

# Amphenol-Air LB

PT

VG95328  
AA95328



Kompakter und robuster Rundsteckverbinder  
mit Bajonett Verriegelung  
zur Signal- und Leistungsübertragung

Compact and rugged circular connector  
with bayonet locking  
for signal and power transmission



**WE CONNECT THE WORLD AND BEYOND**

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# Ordering example

PT G 06 SE 14-19 P W SQ XXX

## Series

PT – Pygmy Tri-Lock  
Circular connectors with  
three pin bayonet coupling

G – grounding ring (HF-sealed)  
Only with plug PTG 06 of  
service class SE.

## Design (see 10, 11)

00 – Wall mounting receptacle  
01 – Cable connecting plug  
02 – Box mounting receptacle  
06 – Straight plug  
07 – Receptacle for single hole mount-  
ing  
08 – Angle plug  
B – Thru-bulkhead receptacle  
I – Receptacle with solder flange

## Service class (See pages 15 and 40)

### Connectors with solder connection

A – Version without special requirements.  
C – Pressure-proof version.  
Only for receptacles.  
E – Moisture-proof version.  
Pressure-proof receptacles.  
P – Similar to service class »E«,  
yet for sealing wire bundles.  
W – Similar to service class »E«,  
yet for sealing jacketed  
multi-conductor cables.  
H – Hermetically sealed version.  
GS – Version with solder contacts  
for printed circuit boards.

### Receptacles with wire-wrap connections

WW– Pressure-proof version  
with wire-wraps

### Receptacles with crimp connections

SE – Moisture-proof version.  
SP – Similar to service class »E«,  
yet for sealing wire bundles.

## Surface treatment

- WITHOUT-cadmium and green  
chromate coating
- CD-free alternatives  
023 – nickel-plated  
024 – galvanized (ZnCo) green  
025 – galvanized (ZnCo) black  
029J\* – Zinc-Tin according to  
VG95328 Version J  
033K – Black Zinc Nickel
- Other surface treatments  
upon request.

## Backshells

(See pages 15 and 40)

For the following backshells,  
the abbreviated designation to-  
gether with service class must  
be indicated.

- F – Backshells for heat shrink  
parts (with anti-rotation  
mechanism)  
J – Backshell for heat shrink  
parts  
SQ – Backshell  
for shielding braids (HF-  
seal)  
SR – Cable clamp  
PG – Backshell with PG-thread  
PGV/ – Backshell with PG and  
PGS shield connection

## Polarization (coding system) (page 6)

Angle adjustment of the contact  
insert:

Normal position and angle settings  
W, X, Y, Z.

No specification for normal  
position required.

## Contact type

- P – Pin contact (Pin)  
S – Socket contact  
(socket)

## Contact arrangement (See 7–9)

The contact arrangement is  
shown in the appropriate contact  
arrangement image. It consists of  
a double designation (here, 14-19),  
in which the first of the two num-  
bers indicates the size of shell. The  
second number shows the number  
of contacts, with the exception of  
the contact arrangement image  
10-98.

\*Please note: Series PT08 & SR-backshells are not available in 029J version.

## AMPHENOL BEZEICHNUNG / DESIGNATION AA

|                                                                                     |                                                                                                                                                                                                                                                                                                                           | AA95328 | M | 14-19 | P | W | 1 |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---|-------|---|---|---|
| <b>Amphenol-Air LB Norm / Standard</b>                                              |                                                                                                                                                                                                                                                                                                                           |         |   |       |   |   |   |
| <b>AA95328</b> - Aluminiumlegierung kadmiert / Aluminium alloy with cadmium plating |                                                                                                                                                                                                                                                                                                                           |         |   |       |   |   |   |
| <b>Gehäuse Form / Shell style</b>                                                   |                                                                                                                                                                                                                                                                                                                           |         |   |       |   |   |   |
| <b>Steckdosen / Receptacles</b>                                                     |                                                                                                                                                                                                                                                                                                                           |         |   |       |   |   |   |
| <b>A</b>                                                                            | Flanschsteckdose für Vorder- und Hinterwandmontage mit Druckmutter /<br>Flange-receptacle for front- and rear panel mounting with back nut                                                                                                                                                                                |         |   |       |   |   |   |
| <b>B</b>                                                                            | Flanschsteckdose für Vorder- und Hinterwandmontage, mit Kabelschelle /<br>Flange-receptacle for front and rear panel mounting with cable-clamp                                                                                                                                                                            |         |   |       |   |   |   |
| <b>H</b>                                                                            | Flanschsteckdose für Hinterwandmontage, Lötkontakte /<br>Flange-receptacle for rear panel mounting, solder contacts                                                                                                                                                                                                       |         |   |       |   |   |   |
| <b>R</b>                                                                            | Flanschsteckdose für Vorder- und Hinterwandmontage, mit Endgehäuse für den Anschluss<br>eines Schirmgeflechts und für Formschrumpfteile / Flange-receptacle for front and rear panel<br>mounting with backshell for shield termination and for heat shrink tubes                                                          |         |   |       |   |   |   |
| <b>C</b>                                                                            | Geräte-Flanschsteckdose für Vorder- und Hinterwandmontage /<br>Box-flange-receptacle for front and rear panel mounting                                                                                                                                                                                                    |         |   |       |   |   |   |
| <b>CA</b>                                                                           | Geräte-Flanschsteckdose für Vorder- und Hinterwandmontage Leiterplattenkontakte<br>(montiert), Lötbereich vergoldet / Box-flange-receptacle for front and rear panel mounting,<br>PCB-contacts (installed), solder area gold plated                                                                                       |         |   |       |   |   |   |
| <b>D</b>                                                                            | Einloch-Steckdose für Hinterwandmontage mit Druckmutter /<br>Jam-nut receptacle for rear panel mounting with back nut                                                                                                                                                                                                     |         |   |       |   |   |   |
| <b>DA</b>                                                                           | Einloch-Steckdose für Hinterwandmontage Leiterplattenkontakte (montiert), Lötbereich<br>vergoldet / Jam-nut receptacle for rear panel mounting, PCB-contacts (installed),<br>solder area gold plated                                                                                                                      |         |   |       |   |   |   |
| <b>E</b>                                                                            | Einloch-Steckdose für Hinterwandmontage mit Kabelklemme /<br>Jam-nut receptacle for rear panel mounting with cable clamp                                                                                                                                                                                                  |         |   |       |   |   |   |
| <b>T</b>                                                                            | Einloch-Steckdose für Hinterwandmontage mit Endgehäuse für den Anschluss eines<br>Schirmgeflechts und für Formschrumpfteile / Jam-nut receptacle for rear panel mounting<br>with backshell for shield termination and for heat shrink tubes                                                                               |         |   |       |   |   |   |
| <b>P*</b>                                                                           | Schottdurchführung / Bulkhead Feedthrough                                                                                                                                                                                                                                                                                 |         |   |       |   |   |   |
| <b>Stecker / Plugs:</b>                                                             |                                                                                                                                                                                                                                                                                                                           |         |   |       |   |   |   |
| <b>J</b>                                                                            | Gerader Stecker mit Endgehäuse für Formschrumpfteile /<br>Straight plug with Backshell for heat shrink tubes                                                                                                                                                                                                              |         |   |       |   |   |   |
| <b>K</b>                                                                            | Gerader Stecker mit Kabelschelle / Straight plug with cable-clamp                                                                                                                                                                                                                                                         |         |   |       |   |   |   |
| <b>M</b>                                                                            | Gerader Stecker, 360° HF dicht. mit Endgehäuse für den Anschluss eines Schirmgeflechts<br>und für Formschrumpfteile / Straight plug with grounding fingers (360° RF shielded) with<br>backshell for shield termination and for heat shrink tubes                                                                          |         |   |       |   |   |   |
| <b>U</b>                                                                            | Gerader Stecker, 360° HF dicht, mit Verriegelungshebel, mit Endgehäuse für den Anschluss<br>eines Schirmgeflechts und für Formschrumpfteile / Straight plug, 360° RF- shielded, with<br>locking nose, backshell for shield termination and for heat shrink tubes<br>(nur für Gehäusegröße / only for shell size:12/14/16) |         |   |       |   |   |   |
| <b>W</b>                                                                            | Gerader Stecker, 360° HF dicht, mit Verriegelungshebel, mit Endgehäuse für<br>Formschrumpfteile / Straight plug, 360° RF- shielded, with locking nose, backshell for heat<br>shrink tubes (nur für Gehäusegröße / only for shell size:12/14/16)                                                                           |         |   |       |   |   |   |
| <b>Gehäusegröße &amp; Polbild / Shell size &amp; Contact arrangement</b>            |                                                                                                                                                                                                                                                                                                                           |         |   |       |   |   |   |
| Siehe Katalog / see catalogue                                                       |                                                                                                                                                                                                                                                                                                                           |         |   |       |   |   |   |
| <b>Kontaktart / Contact type</b>                                                    |                                                                                                                                                                                                                                                                                                                           |         |   |       |   |   |   |
| <b>S</b>                                                                            | Buchsenkontakt / Socket contact                                                                                                                                                                                                                                                                                           |         |   |       |   |   |   |
| <b>P</b>                                                                            | Stiftkontakt / Pin contact                                                                                                                                                                                                                                                                                                |         |   |       |   |   |   |
| <b>Winkelstellung / Angular Position</b>                                            |                                                                                                                                                                                                                                                                                                                           |         |   |       |   |   |   |
| <b>N</b>                                                                            | Normalstellung / Standard position                                                                                                                                                                                                                                                                                        |         |   |       |   |   |   |
| <b>W / X / Y / Z</b>                                                                |                                                                                                                                                                                                                                                                                                                           |         |   |       |   |   |   |
| <b>Lieferumfang / Scope of delivery</b>                                             |                                                                                                                                                                                                                                                                                                                           |         |   |       |   |   |   |
| <b>Ohne Angabe / omit</b> - Mit Kontakten / with contacts                           |                                                                                                                                                                                                                                                                                                                           |         |   |       |   |   |   |
| <b>1</b>                                                                            | Ohne Crimp-Kontakte / without contacts                                                                                                                                                                                                                                                                                    |         |   |       |   |   |   |

\* Auf Anfrage / on request

## VG BEZEICHNUNG / DESIGNATION

|                                                           | VG95328                                                                                                                                                                                                                                                              | M | 14-19 | P | W | 1 | J |
|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------|---|---|---|---|
| Norm / Standard                                           |                                                                                                                                                                                                                                                                      |   |       |   |   |   |   |
| VG95328                                                   |                                                                                                                                                                                                                                                                      |   |       |   |   |   |   |
| Gehäuse Form / Shell style                                |                                                                                                                                                                                                                                                                      |   |       |   |   |   |   |
| Steckdosen / Receptacles                                  |                                                                                                                                                                                                                                                                      |   |       |   |   |   |   |
| A                                                         | Flanschsteckdose für Vorder- und Hinterwandmontage mit Druckmutter / Flange-receptacle for front- and rear panel mounting with back nut                                                                                                                              |   |       |   |   |   |   |
| H                                                         | Flanschsteckdose für Hinterwandmontage, Lötkontakte / Flange-receptacle for rear panel mounting, solder contacts                                                                                                                                                     |   |       |   |   |   |   |
| R                                                         | Flanschsteckdose für Vorder- und Hinterwandmontage, mit Endgehäuse für den Anschluss eines Schirmgeflechts und für Formschrumpfteile / Flange-receptacle for front and rear panel mounting with backshell for shield termination and for heat shrink tubes           |   |       |   |   |   |   |
| C                                                         | Geräte-Flanschsteckdose für Vorder- und Hinterwandmontage / Box-flange-receptacle for front and rear panel mounting                                                                                                                                                  |   |       |   |   |   |   |
| CA                                                        | Geräte-Flanschsteckdose für Vorder- und Hinterwandmontage Leiterplattenkontakte (montiert), Lötbereich vergoldet / Box-flange-receptacle for front and rear panel mounting, PCB-contacts (installed), solder area gold plated                                        |   |       |   |   |   |   |
| D                                                         | Einloch-Steckdose für Hinterwandmontage mit Druckmutter / Jam-nut receptacle for rear panel mounting with back nut                                                                                                                                                   |   |       |   |   |   |   |
| DA                                                        | Einloch-Steckdose für Hinterwandmontage Leiterplattenkontakte (montiert), Lötbereich vergoldet / Jam-nut receptacle for rear panel mounting, PCB-contacts (installed), solder area gold plated                                                                       |   |       |   |   |   |   |
| T                                                         | Einloch-Steckdose für Hinterwandmontage mit Endgehäuse für den Anschluss eines Schirmgeflechts und für Formschrumpfteile / Jam-nut receptacle for rear panel mounting with backshell for shield termination and for heat shrink tubes                                |   |       |   |   |   |   |
| F                                                         | Einloch-Steckdose für Hinterwandmontage, hermetisch dicht, Löt-Stiftkontakte / Jam-nut receptacle for rear panel mounting, hermetically sealed, solder pin contacts                                                                                                  |   |       |   |   |   |   |
| G                                                         | Steckdose mit Lötflansch, hermetisch dicht, Löt-Stiftkontakte / Receptacle with solder flange, hermetically sealed, solder pin contacts                                                                                                                              |   |       |   |   |   |   |
| P*                                                        | Schottdurchführung / Bulkhead Feedthrough                                                                                                                                                                                                                            |   |       |   |   |   |   |
| Stecker / Plugs:                                          |                                                                                                                                                                                                                                                                      |   |       |   |   |   |   |
| J                                                         | Gerader Stecker mit Endgehäuse für Formschrumpfteile / Straight plug with Backshell for heat shrink tubes                                                                                                                                                            |   |       |   |   |   |   |
| M                                                         | Gerader Stecker, 360° HF dicht, mit Endgehäuse für den Anschluss eines Schirmgeflechts und für Formschrumpfteile / Straight plug with grounding fingers (360° RF shielded) with backshell for shield termination and for heat shrink tubes                           |   |       |   |   |   |   |
| U                                                         | Gerader Stecker, 360° HF dicht, mit Verriegelungshebel, mit Endgehäuse für den Anschluss eines Schirmgeflechts und für Formschrumpfteile / Straight plug, 360° RF-shielded, with locking nose, backshell for shield termination and for heat shrink tubes (12/14/16) |   |       |   |   |   |   |
| W                                                         | Gerader Stecker, 360° HF dicht, mit Verriegelungshebel, mit Endgehäuse für Formschrumpfteile / Straight plug, 360° RF- shielded, with locking nose, backshell for heat shrink tubes (12/14/16)                                                                       |   |       |   |   |   |   |
| Gehäusegröße & Polbild / Shell size & Contact arrangement |                                                                                                                                                                                                                                                                      |   |       |   |   |   |   |
| Siehe Katalog / see catalogue                             |                                                                                                                                                                                                                                                                      |   |       |   |   |   |   |
| Kontaktart / Contact type                                 |                                                                                                                                                                                                                                                                      |   |       |   |   |   |   |
| S                                                         | Buchsenkontakt / Socket contact                                                                                                                                                                                                                                      |   |       |   |   |   |   |
| P                                                         | Stiftkontakt / Pin contact                                                                                                                                                                                                                                           |   |       |   |   |   |   |
| Winkelstellung / Angular Position                         |                                                                                                                                                                                                                                                                      |   |       |   |   |   |   |
| N                                                         | Normalstellung / Standard position                                                                                                                                                                                                                                   |   |       |   |   |   |   |
| W / X / Y / Z                                             |                                                                                                                                                                                                                                                                      |   |       |   |   |   |   |
| Lieferumfang / Scope of delivery                          |                                                                                                                                                                                                                                                                      |   |       |   |   |   |   |
|                                                           | Ohne Angabe / omit - Mit Kontakten / with contacts                                                                                                                                                                                                                   |   |       |   |   |   |   |
| 1                                                         | Ohne Crimp-Kontakte / without contacts                                                                                                                                                                                                                               |   |       |   |   |   |   |
| Ausführung / Version                                      |                                                                                                                                                                                                                                                                      |   |       |   |   |   |   |
| J                                                         | Aluminiumlegierung, Oberfläche Zink-Zinn-beschichtet und/oder schwarz anodisiert / Aluminium alloy, surface zinc-tin coated and/or black anodized                                                                                                                    |   |       |   |   |   |   |
| B                                                         | Marine Bronze / Marine bronze                                                                                                                                                                                                                                        |   |       |   |   |   |   |
| S                                                         | Stahl / Steel (zwingend & nur für hermetisch dichte Dosen: / mandatory & only for hermetically sealed receptacles: F & G)                                                                                                                                            |   |       |   |   |   |   |

\* Auf Anfrage / on request

## KAPPEN / CAPS

|                                                                                     |                                                                                                                                                                                                | AA95328 | Z1 | 08 |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----|----|
| <b>Amphenol-Air LB Norm / Standard</b>                                              |                                                                                                                                                                                                |         |    |    |
| <b>AA95328</b> - Aluminiumlegierung kadmiert / Aluminium alloy with cadmium plating |                                                                                                                                                                                                |         |    |    |
| <b>Kappe Form / Cap style</b>                                                       |                                                                                                                                                                                                |         |    |    |
| <b>Z1A</b>                                                                          | Kappe für Flansch-Steckdose mit Kette / Cap for flange receptacle with chain                                                                                                                   |         |    |    |
| <b>Z1B</b>                                                                          | Kappe für Flansch-Steckdose mit Schnur / Cap for flange receptacle with chain mit Schnur                                                                                                       |         |    |    |
| <b>Z1C</b>                                                                          | Kappe für Flansch-Steckdose mit Schnur / Cap for flange receptacle with chain mit Schnur<br>(Hülse und Endglied werden lose mitgeliefert / Sleeve and terminal unit are delivered unassembled) |         |    |    |
| <b>Z2A</b>                                                                          | Kappe für Stecker mit Kette / Cap for plug with chain                                                                                                                                          |         |    |    |
| <b>Z2B</b>                                                                          | Kappe für Stecker mit Schnur / Cap for plug with chain mit Schnur                                                                                                                              |         |    |    |
| <b>Z2C</b>                                                                          | Kappe für Stecker mit Schnur / Cap for plug with chain mit Schnur<br>(Hülse und Endglied werden lose mitgeliefert / Sleeve and terminal unit are delivered unassembled)                        |         |    |    |
| <b>Z3C</b>                                                                          | Kappe für Einloch-Steckdose / Cap for jam nut receptacle<br>(Hülse und Endglied werden lose mitgeliefert / Sleeve and terminal unit are delivered unassembled)                                 |         |    |    |
| <b>Gehäusegröße / Shell size</b>                                                    |                                                                                                                                                                                                |         |    |    |
| Siehe Katalog / see catalogue                                                       |                                                                                                                                                                                                |         |    |    |

|                               |                                                                                                                                                                                                | VG95328 | Z1 | 08 | J |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----|----|---|
| Norm / Standard               |                                                                                                                                                                                                |         |    |    |   |
| VG95328                       |                                                                                                                                                                                                |         |    |    |   |
| Kappe Form / Cap style        |                                                                                                                                                                                                |         |    |    |   |
| Z1A                           | Kappe für Flansch-Steckdose mit Kette / Cap for flange receptacle with chain                                                                                                                   |         |    |    |   |
| Z1B                           | Kappe für Flansch-Steckdose mit Schnur / Cap for flange receptacle with chain mit Schnur                                                                                                       |         |    |    |   |
| Z1C                           | Kappe für Flansch-Steckdose mit Schnur / Cap for flange receptacle with chain mit Schnur<br>(Hülse und Endglied werden lose mitgeliefert / Sleeve and terminal unit are delivered unassembled) |         |    |    |   |
| Z2A                           | Kappe für Stecker mit Kette / Cap for plug with chain                                                                                                                                          |         |    |    |   |
| Z2B                           | Kappe für Stecker mit Schnur / Cap for plug with chain mit Schnur                                                                                                                              |         |    |    |   |
| Z2C                           | Kappe für Stecker mit Schnur / Cap for plug with chain mit Schnur<br>(Hülse und Endglied werden lose mitgeliefert / Sleeve and terminal unit are delivered unassembled)                        |         |    |    |   |
| Z3C                           | Kappe für Einloch-Steckdose / Cap for jam nut receptacle<br>(Hülse und Endglied werden lose mitgeliefert / Sleeve and terminal unit are delivered unassembled)                                 |         |    |    |   |
| Gehäusegröße / Shell size     |                                                                                                                                                                                                |         |    |    |   |
| Siehe Katalog / see catalogue |                                                                                                                                                                                                |         |    |    |   |
| Ausführung / Version          |                                                                                                                                                                                                |         |    |    |   |
| J                             | Aluminiumlegierung, Oberfläche Zink-Zinn-beschichtet /<br>Aluminium alloy, with zinc-tin plating                                                                                               |         |    |    |   |
| B                             | Marine Bronze / Marine bronze                                                                                                                                                                  |         |    |    |   |

## General information

The miniature circular connectors of the PT series shown in this catalog are in accordance with MIL-C-26482 series 1 and VG 95328. Amphenol-air LB received approval for military applications as per VG 95328 under authorization no. 14/86.

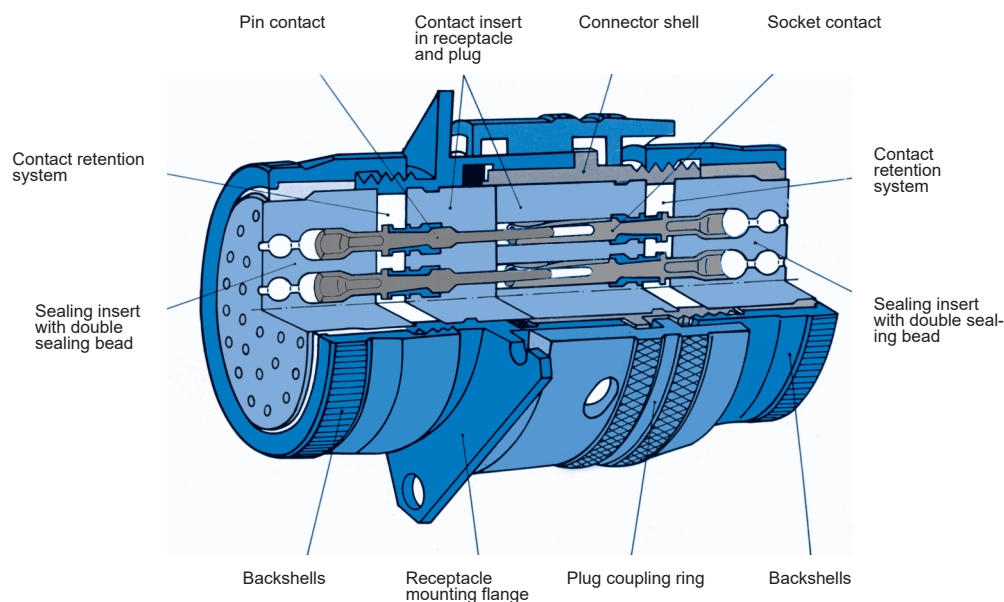
These connectors must not be connected or disconnected under voltage.

The PT series is mateable and interchangeable with connectors of the following standards:

MIL-C-83723, LN 29500, LN 29504  
NFL 54125, NAS 1599  
DEF 5325-3, DEF 5326-3  
IEC Publ. 130-7

These circular connectors with three pin bayonet couplings are available with solder, crimp, PCB, and wire-wrap connections, and in an HF-sealed version. All series have proven successful in the industrial sector and in particular for aerospace applications as well as for equipment in land vehicles and marine vessels.

Quick installation and a well stocked parts inventory mean that connectors can be supplied at short notice.



**Receptacle and plug with crimp contacts**

### Safety information

Our products are constantly being developed and improved. Therefore, we reserve the right to change designs for quality improvements, enhancements, or manufacturing needs. All technical specifications concern connectors, which is equipment that cannot be disconnected or separated under voltage.



|                                                |         |
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Receptacle



Plug

### PT Series

(solder connection)

The PT series includes plugs and receptacles with **non-removable**, gold plated contacts with solder connections, which are attached by adhesives in a neoprene insert.

The aluminum alloy connector has five guide grooves and lugs, and a three pin bayonet coupling. This creates an absolutely reliable coupling. The wide range of designs, shell sizes and contact arrangements allow a diverse range of applications for industrial and military use.

### PT-SE Series

(crimp connection)

The PT-SE series includes plugs and receptacles with **removable**, gold plated contacts with crimp connections, which are held in a contact retainer.

In addition to the proven features of the PT series connectors, PT-SE connectors have excellent properties required for equipment which must handle strong vibration levels, for example in aircraft and land vehicles.



Receptacle



Plug



Receptacle with PCB connection

### PT-GS Series

(PCB connection)

This series contains receptacles with **non-removable** contacts designed for soldering in rigid or flexible PCBs. All design features are identical to those of the PT series.



Receptacle with wire-wrap connection

### PT-WW Series

(wire-wrap connection)

This series contains receptacles with **non-removable** contacts designed for wire-wrap connections. All other design features are identical to those of the PT series. The cross-section of the wire-wrap pin is 0.6 x 0.6 mm and corresponds to the specifications in DIN 41611, Sheet 2.



### Other series

In addition to the main series PT and PT-SE, the following series available in the PYGMY connector family are not included in this catalog.  
For more information please send us your inquiry.

#### **PT Series** (bayonet coupling)

#### **SP Series** (bayonet coupling) for harsh environmental conditions

##### SP Series

Connectors with solder contacts. Differences to PT and PT-SE series: Larger mounting flange, hard anodized, non-conductive surface.

##### SP-SE Series

Connectors with removable crimp contacts and retention clip.

##### SP-CE Series

Connectors with removable crimp contacts and contact retainer.

#### **PC Series** (screw coupling)

##### SP Series

Connectors with solder contacts.

##### SP-SE Series

Connectors with removable crimp contacts and retention clip.

Connectors with removable crimp contacts and contact retainer.

##### PC Series (hermetic)

Connectors with pin contacts and solder connection in hermetically sealed contact inserts (glass fusion).

### Current load single contacts

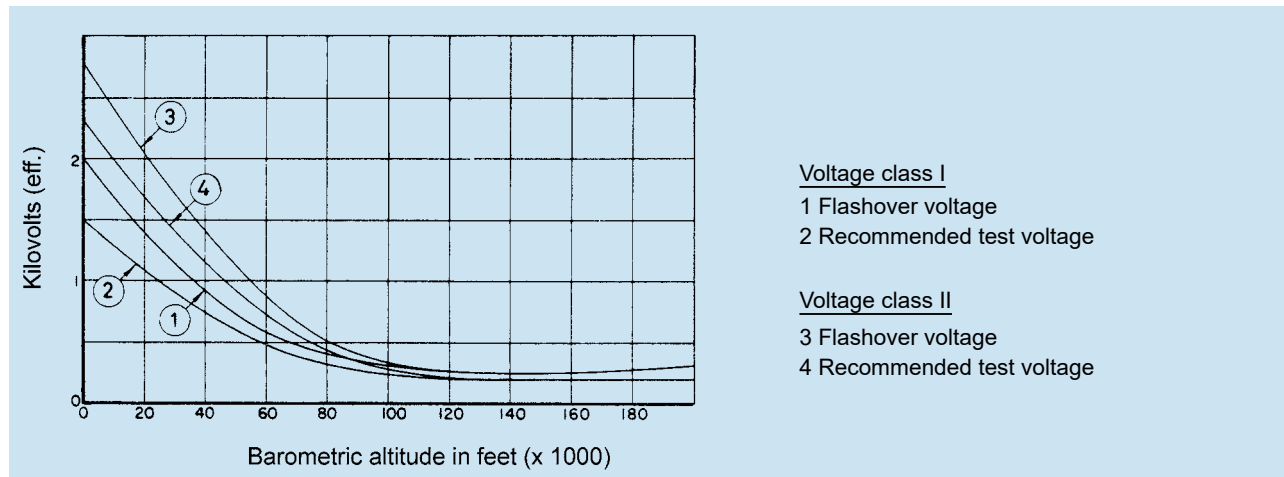
(when at room temperature and connected to cables with maximum cable cross-section)

| Contact size | Nominal current<br>A             |                             | Test Current<br>A                |                             | Voltage drop at test current<br>mV max. |                             |
|--------------|----------------------------------|-----------------------------|----------------------------------|-----------------------------|-----------------------------------------|-----------------------------|
|              | Solder contact/<br>Crimp contact | Solder contact<br>(hermet.) | Solder contact/<br>Crimp contact | Solder contact<br>(hermet.) | Solder contact/<br>Crimp contact        | Solder contact<br>(hermet.) |
| 20           | 7.5                              | 5.0                         | 7.5                              | 5.0                         | 55                                      | 70                          |
| 16           | 13.0                             | 10.0                        | 13.0                             | 10.0                        | 50                                      | 65                          |

### Operating voltage

| Voltage class<br>(see contact<br>arrangements<br>pages 8 and 9) | Recommended max. operating<br>voltage (at sea level) |                 | Test voltage<br>(at sea level)<br>AC voltage (eff.)<br>V |
|-----------------------------------------------------------------|------------------------------------------------------|-----------------|----------------------------------------------------------|
|                                                                 | AC voltage (eff.)<br>V                               | DC voltage<br>V |                                                          |
| I                                                               | 600                                                  | 850             | 1800                                                     |
| II                                                              | 900                                                  | 1250            | 2300                                                     |

### Flashover voltage over barometric altitude



### Operating temperature/insulation resistance

| Operating temperature                                                        | Insulation resistance                                                                   |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| -55° C to +125° C<br>(= ambient temperature +<br>overheating due to current) | $\geq$ 5000 Megohm at 25° C<br>$\geq$ 12 Megohm at 105° C<br>$\geq$ 10 Megohm at 125° C |

Current load, ambient and operating temperature as per MIL-C-26482 G § 1.3.1, Fig. 1 B and Table 3/II determine lifetime and areas of use for these connectors.

## Contact information

| Contact size | Dimensions of solder and crimp sleeves |             |                     |             |
|--------------|----------------------------------------|-------------|---------------------|-------------|
|              | Solder connection                      |             | Crimp contact       |             |
|              | Internal- Ø<br>mm                      | Depth<br>mm | Internal- Ø<br>mm   | Depth<br>mm |
| 20           | + 0.10<br>1.17<br>0                    | 3.6 ± 0.4   | + 0.05<br>1.22<br>0 | 7.2 ± 0.4   |
| 16           | + 0.08<br>2.00<br>- 0.07               | 5.2 ± 0.4   | + 0.05<br>1.68<br>0 | 6.35 ± 0.5  |

## Connection data

| Contact size | Wire size<br>AWG | Conductor cross-section<br>(mm² copper cross-section)       | Insulation<br>outer diameter |         | Strip length crimp<br>contacts<br>mm |
|--------------|------------------|-------------------------------------------------------------|------------------------------|---------|--------------------------------------|
|              |                  |                                                             | mm min. *                    | mm max. |                                      |
| 20           | 24<br>22<br>20   | $\triangleq$ 0.24<br>$\triangleq$ 0.38<br>$\triangleq$ 0.62 | 1.27                         | 2.29    | 5 ± 0.5                              |
| 16           | 20<br>18<br>16   | $\triangleq$ 0.62<br>$\triangleq$ 0.96<br>$\triangleq$ 1.23 | 1.35                         | 2.62    | + 0.5<br>7<br>- 1.0                  |

\*) The minimum insulation diameter is necessary to ensure sufficient moisture protection.

## Coupling torque

| Shell size | Torque<br>max. |
|------------|----------------|
| 8          | 0.93           |
| 10         | 1.40           |
| 12         | 1.85           |
| 14         | 2.31           |
| 16         | 2.77           |
| 18         | 3.23           |
| 20         | 3.70           |
| 22         | 4.15           |
| 24         | 5.07           |

## Contact holding force

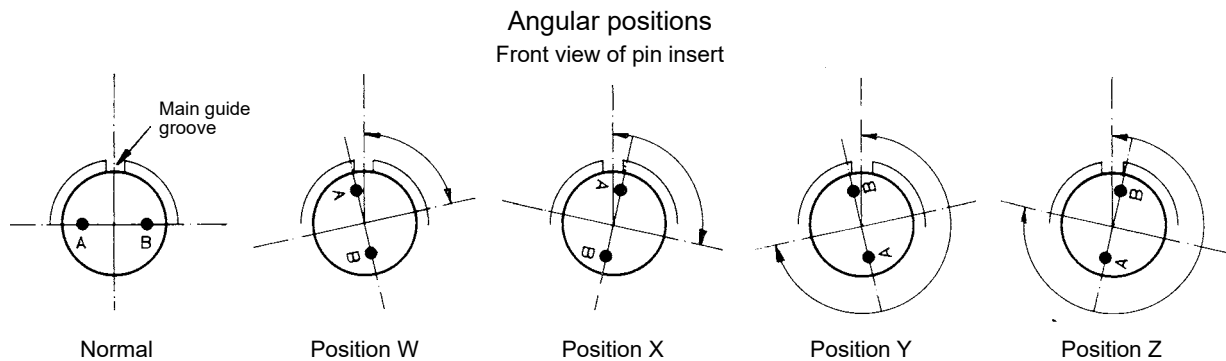
| Contact size | Load in the axial direction<br>N min. |
|--------------|---------------------------------------|
| 20           | 68                                    |
| 16           | 113                                   |

## Recommended tightening torque

| Mounting nut of PT 07 |                    | Backshell  |              |
|-----------------------|--------------------|------------|--------------|
| Shell size            | Torque<br>Nm + 0.5 | Shell size | Torque<br>Nm |
| 8                     | 3.6                | 8          | 4 + 0.5      |
| 10                    | 4.1                | 10         | 6 + 0.5      |
| 12                    | 5.2                | 12         | 8 ± 1.0      |
| 14                    | 6.2                | 14         | 10 ± 1.0     |
| 16                    | 7.3                | 16         | 10 ± 1.0     |
| 18                    | 9.0                | 18         | 13 ± 1.0     |
| 20                    | 10.0               | 20         | 13 ± 1.0     |
| 22                    | 12.4               | 22         | 13 ± 1.0     |
| 24                    | 13.5               | 24         | 13 ± 1.0     |

## Polarization (coding system)

All connectors have five guide lugs and grooves. If polarization of connectors with the same size and same number of contacts is necessary, this is achieved with different angular positions (W to Z) of the contact insert in relation to the main guide groove.



| Shell size | Contact arrangement | Angle adjustment in degrees |     |     |     |
|------------|---------------------|-----------------------------|-----|-----|-----|
|            |                     | W                           | X   | Y   | Z   |
| 8          | 8-2                 | 58                          | 122 | —   | —   |
| 8          | 8-3                 | 60                          | 210 | —   | —   |
| 8          | 8-3A*               | 60                          | 210 | —   | —   |
| 8          | 8-33                | 90                          | —   | —   | —   |
| 8          | 8-4                 | 45                          | —   | —   | —   |
| 10         | 10-6                | 90                          | —   | —   | —   |
| 10         | 10-7                | —                           | —   | —   | —   |
| 10         | 10-98               | 90                          | 180 | 24  | 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 |
| 16         | 16-23               | 158                         | 270 | —   | —   |
| 16         | 16-26               | 60                          | —   | 275 | 338 |

| Shell size | Contact arrangement | Angle adjustment in degrees |     |     |     |
|------------|---------------------|-----------------------------|-----|-----|-----|
|            |                     | W                           | X   | Y   | Z   |
| 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                          | 160 | 270 | 324 |

\*) These contact arrangements are currently not available for hermetically sealed connectors.

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## OVERVIEW

| Total number of contacts | Contact arrangement | Contact number for each contact size |    | Contact arrangement |                            |                  |                |                      | Contact arrangement as per MII and VG |                  |           |
|--------------------------|---------------------|--------------------------------------|----|---------------------|----------------------------|------------------|----------------|----------------------|---------------------------------------|------------------|-----------|
|                          |                     | 20                                   | 16 | Solder connection   | Solder connection hermetic | Crimp connection | PCB connection | Wire-wrap connection | MIL-C-26482                           |                  | VG 95328* |
|                          |                     |                                      |    |                     |                            |                  |                |                      | Solder connection                     | Crimp connection |           |
| 2                        | 8-2                 | 2                                    | 3  | ●                   | ●                          |                  | ●              | ●                    | ●                                     |                  |           |
| 3                        | 8-3                 | 3                                    |    | ●                   | ●                          | ●                | ●              | ●                    | ●                                     |                  | ●         |
| 3                        | 8-3A                | 3                                    |    | ●                   |                            | ●                | ●              | ●                    |                                       |                  | ●         |
| 3                        | 12-3                |                                      |    | ●                   | ●                          | ●                |                |                      | ●                                     | ●                | ●         |
| 3                        | 8-33                | 3                                    |    | ●                   | ●                          | ●                | ●              | ●                    | ●                                     | ●                |           |
| 4                        | 8-4                 | 4                                    | 5  | ●                   | ●                          |                  | ●              | ●                    | ●                                     |                  |           |
| 5                        | 14-5                |                                      |    | ●                   | ●                          | ●                |                |                      | ●                                     | ●                | ●         |
| 6                        | 10-6                | 6                                    |    | ●                   | ●                          | ●                | ●              | ●                    | ●                                     | ●                | ●         |
| 6                        | 10-98               | 6                                    |    | ●                   | ●                          |                  | ●              | ●                    |                                       |                  |           |
| 7                        | 10-7                | 7                                    |    | ●                   |                            |                  | ●              | ●                    |                                       |                  |           |
| 8                        | 12-8                | 8                                    | 8  | ●                   | ●                          | ●                | ●              | ●                    |                                       |                  |           |
| 8                        | 16-8                |                                      |    | ●                   | ●                          | ●                |                |                      | ●                                     | ●                | ●         |
| 10                       | 12-10               | 10                                   |    | ●                   | ●                          | ●                | ●              | ●                    | ●                                     | ●                | ●         |
| 11                       | 18-11               |                                      |    | ●                   | ●                          | ●                |                |                      | ●                                     | ●                | ●         |
| 12                       | 14-12               | 8                                    | 4  | ●                   | ●                          | ●                |                |                      | ●                                     | ●                | ●         |
| 14                       | 12-14               | 14                                   | 16 | ●                   |                            |                  | ●              | ●                    |                                       |                  |           |
| 15                       | 14-15               | 14                                   |    | ●                   | ●                          | ●                |                |                      | ●                                     | ●                | ●         |
| 16                       | 20-16               |                                      |    | ●                   | ●                          | ●                |                |                      | ●                                     | ●                | ●         |
| 18                       | 14-18               | 18                                   |    | ●                   | ●                          | ●                | ●              | ●                    |                                       |                  |           |
| 19                       | 14-19               | 19                                   | 21 | ●                   | ●                          | ●                | ●              | ●                    | ●                                     | ●                | ●         |
| 21                       | 22-21               |                                      |    | ●                   | ●                          | ●                |                | ●                    | ●                                     | ●                | ●         |
| 23                       | 16-23               | 22                                   |    | ●                   | ●                          | ●                |                | ●                    |                                       |                  | ●         |
| 24                       | 20-24               | 24                                   |    | ●                   |                            |                  | ●              | ●                    |                                       |                  |           |
| 25                       | 20-25               | 25                                   | 1  | ●                   |                            |                  | ●              | ●                    |                                       |                  |           |
| 26                       | 16-26               | 26                                   |    | ●                   | ●                          | ●                | ●              | ●                    | ●                                     | ●                | ●         |
| 27                       | 20-27               | 27                                   |    | ●                   |                            |                  | ●              | ●                    |                                       |                  |           |
| 30                       | 18-30               | 29                                   |    | ●                   | ●                          | ●                |                |                      |                                       |                  |           |
| 32                       | 18-32               | 32                                   |    | ●                   | ●                          | ●                | ●              | ●                    | ●                                     | ●                | ●         |
| 32                       | 22-32               | 32                                   |    | ●                   |                            | ●                | ●              | ●                    |                                       |                  |           |
| 34                       | 22-34               | 34                                   |    | ●                   |                            |                  | ●              | ●                    |                                       |                  |           |
| 36                       | 22-36               | 36                                   |    | ●                   |                            |                  | ●              | ●                    |                                       |                  |           |
| 39                       | 20-39               | 37                                   | 2  | ●                   | ●                          | ●                |                |                      | ●                                     | ●                | ●         |
| 41                       | 20-41               | 41                                   | 14 | ●                   | ●                          | ●                | ●              | ●                    | ●                                     | ●                | ●         |
| 41                       | 22-41               | 27                                   |    | ●                   |                            | ●                |                |                      | ●                                     | ●                |           |
| 55                       | 22-55               | 55                                   |    | ●                   | ●                          | ●                | ●              | ●                    | ●                                     | ●                | ●         |
| 61                       | 24-61               | 61                                   |    | ●                   | ●                          | ●                | ●              | ●                    | ●                                     | ●                | ●         |

Additional contact arrangements upon request. These include coaxial, high-voltage, and thermal contacts.

\* Also available with solder connection in style H.

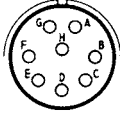
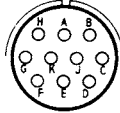
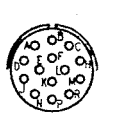
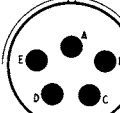
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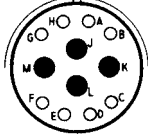
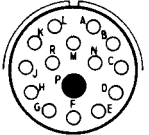
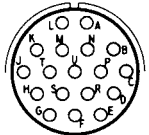
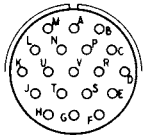
## Contact arrangements

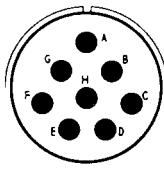
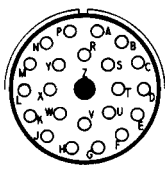
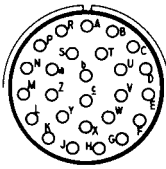
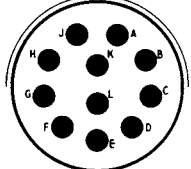
**Contact symbols:** ● 16 ○ 20

The following images show the front view of the pin insert and the back of the socket insert.

|                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Image (contact arrangement) |  |  |  |  |  |  |  |  |
| <b>Contact arrangement</b>  | <b>8-2*</b>                                                                       | <b>8-3*</b>                                                                       | <b>8-3A</b>                                                                       | <b>8-33</b>                                                                       | <b>8-4*</b>                                                                        | <b>10-6</b>                                                                         | <b>10-7*</b>                                                                        | <b>10-98*</b>                                                                       |
| Number of contacts          | 2                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 4                                                                                  | 6                                                                                   | 7                                                                                   | 6                                                                                   |
| Contact size                | 20                                                                                | 20                                                                                | 20                                                                                | 20                                                                                | 20                                                                                 | 20                                                                                  | 20                                                                                  | 20                                                                                  |
| Voltage class               | I                                                                                 | I                                                                                 | I                                                                                 | I                                                                                 | I                                                                                  | I                                                                                   | I                                                                                   | I                                                                                   |
| Hermetically sealed         | H                                                                                 | H                                                                                 | —                                                                                 | H                                                                                 | H                                                                                  | H                                                                                   | —                                                                                   | H                                                                                   |

|                             |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Image (contact arrangement) |  |  |  |  |  |
| <b>Contact arrangement</b>  | <b>12-3</b>                                                                       | <b>12-8</b>                                                                       | <b>12-10</b>                                                                       | <b>12-14</b>                                                                        | <b>14-5</b>                                                                         |
| Number of contacts          | 3                                                                                 | 8                                                                                 | 10                                                                                 | 14                                                                                  | 5                                                                                   |
| Contact size                | 16                                                                                | 20                                                                                | 20                                                                                 | 20                                                                                  | 16                                                                                  |
| Voltage class               | II                                                                                | I                                                                                 | I                                                                                  | I                                                                                   | II                                                                                  |
| Hermetically sealed         | H                                                                                 | H                                                                                 | H                                                                                  | —                                                                                   | H                                                                                   |

|                             |                                                                                     |                                                                                     |                                                                                       |                                                                                       |
|-----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Image (contact arrangement) |  |  |  |  |
| <b>Contact arrangement</b>  | <b>14-12</b>                                                                        | <b>14-15</b>                                                                        | <b>14-18</b>                                                                          | <b>14-19</b>                                                                          |
| Number of contacts          | 8 4                                                                                 | 14 1                                                                                | 18                                                                                    | 19                                                                                    |
| Contact size                | 20 16                                                                               | 20 16                                                                               | 20                                                                                    | 20                                                                                    |
| Voltage class               | I                                                                                   | I                                                                                   | I                                                                                     | I                                                                                     |
| Hermetically sealed         | H                                                                                   | H                                                                                   | H                                                                                     | H                                                                                     |

|                             |                                                                                     |                                                                                     |                                                                                       |                                                                                       |
|-----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Image (contact arrangement) |  |  |  |  |
| <b>Contact arrangement</b>  | <b>16-8</b>                                                                         | <b>16-23</b>                                                                        | <b>16-26</b>                                                                          | <b>18-11</b>                                                                          |
| Number of contacts          | 8                                                                                   | 22 1                                                                                | 26                                                                                    | 11                                                                                    |
| Contact size                | 16                                                                                  | 20 16                                                                               | 20                                                                                    | 16                                                                                    |
| Voltage class               | II                                                                                  | I                                                                                   | I                                                                                     | II                                                                                    |
| Hermetically sealed         | H                                                                                   | H                                                                                   | H                                                                                     | H                                                                                     |

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\*Only available in PT-A and PT-E

Additional contact arrangements upon request



**Contact symbols:** ● 16 ○ 20

The following images show the front view of the pin insert and the back of the socket insert.

|                             |              |              |              |
|-----------------------------|--------------|--------------|--------------|
| Image (contact arrangement) |              |              |              |
| <b>Contact arrangement</b>  | <b>18-30</b> | <b>18-32</b> | <b>20-16</b> |
| Number of contacts          | 29 1         | 32           | 16           |
| Contact size                | 20 16        | 20           | 16           |
| Voltage class               | I            | I            | II           |
| Hermetically sealed         | H            | H            | H            |

---

|                             |               |               |               |              |
|-----------------------------|---------------|---------------|---------------|--------------|
| Image (contact arrangement) |               |               |               |              |
| <b>Contact arrangement</b>  | <b>20-24*</b> | <b>20-25*</b> | <b>20-27*</b> | <b>20-39</b> |
| Number of contacts          | 24            | 25            | 27            | 37 2         |
| Contact size                | 20            | 20            | 20            | 20 16        |
| Voltage class               | I             | I             | I             | I            |
| Hermetically sealed         | —             | —             | —             | H            |

---

|                             |              |              |               |               |
|-----------------------------|--------------|--------------|---------------|---------------|
| Image (contact arrangement) |              |              |               |               |
| <b>Contact arrangement</b>  | <b>20-41</b> | <b>22-21</b> | <b>22-32*</b> | <b>22-34*</b> |
| Number of contacts          | 41           | 21           | 32            | 34            |
| Contact size                | 20           | 16           | 20            | 20            |
| Voltage class               | I            | II           | I             | I             |
| Hermetically sealed         | H            | H            | —             | —             |

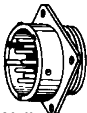
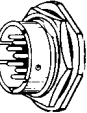
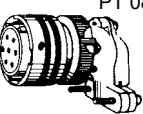
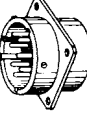
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|                             |               |              |              |              |
|-----------------------------|---------------|--------------|--------------|--------------|
| Image (contact arrangement) |               |              |              |              |
| <b>Contact arrangement</b>  | <b>22-36*</b> | <b>22-41</b> | <b>22-55</b> | <b>24-61</b> |
| Number of contacts          | 36            | 27 14        | 55           | 61           |
| Contact size                | 20            | 20 16        | 20           | 20           |
| Voltage class               | I             | I            | I            | I            |
| Hermetically sealed         | —             | —            | H            | H            |

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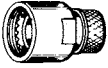
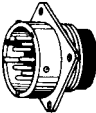
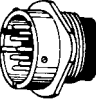
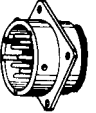
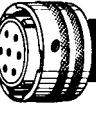
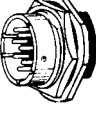
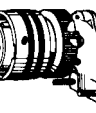
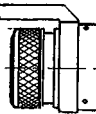
\*Only available in PT-A and PT-E

## PT Series (solder connection, see p. 14-29)

| Backshells<br>(See p. 15)                                                                                                           | Without backshell                               | Without special requirements                                                      | Without special requirements, with cable clamp                                    | For single wire seals                                                             | For single wire seals, with cable clamp                                           | For heat shrink parts                                                              | For sealing wire bundles                                                            | For sealing wire bundles, with cable clamp                                          | For sealing jacketed cables                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                                                                     |                                                 |  |  |  |  |  |  |  |  |
| Shell design                                                                                                                        |                                                 | A                                                                                 | A...SR                                                                            | E                                                                                 | E...SR                                                                            | E...J                                                                              | P                                                                                   | P...SR                                                                              | W                                                                                   |
|  PT 00<br>Wall mounting receptacle                 |                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|  PT 01<br>Cable connecting plug                    |                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|  PT 02<br>Box mounting receptacle                 | ●<br>PT 02 H (hermet.)<br>●<br>VG 95328 Style H |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
|  PT 06<br>Straight plug                          |                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|  PT 07<br>Receptacle for single hole mounting    | ●<br>PT 07 H (hermet.)<br>●<br>VG 95328 Style F |                                                                                   |                                                                                   | ● *                                                                               | ● *                                                                               |                                                                                    | ●                                                                                   | ● *                                                                                 |                                                                                     |
|  PT 08<br>Angle plug                             |                                                 | Backshells see p. 24                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
|  PTB<br>Thru-bulkhead receptacle                 | ●<br>VG 95328 Style P                           |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
|  PTIH (hermet.)<br>Receptacle with solder flange | ●<br>VG 95328 Style G                           |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |

\*) These backshells for PT 07 have an external thread (see page 21)

## PT-SE Series (crimp connection, see p. 39-52)

| <div>Backshells<br/>(See p. 15)</div> <div>Shell design</div>                                                                      | Without backshell                                                                 | For single wire seals                                                             | For single wire seals, with cable clamp                                           | For heat shrink parts (twist-proof)                                                | For heat shrink parts                                                               | For shielding braids and heat shrink parts                                          | For sealing wire bundles                                                            | For sealing jacketed and shielded cables                                            |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                                                                    |  |  |  |  |  |  |  |  |
|                                                                                                                                    |                                                                                   | SE                                                                                | SE ... SR                                                                         | SE ... F                                                                           | SE ... J                                                                            | SE ... SQ                                                                           | SP                                                                                  | PG ...                                                                              |
|  PT 00<br>Wall mounting receptacle                |                                                                                   | ●<br>VG 95328 Style A                                                             | ●<br>VG 95328 Style B                                                             |                                                                                    | ●                                                                                   | ●<br>VG 95328 Style R                                                               | ●                                                                                   | ●                                                                                   |
|  PT 01<br>Cable connecting plug                   |                                                                                   | ●                                                                                 | ●                                                                                 |                                                                                    | ●                                                                                   | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|  PT 02<br>Box mounting receptacle                | ●<br>VG 95328 Style C                                                             |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|  PT 06<br>Straight plug                         |                                                                                   | ●                                                                                 | ●<br>VG 95328 Style K                                                             | ●                                                                                  | ●<br>VG 95328 Style J                                                               |                                                                                     | ●                                                                                   | ●                                                                                   |
|  PT 06*<br>Wall mounting receptacle (HF-sealed) |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | ●<br>VG 95328 Style M                                                               |                                                                                     | ●                                                                                   |
|  PT 07<br>Receptacle for single hole mounting   |                                                                                   | ● **<br>VG 95328 Style D                                                          | ● **<br>VG 95328 Style E                                                          |                                                                                    |                                                                                     | ● ***<br>VG 95328 Style T                                                           | ● **                                                                                | ● **                                                                                |
|  PT 08<br>Angle plug                            |                                                                                   | Backshells see p. 51                                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|                                                 | ●<br>VG 95328 Style U                                                             | Technical specifications see p. 50                                                |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

\*) The PTG plug (G = grounding fingers) is equipped with a grounding ring to ensure 360° HF-sealing and a low coupling resistance between plug and receptacle shell. The plug is only available with backshells SE... PGV, and SE ... SQ (see p. 49 and 50).

\*\*) These backshells for PT 07 have an external thread (see page 46).

\*\*\*) Backshells for PT 07 with internal threads as with VG 95328 Style M (see p 50).

**PT Series (solder connection)**

| Connectors                          | PT designation                                                                                             | MS designation<br>(MIL-C-26482)                                                           | VG designation<br>(VG 95328)              |
|-------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------|
| Wall mounting receptacle            | PT 00 A<br>PT 00 A SR<br>PT 00 C<br>PT 00 E<br>PT 00 E SR<br>PT 00 E J<br>PT 00 P<br>PT 00 P SR<br>PT 00 W | - - -<br>- - -<br>- - -<br>MS 3110 E<br>MS 3110 F<br>- - -<br>MS 3110 P<br>- - -<br>- - - | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- |
| Cable connecting plug               | PT 01 A<br>PT 01 A SR<br>PT 01 E<br>PT 01 E SR<br>PT 01 E J<br>PT 01 P<br>PT 01 P SR<br>PT 01 W            | - - -<br>- - -<br>MS 3111 E<br>MS 3111 F<br>- - -<br>MS 3111 P<br>- - -<br>- - -          | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-      |
| Box mounting receptacle             | PT 02 A<br>PT 02 C<br>PT 02 E<br>PT 02 H                                                                   | - - -<br>- - -<br>MS 3112 E<br>MS 3112 H                                                  | -<br>Style H<br>-<br>-                    |
| Straight plug                       | PT 06 A<br>PT 06 A SR<br>PT 06 E<br>PT 06 E SR<br>PT 06 E J<br>PT 06 P<br>PT 06 P SR<br>PT 06 W            | - - -<br>- - -<br>MS 3116 E<br>MS 3116 F<br>- - -<br>MS 3116 P<br>- - -<br>- - -          | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-      |
| Receptacle for single hole mounting | PT 07 A<br>PT 07 C<br>PT 07 E<br>PT 07 E SR<br>PT 07 P<br>PT 07 P SR<br>PT 07 H                            | - - -<br>- - -<br>MS 3114 E<br>MS 3114 F<br>MS 3114 P<br>- - -<br>MS 3114 H               | -<br>-<br>-<br>-<br>-<br>-<br>Style F     |
| Angle plug                          | PT 08 E<br>PT 08 P                                                                                         | - - -<br>- - -                                                                            | -<br>-                                    |
| Thru-bulkhead receptacle            | PTB                                                                                                        | MS 3119                                                                                   | Style P                                   |
| Receptacle with solder flange       | PTIH                                                                                                       | MS 3113 H                                                                                 | Style G                                   |

Cross-reference example with the contact arrangement of 18 - 32 and pin contacts P

PT 02 E 18-32 P = MS 3112 E 18-32 P = VG 95328 H 18-32 P

**PT-SE Series (crimp connection)**

| Connectors                          | PT designation                                                                  | MS designation<br>(MIL-C-26482)                                | VG designation<br>(VH 95328)                 |
|-------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------|
| Wall mounting receptacle            | PT 00 SE<br>PT 00 SE SR<br>PT 00 SE J<br>PT 00 SP<br>PT 00 SE PG<br>PT 00 SE SQ | MS 3120 E<br>MS 3120 F<br>- - -<br>MS 3120 P<br>- - -<br>- - - | Style A<br>Style B<br>-<br>-<br>-<br>Style R |
| Cable connecting plug               | PT 01 SE<br>PT 01 SE SR<br>PT 01 SE J<br>PT 01 SP<br>PT 01 SE PG                | MS 3121 E<br>MS 3121 F<br>- - -<br>MS 3121 P<br>- - -          | -<br>-<br>-<br>-<br>-                        |
| Box mounting receptacle             | PT 02 SE                                                                        | MS 3122 E                                                      | Style C                                      |
| Straight plug                       | PT 06 SE<br>PT 06 SE SR<br>PT 06 SE F<br>PT 06 SE J<br>PT 06 SP<br>PT 06 SE PG  | MS 3126 E<br>MS 3126 F<br>- - -<br>- - -<br>MS 3126 P<br>- - - | -<br>Style K<br>-<br>Style J<br>-<br>-       |
| Straight plug (HF-sealed)           | PTU 06 SE SQ<br>PTG 06 SE N<br>PTG 06 SE SQ<br>PTG 06 SE PG                     | - - -<br>- - -<br>- - -<br>- - -                               | Style U<br>-<br>Style M<br>-                 |
| Receptacle for single hole mounting | PT 07 SE<br>PT 07 SE SR<br>PT 07 SE SQ<br>PT 07 SP<br>PT 07 SE PG               | MS 3124 E<br>MS 3124 F<br>- - -<br>MS 3124 P<br>- - -          | Style D<br>Style E<br>Style T<br>-<br>-      |
| Angle plug                          | PT 08 SE<br>PT 08 SP                                                            | - - -<br>- - -                                                 | -<br>-                                       |

**PT-GS and PT-WW Series (PCB and wire-wrap connection)**

| Connectors                          | PT designation       | MS designation<br>(MIL-C-26482) | VG designation<br>(VG 95328) |
|-------------------------------------|----------------------|---------------------------------|------------------------------|
| Box mounting receptacle             | PT 02 GS<br>PT 02 WW | - - -<br>- - -                  | -<br>-                       |
| Receptacle for single hole mounting | PT 07 GS<br>PT 07 WW | - - -<br>- - -                  | -<br>-                       |

Cross-reference example with the contact arrangement of 18 - 32 and socket contacts S

PT 02 SE 18-32 S = MS 3122 E 18-32 S = VG 95328 C 18-32 S

The PT series includes the following types of plugs and receptacles with non-removable solder contacts, which are attachable to and interchangeable with all the connectors of the MIL-C-26482, VG 95328, LN 29500, LN 29504, MIL-C-83723, NAS 1599, NFL 54125, DEF 5325-3/5326-3 and IEC publication 130-7 standards.

The connectors in this series, which can be delivered with different backshells depending on service class (see page 15), are specified in accordance with MIL-C-26482, Series 1 (see page 12).

## Design features

### Shell

- Aluminum alloy.
- Surface treatment: cadmium and green chromate coating; conductive = standard. Other surfaces: see p. 70
- Three pin bayonet coupling.
- 5 guide grooves and lugs for perfect coupling.
- Up to 5 angular positions ensure polarization of the contact insert and main guide groove.
- 8 shell designs (see p. 16 to 29).
- 9 shell sizes (size 8 to 24).
- Sealing elements on mating and termination face (excluding service class "A"). Protection class IEC 529: IP 67 depending on backshell.

### Contact insert

- Neoprene insert.
- Numerous contact arrangements with 2 to 61 contacts.
- Contact designation on mating and termination face.

### Solder contacts

- Pin and socket contacts made of high-quality copper alloy.
- Hard gold plated contact surface.
- Contact sizes AWG 16 and 20 (see page 5).
- Pin and socket contacts are non-removable.

Ordering information page 70



**PT 00**  
Wall mounting  
receptacle



**PT 01**  
Cable connecting  
plug



**PT 02**  
Box mounting  
receptacle



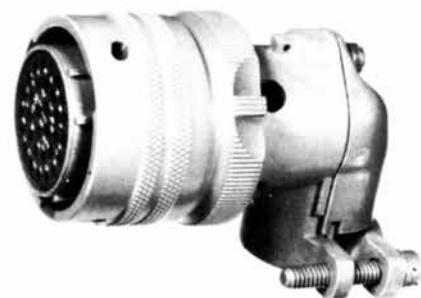
**PT 06**  
Straight plug



**PT 07**  
Receptacle for  
single hole mounting



**PTB**  
Thru-bulkhead  
receptacle



**PT 08**  
Angle plug

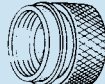
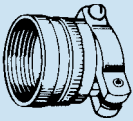
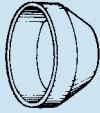
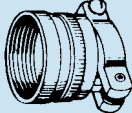
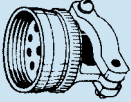
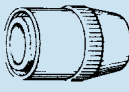
## Service classes and backshells

PT connectors are available in six service classes to meet different environmental requirements. There are one or two backshells for each service class, with the exception of "C" and "H".

### Service classes

| Service class | Characteristics                                                                                                                     | Service class | Characteristics                                                                                  |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------------------------------------------------------------------------|
| »A«           | Without special requirements                                                                                                        | »P«           | Similar to service class »E«, yet for sealing wire bundles.                                      |
| »C«           | Pressure-proof version. Only for receptacles. Air leakage % $4.55 \times 10^{-3} \text{ cm}^3/\text{s}$ at 1 bar positive pressure. | »W«           | Similar to service class »E«, yet for sealing jacketed multi-conductor cables.                   |
| »E«           | Moisture-proof version. Receptacle pressure-proof to 0.1 bar positive pressure. Single wire seal                                    | »H«           | Hermetically sealed version. Helium leakage % $1 \times 10^{-6} \text{ cm}^3/\text{s}$ at 1 bar. |

### Backshells

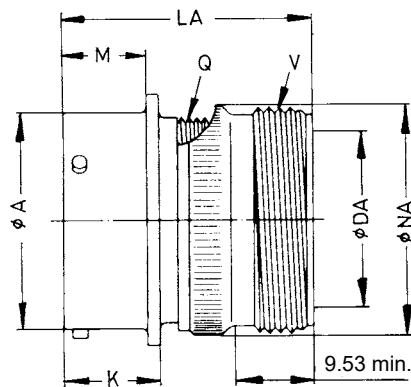
| Backshells                                                                                      | Characteristics                                                           | Backshells                                                                                      | Characteristics                                             |
|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| <br>A         | Backshell for applications without special requirements.                  | <br>E ... J   | Backshell for attaching heat shrink parts (see p. 60)       |
| <br>A ... SR | Backshell with cable clamp for applications without special requirements. | <br>P        | Nylon potting boot for sealing open wires.                  |
| <br>E        | Backshell with insert for single wire sealing.                            | <br>P ... SR | Backshell with cable clamp for sealing wire bundles.        |
| <br>E ... SR | Backshell with sealing insert and cable clamp for single wire sealing     | <br>W        | Neoprene gland for sealing jacketed multi-conductor cables. |

### Available connectors

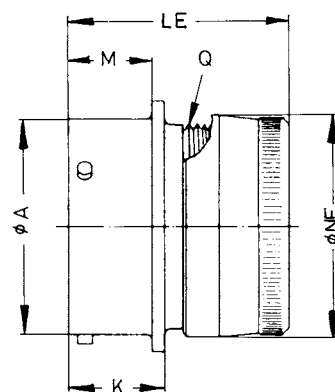
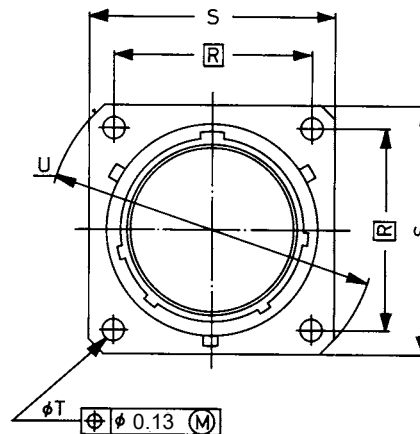
| Connector                           | Service class |         |         |         |         |         |
|-------------------------------------|---------------|---------|---------|---------|---------|---------|
|                                     | »A«           | »C«     | »E«     | »P«     | »W«     | »H«     |
| Wall mounting receptacle            | PT 00 A       | PT 00 C | PT 00 E | PT 00 P | PT 00 W | — — —   |
| Cable connecting plug               | PT 01 A       | — — —   | PT 01 E | PT 01 P | PT 01 W | — — —   |
| Box mounting receptacle*            | PT 02 A       | PT 02 C | PT 02 E | — — —   | PT 02 W | PT 02 H |
| Straight plug                       | PT 06 A       | — — —   | PT 06 E | PT 00 P | PT 06 W | — — —   |
| Receptacle for single hole mounting | PT 07 A       | PT 07 C | PT 07 E | PT 01 P | — — —   | PT 07 H |
| Angle plug                          | — — —         | — — —   | PT 08 E | PT 02 P | — — —   | — — —   |
| Thru-bulkhead receptacle            | — — —         | PTB     | — — —   | — — —   | — — —   | — — —   |
| Receptacle with solder flange       | — — —         | — — —   | — — —   | — — —   | — — —   | PTIH    |

\*) The PT 02 receptacle is available in the named service classes, but cannot be equipped with a backshell.

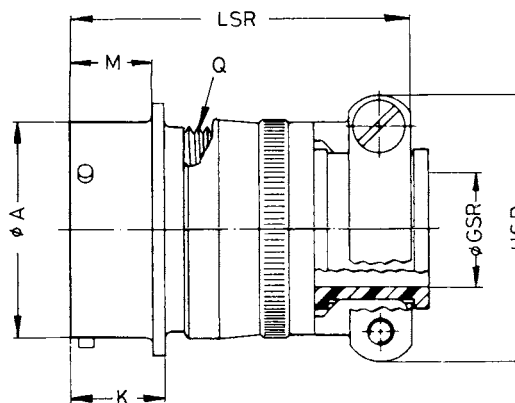
## Wall mounting receptacle PT 00 (MS 3110)



**PT 00 A**  
**PT 00 C**



**PT 00 E**  
(MS 3110 E)



**PT 01 A ... SR**  
**PT 01 E ... SR** (MS 3110 F)  
**PT 01 P ... SR**

Ordering example      PT 00 E 14-19 S W SR      see p. 70

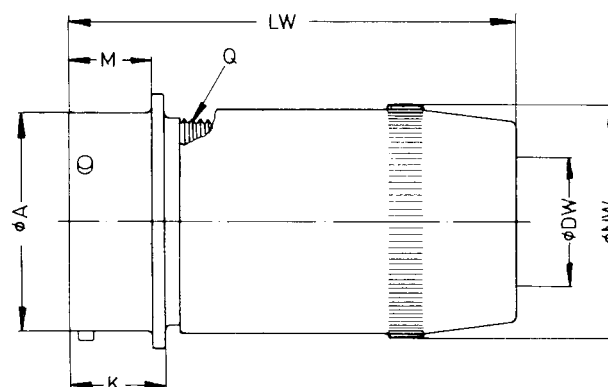
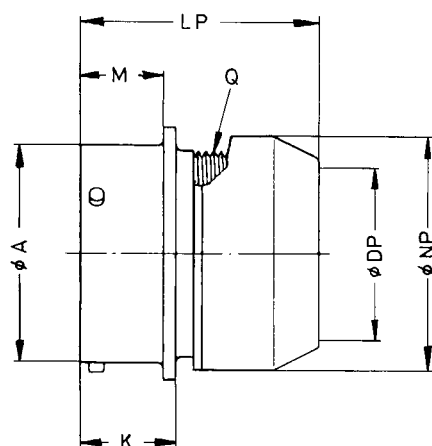
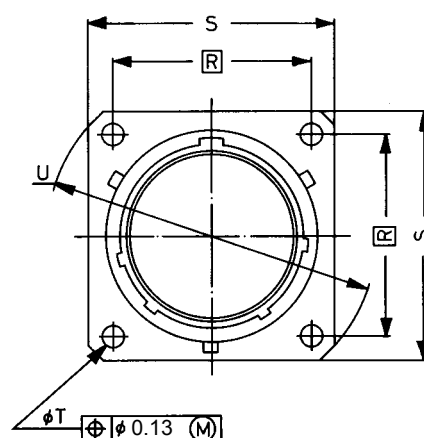
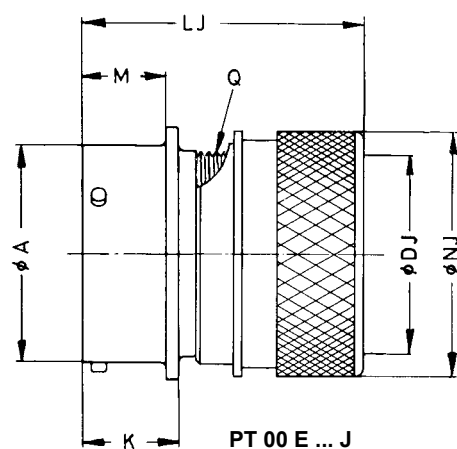
Dimensions in mm

| Shell size | Ø A            | Ø DA  | Ø GSR | HSR   | K              | LA   | LE    | LSR   | M          | Ø NA  | Ø NE  | Thread Q            | R                      | S     | Ø T   | U     | Thread V            |
|------------|----------------|-------|-------|-------|----------------|------|-------|-------|------------|-------|-------|---------------------|------------------------|-------|-------|-------|---------------------|
|            | +0.03<br>-0.13 | min.  | ±0.25 | max.  | +0.64<br>-0.25 | max. | max.  | max.  | +0.25<br>0 | max.  | max.  | Class 2 A<br>(inch) | Theoret.<br>dimensions | max.  | ±0.13 | ±0.41 | Class 2 A<br>(inch) |
| 8          | 12.01          | 7.54  | 3.18  | 21.02 | 12.52          | 39.5 | 32.70 | 48.82 | 10.95      | 14.99 | 14.22 | 0.4375-28 UNEF      | 15.09                  | 21.02 | 3.05  | 26.97 | 0.5000-28 UNEF      |
| 10         | 14.99          | 10.69 | 4.78  | 22.63 | 12.52          | 39.5 | 32.70 | 48.82 | 10.95      | 18.21 | 17.40 | 0.5625-24 NEF       | 18.26                  | 24.23 | 3.05  | 31.75 | 0.6250-24 NEF       |
| 12         | 19.05          | 13.87 | 7.92  | 25.81 | 12.52          | 39.5 | 32.70 | 48.82 | 10.95      | 21.18 | 20.65 | 0.6875-24 NEF       | 20.62                  | 26.59 | 3.05  | 34.93 | 0.7500-20 UNEF      |
| 14         | 22.23          | 16.84 | 9.53  | 28.98 | 12.52          | 39.5 | 32.70 | 48.82 | 10.95      | 24.64 | 23.62 | 0.8125-20 UNEF      | 23.01                  | 28.98 | 3.05  | 38.10 | 0.8750-20 UNEF      |
| 16         | 25.40          | 19.99 | 12.70 | 30.56 | 12.52          | 39.5 | 32.70 | 50.80 | 10.95      | 27.64 | 26.85 | 0.9375-20 UNEF      | 24.61                  | 31.34 | 3.05  | 41.28 | 1.0000-20 UNEF      |
| 18         | 28.58          | 22.33 | 15.88 | 37.31 | 12.52          | 39.5 | 32.70 | 50.80 | 10.95      | 30.89 | 29.85 | 1.0625-18 NEF       | 26.97                  | 33.73 | 3.05  | 44.45 | 1.1875-18 NEF       |
| 20         | 31.75          | 25.76 | 15.88 | 37.31 | 16.51          | 42.6 | 38.51 | 55.17 | 14.12      | 33.83 | 33.05 | 1.1875-18 NEF       | 29.36                  | 36.91 | 3.05  | 47.63 | 1.1875-18 NEF       |
| 22         | 34.93          | 28.80 | 19.05 | 42.06 | 16.51          | 42.6 | 38.51 | 55.17 | 14.12      | 37.08 | 36.32 | 1.3125-18 NEF       | 31.75                  | 40.08 | 3.05  | 50.80 | 1.4375-18 NEF       |
| 24         | 38.10          | 31.98 | 20.32 | 44.45 | 17.35          | 44.1 | 40.08 | 56.74 | 14.96      | 40.31 | 39.50 | 1.4375-18 NEF       | 34.93                  | 43.26 | 3.73  | 55.58 | 1.4375-18 NEF       |

Assembly instructions p. 60-68.



## Wall mounting receptacle PT 00 (MS 3110)



Ordering example

PT 00 P 14-19 P W

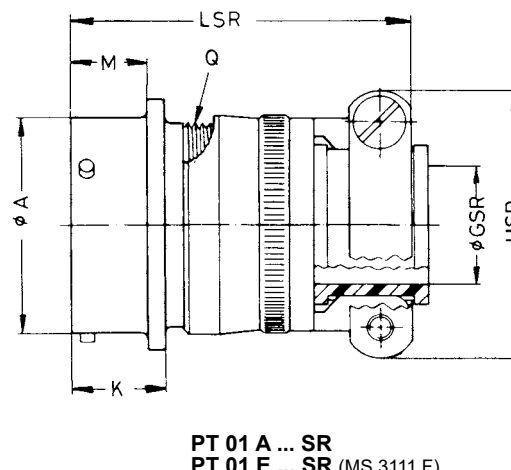
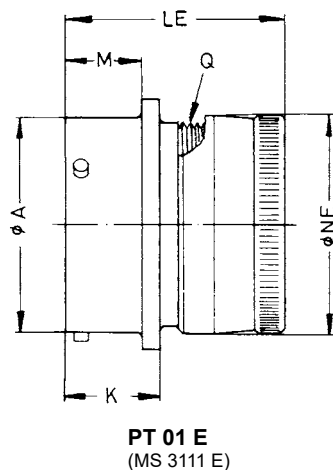
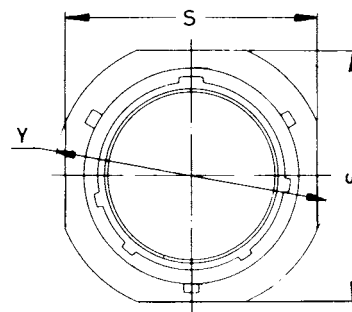
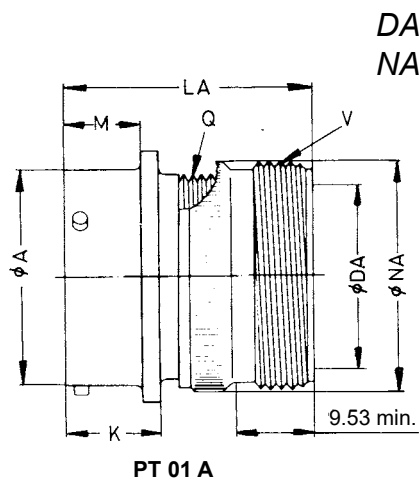
see p. 70

Dimensions in mm

| Shell size | Ø A            | Ø DJ | Ø DP  | Ø DW  |       | K              | LJ   | LP    | LW    | M          | Ø NJ  | Ø NP  | Ø NW  | Thread Q            | $\begin{matrix} \boxed{R} \\ \text{Theoret.} \\ \text{dimen-} \\ \text{sions} \end{matrix}$ | S     | Ø T   | U     |
|------------|----------------|------|-------|-------|-------|----------------|------|-------|-------|------------|-------|-------|-------|---------------------|---------------------------------------------------------------------------------------------|-------|-------|-------|
|            | +0.03<br>-0.13 | ±0.1 | min.  | min.  | max.  | +0.64<br>-0.25 | max. | max.  | max.  | +0.25<br>0 | max.  | max.  | max.  | Class 2 A<br>(inch) |                                                                                             | max.  | ±0.13 | ±0.41 |
| 8          | 12.01          | 6.7  | 8.05  | 4.27  | 5.84  | 12.52          | 37   | 36.53 | 43.31 | 10.95      | 14.22 | 15.44 | 15.09 | 0.4375-28 UNEF      | 15.09                                                                                       | 21.02 | 3.05  | 26.97 |
| 10         | 14.99          | 9.2  | 11.02 | 5.21  | 7.92  | 12.52          | 37   | 36.53 | 43.31 | 10.95      | 17.40 | 18.64 | 18.26 | 0.5625-24 NEF       | 18.26                                                                                       | 24.23 | 3.05  | 31.75 |
| 12         | 19.05          | 12.0 | 13.92 | 8.59  | 11.23 | 12.52          | 37   | 36.53 | 46.94 | 10.95      | 20.65 | 21.79 | 20.62 | 0.6875-24 NEF       | 20.62                                                                                       | 26.59 | 3.05  | 34.93 |
| 14         | 22.23          | 15.1 | 17.09 | 10.57 | 13.69 | 12.52          | 37   | 36.53 | 51.82 | 10.95      | 24.5  | 24.99 | 23.88 | 0.8125-20 UNEF      | 23.01                                                                                       | 28.98 | 3.05  | 38.10 |
| 16         | 25.40          | 18.3 | 20.27 | 13.97 | 15.65 | 12.52          | 40   | 36.53 | 57.30 | 10.95      | 29.8  | 28.19 | 27.10 | 0.9375-20 UNEF      | 24.61                                                                                       | 31.34 | 3.05  | 41.28 |
| 18         | 28.58          | 19.9 | 22.83 | 15.24 | 17.07 | 12.52          | 40   | 36.53 | 63.14 | 10.95      | 32.0  | 31.34 | 30.33 | 1.0625-18 NEF       | 26.97                                                                                       | 33.73 | 3.05  | 44.45 |
| 20         | 31.75          | 23.0 | 26.01 | 16.13 | 18.97 | 16.51          | 47.5 | 42.06 | 72.70 | 14.12      | 36.1  | 34.54 | 33.58 | 1.1875-18 NEF       | 29.36                                                                                       | 36.91 | 3.05  | 47.63 |
| 22         | 34.93          | 25.7 | 29.18 | 17.02 | 21.49 | 16.51          | 47.5 | 42.06 | 78.38 | 14.12      | 38.5  | 37.69 | 36.80 | 1.3125-18 NEF       | 31.75                                                                                       | 40.08 | 3.05  | 50.80 |
| 24         | 38.10          | 28.6 | 32.36 | 18.80 | 22.71 | 17.35          | 47.5 | 43.61 | 84.07 | 14.96      | 41.5  | 40.89 | 40.03 | 1.4375-18 NEF       | 34.93                                                                                       | 43.26 | 3.73  | 55.58 |

Assembly instructions p. 60-68.

## Cable connecting plug PT 01 (MS 3111)



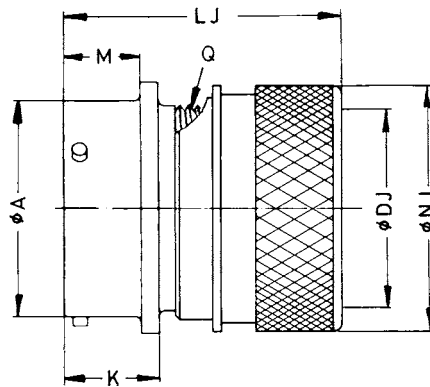
Ordering example PT 01 E 14-19 S W SR see p. 70

Dimensions in mm

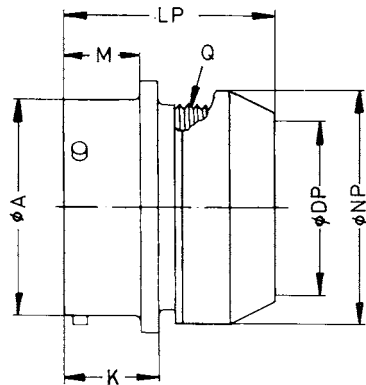
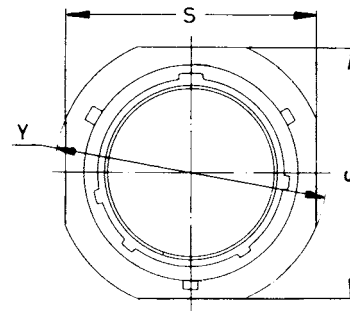
| Shell size | Ø A            | Ø DA  | Ø GSR | HSR   | K              | LA   | LE    | LSR   | M          | Ø NA  | Ø NE  | Thread Q            | S     | Thread V            | Y     |
|------------|----------------|-------|-------|-------|----------------|------|-------|-------|------------|-------|-------|---------------------|-------|---------------------|-------|
|            | +0.03<br>-0.13 | min.  | ±0.25 | max.  | +0.64<br>-0.25 | max. | max.  | max.  | +0.41<br>0 | max.  | max.  | Class 2 A<br>(inch) | max.  | Class 2 A<br>(inch) | ±0.51 |
| 8          | 12.01          | 7.54  | 3.18  | 21.02 | 12.55          | 39.5 | 32.70 | 48.82 | 10.16      | 14.99 | 14.22 | 0.4375-28 UNEF      | 21.02 | 0.5000-28 UNEF      | 23.83 |
| 10         | 14.99          | 10.69 | 4.78  | 22.63 | 12.55          | 39.5 | 32.70 | 48.82 | 10.16      | 18.21 | 17.40 | 0.5625-24 NEF       | 24.23 | 0.6250-24 NEF       | 26.97 |
| 12         | 19.05          | 13.87 | 7.92  | 25.81 | 12.55          | 39.5 | 32.70 | 48.82 | 10.16      | 21.18 | 20.65 | 0.6875-24 NEF       | 26.59 | 0.7500-20 UNEF      | 29.36 |
| 14         | 22.23          | 16.84 | 9.53  | 28.98 | 12.55          | 39.5 | 32.70 | 48.82 | 10.16      | 24.64 | 23.62 | 0.8125-20 UNEF      | 28.98 | 0.8750-20 UNEF      | 31.75 |
| 16         | 25.40          | 19.99 | 12.70 | 30.56 | 12.55          | 39.5 | 32.70 | 50.80 | 10.16      | 27.64 | 26.85 | 0.9375-20 UNEF      | 31.34 | 1.0000-20 UNEF      | 34.14 |
| 18         | 28.78          | 22.33 | 15.88 | 37.31 | 12.55          | 39.5 | 32.70 | 50.80 | 10.16      | 30.89 | 29.85 | 1.0625-18 NEF       | 33.73 | 1.1875-18 NEF       | 36.53 |
| 20         | 31.75          | 25.76 | 15.88 | 37.31 | 16.51          | 42.6 | 38.51 | 55.17 | 13.59      | 33.83 | 33.05 | 1.1875-18 NEF       | 36.91 | 1.1875-18 NEF       | 39.67 |
| 22         | 34.93          | 28.80 | 19.05 | 42.06 | 16.51          | 42.6 | 38.51 | 55.17 | 13.59      | 37.08 | 36.32 | 1.3125-18 NEF       | 40.08 | 1.4375-18 NEF       | 42.88 |
| 24         | 38.10          | 31.98 | 20.32 | 44.45 | 17.35          | 44.1 | 40.08 | 56.74 | 14.43      | 40.31 | 39.50 | 1.4375-18 NEF       | 43.26 | 1.4375-18 NEF       | 46.02 |

Assembly instructions p. 60-68.

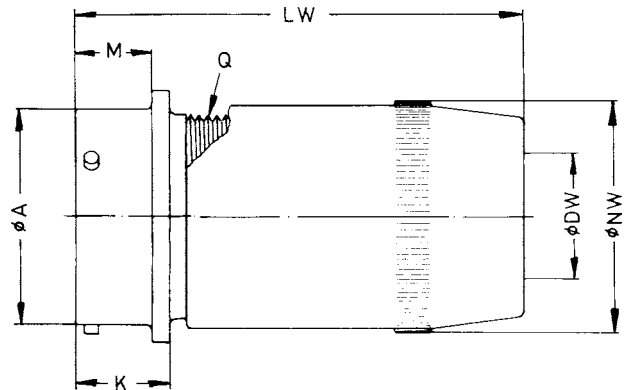
## Cable connecting plug PT 01 (MS 3111)



**PT 01 E ... J**



**PT 01 P (MS 3111 P)**



**PT 01 W**

Ordering example

PT 01 W 14-19 P X

see p. 70

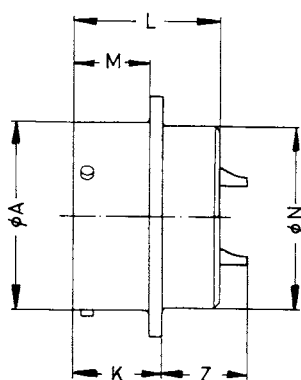
Dimensions in mm

| Shell size | Ø A            | Ø D J | Ø D P | Ø D W |       | K              | L J  | L P   | L W   | M          | Ø N J | Ø N P | Ø N W | Thread Q            | S     | Y     |
|------------|----------------|-------|-------|-------|-------|----------------|------|-------|-------|------------|-------|-------|-------|---------------------|-------|-------|
|            | +0.03<br>-0.13 | ±0.1  | min.  | min.  | max.  | +0.64<br>-0.25 | max. | max.  | max.  | +0.41<br>0 | max.  | max.  | max.  | Class 2 A<br>(inch) | max.  | ±0.51 |
| 8          | 12.01          | 6.7   | 8.05  | 4.27  | 5.84  | 12.52          | 37   | 36.53 | 43.31 | 10.16      | 15.60 | 15.44 | 13.89 | 0.4375-28 UNEF      | 21.02 | 23.83 |
| 10         | 14.99          | 9.2   | 11.02 | 5.21  | 7.92  | 12.52          | 37   | 36.53 | 43.31 | 10.16      | 18.40 | 18.64 | 17.15 | 0.5625-24 NEF       | 24.23 | 26.97 |
| 12         | 19.05          | 12.0  | 13.92 | 8.59  | 11.23 | 12.52          | 37   | 36.53 | 46.94 | 10.16      | 23.70 | 21.79 | 20.64 | 0.6875-24 NEF       | 26.59 | 29.36 |
| 14         | 22.23          | 15.1  | 17.09 | 10.57 | 13.69 | 12.52          | 37   | 36.53 | 51.82 | 10.16      | 24.5  | 24.99 | 23.88 | 0.8125-20 UNEF      | 28.98 | 31.75 |
| 16         | 25.40          | 18.3  | 20.27 | 13.97 | 15.65 | 12.52          | 40   | 36.53 | 57.30 | 10.16      | 29.8  | 28.19 | 27.10 | 0.9375-20 UNEF      | 31.34 | 34.14 |
| 18         | 28.78          | 19.9  | 22.83 | 15.24 | 17.07 | 12.52          | 40   | 36.53 | 63.14 | 10.16      | 32.0  | 31.34 | 30.33 | 1.0625-18 NEF       | 33.73 | 36.53 |
| 20         | 31.75          | 23.0  | 26.01 | 16.13 | 18.97 | 16.51          | 47.5 | 42.06 | 74.22 | 13.59      | 36.1  | 34.54 | 33.58 | 1.1875-18 NEF       | 36.91 | 39.67 |
| 22         | 34.93          | 25.7  | 29.18 | 17.02 | 21.49 | 16.51          | 47.5 | 42.06 | 78.38 | 13.59      | 38.5  | 37.69 | 36.80 | 1.3125-18 NEF       | 40.08 | 42.88 |
| 24         | 38.10          | 28.6  | 32.36 | 18.80 | 22.71 | 17.35          | 47.5 | 43.61 | 84.07 | 14.43      | 41.5  | 40.89 | 40.03 | 1.4375-18 NEF       | 43.26 | 46.02 |

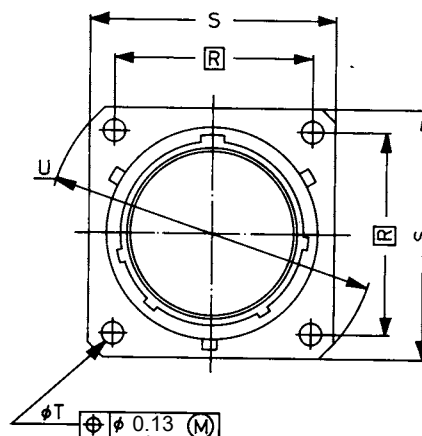
Assembly instructions p. 60-68.

## Box mounting receptacle PT 02 (VG 95328)

The receptacle PT 02 is available in the service classes A, C, E and H (see page 15), but cannot be equipped with a backshell, as there is no thread for this.



**PT 02 A**  
**PT 02 C**  
**PT 02 E** (VG 95328 H / MS 3112 E)



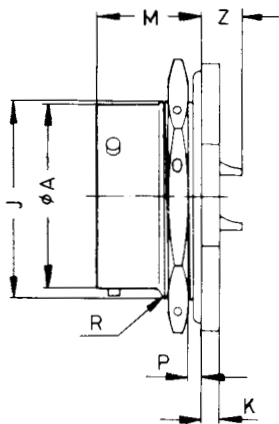
Ordering example      PT 02 C 14-19 S W      see p. 70

### Dimensions in mm

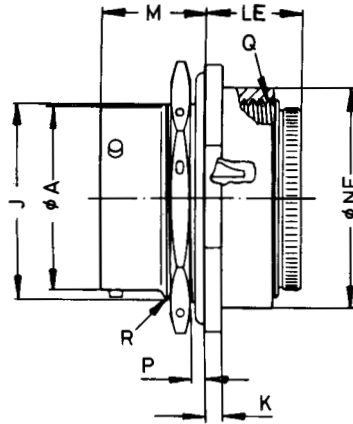
| Housing size | Ø A            | K              | L     | M          | Ø N   | R                      | S     | T     | U     | Z     |
|--------------|----------------|----------------|-------|------------|-------|------------------------|-------|-------|-------|-------|
|              | +0.03<br>-0.13 | +0.64<br>-0.25 | max.  | +0.25<br>0 | max.  | Theoret.<br>dimensions | max.  | ±0.13 | ±0.41 | max.  |
| 8            | 12.01          | 12.52          | 20.96 | 10.95      | 11.40 | 15.09                  | 21.02 | 3.05  | 26.97 | 11.81 |
| 10           | 14.99          | 12.52          | 20.96 | 10.95      | 14.55 | 18.26                  | 24.23 | 3.05  | 31.75 | 11.81 |
| 12           | 19.05          | 12.52          | 20.96 | 10.95      | 17.75 | 20.62                  | 26.59 | 3.05  | 34.93 | 11.81 |
| 14           | 22.23          | 12.52          | 20.96 | 10.95      | 20.90 | 23.01                  | 28.98 | 3.05  | 38.10 | 11.81 |
| 16           | 25.40          | 12.52          | 20.96 | 10.95      | 24.10 | 24.61                  | 31.34 | 3.05  | 41.28 | 11.81 |
| 18           | 28.58          | 12.52          | 20.96 | 10.95      | 27.25 | 26.97                  | 33.73 | 3.05  | 44.45 | 11.81 |
| 20           | 31.75          | 16.51          | 27.33 | 14.12      | 30.45 | 29.36                  | 36.91 | 3.05  | 47.63 | 13.36 |
| 22           | 34.93          | 16.51          | 27.33 | 14.12      | 33.60 | 31.75                  | 40.08 | 3.05  | 50.80 | 13.36 |
| 24           | 38.10          | 17.35          | 28.17 | 14.96      | 36.80 | 34.93                  | 43.26 | 3.73  | 55.58 | 12.52 |

Assembly instructions p. 60-68.

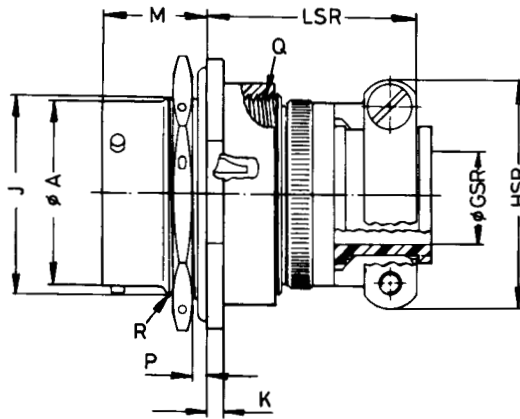
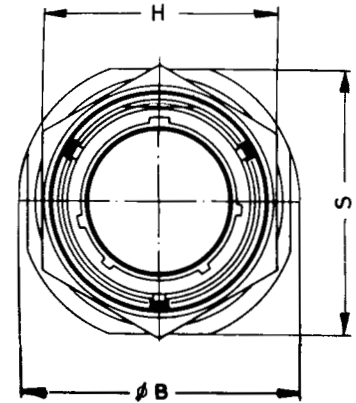
## Receptacle for single hole mounting PT 07 (MS 3114)



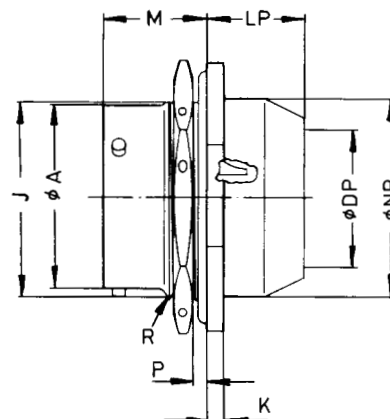
**PT 07 A**  
**PT 07 C**



**PT 07 E**  
(MS 3114 E)



**PT 07 E ... SR** (MS 3114 F)  
**PT 07 P ... SR**



**PT 07 P**  
(MS 3114 P)

Ordering example

PT 07 E 14-19 S W SR

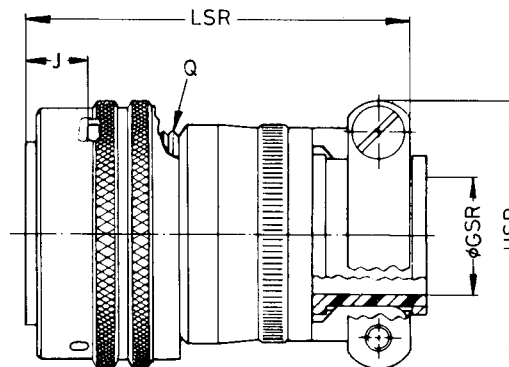
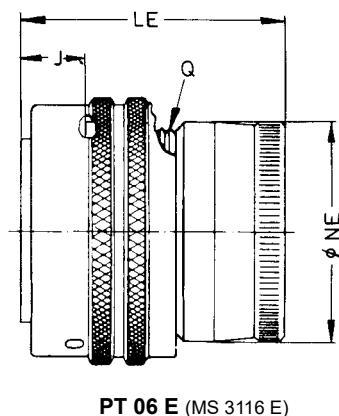
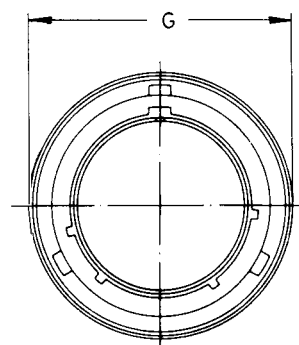
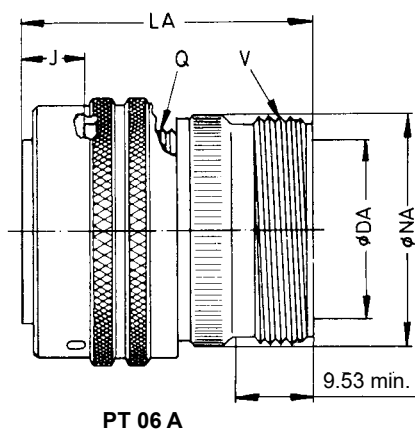
see p. 70

Dimensions in mm

| Shell size | Ø A            | Ø B  | Ø DP  | Ø GSR | H    | HSR   | J          | K              | LE    | LP    | LSR   | M     | Ø NE  | Ø NP  | P            | Thread Q            | Thread R            | S     | Z     |
|------------|----------------|------|-------|-------|------|-------|------------|----------------|-------|-------|-------|-------|-------|-------|--------------|---------------------|---------------------|-------|-------|
|            | +0.03<br>-0.13 | max. | min.  | ±0.25 | ±0.4 | max.  | 0<br>-0.25 | +0.28<br>-0.25 | max.  | max.  | max.  | ±0.13 | max.  | max.  | min.<br>max. | Class 2 B<br>(inch) | Class 2 A<br>(inch) | max.  | ±1.02 |
| 8          | 12.01          | 27.5 | 8.05  | 3.18  | 19.1 | 21.02 | 13.46      | 3.18           | 17.19 | 16.89 | 31.14 | 17.68 | 18.52 | 15.44 | 1.6          | 0.6250-24 NEF       | 0.5625-24 NEF       | 24.24 | 4.85  |
| 10         | 14.99          | 30.5 | 11.02 | 4.78  | 22.2 | 22.63 | 16.64      | 3.18           | 17.19 | 16.89 | 31.14 | 17.68 | 21.69 | 18.64 | 1.6          | 0.7500-20 UNEF      | 0.6875-24 NEF       | 27.38 | 4.85  |
| 12         | 19.05          | 35.5 | 13.92 | 7.92  | 27.0 | 25.81 | 20.78      | 3.18           | 17.19 | 16.89 | 31.14 | 17.68 | 24.87 | 21.79 | 1.6          | 0.8750-20 UNEF      | 0.8750-20 UNEF      | 32.16 | 4.85  |
| 14         | 22.23          | 38.5 | 17.09 | 9.53  | 30.2 | 28.98 | 23.93      | 3.18           | 17.19 | 16.89 | 31.14 | 17.68 | 23.04 | 24.99 | 1.6          | 1.0000-20 UNEF      | 1.0000-20 UNEF      | 35.33 | 4.85  |
| 16         | 25.40          | 41.5 | 20.27 | 12.70 | 33.3 | 30.56 | 27.08      | 3.18           | 17.19 | 16.89 | 33.12 | 17.68 | 31.22 | 28.19 | 1.6          | 1.1250-18 NEF       | 1.1250-18 NEF       | 38.51 | 4.85  |
| 18         | 28.58          | 45.0 | 22.83 | 15.88 | 36.5 | 37.31 | 30.25      | 3.18           | 17.19 | 16.89 | 33.12 | 17.68 | 34.39 | 31.34 | 1.6          | 1.2500-18 NEF       | 1.2500-18 NEF       | 41.68 | 4.85  |
| 20         | 31.75          | 49.5 | 26.01 | 15.88 | 39.7 | 37.31 | 33.43      | 3.96           | 18.62 | 20.07 | 33.72 | 22.45 | 38.35 | 34.54 | 1.6          | 1.3750-18 NEF       | 1.3750-18 NEF       | 46.43 | 5.61  |
| 22         | 34.93          | 52.5 | 29.18 | 19.05 | 42.9 | 42.06 | 36.60      | 3.96           | 18.62 | 20.07 | 33.72 | 22.45 | 41.53 | 37.69 | 1.6          | 1.5000-18 NEF       | 1.5000-18 NEF       | 49.63 | 5.61  |
| 24         | 38.10          | 56.0 | 32.36 | 20.32 | 46.0 | 44.45 | 39.78      | 3.96           | 19.38 | 20.07 | 34.53 | 23.29 | 44.70 | 40.89 | 1.6          | 1.6250-18 NEF       | 1.6250-18 NEF       | 52.78 | 4.78  |

Assembly instructions p. 60-68.

## Straight plug PT 06 (MS 3116)



PT 06 A ... SR  
PT 06 E ... SR (MS 3116 F)  
PT 06 P ... SR

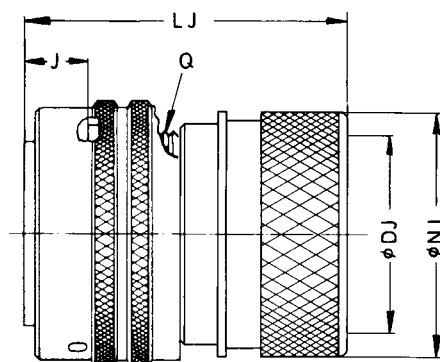
Ordering example PT 06 A 14-19 P W see p. 70

### Dimensions in mm

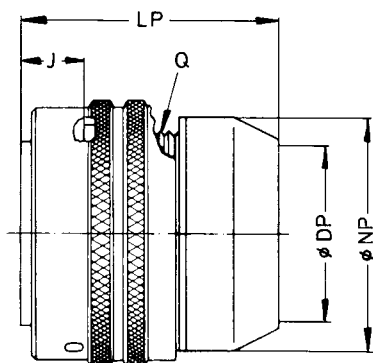
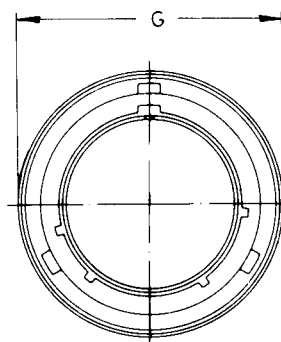
| Shell size | Ø DA<br>min. | Ø G<br>max. | Ø GSR<br>±0.25 | HSR<br>max. | J<br>±0.25 | LA<br>max. | LE<br>max. | LSR<br>max. | Ø NA<br>max. | Ø NE<br>max. | Thread Q<br>Class 2 A<br>(inch) | Thread V<br>Class 2 A<br>(inch) |
|------------|--------------|-------------|----------------|-------------|------------|------------|------------|-------------|--------------|--------------|---------------------------------|---------------------------------|
| 8          | 7.54         | 19.05       | 3.18           | 21.02       | 8.97       | 40.87      | 32.16      | 48.82       | 14.99        | 14.22        | 0.4375-28 UNEF                  | 0.5000-28 UNEF                  |
| 10         | 10.69        | 21.82       | 4.78           | 22.63       | 8.97       | 40.87      | 32.16      | 48.82       | 18.21        | 17.40        | 0.5625-24 NEF                   | 0.6250-24 NEF                   |
| 12         | 13.87        | 26.19       | 7.92           | 25.81       | 8.97       | 40.87      | 32.16      | 48.82       | 21.18        | 20.65        | 0.6875-24 NEF                   | 0.7500-20 UNEF                  |
| 14         | 16.84        | 29.36       | 9.53           | 28.98       | 8.97       | 40.87      | 32.16      | 48.82       | 24.64        | 23.62        | 0.8125-20 UNEF                  | 0.8750-20 UNEF                  |
| 16         | 19.99        | 32.54       | 12.70          | 30.56       | 8.97       | 40.87      | 32.16      | 50.80       | 27.64        | 26.85        | 0.9375-20 UNEF                  | 1.0000-20 UNEF                  |
| 18         | 22.33        | 35.33       | 15.88          | 37.31       | 8.97       | 40.87      | 32.16      | 50.80       | 30.89        | 29.85        | 1.0625-18 NEF                   | 1.1875-18 NEF                   |
| 20         | 25.76        | 38.89       | 15.88          | 37.31       | 10.54      | 42.06      | 36.53      | 53.57       | 33.83        | 33.05        | 1.1875-18 NEF                   | 1.1875-18 NEF                   |
| 22         | 28.80        | 42.06       | 19.05          | 42.06       | 10.54      | 42.06      | 36.53      | 53.57       | 37.08        | 36.32        | 1.3125-18 NEF                   | 1.4375-18 NEF                   |
| 24         | 31.98        | 45.14       | 20.32          | 44.45       | 10.54      | 44.45      | 38.10      | 55.17       | 40.31        | 39.50        | 1.4375-18 NEF                   | 1.4375-18 NEF                   |

Assembly instructions p. 60-68.

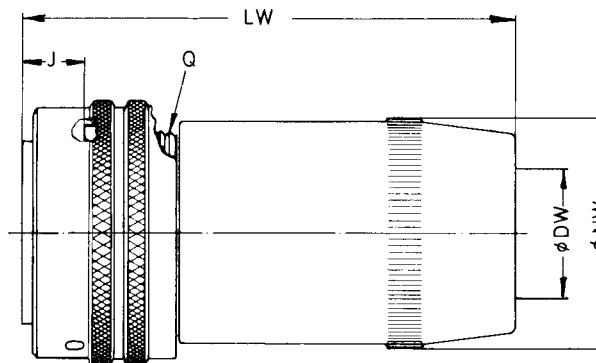
## Straight plug PT 06 (MS 3116)



**PT 06 E ... J**



**PT 06 P (MS 3116 P)**



**PT 06 W**

Ordering example

PT 06 E 14-19 P W J

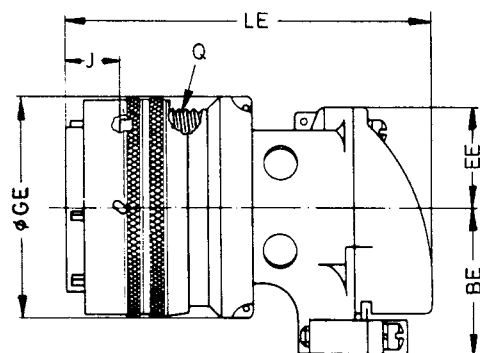
see p. 70

Dimensions in mm

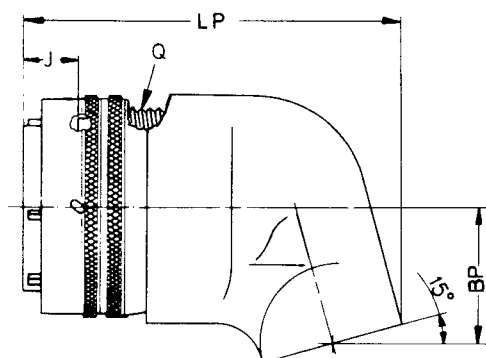
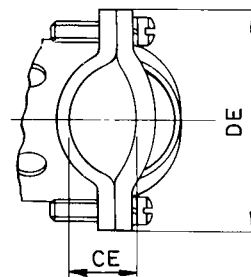
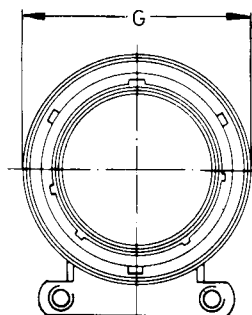
| Shell size | ø DJ | ø DP  | ø DW  |       | G     | J     | LJ   | LP    | LW    | ø NJ | ø NP  | ø NW  | Thread Q            |
|------------|------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|---------------------|
|            | ±0.1 | min.  | min.  | max.  | max.  | max.  | max. | max.  | max.  | max. | max.  | max.  | Class 2 A<br>(inch) |
| 8          | 6.7  | 8.05  | 4.27  | 5.84  | 19.05 | 8.97  | 37   | 38.76 | 43.31 | 15.6 | 15.44 | 13.89 | 0.4375-28 UNEF      |
| 10         | 9.2  | 11.02 | 5.20  | 7.92  | 21.82 | 8.97  | 37   | 38.76 | 43.31 | 18.4 | 18.64 | 17.15 | 0.5625-24 NEF       |
| 12         | 12.0 | 13.92 | 8.59  | 11.23 | 26.19 | 8.97  | 37   | 38.76 | 46.94 | 23.7 | 21.79 | 20.64 | 0.6875-24 NEF       |
| 14         | 15.1 | 17.09 | 10.57 | 13.70 | 29.36 | 8.97  | 37   | 38.76 | 51.82 | 24.5 | 24.99 | 23.88 | 0.8125-20 UNEF      |
| 16         | 18.3 | 20.27 | 13.97 | 15.65 | 32.54 | 8.97  | 39   | 38.76 | 57.30 | 29.8 | 28.19 | 27.10 | 0.9375-20 UNEF      |
| 18         | 19.9 | 22.83 | 15.20 | 17.10 | 35.33 | 8.97  | 39   | 38.76 | 63.14 | 32.0 | 31.34 | 30.33 | 1.0625-18 NEF       |
| 20         | 23.0 | 26.01 | 16.10 | 19.00 | 38.89 | 10.54 | 47.5 | 39.27 | 72.24 | 36.1 | 34.54 | 33.58 | 1.1875-18 NEF       |
| 22         | 25.7 | 29.18 | 17.00 | 21.50 | 42.06 | 10.54 | 47.5 | 39.27 | 76.20 | 38.5 | 37.69 | 36.80 | 1.3125-18 NEF       |
| 24         | 28.6 | 32.36 | 18.80 | 22.71 | 45.14 | 10.54 | 47.5 | 42.06 | 81.53 | 41.5 | 40.89 | 40.03 | 1.4375-18 NEF       |

Assembly instructions p. 60-68.

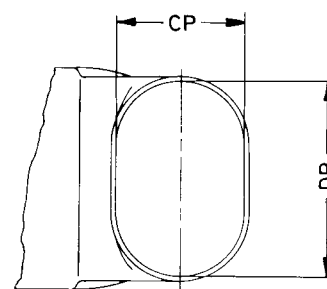
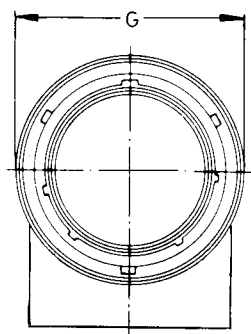
## Angle plug PT 08



**PT 08 E**



**PT 08 P**



Ordering example

PT 08 E 14-19 P W

see p. 70

Dimensions in mm

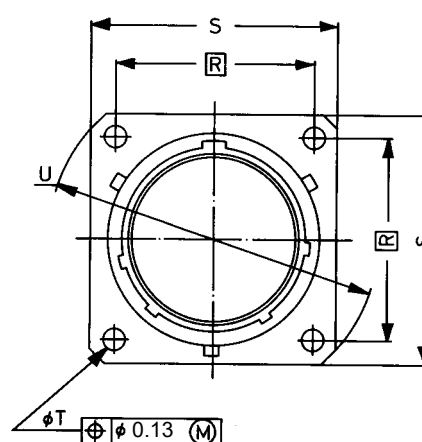
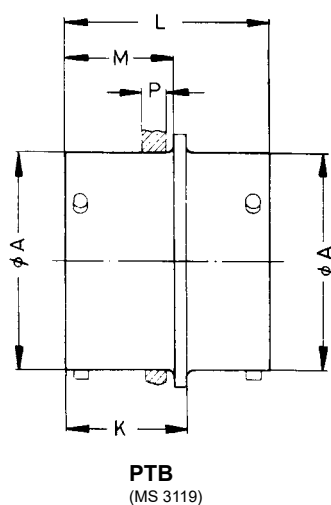
| Shell size | BE<br>±0.79 | BP<br>max. | CE<br>+0.25<br>-0.64 | CP<br>±0.38 | DE<br>±1.57 | DP<br>±0.38 | EE<br>+1.19<br>-0.64 | G<br>max. | øGE<br>max. | J<br>±0.25 | LE<br>max. | LP<br>max. | Thread Q<br>Class 2 A<br>(inch) |
|------------|-------------|------------|----------------------|-------------|-------------|-------------|----------------------|-----------|-------------|------------|------------|------------|---------------------------------|
| 8          | 16.64       | 11.00      | 3.96                 | 7.92        | 23.90       | 11.13       | 8.61                 | 19.05     | 20.21       | 8.97       | 53.00      | 47.0       | 0.4375-28 UNEF                  |
| 10         | 19.02       | 12.52      | 4.32                 | 11.13       | 30.25       | 14.27       | 9.98                 | 21.82     | 23.39       | 8.97       | 55.00      | 50.0       | 0.5625-24 NEF                   |
| 12         | 20.62       | 14.02      | 6.71                 | 13.11       | 30.25       | 17.48       | 11.43                | 26.19     | 26.57       | 8.97       | 58.00      | 52.0       | 0.6875-24 NEF                   |
| 14         | 22.99       | 16.33      | 7.87                 | 15.88       | 31.85       | 19.84       | 13.18                | 29.36     | 29.74       | 8.97       | 61.00      | 55.0       | 0.8125-20 UNEF                  |
| 16         | 26.16       | 16.71      | 8.38                 | 16.66       | 33.43       | 22.61       | 14.81                | 32.54     | 32.94       | 8.97       | 65.33      | 56.0       | 0.9375-20 UNEF                  |
| 18         | 25.78       | 17.50      | 11.28                | 17.86       | 39.67       | 25.40       | 15.77                | 35.33     | 36.12       | 8.97       | 69.00      | 57.0       | 1.0625-18 NEF                   |
| 20         | 27.36       | 19.05      | 12.95                | 19.46       | 41.28       | 28.58       | 17.35                | 38.89     | 39.67       | 10.54      | 71.00      | 64.0       | 1.1875-18 NEF                   |
| 22         | 28.93       | 20.17      | 13.08                | 20.62       | 43.66       | 31.34       | 18.77                | 42.06     | 42.47       | 10.54      | 72.00      | 65.0       | 1.3125-18 NEF                   |
| 24         | 32.13       | 27.18      | 16.66                | 23.32       | 44.45       | 34.90       | 20.24                | 45.11     | 45.64       | 10.54      | 78.00      | 74.0       | 1.4375-18 NEF                   |

Assembly instructions p. 60-68.



## Thru-bulkhead receptacle PTB (MS 3119)

The PTB thru-bulkhead is pressure-proof in accordance with service class "C" (see p. 15). It is equipped with contact pins (P) and socket contacts (S). The socket contacts are always on the connector side marked "P".



Ordering example      PTB 18-32 PS W      see p. 70

Dimensions in mm

| Shell size | Ø A            | K          | L              | M          | P    | R                         | S     | Ø T   | U     |
|------------|----------------|------------|----------------|------------|------|---------------------------|-------|-------|-------|
|            | +0.03<br>-0.13 | +0.41<br>0 | +0.15<br>-0.13 | +0.25<br>0 | max. | Theoretical<br>dimensions | max.  | ±0.13 | ±0.41 |
| 8          | 12.01          | 15.88      | 26.67          | 14.27      | 3.18 | 15.09                     | 21.02 | 3.05  | 26.97 |
| 10         | 14.99          | 15.88      | 26.67          | 14.27      | 3.18 | 18.26                     | 24.23 | 3.05  | 31.75 |
| 12         | 19.05          | 15.88      | 26.67          | 14.27      | 3.18 | 20.62                     | 26.59 | 3.05  | 34.93 |
| 14         | 22.23          | 15.88      | 26.67          | 14.27      | 3.18 | 23.01                     | 28.98 | 3.05  | 38.10 |
| 16         | 25.40          | 15.88      | 26.67          | 14.27      | 3.18 | 24.61                     | 31.34 | 3.05  | 41.28 |
| 18         | 28.58          | 15.88      | 26.67          | 14.27      | 3.18 | 26.97                     | 33.73 | 3.05  | 44.45 |
| 20         | 31.75          | 19.84      | 33.78          | 17.48      | 3.18 | 29.36                     | 36.91 | 3.05  | 47.63 |
| 22         | 34.93          | 19.84      | 33.78          | 17.48      | 3.18 | 31.75                     | 40.08 | 3.05  | 50.80 |
| 24         | 38.10          | 19.84      | 33.78          | 17.48      | 3.18 | 34.93                     | 43.26 | 3.73  | 55.58 |

Assembly instructions p. 60-68.

The PT series also includes hermetically sealed receptacles which are attachable to plugs of the MIL-C-26482, VG 95328, LN 29504, MIL-C-83723, NAS 1599, NFL 54125, DEF 5325-3/5326-3 and IEC-Publication 130-7 standards. These receptacles are available only with pin contacts in the arrangements listed on pages 7 to 9.

Each hermetically sealed socket has a silicone O-ring, which seals the contact insert of the corresponding plug and protects the coupled connector against humidity.

## Design features

- Shell cold-rolled steel, galvanized.
- 9 shell sizes (size 8 to 24).
- 2 to 61 contacts (only pin contacts).
- Contacts made of high-quality nickel alloy, tin-plated.
- Compression glass insert.
- Contacts are labeled on mating and termination face.

## Technical data (see also page 4 and 5)

### Current load

Contact size 20  
Contact size 16

5 A max.  
10 A max.

### Dielectric strength (at sea level)

Voltage class I  
Voltage class II

1500 V AC voltage (eff.)  
2300 V AC voltage (eff.)

### Leak rate

$1 \times 10^{-6} \text{ cm}^3/\text{s}$  at approx. 1 bar

### Arc resistance

The dielectric material can withstand the conditions for at least 115 seconds as per MIL-C-5015D.

### Humidity

Complies with the requirements of MIL-C-5015D and MIL-C-26482

### Impact

100 g

### Vibration

Better than MIL-E-5272, Procedure II

### Operating temperature

-55° C to +125° C  
(= ambient temperature + overheating due to current)

Ordering information page 70

**PT1H**  
Hermetically sealed receptacle with solder flange

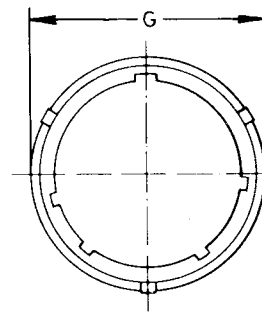
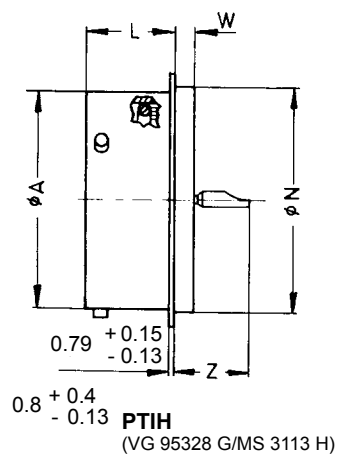


**PT 02 H**  
Hermetically sealed receptacle.

**PT 07 H**  
Hermetically sealed receptacle for single hole mounting



# Hermetically sealed receptacle with solder flange PTIH (VG 95328)



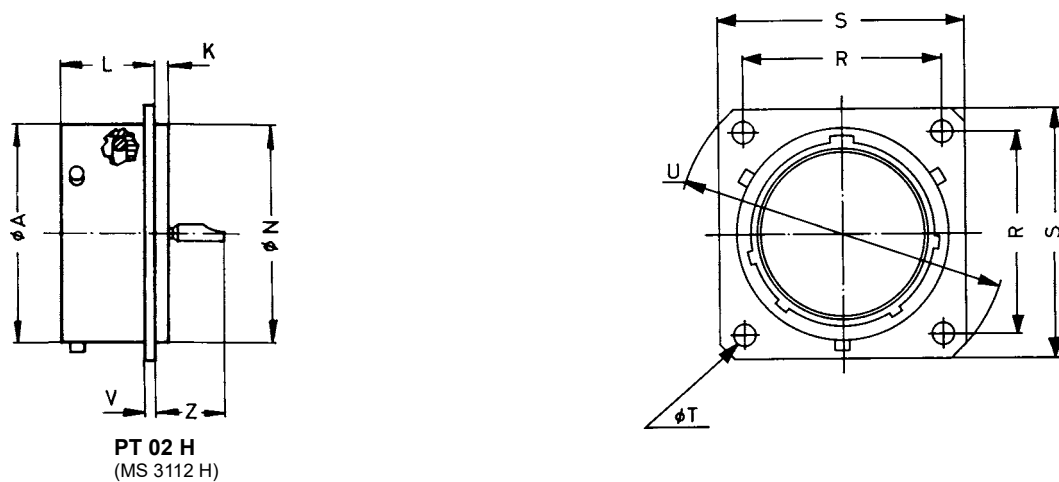
Ordering example      PTIH 18-32 P W      see p. 70

Dimensions in mm

| Shell size | Ø A<br>+ 0.025<br>- 0.13 | Ø G<br>± 0.4 | L<br>+ 0.64<br>- 0.41 | Ø N<br>+ 0.03<br>- 0.13 | W<br>+ 0.28<br>- 0.25 | Z<br>max. |
|------------|--------------------------|--------------|-----------------------|-------------------------|-----------------------|-----------|
| 8          | 12.01                    | 15.9         | 11.35                 | 14.27                   | 2.39                  | 9.80      |
| 10         | 14.99                    | 19.1         | 11.35                 | 17.07                   | 2.39                  | 9.80      |
| 12         | 19.05                    | 21.4         | 11.35                 | 19.84                   | 2.39                  | 9.80      |
| 14         | 22.23                    | 24.6         | 11.35                 | 23.01                   | 2.39                  | 9.80      |
| 16         | 25.40                    | 27.8         | 11.35                 | 26.19                   | 2.39                  | 9.80      |
| 18         | 28.58                    | 30.9         | 11.35                 | 29.36                   | 2.39                  | 9.80      |
| 20         | 31.75                    | 33.3         | 12.93                 | 31.75                   | 2.39                  | 9.80      |
| 22         | 34.93                    | 36.5         | 12.93                 | 34.92                   | 3.18                  | 10.62     |
| 24         | 38.10                    | 39.7         | 13.77                 | 38.10                   | 3.18                  | 10.62     |

Assembly instructions p. 60-68.

## Hermetically sealed receptacle PT 02 H (MS 3112 H)



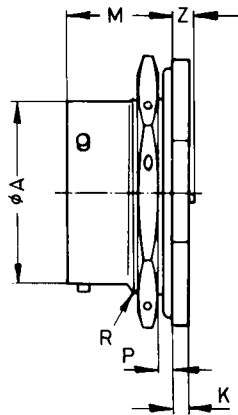
Ordering example      PT 02 H 18-32 P W      see p. 70

Dimensions in mm

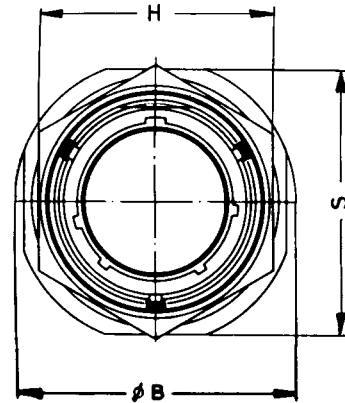
| Shell size | Ø A             | K     | L              | Ø N            | R     | S     | T    | U     | V              | Z    |
|------------|-----------------|-------|----------------|----------------|-------|-------|------|-------|----------------|------|
|            | +0.025<br>-0.13 | ±0.41 | +0.66<br>-0.38 | +0.03<br>-0.13 | ±0.15 | max.  | min. | ±0.41 | +0.28<br>-0.25 | max. |
| 8          | 12.01           | 1.20  | 12.55          | 14.27          | 15.08 | 21.02 | 2.9  | 26.97 | 1.57           | 8.74 |
| 10         | 14.99           | 1.20  | 12.55          | 17.07          | 18.26 | 24.23 | 2.9  | 31.75 | 1.57           | 8.74 |
| 12         | 19.05           | 1.20  | 12.55          | 19.84          | 20.62 | 26.59 | 2.9  | 34.93 | 1.57           | 8.74 |
| 14         | 22.23           | 1.20  | 12.55          | 23.01          | 23.01 | 28.98 | 2.9  | 38.10 | 1.57           | 8.74 |
| 16         | 25.40           | 1.20  | 12.55          | 26.19          | 24.61 | 31.34 | 2.9  | 41.28 | 1.57           | 8.74 |
| 18         | 28.58           | 1.20  | 12.55          | 29.36          | 26.97 | 33.73 | 2.9  | 44.45 | 1.57           | 8.74 |
| 20         | 31.75           | 1.20  | 14.12          | 31.75          | 29.36 | 36.91 | 2.9  | 47.63 | 1.57           | 8.74 |
| 22         | 34.93           | 2.01  | 14.12          | 34.93          | 31.75 | 40.08 | 2.9  | 50.80 | 1.57           | 9.58 |
| 24         | 38.10           | 2.01  | 14.94          | 38.10          | 34.93 | 43.26 | 3.6  | 55.58 | 1.57           | 9.58 |

Assembly instructions p. 60-68.

# Hermetically sealed receptacle for single hole mounting PT 07 H (VG 95328)



**PT 07 H**  
(VG 95328 F / MS 3114 H)



Ordering example      PT 07 H 18-32 P W      see p. 70

Dimensions in mm

| Shell size | Ø A<br>+0.03<br>-0.13 | Ø B<br>max. | H<br>±0.4 | K<br>±0.5 | M<br>±0.8<br>0 | P (mounting wall) |      | Thread R<br>Class 2 A<br>(inch) | S<br>max. | Z<br>max. |
|------------|-----------------------|-------------|-----------|-----------|----------------|-------------------|------|---------------------------------|-----------|-----------|
|            |                       |             |           |           |                | min.              | max. |                                 |           |           |
| 8          | 12.01                 | 27.5        | 19.1      | 3.0       | 17.5           | 1.6               | 3.2  | 0.5625-24 NEF                   | 24.24     | 3.28      |
| 10         | 14.99                 | 30.5        | 22.2      | 3.0       | 17.5           | 1.6               | 3.2  | 0.6875-24 NEF                   | 27.28     | 3.28      |
| 12         | 19.05                 | 35.5        | 27.0      | 3.0       | 17.5           | 1.6               | 3.2  | 0.8750-24 UNEF                  | 32.16     | 3.28      |
| 14         | 22.23                 | 38.5        | 30.2      | 3.0       | 17.5           | 1.6               | 3.2  | 1.0000-20 UNEF                  | 35.33     | 3.28      |
| 16         | 25.40                 | 41.5        | 33.3      | 3.0       | 17.5           | 1.6               | 3.2  | 1.1250-20 NEF                   | 38.51     | 3.28      |
| 18         | 28.58                 | 45.0        | 36.5      | 3.0       | 17.5           | 1.6               | 3.2  | 1.2500-18 NEF                   | 41.68     | 3.28      |
| 20         | 31.75                 | 49.5        | 39.7      | 3.8       | 22.3           | 1.6               | 3.2  | 1.3750-18 NEF                   | 46.43     | 0.89      |
| 22         | 34.93                 | 52.5        | 42.9      | 3.8       | 22.3           | 1.6               | 3.2  | 1.5000-18 NEF                   | 49.63     | 0.89      |
| 24         | 38.10                 | 56.0        | 46.0      | 3.8       | 23.1           | 1.6               | 3.2  | 1.6250-18 NEF                   | 52.78     | 1.16      |

Assembly instructions p. 60-68.

## PT-GS Series

PCB connection

This series contains receptacles PT 02 GS and PT 07 GS with **non-removable** contacts. The receptacles are identical to those of service class C (see p. 15), with the exception of contacts designed for soldering onto rigid or flexible PCBs. The contact bore holes necessary for assembly are shown on pages 33 to 37, and show the front view of the pin insert when the receptacle is in the normal position.



**PT 02 GS**  
Box mounting receptacle



**PT 07 GS**  
Receptacle for single hole mounting  
(with O-ring)

## PT-WW Series

Wire-wrap connection

The PT receptacle types PT 02 WW and PT 07 WW are identical to those in PT series operating class C, with the exception of the contacts, which are designed for wire-wrap connections and **non-removable**.

The cross-section of the wire-wrap pin is 0.6 x 0.6 mm and corresponds to the specifications in DIN 41611, Sheet 2.

The contact bore holes with the specified coordinates shown on pages 61 to 65 allow semi- and fully automatic wrapping. They show the front view of the pin insert when the receptacle is in the normal position. (see p. 6)



**PT 02 WW**  
Box mounting receptacle



**PT 07 WW**  
Receptacle for single hole mounting  
(with O-ring)

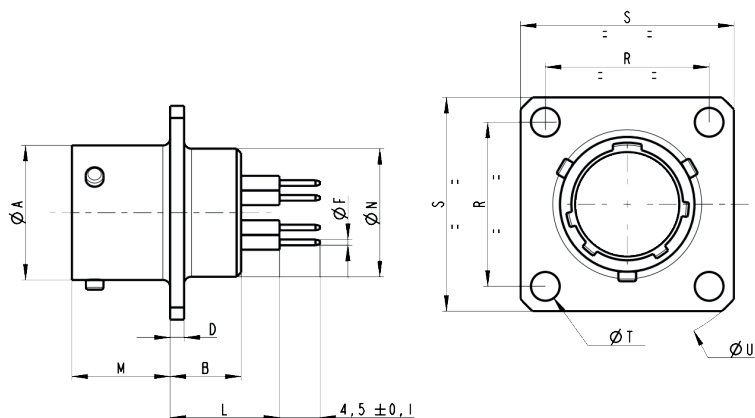
Assembly instructions p. 60-68.

# PT02GS / VG95328CA

**Geräte-Flanschsteckdose**  
für Vorder- und Hinterwandmontage  
Leiterplattenkontakte, montiert

**Box-flange-receptacle**  
for front and rear panel mounting,  
PCB-contacts, installed

Beispiel / example:  
PT02GS14-19PN029J  
VG95328CA14-19PNJ



| Gehäusegröße /<br>Shell size | Ø A<br>+0,03<br>-0,13 | B<br>0<br>-0,25 | D<br>±0,25 | L<br>±1,0 | M<br>+0,25<br>0 | Ø N<br>max. | R     | S<br>max. | Ø T<br>±0,1 | U<br>±0,41 |
|------------------------------|-----------------------|-----------------|------------|-----------|-----------------|-------------|-------|-----------|-------------|------------|
| 8                            | 12,01                 | 7,92            | 1,57       | 12,21     | 10,95           | 11,40       | 15,10 | 21,02     | 3,05        | 26,97      |
| 10                           | 14,99                 | 7,92            | 1,57       | 12,21     | 10,95           | 14,55       | 18,30 | 24,23     | 3,05        | 31,75      |
| 12                           | 19,05                 | 7,92            | 1,57       | 12,21     | 10,95           | 17,70       | 20,60 | 26,59     | 3,05        | 34,93      |
| 14                           | 22,23                 | 7,92            | 1,57       | 12,21     | 10,95           | 20,90       | 23,00 | 28,98     | 3,05        | 38,10      |
| 16                           | 25,40                 | 7,92            | 1,57       | 12,21     | 10,95           | 24,10       | 24,60 | 31,20     | 3,05        | 41,28      |
| 18                           | 28,58                 | 7,92            | 1,57       | 12,21     | 10,95           | 27,25       | 27,00 | 33,73     | 3,05        | 44,45      |
| 20                           | 31,75                 | 11,13           | 2,39       | 15,11     | 14,12           | 30,45       | 29,40 | 36,91     | 3,05        | 47,63      |
| 22                           | 34,93                 | 11,13           | 2,39       | 15,11     | 14,12           | 33,60       | 31,80 | 40,08     | 3,05        | 50,80      |
| 24                           | 38,10                 | 11,13           | 2,39       | 14,27     | 14,96           | 36,80       | 34,90 | 43,26     | 3,73        | 55,58      |

| Kontaktgröße /<br>Contact size | Ø F<br>+0,15<br>-0,1 |
|--------------------------------|----------------------|
| 20                             | 0,70                 |
| 16                             | 0,70                 |



# PT07GS / VG95328DA

## Einloch-Steckdose

für Hinterwandmontage  
Leiterplattenkontakte, montiert

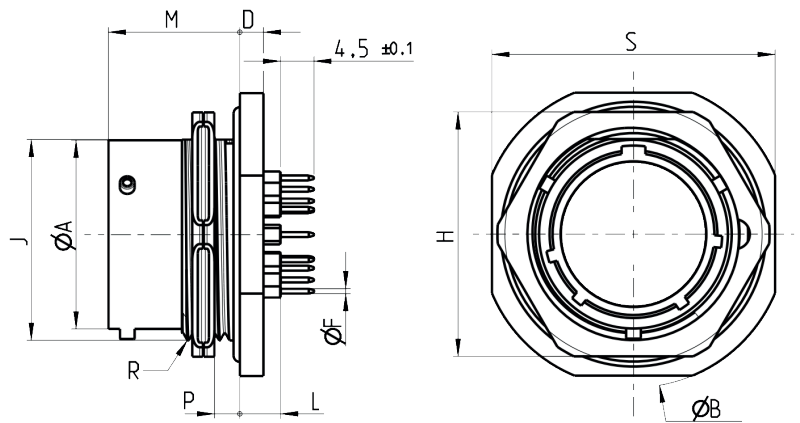
## Jam-Nut-Receptacle

for rear panel mounting  
PCB-contacts, installed

Beispiel / example:

PT07GS14-19PN029J

VG95328DA14-19PNJ



| Gehäusegröße /<br>Shell size | ØA<br>+0,03<br>-0,13 | Ø B<br>max. | D<br>±0,13 | H<br>±0,4 | J<br>0<br>-0,25 | L<br>±1,0 | M<br>±0,13 | P    |      | R<br>Gewinde/Thread<br>UNEF-2A | S<br>max. |
|------------------------------|----------------------|-------------|------------|-----------|-----------------|-----------|------------|------|------|--------------------------------|-----------|
|                              |                      |             |            |           |                 |           |            | min. | max. |                                |           |
| 8                            | 12,01                | 27,50       | 3,22       | 19,10     | 13,46           | 5,48      | 17,68      | 1,60 | 3,20 | 0,5625-24                      | 24,24     |
| 10                           | 14,99                | 30,50       | 3,22       | 22,20     | 16,64           | 5,48      | 17,68      | 1,60 | 3,20 | 0,6875-24                      | 27,38     |
| 12                           | 19,05                | 35,30       | 3,22       | 27,00     | 20,78           | 5,48      | 17,68      | 1,60 | 3,20 | 0,8750-20                      | 32,16     |
| 14                           | 22,23                | 38,50       | 3,22       | 30,20     | 23,93           | 5,48      | 17,68      | 1,60 | 3,20 | 1,0000-20                      | 35,33     |
| 16                           | 25,40                | 41,50       | 3,22       | 33,30     | 27,08           | 5,48      | 17,68      | 1,60 | 3,20 | 1,1250-18                      | 38,51     |
| 18                           | 28,58                | 45,00       | 3,22       | 36,50     | 30,25           | 5,48      | 17,68      | 1,60 | 3,20 | 1,2500-18                      | 41,68     |
| 20                           | 31,75                | 49,50       | 3,95       | 39,70     | 33,43           | 6,78      | 22,45      | 1,60 | 6,40 | 1,3750-18                      | 46,43     |
| 22                           | 34,93                | 52,50       | 3,95       | 42,90     | 36,60           | 6,78      | 22,45      | 1,60 | 6,40 | 1,5000-18                      | 49,63     |
| 24                           | 38,10                | 56,00       | 3,91       | 46,00     | 39,78           | 5,84      | 23,39      | 1,60 | 6,40 | 1,6250-18                      | 52,78     |

| Kontaktgröße /<br>Contact size | ØF<br>+0,15<br>-0,1 |
|--------------------------------|---------------------|
| 20                             | 0,70                |
| 16                             | 0,70                |



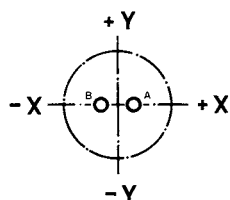


## Contact bore holes for receptacles

With GS dip solder contacts (p. 30-32)

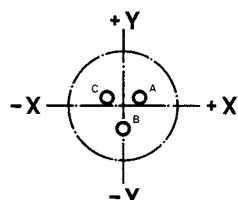
This and the following pages show the front view of the pin insert in the normal position (see p. 6).

**8 - 2**  
2 Contacts  
Size 20



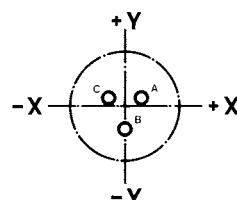
| Contact | X      | Y |
|---------|--------|---|
| A       | + 1.50 | 0 |
| B       | - 1.50 | 0 |

**8 - 3**  
3 Contacts  
Size 20



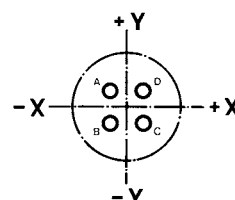
| Contact | X      | Y      |
|---------|--------|--------|
| A       | + 1.42 | + 0.46 |
| B       | 0      | - 2.01 |
| C       | - 1.42 | + 0.46 |

**8 - 3A**  
3 Contacts  
Size 20



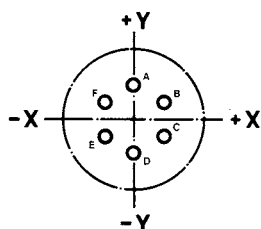
| Contact | X      | Y      |
|---------|--------|--------|
| A       | + 1.65 | + 0.95 |
| B       | 0      | - 1.91 |
| C       | - 1.65 | + 0.95 |

**8 - 4**  
4 Contacts  
Size 20



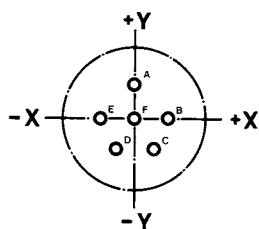
| Contact | X      | Y      |
|---------|--------|--------|
| A       | - 1.42 | + 1.42 |
| B       | - 1.42 | - 1.42 |
| C       | + 1.42 | - 1.42 |
| D       | + 1.42 | + 1.42 |

**10 - 6**  
6 Contacts  
Size 20



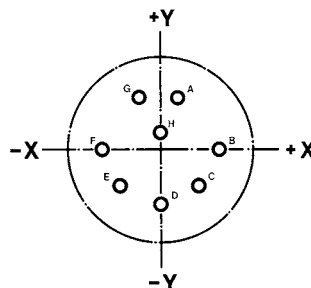
| Contact | X      | Y      |
|---------|--------|--------|
| A       | 0      | + 3.30 |
| B       | + 2.87 | + 1.65 |
| C       | + 2.87 | - 1.65 |
| D       | 0      | - 3.30 |
| E       | - 2.87 | - 1.65 |
| F       | - 2.87 | + 1.65 |

**10 - 98**  
6 Contacts  
Size 20



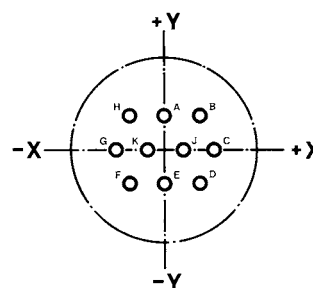
| Contact | X      | Y      |
|---------|--------|--------|
| A       | 0      | + 3.30 |
| B       | + 3.30 | 0      |
| C       | + 1.65 | - 2.87 |
| D       | - 1.65 | 2.87   |
| E       | - 3.30 | 0      |
| F       | 0      | 0      |

**12 - 8**  
8 Contacts  
Size 20



| Contact | X      | Y      |
|---------|--------|--------|
| A       | + 1.65 | + 3.99 |
| B       | + 4.32 | 0      |
| C       | + 3.05 | - 3.05 |
| D       | 0      | - 4.32 |
| E       | - 3.05 | - 3.05 |
| F       | - 4.32 | 0      |
| G       | - 1.65 | + 3.99 |
| H       | 0      | + 1.12 |

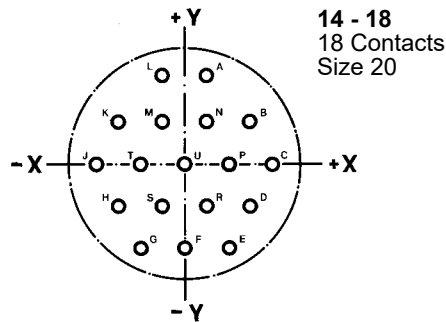
**12 - 10**  
10 Contacts  
Size 20



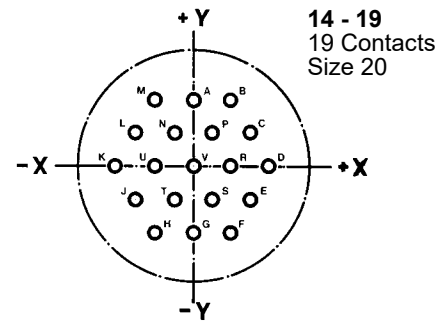
| Contact | X      | Y      |
|---------|--------|--------|
| A       | 0      | + 3.05 |
| B       | + 3.30 | + 3.05 |
| C       | + 4.95 | 0      |
| D       | + 3.30 | - 3.05 |
| E       | 0      | - 3.05 |
| F       | - 3.30 | - 3.05 |
| G       | - 4.95 | 0      |
| H       | - 3.30 | + 3.05 |
| J       | + 1.65 | 0      |
| K       | - 1.65 | 0      |

## Contact bore holes for receptacles

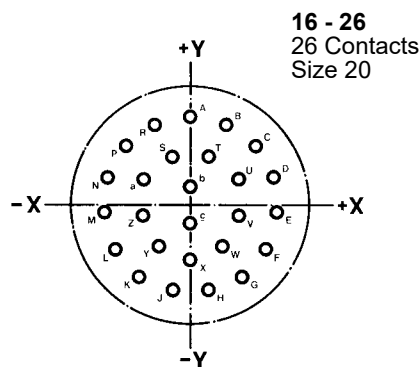
With GS dip solder contacts (p. 30-32)



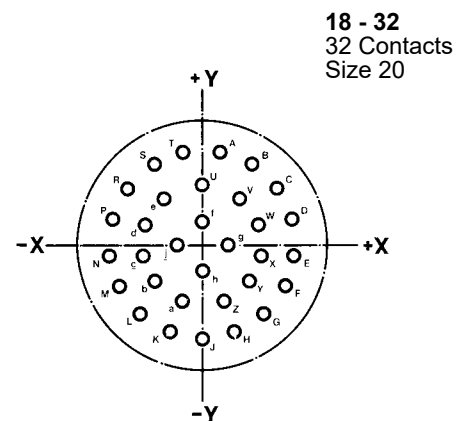
| Contact | X      | Y      | Contact | X      | Y      |
|---------|--------|--------|---------|--------|--------|
| A       | + 1.65 | + 6.40 | K       | - 4.95 | + 2.87 |
| B       | + 4.95 | + 2.87 | L       | - 1.65 | + 6.40 |
| C       | + 6.60 | 0      | M       | - 1.65 | + 2.87 |
| D       | + 4.95 | - 2.87 | N       | + 1.65 | + 2.87 |
| E       | + 3.30 | - 5.72 | P       | + 3.30 | 0      |
| F       | 0      | - 5.72 | R       | + 1.65 | - 2.87 |
| G       | - 3.30 | - 5.72 | S       | - 1.65 | - 2.87 |
| H       | - 4.95 | - 2.87 | T       | - 3.30 | 0      |
| J       | - 6.60 | 0      | U       | 0      | 0      |



| Contact | X      | Y      | Contact | X      | Y      |
|---------|--------|--------|---------|--------|--------|
| A       | 0      | + 5.72 | L       | - 4.95 | + 2.87 |
| B       | + 3.30 | + 5.72 | M       | - 3.30 | + 5.72 |
| C       | + 4.95 | + 2.87 | N       | - 1.65 | + 2.87 |
| D       | + 6.60 | 0      | P       | + 1.65 | + 2.87 |
| E       | + 4.95 | - 2.87 | R       | + 3.30 | 0      |
| F       | + 3.30 | - 5.72 | S       | + 1.65 | - 2.87 |
| G       | 0      | - 5.72 | T       | - 1.65 | - 2.87 |
| H       | - 3.30 | - 5.72 | U       | - 3.30 | 0      |
| J       | - 4.95 | - 2.87 | V       | 0      | 0      |
| K       | - 6.60 | 0      |         |        |        |



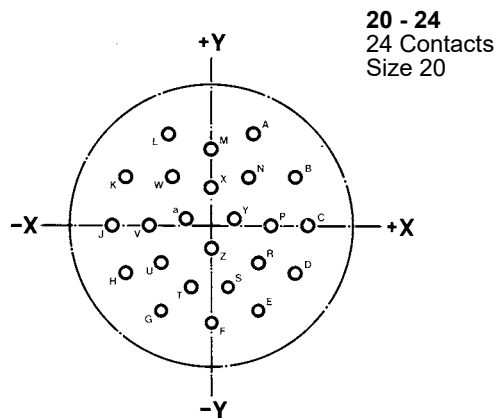
| Contact | X      | Y      | Contact | X      | Y      |
|---------|--------|--------|---------|--------|--------|
| A       | 0      | + 8.15 | P       | - 6.07 | + 5.44 |
| B       | + 3.33 | + 7.44 | R       | - 3.33 | + 7.44 |
| C       | + 6.07 | + 5.44 | S       | - 1.78 | + 4.50 |
| D       | + 7.75 | + 2.51 | T       | + 1.78 | + 4.50 |
| E       | + 8.10 | - 0.86 | U       | + 4.45 | + 2.39 |
| F       | + 7.06 | - 4.09 | V       | + 4.52 | - 0.91 |
| G       | + 4.80 | - 6.60 | W       | + 3.02 | - 3.84 |
| H       | + 1.70 | - 7.98 | X       | 0      | + 5.16 |
| J       | - 1.70 | - 7.98 | Y       | - 3.02 | - 3.84 |
| K       | - 4.80 | - 6.60 | Z       | - 4.52 | - 0.91 |
| L       | - 7.06 | - 4.09 | a       | - 4.45 | + 2.39 |
| M       | - 8.10 | - 0.86 | b       | 0      | + 1.65 |
| N       | - 7.75 | + 2.51 | c       | 0      | - 1.65 |



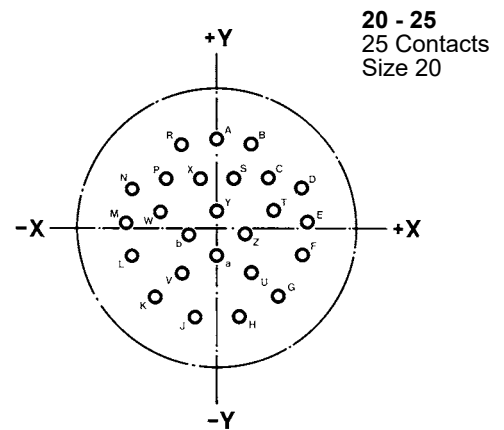
| Contact | X      | Y      | Contact | X      | Y      |
|---------|--------|--------|---------|--------|--------|
| A       | + 1.68 | + 8.97 | T       | - 1.68 | + 8.97 |
| B       | + 4.80 | + 7.75 | U       | 0      | + 5.84 |
| C       | + 7.26 | + 5.51 | V       | + 3.15 | + 4.90 |
| D       | + 8.76 | + 2.49 | W       | + 5.31 | + 2.41 |
| E       | + 9.07 | - 0.84 | X       | + 5.79 | - 0.84 |
| F       | + 8.15 | - 4.06 | Y       | + 4.42 | - 3.84 |
| G       | + 6.15 | - 6.73 | Z       | + 1.65 | - 5.61 |
| H       | + 3.30 | - 8.51 | a       | - 1.65 | - 5.61 |
| J       | 0      | - 9.12 | b       | - 4.42 | - 3.84 |
| K       | - 3.30 | - 8.51 | c       | - 5.79 | - 0.84 |
| L       | - 6.15 | - 6.73 | d       | - 5.31 | + 2.41 |
| M       | - 8.15 | - 4.06 | e       | - 3.15 | + 4.90 |
| N       | - 9.07 | - 0.84 | f       | 0      | + 2.44 |
| P       | - 8.76 | + 2.49 | g       | + 2.44 | 0      |
| R       | - 7.26 | + 5.51 | h       | 0      | - 2.44 |
| S       | - 4.80 | + 7.75 | j       | - 2.44 | 0      |

## Contact bore holes for receptacles

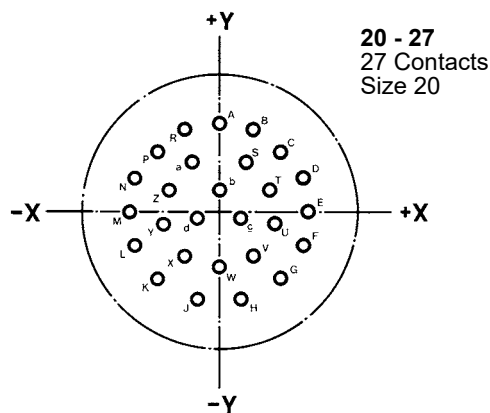
With GS dip solder contacts (p. 30-32)



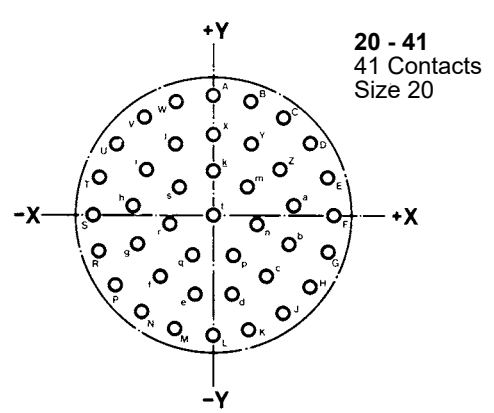
| Contact | X      | Y      | Contact | X      | Y      |
|---------|--------|--------|---------|--------|--------|
| A       | + 4.45 | + 9.53 | N       | + 3.81 | + 5.08 |
| B       | + 8.89 | + 5.08 | P       | + 6.35 | 0      |
| C       | +10.16 | 0      | R       | + 5.08 | - 3.81 |
| D       | + 8.89 | - 5.08 | S       | + 1.91 | - 6.35 |
| E       | + 5.08 | - 8.89 | T       | - 1.91 | - 6.35 |
| F       | 0      | -10.16 | U       | - 5.08 | - 3.81 |
| G       | - 5.08 | - 8.89 | V       | - 6.35 | 0      |
| H       | - 8.89 | - 5.08 | W       | - 3.81 | + 5.08 |
| J       | -10.16 | 0      | X       | 0      | + 3.81 |
| K       | - 8.89 | + 5.08 | Y       | + 2.54 | + 0.64 |
| L       | - 4.45 | + 9.53 | Z       | 0      | - 2.54 |
| M       | 0      | - 7.62 | a       | - 2.54 | + 0.64 |



| Contact | X       | Y       | Contact | X      | Y      |
|---------|---------|---------|---------|--------|--------|
| A       | 0       | + 10.16 | P       | - 5.72 | + 5.72 |
| B       | + 3.81  | + 9.53  | R       | - 3.81 | + 9.53 |
| C       | + 5.72  | + 5.72  | S       | + 1.91 | + 5.72 |
| D       | + 9.53  | + 4.45  | T       | + 6.35 | + 1.91 |
| E       | + 10.16 | + 0.64  | U       | + 3.81 | - 5.08 |
| F       | + 9.53  | - 3.18  | V       | - 3.81 | - 5.08 |
| G       | + 6.99  | - 7.62  | W       | - 6.35 | + 1.91 |
| H       | + 2.54  | - 10.16 | X       | - 1.91 | + 5.72 |
| J       | - 2.54  | - 10.16 | Y       | 0      | + 1.91 |
| K       | - 6.99  | - 7.62  | Z       | + 3.18 | - 0.64 |
| L       | - 9.53  | - 3.18  | a       | 0      | - 3.18 |
| M       | - 10.16 | + 0.64  | b       | - 3.18 | - 0.64 |
| N       | - 9.53  | + 4.45  |         |        |        |



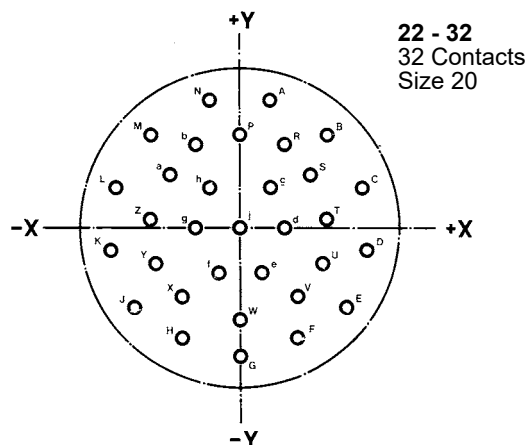
| Contact | X       | Y       | Contact | X      | Y      |
|---------|---------|---------|---------|--------|--------|
| A       | 0       | + 10.16 | R       | - 3.81 | + 9.53 |
| B       | + 3.81  | + 9.53  | S       | + 3.18 | + 5.72 |
| C       | + 6.99  | + 6.99  | T       | + 5.72 | + 2.54 |
| D       | + 9.53  | + 3.81  | U       | + 6.35 | - 1.27 |
| E       | + 10.16 | 0       | V       | + 3.81 | - 5.08 |
| F       | + 9.53  | - 3.81  | W       | 0      | - 6.35 |
| G       | + 6.99  | - 7.62  | X       | - 3.81 | - 5.08 |
| H       | + 2.54  | - 10.16 | Y       | - 6.35 | - 1.27 |
| J       | - 2.54  | - 10.16 | Z       | - 5.72 | + 2.54 |
| K       | - 6.99  | - 7.62  | a       | - 3.18 | + 5.72 |
| L       | - 9.53  | - 3.81  | b       | 0      | + 2.54 |
| M       | - 10.16 | 0       | c       | + 2.54 | - 0.64 |
| N       | - 9.53  | + 3.81  | d       | - 2.54 | - 0.64 |
| P       | - 6.99  | + 6.99  |         |        |        |



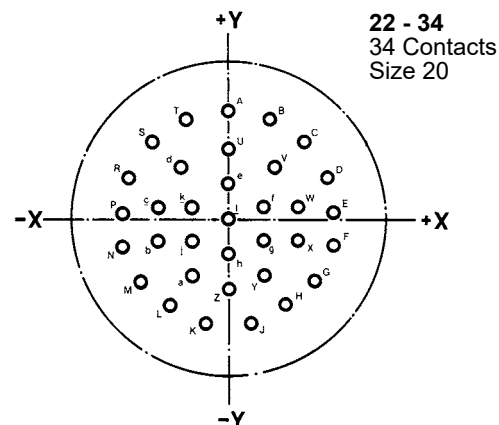
| Contact | X       | Y       | Contact | X      | Y      |
|---------|---------|---------|---------|--------|--------|
| A       | 0       | + 10.60 | Y       | + 3.35 | + 6.38 |
| B       | + 3.28  | + 10.09 | Z       | + 5.92 | + 4.09 |
| C       | + 6.23  | + 8.58  | a       | + 7.15 | + 0.87 |
| D       | + 8.58  | + 6.23  | b       | + 6.73 | - 2.55 |
| E       | + 10.09 | + 3.28  | c       | + 4.78 | - 5.39 |
| F       | + 10.60 | 0       | d       | + 1.73 | - 6.99 |
| G       | + 10.09 | - 3.28  | e       | - 1.73 | - 6.99 |
| H       | + 8.58  | - 6.23  | f       | - 4.78 | - 5.39 |
| J       | + 6.23  | - 8.58  | g       | - 6.73 | - 2.55 |
| K       | + 3.28  | - 10.09 | h       | - 7.15 | + 0.87 |
| L       | 0       | - 10.60 | i       | - 5.92 | + 4.09 |
| M       | - 3.28  | - 10.09 | j       | - 3.35 | + 6.38 |
| N       | - 6.23  | - 8.58  | k       | 0      | + 3.81 |
| P       | - 8.58  | - 6.23  | m       | + 2.98 | + 2.38 |
| R       | - 10.09 | - 3.28  | n       | + 3.71 | - 0.85 |
| S       | - 10.60 | 0       | p       | - 1.66 | - 3.43 |
| T       | - 10.09 | + 3.28  | q       | + 1.66 | - 3.43 |
| U       | - 8.58  | + 6.23  | r       | - 3.71 | - 0.85 |
| V       | - 6.23  | + 8.58  | s       | - 2.98 | + 2.38 |
| W       | - 3.28  | + 10.09 | t       | 0      | 0      |
| X       | 0       | + 7.20  |         |        |        |

## Contact bore holes for receptacles

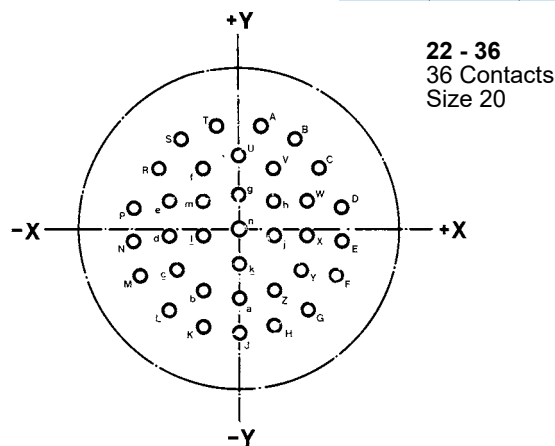
With GS dip solder contacts (p. 30-32)



| Contact | X       | Y       | Contact | X      | Y      |
|---------|---------|---------|---------|--------|--------|
| A       | + 2.54  | + 11.43 | T       | + 8.26 | + 0.64 |
| B       | + 8.26  | + 8.26  | U       | + 7.62 | - 3.18 |
| C       | + 10.80 | + 3.81  | V       | + 5.08 | - 6.35 |
| D       | + 11.43 | - 1.91  | W       | 0      | - 7.62 |
| E       | + 9.53  | - 6.99  | X       | - 5.08 | - 6.35 |
| F       | + 5.08  | - 10.16 | Y       | - 7.62 | - 3.18 |
| G       | 0       | - 11.43 | Z       | - 8.26 | + 0.64 |
| H       | - 5.08  | - 10.16 | a       | - 6.35 | + 4.45 |
| J       | - 9.53  | - 6.99  | b       | - 3.81 | + 7.62 |
| K       | - 11.43 | - 1.91  | c       | + 2.54 | + 3.81 |
| L       | - 10.80 | + 3.81  | d       | + 3.81 | 0      |
| M       | - 8.26  | + 8.26  | e       | + 1.91 | - 3.81 |
| N       | - 2.54  | + 11.43 | f       | - 1.91 | - 3.81 |
| P       | 0       | + 8.26  | g       | - 3.81 | 0      |
| R       | + 3.81  | + 7.62  | h       | - 2.54 | + 3.81 |
| S       | + 6.35  | + 4.45  | j       | 0      | 0      |



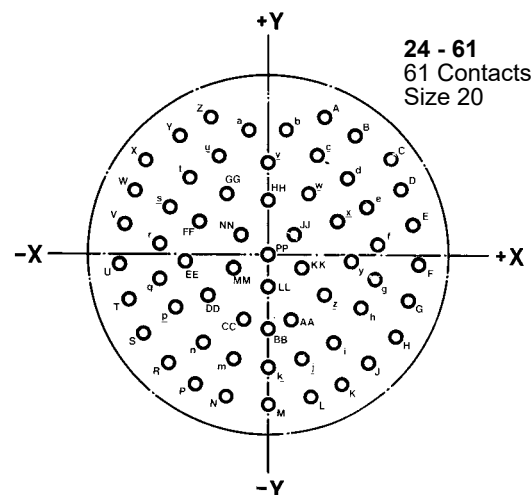
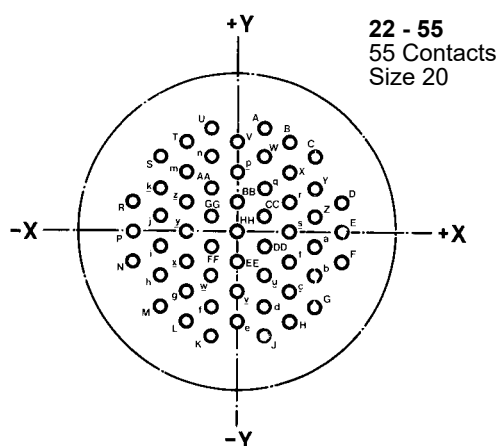
| Contact | X       | Y       | Contact | X      | Y      |
|---------|---------|---------|---------|--------|--------|
| A       | 0       | + 11.43 | U       | 0      | + 7.62 |
| B       | + 4.45  | + 10.80 | V       | + 5.08 | + 5.72 |
| C       | + 8.26  | + 8.26  | W       | + 7.62 | + 1.27 |
| D       | + 10.80 | + 4.45  | X       | + 7.62 | - 2.54 |
| E       | + 11.43 | + 0.64  | Y       | + 3.81 | - 6.35 |
| F       | + 11.43 | - 3.18  | Z       | 0      | - 7.62 |
| G       | + 9.53  | - 6.99  | a       | - 3.81 | - 6.35 |
| H       | + 6.35  | - 9.53  | b       | - 7.62 | - 2.54 |
| J       | + 2.54  | - 11.43 | c       | - 7.62 | + 1.27 |
| K       | - 2.54  | - 11.43 | d       | - 5.08 | + 5.72 |
| L       | - 6.35  | - 9.53  | e       | 0      | + 3.81 |
| M       | - 9.53  | - 6.99  | f       | + 3.81 | + 1.27 |
| N       | - 11.43 | - 3.18  | g       | + 3.81 | - 2.54 |
| P       | - 11.43 | + 0.64  | h       | 0      | - 3.81 |
| R       | - 10.80 | + 4.45  | j       | - 3.81 | - 2.54 |
| S       | - 8.26  | + 8.26  | k       | - 3.81 | + 1.27 |
| T       | - 4.45  | + 10.80 | l       | 0      | 0      |



| Contact | X       | Y       | Contact | X      | Y      |
|---------|---------|---------|---------|--------|--------|
| A       | + 2.54  | + 11.43 | V       | + 3.81 | + 6.99 |
| B       | + 6.35  | + 10.16 | W       | + 7.62 | + 3.18 |
| C       | + 8.89  | + 6.99  | X       | + 7.62 | - 0.64 |
| D       | + 11.43 | + 2.54  | Y       | + 6.99 | - 4.45 |
| E       | + 11.43 | - 1.27  | Z       | + 3.81 | - 6.99 |
| F       | + 10.80 | - 5.08  | a       | 0      | - 7.62 |
| G       | + 7.62  | - 8.89  | b       | - 3.81 | - 6.99 |
| H       | + 3.81  | - 10.80 | c       | - 6.99 | - 4.45 |
| J       | 0       | - 11.43 | d       | - 7.62 | - 0.64 |
| K       | - 3.81  | - 10.80 | e       | - 7.62 | + 3.18 |
| L       | - 7.62  | - 8.89  | f       | - 3.81 | + 6.99 |
| M       | - 10.80 | - 5.08  | g       | 0      | + 3.81 |
| N       | - 11.43 | - 1.27  | h       | + 3.81 | + 3.18 |
| P       | - 11.43 | + 2.54  | j       | + 3.81 | - 0.64 |
| R       | - 8.89  | + 6.99  | k       | 0      | - 3.81 |
| S       | - 6.35  | + 10.16 | l       | - 3.81 | - 0.64 |
| T       | - 2.54  | + 11.43 | m       | - 3.81 | + 3.18 |
| U       | 0       | + 8.26  | n       | 0      | 0      |

## Contact bore holes for receptacles

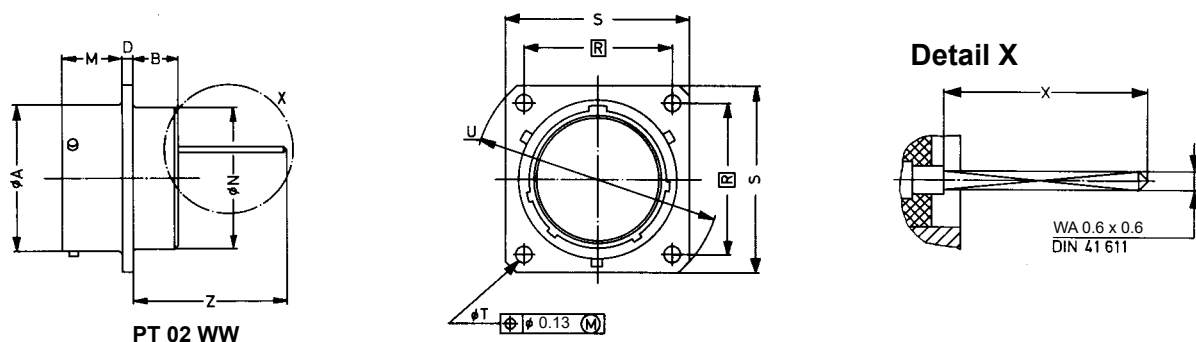
With GS dip solder contacts (p. 30-32)



| Contact | X       | Y       | Contact | X      | Y      |
|---------|---------|---------|---------|--------|--------|
| A       | + 2.84  | + 11.56 | f       | - 2.84 | - 8.26 |
| B       | + 5.72  | + 9.91  | g       | - 5.72 | - 6.60 |
| C       | + 8.53  | + 8.26  | h       | - 8.53 | - 4.95 |
| D       | + 11.43 | + 3.30  | i       | - 8.53 | - 1.65 |
| E       | + 11.43 | 0       | j       | - 8.53 | + 1.65 |
| F       | + 11.43 | - 3.30  | k       | - 8.53 | + 4.95 |
| G       | + 8.53  | - 8.26  | m       | - 5.72 | - 6.60 |
| H       | + 5.72  | - 9.91  | n       | - 2.84 | + 8.26 |
| J       | + 2.84  | - 11.56 | p       | 0      | + 6.60 |
| K       | - 2.84  | - 11.56 | q       | + 2.84 | + 4.95 |
| L       | - 5.72  | - 9.91  | r       | + 5.72 | + 3.30 |
| M       | - 8.53  | - 8.26  | s       | + 5.72 | 0      |
| N       | - 11.43 | - 3.30  | t       | + 5.72 | - 3.30 |
| P       | - 11.43 | 0       | u       | + 2.84 | - 4.95 |
| R       | - 11.43 | + 3.30  | v       | 0      | - 6.60 |
| S       | - 8.53  | + 8.26  | w       | - 2.84 | - 4.95 |
| T       | - 5.72  | + 9.91  | x       | - 5.72 | - 3.30 |
| U       | - 2.84  | + 11.56 | y       | - 5.72 | 0      |
| V       | 0       | + 9.91  | z       | - 5.72 | + 3.30 |
| W       | + 2.84  | + 8.26  | AA      | - 2.84 | + 4.95 |
| X       | + 5.72  | + 6.60  | BB      | 0      | + 3.30 |
| Y       | + 8.53  | + 4.95  | CC      | + 2.84 | + 1.65 |
| Z       | + 8.53  | + 1.65  | DD      | + 2.84 | - 1.65 |
| a       | + 8.53  | - 1.65  | EE      | 0      | - 3.30 |
| b       | + 8.53  | - 4.95  | FF      | - 2.84 | - 1.65 |
| c       | + 8.53  | - 6.60  | GG      | - 2.84 | + 1.65 |
| d       | + 2.84  | - 8.26  | HH      | 0      | 0      |
| e       | 0       | - 9.91  |         |        |        |

| Contact | X       | Y       | Contact | X       | Y       |
|---------|---------|---------|---------|---------|---------|
| A       | + 4.98  | + 12.70 | i       | + 6.38  | - 7.98  |
| B       | + 7.98  | + 11.05 | j       | + 3.38  | - 9.63  |
| C       | + 10.49 | + 8.71  | k       | 0       | - 10.21 |
| D       | + 12.32 | + 5.84  | m       | - 3.38  | - 9.63  |
| E       | + 13.39 | + 2.57  | n       | - 6.38  | - 7.98  |
| F       | + 13.61 | - 0.76  | p       | - 8.66  | - 5.41  |
| G       | + 12.98 | - 4.17  | q       | - 9.96  | - 2.24  |
| H       | + 11.53 | - 7.29  | r       | - 10.13 | + 1.17  |
| J       | + 9.35  | - 9.93  | s       | - 9.19  | + 4.45  |
| K       | + 6.58  | - 11.94 | t       | - 7.24  | + 7.19  |
| L       | + 3.40  | - 13.18 | u       | - 4.39  | + 9.22  |
| M       | 0       | - 13.64 | v       | 0       | + 8.59  |
| N       | - 3.40  | - 13.18 | w       | + 3.73  | + 5.66  |
| P       | - 6.58  | - 11.94 | x       | + 6.02  | + 3.10  |
| R       | - 9.35  | - 9.93  | y       | + 6.78  | - 0.25  |
| S       | - 11.53 | - 7.29  | z       | + 5.79  | - 3.53  |
| T       | - 12.98 | - 4.17  | AA      | + 3.33  | - 5.92  |
| U       | - 13.61 | - 0.76  | BB      | 0       | - 6.78  |
| V       | - 13.39 | + 2.57  | CC      | - 3.33  | - 5.92  |
| W       | - 12.32 | + 5.84  | DD      | - 5.79  | - 3.53  |
| X       | - 10.49 | + 8.71  | EE      | - 6.78  | - 0.25  |
| Y       | - 7.98  | + 11.05 | FF      | - 6.02  | + 3.10  |
| Z       | - 4.98  | + 12.70 | GG      | - 3.73  | + 5.66  |
| a       | - 1.73  | + 11.53 | HH      | 0       | + 5.08  |
| b       | + 1.73  | + 11.53 | JJ      | + 2.67  | + 2.39  |
| c       | + 4.93  | + 9.22  | KK      | + 3.43  | - 1.04  |
| d       | + 7.24  | + 7.19  | LL      | 0       | - 3.35  |
| e       | + 9.19  | + 4.45  | MM      | - 3.43  | - 1.04  |
| f       | + 10.13 | + 1.17  | NN      | - 2.67  | + 2.39  |
| g       | + 9.96  | - 2.24  | PP      | 0       | 0       |
| h       | + 8.66  | - 5.41  |         |         |         |

## Box mounting receptacle PT 02 WW



Ordering example

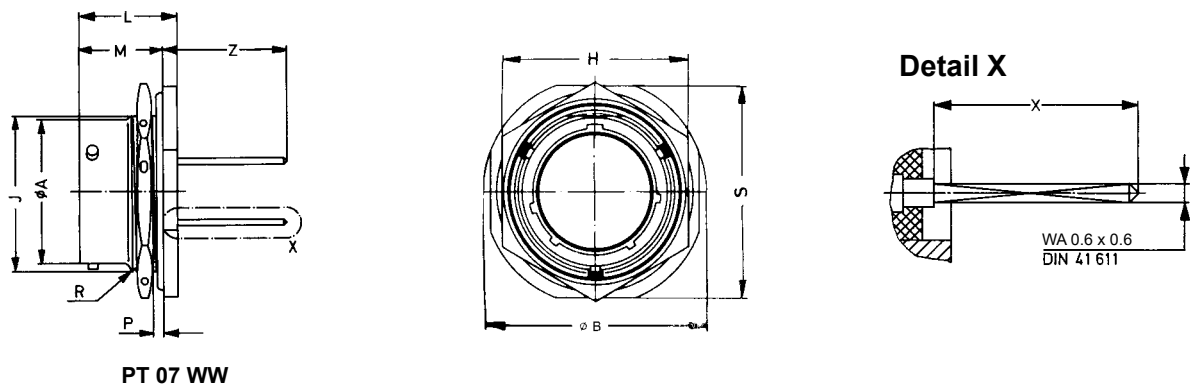
PT 02 WW 14-19 P W

see p. 70

Dimensions in mm

| Shell size | Ø A            | B     | D     | M          | Ø N   | R                   | S     | T     | U     | X    | Z    |
|------------|----------------|-------|-------|------------|-------|---------------------|-------|-------|-------|------|------|
|            | +0.03<br>-0.13 | -0.25 | ±0.25 | +0.25<br>0 | max.  | Theor.<br>dimension | max.  | ±0.13 | ±0.41 | ±0.5 | max. |
| 8          | 12.01          | 6.35  | 1.57  | 10.95      | 11.40 | 15.09               | 21.02 | 3.05  | 26.97 | 13   | 20.2 |
| 10         | 14.99          | 6.35  | 1.57  | 10.95      | 14.55 | 18.26               | 24.23 | 3.05  | 31.75 | 13   | 20.2 |
| 12         | 19.05          | 6.35  | 1.57  | 10.95      | 17.75 | 20.62               | 26.59 | 3.05  | 34.93 | 13   | 20.2 |
| 14         | 22.23          | 6.35  | 1.57  | 10.95      | 20.90 | 23.01               | 28.98 | 3.05  | 38.10 | 13   | 20.2 |
| 16         | 25.40          | 6.35  | 1.57  | 10.95      | 24.10 | 24.61               | 31.34 | 3.05  | 41.28 | 13   | 20.2 |
| 18         | 28.58          | 6.35  | 1.57  | 10.95      | 27.25 | 26.97               | 33.83 | 3.05  | 44.45 | 13   | 20.2 |
| 20         | 31.75          | 8.74  | 2.39  | 14.12      | 30.45 | 29.36               | 36.91 | 3.05  | 47.63 | 13   | 23.3 |
| 22         | 34.93          | 8.74  | 2.39  | 14.12      | 33.60 | 31.75               | 40.08 | 3.05  | 50.80 | 13   | 23.3 |
| 24         | 38.10          | 8.74  | 2.39  | 14.96      | 36.80 | 34.93               | 43.26 | 3.73  | 55.58 | 13   | 22.5 |

## Receptacle for single hole mounting PT 07 WW



Ordering example

PT 07 WW 14-19 P W

see p. 70

Dimensions in mm

| Shell size | Ø A            | Ø B  | H    | J         | L     | M     | P    |      | Thread R            | S     | X    | Z    |
|------------|----------------|------|------|-----------|-------|-------|------|------|---------------------|-------|------|------|
|            | +0.03<br>-0.13 | max. | ±0.4 | 0<br>-0.3 | ±0.13 | ±0.13 | min. | max. | Class 2 A<br>(inch) | max.  | ±0.5 | max. |
| 8          | 12.01          | 27.5 | 19.1 | 13.46     | 20.9  | 17.68 | 1.6  | 3.2  | 0.5625-24 NEF       | 24.24 | 13   | 15.1 |
| 10         | 14.99          | 30.5 | 22.2 | 16.64     | 20.9  | 17.68 | 1.6  | 3.2  | 0.6875-24 NEF       | 27.38 | 13   | 15.1 |
| 12         | 19.05          | 35.5 | 27.0 | 20.78     | 20.9  | 17.68 | 1.6  | 3.2  | 0.8750-20 UNEF      | 32.16 | 13   | 15.1 |
| 14         | 22.23          | 38.5 | 30.2 | 23.93     | 20.9  | 17.68 | 1.6  | 3.2  | 1.0000-20 UNEF      | 35.33 | 13   | 15.1 |
| 16         | 25.40          | 41.5 | 33.3 | 27.08     | 20.9  | 17.68 | 1.6  | 3.2  | 1.1250-18 NEF       | 38.51 | 13   | 15.1 |
| 18         | 28.58          | 45.0 | 36.5 | 30.25     | 20.9  | 17.68 | 1.6  | 3.2  | 1.2500-18 NEF       | 41.68 | 13   | 15.1 |
| 20         | 31.75          | 49.5 | 39.7 | 33.43     | 26.4  | 22.45 | 1.6  | 6.4  | 1.3750-18 NEF       | 46.43 | 13   | 17.3 |
| 22         | 34.93          | 52.5 | 42.9 | 36.60     | 26.4  | 22.45 | 1.6  | 6.4  | 1.5000-18 NEF       | 49.63 | 13   | 17.3 |
| 24         | 38.10          | 56.0 | 46.0 | 39.78     | 27.3  | 23.39 | 1.6  | 6.4  | 1.6250-18 NEF       | 52.78 | 13   | 16.6 |

WW version only with contact size 20.  
Other contact sizes upon request.

Assembly instructions p. 60-68.

The PT-SE series includes the following types of plugs and receptacles with removable crimp contacts. The connectors of this series are attachable to and interchangeable with all the connectors of the MIL-C-26482, VG 95328, LN 29500, LN 29504, MIL-C-83723, NAS 1599, NFL 54125, DEF 5325-3/5326-3 and IEC publication 130-7 standards.

The connectors in this series, which can be delivered with different backshells depending on service class (see page 40), are specified in accordance with MIL-C-26482, Series 1 and VG 95328 (see p. 13).

### Shell design features

- Aluminum alloy.
- Surface treatment: cadmium and green chromate coating; conductive = standard. Other surfaces: see p. 70
- Three pin bayonet coupling.
- 5 guide grooves and lugs for perfect coupling.
- Up to 5 angular positions ensure polarization of the contact insert and main guide groove.
- 7 shell designs (see p. 41 to 51).
- 9 shell sizes (size 8 to 24).
- HF-sealed 360° via grounding ring in plug PTG 06 SE.
- Protection class as per IEC 529: IP 67 depending on backshell.

### Contact insert

- Neoprene insert.
- Numerous contact arrangements with 3 to 61 contacts.
- Contact designation on mating and termination face.
- Sealing elements on mating and termination face.

### Crimp contacts

- Pin and socket contacts made of high-quality copper alloy.
- Hard gold plated contact surface.
- Contact sizes AWG 16 and 20 (see page 5).
- Pin and socket contacts are removable.
- Ordering information page 70



**PT 00 SE**  
Wall mounting  
receptacle



**PT 01 SE**  
Cable connecting  
plug



**PT 02 SE**  
Box mounting  
receptacle



**PT 07 SE**  
Receptacle  
for single hole  
mounting  
(with O-ring)



**PT 06 SE**  
Straight plug



**PT 06 SE ... SQ**  
Straight plug  
(HF-sealed)



**PT 08 SE**  
Angle plug

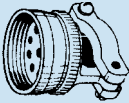
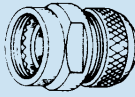
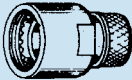
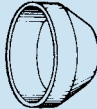
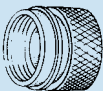
## Service classes and backshells

In order to meet different environmental requirements, PT-SE connectors are available in both service classes named below, with several different backshells.

### Service classes

| Service class | Characteristics                                              |
|---------------|--------------------------------------------------------------|
| »SE«          | Moisture-proof version.<br>Single wire seals.                |
| »SP«          | Similar to service class »SE«, yet for sealing wire bundles. |

### Backshells

| Backshells                                                                                       | Characteristics                                                      | Backshells                                                                                       | Characteristics                                                              |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <br>SE          | Backshell for single wire sealing.                                   | <br>SE ... PG  | Backshells for sealing jacketed and shielded/unshielded wires.               |
| <br>SE ... SR | Backshell with cable clamp for single wire sealing.                  | <br>SE ... SQ | Backshells for attaching shielding braids and heat shrink parts (see p. 60). |
| <br>SE ... F  | Backshell (twist-proof) for attaching heat shrink parts (see p. 60). | <br>SP        | Nylon potting boot for sealing wire bundles.                                 |
| <br>SE ... J  | Backshell for attaching heat shrink parts (see p. 60).               |                                                                                                  |                                                                              |

### Available connectors

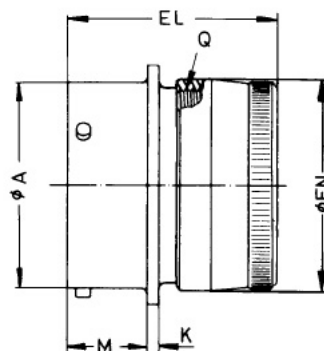
| Connector                           | Service class |          |
|-------------------------------------|---------------|----------|
|                                     | »SE«          | »SP«     |
| Wall mounting receptacle            | PT 00 SE      | PT 00 SP |
| Cable connecting plug               | PT 01 SE      | PT 01 SP |
| Box mounting receptacle*            | PT 02 SE      | – – –    |
| Straight plug                       | PT 06 SE      | PT 06 SP |
| Straight plug (HF-sealed)           | PTG 06 SE     | – – –    |
| Receptacle for single hole mounting | PT 07 SE      | PT 07 SP |
| Angle plug                          | PT 08 SE      | PT 08 SP |

\*) The receptacle PT 02 SE has no single wire sealing and no backshell.

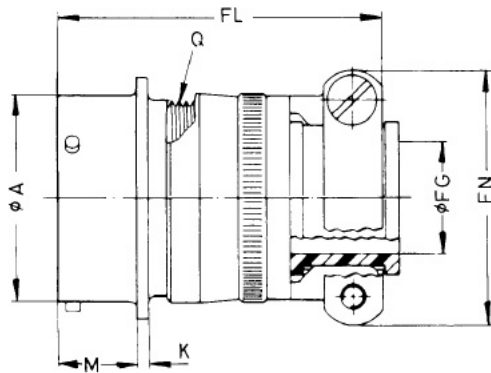
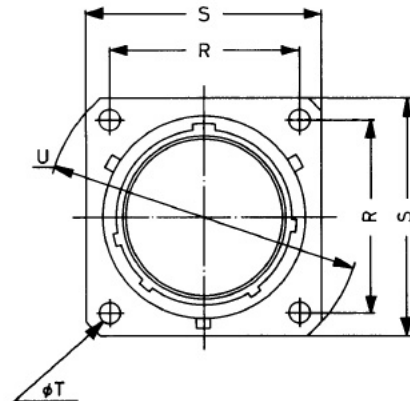
Ordering information page 70



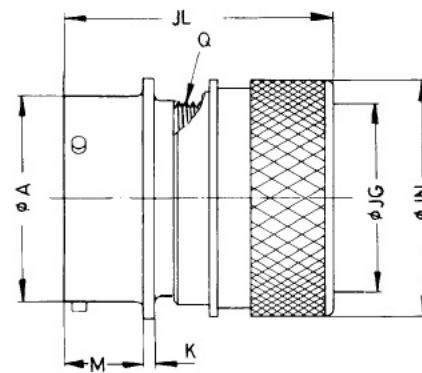
## Wall mounting receptacle PT 00 SE (VG 95328)



**PT 00 SE**  
(VG 95328 A / MS 3120 E)



**PT 00 SE...SR**  
(VG 95328 B / MS 3120 F)



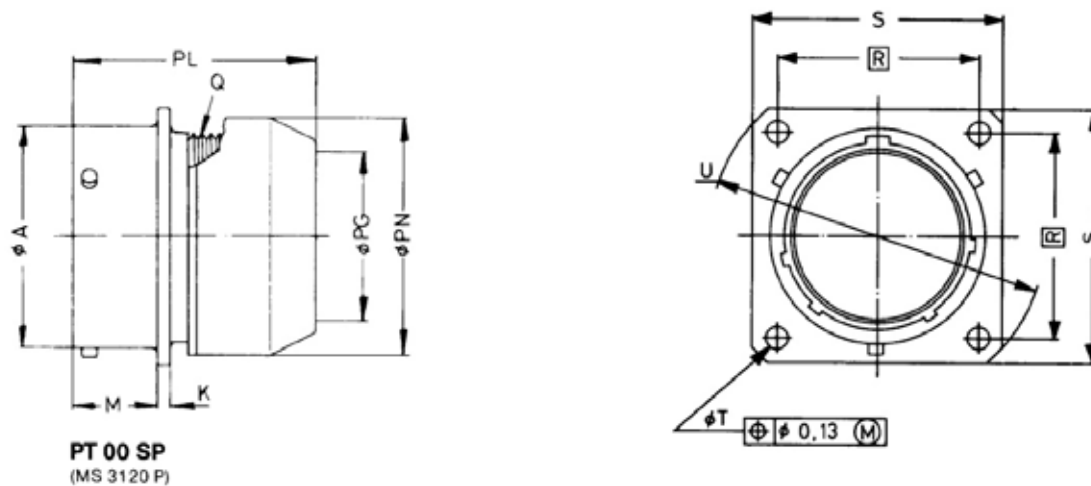
**PT 00 SE...J**

Ordering example      PT 00 SE 14-19 PW SR      see p. 70

| Shell size | øA<br>+0.025<br>-0.13 | EL<br>max. | ø EN<br>max. | ø FG<br>± 0.25 | FL<br>max. | FN<br>max. | Ø JG<br>± 0.1 | JL<br>max. | ø JN<br>max. | K<br>max. | M<br>+0.8 | Thread Q<br>Class 2 A<br>(inch) | R<br>±0.15 | S<br>max. | ø T<br>min. | U<br>±0.41 |
|------------|-----------------------|------------|--------------|----------------|------------|------------|---------------|------------|--------------|-----------|-----------|---------------------------------|------------|-----------|-------------|------------|
| 8          | 12.01                 | 33.73      | 14.22        | 3.18           | 48.82      | 21.02      | 7.9           | 36.91      | 15.6         | 2.0       | 10.94     | 0.4375-28 UNEF                  | 15.08      | 21.03     | 2.9         | 26.97      |
| 10         | 14.99                 | 33.73      | 17.40        | 4.78           | 48.82      | 22.63      | 10.9          | 37.41      | 18.4         | 2.0       | 10.94     | 0.5625-24 NEF                   | 18.26      | 24.23     | 2.9         | 31.75      |
| 12         | 19.05                 | 33.73      | 20.65        | 7.92           | 48.82      | 25.81      | 13.8          | 38.21      | 23.7         | 2.0       | 10.94     | 0.6875-24 NEF                   | 20.62      | 26.59     | 2.9         | 34.93      |
| 14         | 22.23                 | 33.73      | 23.62        | 9.53           | 48.82      | 28.98      | 16.9          | 38.41      | 24.5         | 2.0       | 10.94     | 0.8125-20 UNEF                  | 23.01      | 28.98     | 2.9         | 38.10      |
| 16         | 25.40                 | 33.73      | 26.85        | 12.70          | 50.80      | 30.56      | 20.1          | 37.91      | 29.8         | 2.0       | 10.94     | 0.9375-20 UNEF                  | 24.61      | 31.34     | 2.9         | 41.28      |
| 18         | 28.58                 | 33.73      | 29.85        | 15.88          | 50.80      | 37.31      | 22.7          | 38.61      | 32.0         | 2.0       | 10.94     | 1.0625-18 NEF                   | 26.97      | 33.73     | 2.9         | 44.45      |
| 20         | 31.75                 | 34.52      | 33.05        | 15.88          | 55.17      | 37.31      | 25.9          | 44.78      | 36.1         | 2.8       | 14.12     | 1.1875-18 NEF                   | 29.36      | 36.91     | 2.9         | 47.63      |
| 22         | 34.93                 | 34.52      | 36.27        | 19.05          | 55.17      | 42.06      | 29.0          | 44.28      | 38.5         | 2.8       | 14.12     | 1.3125-18 NEF                   | 31.75      | 40.08     | 2.9         | 50.80      |
| 24         | 38.10                 | 36.12      | 38.94        | 20.32          | 56.74      | 44.45      | 32.2          | 44.58      | 41.5         | 2.8       | 14.96     | 1.4375-18 NEF                   | 34.93      | 43.26     | 3.6         | 55.58      |

Assembly instructions p. 60-68.

## Wall mounting receptacle PT 00 SE (M 3120)

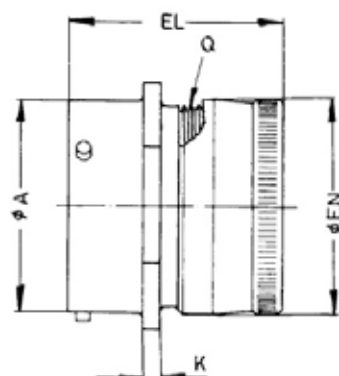


Ordering example      PT 00 SE 14-19 P W SQ      see p. 70

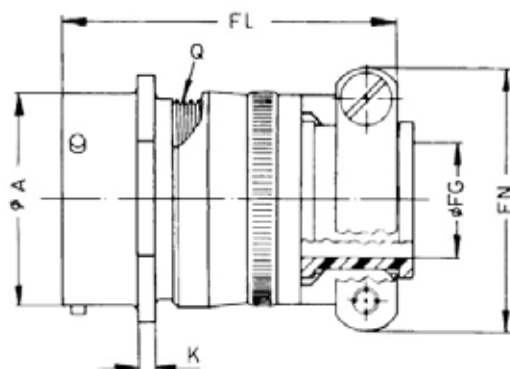
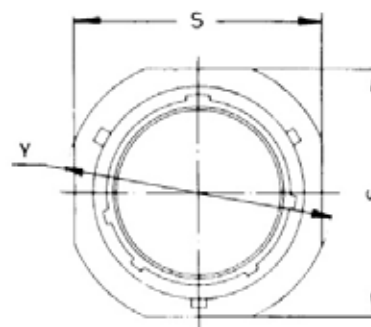
| Shell size | Ø A<br>+0.025<br>- 0.13 | K<br>± 0.41 | M<br>+ 0.25<br>0 | ø PG<br>min. | PL<br>max. | ø PN<br>max. | Thread Q<br>Class 2 A<br>(inch) | $\overline{R}$<br>Theor.<br>dimensions | S<br>max. | ø T<br>± 0.13 | U<br>± 0.41 |
|------------|-------------------------|-------------|------------------|--------------|------------|--------------|---------------------------------|----------------------------------------|-----------|---------------|-------------|
| 8          | 12.01                   | 1.57        | 10.95            | 8.05         | 42.06      | 15.44        | 0.4375-28 UNEF                  | 15.09                                  | 21.02     | 3.05          | 26.97       |
| 10         | 14.99                   | 1.57        | 10.95            | 11.02        | 42.06      | 18.64        | 0.5625-24 NEF                   | 18.26                                  | 24.23     | 3.05          | 31.75       |
| 12         | 19.05                   | 1.57        | 10.95            | 13.92        | 42.06      | 21.79        | 0.6875-24 NEF                   | 20.62                                  | 26.59     | 3.05          | 34.93       |
| 14         | 22.23                   | 1.57        | 10.95            | 17.09        | 42.06      | 24.99        | 0.8125-20 UNEF                  | 23.01                                  | 28.98     | 3.05          | 38.10       |
| 16         | 25.40                   | 1.57        | 10.95            | 20.27        | 42.06      | 28.19        | 0.9375-20 UNEF                  | 24.61                                  | 31.34     | 3.05          | 41.28       |
| 18         | 28.58                   | 1.57        | 10.95            | 22.83        | 42.06      | 31.34        | 1.0625-18 NEF                   | 26.97                                  | 33.73     | 3.05          | 44.45       |
| 20         | 31.75                   | 2.39        | 14.12            | 26.01        | 44.45      | 34.54        | 1.1875-18 NEF                   | 29.36                                  | 36.91     | 3.05          | 47.63       |
| 22         | 34.93                   | 2.39        | 14.12            | 29.18        | 44.45      | 37.69        | 1.3125-18 NEF                   | 31.75                                  | 40.08     | 3.05          | 50.80       |
| 24         | 38.10                   | 2.39        | 14.96            | 32.36        | 45.26      | 40.89        | 1.4375-18 NEF                   | 34.93                                  | 43.26     | 3.73          | 55.58       |

Assembly instructions p. 60-68.

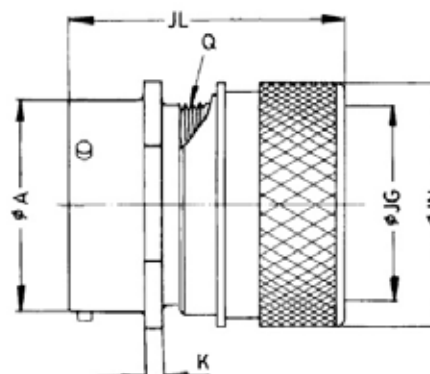
## Cable connecting plug PT 01 SE (MS 3121)



**PT 01 SE**  
(MS 3121 E)



**PT 01 SE ... SR** (MS 3121 F)



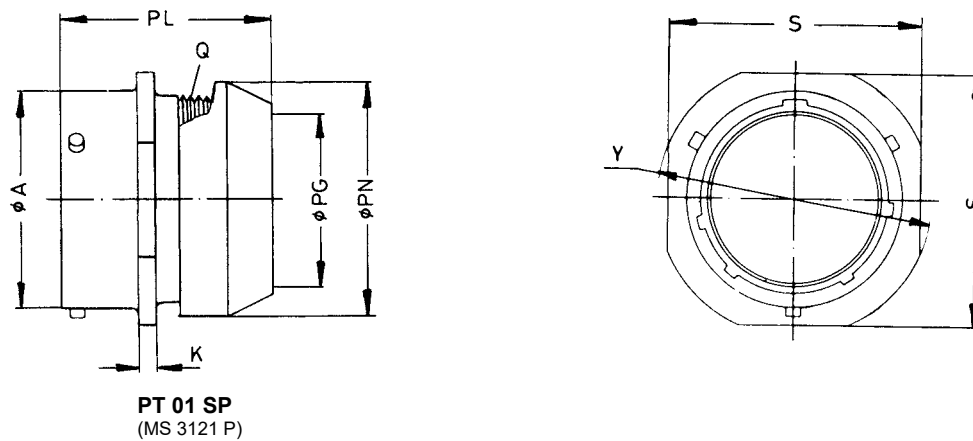
**PT 01 SE ... J**

Ordering example      PT 01 SE 14-19 P W SR      see p. 70

| Shell size | Ø A             | EL    | Ø EN  | Ø FG   | FL    | FN    | Ø JG  | JL    | Ø JN | K      | Thread Q            | S     | Y      |
|------------|-----------------|-------|-------|--------|-------|-------|-------|-------|------|--------|---------------------|-------|--------|
|            | +0.03<br>- 0.13 | max.  | max.  | ± 0.25 | max.  | max.  | + 0.1 | max.  | max. | ± 0.41 | Class 2 A<br>(inch) | max.  | ± 0.51 |
| 8          | 12.01           | 33.73 | 14.22 | 3.18   | 48.82 | 21.02 | 7.9   | 36.91 | 15.6 | 2.39   | 0.4375-28 UNEF      | 21.02 | 23.83  |
| 10         | 14.99           | 33.73 | 17.40 | 4.78   | 48.82 | 22.63 | 10.9  | 37.41 | 18.4 | 2.39   | 0.5625-24 NEF       | 24.26 | 26.97  |
| 12         | 19.05           | 33.73 | 20.65 | 7.92   | 48.82 | 25.81 | 13.8  | 38.21 | 23.7 | 2.39   | 0.6875-24 NEF       | 26.62 | 29.30  |
| 14         | 22.23           | 33.73 | 23.62 | 9.53   | 48.82 | 28.98 | 16.9  | 38.41 | 24.5 | 2.39   | 0.8125-20 UNEF      | 29.01 | 31.75  |
| 16         | 25.40           | 33.73 | 26.85 | 12.70  | 50.80 | 30.56 | 20.1  | 37.91 | 29.8 | 2.39   | 0.9375-20 UNEF      | 31.39 | 34.14  |
| 18         | 28.58           | 33.73 | 29.85 | 15.88  | 50.80 | 37.31 | 22.7  | 38.61 | 32.0 | 2.39   | 1.0624-18 NEF       | 33.76 | 36.53  |
| 20         | 31.75           | 34.52 | 33.05 | 15.88  | 55.17 | 37.31 | 25.9  | 44.78 | 36.1 | 2.92   | 1.1875-18 NEF       | 36.96 | 39.67  |
| 22         | 34.93           | 34.52 | 36.27 | 19.05  | 55.17 | 42.06 | 29.0  | 44.28 | 38.5 | 2.92   | 1.3125-18 NEF       | 40.11 | 42.88  |
| 24         | 38.10           | 36.12 | 38.94 | 20.32  | 56.74 | 44.45 | 32.2  | 44.58 | 41.5 | 2.92   | 1.4375-18 NEF       | 43.28 | 46.02  |

Assembly instructions p. 60-68.

## Cable connecting plug PT 01 SE (MS 3121)



Ordering example      PT 01 SE 14-19 P W SQ      see p. 70

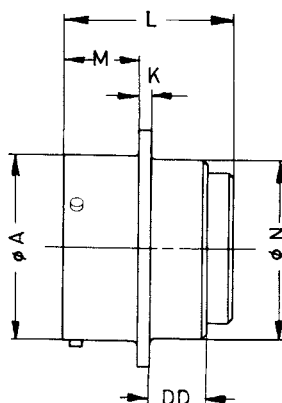
Dimensions in mm

| Shell size | Ø A<br>+ 0.025<br>- 0.13 | K<br>± 0.41 | Ø PG<br>min. | PL<br>max. | Ø PN<br>max. | Thread Q<br>Class 2 A<br>(inch) | S<br>max. | Y<br>± 0.51 |
|------------|--------------------------|-------------|--------------|------------|--------------|---------------------------------|-----------|-------------|
| 8          | 12.01                    | 2.39        | 8.05         | 42.06      | 15.44        | 0.4375-28 UNEF                  | 21.02     | 23.83       |
| 10         | 14.99                    | 2.39        | 11.02        | 42.06      | 18.64        | 0.5625-24 NEF                   | 24.26     | 26.97       |
| 12         | 19.05                    | 2.39        | 13.92        | 42.06      | 21.79        | 0.6875-24 NEF                   | 26.62     | 29.30       |
| 14         | 22.23                    | 2.39        | 17.09        | 42.06      | 24.99        | 0.8125-20 UNEF                  | 29.01     | 31.75       |
| 16         | 25.40                    | 2.39        | 20.27        | 42.06      | 28.19        | 0.9375-20 UNEF                  | 31.39     | 34.14       |
| 18         | 28.58                    | 2.39        | 22.83        | 42.06      | 31.34        | 1.0625-18 NEF                   | 33.76     | 36.53       |
| 20         | 31.75                    | 2.92        | 26.01        | 44.45      | 34.54        | 1.1875-18 NEF                   | 36.96     | 39.67       |
| 22         | 34.93                    | 2.92        | 29.18        | 44.45      | 37.69        | 1.3125-18 NEF                   | 40.11     | 42.88       |
| 24         | 38.10                    | 2.92        | 32.36        | 45.26      | 40.89        | 1.4375-18 NEF                   | 43.28     | 46.02       |

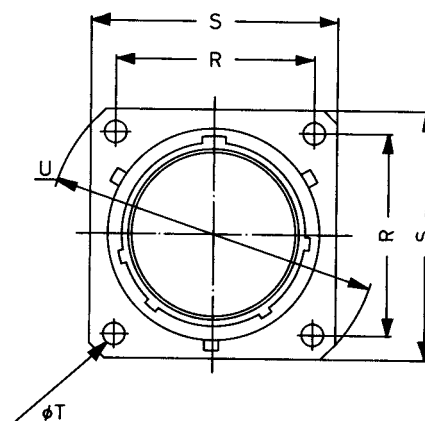
Assembly instructions p. 60-68.

## Box mounting receptacle PT 02 SE (VG 95328)

This receptacle cannot be equipped with a backshell.



**PT 02 SE**  
(VG 95328 C / MS 3122 E)



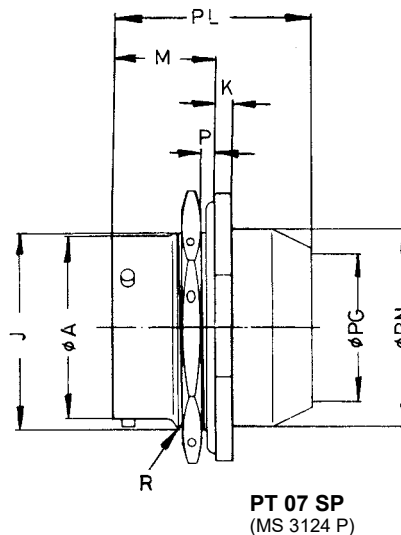
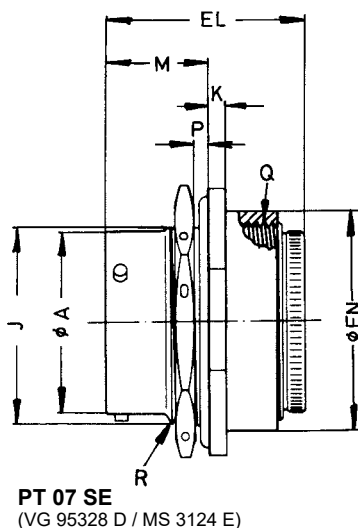
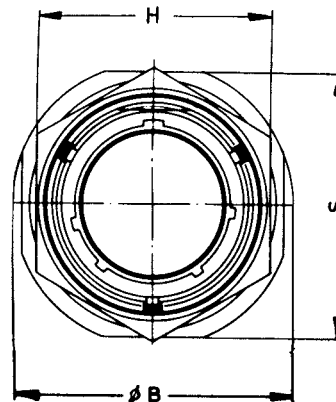
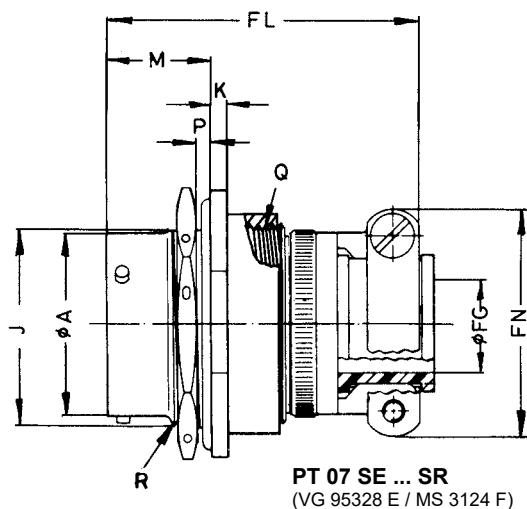
Ordering example      PT 02 SE 14-19 P W      see p. 70

Dimensions in mm

| Shell size | Ø A<br>+ 0.025<br>-0.13 | DD<br>max. | K<br>± 0.41 | L<br>max. | M<br>0.8<br>0 | Ø N<br>max. | R<br>± 0.15 | S<br>max. | Ø T<br>min. | U<br>± 0.41 |
|------------|-------------------------|------------|-------------|-----------|---------------|-------------|-------------|-----------|-------------|-------------|
| 8          | 12.01                   | 6.35       | 1.57        | 33.5      | 10.94         | 11.40       | 15.08       | 21.02     | 2.9         | 26.97       |
| 10         | 14.99                   | 6.35       | 1.57        | 33.5      | 10.94         | 14.55       | 18.26       | 24.23     | 2.9         | 31.75       |
| 12         | 19.05                   | 6.35       | 1.57        | 33.5      | 10.94         | 17.75       | 20.62       | 26.59     | 2.9         | 34.93       |
| 14         | 22.23                   | 6.35       | 1.57        | 33.5      | 10.94         | 20.90       | 23.01       | 28.98     | 2.9         | 38.10       |
| 16         | 25.40                   | 6.35       | 1.57        | 33.5      | 10.94         | 24.10       | 24.61       | 31.34     | 2.9         | 41.28       |
| 18         | 28.58                   | 6.35       | 1.57        | 33.5      | 10.94         | 27.25       | 26.97       | 33.73     | 2.9         | 44.45       |
| 20         | 31.75                   | 8.74       | 2.39        | 34.7      | 14.12         | 30.45       | 29.36       | 36.91     | 2.9         | 47.63       |
| 22         | 34.93                   | 8.74       | 2.39        | 36.0      | 14.12         | 33.60       | 31.75       | 40.08     | 2.9         | 50.80       |
| 24         | 38.10                   | 9.53       | 2.39        | 36.0      | 14.96         | 36.80       | 34.93       | 43.26     | 3.6         | 55.58       |

Assembly instructions p. 60-68.

## Receptacle for single hole mounting PT 07 SE (VG 95328)



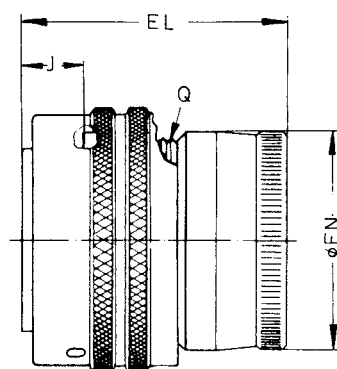
Ordering example      PT 07 SE 14-19 P W SR      see p. 70

Dimensions in mm

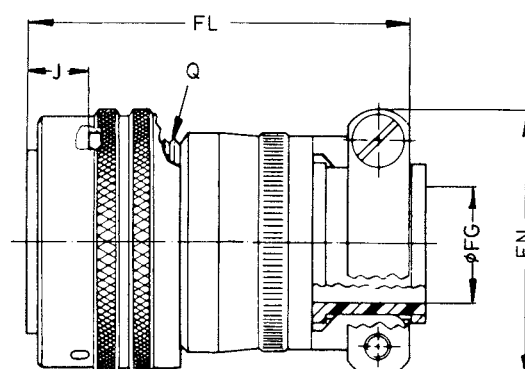
| Shell size     | Ø A             | Ø B  | EL    | ø EN | ø FG  | FL    | FN    | H    | J          | K    | M     | P                               |     | ø PG  | PL    | ø PN  | Thread Q            | Thread R            | S     |
|----------------|-----------------|------|-------|------|-------|-------|-------|------|------------|------|-------|---------------------------------|-----|-------|-------|-------|---------------------|---------------------|-------|
|                | +0.025<br>-0.13 | max. | max.  | max. | ±0.25 | max.  | max.  | ±0.4 | 0<br>-0.25 | ±0.5 | ±0.13 | (Mounting wall)<br>min.    max. |     | min.  | max.  | max.  | Class 2 B<br>(inch) | Class 2 A<br>(inch) | max.  |
| 8<br>10<br>12  | 12.01           | 27.3 | 39.29 | 19.0 | 3.18  | 48.82 | 21.02 | 19.1 | 13.46      | 3.0  | 17.68 | 1.6                             | 3.2 | 8.05  | 42.06 | 15.44 | 0.625-24 NEF        | 0.5625-24 NEF       | 24.24 |
|                | 14.99           | 30.5 | 39.29 | 22.2 | 4.78  | 48.82 | 22.63 | 22.2 | 16.64      | 3.0  | 17.68 | 1.6                             | 3.2 | 11.02 | 42.06 | 18.64 | 0.750-20 UNEF       | 0.6875-24 NEF       | 27.38 |
|                | 19.05           | 35.5 | 39.29 | 25.4 | 7.92  | 48.82 | 25.81 | 27.0 | 20.78      | 3.0  | 17.68 | 1.6                             | 3.2 | 13.92 | 42.06 | 21.79 | 0.875-20 UNEF       | 0.8750-20 UNEF      | 32.16 |
| 14<br>16<br>18 | 22.23           | 38.5 | 39.29 | 28.5 | 9.53  | 48.82 | 28.98 | 30.2 | 23.93      | 3.0  | 17.68 | 1.6                             | 3.2 | 17.09 | 42.06 | 24.99 | 1.000-20 UNEF       | 1.0000-20 UNEF      | 35.33 |
|                | 25.40           | 41.6 | 39.29 | 31.7 | 12.70 | 50.80 | 30.56 | 33.3 | 27.08      | 3.0  | 17.68 | 1.6                             | 3.2 | 20.27 | 42.06 | 28.19 | 1.125-18 NEF        | 1.1250-18 NEF       | 38.51 |
|                | 28.58           | 44.8 | 39.29 | 34.9 | 15.88 | 50.80 | 37.31 | 36.5 | 30.25      | 3.0  | 17.68 | 1.6                             | 3.2 | 22.83 | 42.06 | 31.34 | 1.250-18 NEF        | 1.2500-18 NEF       | 41.68 |
| 20<br>22<br>24 | 31.75           | 49.6 | 43.40 | 38.8 | 15.88 | 55.17 | 37.31 | 39.7 | 33.43      | 3.8  | 22.45 | 1.6                             | 3.2 | 26.01 | 48.82 | 34.54 | 1.375-18 NEF        | 1.3750-18 NEF       | 46.43 |
|                | 34.93           | 52.7 | 43.40 | 42.0 | 19.05 | 55.17 | 42.06 | 42.9 | 36.60      | 3.8  | 22.45 | 1.6                             | 3.2 | 29.18 | 48.82 | 37.69 | 1.500-18 NEF        | 1.5000-18 NEF       | 49.63 |
|                | 38.10           | 55.9 | 43.40 | 45.2 | 20.32 | 56.74 | 44.45 | 46.0 | 39.78      | 3.8  | 23.39 | 1.6                             | 3.2 | 32.36 | 49.56 | 40.89 | 1.625-18 NEF        | 1.6250-18 NEF       | 52.78 |

Assembly instructions p. 60-68.

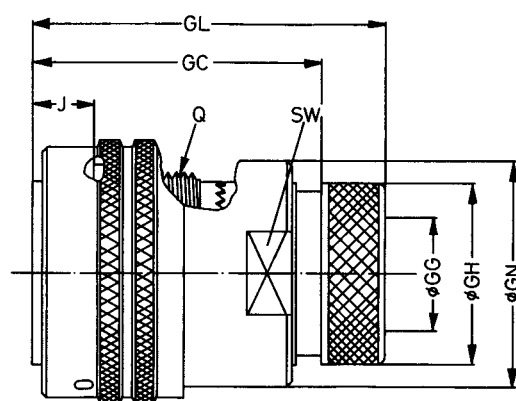
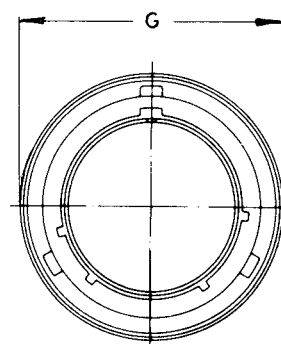
## Straight plug PT 06 SE (VG 95328)



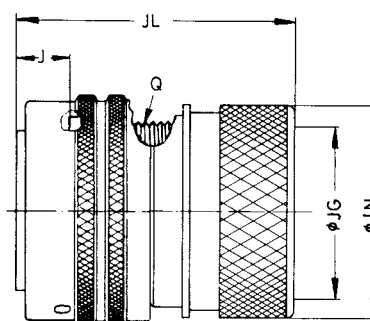
**PT 06 SE**  
(MS 3126 E)



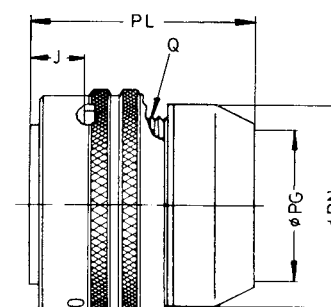
**PT 06 SE ... SR**  
(VG 95328 K / MS 3126 F)



**PT 06 SE ... F**



**PT 06 SE ... J**  
(VG 95328 J)



**PT 06 SP**  
(MS 3126 P)

Ordering example

PT 06 SE 14-19 W SR

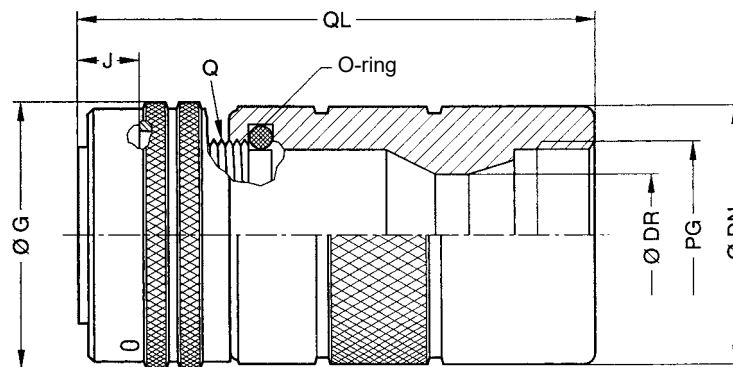
see p. 70

Dimensions in mm

| Shell size | EL    | ø EN  | ø FG  | FL    | FN    | ø G   | GC   | ø GG | ø GH | GL   | ø GN | J     | ø JG | JL   | ø JN | ø PG  | PL    | ø PN  | Thread Q            | SW   |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|-------|------|------|------|-------|-------|-------|---------------------|------|
|            | max.  | max.  | ±0.25 | max.  | max.  | max.  | max. | +0.2 | -0.5 | max. | ±0.2 | ±0.25 | +0.1 | max. | max. | min.  | max.  | max.  | Class 2 A<br>(inch) | -0.2 |
| 8          | 33.73 | 14.22 | 3.18  | 48.82 | 21.02 | 19.05 | —    | —    | —    | —    | —    | 8.97  | 7.9  | 37   | 15.6 | 8.05  | 44.45 | 15.44 | 0.4375-28 UNEF      | —    |
| 10         | 33.73 | 17.40 | 4.78  | 48.82 | 22.63 | 21.82 | 37.5 | 8.0  | 12.0 | 46   | 18   | 8.97  | 10.9 | 37   | 18.4 | 11.02 | 44.45 | 18.64 | 0.5625-24 NEF       | 16   |
| 12         | 33.73 | 20.65 | 7.92  | 48.82 | 25.81 | 26.19 | 37.5 | 11.0 | 15.0 | 46   | 21   | 8.97  | 13.8 | 37   | 23.7 | 13.92 | 44.45 | 21.79 | 0.6875-24 NEF       | 19   |
| 14         | 33.73 | 23.62 | 9.53  | 48.82 | 28.98 | 29.36 | 37.5 | 14.4 | 18.3 | 46   | 24   | 8.97  | 16.9 | 37   | 24.5 | 17.09 | 44.45 | 24.99 | 0.8125-20 UNEF      | 22   |
| 16         | 33.73 | 26.85 | 12.70 | 50.80 | 30.56 | 32.54 | 37.5 | 17.4 | 21.5 | 46   | 27   | 8.97  | 20.1 | 39   | 29.8 | 20.27 | 44.45 | 28.19 | 0.9375-20 UNEF      | 25   |
| 18         | 33.73 | 29.85 | 15.88 | 50.80 | 37.31 | 35.33 | 37.5 | 19.8 | 24.0 | 46   | 30   | 8.97  | 22.7 | 39   | 32.0 | 22.83 | 44.45 | 31.34 | 1.0625-18 NEF       | 28   |
| 20         | 32.94 | 33.05 | 15.88 | 53.57 | 37.31 | 38.89 | 39.0 | 21.9 | 27.2 | 50   | 34   | 10.54 | 25.9 | 42   | 36.1 | 26.01 | 44.45 | 34.54 | 1.1875-18 NEF       | 32   |
| 22         | 32.94 | 36.27 | 19.05 | 53.57 | 42.06 | 42.06 | 39.0 | 25.2 | 30.5 | 50   | 37   | 10.54 | 29.0 | 42   | 38.5 | 29.18 | 44.45 | 37.69 | 1.3125-18 NEF       | 35   |
| 24         | 34.52 | 38.94 | 20.32 | 55.17 | 44.45 | 45.14 | 41.0 | 28.0 | 33.5 | 51.5 | 40   | 10.54 | 32.2 | 42   | 41.5 | 32.36 | 44.86 | 40.89 | 1.4375-18 NEF       | 38   |

Assembly instructions p. 60-68.

## Straight plug PT 06 SE



Ordering example      PT 06 SE 14-19 P W PG      see p. 70

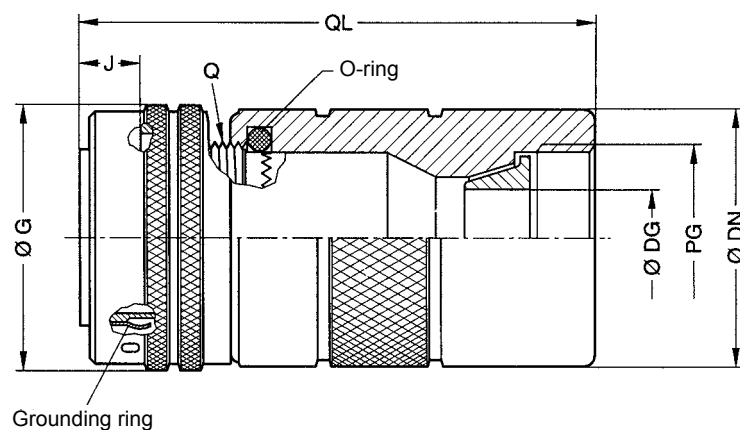
Dimensions in mm

| Size           | DN<br>+ 0.5<br>- 0.5 | DR<br>+ 0.5          | J<br>± 0.25             | QL<br>max.     | Q<br>Thread<br>UNEF-2A                    | PG<br>Thread              | ø G<br>max.             |
|----------------|----------------------|----------------------|-------------------------|----------------|-------------------------------------------|---------------------------|-------------------------|
| 8<br>10<br>12  | 15.5<br>18.5<br>21.5 | 6.5<br>9.5<br>11.0   | 8.97<br>8.97<br>8.97    | 57<br>57<br>62 | 7/16 - 28<br>9/16 - 24<br>11/16 - 24      | PG 07<br>PG 09<br>PG 11   | 19.05<br>21.82<br>26.19 |
| 14<br>16<br>18 | 24.5<br>27.5<br>30.6 | 13.0<br>15.5<br>15.5 | 8.97<br>8.97<br>8.97    | 62<br>62<br>62 | 13/16 - 20<br>15/16 - 20<br>1 1/16 - 18   | PG 13.5<br>PG 16<br>PG 16 | 29.36<br>32.54<br>35.33 |
| 20<br>22<br>24 | 33.5<br>36.5<br>40.0 | 20.5<br>20.5<br>20.5 | 10.54<br>10.54<br>10.54 | 70<br>70<br>72 | 1 3/16 - 18<br>1 5/16 - 18<br>1 7/16 - 18 | PG 21<br>PG 21<br>PG 21   | 38.89<br>42.06<br>45.14 |

Assembly instructions p. 60-68.



## Straight plug PT 06 SE (HF-sealed)



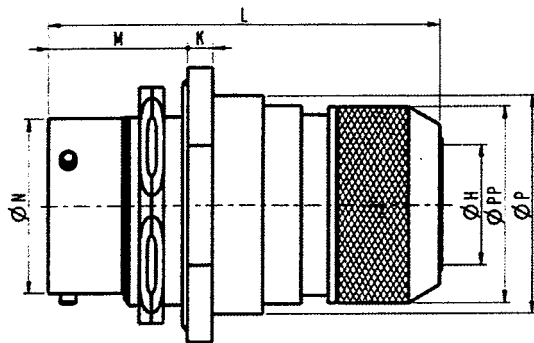
Ordering example      PT 06 SE 14-19 P W <sup>Suffix</sup>PGV      see p. 70

### Dimensions in mm

| Size | DN             | DG    | J          | QL   | Q                 | PG      | $\varnothing G$ | Suffix |
|------|----------------|-------|------------|------|-------------------|---------|-----------------|--------|
|      | + 0.5<br>- 0.5 | + 0.5 | $\pm 0.25$ | max. | Thread<br>UNEF-2A | Thread  | max.            |        |
| 8    | 15.5           | 4.5   | 8.97       | 57   | 7/16-28           | PG 07   | 19.05           | - PGV  |
| 10   | 18.5           | 5.5   | 8.97       | 57   | 9/16-24           | PG 09   | 21.82           | - PGV  |
| 12   | 21.5           | 8.5   | 8.97       | 62   | 11/16-24          | PG 11   | 26.19           | - PGV  |
| 14   | 24.5           | 10.5  | 8.97       | 62   | 13/16-20          | PG 13.5 | 29.36           | - PGV  |
| 14   | 24.5           | 8.5   | 8.97       | 62   | 13/16-20          | PG 13.5 | 29.36           | - PGS  |
| 16   | 27.5           | 12.5  | 8.97       | 62   | 15/16-20          | PG 16   | 32.54           | - PGV  |
| 16   | 27.5           | 10.5  | 8.97       | 62   | 15/16-20          | PG 16   | 32.54           | - PGS  |
| 18   | 30.6           | 12.5  | 8.97       | 62   | 1 1/16-18         | PG 16   | 35.33           | - PGV  |
| 18   | 30.6           | 10.5  | 8.97       | 62   | 1 1/16-18         | PG 16   | 35.33           | - PGS  |
| 20   | 33.5           | 18.5  | 10.54      | 70   | 1 3/16-18         | PG 21   | 38.89           | - PGV  |
| 20   | 33.5           | 12.5  | 10.54      | 70   | 1 3/16-18         | PG 21   | 38.89           | - PGS  |
| 22   | 36.5           | 18.5  | 10.54      | 70   | 1 5/16-18         | PG 21   | 42.06           | - PGV  |
| 22   | 36.5           | 12.5  | 10.54      | 70   | 1 5/16-18         | PG 21   | 42.06           | - PGS  |
| 24   | 40.0           | 18.5  | 10.54      | 72   | 1 7/16-18         | PG 21   | 45.14           | - PGV  |
| 24   | 40.0           | 12.5  | 10.54      | 72   | 1 7/16-18         | PG 21   | 45.14           | - PGS  |

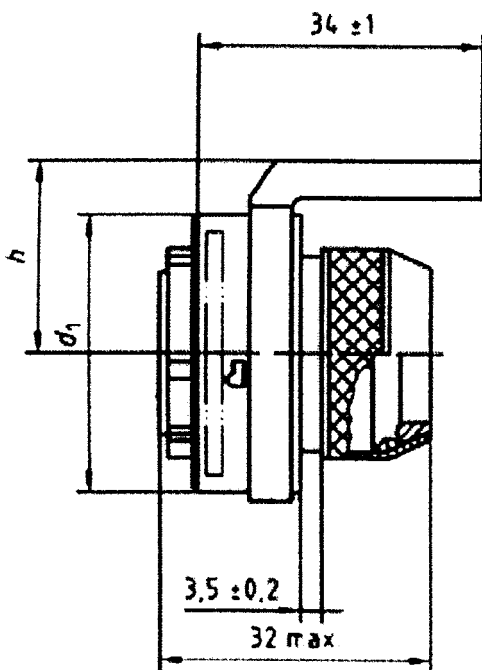
Assembly instructions p. 60-68.

## HF sealed connectors



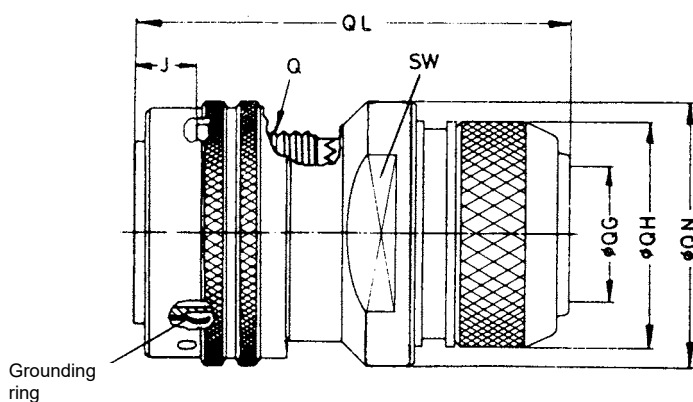
**PT 07 SE ... SQ**  
(VG 95328 T)

| Shell size | M         | K    | ø H  | ø PP | ø P<br>max. | ø N   | L<br>max. |
|------------|-----------|------|------|------|-------------|-------|-----------|
| 8          | +0.8<br>0 | ±0.5 | 6.7  | 16   | 18.5        | 12.01 | 62        |
| 10         |           |      | 9.2  | 18   | 21.6        | 14.99 |           |
| 12         |           |      | 12.2 | 22   | 24.8        | 19.05 |           |
| 14         |           |      | 15.2 | 25   | 28.0        | 22.23 |           |
| 16         |           |      | 18.3 | 28   | 31.2        | 25.40 |           |
| 18         |           |      | 20.0 | 32   | 34.3        | 28.58 |           |
| 20         | 22.3      | 3.8  | 23.0 | 34   | 38.3        | 31.75 | 62        |
| 22         |           |      | 26.0 | 38   | 41.5        | 34.93 |           |
| 24         | 23.1      |      | 28.8 | 41   | 44.7        | 38.10 |           |



| Shell size | d1 | h  |
|------------|----|----|
|            | ±1 | ±1 |
| 12         | 24 | 19 |
| 14         | 28 | 20 |
| 16         | 31 | 21 |

**PTU 06 SE ... SQ**  
(VG 95328 U)

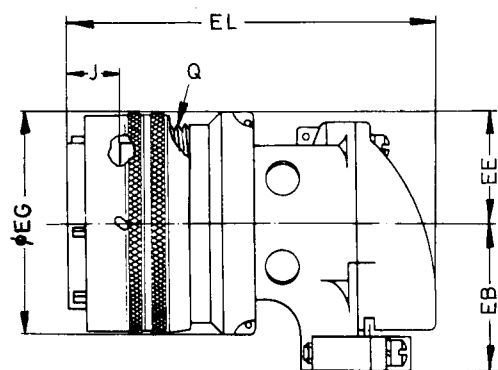


**PTG 06 SE ... SQ**  
(VG 95328 M)

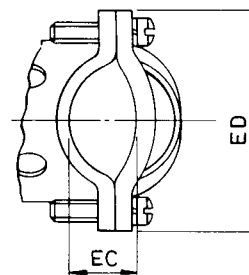
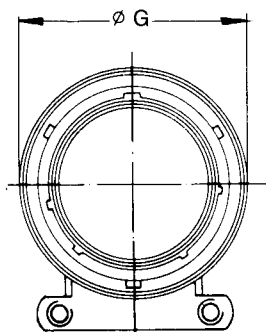
| Shell size | J<br>±0.25 | ø QG<br>min. | ø QH<br>+0.5 | QL<br>max. | ø QN<br>max. | SW<br>-0.2 |
|------------|------------|--------------|--------------|------------|--------------|------------|
| 8          | 8.97       | 6.7          | 16           | 51         | 20           | 18         |
| 10         | 8.97       | 9.2          | 18           | 51         | 23           | 21         |
| 12         | 8.97       | 12.2         | 22           | 54         | 27           | 24         |
| 14         | 8.97       | 15.2         | 25           | 54         | 30           | 28         |
| 16         | 8.97       | 18.3         | 28           | 54         | 33           | 31         |
| 18         | 8.97       | 20           | 32           | 54         | 36           | 34         |
| 20         | 10.54      | 23           | 34           | 56         | 40           | 37         |
| 22         | 10.54      | 26           | 38           | 56         | 43           | 41         |
| 24         | 10.54      | 28.8         | 41           | 58         | 48           | 44         |

Assembly instructions p. 60-68.

## Angle plug PT 08 SE



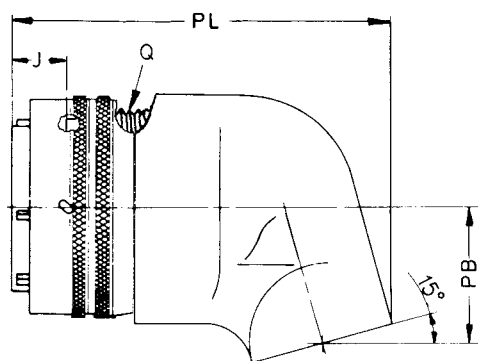
PT 08 SE ... SR



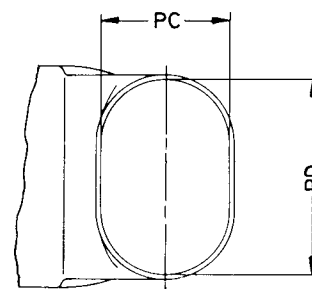
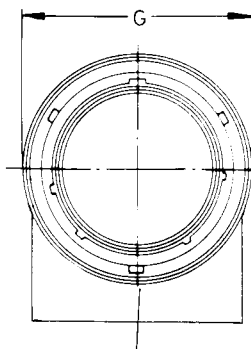
Ordering example

PT 08 SE 14-19 P W SR

see p. 70



PT 08 SP



Ordering example

PT 08 SP 14-19 P W

see p. 70

### Dimensions in mm

| Shell size | EB     | EC               | ED     | EE               | ø EG  | EL    | ø G   | J      | PB    | PC     | PO     | PL   | Thread Q           |
|------------|--------|------------------|--------|------------------|-------|-------|-------|--------|-------|--------|--------|------|--------------------|
|            | ± 0.79 | + 0.25<br>- 0.64 | ± 1.57 | + 1.19<br>- 0.64 | max.  | max.  | max.  | ± 0.25 | max.  | ± 0.38 | ± 0.38 |      | Class 2A<br>(inch) |
| 8          | 16.64  | 3.96             | 23.90  | 8.61             | 20.21 | 53.00 | 19.05 | 8.97   | 11.00 | 7.92   | 11.13  | 47.0 | 0.4375-28 UNEF     |
| 10         | 19.02  | 4.32             | 30.25  | 9.98             | 23.39 | 54.28 | 21.82 | 8.97   | 12.52 | 11.13  | 14.27  | 50.0 | 0.5625-24 NEF      |
| 12         | 20.62  | 6.71             | 30.25  | 11.43            | 26.57 | 56.44 | 26.19 | 8.97   | 14.02 | 13.11  | 17.48  | 52.0 | 0.6875-24 NEF      |
| 14         | 22.99  | 7.87             | 31.85  | 13.18            | 29.74 | 60.20 | 29.36 | 8.97   | 16.33 | 15.88  | 19.84  | 55.0 | 0.8125-20 UNEF     |
| 16         | 26.16  | 8.38             | 33.43  | 14.81            | 32.94 | 65.33 | 32.54 | 8.97   | 16.71 | 16.66  | 22.61  | 56.0 | 0.9375-20 UNEF     |
| 18         | 25.78  | 11.28            | 39.67  | 15.77            | 36.12 | 68.07 | 35.33 | 8.97   | 17.50 | 17.86  | 25.40  | 57.0 | 1.0625-18 NEF      |
| 20         | 27.38  | 12.95            | 41.28  | 17.35            | 39.67 | 69.93 | 38.89 | 10.54  | 19.05 | 19.46  | 28.58  | 64.0 | 1.1875-18 NEF      |
| 22         | 28.93  | 13.08            | 43.66  | 18.77            | 42.47 | 71.09 | 42.06 | 10.54  | 20.17 | 20.62  | 31.34  | 65.0 | 1.3125-18 NEF      |
| 24         | 31.75  | 16.66            | 44.45  | 20.24            | 45.64 | 77.14 | 45.14 | 10.54  | 27.18 | 23.32  | 34.90  | 74.0 | 1.4375-18 NEF      |

Assembly instructions p. 60-68.



### CRIMP CONTACTS



| Connector | Order code         |                   |                     |                   |
|-----------|--------------------|-------------------|---------------------|-------------------|
|           | Pin contact        |                   | Socket contact      |                   |
|           | With cup           | Without cup       | With cup            | Without cup       |
| 20<br>16  | 42966-903<br>–     | 39819-903         | 42969-903<br>–      | 39827-903         |
|           | VG designation     |                   |                     |                   |
| 20<br>16  | VG 95328-P20C<br>– | –<br>VG 95328 P16 | VG 95328 S20 C<br>– | –<br>VG 95328 S16 |

### Crimp coaxial contacts

| Contact size | Usable with cable                          | Order code  |                |
|--------------|--------------------------------------------|-------------|----------------|
|              |                                            | Pin contact | Socket contact |
| 16           | M 17/094/RG 179 1 }<br>M 17/113/RG 316 J } | 21-33656-1  | 21-33655-1     |

### Sealing plug

| Sealing plug size | Color code | Order code     |               |
|-------------------|------------|----------------|---------------|
|                   |            | Order No.      | MS/DIN        |
| 20                | red        | 10-405 996-202 | MS 27488-20-2 |
| 16                | green      | 10-405 996-162 | MS 27488-16-2 |

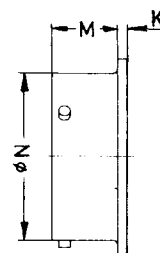
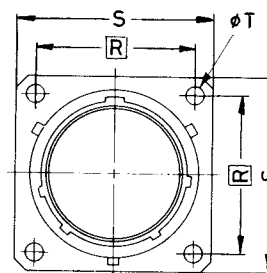
The sealing plugs shown above are used for sealing unused contact openings.

Technical data see p. 5

Assembly instructions p. 60-68.

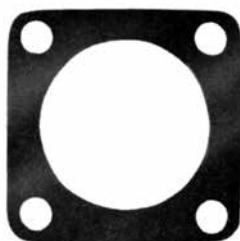


**Dummy**  
**10-263999**  
(MS 3115)  
VG 95328 T07 C XX

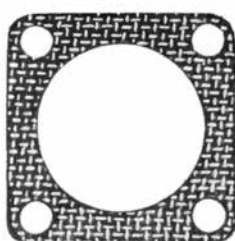


| Shell size | Order number  | Dimensions in mm |             |                         |                             |           |             |
|------------|---------------|------------------|-------------|-------------------------|-----------------------------|-----------|-------------|
|            |               | K<br>± 0.41      | M<br>+ 0.79 | ∅ N<br>+ 0.03<br>- 0.13 | R<br>Theoret.<br>dimensions | S<br>max. | T<br>± 0.13 |
| 08         | 10-263999-083 | 1.57             | 11.73       | 12.01                   | 15.09                       | 21.03     | 3.05        |
| 10         | 10-263999-103 | 1.57             | 11.73       | 14.99                   | 18.26                       | 24.23     | 3.05        |
| 12         | 10-263999-123 | 1.57             | 11.73       | 19.05                   | 20.62                       | 26.59     | 3.05        |
| 14         | 10-263999-143 | 1.57             | 11.73       | 22.23                   | 23.01                       | 28.98     | 3.05        |
| 16         | 10-263999-163 | 1.57             | 11.73       | 25.40                   | 24.61                       | 31.34     | 3.05        |
| 18         | 10-263999-183 | 1.57             | 11.73       | 28.58                   | 26.97                       | 33.73     | 3.05        |
| 20         | 10-263999-203 | 2.39             | 14.12       | 31.75                   | 29.36                       | 36.91     | 3.05        |
| 22         | 10-263999-223 | 2.39             | 14.12       | 34.93                   | 31.75                       | 40.08     | 3.05        |
| 24         | 10-263999-243 | 2.39             | 14.96       | 38.10                   | 34.93                       | 43.26     | 3.73        |

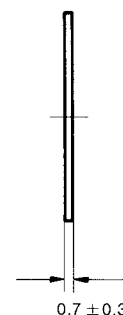
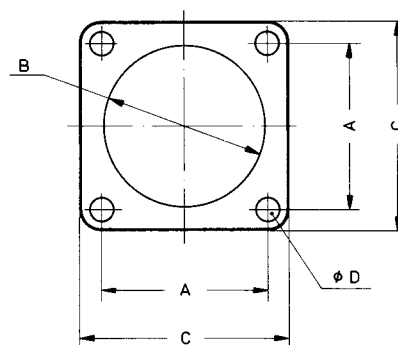
### Flange gasket



**Without metal  
reinforcement**  
**10-101949-XX**  
(VG 95328 T07 A)



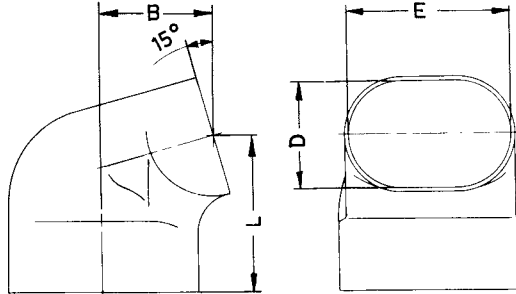
**With metal  
reinforcement**  
**10-40450-XX S-AT**  
(VG 95328 T07 B)



| Shell size | Order number<br>flange gasket |                         | Dimensions in mm |            |           |             |
|------------|-------------------------------|-------------------------|------------------|------------|-----------|-------------|
|            | Without<br>shielding braid    | With<br>shielding braid | A<br>± 0.3       | ∅ B<br>+ 1 | C<br>max. | ∅ D<br>min. |
| 08         | 10-101949-08                  | 10-40450-08S-AT         | 15.1             | 12.7       | 22.7      | 3.0         |
| 10         | 10-101949-10                  | 10-40450-10S-AT         | 18.3             | 15.9       | 25.8      | 3.0         |
| 12         | 10-101949-12                  | 10-40450-12S-AT         | 20.6             | 19.0       | 28.2      | 3.0         |
| 14         | 10-101949-14                  | 10-40450-14S-AT         | 23.0             | 22.2       | 30.6      | 3.0         |
| 16         | 10-101949-16                  | 10-40450-16S-AT         | 24.6             | 25.4       | 33.0      | 3.0         |
| 18         | 10-101949-18                  | 10-40450-18S-AT         | 27.0             | 28.6       | 35.4      | 3.0         |
| 20         | 10-101949-20                  | 10-40450-20S-AT         | 29.4             | 31.7       | 38.5      | 3.0         |
| 22         | 10-101949-22                  | 10-40450-22S-AT         | 31.8             | 34.9       | 41.7      | 3.0         |
| 24         | 10-101949-24                  | 10-40450-24S-AT         | 34.9             | 38.1       | 44.9      | 4.2         |

Assembly instructions p. 60-68.

**Angular potting boot  
(75°)  
10-101988**

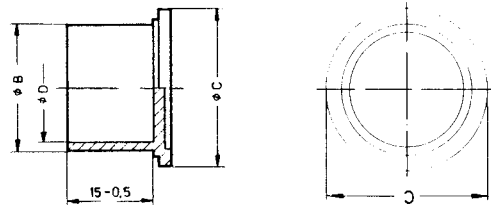


| Shell size | Order number | Dimensions in mm |          |          |        |
|------------|--------------|------------------|----------|----------|--------|
|            |              | B max.           | D ± 0.38 | E ± 0.38 | L max. |
| 08         | 42806-011    | 11.00            | 07.92    | 11.13    | 19.46  |
| 10         | 42806-012    | 12.52            | 11.13    | 14.27    | 21.08  |
| 12         | 42806-013    | 14.02            | 13.11    | 17.48    | 21.87  |
| 14         | 42806-014    | 16.33            | 15.88    | 19.84    | 23.27  |
| 16         | 42806-015    | 16.71            | 16.66    | 22.61    | 23.77  |
| 18         | 42806-016    | 17.50            | 17.86    | 25.40    | 24.36  |
| 20         | 42806-017    | 19.05            | 19.46    | 28.58    | 26.72  |
| 22         | 42806-018    | 20.18            | 20.62    | 31.34    | 27.25  |
| 24         | 42806-019    | 27.18            | 23.32    | 34.90    | 33.27  |

The angular potting cap (75°) can be used for sealing wire bundles if angulation is desired.



**Plastic dust cap  
37024**



Dimensions in mm

| Shell size | Order code<br>(for plugs) | Dimensions in mm |           |           |
|------------|---------------------------|------------------|-----------|-----------|
|            |                           | ø B - 0.2        | ø C ± 0.2 | ø D - 0.2 |
| 08         | S 8                       | 12.0             | 16.0      | 10.0      |
| 10         | D 8 S 10                  | 15.0             | 20.0      | 13.0      |
| 12         | D 10 S 12                 | 18.3             | 23.0      | 16.3      |
| 14         | D 12 S 14                 | 21.5             | 27.0      | 19.5      |
| 16         | D 14 S 16                 | 25.0             | 29.5      | 23.0      |
| 18         | D 16 S 18                 | 27.7             | 32.0      | 25.7      |
| 20         | D 18 S 20                 | 30.9             | 35.5      | 28.9      |
| 22         | D 20 S 22                 | 34.1             | 39.0      | 32.1      |
| 24         | D 22 S 24                 | 37.3             | 42.0      | 35.3      |

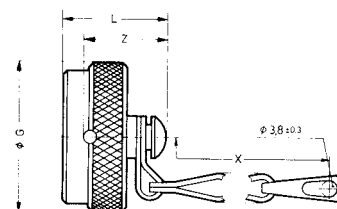
| Shell size | Order code<br>(for receptacles) | Dimensions in mm |           |           |
|------------|---------------------------------|------------------|-----------|-----------|
|            |                                 | ø B - 0.2        | ø C ± 0.2 | ø D - 0.2 |
| 08         | D 8 S 10                        | 15.0             | 20.0      | 13.0      |
| 10         | D 10 S 12                       | 18.3             | 23.0      | 16.3      |
| 12         | D 12 S 14                       | 21.5             | 27.0      | 19.5      |
| 14         | D 14 S 16                       | 25.0             | 29.5      | 23.0      |
| 16         | D 16 S 18                       | 27.7             | 32.0      | 25.7      |
| 18         | D 18 S 20                       | 30.9             | 35.5      | 28.9      |
| 20         | D 20 S 22                       | 34.1             | 39.0      | 32.1      |
| 22         | D 22 S 24                       | 37.3             | 42.0      | 35.3      |
| 24         | D 24                            | 42.0             | 46.0      | 40.0      |

The dust caps protect the contacts during shipping and storage.



### Metal protective cap for receptacles with rectangular flange

VG 95328 Z1 A  
VG 95328 Z1 B

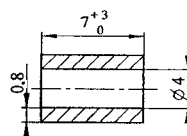


| Shell size | Order number                                             |                                   |                                            |                                   | Dimensions in mm |           |                  |           |
|------------|----------------------------------------------------------|-----------------------------------|--------------------------------------------|-----------------------------------|------------------|-----------|------------------|-----------|
|            | With link chain<br>(MS 3181C)<br>Amphenol<br>designation | With link chain<br>VG designation | With nylon cord<br>Amphenol<br>designation | With nylon cord<br>VG designation | Ø G<br>max.      | L<br>max. | X<br>+ 13<br>- 7 | Z<br>max. |
| 08         | 38822-071                                                | VG 95328 Z1 A 08                  | 51546-061                                  | VG 95328 Z1 B 08                  | 18.65            | 21.5      | 77               | 17.5      |
| 10         | 38822-072                                                | VG 95328 Z1 A 10                  | 51546-062                                  | VG 95328 Z1 B 10                  | 21.82            | 21.5      | 77               | 17.5      |
| 12         | 38822-073                                                | VG 95328 Z1 A 12                  | 51546-063                                  | VG 95328 Z1 B 12                  | 25.50            | 21.5      | 89               | 17.5      |
| 14         | 38822-074                                                | VG 95328 Z1 A 14                  | 51546-064                                  | VG 95328 Z1 B 14                  | 28.58            | 21.5      | 89               | 17.5      |
| 16         | 38822-075                                                | VG 95328 Z1 A 16                  | 51546-065                                  | VG 95328 Z1 B 16                  | 31.75            | 21.5      | 89               | 17.5      |
| 18         | 38822-076                                                | VG 95328 Z1 A 18                  | 51546-066                                  | VG 95328 Z1 B 18                  | 34.93            | 21.5      | 89               | 17.5      |
| 20         | 38822-077                                                | VG 95328 Z1 A 20                  | 51546-067                                  | VG 95328 Z1 B 20                  | 38.10            | 21.5      | 102              | 17.5      |
| 22         | 38822-078                                                | VG 95328 Z1 A 22                  | 51546-068                                  | VG 95328 Z1 B 22                  | 41.28            | 21.5      | 102              | 17.5      |
| 24         | 38822-079                                                | VG 95328 Z1 A 24                  | 51546-069                                  | VG 95328 Z1 B 24                  | 44.45            | 22.3      | 102              | 20.0      |

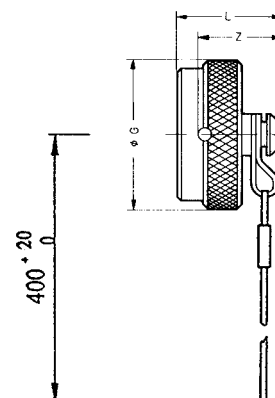
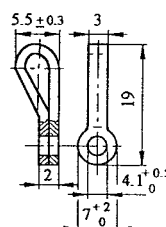
The protective cap is attached to one of the receptacle flange screws by means of a chain link or grommet.  
The protective cap is fitted with a seal which guarantees watertight sealing between the cap and the receptacle.

VG 95328 Z1 C

Case



Terminal unit

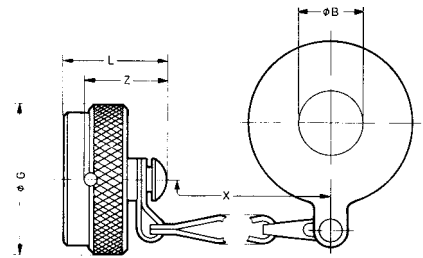


| Shell size | Order number                            |                                   | Dimensions in mm |           |           |
|------------|-----------------------------------------|-----------------------------------|------------------|-----------|-----------|
|            | With nylon cord<br>Amphenol designation | With nylon cord<br>VG designation | Ø G<br>max.      | L<br>max. | Z<br>max. |
| 08         | 38828-071                               | VG 95328 Z1 C 08                  | 18.65            | 21.5      | 17.5      |
| 10         | 38828-072                               | VG 95328 Z1 C 10                  | 21.82            | 21.5      | 17.5      |
| 12         | 38828-073                               | VG 95328 Z1 C 12                  | 25.50            | 21.5      | 17.5      |
| 14         | 38828-074                               | VG 95328 Z1 C 14                  | 28.58            | 21.5      | 17.5      |
| 16         | 38828-075                               | VG 95328 Z1 C 16                  | 31.75            | 21.5      | 17.5      |
| 18         | 38828-076                               | VG 95328 Z1 C 18                  | 34.93            | 21.5      | 17.5      |
| 20         | 38828-077                               | VG 95328 Z1 C 20                  | 38.10            | 21.5      | 17.5      |
| 22         | 38828-078                               | VG 95328 Z1 C 22                  | 41.28            | 21.5      | 17.5      |
| 24         | 38828-079                               | VG 95328 Z1 C 24                  | 44.45            | 22.3      | 20.0      |

The sleeve is used to fix the terminal unit to the rope. Sleeve and terminal unit are delivered unassembled.  
The user can therefore set the desired rope length.



**Metal protective cap**  
for cable connecting plugs

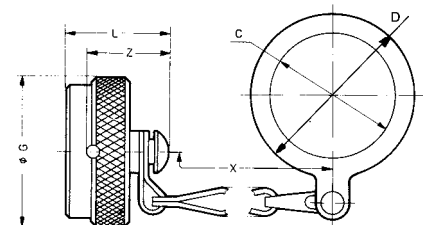


| Shell size | Order number    |                 | Dimensions in mm            |                         |           |           |           |
|------------|-----------------|-----------------|-----------------------------|-------------------------|-----------|-----------|-----------|
|            | With link chain | With nylon cord | $\varnothing B + 0.25$<br>0 | $\varnothing G$<br>max. | L<br>max. | X<br>min. | Z<br>max. |
| 08         | 38823-071       | 38830-071       | 11.53                       | 18.65                   | 21.5      | 70        | 17.5      |
| 10         | 38823-072       | 38830-072       | 14.68                       | 21.82                   | 21.5      | 70        | 17.5      |
| 12         | 38823-073       | 38830-073       | 17.86                       | 25.50                   | 21.5      | 70        | 17.5      |
| 14         | 38823-074       | 38830-074       | 21.44                       | 28.58                   | 21.5      | 70        | 17.5      |
| 16         | 38823-075       | 38830-075       | 24.61                       | 31.75                   | 21.5      | 70        | 17.5      |
| 18         | 38823-076       | 38830-076       | 27.79                       | 34.93                   | 21.5      | 70        | 17.5      |
| 20         | 38823-077       | 38830-077       | 30.96                       | 38.10                   | 21.5      | 70        | 17.5      |
| 22         | 38823-078       | 38830-078       | 34.11                       | 41.28                   | 21.5      | 70        | 17.5      |
| 24         | 38823-079       | 38830-079       | 36.91                       | 44.45                   | 22.3      | 70        | 20.0      |

The fastening ring of the protective cap is mounted between the cable connecting plug and the backshell. The protective cap is fitted with a seal which guarantees watertight sealing between the protective cap and the connector.



**Metal protective cap**  
Receptacle for single hole mounting  
VG 95328 Z3 C



| Shell size | Order number                                                                |                                         |                                   | Dimensions in mm          |                         |           |           |           |           |
|------------|-----------------------------------------------------------------------------|-----------------------------------------|-----------------------------------|---------------------------|-------------------------|-----------|-----------|-----------|-----------|
|            | With link chain<br>(MS 3181 N)<br>(VG 95328 Z3 alt)<br>Amphenol designation | With nylon cord<br>Amphenol designation | With nylon cord<br>VG designation | $\varnothing C$ 0<br>min. | $\varnothing G$<br>max. | L<br>max. | X<br>min. | Z<br>max. | D<br>max. |
| 08         | 38824-071                                                                   | 38826-071                               | VG 95328 Z3 C 08                  | 14.68                     | 18.65                   | 21.5      | 70        | 17.5      | 20.62     |
| 10         | 38824-072                                                                   | 38826-072                               | VG 95328 Z3 C 10                  | 17.86                     | 21.82                   | 21.5      | 70        | 17.5      | 25.40     |
| 12         | 38824-073                                                                   | 38826-073                               | VG 95328 Z3 C 12                  | 22.63                     | 25.50                   | 21.5      | 70        | 17.5      | 30.18     |
| 14         | 38824-074                                                                   | 38826-074                               | VG 95328 Z3 C 14                  | 25.81                     | 28.58                   | 21.5      | 70        | 17.5      | 36.53     |
| 16         | 38824-075                                                                   | 38826-075                               | VG 95328 Z3 C 16                  | 28.98                     | 31.75                   | 21.5      | 70        | 17.5      | 39.67     |
| 18         | 38824-076                                                                   | 38826-076                               | VG 95328 Z3 C 18                  | 32.16                     | 34.93                   | 21.5      | 70        | 17.5      | 42.88     |
| 20         | 38824-077                                                                   | 38826-077                               | VG 95328 Z3 C 20                  | 35.33                     | 38.10                   | 21.5      | 70        | 17.5      | 46.02     |
| 22         | 38824-078                                                                   | 38826-078                               | VG 95328 Z3 C 22                  | 38.51                     | 41.28                   | 21.5      | 70        | 17.5      | 49.23     |
| 24         | 38824-079                                                                   | 38826-079                               | VG 95328 Z3 C 24                  | 41.68                     | 44.45                   | 22.3      | 70        | 20.0      | 52.37     |

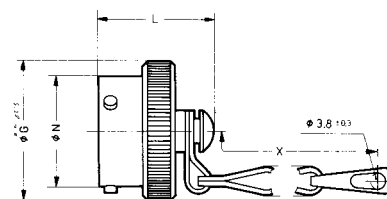
The fastening ring of the protective cap attaches the cap to the receptacle. The protective cap is fitted with a seal which enables watertight sealing between the cap and the receptacle.





### Metal protective cap (for plugs)

VG 95328 Z2 A  
VG 95328 Z2 B

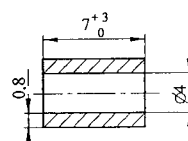


| Shell size | Order number                                          |                                   |                                         |                                   | Dimensions in mm |           |                         |                  |
|------------|-------------------------------------------------------|-----------------------------------|-----------------------------------------|-----------------------------------|------------------|-----------|-------------------------|------------------|
|            | With link chain<br>(MS 3180C)<br>Amphenol designation | With link chain<br>VG designation | With nylon cord<br>Amphenol designation | With nylon cord<br>VG designation | ø G<br>max.      | L<br>max. | ø N<br>+ 0.03<br>- 0.13 | X<br>+ 13<br>- 7 |
| 08         | 42167-061                                             | VG 95328 Z2 A 08                  | 52152-061                               | VG 95328 Z2 B 08                  | 18.27            | 20        | 12.01                   | 77               |
| 10         | 42167-062                                             | VG 95328 Z2 A 10                  | 52152-062                               | VG 95328 Z2 B 10                  | 21.44            | 20        | 14.99                   | 77               |
| 12         | 42167-063                                             | VG 95328 Z2 A 12                  | 52152-063                               | VG 95328 Z2 B 12                  | 25.50            | 20        | 19.05                   | 89               |
| 14         | 42167-064                                             | VG 95328 Z2 A 14                  | 52152-064                               | VG 95328 Z2 B 14                  | 28.58            | 20        | 22.23                   | 89               |
| 16         | 42167-065                                             | VG 95328 Z2 A 16                  | 52152-065                               | VG 95328 Z2 B 16                  | 31.75            | 20        | 25.40                   | 89               |
| 18         | 42167-066                                             | VG 95328 Z2 A 18                  | 52152-066                               | VG 95328 Z2 B 18                  | 34.93            | 20        | 28.58                   | 89               |
| 20         | 42167-067                                             | VG 95328 Z2 A 20                  | 52152-067                               | VG 95328 Z2 B 20                  | 38.10            | 21        | 31.75                   | 102              |
| 22         | 42167-068                                             | VG 95328 Z2 A 22                  | 52152-068                               | VG 95328 Z2 B 22                  | 41.28            | 21        | 34.93                   | 102              |
| 24         | 42167-069                                             | VG 95328 Z2 A 24                  | 52152-069                               | VG 95328 Z2 B 24                  | 44.45            | 22        | 38.10                   | 102              |

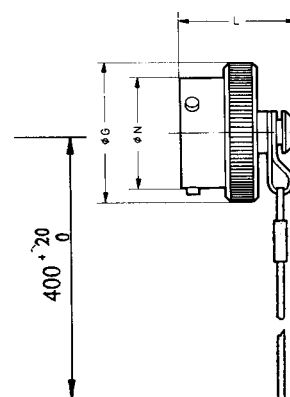
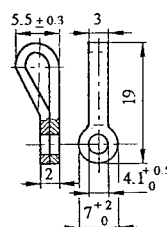
A chain link/grommet attaches the protective cap. The protective cap is fitted with a seal which guarantees watertight sealing between the plug and the cap. The VG 95328 protective cap is equivalent to the protective cap MS 3180C. Other fastening types are available. Please send inquiry. The protective cap is also available with wire rope.

VG 95328 Z2 C

Sleeve



Terminal unit



| Shell size | Order number                            |                                   | Dimensions in mm |           |                         |
|------------|-----------------------------------------|-----------------------------------|------------------|-----------|-------------------------|
|            | With nylon cord<br>Amphenol designation | With nylon cord<br>VG designation | ø G<br>max.      | L<br>max. | ø N<br>+ 0.03<br>- 0.13 |
| 08         | 42169-061                               | VG 95328 Z2 C 08                  | 18.27            | 20        | 12.01                   |
| 10         | 42169-062                               | VG 95328 Z2 C 10                  | 21.44            | 20        | 14.99                   |
| 12         | 42169-063                               | VG 95328 Z2 C 12                  | 25.50            | 20        | 19.05                   |
| 14         | 42169-064                               | VG 95328 Z2 C 14                  | 28.58            | 20        | 22.23                   |
| 16         | 42169-065                               | VG 95328 Z2 C 16                  | 31.75            | 20        | 25.40                   |
| 18         | 42169-066                               | VG 95328 Z2 C 18                  | 34.93            | 20        | 28.58                   |
| 20         | 42169-067                               | VG 95328 Z2 C 20                  | 38.10            | 21        | 31.75                   |
| 22         | 42169-068                               | VG 95328 Z2 C 22                  | 41.28            | 21        | 34.93                   |
| 24         | 42169-069                               | VG 95328 Z2 C 24                  | 44.45            | 22        | 38.10                   |

The sleeve is used to fix the terminal unit to the rope. Sleeve and terminal unit are delivered unassembled. The user can therefore set the desired rope length.

**Crimp tool MS 3191-1**  
(4-notch crimping)



| Order code                                                         |                           | Color code | Contact size | Wire size AWG |
|--------------------------------------------------------------------|---------------------------|------------|--------------|---------------|
| Crimp tool                                                         | Crimp insert (positioner) |            |              |               |
| MS 3191-1<br>= incl. inserts<br><br>MS 3191-A<br>= without inserts | MS 3191-12 A              | yellow     | 12           | 12 to 14      |
|                                                                    | MS 3191-16 A              | blue       | 16           | 16 to 20      |
|                                                                    | MS 3191-20 A              | red        | 20           | 20 to 24      |

**Crimp tool M 22520/1-01**  
(8-notch crimping)



| Order code   |                       | Color code | Contact size | Wire size AWG |
|--------------|-----------------------|------------|--------------|---------------|
| Crimp tool   | Crimp insert (turret) |            |              |               |
| M 22520/1-01 | M 22520/1-02          | yellow     | 12           | 12 to 14      |
|              |                       | blue       | 16           | 16 to 20      |
|              |                       | red        | 20           | 20 to 24      |

This tool allows the setting of eight different crimping depths depending on contact and wire size.  
Crimp tool and crimp insert must be ordered separately.

Assembly instructions p. 60-68.



Contact installation tool 11-7401

| VG/MS-designation | Order number | Contact size |
|-------------------|--------------|--------------|
| M 81969/17-05     | 11-7401-12   | 12           |
| M 81969/17-04     | 11-7401-16   | 16           |
| M 81969/17-03     | 11-7401-20   | 20           |



Contact removal tool 11-7880

| VG/MS-designation  | Order number | Contact size |
|--------------------|--------------|--------------|
| M 81969/19-02 RevB | 11-7880-12   | 12           |
| M 81969/19-01 RevB | 11-7880-16   | 16           |
| M 81969/19-06 RevB | 11-7880-20   | 20           |

Assembly instructions p. 60-68.

## Backshell mounting

These assembly instructions contain the most important steps of the installation. Our sales team is always ready to answer any questions you may have regarding wiring, assembly, and installation of connectors.

**Backshell »A«.** Place the backshell over the wire bundles. Strip the conductor (see p. 5 stripping length), tin-plate and solder to the contacts. Screw the backshell to the connector.

**Backshell »A« SR.** Place the rubber grommet and cable clamp over wire bundle. Strip the conductor (see p. 5 stripping length) and solder to the contacts. Screw the cable clamp to connector, insert the rubber grommet into the cable clamp and tighten the screws.

**Backshell »E«.** Place the coupling ring and cable clamp over wire bundle. Push single wires through the holes in the sealing insert, strip (see p. 5) and solder to the contacts. Place sealing inserts over solder connections. Place sealing plugs in unused seals (see p. 52). Push the clamping ring onto the sealing insert and screw the coupling ring onto the connector. The sealing insert should protrude somewhat over the ring.

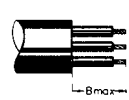
**Backshell »E« SR.** Place the rubber grommet, cable clamp and clamping ring over wire bundle. Push single wires through holes in the sealing insert, strip (see p. 5) and solder to the contacts. Place the sealing insert over the solder connections, push the clamping ring onto the sealing insert and screw the cable clamp onto the connector. Place sealing plugs in unused seals (see p. 52). Place rubber grommet in the cable clamp and fasten the screws.

**Backshells »E« J.** Place backshell and clamping ring over wire bundle. Push single wires through the holes in the sealing insert, strip (see p. 5) and solder to the contacts. Place sealing inserts over solder connections. Place sealing plugs in unused seals (see p. 52), push clamping ring onto sealing insert. Screw the backshell to the connector. Attach suitable heat shrink tubing.

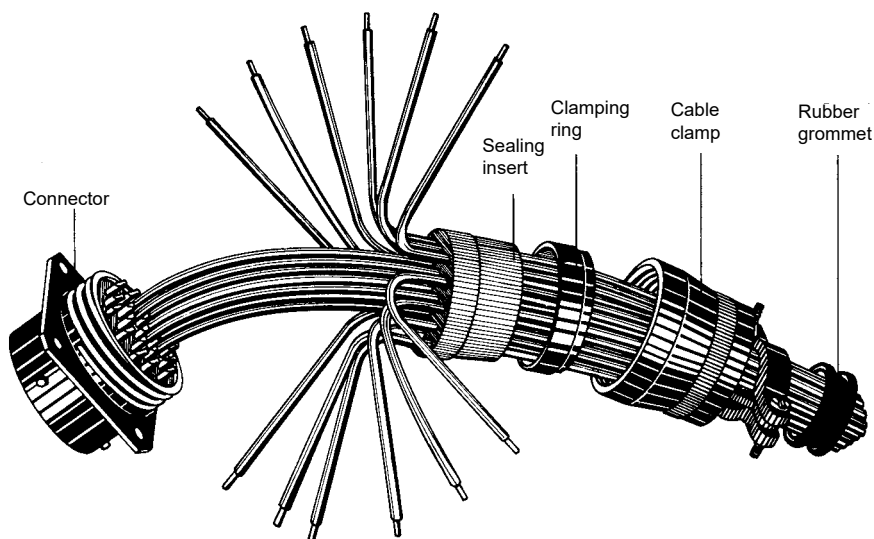
**Backshell »P«.** Place backshell over cable, strip single wires (see p. 5) and solder to contacts. Screw potting boot to the connector. Pot the wire bundle following the instructions from the potting compound supplier.

**Backshell »P« SR.** Pull the rubber grommet and cable clamp over wire bundle. Strip wire (see p. 5) and solder to the contacts. Screw cable clamp to the connector without strain relief. Pot the wire bundle following the instructions from the potting compound supplier. Place rubber grommet in the cable clamp and fasten strain relief.

**Backshell »W«.** The following strip lengths must be observed when using jacketed multi-conductor cables:

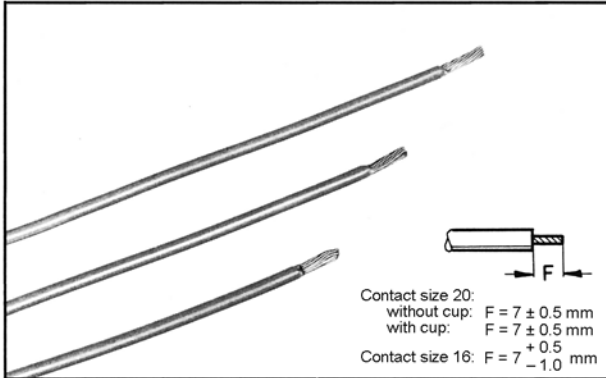
|                                                                                   |             |                            |
|-----------------------------------------------------------------------------------|-------------|----------------------------|
|  | Shell size  | 8 10 12 14 16 18 20 22 24  |
|                                                                                   | B max. (mm) | 16 16 18 21 23 28 32 35 42 |

Strip stranded wire to 3.2mm or 6.3mm with contact sizes of 20 and 16 respectively. Make sure that the diameter of the cable jacket is within » DW « dimensions (see page 17, 19, 23). Place the coupling ring and sealing sleeve over wire bundle. Solder single wires to contacts. Push sealing sleeve onto connector and make sure that the two cams align properly with the grooves on the connector. Screw coupling ring to the connector.

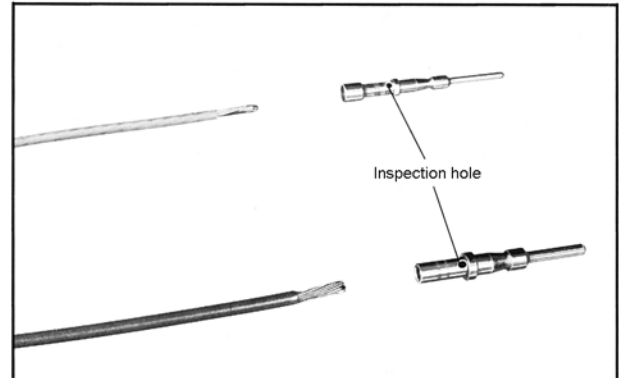


Mounting example: Connector with backshell »E« SR.

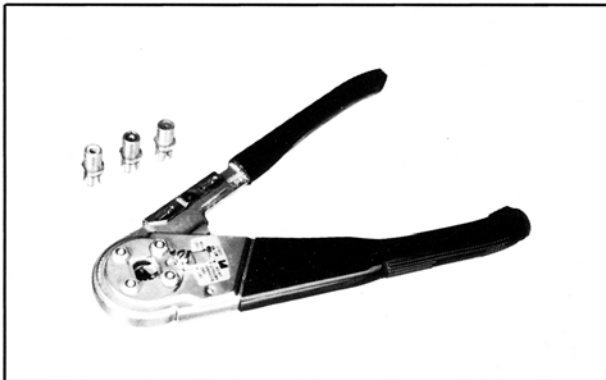
## Crimping of the contacts



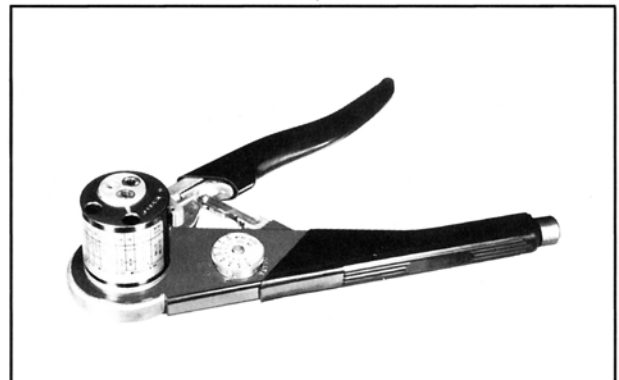
- ① Cut the conductor to the required length and strip following the instructions mentioned. Do not bend or cut stranded wire. Thermal insulation is recommended.



- ② Put stripped stranded wire into contact crimp sleeve. Make sure that the stranded wire is visible through the inspection hole.



- ③ The crimp tool MS 3191-1 (4-notch crimping) is delivered together with several inserts. Make sure that the correct insert is chosen (see page 58). Proper crimp tool use is described in the manufacturer's instructions.



- ④ The crimp tool M 22520/1-01 (8-notch crimping) is equipped with a single insert (see page 58), which allows the crimping of 3 contact sizes. See also user manual provided by manufacturer.

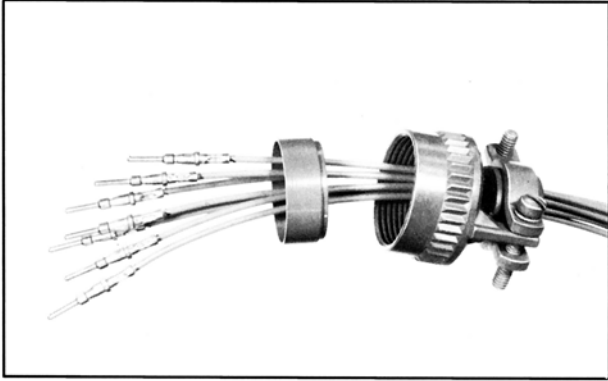


- ⑤ Close and open crimp tool MS 3191-1 once before actual crimping to ensure that the jaws are open. Insert contact with conductor into receptacle. Close tool completely until it automatically reopens. Remove contact from the receptacle and check if conductor is visible through the inspection hole.

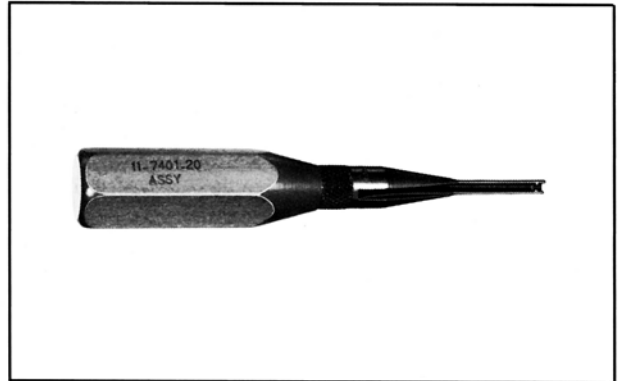


- ⑥ After properly setting the wire size and contact values, close and reopen tool M 22520/1-01 to ensure that the crimp jaws are open. Insert contact with the conductor into receptacle. Close tool completely until it automatically reopens. Remove contact from the receptacle and check if conductor is visible through the inspection hole.

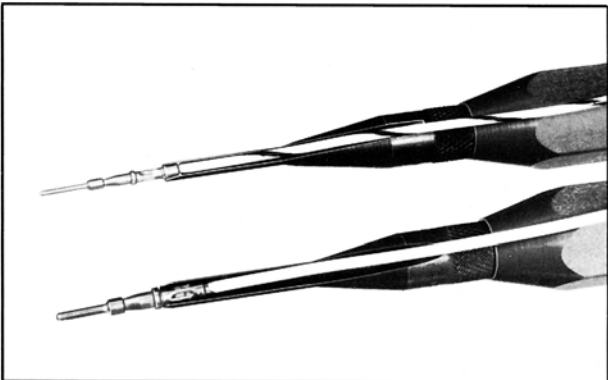
## Insertion of contacts



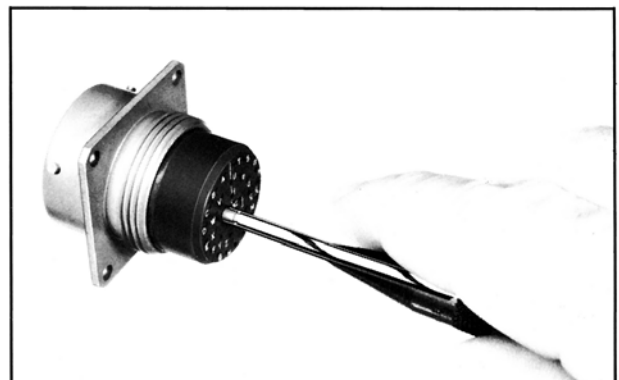
① Remove individual backshell components from the connector and place them over the wire bundles in the correct order.



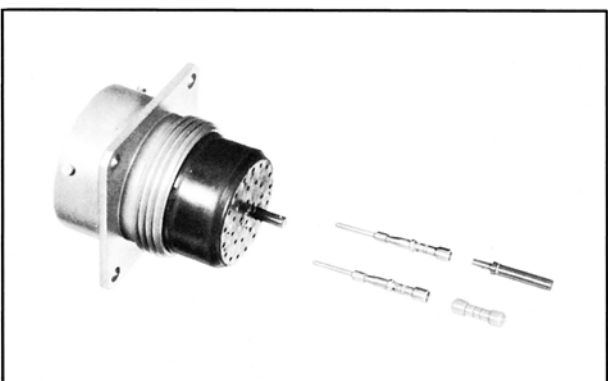
② Use tool 11-7401 to insert contacts into the connector (see page 59).



③ Place the contacts in the insertion tool (11-7401) as shown above.



④ Insert the contact on the back of the connector lineally and press forward until it clicks into place. Remove tool. By pulling gently on the conductor, check that the contact is correctly inserted.



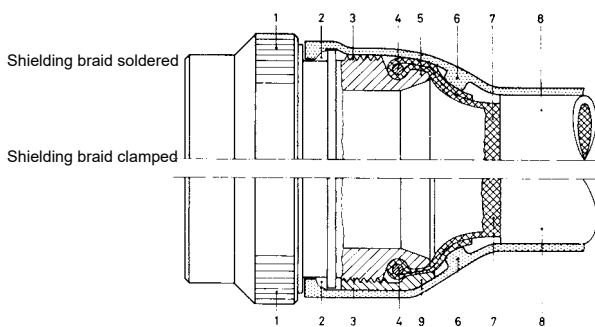
⑤ Place an uncrimped contact and a sealing plug in unused contact openings. The sealing plug must protrude from the sealing insert.



⑥ After equipping the connector, determine by visual inspection if all contacts are inserted correctly. The backshell can then be screwed on.



The contact retention system used in the connector PT-SE is a "Front Removable System", meaning the contacts must be removed from the plug side to the wiring side.



### Clamping of shielding braid

- Loosen the clamping nut (9). Place heat shrink part (6) and clamping nut over cables (8).
- Push shielding braid (7) onto backshell (1) and over the thread (3).
- Fasten shielding braid (7) to the rounded groove with binding wire (4).
- Fold the protruding shielding braid back over the cone (5).
- Screw the clamping nut (9) onto the backshell (1) (the folded shielding braid must protrude under the clamping nut on the cable side).
- Apply adhesive from the rectangular groove (2) down to the clamping nut (9).
- Shrink-fit heat shrink part (6) (the lip of the heat shrink part grips into the rectangular groove (2).

## Removal of contacts from the connector

Place the removal tool 11-7880 over the pin or sleeve contact on the mating side of the connector and push twisting slightly until it stops. Push the pin of the tool forward. The contact is now detached and can be removed by pulling the conductor on the back of the connector. Make sure that the tool is in an axial position to the contact during insertion and removal.

In the case of contacts without wires, the sealing plug must be removed and the contact removed as described above. After extraction of the removal tool, use a suitable pin to push the contact out from the back side of the connector.

## Mounting the backshell SE. . . SQ

This backshell is used for attaching a shielding braid and a heat shrink part (see page 67) in order to meet particularly high requirements for RF sealing and coupling resistance between the cable and connector. The backshell has anti-rotation teeth which function as an anti-rotation mechanism. The shielding braid can be mounted using the following two methods.

### Soldering of the shielding braid

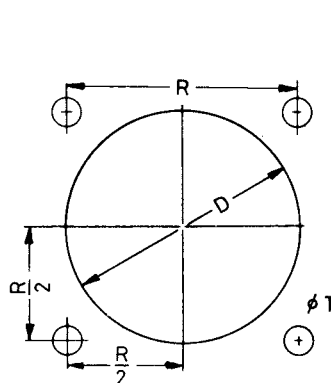
- Remove the clamping nut (9). It is no longer needed.
- Place heat shrink part (6) and clamping nut over cables (8).
- Tin-plate the rounded groove.
- Push shielding braid (7) onto backshell (1) and over the thread (3).
- Fasten shielding braid to the rounded groove with binding wire (4).
- Fold the protruding shielding braid back over the cone (5).
- Solder the shielding braid (7) to the rounded groove.
- Apply adhesive from the rectangular groove (2) down to the soldering point.
- Shrink-fit heat shrink part (6). The lip of the heat shrink part grips into the rectangular groove (2).



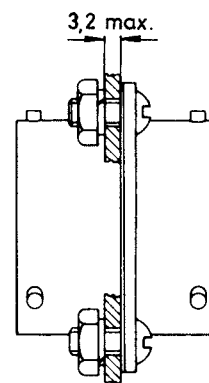
## Assembly instructions

The receptacles with rectangular flange of the series PT and PT-SE are installed on the front side of the mounting wall. With the thru-bulkhead PTB (see installation example), screw length and screw head diameters which guarantee perfect coupling must be selected. Flange gaskets see p. 53

Dimensions in mm



Mounting hole

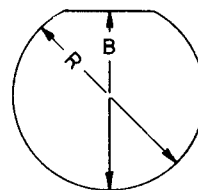


Installation example: PTB

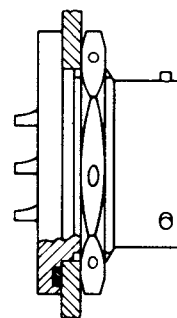
| Shell size        | 8     | 10    | 12    | 14    | 16    | 18    | 20    | 22    | 24    |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| ø D only for PTB  | 14.00 | 17.00 | 22.00 | 25.00 | 28.00 | 31.00 | 34.50 | 37.50 | 41.00 |
| ø D for PT, PT-SE | 12.10 | 15.20 | 18.40 | 21.60 | 24.80 | 27.90 | 31.10 | 34.30 | 37.40 |
| R. Theoret. dim.  | 15.09 | 18.26 | 20.62 | 23.01 | 24.61 | 26.97 | 29.36 | 31.75 | 34.93 |
| ø T min. +0.13    | 3.50  | 3.50  | 3.50  | 3.50  | 3.50  | 3.50  | 3.50  | 3.50  | 4.00  |

### Receptacles for single hole mounting

The receptacles for single hole mounting can be fixed to mounting walls with a thickness of 1.6 mm to 3.2 mm with shell sizes 8 to 18, and from 5.5 mm max. with shell sizes 20 to 24.



Mounting hole



Installation example: PT 07

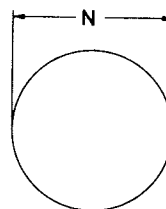
Dimensions in mm

| Shell size | 8     | 10    | 12    | 14    | 16    | 18    | 20    | 22    | 24    |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| B – 0.25   | 13.77 | 16.99 | 21.08 | 24.26 | 27.53 | 30.68 | 33.86 | 37.06 | 40.01 |
| ø R + 0.25 | 14.53 | 17.70 | 22.45 | 25.58 | 28.80 | 31.98 | 35.15 | 38.28 | 41.50 |

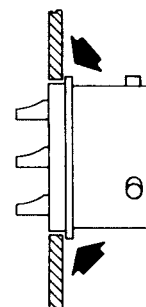
### Hermetically sealed receptacle

The receptacle must be mounted in such a manner that the hermetic seal provided by the compression glass insert is maintained. The shell surface is tin-plated to facilitate soldering. Soldering tin with a low melting point is recommended. The solder is applied at the points indicated by arrows.

Dimensions in mm



Mounting hole

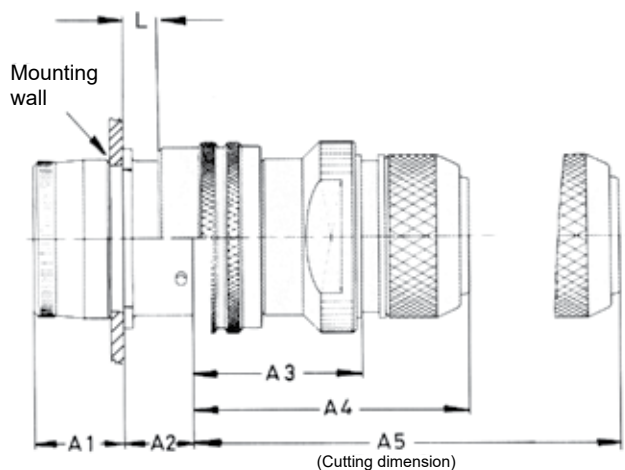


Installation example: PTIH

| Shell size | 8     | 10    | 12    | 14    | 16    | 18    | 20    | 22    | 24    |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| ø N max.   | 14.78 | 17.58 | 20.35 | 23.52 | 26.70 | 29.87 | 35.43 | 34.93 | 38.61 |

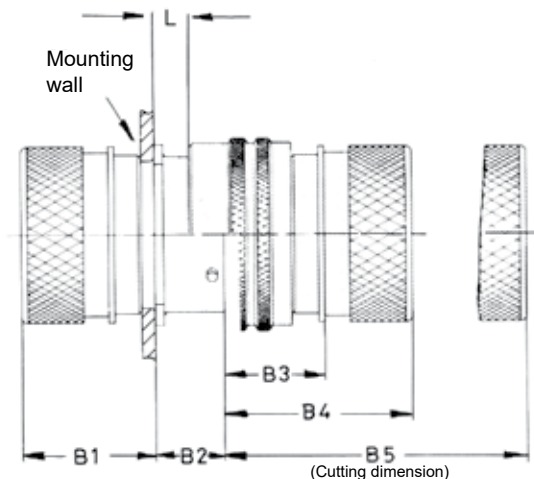


**Receptacle PT 00 SE and plug PT 06 SE**  
with backshells



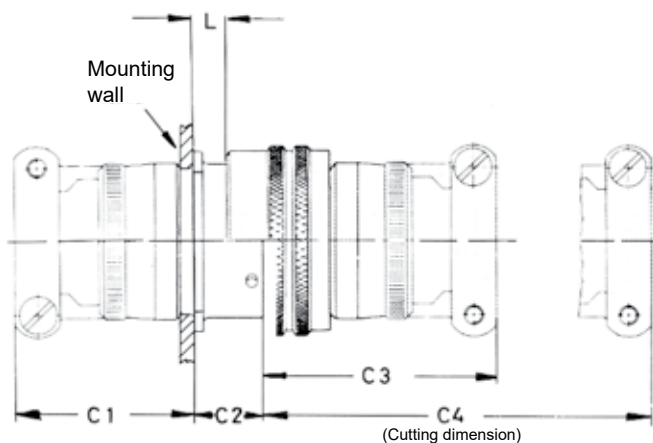
PT 00 SE

PTG 06 SE...SQ



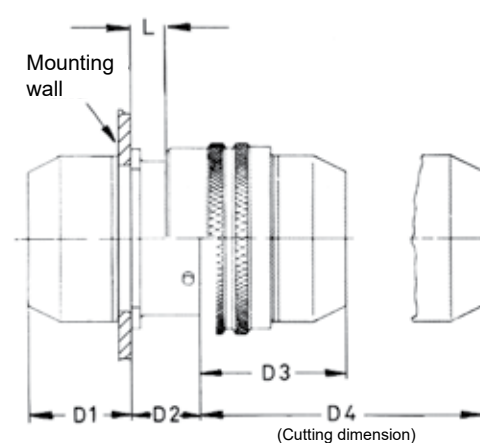
PT 00 SE...J

PT 06 SE...J



PT 00 SE...SR

PT 06 SE...SR



PT 00 SP

PT 06 SP

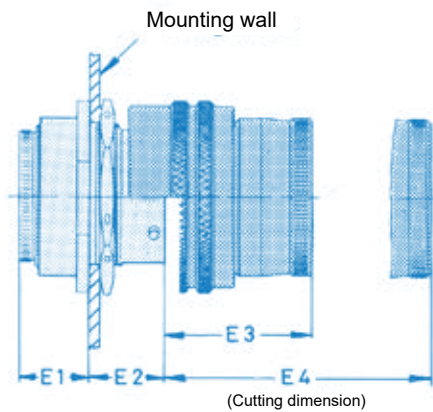
Dimensions in mm

| Shell size | A1 | A2 | A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | D1 | D2 | D3 | D4 | L<br>min. |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|
| 8          | 22 | 13 | 27 | 44 | 58 | 25 | 13 | 14 | 26 | 40 | 37 | 13 | 40 | 54 | 30 | 13 | 36 | 50 | 3.2       |
| 10         | 22 | 13 | 27 | 44 | 58 | 25 | 13 | 15 | 27 | 41 | 37 | 13 | 40 | 54 | 30 | 13 | 36 | 50 | 3.2       |
| 12         | 22 | 13 | 27 | 45 | 58 | 26 | 13 | 16 | 28 | 42 | 37 | 13 | 40 | 54 | 30 | 13 | 36 | 50 | 3.2       |
| 14         | 22 | 13 | 27 | 45 | 58 | 26 | 13 | 16 | 28 | 42 | 37 | 13 | 40 | 54 | 30 | 13 | 36 | 50 | 3.2       |
| 16         | 22 | 13 | 27 | 45 | 58 | 26 | 13 | 13 | 27 | 41 | 39 | 13 | 42 | 56 | 30 | 13 | 36 | 50 | 3.2       |
| 18         | 22 | 13 | 27 | 45 | 58 | 27 | 13 | 14 | 28 | 42 | 39 | 13 | 42 | 56 | 30 | 13 | 36 | 50 | 3.2       |
| 20         | 19 | 17 | 29 | 47 | 62 | 29 | 17 | 14 | 30 | 45 | 39 | 17 | 44 | 59 | 28 | 17 | 34 | 50 | 6.2       |
| 22         | 19 | 17 | 29 | 47 | 62 | 28 | 17 | 13 | 29 | 45 | 39 | 17 | 44 | 59 | 28 | 17 | 34 | 50 | 6.2       |
| 24         | 19 | 18 | 31 | 49 | 63 | 28 | 18 | 14 | 29 | 45 | 40 | 18 | 45 | 61 | 28 | 18 | 35 | 50 | 6.4       |

## Assembly instructions

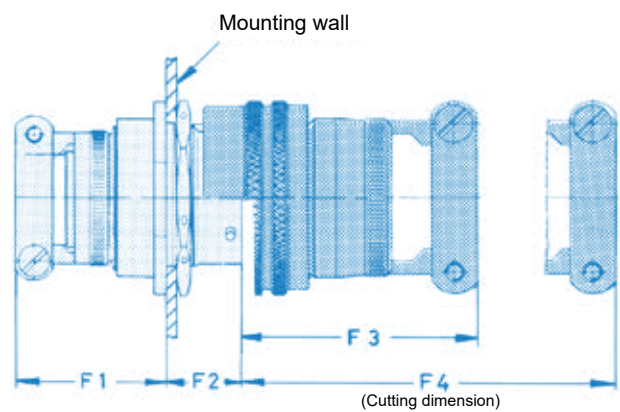
### Cutting and installation dimensions

#### Receptacle PT 07 SE and plug PT 06 SE with backshells



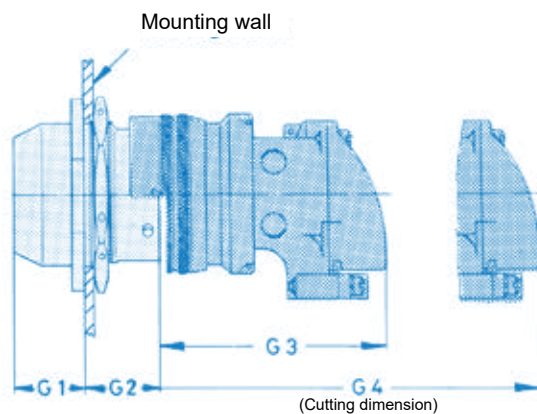
PT 07 SE

PT 06 SE



PT 07 SE ... SR

PT 06 SE ... SR



PT 07 SP

PT 08 SE

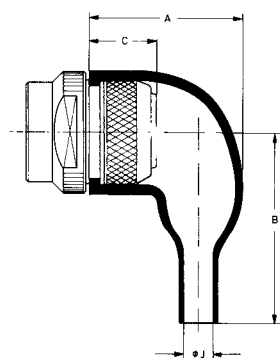
Dimensions in mm

| Shell size | E1 | E2 | E3 | E4 | F1 | F2 | F3 | F4 | G1 | G2 | G3 | G4 |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|
| 8          | 19 | 18 | 25 | 39 | 32 | 18 | 40 | 54 | 25 | 18 | 45 | 59 |
| 10         | 19 | 18 | 25 | 39 | 32 | 18 | 40 | 54 | 25 | 18 | 46 | 60 |
| 12         | 19 | 18 | 25 | 39 | 32 | 18 | 40 | 54 | 25 | 18 | 48 | 62 |
| 14         | 19 | 18 | 25 | 39 | 32 | 18 | 40 | 54 | 25 | 18 | 52 | 66 |
| 16         | 19 | 18 | 25 | 39 | 34 | 18 | 42 | 56 | 25 | 18 | 57 | 71 |
| 18         | 19 | 18 | 25 | 39 | 34 | 18 | 42 | 56 | 25 | 18 | 60 | 74 |
| 20         | 19 | 23 | 23 | 38 | 33 | 23 | 44 | 59 | 27 | 23 | 60 | 75 |
| 22         | 19 | 23 | 23 | 38 | 33 | 23 | 44 | 59 | 27 | 23 | 61 | 77 |
| 24         | 20 | 24 | 24 | 40 | 34 | 24 | 45 | 61 | 27 | 24 | 67 | 83 |

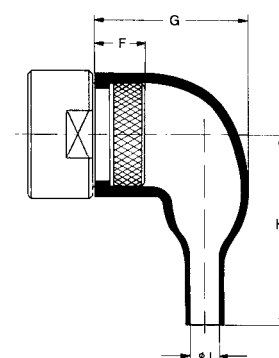
## Application examples of heat shrink parts

The heat shrink parts shown (also referred to as shrinkable parts) are suitable for shrink-fitting to fully assembled connectors which use backshells SE ... SQ or SE... F.

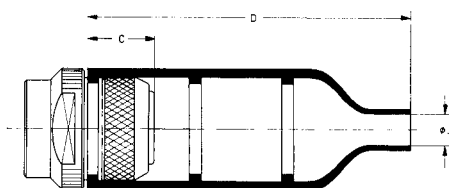
The molded parts 202 K and 222 K can be obtained from the RAYCHEM company. The order codes and dimensions below are for informational purposes only.



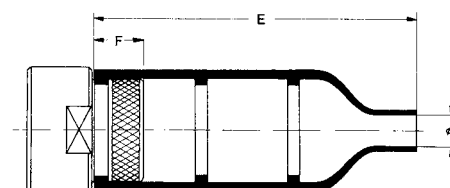
Backshell SE ... SQ with molded part 222



Backshell SE ... F with molded part 222



Backshell SE ... SQ with molded part 202



Backshells ... F with molded part 202

## Dimensions in mm

Backshell SE ... SQ

| Shell size | Molded part order code | Dimensions in mm |      |    |       |          |
|------------|------------------------|------------------|------|----|-------|----------|
|            |                        | A                | B    | C  | D     | Ø J max. |
| 8          | 222 K 121<br>202 K 121 | 25.4             | 25.0 | 16 | 38.4  | 5.6      |
| 10         | 222 K 132<br>202 K 132 | 27.2             | 32.0 | 17 | 54.9  | 6.6      |
| 12         | 222 K 132<br>202 K 132 | 27.2             | 32.0 | 17 | 54.9  | 6.6      |
| 14         | 222 K 142<br>202 K 142 | 30.5             | 39.4 | 17 | 66.8  | 7.1      |
| 16         | 222 K 152<br>202 K 153 | 38.0             | 46.4 | 18 | 80.0  | 8.4      |
| 18         | 222 K 152<br>202 K 153 | 38.0             | 46.4 | 18 | 80.0  | 8.4      |
| 20         | 222 K 163<br>202 K 163 | 45.0             | 55.0 | 18 | 99.1  | 9.9      |
| 22         | 222 K 163<br>202 K 163 | 45.0             | 55.0 | 18 | 99.1  | 9.9      |
| 24         | 222 K 174<br>202 K 174 | 54.0             | 80.0 | 18 | 130.0 | 15.7     |

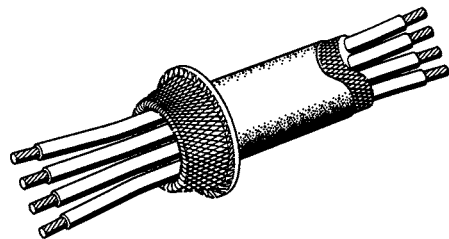
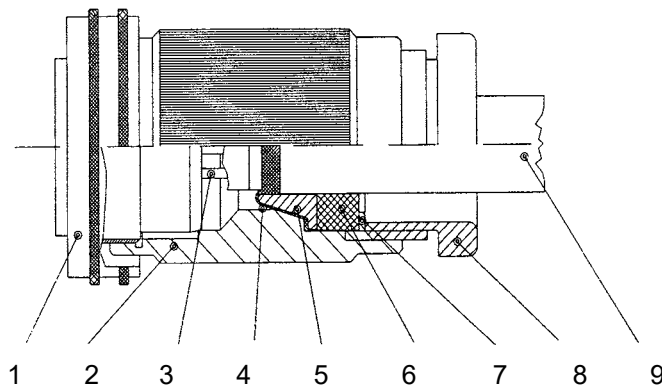
Backshell SE ... F

| Shell size | Molded part order code | Dimensions in mm |    |      |      |          |
|------------|------------------------|------------------|----|------|------|----------|
|            |                        | E                | F  | G    | H    | Ø J max. |
| 8          | 222 A 111<br>202 A 111 | 25.4             | 12 | 20.1 | 17.3 | 3.8      |
| 10         | 222 K 121<br>202 K 121 | 38.4             | 12 | 25.4 | 25.0 | 5.6      |
| 12         | 222 K 132<br>202 K 132 | 38.4             | 12 | 25.4 | 25.0 | 5.6      |
| 14         | 222 K 132<br>202 K 132 | 54.9             | 12 | 27.2 | 32.0 | 6.6      |
| 16         | 222 K 142<br>202 K 142 | 66.8             | 12 | 30.5 | 39.4 | 7.1      |
| 18         | 222 K 142<br>202 K 142 | 66.8             | 12 | 30.5 | 39.4 | 7.1      |
| 20         | 222 K 152<br>202 K 153 | 80.0             | 12 | 38.0 | 46.4 | 8.4      |
| 22         | 222 K 163<br>202 K 163 | 99.1             | 14 | 45.0 | 55.0 | 9.9      |
| 24         | 222 K 163<br>202 K 163 | 99.1             | 14 | 45.0 | 55.0 | 9.9      |

## General considerations for PG backshells with shield connection

### Standard version

- Overall shielded cable  
Shield sizes see p. 49.



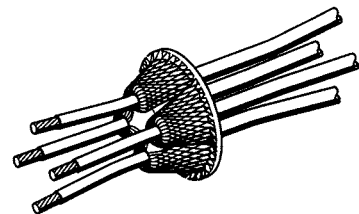
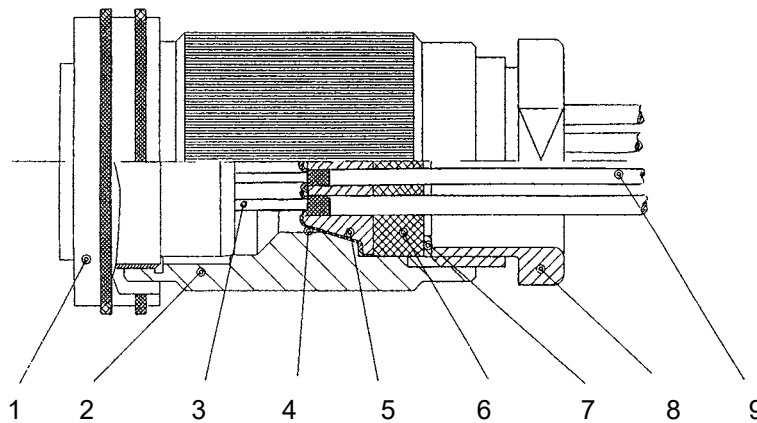
1) Plug  
2) Adapter  
3) Wire

4) Shield  
5) Cone ring  
6) Rubber ring

7) Disk  
8) Pressing screw  
9) Cable

### Special versions Please send inquiry.

- Individually shielded cables  
Shielding cones must be fitted to the individual cables.



**Other connector series from our sales program for military, aerospace, and industrial applications:**

|                      |                                                                                                  |
|----------------------|--------------------------------------------------------------------------------------------------|
| <b>MS u. 97</b>      | as per MIL-C-5015 in standard and special designs.                                               |
| <b>QWLD</b>          | as per MIL-C-22992. Connectors for use with high mechanical and electrical stress.               |
| <b>602 GB</b>        | as per PAN 6432-1 and -4<br>as per MIL-C-83723, Series 1                                         |
| <b>LJT</b>           | as per MIL-C-38999, Series 1                                                                     |
| <b>JT</b>            | as per MIL-C 38999, Series 2                                                                     |
| <b>SJT</b>           | as per VG 96912; LN 29729; PAN 6433-2, JN 1003; EN 3372                                          |
| <b>TRI-START</b>     | as per MIL-C-38999, Series 3; JN 1034; EN 3645                                                   |
| <b>711/715</b>       | as per MIL-STD 1553 B (DATA-BUS)<br>as per PAN 6484/PAN 6486, JN 1032, JN 1033, JN 1056, JN 1057 |
| <b>348</b>           | as per MIL-C-81511 and VG 95329                                                                  |
| <b>B<sup>3</sup></b> | Brush connector with up to 400 contacts for printed circuit boards                               |
| <b>DIN</b>           | Connector for printed circuit boards<br>as per DIN 41612 and VG 95324                            |
| –                    | Coaxial connectors as per MIL-C-39012                                                            |
| –                    | Connectors for fiber optic cables                                                                |
| –                    | Special designs following customer specifications                                                |
| –                    | Filter connectors                                                                                |

◀ **Ordering information see overleaf**