | 0.4375-28 UNEF  |
| 10                              | 34.3   | 41.5 | 17.9 | 17.1 | 21.4 | 0.6250-24 UNEF                                | 0.5625-24 UNEF  |
| 12                              | 34.3   | 41.5 | 20.9 | 20.3 | 25.8 | 0.7500-20 UNEF                                | 0.6875-24 UNEF  |
| 14                              | 34.3   | 41.5 | 24.3 | 23.3 | 29.0 | 0.8750-20 UNEF                                | 0.8125-20 UNEF  |
| 16                              | 34.3   | 41.5 | 27.3 | 26.5 | 32.2 | 1.0000-20 UNEF                                | 0.9375-20 UNEF  |
| 18                              | 34.3   | 41.5 | 30.6 | 29.5 | 34.9 | 1.1875-18 UNEF                                | 1.0625-18 UNEF  |
| 20                              | 40.7   | 45.0 | 33.5 | 32.7 | 38.5 | 1.1875-18 UNEF                                | 1.1875-18 UNEF  |
| 22                              | 40.7   | 45.0 | 36.8 | 36.0 | 41.7 | 1.4375-18 UNEF                                | 1.3125-18 UNEF  |
| 24                              | 42.3   | 46.5 | 40.0 | 39.2 | 44.7 | 1.4375-18 UNEF                                | 1.4375-18 UNEF  |

|                   |        |        |
|-------------------|--------|--------|
| Solder / A souder | PT06E  | 45106E |
| Crimp / A sertir  | PT06SE | 45106R |

Straight plug with grommet backnut.  
Fiche droite avec écrou serre-fils.



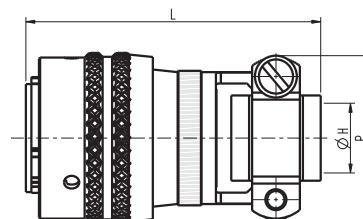
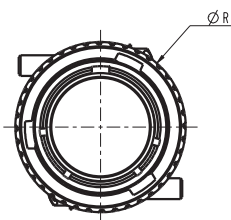
| Shell size<br>Taille du boîtier | Ø H  | L max. | Ø P  | Ø R  |
|---------------------------------|------|--------|------|------|
| 8                               | 9.3  | 33.0   | 13.9 | 18.6 |
| 10                              | 12.3 | 33.0   | 17.1 | 21.4 |
| 12                              | 15.2 | 33.0   | 20.3 | 25.8 |
| 14                              | 18.5 | 33.0   | 23.3 | 29.0 |
| 16                              | 21.7 | 33.0   | 26.5 | 32.2 |
| 18                              | 24.2 | 33.0   | 29.5 | 34.9 |
| 20                              | 27.4 | 33.0   | 32.7 | 38.5 |
| 22                              | 30.6 | 33.0   | 36.0 | 41.7 |
| 24                              | 33.8 | 34.0   | 39.2 | 44.7 |

all dimensions are in mm



|                   |                         |                   |          |
|-------------------|-------------------------|-------------------|----------|
| Solder / A souder | PT06A (SR) / PT06E (SR) | 45106AC / 45106EC | -        |
| Crimp / A sertir  | PT06SE (SR)             | 45106RC           | VG95328K |

Straight plug with cable clamp backshell.  
Fiche droite avec raccord serre-câble.



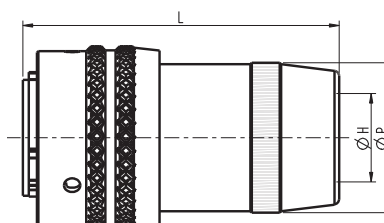
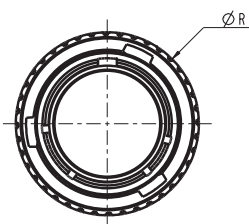
| Shell size<br>Taille du boîtier | Ø H  | L max. | P max. | Ø R  |
|---------------------------------|------|--------|--------|------|
| 8                               | 3.2  | 49.0   | 19.3   | 18.6 |
| 10                              | 4.8  | 49.0   | 20.8   | 21.4 |
| 12                              | 7.9  | 49.0   | 24.0   | 25.8 |
| 14                              | 9.5  | 49.0   | 27.2   | 29.0 |
| 16                              | 12.7 | 52.4   | 28.8   | 32.2 |
| 18                              | 15.9 | 52.4   | 35.1   | 34.9 |
| 20                              | 15.9 | 54.8   | 35.1   | 38.5 |
| 22                              | 19.1 | 54.8   | 39.9   | 41.7 |
| 24                              | 20.3 | 56.4   | 42.3   | 44.7 |

Note: for the version without grommet A + SR (PT) or AC (451), use the nylon ring delivered with the cable clamp to screw your backshell at the rear of the plug.

Pour la version sans serre-fil A + SR (PT) ou AC (451), utiliser la bague en nylon livrée avec le serre-câble pour visser votre raccord à l'arrière de la fiche.

|                   |       |        |
|-------------------|-------|--------|
| Solder / A souder | PT06W | 45106J |
| Crimp / A sertir  | -     | -      |

Straight plug with metal sealing gland backshell.  
Fiche droite avec raccord presse-étoupe métallique.



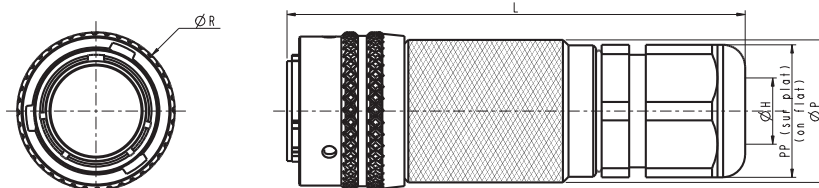
| Shell size<br>Taille du boîtier | Ø H  |      | L max. | Ø P max. | Ø R  |
|---------------------------------|------|------|--------|----------|------|
|                                 | min. | max. |        |          |      |
| 8                               | 4.3  | 5.8  | 43.3   | 13.6     | 18.6 |
| 10                              | 5.2  | 7.9  | 43.3   | 16.8     | 21.4 |
| 12                              | 8.6  | 11.2 | 46.9   | 20.3     | 25.8 |
| 14                              | 10.6 | 13.7 | 51.8   | 23.6     | 29.0 |
| 16                              | 14.0 | 15.6 | 57.3   | 26.8     | 32.2 |
| 18                              | 15.2 | 17.1 | 63.1   | 30.0     | 34.9 |
| 20                              | 16.1 | 19.0 | 72.2   | 33.3     | 38.5 |
| 22                              | 17.0 | 21.5 | 76.2   | 36.5     | 41.7 |
| 24                              | 18.8 | 22.7 | 81.5   | 39.7     | 44.7 |

all dimensions are in mm

|                   |             |             |
|-------------------|-------------|-------------|
| Solder / A souder | PT06A (PG)  | 45106A (PG) |
| Crimp / A sertir  | PT06SE (PG) | 45106R (PG) |

Straight plug with adaptor terminated by a PG type plastic sealing gland.

*Fiche droite avec raccord intermédiaire raccordé à un presse étoupe plastique type PG.*

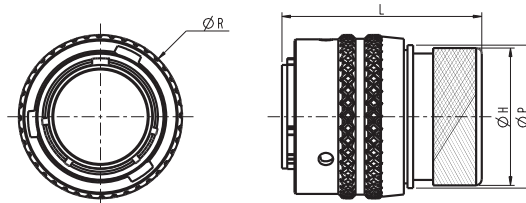


| Shell size<br><i>Taille du boîtier</i> | Ø H |     | L max. | Ø P max. | PG size | PP | Ø R  |
|----------------------------------------|-----|-----|--------|----------|---------|----|------|
|                                        | min | max |        |          |         |    |      |
| 8                                      | 2.5 | 6.5 | 51.2   | 16.6     | PG 7    | 15 | 18.6 |
| 10                                     | 3.5 | 8   | 51.2   | 19.5     | PG 9    | 19 | 21.4 |
| 12                                     | 4   | 10  | 51.2   | 22.8     | PG 11   | 22 | 25.8 |
| 14                                     | 5   | 12  | 56.2   | 25.8     | PG 13.5 | 24 | 29.0 |
| 16                                     | 9   | 14  | 56.2   | 28.9     | PG 16   | 27 | 32.2 |
| 18                                     | 9   | 14  | 61.2   | 32.0     | PG 16   | 27 | 34.9 |
| 20                                     | 9   | 14  | 65.2   | 35.2     | PG 16   | 27 | 38.5 |
| 22                                     | 13  | 18  | 70.2   | 38.3     | PG 21   | 33 | 41.7 |
| 24                                     | 13  | 18  | 70.2   | 41.6     | PG 21   | 33 | 44.7 |

|                   |            |         |          |
|-------------------|------------|---------|----------|
| Solder / A souder | PT06E (J)  | 45106T  | -        |
| Crimp / A sertir  | PT06SE (J) | 45106RT | VG95328J |

Straight plug with backnut for heatshrink moulded piece.

*Fiche droite avec raccord pour pièce moulée thermorétractable.*

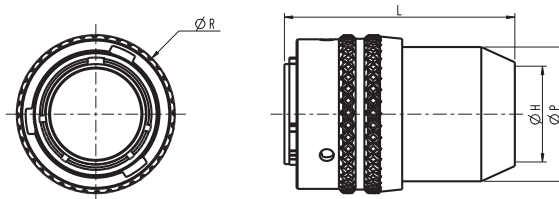


| Shell size<br><i>Taille du boîtier</i> | Ø H  | L max. | Ø P max. | Ø R  |
|----------------------------------------|------|--------|----------|------|
| 8                                      | 15.6 | 35.0   | 15.4     | 18.6 |
| 10                                     | 18.4 | 35.0   | 18.6     | 21.4 |
| 12                                     | 23.7 | 35.0   | 21.8     | 25.8 |
| 14                                     | 24.5 | 35.0   | 25.0     | 29.0 |
| 16                                     | 29.8 | 37.5   | 28.2     | 32.2 |
| 18                                     | 32.0 | 37.5   | 31.3     | 34.9 |
| 20                                     | 36.1 | 47.5   | 34.5     | 38.5 |
| 22                                     | 38.5 | 47.5   | 37.7     | 41.7 |
| 24                                     | 41.5 | 47.5   | 40.9     | 44.7 |

|                   |        |         |
|-------------------|--------|---------|
| Solder / A souder | PT06P  | 45106P  |
| Crimp / A sertir  | PT06SP | 45106RP |

Straight plug with backshell for potting.

Fiche droite avec raccord pour potting.

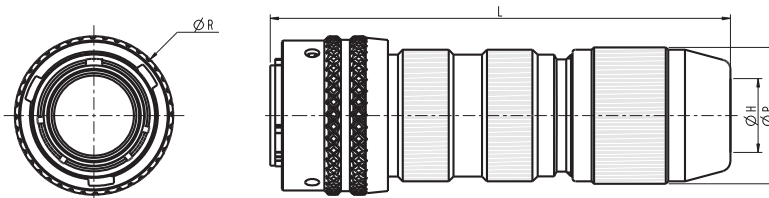


| Shell size<br>Taille du boîtier | Ø H  | L max. |       | Ø P  | Ø R  |
|---------------------------------|------|--------|-------|------|------|
|                                 |      | Solder | Crimp |      |      |
| 8                               | 8.3  | 35     | 44    | 14.9 | 18.6 |
| 10                              | 11.3 | 35     | 44    | 18.1 | 21.4 |
| 12                              | 14.2 | 35     | 44    | 21.3 | 25.8 |
| 14                              | 17.3 | 35     | 44    | 24.5 | 29.0 |
| 16                              | 20.5 | 35     | 44    | 27.7 | 32.2 |
| 18                              | 23.1 | 35     | 44    | 30.8 | 34.9 |
| 20                              | 26.3 | 39     | 48    | 34.0 | 38.5 |
| 22                              | 29.4 | 39     | 48    | 37.2 | 41.7 |
| 24                              | 32.6 | 40     | 49    | 40.3 | 44.7 |

|                   |                 |                   |
|-------------------|-----------------|-------------------|
| Solder / A souder | PT06EK / PT06KM | 45106EK / 45106KM |
| Crimp / A sertir  | PT06SK          | 45106SK           |

Straight plug with rain proof or immersion proof sealing gland backshell.

Fiche droite avec raccord presse-étoupe étanche au ruissellement ou à l'immersion.



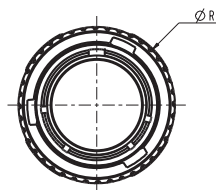
| Shell size<br>Taille du boîtier | L max.  |              | Ø P  | Ø R  |
|---------------------------------|---------|--------------|------|------|
|                                 | EK type | KM / SK type |      |      |
| 8                               | 71.5    | 81.5         | 17.0 | 18.6 |
| 10                              | 71.5    | 81.5         | 19.0 | 21.4 |
| 12                              | 71.5    | 81.5         | 25.0 | 25.8 |
| 14                              | 79.5    | 94.5         | 27.0 | 29.0 |
| 16                              | 79.5    | 94.5         | 28.5 | 32.2 |
| 18                              | 79.5    | 94.5         | 31.5 | 34.9 |
| 20                              | 91.5    | 105.0        | 34.5 | 38.5 |
| 22                              | 94.0    | 107.5        | 34.5 | 41.7 |
| 24                              | 94.5    | 108.0        | 36.0 | 44.7 |

| Shell size<br>Taille du boîtier | Ø H<br>Acceptable cable diameter / Diamètre de câble admissible |                          |                          |
|---------------------------------|-----------------------------------------------------------------|--------------------------|--------------------------|
|                                 | Gasket n° 1 / Joint n° 1                                        | Gasket n° 2 / Joint n° 2 | Gasket n° 3 / Joint n° 3 |
| 8                               | 4.0 to 5.0                                                      | 5.0 to 6.5               |                          |
| 10                              | 5.0 to 6.5                                                      | 6.5 to 8.0               |                          |
| 12                              | 8.0 to 9.5                                                      | 9.5 to 11.0              |                          |
| 14                              | 10.5 to 12.0                                                    | 12.0 to 13.5             | 7.0 to 9.5               |
| 16                              | 12.5 to 14.0                                                    | 14.0 to 15.6             |                          |
| 18                              | 15.0 to 17.0                                                    | 17.0 to 19.0             | 14 to 15.6               |
| 20                              | 15.0 to 17.0                                                    | 17.0 to 19.0             | 14 to 15.6               |
| 22                              | 17.0 to 19.0                                                    | 19.0 to 21.5             |                          |
| 24                              | 18.5 to 20.5                                                    | 20.5 to 23.0             |                          |

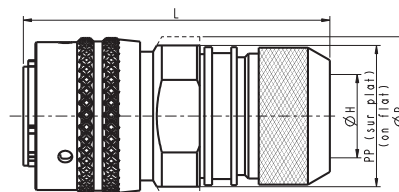
all dimensions are in mm

## Plug with grounding ring G06 / 36 type *Fiche avec bague de blindage type G06 / 36*

|                   |              |         |          |
|-------------------|--------------|---------|----------|
| Solder / A souder | PTG06E (SQ)  | 45136G  | -        |
| Crimp / A sertir  | PTG06SE (SQ) | 45136RG | VG95328M |



Straight plug with SQ braid clamping backshell.  
*Fiche droite avec raccord SQ pour reprise de tresse.*



| Shell size<br><i>Taille du boîtier</i> | Ø H min. | L max. | Ø P | PP   | Ø R  |
|----------------------------------------|----------|--------|-----|------|------|
| 8                                      | 6.7      | 54     | 20  | 16.8 | 18.6 |
| 10                                     | 9.2      | 54     | 24  | 20.8 | 21.4 |
| 12                                     | 12.2     | 55     | 26  | 22.8 | 25.8 |
| 14                                     | 15.2     | 55     | 29  | 25.8 | 29.0 |
| 16                                     | 18.3     | 55     | 32  | 28.8 | 32.2 |
| 18                                     | 20.0     | 55     | 35  | 31.8 | 34.9 |
| 20                                     | 23.0     | 58     | 38  | 35.8 | 38.5 |
| 22                                     | 26.0     | 58     | 42  | 38.8 | 41.7 |
| 24                                     | 28.8     | 60     | 45  | 41.8 | 44.7 |

### SQ backshell (in accordance with VG95328 standard):

- Compatible with **solder and crimp** contact versions and with 00, 01, 07 & G06 shell types.
- High EMI-RFI protection level.
- Clamping braid backshell by screwing system.
- Sealed when equipped with straight or right angled heatshrink moulded pieces mentioned on page 57.
- User friendly, no tooling required.

Please consult us for cabling information.

### Raccord SQ (conforme à la norme VG95328) :

- Compatible avec les versions à **souder et à sertir**, et avec les types de boîtier 00, 01, 07 et G06.
- Excellent niveau de protection EMI.
- Raccord à reprise de tresse par un système de vissage.
- Étanche lorsqu'il est équipé d'une pièce moulée thermorétractable droite ou coudée, telle que mentionnée page 57.
- Facile à utiliser, aucun outil n'est nécessaire.

Veuillez nous consulter pour de plus amples renseignements sur le câblage.

|                   |       |   |
|-------------------|-------|---|
| Solder / A souder | PT06G | - |
| Crimp / A sertir  | -     | - |



Plug with straight soldering braid backshell.

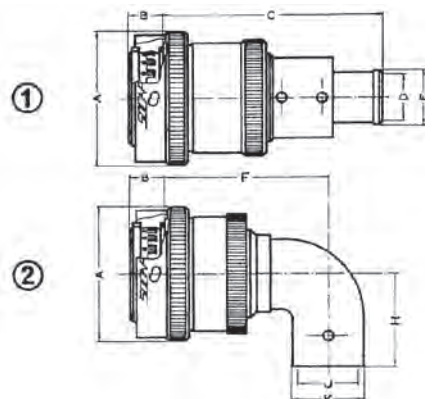
*Fiche avec raccord pour reprise de tresse avec terminaison étamée droite.*

|                   |       |   |
|-------------------|-------|---|
| Solder / A souder | PT08G | - |
| Crimp / A sertir  | -     | - |



Plug with right angled soldering braid backshell.

*Fiche avec raccord pour reprise de tresse avec terminaison étamée coudée.*



| Shell size<br>Taille du boîtier | Straight Plug PT06G / Fiche droite PT06G |      |        |      |      | Right Angle Plug PT08G / Fiche coudée PT08G |      |        |      |      |     |
|---------------------------------|------------------------------------------|------|--------|------|------|---------------------------------------------|------|--------|------|------|-----|
|                                 | Ø A                                      | B    | C max. | Ø D* | E    | Ø A                                         | B    | F max. | H    | Ø J* | Ø K |
| 8                               | 18.6                                     | 9    | 37.2   | 9    | 12   | -                                           | -    | -      | -    | -    | -   |
| 10                              | 21.4                                     | 9    | 42.0   | 6    | 7.5  | 21.4                                        | 9    | 35.0   | 17   | 10   | 12  |
| 12                              | 25.8                                     | 9    | 44.8   | 12.4 | 13.8 | 25.8                                        | 9    | 33.0   | 17   | 10   | 12  |
| 14                              | 29.0                                     | 9    | 44.8   | 14   | 15.8 | 29.0                                        | 9    | 34.5   | 19.5 | 12   | 14  |
| 16                              | 32.2                                     | 9    | 48.5   | 15   | 17.5 | 32.2                                        | 9    | 36.9   | 22   | 14   | 16  |
| 18                              | 34.9                                     | 9    | 54.5   | 12.4 | 13.8 | 34.9                                        | 9    | 41.0   | 24   | 16   | 18  |
| 20                              | 38.5                                     | 10.5 | 63.0   | 17   | 20   | 38.5                                        | 10.5 | 46.5   | 26.5 | 18   | 20  |
| 22                              | 41.7                                     | 10.5 | 63.0   | 19   | 22   | 41.7                                        | 10.5 | 48.0   | 32   | 20   | 22  |

\* D and J: diameter of the cable unjacketed and without braid.

Please consult us for cabling information.

\* D et J : diamètre du câble sans gaine et sans tresse.

Veuillez nous consulter pour de plus amples renseignements sur le câblage.

#### PT06G / PT08G backshells = Amphenol Socapex design:

- Compatible with **solder contact** version and with 06 & 08 shell types.
- Outstanding EMI-RFI protection level.
- Soldering braid backshell (the rear soldering part of the backshell is tin plated to allow soldering of the braid).
- Available in straight or right angle version (low profile).
- Sealed when equipped with heatshrink sleeve mentioned on page 57.

#### Raccord PT06G / PT08G = conception Amphenol Socapex :

- Compatible avec des **contacts à souder**, et avec les types de boîtier 06 et 08.
- Excellent niveau de protection EMI.
- La partie arrière du raccord est étamée pour permettre la soudure de la tresse.
- Existe en version droite ou coudée (faible encombrement).
- Étanche lorsqu'il est équipé d'une pièce moulée thermorétractable telle que mentionnée page 57.

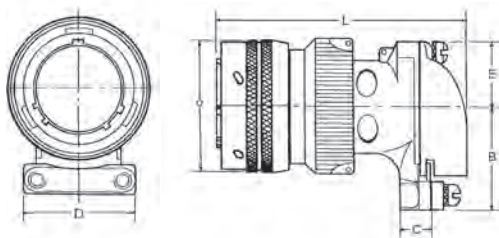
## Right angle plug 08 type

### Fiche coudée type 08

|                   |             |         |
|-------------------|-------------|---------|
| Solder / A souder | PT08E (SR)  | 45108EC |
| Crimp / A sertir  | PT08SE (SR) | 45108RC |

Plug with 90° cable clamp backshell.

Fiche avec raccord serre-câble coudé à 90°.

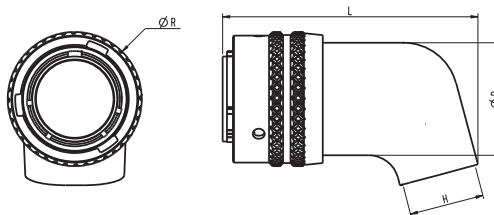


| Shell size<br>Taille du boîtier | B    | C    |      | D<br>±1.6 | E    | L max. | Q    |
|---------------------------------|------|------|------|-----------|------|--------|------|
|                                 |      | min  | max  |           |      |        |      |
| 8                               | 16.6 | 4.3  | 6.6  | 23.9      | 8.6  | 53     | 18.6 |
| 10                              | 19.0 | 4.3  | 9.8  | 30.2      | 10.0 | 55     | 21.4 |
| 12                              | 20.6 | 6.7  | 9.6  | 30.2      | 11.4 | 58     | 25.8 |
| 14                              | 23.0 | 7.8  | 13.8 | 31.8      | 13.2 | 61     | 29.0 |
| 16                              | 26.2 | 8.4  | 16.2 | 33.4      | 14.8 | 65     | 32.2 |
| 18                              | 25.8 | 11.2 | 17.4 | 39.7      | 15.8 | 69     | 34.9 |
| 20                              | 27.4 | 12.9 | 19.6 | 41.3      | 17.3 | 71     | 38.5 |
| 22                              | 28.9 | 13.0 | 21.8 | 43.6      | 18.8 | 72     | 41.7 |
| 24                              | 32.1 | 16.7 | 23.4 | 44.5      | 20.2 | 78     | 44.7 |

|                   |       |        |
|-------------------|-------|--------|
| Solder / A souder | PT08P | 45108P |
| Crimp / A sertir  | -     | -      |

Plug with 75° angled backshell for potting.

Fiche avec raccord pour potting coudé à 75°.



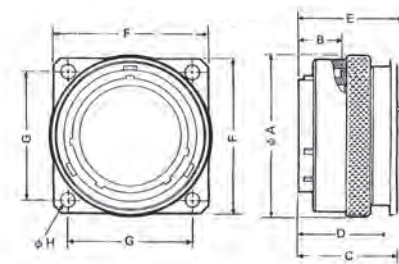
| Shell size<br>Taille du boîtier | H           | L max. | Ø P max. | Ø R  |
|---------------------------------|-------------|--------|----------|------|
| 8                               | 7.9 x 11.1  | 42.5   | 14.8     | 18.6 |
| 10                              | 11.1 x 14.3 | 46.0   | 18.0     | 21.4 |
| 12                              | 13.1 x 17.5 | 48.5   | 21.2     | 25.8 |
| 14                              | 15.9 x 19.8 | 50.0   | 24.4     | 29.0 |
| 16                              | 16.7 x 22.6 | 51.5   | 27.6     | 32.2 |
| 18                              | 17.9 x 25.4 | 52.5   | 30.7     | 34.9 |
| 20                              | 19.5 x 28.6 | 59.5   | 33.9     | 38.5 |
| 22                              | 20.6 x 31.3 | 60.5   | 37.1     | 41.7 |
| 24                              | 23.3 x 34.9 | 69.0   | 40.2     | 44.7 |

all dimensions are in mm

## Receptacle with locking ring 09 type

### Embase à écrou type 09

|                   |       |        |
|-------------------|-------|--------|
| Solder / A souder | PT09A | 45109E |
| Crimp / A sertir  | -     | -      |



Square flange receptacle with locking ring.  
Embase à collerette carrée avec écrou de verrouillage.

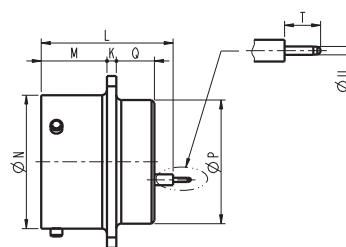
| Shell size<br>Taille du boîtier | Ø A max. | B<br>± 0.3 | C<br>+ 0.5<br>0 | D<br>± 0.4 | E<br>+ 0.7<br>- 0.9 | F<br>± 0.3 | G<br>± 0.12 | Ø H<br>± 0.1 |
|---------------------------------|----------|------------|-----------------|------------|---------------------|------------|-------------|--------------|
| 8                               | 18.6     | 9          | 21              | 19.5       | 22.4                | 20.6       | 15.09       | 3.2          |
| 10                              | 21.4     | 9          | 21              | 19.5       | 22.4                | 23.8       | 18.26       | 3.2          |
| 12                              | 25.8     | 9          | 21              | 19.5       | 22.4                | 26.2       | 20.62       | 3.2          |
| 14                              | 29.0     | 9          | 21              | 19.5       | 22.4                | 28.6       | 23.01       | 3.2          |
| 16                              | 32.2     | 9          | 21              | 19.5       | 22.4                | 31.0       | 24.61       | 3.2          |
| 18                              | 34.9     | 9          | 21              | 19.5       | 22.4                | 33.3       | 26.97       | 3.2          |
| 20                              | 38.5     | 10.5       | 24.9            | 22.6       | 26.2                | 36.5       | 29.36       | 3.2          |
| 22                              | 41.7     | 10.5       | 24.9            | 22.6       | 26.2                | 39.7       | 31.75       | 3.2          |
| 24                              | 44.7     | 10.5       | 26.5            | 24.1       | 26.2                | 42.9       | 34.93       | 3.7          |

## PCB and wire wrap contacts receptacle

### Embase avec contacts à piquer sur CI et contacts à wrapper

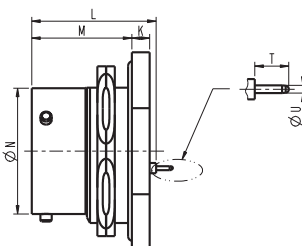
|             |        |         |
|-------------|--------|---------|
| YS contacts | PT02YS | 45102YS |
| Y contacts  | PT02Y  | 45102Y  |
| GS contacts | PT02GS | 45102GS |

Square flange receptacle / PCB contacts.  
Embase à collerette carrée / Contacts à piquer.



|             |        |         |
|-------------|--------|---------|
| YS contacts | PT07YS | 45107YS |
| Y contacts  | PT07Y  | 45107Y  |
| GS contacts | PT07GS | 45107GS |

Jam nut receptacle / PCB contacts.  
Embase à fixation par écrou / Contacts à piquer.



To mount the receptacle on the panel, please refer to page 58 for panel drilling and thickness.  
Please have a look at page 59 for PCB drilling dimensions.

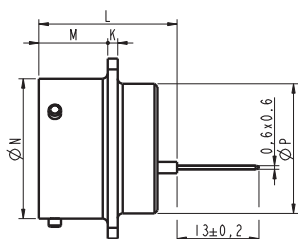
Pour le montage des embases sur panneau, se référer à la page 58 pour le perçage et l'épaisseur des panneaux.  
Reportez-vous à la page 59 pour le perçage des circuits imprimés.

all dimensions are in mm

MW contacts

PT02MW

45102MW

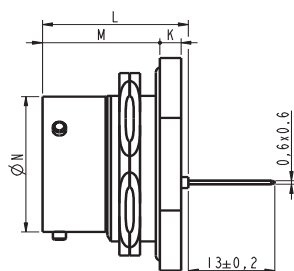


Square flange receptacle / Wire wrap contact.  
*Embase à collerette carrée / Contacts à wrapper.*

MW contacts

PT07MW

45107MW



Jam nut receptacle / Wire wrap contact.  
*Embase à fixation par écrou / Contacts à wrapper.*

| Shell size<br><i>Taille du boîtier</i> | K    |     | M     |      | Ø N   | Ø P  | Q    |
|----------------------------------------|------|-----|-------|------|-------|------|------|
|                                        | 02   | 07  | 02    | 07   |       |      |      |
| 8                                      | 1.57 | 3.2 | 10.95 | 17.7 | 12.01 | 11.4 | 6.35 |
| 10                                     | 1.57 | 3.2 | 10.95 | 17.7 | 14.99 | 14.6 | 6.35 |
| 12                                     | 1.57 | 3.2 | 10.95 | 17.7 | 19.05 | 17.8 | 6.35 |
| 14                                     | 1.57 | 3.2 | 10.95 | 17.7 | 22.23 | 20.9 | 6.35 |
| 16                                     | 1.57 | 3.2 | 10.95 | 17.7 | 25.40 | 24.1 | 6.35 |
| 18                                     | 1.57 | 3.2 | 10.95 | 17.7 | 28.58 | 27.3 | 6.35 |
| 20                                     | 2.39 | 4.0 | 14.12 | 22.5 | 31.75 | 30.5 | 8.74 |
| 22                                     | 2.39 | 4.0 | 14.12 | 22.5 | 34.93 | 33.6 | 8.74 |
| 24                                     | 2.39 | 4.0 | 14.96 | 23.3 | 38.10 | 36.8 | 8.74 |

| Shell size<br><i>Taille du boîtier</i> | T(Y)<br>+0.2<br>-0 | T(GS)<br>±0.1 | T(YS)<br>+0.2<br>-0 | Ø U(Y)<br>+0<br>-0.1 | Ø U(GS)<br>±0.03 | Ø U(YS)<br>+0.1<br>-0 |
|----------------------------------------|--------------------|---------------|---------------------|----------------------|------------------|-----------------------|
| 8                                      | 3                  | 4.5           | 7                   | 0.7                  | 0.65             | 0.6                   |
| 10                                     | 3                  | 4.5           | 7                   | 0.7                  | 0.65             | 0.6                   |
| 12                                     | 3                  | 4.5           | 7                   | 0.7                  | 0.65             | 0.6                   |
| 14                                     | 3                  | 4.5           | 7                   | 0.7                  | 0.65             | 0.6                   |
| 16                                     | 3                  | 4.5           | 7                   | 0.7                  | 0.65             | 0.6                   |
| 18                                     | 3                  | 4.5           | 7                   | 0.7                  | 0.65             | 0.6                   |
| 20                                     | 3                  | 4.5           | 7                   | 0.7                  | 0.65             | 0.6                   |
| 22                                     | 3                  | 4.5           | 7                   | 0.7                  | 0.65             | 0.6                   |
| 24                                     | 3                  | 4.5           | 7                   | 0.7                  | 0.65             | 0.6                   |

| Shell size<br><i>Taille du boîtier</i> | L(Y)<br>± 0.5 (pin) / ± 1.1 (socket) | L (GS)<br>± 0.5 (pin) / ± 1.1 (socket) | L(YS)<br>± 0.5 (pin) / ± 1.1 (socket) | L (MW)<br>± 0.6 (pin) / ± 1.2 (socket) |
|----------------------------------------|--------------------------------------|----------------------------------------|---------------------------------------|----------------------------------------|
|                                        |                                      |                                        |                                       |                                        |
| 8                                      | 21.96                                | 23.16                                  | 21.96                                 | 22.8                                   |
| 10                                     | 21.96                                | 23.16                                  | 21.96                                 | 22.8                                   |
| 12                                     | 21.96                                | 23.16                                  | 21.96                                 | 22.8                                   |
| 14                                     | 21.96                                | 23.16                                  | 21.96                                 | 22.8                                   |
| 16                                     | 21.96                                | 23.16                                  | 21.96                                 | 22.8                                   |
| 18                                     | 21.96                                | 23.16                                  | 21.96                                 | 22.8                                   |
| 20                                     | 28.73                                | 29.23                                  | 28.73                                 | 29.6                                   |
| 22                                     | 28.73                                | 29.23                                  | 28.73                                 | 29.6                                   |
| 24                                     | 28.73                                | 29.23                                  | 28.73                                 | 29.6                                   |

all dimensions are in mm



## Hermetic receptacles

### Embases hermétiques

Hermetic receptacles are available with three different shell types: square flange receptacle, jam nut receptacle and solder mounting receptacle. They are only available with male solder contacts.

Les embases hermétiques sont disponibles dans trois types de boîtiers différents : embase à collerette carrée, embase à fixation par écrou et embase à fixation par brasage. Elles sont disponibles uniquement avec des contacts mâles à souder.

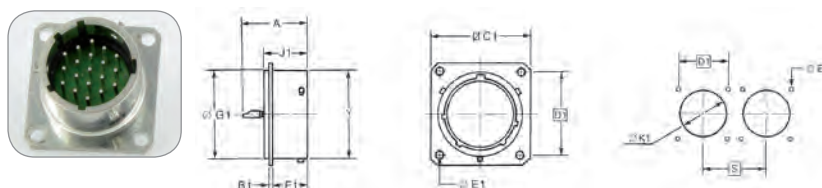
### General characteristics / Caractéristiques générales

- Shells in steel with tin plating finish
  - Glass insert
  - Pin contacts in nickel alloy with tin plated solder pot termination
  - Temperature range: -55°C +125°C
  - Hermeticity: Leak  $\leq 10^{-6} \text{ cm}^3 \cdot \text{s}^{-1}$  under 1 bar differential pressure
  - Vibration: exceeds MIL-E-5272 proc. II
  - Physical shock: 100 G's
  - Current rating per contact: size 20 pin: 5A / size 16 pin: 10A
  - Dielectric withstanding voltage (at sea level):  
1500 Vrms, 60 cps (service rating 1)  
2300 Vrms, 60 cps (service rating 2)
- 
- Boîtier en acier avec traitement de surface étamé.
  - Isolant en perle de verre.
  - Contact mâle en alliage de nickel avec fût à souder étamé.
  - Gamme de température : - 55° à + 125° C.
  - Herméticité : Fuite  $\leq 10^{-6} \text{ cm}^3 \cdot \text{s}^{-1}$  sous une pression différentielle de 1 bar.
  - Résistance aux vibrations : supérieure aux clauses de la norme MIL-E-5272 proc II.
  - Résistance aux chocs : 100 G
  - Intensité max admissible par contact : contact taille 20 : 5A / contact taille 16 : 10A.
  - Tension de test (au niveau de la mer) :  
1500 Vrms, 60 Hz (service 1)  
2300 Vrms, 60 Hz (service 2).

### Overall dimensions / Dimensions

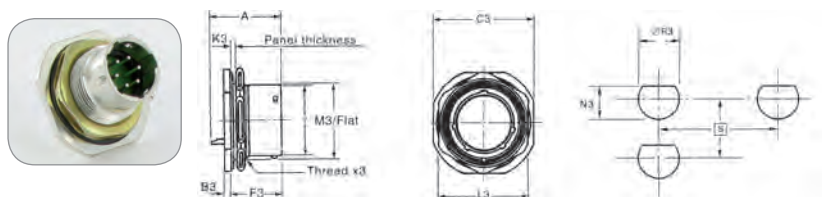
|                   |       |   |
|-------------------|-------|---|
| Solder / A souder | PT02H | - |
| Crimp / A sertir  | -     | - |

Square flange receptacle.  
Embase à collerette carrée.



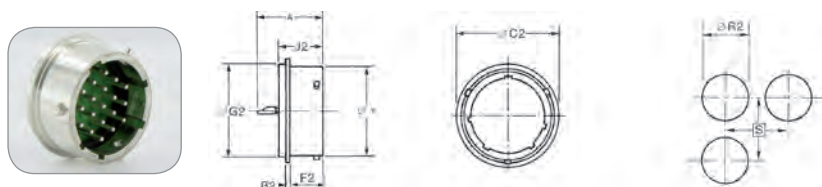
|                   |       |   |
|-------------------|-------|---|
| Solder / A souder | PT07H | - |
| Crimp / A sertir  | -     | - |

Jam nut receptacle.  
Embase à fixation par écrou.



|                   |      |   |
|-------------------|------|---|
| Solder / A souder | PT1H | - |
| Crimp / A sertir  | -    | - |

Solder mounting receptacle.  
Embase à fixation par brasage.



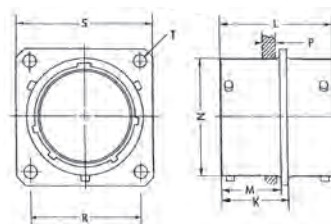
| Shell size<br><i>Taille du boîtier</i> | A<br>max. | B1<br>± 0.13 | B2<br>± 0.13 | B3<br>± 0.13 | Ø C1<br>± 0.15 | Ø C2<br>max. | C3<br>max. | D1    | E1 min. | F1<br>± 0.13 | F2<br>± 0.13 | F3<br>± 0.13 | G1<br>± 0.05 | Ø G2<br>max. |
|----------------------------------------|-----------|--------------|--------------|--------------|----------------|--------------|------------|-------|---------|--------------|--------------|--------------|--------------|--------------|
| 8                                      | 21.03     | 1.57         | 0.91         | 2.39         | 20.62          | 16.00        | 23.93      | 15.09 | 3.05    | 11.25        | 10.82        | 17.93        | 14.22        | 14.27        |
| 10                                     | 21.03     | 1.57         | 0.91         | 2.39         | 23.80          | 19.18        | 27.10      | 18.26 | 3.05    | 11.25        | 10.82        | 17.93        | 17.02        | 17.07        |
| 12                                     | 21.03     | 1.57         | 0.91         | 2.39         | 26.19          | 21.56        | 31.88      | 20.62 | 3.05    | 11.25        | 10.82        | 17.93        | 19.79        | 19.84        |
| 14                                     | 21.03     | 1.57         | 0.91         | 2.39         | 28.58          | 24.74        | 35.05      | 23.01 | 3.05    | 11.25        | 10.82        | 17.93        | 22.96        | 23.01        |
| 16                                     | 21.03     | 1.57         | 0.91         | 2.39         | 30.94          | 27.91        | 38.23      | 24.61 | 3.05    | 11.25        | 10.82        | 17.93        | 26.14        | 26.19        |
| 18                                     | 21.03     | 1.57         | 0.91         | 2.39         | 33.32          | 31.06        | 41.40      | 26.97 | 3.05    | 11.25        | 10.82        | 17.93        | 29.31        | 29.36        |
| 20                                     | 22.61     | 2.36         | 0.91         | 3.18         | 36.50          | 33.45        | 46.15      | 29.36 | 3.05    | 14.25        | 12.40        | 22.71        | 31.70        | 31.75        |
| 22                                     | 22.61     | 2.36         | 0.91         | 3.18         | 39.67          | 36.65        | 49.33      | 31.75 | 3.18    | 14.25        | 12.40        | 22.71        | 34.87        | 34.93        |
| 24                                     | 22.61     | 2.36         | 0.91         | 3.18         | 42.85          | 39.80        | 52.50      | 34.92 | 3.18    | 15.06        | 13.23        | 23.55        | 38.05        | 38.10        |

| Shell size<br><i>Taille du boîtier</i> | J1<br>± 0.13 | J2<br>± 0.13 | K1<br>± 0.13 | K3<br>+1.6<br>-0 | L3<br>+0<br>-0.25 | M3<br>+0<br>-0.13 | N3<br>± 0.13 | Ø R2<br>± 0.13 | Ø R3<br>± 0.13 | S<br>min. | Thread x3<br>(Class 2A)<br>Filetage x3<br>(Classe 2A) | Y<br>± 0.8 |
|----------------------------------------|--------------|--------------|--------------|------------------|-------------------|-------------------|--------------|----------------|----------------|-----------|-------------------------------------------------------|------------|
| 8                                      | 14.91        | 14.91        | 14.43        | 1.57             | 19.05             | 13.39             | 13.72        | 14.68          | 14.53          | 31.75     | 0.5625-24 UNEF                                        | 11.96      |
| 10                                     | 14.91        | 14.91        | 17.65        | 1.57             | 22.23             | 16.56             | 16.89        | 17.45          | 17.70          | 34.52     | 0.6875-24 UNEF                                        | 14.94      |
| 12                                     | 14.91        | 14.91        | 21.95        | 1.57             | 26.97             | 20.70             | 21.03        | 20.24          | 22.48          | 38.89     | 0.8750-20 UNEF                                        | 19.00      |
| 14                                     | 14.91        | 14.91        | 25.12        | 1.57             | 30.15             | 23.85             | 24.18        | 23.42          | 25.65          | 42.06     | 1.0000-20 UNEF                                        | 22.17      |
| 16                                     | 14.91        | 14.91        | 28.27        | 1.57             | 33.32             | 27.00             | 27.33        | 26.59          | 28.83          | 45.24     | 1.1250-18 UNEF                                        | 25.35      |
| 18                                     | 14.91        | 14.91        | 31.45        | 1.57             | 36.50             | 30.18             | 30.51        | 29.77          | 32.00          | 48.03     | 1.2500-18 UNEF                                        | 28.52      |
| 20                                     | 17.27        | 16.48        | 34.62        | 1.57             | 39.67             | 33.35             | 33.68        | 32.16          | 35.18          | 51.59     | 1.3750-18 UNEF                                        | 31.70      |
| 22                                     | 17.27        | 17.30        | 37.80        | 1.57             | 42.85             | 36.53             | 36.86        | 35.31          | 38.35          | 54.76     | 1.5000-18 UNEF                                        | 34.87      |
| 24                                     | 18.08        | 18.14        | 41.02        | 1.57             | 46.02             | 39.70             | 40.03        | 38.51          | 41.53          | 57.84     | 1.6250-18 UNEF                                        | 38.05      |

## Through bulkhead receptacle type PTB

### *Embase traversée de cloison type PTB*

|                   |     |   |
|-------------------|-----|---|
| Solder / A souder | PTB | - |
| Crimp / A sertir  | -   | - |



| Shell size<br><i>Taille du boîtier</i> | K    | L     | M     | Ø N   | P max. | R     | S    | T<br>± 0.1 |
|----------------------------------------|------|-------|-------|-------|--------|-------|------|------------|
| 8                                      | 15.9 | 26.67 | 14.27 | 12.01 | 3.2    | 15.09 | 20.6 | 3.05       |
| 10                                     | 15.9 | 26.67 | 14.27 | 14.99 | 3.2    | 18.26 | 23.8 | 3.05       |
| 12                                     | 15.9 | 26.67 | 14.27 | 19.05 | 3.2    | 20.62 | 26.2 | 3.05       |
| 14                                     | 15.9 | 26.67 | 14.27 | 22.23 | 3.2    | 23.01 | 28.6 | 3.05       |
| 16                                     | 15.9 | 26.67 | 14.27 | 25.40 | 3.2    | 24.61 | 31.0 | 3.05       |
| 18                                     | 15.9 | 26.67 | 14.27 | 28.58 | 3.2    | 26.97 | 33.3 | 3.05       |
| 20                                     | 19.8 | 33.78 | 17.48 | 31.75 | 3.2    | 29.36 | 36.5 | 3.05       |
| 22                                     | 19.8 | 33.78 | 17.48 | 34.93 | 3.2    | 31.75 | 39.7 | 3.05       |
| 24                                     | 19.8 | 33.78 | 17.48 | 38.10 | 3.2    | 34.93 | 42.9 | 3.73       |

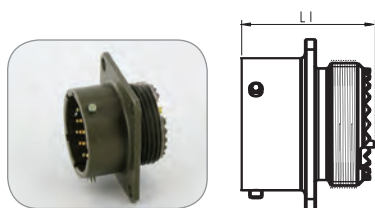
all dimensions are in mm

## Plug & receptacle without backshell 33 / 44 / 55 types

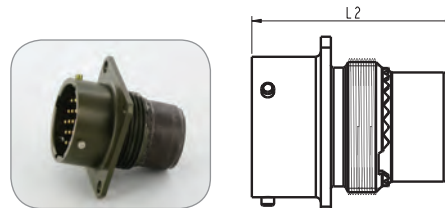
### Fiche & embase sans raccord arrière types 33 / 44 / 55

|                   |        |   |
|-------------------|--------|---|
| Solder / A souder | PT33A  | - |
| Crimp / A sertir  | PT33SE | - |

Square flange receptacle (00 type) without backshell.  
Embase à collerette carrée (type 00) sans raccord arrière.



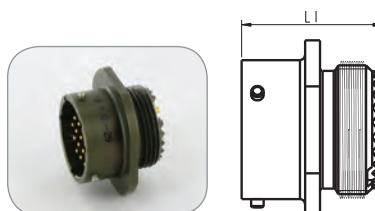
Solder / A souder



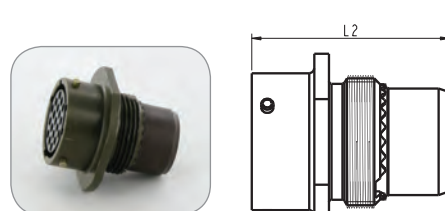
Crimp / A sertir

|                   |        |   |
|-------------------|--------|---|
| Solder / A souder | PT44A  | - |
| Crimp / A sertir  | PT44SE | - |

Inline receptacle (01 type) without backshell.  
Prolongateur (type 01) sans raccord arrière.



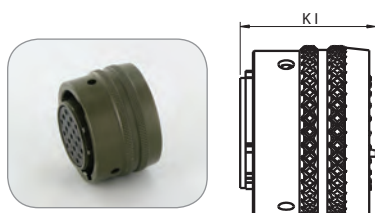
Solder / A souder



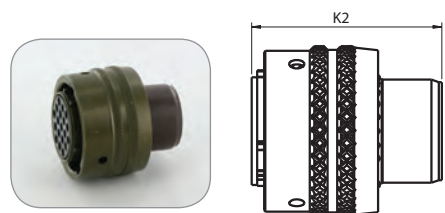
Crimp / A sertir

|                   |                  |   |
|-------------------|------------------|---|
| Solder / A souder | PT55A / PTG55A   | - |
| Crimp / A sertir  | PT55SE / PTG55SE | - |

Plug (06 type) without backshell. PTG version with grounding ring.  
Fiche (type 06) sans raccord arrière. Version PTG avec bague de masse.



Solder / A souder



Crimp / A sertir

| Shell size<br>Taille du boîtier | K1 max. | K2 max. | L1 max. | L2 max. | Rear thread<br>(class 2A)<br>Filetage arrière<br>(classe 2A) |
|---------------------------------|---------|---------|---------|---------|--------------------------------------------------------------|
| 8                               | 22.3    | 32.3    | 22.7    | 32.4    | 0.4375-28 UNEF                                               |
| 10                              | 22.3    | 32.3    | 22.7    | 32.4    | 0.5625-24 UNEF                                               |
| 12                              | 22.3    | 32.3    | 22.7    | 32.4    | 0.6875-24 UNEF                                               |
| 14                              | 22.3    | 32.3    | 22.7    | 32.4    | 0.8125-20 UNEF                                               |
| 16                              | 22.3    | 32.3    | 22.7    | 32.4    | 0.9375-20 UNEF                                               |
| 18                              | 22.3    | 32.3    | 22.7    | 32.4    | 1.0625-18 UNEF                                               |
| 20                              | 26.3    | 32.3    | 28.3    | 33.9    | 1.1875-18 UNEF                                               |
| 22                              | 26.3    | 32.3    | 28.3    | 33.9    | 1.3125-18 UNEF                                               |
| 24                              | 26.3    | 34.0    | 28.3    | 35.4    | 1.4375-18 UNEF                                               |

all dimensions are in mm

How to order / *Comment commander***PT series****PT****G****55****A****16****8****P****-****-****G:** With grounding ring (for 55 plug shell only)**Shell type:****33:** 00 type / Square flange receptacle style with serrations**44:** 01 type / Inline receptacle style with serrations**55:** 06 type / Plug shell with serrations**Contact type:****A:** Solder version**SE:** Crimp version**Connector shell size:** 8/10/12/14/16/18/20/22/24**Contact insert arrangement:** (See page 10 & 11)**Contact type:****P:** Pin**S:** Socket**Coding / Insert alternate positioning:**

Blank for normal or W, X, Y, Z (see coding system page 9).

**Shell finish:**

Omit for standard olive drab cadmium.

**01:** Bright cadmium**02:** Black anodised - ROHS compliant**023:** Electroless nickel - ROHS compliant**Série PT****PT****G****55****A****16****8****P****-****-****G :** Avec bague de masse (pour fiche 55 uniquement)**Type de boîtier :****33 :** Type 00 / Embase à collerette carrée avec arrière cranté**44 :** Type 01 / Prolongateur avec arrière cranté**55 :** Type 06 / Fiche avec arrière cranté**Type de contact :****A :** Version à souder**SE :** Version à sertir**Taille de boîtier :** 8/10/12/14/16/18/20/22/24**Arrangement de contact :** (voir page 10 et 11)**Type de contact :****P :** Mâle**S :** Femelle**Système de codage / Orientation de l'isolant :**

Néant pour normal ou W, X, Y, Z (voir le système de codage page 9).

**Traitement du boîtier :**

Néant pour le cadmié vert olive.

**01 :** Cadmié blanc**02 :** Oxydation anodique noire - conforme ROHS**023 :** Nickel chimique - conforme ROHS

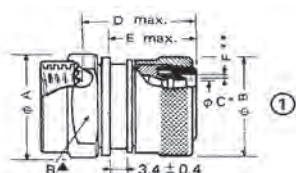
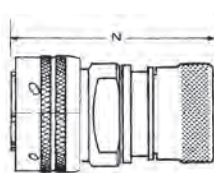
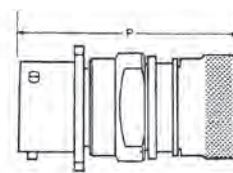
## PTSA backshell

## Raccord arrière PTSA

## General characteristics / Caractéristiques générales

- Compatible with the **crimp and solder** versions and with 33, 44 & G55 shell types.
  - High EMI-RFI protection level.
  - Clamping braid backshell by screwing system with free inner ring **to avoid twisting of the braid during screwing.**
  - Sealed when equipped with straight or right angled heatshrink moulded piece mentioned on page 57.
  - User friendly, no tooling required
- Compatible avec les versions **à sertir et à souder** et avec les types de boîtiers 33, 44 et G55.
  - Excellent niveau de protection EMI.
  - Raccord à reprise de tresse par un système de vissage avec une bague intérieure indépendante qui permet d'**éviter la torsion de la tresse au moment du vissage.**
  - Étanche lorsqu'il est équipé d'une pièce moulée thermorétractable droite ou coudée, telle que mentionnée page 57.
  - Facile à utiliser, aucun outil n'est nécessaire.

## Overall dimensions / Dimensions

PTSA alone  
PTSA seulG55 shell type + PTSA  
Boîtier type G55 + PTSA33 or 44 shell types + PTSA  
Boîtier type 33 ou 44 + PTSA

| Shell size<br>Taille du boîtier | A<br>±0.2 | B    | C max.* | D    | E    | F max.** | N max. | P max. | R    |
|---------------------------------|-----------|------|---------|------|------|----------|--------|--------|------|
| 8                               | 20        | 16.0 | 6.9     | 36.2 | 23   | 1        | 58     | 50.7   | 16.8 |
| 10                              | 24        | 18.9 | 9.6     | 36.2 | 23   | 1        | 58     | 50.7   | 20.8 |
| 12                              | 26        | 22.1 | 12.7    | 36.2 | 23   | 1        | 58     | 51.2   | 22.8 |
| 14                              | 29        | 25.3 | 14.8    | 38.2 | 25   | 1        | 60     | 52.9   | 25.8 |
| 16                              | 32        | 28.5 | 18.0    | 38.2 | 25   | 1.1      | 60     | 53.8   | 31.8 |
| 18                              | 35        | 31.5 | 19.9    | 39.2 | 26   | 1.2      | 61     | 53.8   | 31.8 |
| 20                              | 38        | 34.7 | 23.1    | 36.3 | 23.1 | 1.25     | 62     | 64     | 35.8 |
| 22                              | 42        | 37.9 | 26.2    | 36.3 | 23.1 | 1.25     | 62     | 64     | 38.8 |
| 24                              | 45        | 41.0 | 28.8    | 36.3 | 23.1 | 1.25     | 64     | 70.6   | 41.8 |

\* : Acceptable outside diameter of the cable / Diamètre extérieur du câble admissible

\*\* : Braid thickness / Épaisseur de la tresse

R : Dimension on flat (4 flats) / Cote sur plat (4 plats)

## How to order / Comment commander

PTSA Series    PTSA    10    1    -

Backshell size corresponding to connector shell size:  
8/10/12/14/16/18/20/22

1: Corresponding to standard braid thickness

## Shell finish:

Omit for standard olive drab cadmium.

01: Bright cadmium

07: Electroless nickel - ROHS compliant

Série PTSA    PTSA    10    1    -

Taille du raccord correspondant à la taille du connecteur :  
8/10/12/14/16/18/20/22

1 : Correspondant à l'épaisseur de tresse standard

## Traitement du boîtier :

Néant pour le cadmié vert olive.

01 : Cadmié blanc

07 : Nickel chimique - conforme ROHS

all dimensions are in mm

information & contact : [www.451-connectors.com](http://www.451-connectors.com)

## Rugged RJ45 Solutions *Solutions RJ45 renforcées*

### Presentation / *Présentation*

#### **RJF - Ethernet connection system for harsh environment - Industrial Ethernet**

*RJF - Liaison Ethernet pour environnement sévère - Ethernet Industriel*

RJF allows you to use an Ethernet Class D / Cat. 5E connection for 10 BaseT, 100 BaseTX or 1000 BaseT networks in harsh environment.

With the patented RJStop® system you can use a standard RJ45 cordset in a metallic plug which will protect it from shocks, dust and fluids.

**No hazardous on-field cabling and grounding!**

**Website: [www.rjfield.com](http://www.rjfield.com)**



*Avec RJField vous réalisez une liaison Ethernet Classe D / Cat. 5E pour réseaux 10 BaseT, 100 BaseTX ou 1000 BaseT en milieu sévère.*

*Le système breveté RJStop® permet d'utiliser un cordon RJ45 standard dans une enveloppe protectrice (fiche) le mettant à l'abri des chocs, de la poussière et des projections de liquide.*

*Ce système permet de s'affranchir de tout raccordement terrain, y compris des délicates reprises de blindage.*

**Site web : [www.rjfield.com](http://www.rjfield.com)**

### Applications / *Applications*

- |                                                          |                                                           |
|----------------------------------------------------------|-----------------------------------------------------------|
| ■ Robotics                                               | ■ Robotique                                               |
| ■ Industrial Process Control                             | ■ Contrôle de Process Industriel                          |
| ■ CNC Machines                                           | ■ Machine Outil                                           |
| ■ Special Machines                                       | ■ Machines spéciales                                      |
| ■ Oil & Gas                                              | ■ Recherche et prospection de pétrole                     |
| ■ Motion Control                                         | ■ Contrôle de motricité                                   |
| ■ Data Acquisition and Transmission in Harsh Environment | ■ Acquisition et transmission de données en milieu sévère |
| ■ Tele-maintenance                                       | ■ Télémaintenance                                         |

### Data transmission / *Transmission des données*

10 BaseT, 100 BaseTX and 1000 BaseT networks  
Cat 5E per TIA/EIA 568B and ClassD per ISO/IEC 11801

*Réseaux 10 BaseT, 100 BaseTX et 1000 BaseT  
Cat 5E selon TIA/EIA 568B et Classe D selon ISO/IEC 11801*

## Main characteristics / *Principales caractéristiques*

- Compliant with IEC 60603-7 variant 11
- Bayonet coupling ("Audible & Visual" coupling signal )
- Robust metallic shells based on MIL-DTL-26482 H
- RJ45 cordset retention in the plug: 100 N in the axis
- Mating cycles: 500 min.
- Sealed against fluids and dust (IP68)
- Shock, Vibration and Traction resistant
- No cabling operation in field and no tools required
- Mechanical Coding / Polarization (4 positions)
- Compatible with cable diameter from 5,5 mm [0.216 in] to 13 mm [0.512 in]

- *Conforme à l'IEC60603-7 variante 11*
- *Verrouillage baïonnette (clic de verrouillage sensitif et auditif)*
- *Boîtiers métalliques robustes basés sur la norme MIL-DTL-26482 H*
- *Tenue du cordon RJ45 dans la fiche: 100 N dans l'axe*
- *Nombre de manoeuvres : 500 min.*
- *Étanche aux fluides et à la poussière (IP68)*
- *Résiste aux chocs, aux vibrations et tractions*
- *Aucune opération de câblage, aucun outil*
- *4 possibilités de détrompage mécanique (rotation des inserts)*
- *Compatible avec les diamètres de câbles de 5,5 mm à 13 mm*

## Environmental characteristics / *Caractéristiques environnementales*

- Sealing: IP68
- Salt Spray: 48 h with Nickel plating  
> 96 h with Black coating  
> 500 h with Olive Drab Cadmium plating
- Fire Retardant/Low Smoke: UL94 V0 and NF F 16 101 & 16 102
- Vibrations: 10 – 500 Hz, 10 g, 3 axes: no discontinuity > 10 nano s.
- Shocks: IK06: weight of 250 g drop from 40 cm  
[15.75 in] onto connectors (mated pair)
- Humidity: 21 days, 43°C, 98% humidity
- Thermal Shock: 5 cycles at - 40°C / +100°C
- Temperature Range: - 40°C / +85°C

- *Étanchéité :* IP68
- *Brouillard salin :* 48 h avec protection Nickelée  
> 96 h avec Electrophorèse noire  
> 500 h avec Cadmium vert olive
- *Feu / Fumée :* UL94 V0 et conforme à NF F 16 101 & 16 102
- *Vibrations :* 10 – 500 Hz, 10 g, 3 axes : pas de micro coupure > 10 nano s.
- *Chocs :* IK06: soit chute d'une de masse de 250 g de 40 cm  
sur connecteurs accouplés
- *Humidité :* 21 jours, 43°C, humidité 98%
- *Choc thermetique :* 5 cycles - 40°C / +100°C
- *Gamme de température :* - 40°C / +85°C



How to order / *Comment commander*

| RJField Series                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | RJF | 2 | 2 | B | 03 100BTX |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---|---|---|-----------|
| <b>Shell Type:</b><br><b>6:</b> Plug, IP68 backshell, plastic gland<br><b>6M:</b> Plug, IP68 backshell, metal gland<br><b>2:</b> Square Flange Receptacle<br><b>2PE:</b> Square Flange Receptacle, IP68 backshell, plastic gland<br><b>2PEM:</b> Square Flange Receptacle, IP68 backshell, metal gland<br><b>7:</b> Jam Nut Receptacle<br><b>7PE:</b> Jam Nut Receptacle, IP68 backshell, plastic gland<br><b>7PEM:</b> Jam Nut Receptacle, IP68 backshell, metal gland<br><b>2SA, 7SA:</b> Transversally sealed receptacle (unmated) |     |   |   |   |           |
| <b>Back Termination (for receptacles only) :</b><br><b>1:</b> Female RJ45<br><b>1RA:</b> Right Angle Female RJ45<br><b>2:</b> RJ45 Cordset                                                                                                                                                                                                                                                                                                                                                                                            |     |   |   |   |           |
| <b>Shell Finish:</b><br><b>B:</b> Black Coating - ROHS compliant<br><b>N:</b> Nickel (Note: with this version, the inserts are metallized) - ROHS compliant<br><b>G:</b> Olive Drab Cadmium (Note: with this version, the inserts are metallized)                                                                                                                                                                                                                                                                                     |     |   |   |   |           |
| <b>Cordset Length (for receptacles with type "2" back termination only):</b><br><b>03 100BTX:</b> 0.3m [11.81 inches]<br><b>05 100BTX:</b> 0.5m [19.68 inches]<br><b>10 100BTX:</b> 1m [39.37 inches]<br><b>15 100BTX:</b> 1.5m [59.05 inches]<br><b>00:</b> 8 tinned holes at the rear of the PCB to solder the cable                                                                                                                                                                                                                |     |   |   |   |           |

**Remark:** Cabling configuration: 100 BTX = 568B (Ethernet specification)

**Examples:**

- Nickel plug: RJF 6 N s
- Black square flange receptacle, female RJ45 back termination: RJF 2 1 B
- Olive drab cadmium jam nut receptacle, 1.5 m [59.05"] cordset back termination: RJF 7 2 G 15 100BTX
- Black square flange receptacle, backshell with plastic gland, 30 cm [11.81"] cordset back termination: RJF 2PE 2 B 03 100BTX
- Nickel jam nut receptacle, solder termination: RJF 72 N 00

| Série RJField                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | RJF | 2 | 2 | B | 03 100BTX |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---|---|---|-----------|
| <b>Type de boîtier :</b><br><b>6 :</b> Fiche avec presse étoupe plastique<br><b>6M :</b> Fiche avec presse étoupe métallique<br><b>2 :</b> Embase à collerette carrée<br><b>2PE :</b> Embase à collerette carrée et raccord presse étoupe plastique<br><b>2PEM :</b> Embase à collerette carrée et raccord presse étoupe métallique<br><b>7 :</b> Embase à écrou<br><b>7PE :</b> Embase à écrou et raccord presse étoupe plastique<br><b>7PEM :</b> Embase à écrou et raccord presse étoupe métallique<br><b>2SA, 7SA :</b> Embase étanche en traversée (désaccouplée) |     |   |   |   |           |
| <b>Type de sortie (seulement pour les embases) :</b><br><b>1 :</b> Femelle RJ45<br><b>1RA :</b> Femelle RJ45 coudée à 90°<br><b>2 :</b> Cordon RJ45                                                                                                                                                                                                                                                                                                                                                                                                                    |     |   |   |   |           |
| <b>Protection du boîtier :</b><br><b>B :</b> Electrophorèse noire<br><b>N :</b> Nickel (Note: dans cette version, les inserts sont métallisés)<br><b>G :</b> Cadmié vert olive (Note: dans cette version, les inserts sont métallisés)                                                                                                                                                                                                                                                                                                                                 |     |   |   |   |           |
| <b>Longueur du cordon (pour embase type 2 seulement) :</b><br><b>03 100BTX :</b> 0.3m<br><b>05 100BTX :</b> 0.5m<br><b>10 100BTX :</b> 1m<br><b>15 100BTX :</b> 1.5m<br><b>00 :</b> 8 trous étamés à l'arrière du PCB pour permettre de souder un câble                                                                                                                                                                                                                                                                                                                |     |   |   |   |           |

**Remarque :** Configuration de câblage : 100 BTX = 568B (spécification Ethernet)

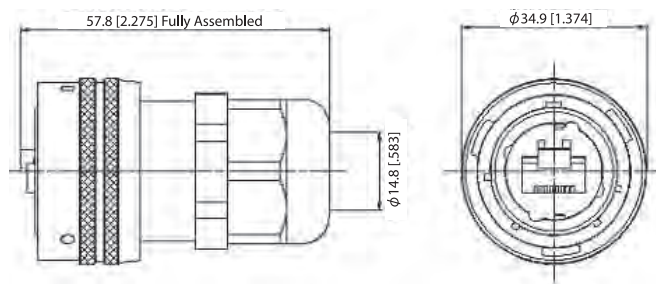
**Exemples :**

- Fiche nickel : RJF 6 N
- Embase carrée, noire, sortie femelle RJ45 : RJF 2 1 B
- Embase à écrou, cadmié vert, sortie cordon 1.5 m : RJF 7 2 G 15 100BTX
- Embase carrée, noire, raccord presse étoupe plastique, sortie cordon 30 cm : RJF 2PE 2 B 03 100BTX
- Embase à écrou, nickel, sortie à souder : RJF 72 N 00

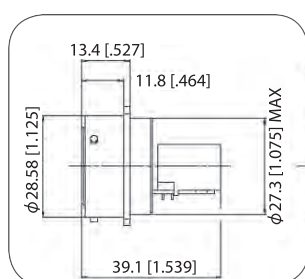


Overall dimensions / *Dimensions*Plug / *Fiche*

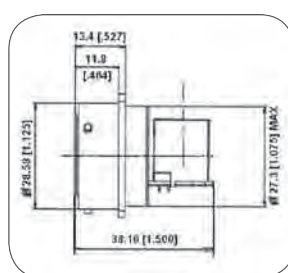
Shell type 6 with Plastic or Metal Gland

*Boîtier type 6 avec presse étoupe plastique ou métallique*Receptacles / *Embases*

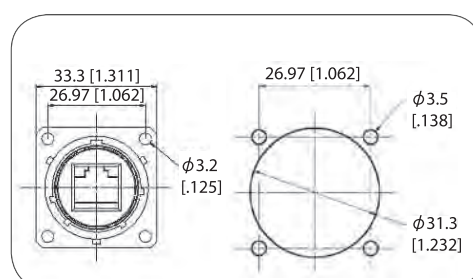
Square flange receptacle: Shell type 2

*Embase carrée : Boîtier type 2*

RJF 21 x  
Straight Female RJ45  
*Sortie RJ45 droite*

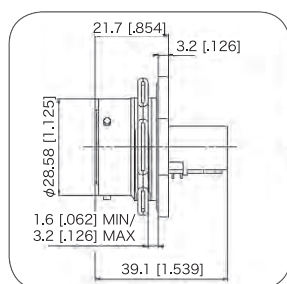


RJF 21 RA x  
Right Angle Female RJ45  
*Sortie RJ45 coudée*

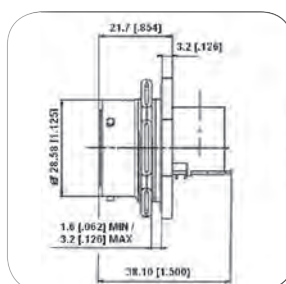


Panel Drilling  
*Découpe de Panneau*

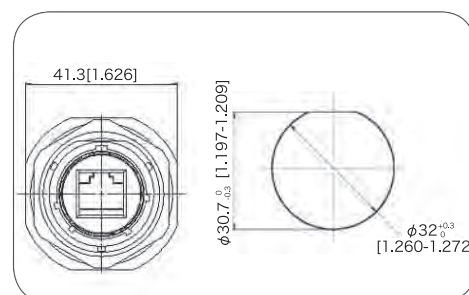
Jam nut receptacle: Shell type 7

*Embase à écrou : Boîtier type 7*

RJF 71 x  
Straight Female RJ45  
*Sortie RJ45 droite*

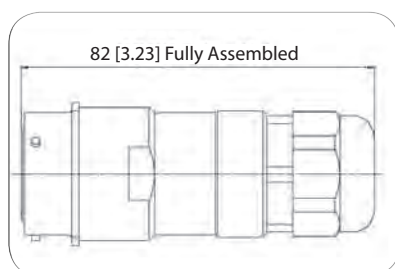


RJF 71 RA x  
Right Angle Female RJ45  
*Sortie RJ45 coudée*

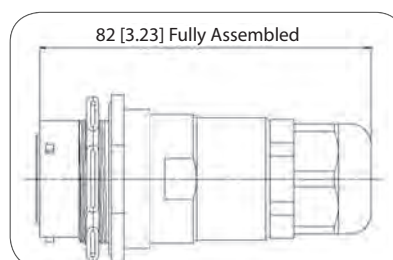


Panel Drilling  
*Découpe de Panneau*

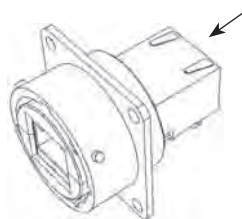
Receptacles with IP68 backshell: Shell types 2PE and 7PE with plastic or metal gland

*Embases avec raccord IP68 : Boîtier types 2PE et 7PE avec presse étoupe plastique ou métallique*

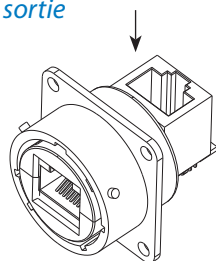
RJF 2PE / 2PEM



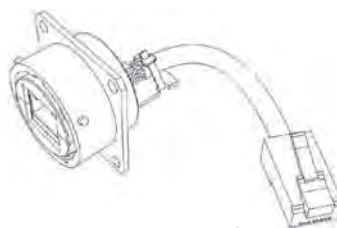
RJF 7PE / 7PEM

Back Terminations / *Types de sortie*

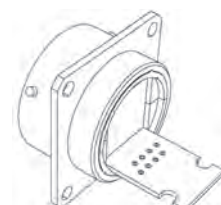
Type 1: Female RJ45  
Sortie 1 : Femelle RJ45



Type 1RA: Right Angle Female RJ45  
Sortie 1RA : Femelle RJ45 coudée



Type 2: RJ45 Cordset  
Sortie 2 : Cordon RJ45



Type 2 - 00: Solder - 8 tinned holes  
Sortie 2-00 : A souder - 8 trous étamés

## Note:

Remarque :

Type 2 without RJ45 plug at the end of the cable is also available: consult factory

La sortie 2 est aussi disponible avec un câble sans fiche RJ45 à l'extrémité (nous consulter pour plus d'informations)

Assembly instructions / *Instructions d'assemblage*

**Universal:** Can be used with all standard RJ45 Cat 5E cordset brands.

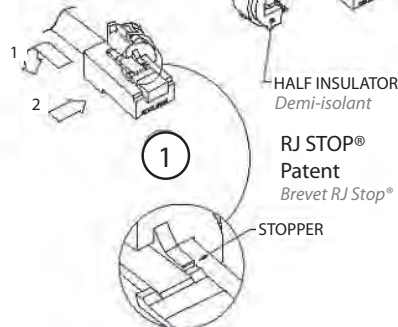
**Universel :** Utilisable avec toute marque de cordon RJ45 Cat 5E standard.

1. Push down the RJ45 cordset latch, and fix it inside the insert
2. Press in and click the other part of the insert
3. Insert in the metal housing

1. Pliez la languette de la fiche RJ45 et insérez la fiche dans le logement du demi-isolant
2. Clipsez la deuxième partie de l'isolant
3. Insérez la fiche et l'isolant dans le boîtier métallique

RJ45 PLUG  
Fiche RJ45

HALF INSULATOR  
Demi-isolant



HALF INSULATOR  
Demi-isolant

RJ STOP®  
Patent  
Brevet RJ Stop®

STOPPER

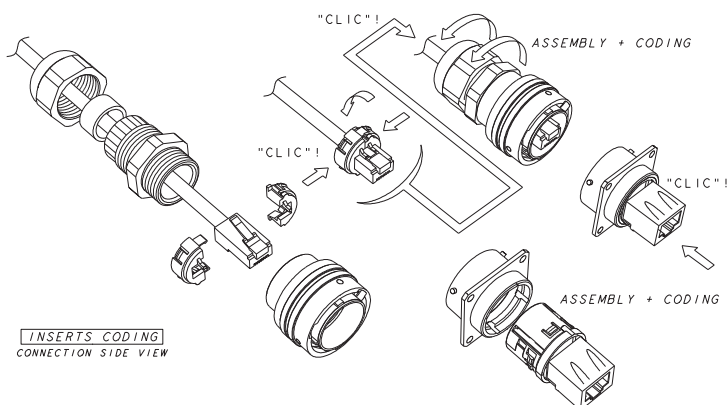
Clic auditif  
de verrouillage

AUDIBLE  
LOCKING

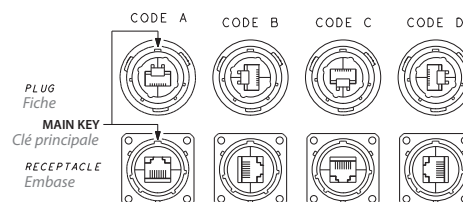
STOPPER

**Easy and Safe:** No field cabling, no tool required

**Facile et sûr:** Aucune opération de câblage, aucun outil

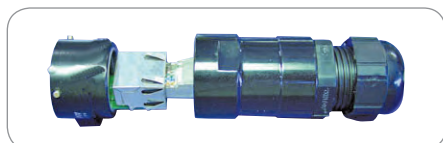


INSERTS CODING  
CONNECTION SIDE VIEW

Coding system / *Système de codage*

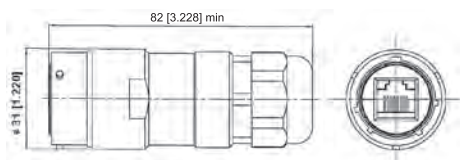
## Special receptacles / *Embases spéciales*

### Inline receptacle / *Prolongateur*



Inline receptacles allow you to make cable extensions in the field by using them with rugged RJFied series plugs.

*Les prolongateurs permettent de connecter des câbles bout à bout sur le terrain en assurant une étanchéité et une résistance mécanique.*



### Part numbers / *Références produit*

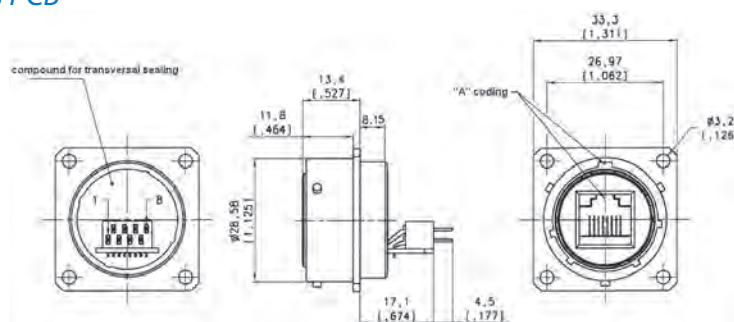
- **Plastic Gland**  
Black coating  
Nickel plating  
Olive Drab Cadmium plating
- **Metal Gland**  
Black coating  
Nickel plating  
Olive Drab Cadmium plating

- **Presse étoupe plastique**  
*Protection noire*  
*Protection nickel*  
*Protection cadmium vert olive*
- **Presse étoupe plastique**  
*Protection noire*  
*Protection nickel*  
*Protection cadmium vert olive*

**RJF2PEWF1B**  
**RJF2PEWF1N**  
**RJF2PEWF1G**

**RJF2PEMF1B**  
**RJF2PEMF1N**  
**RJF2PEMF1G**

### PCB receptacles / *Embases PCB*



These receptacles can be soldered directly on your PCB. A compound insures a transversal sealing and good performance in high vibration environments. They can be connected with rugged RJField series plugs.

*Ces embases sont destinées à être soudées sur un circuit imprimé. Le compound permet une étanchéité en traversée et une meilleure résistance aux vibrations. Les fiches renforcées de la série «RJF» peuvent être utilisées avec ces embases.*

#### Note :

1. Platings available : "B" : black coating • "N" : nickel plating • "G" : olive drab cadmium plating
2. As these receptacles are compounded, coding position has to be specified in the P/N.

#### Note :

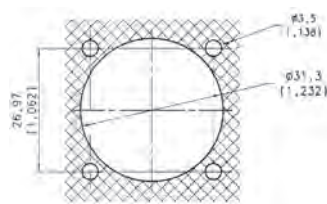
1. Protections disponibles : "B" : protection noire • "N" : protection Nickel • "G" : protection cadmiée vert olive
2. Les embases étant compoundées, la position du codage doit être spécifiée dans la référence

### Part numbers (examples) / *Références produit (exemples)*

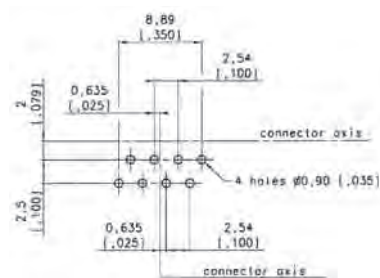
Square flange receptacle, black coating  
Square flange receptacle, nickel plating  
Square flange receptacle, ODC plating

*Embase carrée, protection noire*  
*Embase carrée, protection nickel*  
*Embase carrée, protection CVO*

coding A: **RJF2SA5B**  
coding C: **RJF2SC5N**  
coding D: **RJF2SD5G**



Panel Drilling  
*Découpe de Panneau*



PCB layout - Solder face view  
*Perçage circuit imprimé - Vue face à souder*

## Accessories / *Accessoires*

### Metal cap / *Bouchon métallique*

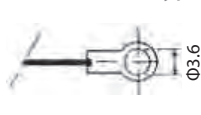


Plug Cap  
*Bouchon de fiche*

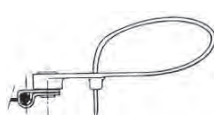


Receptacle Cap  
*Bouchon d'embase*

### Termination of the cord *Type de fixation de la cordelette*



Square flange receptacle  
type "2"  
*Embase type 2*



Plug type "6"  
*Fiche type 6*



Jam nut receptacle  
type "7"  
*Embase type 7*

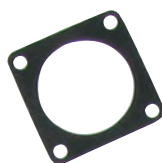
| RJF Caps                          | RJFC | 2 | B |
|-----------------------------------|------|---|---|
| <b>Connector Type:</b>            |      |   |   |
| 6: Plug                           |      |   |   |
| 2: Square Flange Receptacle       |      |   |   |
| 7: Jam Nut Receptacle             |      |   |   |
| <b>Finish:</b>                    |      |   |   |
| B: Black Coating - ROHS compliant |      |   |   |
| N: Nickel - ROHS compliant        |      |   |   |
| G: Olive Drab Cadmium             |      |   |   |

| Bouchons RJF                             | RJFC | 2 | B |
|------------------------------------------|------|---|---|
| <b>Type de boîtier :</b>                 |      |   |   |
| 6 : Fiche                                |      |   |   |
| 2 : Embase carrée                        |      |   |   |
| 7 : Embase à écrou                       |      |   |   |
| <b>Traitement du boîtier :</b>           |      |   |   |
| B : Electrophorèse noire - conforme ROHS |      |   |   |
| N : Nickel - conforme ROHS               |      |   |   |
| G : Cadmié Vert Olive                    |      |   |   |

### Panel gasket for square flange type "2" / *Joint de panneau pour embase de type "2"*

- Thickness: 0,6 mm
- P/N: JE 18

- Épaisseur : 0,6 mm
- Référence : JE18



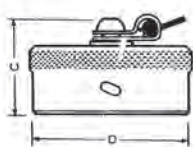
### Insert removal tool for receptacle and plug / *Outils d'extraction des inserts pour embase et fiche.*

- P/N: RJF ODE
- Référence : RJF ODE

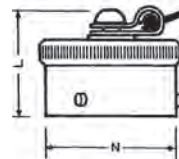




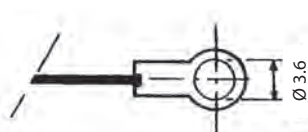
### Protective caps / *Bouchons de protection*



Protective cap for 00, 01, 02 and 07 shell types  
*Bouchons de protection pour les types de boîtiers 00, 01, 02 et 07*

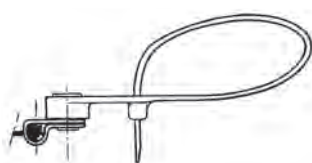


Protective cap for 06 & 08 shell types  
*Bouchons de protection pour les types de boîtiers 06 et 08*



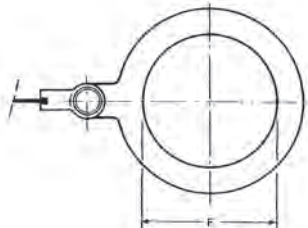
Termination of the nylon cord (or metal chain) for 00, 02 shell types protective caps.

*Type de fixation de la cordelette nylon (ou chaînette métallique) pour les bouchons de protection des types de boîtiers 00, 02.*



Termination of the nylon cord for 06, 08, 01 shell types protective caps (there is no termination on the metal chain).

*Type de fixation de la cordelette nylon pour les bouchons de protection des types de boîtiers 06, 08, 01 (il n'y a aucune fixation sur la chaînette métallique).*



Termination of the nylon cord (or metal chain) for 07 shell type protective caps.

*Type de fixation de la cordelette nylon (ou chaînette métallique) pour les bouchons de protection des types de boîtiers 07.*

#### Length of the nylon cord (or metal chain)

From the protective cap to the cord / chain extremity:

- 160 mm long for 01, 06, 08 shell types protective caps.
- 105 mm long for 00, 02, 07 shell types protective caps.

#### Longueur de la cordelette nylon (ou chaînette métallique)

A partir du bouchon de protection jusqu'à l'extrémité de la cordelette / chaînette :

- 160 mm pour les bouchons de protection des types de boîtiers 01, 06 et 08.
- 105 mm pour les bouchons de protection des types de boîtiers 00, 02 et 07.



| Shell size<br><i>Taille du boîtier</i> | C  | Ø D max. | Ø F  | L max. | Ø N   |
|----------------------------------------|----|----------|------|--------|-------|
| 8                                      | 20 | 17.9     | 14.7 | 18.2   | 12.01 |
| 10                                     | 20 | 20.7     | 17.9 | 18.2   | 14.99 |
| 12                                     | 20 | 25.4     | 22.6 | 18.2   | 19.05 |
| 14                                     | 20 | 28.7     | 25.8 | 18.2   | 22.23 |
| 16                                     | 20 | 31.9     | 29.0 | 18.2   | 25.40 |
| 18                                     | 20 | 34.7     | 32.2 | 18.2   | 28.58 |
| 20                                     | 20 | 38.0     | 35.3 | 19.8   | 31.75 |
| 22                                     | 20 | 41.2     | 38.5 | 19.8   | 34.93 |
| 24                                     | 21 | 44.3     | 41.7 | 20.6   | 38.10 |

**PT / 451 Caps****B****ER****N****-****08****-****Protective cap type:****F:** For plug**EC:** For square flange receptacle**ER:** For jam nut receptacle**P:** For inline receptacle**Wire type:****N:** Nylon cord (standard version)

Blank for metal chain

**PT:** For plugs with nylon cord only

Omit for all other versions and for metal chain

**Corresponding connector shell size:** 8/10/12/14/16/18/20/22/24**Finish:**

Blank for olive-drab cadmium.

**01:** Bright cadmium**02:** Black anodised - ROHS compliant**07:** Electroless nickel - ROHS compliant**Bouchons PT / 451****B****ER****N****-****08****-****Types de bouchons de protection :****F :** Pour fiche**EC :** Pour embase carrée**ER :** Pour embase à écrou**P :** Pour prolongateur**Type de corde :****N :** Cordelette nylon (version standard)

Néant pour chaîne métallique

**PT :** Pour fiches avec cordelette nylon seulement

Néant pour toutes les autres versions et les chaînes métalliques

**Taille de boîtier du connecteur correspondant :** 08/10/12/14/16/18/20/22/24**Traitement de surface :**

Néant pour cadmié vert olive.

**01 :** Cadmié blanc**02 :** Oxydation anodique noire - conforme ROHS**07 :** Nickel chimique - conforme ROHS

## Snap caps / *Bouchons à fermeture automatique*

Problems with your connectors because the caps were never used?  
What about a solution that ensures automatic sealing with each connection?

Amphenol Socapex introduces a new accessory for PT / 451 series : **the SNAP CAP!**

This Self Closing Cap mounted with a square flange receptacle protects your system against dust and water intrusion. A built in spring enables the device to automatically close on the receptacle when the plug is removed. To install just place the cap on the square flange receptacle and use your standard screws.

- Four sizes are available: 8, 10, 12 & 18.
- **IP54** - Protection against water spray and dust
- How to order:  
Add "SCC" at the end of the part number for a square flange receptacle type 02 or 00  
Ex: PT02A1210P023 **SCC** / 45102E1210P5070 **SCC**

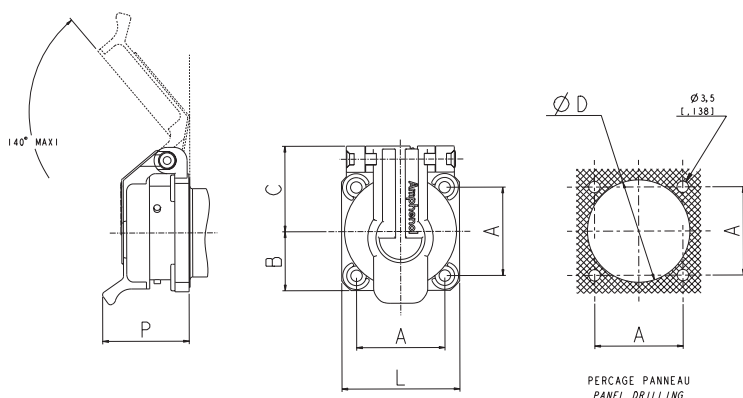
*Combien de fois avez-vous vu un bouchon pendre à coté de son embase ?  
Que pensez-vous d'une solution qui assure une étanchéité systématique sur vos embases ?*

*Amphenol Socapex introduit une nouveauté dans la gamme PT/451: **le SNAP CAP !***

*Ce bouchon à fermeture automatique associé à une embase à collerette carrée protège votre système de la poussière et des projections d'eau. Sa spécificité réside dans un clapet qui se rabat automatiquement sur la partie supérieure de l'embase lorsque la fiche est déconnectée. Pour l'installer, placer le bouchon sur l'embase et utiliser vos vis habituelles.*

- *Quatre tailles sont aujourd'hui disponibles pour ce bouchon : 8, 10, 12 et 18*
- **IP54** - Protection contre les projections d'eau et poussières
- *Comment commander :*  
*Ajouter " SCC" à la fin de votre référence PT ou 451 d'embase carrée type 02 ou 00*  
*Ex: PT02A1210P023 **SCC** / 45102E1210P5070 **SCC***



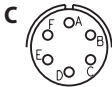
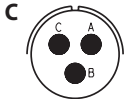
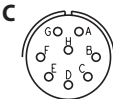
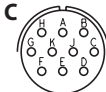
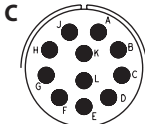
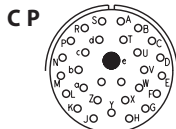
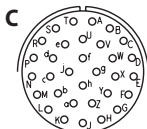


| Shell size<br><i>Taille du boîtier</i> | P  | A     | B    | C    | L    | D<br>+0<br>-0.3 |
|----------------------------------------|----|-------|------|------|------|-----------------|
| 8                                      | 23 | 15.09 | 12   | 20   | 23.6 | 13              |
| 10                                     | 24 | 18.26 | 15.5 | 22.5 | 26.7 | 16.2            |
| 12                                     | 24 | 20.62 | 17.5 | 24   | 29   | 19.4            |
| 18                                     | 27 | 26.97 | 18.5 | 26.5 | 37   | 28.9            |

Our Self Closing Caps are available with the following inserts:

*Nos bouchons automatiques SCC sont disponibles avec les arrangements suivants :*

- 1 Insert arrangement reference / *Arrangements de contacts*
- 2 Number of contacts / *Nombre de contacts*
- 3 Contact size / *Taille des contacts*

|    |   |                                                                                     |              |                                                                                      |              |                                                                                       |                    |                                                                                       |              |                                                                                     |            |
|----|---|-------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------------|------------|
| 08 | 1 |    | <b>8-2</b>   |     | <b>8-3</b>   |      | <b>8-3A (8-98)</b> |    | <b>8-33</b>  |  | <b>8-4</b> |
|    | 2 | 2                                                                                   |              | 3                                                                                    |              | 3                                                                                     |                    | 3                                                                                     |              | 4                                                                                   |            |
|    | 3 | 20                                                                                  |              | 20                                                                                   |              | 20                                                                                    |                    | 20                                                                                    |              | 20                                                                                  |            |
| 10 | 1 |  | <b>10-6</b>  |   | <b>10-98</b> |  | <b>10-7</b>        |                                                                                       |              |                                                                                     |            |
|    | 2 | 6                                                                                   |              | 6                                                                                    |              | 7                                                                                     |                    |                                                                                       |              |                                                                                     |            |
|    | 3 | 20                                                                                  |              | 20                                                                                   |              | 20                                                                                    |                    |                                                                                       |              |                                                                                     |            |
| 12 | 1 |  | <b>12-3</b>  |   | <b>12-8</b>  |  | <b>12-10</b>       |  | <b>12-14</b> |                                                                                     |            |
|    | 2 | 3                                                                                   |              | 8                                                                                    |              | 10                                                                                    |                    | 14                                                                                    |              |                                                                                     |            |
|    | 3 | 16                                                                                  |              | 20                                                                                   |              | 20                                                                                    |                    | 20                                                                                    |              |                                                                                     |            |
| 18 | 1 |  | <b>18-11</b> |  | <b>18-30</b> |  | <b>18-32</b>       |                                                                                       |              |                                                                                     |            |
|    | 2 | 11                                                                                  |              | 29                                                                                   |              | 1                                                                                     |                    | 32                                                                                    |              |                                                                                     |            |
|    | 3 | 16                                                                                  |              | 20                                                                                   |              | 16                                                                                    |                    | 20                                                                                    |              |                                                                                     |            |

C: Available in crimp version

C: *Disponible en version à sertir*

P: For those arrangements, please contact us for available configurations. Only available with PT marking

P: *Pour ces arrangements, nous consulter pour les configurations possibles. Marquage PT seulement*

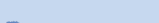
Top-runners / *Les plus standard*



## Contacts and sealing plugs / *Contacts et obturateurs*

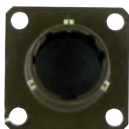
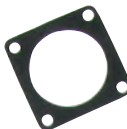
Crimp contacts are delivered with the connector and are mentioned here as spare parts.

*Les contacts à sertir sont livrés avec le connecteur et sont mentionnés ici en tant que pièces détachées.*

| Designation<br><i>Désignation</i>                                                      | Pictures<br><i>Photos</i>                                                          | Part number<br><i>Référence</i> |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------|
| Size 20 pin contact<br><i>Contact mâle taille 20</i>                                   |   | 800 600                         |
| Size 20 socket contact<br><i>Contact femelle taille 20</i>                             |   | 800 615                         |
| Size 16 pin contact<br><i>Contact mâle taille 16</i>                                   |   | 800 620                         |
| Size 16 socket contact<br><i>Contact femelle taille 16</i>                             |   | 800 635                         |
| Reducing sleeve for size 20 contact<br><i>Manchon réducteur pour contact taille 20</i> |   | 800 609                         |
| Sealing plug size 20<br><i>Obtuteur taille 20</i>                                      |   | 900 021                         |
| Sealing plug size 16<br><i>Obtuteur taille 16</i>                                      |  | 900 020                         |

## Dummy receptacle, panel gasket, plastic dust cap

*Embase de repos, joint de panneau, bouchon de protection plastique*

| Shell size<br><i>Taille du boîtier</i> | Dummy receptacle<br><i>Embase de repos</i>                                          | Panel gasket for square flange receptacle (thickness: 0.6 mm)<br><i>Joint de panneau pour embase carrée (ép: 0,6mm)</i> | Plastic dust cap for plug<br><i>Bouchon de protection plastique pour fiche</i>        | Plastic dust cap for receptacle<br><i>Bouchon de protection plastique pour embase</i> |
|----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                        |  |                                      |  |  |
| 8                                      | FE 08                                                                               | JE 08                                                                                                                   | 805 412                                                                               | 805 411                                                                               |
| 10                                     | FE 10                                                                               | JE 10                                                                                                                   | 805 413                                                                               | 805 412                                                                               |
| 12                                     | FE 12                                                                               | JE 12                                                                                                                   | 606 064                                                                               | 805 413                                                                               |
| 14                                     | FE 14                                                                               | JE 14                                                                                                                   | 606 073                                                                               | 805 414                                                                               |
| 16                                     | FE 16                                                                               | JE 16                                                                                                                   | 606 066                                                                               | 805 415                                                                               |
| 18                                     | FE 18                                                                               | JE 18                                                                                                                   | 606 067                                                                               | 805 416                                                                               |
| 20                                     | FE 20                                                                               | JE 20                                                                                                                   | 606 068                                                                               | 805 417                                                                               |
| 22                                     | FE 22                                                                               | JE 22                                                                                                                   | 606 069                                                                               | 805 418                                                                               |
| 24                                     | FE 24                                                                               | JE 24                                                                                                                   | 606 079                                                                               | 606 069                                                                               |

## Heatshrink moulded piece for rear accessory

### Manchon thermorétractable pour raccord arrière

Heatshrink moulded pieces compatible with following rear accessories: **SQ, J** (backshell delivered with the connector) / **PTSA** (backshell delivered separately):

Pièces moulées thermorétractables compatibles avec les accessoires arrières suivants : **SQ, J** (raccord livré avec le connecteur) / **PTSA** (raccord livré séparément) :

| Shell size<br>Taille du boîtier   | 8      | 10     | 12     | 14     | 16     | 18     | 20     | 22     | 24     |                                                                                     |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------------------------------------------------------------------------------|
| Straight piece<br>Pièce droite    | 804221 | 804222 | 804223 | 804223 | 804225 | 804225 | 804227 | 804227 | 804229 |  |
| Right angle piece<br>Pièce coudée | 804231 | 804232 | 804233 | 804233 | 804235 | 804235 | 804237 | 804237 | 804239 |  |

Heatshrink moulded pieces compatible with **PT06G** and **PT08G** connectors:

Pièces moulées thermorétractables compatibles avec les connecteurs **PT06G** et **PT08G** :

| Shell size<br>Taille du boîtier   | 8      | 10     | 12     | 14     | 16     | 18     | 20     | 22     |                                                                                      |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------------------------------------------------------------------------|
| Straight piece<br>Pièce droite    | 804201 | 804202 | 804203 | 804203 | 804205 | 804206 | 804206 | 804206 |   |
| Right angle piece<br>Pièce coudée | -      | 804213 | 804213 | 804214 | 804214 | 804216 | 804216 | 804218 |  |

Note: Heatshrink moulded pieces are not pre-glued.

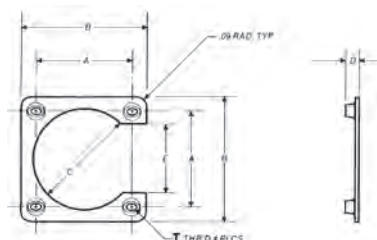
Note : Les pièces moulées thermorétractables ne sont pas pré-encollées.

## Nut ring for square flange receptacle

### Contre plaque pour embase à collerette carrée

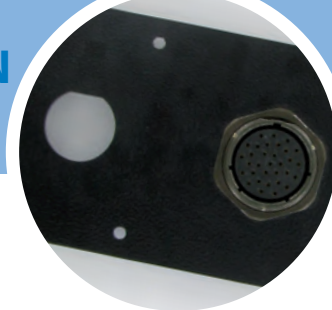
Makes panel fixing of square flange receptacle easier by eliminating loose nuts and washers, specially recommended when installation process occurs in reduced volume (compatible with 00 and 02 shell types).

Facilite la fixation de l'embase à collerette carrée sur le panneau en éliminant l'utilisation des écrous et rondelles; particulièrement recommandé pour une installation dans un volume réduit (compatible avec les types de boîtiers 00 et 02).

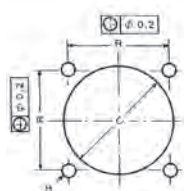


| Shell size<br>Taille du boîtier | P/N<br>Référence | T thread<br>Filetage T<br>UNJC-3B | A<br>±0.02 | B<br>±0.40 | C<br>+0.40/-0 | D         | E<br>±0.60 |
|---------------------------------|------------------|-----------------------------------|------------|------------|---------------|-----------|------------|
| 8                               | FSU-8            | 4.40                              | 15.09      | 22.35      | 14.07         | 2.69/4.22 | 7.82       |
| 10                              | FSU-10           | 4.40                              | 18.26      | 25.88      | 17.48         | 2.69/4.22 | 11.00      |
| 12                              | FSU-12           | 4.40                              | 20.62      | 27.89      | 21.03         | 2.69/4.22 | 13.36      |
| 14                              | FSU-14           | 4.40                              | 23.01      | 30.28      | 24.21         | 2.69/4.22 | 15.75      |
| 16                              | FSU-16           | 4.40                              | 24.61      | 31.88      | 27.79         | 2.69/4.22 | 17.35      |
| 18                              | FSU-18           | 4.40                              | 26.97      | 34.24      | 30.10         | 2.69/4.22 | 19.71      |
| 20                              | FSU-20           | 4.40                              | 29.36      | 38.10      | 33.15         | 2.69/4.22 | 21.97      |
| 22                              | FSU-22           | 4.40                              | 31.75      | 40.46      | 36.27         | 2.69/4.22 | 23.04      |
| 24                              | FSU-24           | 6.32                              | 34.93      | 44.45      | 39.62         | 3.12/4.65 | 25.40      |

all dimensions are in mm

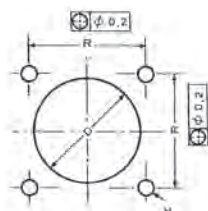


### Panel drilling / Perçage de panneau



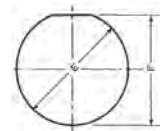
00 Shell type:  
rear or front panel mounting

Type de boîtier 00 : montage par l'arrière ou l'avant du panneau.



02 Shell type:  
front panel mounting

Type de boîtier 02 :  
montage par l'avant du panneau.



07 Shell type:  
rear panel mounting

Type de boîtier 07 :  
montage par l'arrière du panneau.

02 Shell type:  
rear panel mounting.

Type de boîtier 02 : montage par l'arrière du panneau.

| Shell size<br>Taille du boîtier | C min. | D<br>+0<br>-0.3 | E<br>+0.3<br>-0 | F<br>+0<br>-0.3 | H   | R     |
|---------------------------------|--------|-----------------|-----------------|-----------------|-----|-------|
| 8                               | 14.3   | 13.0            | 14.5            | 13.8            | 3.5 | 15.10 |
| 10                              | 17.3   | 16.2            | 17.7            | 17.0            | 3.5 | 18.26 |
| 12                              | 21.8   | 19.4            | 22.5            | 21.1            | 3.5 | 20.62 |
| 14                              | 25.0   | 22.5            | 25.6            | 24.3            | 3.5 | 23.01 |
| 16                              | 28.1   | 25.7            | 28.8            | 27.5            | 3.5 | 24.61 |
| 18                              | 31.3   | 28.9            | 32.0            | 30.7            | 3.5 | 26.97 |
| 20                              | 34.5   | 32.1            | 35.2            | 33.9            | 3.5 | 29.36 |
| 22                              | 37.7   | 35.2            | 38.3            | 37.1            | 3.5 | 31.75 |
| 24                              | 40.9   | 38.4            | 41.5            | 40.0            | 4.0 | 34.92 |

### Panel thickness / Épaisseur de panneau

| Shell size<br>Taille du boîtier | Square flange receptacle (02)<br>(Rear panel mounting)<br>Embase à collerette carrée (02)<br>(Montage par l'arrière) | Jam nut receptacle (07)<br>Embase à fixation par écrou (07) |      |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------|
|                                 |                                                                                                                      | min.                                                        | max. |
| 8                               | 2.5 (max.)                                                                                                           | 1.6                                                         | 3.2  |
| 10                              | 2.5 (max.)                                                                                                           | 1.6                                                         | 3.2  |
| 12                              | 2.5 (max.)                                                                                                           | 1.6                                                         | 3.2  |
| 14                              | 2.5 (max.)                                                                                                           | 1.6                                                         | 3.2  |
| 16                              | 2.5 (max.)                                                                                                           | 1.6                                                         | 3.2  |
| 18                              | 2.5 (max.)                                                                                                           | 1.6                                                         | 3.2  |
| 20                              | 5.6 (max.)                                                                                                           | 1.6                                                         | 6.4  |
| 22                              | 5.6 (max.)                                                                                                           | 1.6                                                         | 6.4  |
| 24                              | 5.6 (max.)                                                                                                           | 1.6                                                         | 6.4  |

### Coupling torque value / Couple de serrage

| Shell size<br>Taille du boîtier | Torque value max.<br>Couple max.<br>(N.m) | Shell size<br>Taille du boîtier | Torque value<br>Couple<br>(N.m) | Tolerance<br>Tolérance<br>(N.m) |
|---------------------------------|-------------------------------------------|---------------------------------|---------------------------------|---------------------------------|
| 8                               | 2.5                                       | 8                               | 4                               | ± 0.5                           |
| 10                              | 4                                         | 10                              | 6                               | ± 0.5                           |
| 12                              | 5                                         | 12                              | 8                               | ± 1                             |
| 14                              | 7                                         | 14                              | 10                              | ± 1                             |
| 16                              | 9                                         | 16                              | 10                              | ± 1                             |
| 18                              | 10                                        | 18                              | 13                              | ± 1                             |
| 20                              | 11                                        | 20                              | 13                              | ± 1                             |
| 22                              | 12                                        | 22                              | 13                              | ± 1                             |
| 24                              | 13                                        | 24                              | 13                              | ± 1                             |

Central jam nut of PT07  
Ecrou central PT07

Backshell  
Raccord arrière

all dimensions are in mm

Printed circuit drillings / *Perçage des circuits imprimés*

On the following drilling layouts the contact identification is viewed mating side of the male connector or cabling side of the female connector. The drillings are symmetrical about the vertical axis of the figure.

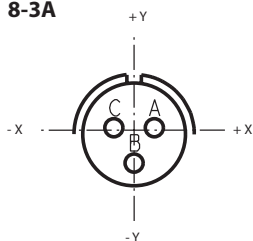
The tolerance of the hole positions is 0.1 mm of the theoretical position.

Hole size : - 1 mm (size 20)  
- 1.3 mm (size 16)

Sur les plans de perçage suivants, le repérage des contacts est vu côté enfichage du connecteur mâle ou côté câblage du connecteur femelle. Les perçages sont symétriques par rapport à l'axe vertical de la figure. La tolérance de positionnement des trous est à 0,1 mm de la position théorique.

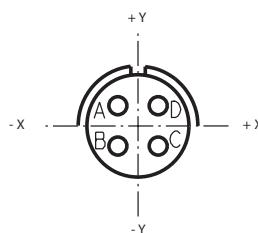
Diamètre des trous de perçage : - 1 mm (taille 20)  
- 1,3 mm (taille 16)

8-3A



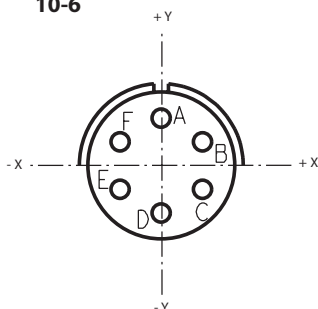
| Contact | x (mm) | y (mm) |
|---------|--------|--------|
| A       | + 1,65 | + 0,97 |
| B       | 0      | - 1,91 |
| C       | - 1,65 | + 0,97 |

8-4



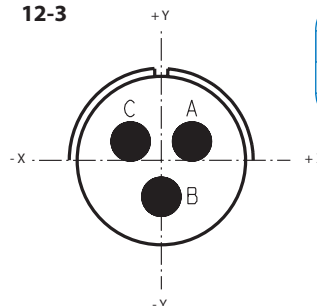
| Contact | x (mm) | y (mm) |
|---------|--------|--------|
| A       | - 1,42 | + 1,42 |
| B       | - 1,42 | - 1,42 |
| C       | + 1,42 | - 1,42 |
| D       | + 1,42 | + 1,42 |

10-6



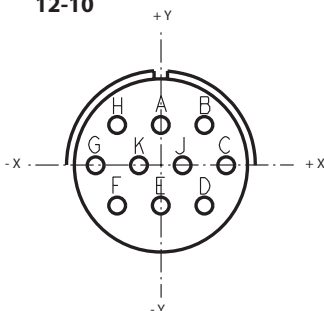
| Contact | x (mm) | y (mm) |
|---------|--------|--------|
| A       | 0      | + 3,30 |
| B       | + 2,87 | + 1,65 |
| C       | + 2,87 | - 1,65 |
| D       | 0      | - 3,30 |
| E       | - 2,87 | - 1,65 |
| F       | - 2,87 | + 1,65 |

12-3



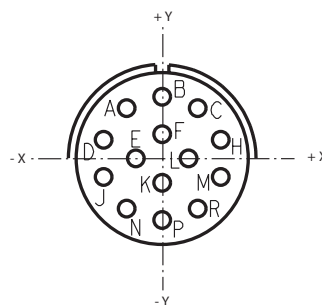
| Contact | x (mm) | y (mm) |
|---------|--------|--------|
| A       | + 2,39 | + 1,47 |
| B       | 0      | - 2,82 |
| C       | - 2,39 | + 1,47 |

12-10



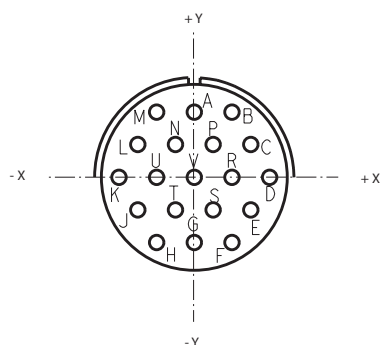
| Contact | x (mm) | y (mm) |
|---------|--------|--------|
| A       | 0      | + 3,05 |
| B       | + 3,30 | + 3,05 |
| C       | + 4,95 | 0      |
| D       | + 3,30 | - 3,05 |
| E       | 0      | - 3,05 |
| F       | - 3,30 | - 3,05 |
| G       | - 4,95 | 0      |
| H       | - 3,30 | + 3,05 |
| J       | + 1,65 | 0      |
| K       | - 1,65 | 0      |

12-14



| Contact | x (mm) | y (mm) |
|---------|--------|--------|
| A       | - 2,72 | + 3,84 |
| B       | 0      | + 4,70 |
| C       | + 2,72 | + 3,84 |
| D       | - 4,47 | + 1,42 |
| E       | - 2,01 | 0      |
| F       | 0      | + 1,85 |
| H       | + 4,47 | + 1,42 |
| J       | - 4,47 | - 1,42 |
| K       | 0      | - 1,85 |
| L       | + 2,01 | 0      |
| M       | + 4,47 | - 1,42 |
| N       | - 2,72 | - 3,84 |
| P       | 0      | - 4,70 |
| R       | + 2,72 | - 3,84 |

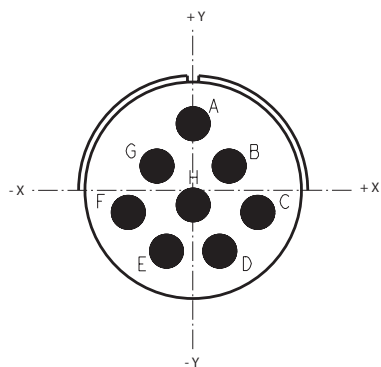
14-19



| Contact | x (mm) | y (mm) |
|---------|--------|--------|
| A       | 0      | + 5,72 |
| B       | + 3,30 | + 5,72 |
| C       | + 4,95 | + 2,87 |
| D       | + 6,60 | 0      |
| E       | + 4,95 | - 2,87 |
| F       | + 3,30 | - 5,72 |
| G       | 0      | - 5,72 |
| H       | - 3,30 | - 5,72 |
| J       | - 4,95 | - 2,87 |

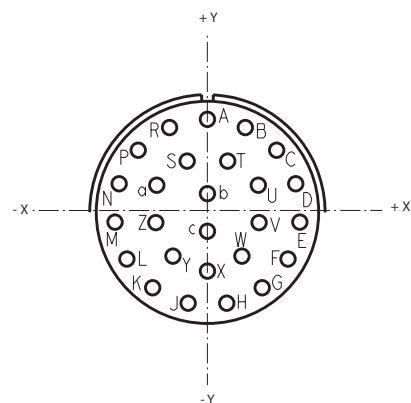
|   |        |        |
|---|--------|--------|
| K | - 6,60 | 0      |
| L | - 4,95 | + 2,87 |
| M | - 3,30 | + 5,72 |
| N | - 1,65 | + 2,87 |
| P | + 1,65 | + 2,87 |
| R | + 3,30 | 0      |
| S | + 1,65 | - 2,87 |
| T | - 1,65 | - 2,87 |
| U | - 3,30 | 0      |
| V | 0      | 0      |

16-8



| Contact | x (mm) | y (mm) |
|---------|--------|--------|
| A       | 0      | + 5,99 |
| B       | + 3,25 | + 2,18 |
| C       | + 5,84 | - 1,98 |
| D       | + 2,39 | - 5,49 |
| E       | - 2,39 | - 5,49 |
| F       | - 5,84 | - 1,98 |
| G       | - 3,25 | + 2,18 |
| H       | 0      | - 1,32 |

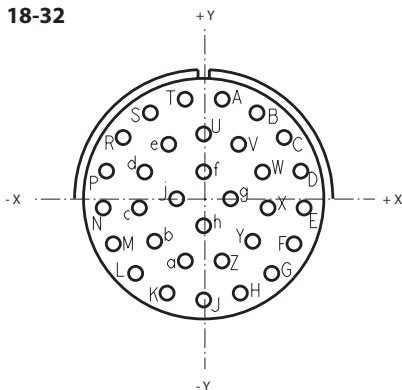
16-26



| Contact | x (mm) | y (mm) |
|---------|--------|--------|
| A       | 0      | + 8,15 |
| B       | + 3,33 | + 7,44 |
| C       | + 6,07 | + 5,44 |
| D       | + 7,75 | + 2,51 |
| E       | + 8,10 | - 0,86 |
| F       | + 7,06 | - 4,09 |
| G       | + 4,8  | - 6,6  |
| H       | + 1,7  | - 7,98 |
| J       | - 1,7  | - 7,98 |
| K       | - 4,8  | - 6,6  |
| L       | - 7,06 | - 4,09 |
| M       | - 8,10 | - 0,86 |
| N       | - 7,75 | + 2,51 |

|   |        |        |
|---|--------|--------|
| P | - 6,07 | + 5,44 |
| R | - 3,33 | + 7,44 |
| S | - 1,78 | + 4,5  |
| T | + 1,78 | + 4,5  |
| U | + 4,45 | + 2,39 |
| V | + 4,52 | - 0,91 |
| W | + 3,02 | - 3,84 |
| X | 0      | - 5,16 |
| Y | - 3,02 | - 3,84 |
| Z | - 4,52 | - 0,91 |
| a | - 4,45 | + 2,39 |
| b | 0      | + 1,65 |
| c | 0      | - 1,65 |

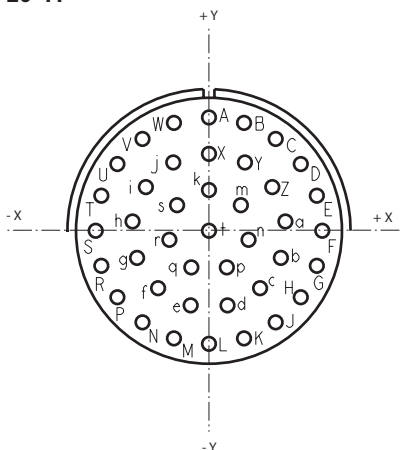
18-32



| Contact | x (mm) | y (mm) |
|---------|--------|--------|
| A       | + 1,68 | + 8,97 |
| B       | + 4,80 | + 7,75 |
| C       | + 7,26 | + 5,51 |
| D       | + 8,76 | + 2,49 |
| E       | + 9,07 | - 0,84 |
| F       | + 8,15 | - 4,06 |
| G       | + 6,15 | - 6,73 |
| H       | + 3,30 | - 8,51 |
| J       | 0      | - 9,12 |
| K       | - 3,30 | - 8,51 |
| L       | - 6,15 | - 6,73 |
| M       | - 8,15 | - 4,06 |
| N       | - 9,07 | - 0,84 |
| P       | - 8,76 | + 2,49 |
| R       | - 7,26 | + 5,51 |
| S       | - 4,80 | + 7,75 |

|   |        |        |
|---|--------|--------|
| T | - 1,68 | + 8,97 |
| U | 0      | + 5,84 |
| V | + 3,15 | + 4,90 |
| W | + 5,31 | + 2,41 |
| X | + 5,79 | - 0,84 |
| Y | + 4,42 | - 3,84 |
| Z | + 1,65 | - 5,61 |
| a | - 1,65 | - 5,61 |
| b | - 4,42 | - 3,84 |
| c | - 5,79 | - 0,84 |
| d | - 5,31 | + 2,41 |
| e | - 3,15 | + 4,90 |
| f | 0      | + 2,44 |
| g | + 2,44 | 0      |
| h | 0      | - 2,44 |
| j | - 2,44 | 0      |

20-41

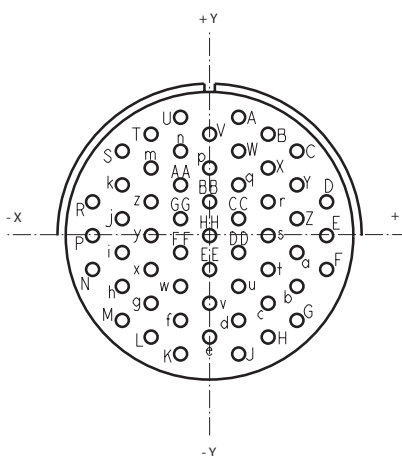


| Contact | x (mm)  | y (mm)  |
|---------|---------|---------|
| A       | 0       | + 10,6  |
| B       | + 3,28  | + 10,09 |
| C       | + 6,23  | + 8,58  |
| D       | + 8,58  | + 6,23  |
| E       | + 10,09 | + 3,28  |
| F       | + 10,6  | 0       |
| G       | + 10,09 | - 3,28  |
| H       | + 8,58  | - 6,23  |
| J       | + 6,23  | - 8,58  |
| K       | + 3,28  | - 10,09 |
| L       | 0       | - 10,6  |
| M       | - 3,28  | - 10,09 |
| N       | - 6,23  | - 8,58  |
| P       | - 8,58  | - 6,23  |

|   |         |         |
|---|---------|---------|
| R | - 10,09 | - 3,28  |
| S | - 10,6  | 0       |
| T | - 10,09 | + 3,28  |
| U | - 8,58  | + 6,23  |
| V | - 6,23  | + 8,58  |
| W | - 3,28  | + 10,09 |
| X | 0       | + 7,20  |
| Y | + 3,35  | + 6,38  |
| Z | + 5,92  | + 4,09  |
| a | + 7,15  | + 0,87  |
| b | + 6,73  | - 2,55  |
| c | + 4,78  | - 5,39  |
| d | + 1,73  | - 6,99  |
| e | - 1,73  | - 6,99  |

|   |        |        |
|---|--------|--------|
| f | - 4,78 | - 5,39 |
| g | - 6,73 | - 2,55 |
| h | - 7,15 | + 0,87 |
| i | - 5,92 | + 4,09 |
| j | - 3,35 | + 6,38 |
| k | 0      | + 3,81 |
| m | + 2,98 | + 2,38 |
| n | + 3,71 | - 0,85 |
| p | + 1,66 | - 3,43 |
| q | - 1,66 | - 3,43 |
| r | - 3,71 | - 0,85 |
| s | - 2,98 | + 2,38 |
| t | 0      | 0      |

22-55



| Contact | x (mm)  | y (mm)  |
|---------|---------|---------|
| A       | + 2,84  | + 11,56 |
| B       | + 5,72  | + 9,91  |
| C       | + 8,53  | + 8,26  |
| D       | + 11,43 | + 3,30  |
| E       | + 11,43 | 0       |
| F       | + 11,43 | - 3,30  |
| G       | + 8,53  | - 8,26  |
| H       | + 5,72  | - 9,91  |
| J       | + 2,84  | - 11,56 |
| K       | - 2,84  | - 11,56 |
| L       | - 5,72  | - 9,91  |
| M       | - 8,53  | - 8,26  |
| N       | - 11,43 | - 3,30  |
| P       | - 11,43 | 0       |
| R       | - 11,43 | + 3,30  |
| S       | - 8,53  | + 8,26  |
| T       | - 5,72  | + 9,91  |
| U       | - 2,84  | + 11,56 |

|   |        |        |
|---|--------|--------|
| V | 0      | + 9,91 |
| W | + 2,84 | + 8,26 |
| X | + 5,72 | + 6,60 |
| Y | + 8,53 | + 4,95 |
| Z | + 8,53 | + 1,65 |
| a | + 8,53 | - 1,65 |
| b | + 8,53 | - 4,95 |
| c | + 5,72 | - 6,60 |
| d | + 2,84 | - 8,26 |
| e | 0      | - 9,91 |
| f | - 2,84 | - 8,26 |
| g | - 5,72 | - 6,60 |
| h | - 8,53 | - 4,95 |
| i | - 8,53 | - 1,65 |
| j | - 8,53 | + 1,65 |
| k | - 8,53 | + 4,95 |
| m | - 5,72 | + 6,60 |
| n | - 2,84 | + 8,26 |
| p | 0      | + 6,60 |

|    |        |        |
|----|--------|--------|
| q  | + 2,84 | + 4,95 |
| r  | + 5,72 | + 3,30 |
| s  | + 5,72 | 0      |
| t  | + 5,72 | - 3,30 |
| u  | + 2,84 | - 4,95 |
| v  | 0      | - 6,60 |
| w  | - 2,84 | - 4,95 |
| x  | - 5,72 | - 3,30 |
| y  | - 5,72 | 0      |
| z  | - 5,72 | + 3,30 |
| AA | - 2,84 | + 4,95 |
| BB | 0      | + 3,30 |
| CC | + 2,84 | + 1,65 |
| DD | + 2,84 | - 1,65 |
| EE | 0      | - 3,30 |
| FF | - 2,84 | - 1,65 |
| GG | - 2,84 | + 1,65 |
| HH | 0      | 0      |



### Tools / Outils

| Designation<br>Désignation                                                                                                                            | Amphenol Socapex P/N<br>Référence Amphenol Socapex | Military P/N<br>Référence normalisée |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------|
| Crimping pliers<br><i>Pince à sertir</i>                                                                                                              | 809857                                             | M22520/1-01                          |
| Locator for pliers 809857<br><i>Positionneur pour pince 809857</i>                                                                                    | 809861                                             | M22520/1-02                          |
| Metal contact insertion tool for size 20 contact<br><i>Outil métallique d'insertion pour contact taille 20</i>                                        | 809709                                             | -                                    |
| Metal contact insertion tool for size 16 contact<br><i>Outil métallique d'insertion pour contact taille 16</i>                                        | 809743                                             | -                                    |
| Metal contact removal tool for size 20 contact (front release)<br><i>Outil d'extraction métallique pour contact taille 20 (démontage par l'avant)</i> | 809710                                             | -                                    |
| Metal contact removal tool for size 16 contact (front release)<br><i>Outil d'extraction métallique pour contact taille 16 (démontage par l'avant)</i> | 809711                                             | -                                    |
| Termination of size 20 contact removal tool (spare part)<br><i>Embout de l'outil d'extraction de contact taille 20 (pièce détachée)</i>               | 809753                                             | -                                    |
| Termination of size 16 contact removal tool (spare part)<br><i>Embout de l'outil d'extraction de contact taille 16 (pièce détachée)</i>               | 809773                                             | -                                    |



Crimping pliers  
*Pince à sertir*



Metal contact insertion tool  
*Outil d'insertion métallique*



Metal contact removal tool  
*Outil d'extraction métallique*

### Tools for rear accessory / Outils pour raccord arrière

| Designation<br>Désignation                                                                                                                                                                                             | Amphenol Socapex P/N<br>Référence Amphenol Socapex                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Tightening pliers for rear accessories<br><i>Pince de serrage pour raccord arrière</i>                                                                                                                                 | 809720  |
| Tightening support for plug rear accessories<br>(all sizes dummy receptacles on a chassis)<br><i>Support de serrage pour fiche avec raccord arrière<br/>(toutes les tailles d'embase de repos sur un même châssis)</i> | 809717  |



## Crimping procedure / *Procédure de sertissage*

Use crimping pliers **M22520/1-01** (Amphenol Socapex P/N: **809857**) and turret **M22520/1-02** (Amphenol Socapex P/N: **809861**). Select the suitable position for your contact by rotating the locator:

- Contact size 20: "red" position
- Contact size 16: "blue" position



*Utiliser la pince à sertir **M22520/1-01** (Ref. Amphenol Socapex : **809857**) et le positionneur **M22520/1-02** (Ref. Amphenol Socapex : **809861**). Placer le positionneur en fonction de la taille du contact utilisé :*

- Contact taille 20 : repère rouge
- Contact taille 16 : repère bleu

Strip the wires carefully to the appropriate length :

- Contact size 20: 5 mm
- Contact size 16: 6 mm

Insert the contact first into the crimp cavity of the tool and then insert the stripped wire into the crimp barrel of the contact. Squeeze the pliers firmly. The handle will not release until the contact is completely crimped.

Ensure that the wire has penetrated correctly by checking that it may be seen through the wire inspection hole of the contact.



*Dénuder les câbles avec précaution aux longueurs suivantes :*

- Contact taille 20 : 5 mm
- Contact taille 16 : 6 mm

*Insérer en premier le contact dans la cavité de sertissage de l'outil puis insérer le fil dénudé dans le fût de sertissage du contact. Serrez la pince fermement. La pince s'ouvrira d'elle-même dès que le contact sera complètement sertie. Faire un contrôle visuel par le trou d'inspection du contact pour s'assurer que le fil est correctement inséré.*



Use the suitable insertion tool according to the contact size :

- Contact size 20: **809709**
- Contact size 16: **809743**

Slide the tool over the wire side of the contact until the tool bottoms on the contact. Introduce contacts one by one into the rear of the connector pushing straight until the contact snaps into place and the clip ensures contact retention (begin with the center cavity and work outwards in a circular pattern). Every time, remove the tool carefully.

Fill any unused cavities with contacts unwired. A sealing plug can be inserted into the grommet behind the unused contacts to maintain the sealing integrity of the connector.



*Utiliser l'outil d'insertion correspondant à la taille du contact :*

- Contact taille 20 : **809709**
- Contact taille 16 : **809743**

*Glisser l'outil sur la partie cablée du contact, l'extrémité de l'outil prenant appui sur la jupe du contact.*

*Introduire les contacts un par un par l'arrière du connecteur et pousser régulièrement dans l'axe jusqu'à ce que le contact soit maintenu dans la plaquette de rétention (commencer par les cavités du centre et continuer l'opération circulairement). A chaque fois retirer l'outil avec précaution.*

*Afin de maintenir l'étanchéité du connecteur, insérer des contacts non cablés dans les cavités non utilisées puis insérer des obturateurs.*

Check visually the mating face of the connector to insure that all the contacts are on the same plane (fully inserted). Pull lightly on the wire to ensure that the contact is locked securely.



*Faire un contrôle visuel de la face avant du connecteur pour vérifier que tous les contacts sont bien sur un même plan (complètement insérés). Tirer légèrement sur les fils pour vérifier que les contacts sont correctement maintenus.*

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