

# Commercial and Industrial Product Catalog



**SOURIAU**  
Connection Technology

## COMPANY PROFILE

SOURIAU is a world-leading supplier of high performance interconnect solutions for severe environments.

The company designs, manufactures and markets standard electrical, fiber optic connectors and complex interconnect systems. SOURIAU was established in 1917 and has the industrial, aeronautical, defense and space activities of SOURIAU, JUPITER and BURNDY.

The dedicated end markets for the company's products are aerospace, defense, railways and industrial markets. The group's products are engineered and manufactured in USA and Dominican Republic, Europe and Morocco, India and Japan, and sold by a worldwide sales and marketing organization. The group employs 1400 people all over the world.

### Laboratory & test center

SOURIAU has its own independent test center recognized by many National Standard Laboratories.

This center carries-out validation or qualification programs complying with : MIL-Standard – CECC – GSFC – VDE – SCC –EN – CSA – UL –

The laboratory has the capabilities to perform testing in compliance with the above mentioned standards as follow : electrical, environmental, mechanical.

### Design & Development

SOURIAU continues its strong commitment to invest in design and development to provide innovative solutions.

Our company is structured into cross functional teams of scientists, engineers and technicians working closely with customers to bring new products to market.

More than 6% of our sales are invested in new product development.

### Quality Assurance

Quality is a key objective for SOURIAU focusing on :

Total customer satisfaction

The widespread application of a Quality Assurance System that spans all processes, is consistent throughout the company and meets the requirements ISO9001 / ISO14001 / MIL-STD790 / NATO AQAP110 / BOEING D1-9001 / AS-9100

Souriau reserves the right to make any engineering refinements, alterations or improvements deemed necessary on its products. The dimensions appearing in this catalogue are thus subject to change without notice. When dimensions are critical detailed drawings should be requested.

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**Trim Trio**



**26482 Series 1**



**Push Pull**

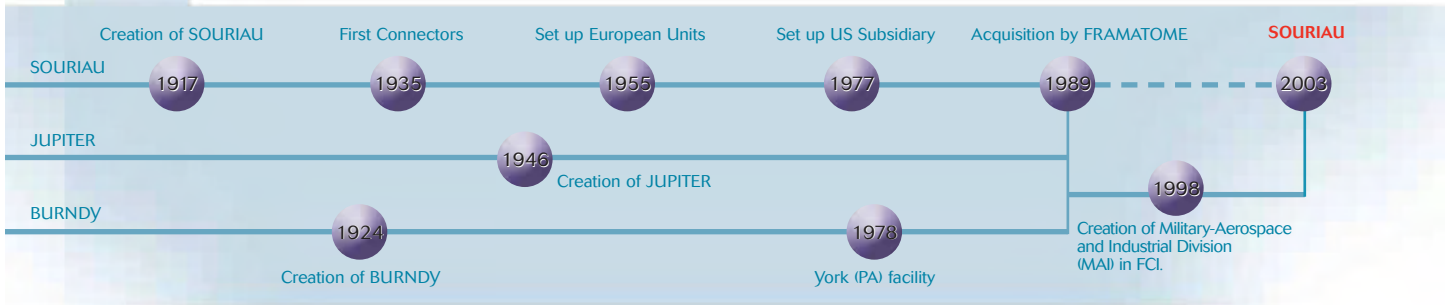




# History

- 1917** Mr SOURIAU creates a small company with about 20 employees based in 5,000 sq. ft building dedicated to repairing automotive magneto's.
- 1924** Burn DIBNER forms BURNDY Engineering Company and revolutionizes overhead power distribution market with T Connectors and bar taps.
- 1935** First development and production of SOURIAU electrical connector lines.
- 1978** BURNDY opens York (PA) facility to produce TRIM-TRIO and stamped and formed terminals.
- 1989** Acquisition of SOURIAU/JUPITER and BURNDY Corp. by FRAMATOME with creation of FCI.
- 1998** Création within FCI of an autonomous Division (MAI) - Military/Aerospace and Industrial integrating:  
**SOURIAU:** Aerospace and industrial connectors  
**JUPITER:** Marine and heavy industry connectors  
**BURNDY:** Industrial TRIM TRIO range and proprietary aerospace connectors
- 2003** AXA Private Equity together with the Management acquire MAI Division of FCI.

## Main Dates



## Laboratory & Test Center



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 MIL- Standard - CECC - GSFC - VDE - SCC - EN - CSA - UL -  
 The laboratory has the capabilities to perform testing in compliance with the above mentioned standards as follows :

- electrical • environmental • mechanical

## Design & Development



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## Quality Assurance



MRP II, Class A  
 Quality is a key objective for SOURIAU focusing on :  
 • Total Customer Satisfaction.  
 • The widespread application of a Quality Assurance system that spans all processes, is consistent throughout the company and meets the requirements of ISO 9001/ ISO 14001/MIL-STD 790 /NATO AQAP 110 / BOEING D1-9000 / AS-9100



# Operations

## An International Presence



- ▶ A local presence in each of our markets with highly trained sales engineers working closely with each customer.
- ▶ Standard-MIL and TRIM-TRIO connectors are available through a worldwide distribution network.

Each Business Unit has full responsibility for design and production of its product lines, providing improved reactivity and commitment to our customers.

### North America

#### York, PA USA

Located in YORK (PA), is dedicated to Aerospace, Industrial and R/F connectors

#### Santiago, Dominican Republic

Assembly plant serving the North American market.

### Europe

#### Sarthe, France

Located 120 miles west of Paris, 2 units are responsible for all standard Mil-Aero and Industrial product lines.

#### Tangier, Morocco

Assembly plant serving the European market.

#### Marolles en Brie, France

Located 20 miles south of Paris this unit is responsible for very severe environment connectors and systems.



*Marolles plant*



*York plant*

*Dominican Republic plant*

*Champagné plant*

*Morocco plant*

### Japan

#### Tokyo, Japan

located in Tokyo, is responsible for industrial products, particularly for railways and machine tool markets.

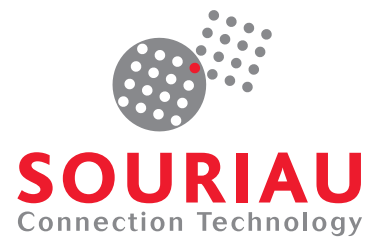
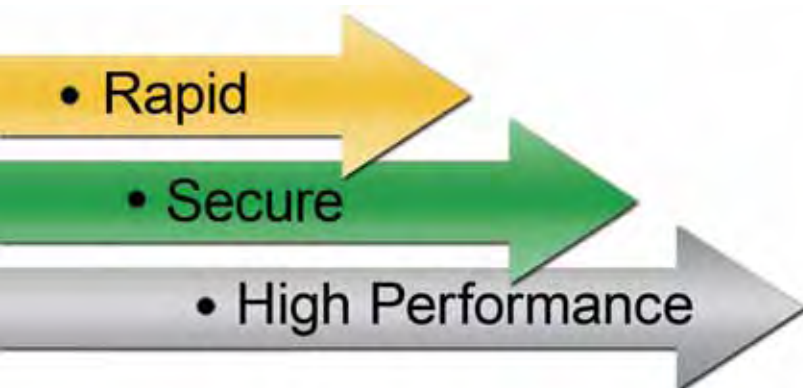
*Tokyo office*







## TRIM TRIO™ Connectors





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# New UT0-UTOW series



## New UT0 – UTOW series:

- The exclusive new product range in the TRIM TRIO broadline.
- Aesthetic and top class performances

## UT0 – UTOW series major technical features & benefits

### • Full metal bayonet connector

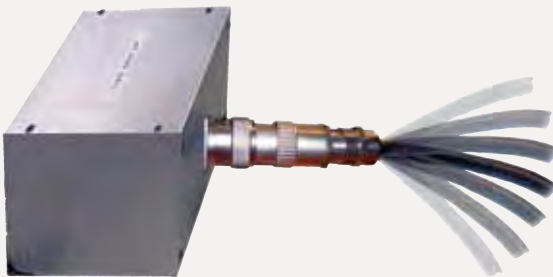
- Enabling 500 mating-unmating without wear out
- Secure locking device: audible “click” when mating



### • Dynamic IP68\*

Connector will remain IP68 even when:

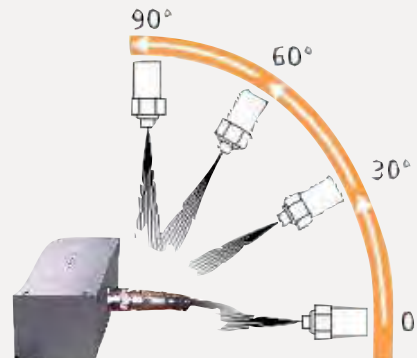
- Pulling on the cable
- Bending the cable



- \* With appropriate back shell
- \* Exists also in IP67 version

### • Dynamic IP69K\*

Connector withstands high pressure water cleaning.



- \* With appropriate back shell

### • High salt spray resistance\*

- Can be used in severe environment

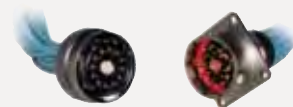
- \* Exists in 48 and 96 hours salt spray version
- \* Higher salt spray resistance (e.g. 200 or 500 hours) upon request

### • RoHS compliant

- Cadmium and lead free materials are used

### • In accordance with following standards

- UT0 is Ethernet Cat5e compatible (consult factory)
- UT0-UTOW ranges are upgradeable to highspeed solutions



For detailed information on UT0 and UTOW series offering see pages 21 to 31

# New UTV ruggedized series



## New UTV series:

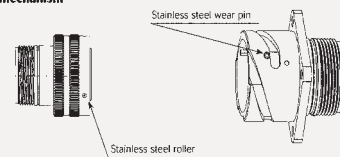
- **The ruggedized product range in the TRIM TRIO broadline.**
- **Using size 16 signal and size 12 & 8 power contacts for up to 30 Amps per contact.**

## UTV series major technical features & benefits

### • Ruggedized full metal reverse bayonet connector

- Enabling 500 mating-unmating without wear out
- Secure locking device
  - Audible “click” when mating
  - Visible yellow dot to indicate end of mating cycle

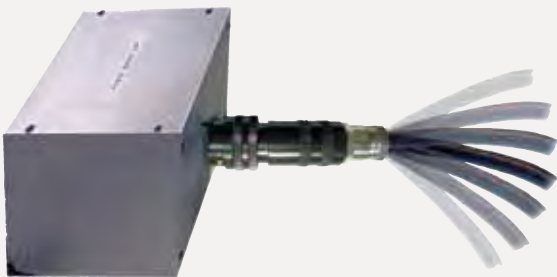
Robustness and high reliability of the locking mechanism



### • Dynamic IP68\*

Connector will remain IP68 even when:

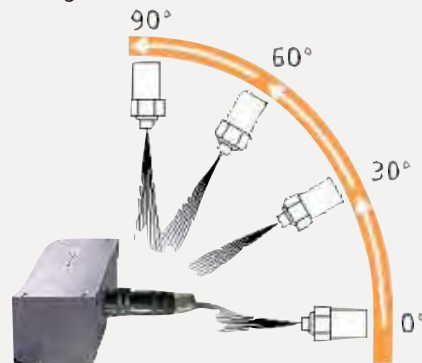
- Pulling on the cable
- Bending the cable



- \* With appropriate back shell and grommet
- \* Exists also in IP67 version

### • Dynamic IP69K\*

Connector withstands high pressure water cleaning.



- \* With appropriate back shell and grommet

### • Up to 500 hours salt spray resistance

- Can be used in very severe environment

### • Cadmium and lead free materials are used

### • In accordance with following standards

- Completely intermountable with VG95234: the MS5015 reverse bayonet connectors

# TRIM TRIO™ Overview



## TRIM TRIO ⇨ The flagship of Souriau's industrial connectors

Historically, TRIM TRIO connectors were developed in the 60's and are derived from MIL standards, but using size 16 contacts (1.6mm). From the 60's and forward, the product ranges have evolved into various sub series and different design-variations. In parallel with the size 16 contacts, there also has been an evolution on high density versions using size 20 contacts (1.0mm) and on mixed signal / power versions using size 16 contacts in combination with size 12 (2.4mm) and size 8 (3.6mm) contacts.

This TRIM TRIO interconnection system catalog gives an overview of the following products:

- **Standard TRIM TRIO using size 16 contacts (1.6mm)**
- **High Density TRIM TRIO using size 20 contacts (1.0mm)**
- **Mixed power / signal versions and Heavy Duty connectors**



### • **Standard TRIM TRIO** **Using size 16 contacts**

Standard TRIM TRIO using size 16 contacts (1.6mm pin diameter) is a versatile industrial range of connectors in which a variety of 3 removable snap-lock contact styles can be mixed and matched.

From machined or stamped & formed wire contacts to coaxial or fiber solutions can be offered with our TRIO of contact styles. In fact, the beauty of the standard TRIM TRIO system means that any TRIM TRIO contact can be used in any contact position in any TRIM TRIO connector.

The versatile range offers many options in rectangular and circular connectors from low cost plastic to top class metal solutions. This interchangeability offers boundless design possibilities with a large commonality throughout the entire range.

The commonality in the system is established in:

- Contact performance and wire range.
- Configuration of contact cavities in the housings.
- Crimp tooling
- Assembly procedures.
- Quality assurance procedures.
- Field service and maintenance.
- Personnel training.



### **The keyword in the TRIM TRIO interconnection system is SERV:**

- Standardization
- Economy.
- Reliability
- Versatility

This word explain why the TRIM TRIO name is so well known, and its connectors are used all over the world.

The physical characteristics and performances are appreciated in numerous fields of applications:

- Test and measurement
- Robotics
- Process control, handling equipment
- Factory automation and motor drives
- Public transportation, traffic control
- Medical instrumentation, telecom
- ... etc

More then ever before, businesses are relying on robust and environmental TRIM TRIO solutions to help them being successful.

The flagship TRIM TRIO has an international presence with engineering; customer service and a worldwide distribution network. It is supported by highly trained sales engineers working closely with each customer. Our emphasis includes customer satisfaction and 'just-in-time' to ensure fast delivery to our key customers.

TRIM TRIO continues its strong commitment to invest in design and development. We provide new solutions to perform faster, easier, safer and more reliably.



### • **High Density TRIM TRIO** **Using size 20 contacts**

High Density TRIM TRIO (UTOW/UTS) using size 20 contacts (1.0mm pin diameter) are metal circular ranges with bayonet coupling system in which a variety of 2 removable snap-lock contact styles are used.

Both machined or stamped & formed contacts can be mixed and matched in the same housing.

UTOW receptacle connectors feature the same panel cut-out dimensions as the MIL-C-26482 series 1 connectors.

There are 3 basic reasons for a customer to use UTOW/UTS connectors.

- Higher contact density: allows weight and space savings
- The "best in class" performance characteristics with an IP68/ 69K waterproof bayonet connection
- Cost saving!!! Not only on individual connector cost, but UTOW/UTS offers reeled, stamped & formed contacts that provide the ultimate answer to customers for overall applied cost for installation.



### • **Mixed Power / Signal TRIM TRIO** **• Ruggedized TRIM TRIO connectors UTV**

Mixed Power / Signal TRIM TRIO connectors using mixed contacts for power versions up till 44 Amp is a range of connectors to meet application specific requirements. It is an extension of the long established and popular TRIM TRIO connectors offering additional features.

Ruggedized UTV circular connectors series is an enhanced version of the VG 95234 connector standard but remains completely intermountable with VG 95234: the MS 5015 reverse bayonet system.

Following TRIM TRIO contacts are used in the UTV series:

- Size 16 contacts (1.6mm)
- Size 12 contacts (2.4mm)
- Size 8 contacts (3.6mm)





# Overview - Circular size 16



## FULL PLASTIC CIRCULAR CONNECTOR



### Description

Full plastic circular connector with rugged plastic bayonet coupling system

### Range

Shell sizes: 8  
Contact arrangements: 10 (3 to 48)

### Features

Derived from MIL - C 26482  
Intermateable with UTO / UTG  
IP65 (waterprotected version)  
Min 250 matings/unmatings  
2 VDE versions

### Accessories

Different type of cable clamps  
Dustcaps  
Discrimination pins

## HIGH MATING CYCLE CONNECTOR



### Description

Plastic circular connector with metal quick mating feature (push-pull)

### Range

Shell sizes: 5  
Contact arrangements: 5 (4 to 46)

### Features

Min 5000 matings/unmatings  
Quick and easy mating with latching system

### Accessories

Cable clamp

## PLASTIC CONNECTOR WITH METAL COUPLING



### Description

Plastic circular connector with metal bayonet coupling system

### Range

Shell sizes: 8  
Contact arrangements: 11 (3 to 48)

### Features

Derived from MIL - C 26482  
Intermateable with UTO / UTP  
IP65 (waterprotected version)  
Min 500 matings/unmatings  
3 VDE versions

### Accessories

Different types of cable clamps  
Dustcaps  
Discrimination pins

## PLASTIC SEALED CONNECTOR



### Description

Plastic circular connector with environmental sealing

### Range

Shell Size: 3  
Contact arrangements: 9 (3 to 19)

### Features

Sealed to IP 68/69K  
Min 250 mating/unmatings  
Jamnut receptacle for efficient panel seal  
RoHS compliant

### Accessories

Color coded rings for cable identification  
Sealing caps

## METAL CIRCULAR CONNECTOR



### Description

Metal circular connector with metal bayonet coupling system

### Range

Shell sizes: 8  
Contact arrangements: 8 (4 to 48)

### Features (see also page 2)

Derived from MIL - C 26482  
Intermateable with UTG / UTP  
2 levels of water protection:  
Dynamic IP67/IP69K and IP68/IP69K  
Suitable for EMC requirements  
Min 500 matings/unmatings  
2 levels of salt spray: 48 and 96h  
Higher salt spray (200/500h) upon request  
Cat5e ethernet compatible  
Back shells with metric cable glands  
RoHS compliant

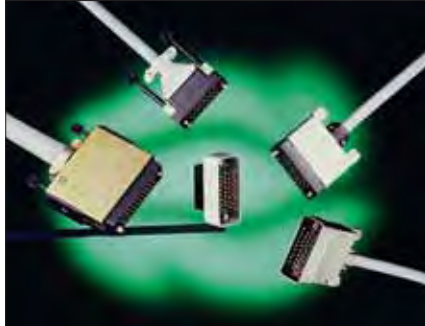
### Accessories

Different types of cable clamps  
Shielded cable clamp  
Dustcaps  
Discrimination pins

# Overview - Rectangular size 16



## HIGH PERFORMANCE CABLE CONNECTOR



### Description

High performance rectangular cable connector

### Range

Shell sizes: 9  
Contact arrangements: 9 to 75

### Features

Per MIL - C 28748  
Intermateable with MSO

### Accessories

Different types of cable clamps  
Guide and jackscrew pins  
Pin protection shrouds  
Discrimination pins

*new*

## COMPOSITE LEVER-LOCKING CONNECTOR



### Description

Cable (MSG + MB) and boardmount (MSG) connectors with lever locking system.

### Range

Shell sizes: 1 for MSG  
1 for MB  
Contact arrangements: 50 + 59 for MSG  
52 for MB

### Features

Lever locking system – easy mating  
MSG is 19" rack mountable  
Polarization features available  
Anti jack knife system on MB

## HIGH PERFORMANCE BOARDMOUNT CONNECTOR



### Description

Rectangular boardmount connector to mate with MS-M cable connectors

### Range

Shell sizes: 5  
Contact arrangements: 5 straight (9 to 75)  
3 right angle (9,18,34)

### Features

Solid machined or stamped and formed contacts  
Intermateable with MS-M

### Accessories

Guide and jackscrew pins  
Discrimination pins

## PLASTIC PANEL AND CABLE CONNECTOR



### Description

Low cost rectangular cable connectors for cable to cable and cable to panel applications

### Range

Shell sizes: 10  
Contact arrangements: 10 (2 to 36)

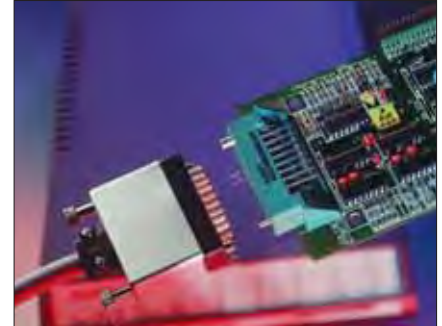
### Features

Intermateable with SMS Boardmount  
Moulded-on cable hood  
No extra hardware required  
Positive locking with retaining latches  
Disrimination cavities in between contact cavities

### Accessories

Pin protection shrouds  
Discrimination pins  
Tie wraps

## V35 - DTE/DCE



### Description

Rectangular cable and boardmount connector for V.35 DTE/DCE interface applications

### Range

1 shell size with 34 contact positions  
straight and right angle boardmount connector

### Features

In compliance with international standards of ISO 2593 for TSS V.35 interfacing  
Solid machined or stamped and formed contacts for boardmount connector  
Shielded cable and boardmount connectors available

### Accessories

Different type of cable clamps (incl. shielded)  
Guide and jackscrew pins  
Pin protection shrouds and discrimination pins

## PLASTIC PC BOARDMOUNT CONNECTOR



### Description

Low cost rectangular boardmount connector to mate with SMS cable connectors

### Range

Shell sizes: 10  
Contact arrangements: 10 straight (2 to 36)  
4 right angle (3,6,12,18)

### Features

Solid machined or stamped and formed contacts  
No extra hardware required  
Intermateable with SMS cable connectors  
Disrimination cavities in between contact cavities

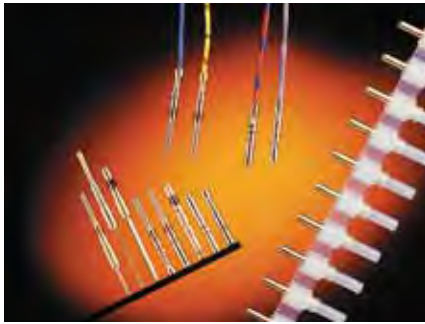
### Accessories

Discrimination pins

# Overview - Contacts size 16



## SCREW MACHINED (size 16)



### Description

Machined Snap in pin and socket contacts for heavy duty top performance requirements.

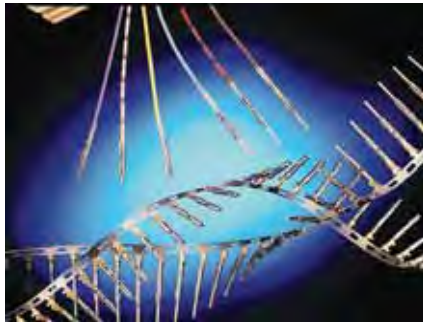
### Range

30 to 14 AWG – 0.05 to 2.5 mm<sup>2</sup>  
Crimp, PC Boardmount, Handsolder  
Wire wrap, Grounding contacts

### Features

Current rating: 13 Amps  
Plating: Gold or Tin  
Colour coded for different wire sizes

## STAMPED & FORMED (size 16)



### Description

Two piece strip formed snap in pin and socket contacts.

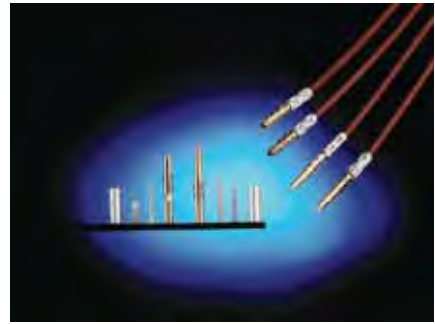
### Range

26 to 14 AWG – 0.13 to 2.0 mm<sup>2</sup>  
Crimp.

### Features

Current rating: 13 Amps  
Plating: Gold or Tin

## COAXIAL (size 16)



### Description

Snap in pin and socket coaxial contacts for a wide range of coaxial and twisted pair cables.

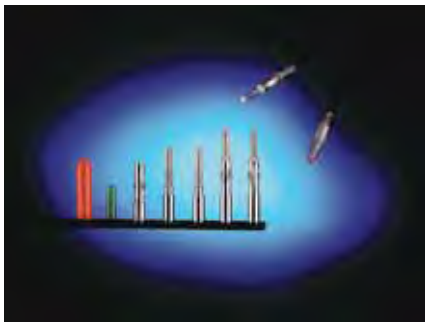
### Range

Multi piece or Monocrimp design.  
Typical coaxial cables are: RG161, RG178, RG179, RG188.

### Features

Plating: Gold

## Fiber optic (size 16)



### Description

Snap in pin and socket Fiber optic contacts for the integration of optical links.

### Range

Plastic optical Fiber (POF):  
1mm core and 2.2mm jacket.  
Plastic clad Fiber (PCF):  
230 µm core and 2.2 mm jacket  
Multimode Silica Fiber:  
50/125 µm type 1.5mm (or 900 µm) jacket.

### Features

Socket contact is spring loaded to avoid any air gap between the optical faces.

# Overview - size 20 connectors + contacts



## METAL CIRCULAR CONNECTOR



### Description

Metal circular connector with metal bayonet coupling system.

### Range

Shell sizes: 8  
Contact arrangements: 8 (6 to 61)

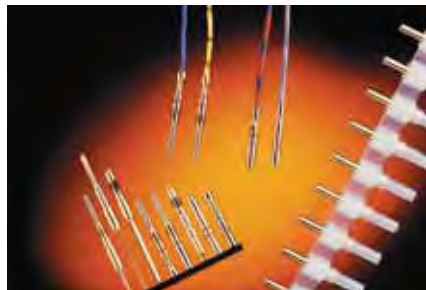
### Features (see also page 2)

2 levels of water protection:  
Dynamic IP67/IP69K and IP68/IP69K  
Suitable for EMC requirements  
Min 500 matings/unmatings  
2 levels of salt spray: 48 and 96h  
Higher salt spray (200/500h) upon request  
Back shells with metric cable glands  
RoHS compliant

### Accessories

Different types of cable clamps  
Shielded cable clamp  
Dustcaps  
Discrimination pins

## SCREW MACHINED CONTACTS (size 20)



### Description

Machined Snap in pin and socket contacts for heavy duty top performance requirements.

### Range

26 to 18 AWG – 0.13 to 1.0 mm<sup>2</sup>  
Crimp and PC Boardmount

### Features

Current rating: 7.5 Amps  
Plating: Gold

## PLASTIC SEALED CONNECTOR



### Description

Plastic circular connector with environmental sealing

### Range

Shell Size: 3  
Contact arrangements: 9 (3 to 19)

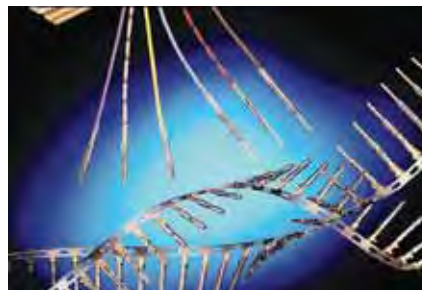
### Features

Sealed to IP 68/69K  
Min 250 mating/unmatings  
Jamnut receptacle for efficient panel seal  
RoHS compliant

### Accessories

Color coded rings for cable identification  
Sealing caps

## STAMPED AND FORMED CONTACTS (size 20)



### Description

Two piece strip formed snap in pin and socket contacts.

### Range

26 to 20 AWG – 0.13 to 0.5 mm<sup>2</sup>  
Crimp.

### Features

Current rating: 5 Amps  
Plating: Gold



# Overview - mixed power signal/ruggedized



## MIXED POWER AND SIGNAL



### Description

Power connectors are connectors to meet mixed power / signal requirements. This range of power connectors is an extension of the long established and popular TRIM TRIO connector series

## UTV SERIES



### Description

Ruggedized metal circular connector for heavy duty applications

### Range

Shell sizes: 8  
Contacts arrangements: 9 (7 to 60)

### Features

Completely intermountable with VG95237: the MS5015 reverse bayonet connectors.  
2 levels of waterprotection:  
Dynamic IP67/69K and IP68/69K  
Up to 500 h salt spray.

### Accessories

Straight back shells  
Right angle back shells  
Grommets and filler plugs

## POWER CONTACTS



### Description

Machined snap in pin and sockets contacts for power applications

### Range

Size 12 contacts:  
20 to 14 AWG – 0.5 to 2.5 mm<sup>2</sup>  
Size 8 contacts:  
16 to 8 AWG – 1.5 to 10 mm<sup>2</sup>

### Features

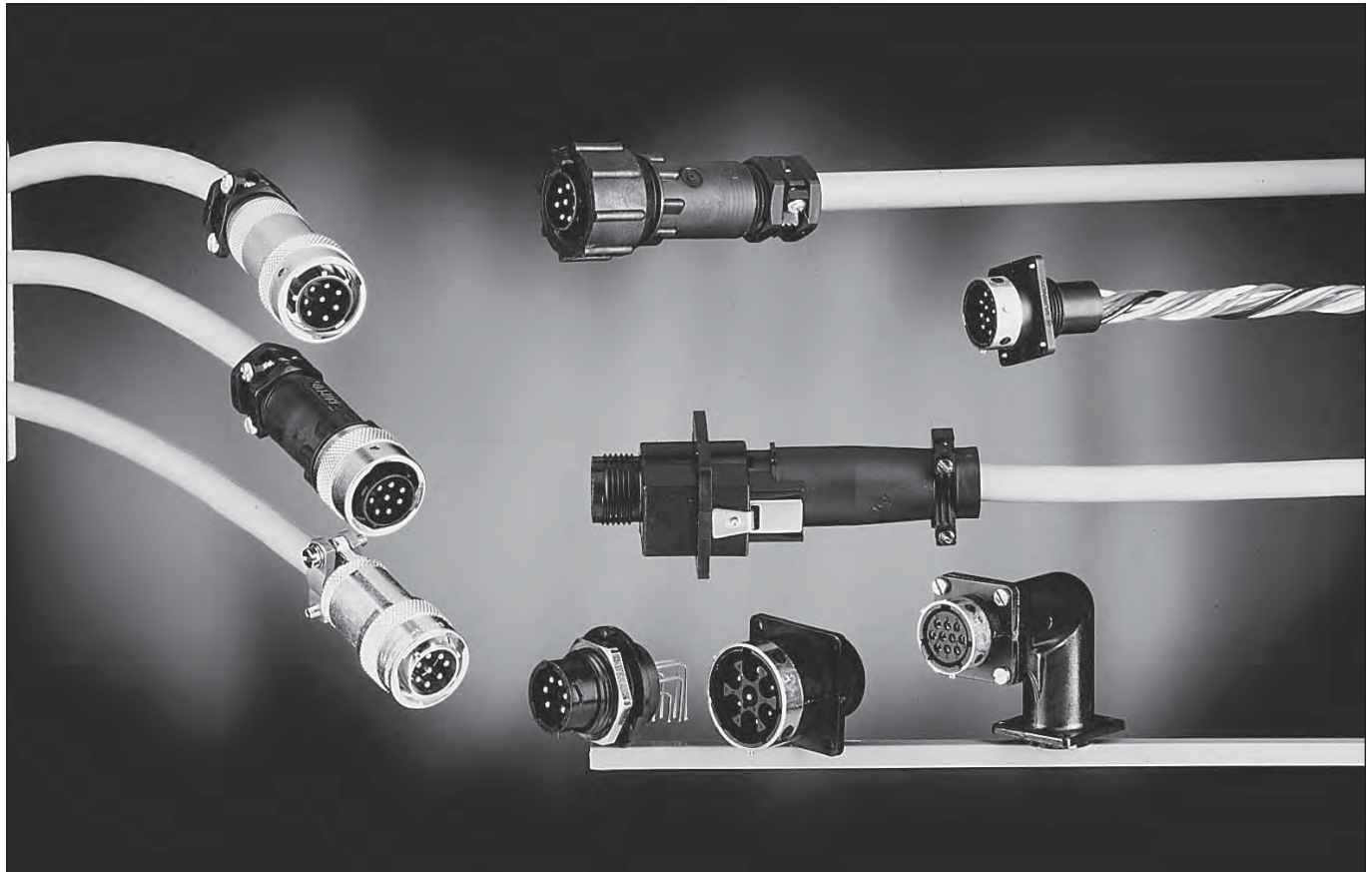
Current rating: 26 Amps for size 12 contacts  
44 Amps for size 8 contacts  
Plating: Gold or Silver for size 12 contacts  
Gold for size 8 contacts



# Circular



## Overview Circular TRIM TRIO connectors



**Circular TRIM TRIO connectors are a wide and versatile range that are offered in many options from low cost plastic to top class metal solutions.**

This section gives an overview on available circular connectors for:

**1. Bayonet connectors derived from MIL-C-26482 series 1 but using size 16 contacts (1.6mm).**

- UTP - Full plastic version.
- UTG - Plastic connector with metal bayonet coupling system.
- UTO - Metal circular connector offering top class performance characteristics.

**2. High density bayonet connectors using size 20 contacts (1.0mm).**

- UTOW - Metal circular connector offering top class performance characteristics.

**3. Mixed power / signal connectors.**

- A range of connectors with contact arrangements offered with a mix of signal and power contacts up to 44 A.

**4. Push-pull connectors using size 16 contacts (1.6mm).**

- MBG – Plastic connector with metal quick mating feature.

# Circular - Overview



## TRIM TRIO Insert arrangements and moulded-in contact identification

~ Viewed from front face of male connector ~

Shell size	Contact # 16 (Ø 1,6)	Contact # 20 (Ø 1,0)	VDE versions Mixed power / signal versions	
10	<p>10-4</p>	<p>10-6</p>	<p>10-3 VDE 3 x # 16 (Ø 1,6) Group C 250V</p>	<p>10-3W3 3 x # 16 (Ø 1,6) 3 x # 20 (Ø 1,0)</p>
12	<p>12-8</p>	<p>12-10</p>	<p>12-3 3 x # 12 (Ø 2,4)</p>	
14	<p>14-12</p>	<p>14-19</p>	<p>14-8 4 x # 12 (Ø 2,4) 4 x # 16 (Ø 1,6)</p>	
16	<p>16-19</p>	<p>16-26</p>		
18	<p>18-23</p>	<p>18-32</p>	<p>18-7 VDE Group C 380V 7 x # 16 (Ø 1,6)</p>	<p>18-7 2 x # 12 (Ø 2,4) 5 x # 16 (Ø 1,6)</p>

# Circular - Overview



Shell size	Contact # 16 (Ø 1,6)	Contact # 20 (Ø 1,0)	VDE versions Mixed power / signal versions
20	<p>20-28</p>	<p>20-41</p>	<p>20-20 VDE 20 x # 16 (Ø 1,6) Group C 660V</p>
22	<p>22-35</p>	<p>22-55</p>	
24	<p>24-48</p>	<p>24-61</p>	<p>24-7 7 x # 8 (Ø 3,6) 2 x # 16 (Ø 1,6)</p>
	<ul style="list-style-type: none"> <li>■ UTP</li> <li>▲ UTG</li> <li>● UTO + Ethernet cat 5e</li> <li>□ UTOW</li> </ul>		<p>24-11 4 x # 8 (Ø 3,6) 7 x # 16 (Ø 1,6)</p>

Contact identification positions shown are for mating face of pin contact connectors and wire face of socket contact connectors.

# Circular



## Notes

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# Full Plastic Sealed Connectors



## Description

### IP68 / IP69K plastic circular connector with rapid locking system

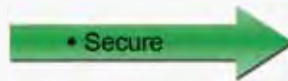
“UTS” is the latest addition to the well known TRIM TRIO® interconnect system.

‘UTS’ is a range of Industrial circular multiway connectors available in 3 shell sizes and 9 contact arrangements.

The keywords for the new UTS are: Rapid – Secure – High performance



Rapid refers to the bayonet coupling system and the total installed cost starting with the rapid wiring & cabling and ending with easy integration into the customer’s equipment. Rapid also refers to the total service on price request, samples and production deliveries.



The bayonet coupling system together with the secure and versatile TRIM TRIO® contacts offer confidence and reliability to both the connection and the customer’s equipment.

Moreover, UTS is part of the well known TRIM TRIO® interconnect system with its more than 40 years of field experience.



Extreme performance against water ingress, even in dynamic situations. This, in combination with a rapid and secure bayonet locking system makes UTS suitable for any high performance application.

UTS provides a connection that is faster, easier, safer and more reliable. It makes :



# Full Plastic Sealed Connectors



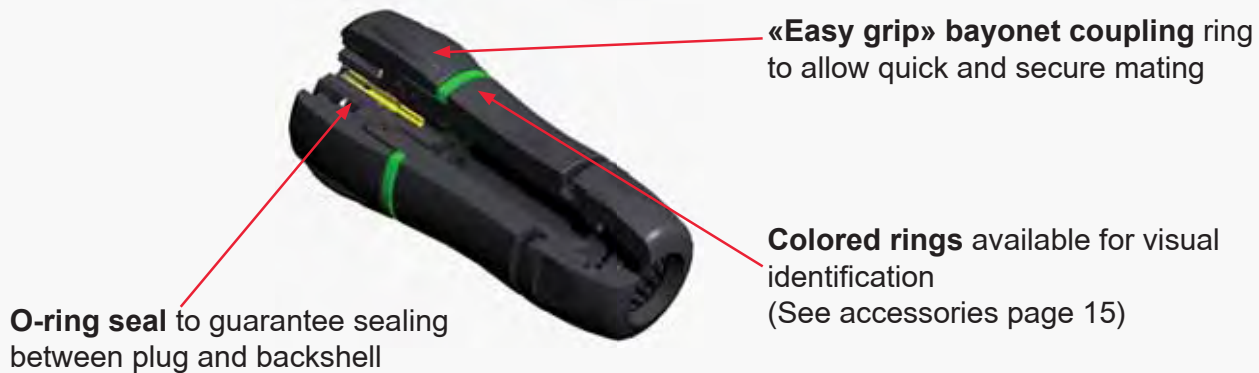
## Rapid and secure locking system

- ➔ Ultimate environmental protection in demanding applications
- ➔ Reduced operator fatigue
- ➔ Bayonet coupling system ensures proper mating
- ➔ Easy to connect in difficult places
- ➔ Reduced operator fatigue
- ➔ Labor savings

Quick mating with 1/3 turn with an audible & tactile "click"



## Ergonomic plug design with maximized cabling space and minimized connector length



# Full Plastic Sealed Connectors



**Rapid and secure panel mounting**

• Rapid  
• Secure  
• High Performance

**Rear panel mount solution** suitable for pre-harnessing and PCB mounting

**Captive panel seal** to prevent misalignment

**Robust jam nut** to guarantee a rapid, secure and vibration proof panel mounting

**O-ring seal** to guarantee sealing between receptacle and plug

**D-shape panel cut** to ensure correct mounting and to prevent the connector from rotating

**Assembly procedure of jam nut receptacle**

Step 1: The connector is inserted into the panel cutout.

Step 2: The jam nut is partially inserted into the back of the connector.

Step 3: The jam nut is fully inserted and tightened, locking the connector to the panel.

**PCB receptacle...low profile with rapid installation features**

• Rapid  
• Secure  
• High Performance

**Low profile housing** to limit space between panel and PCB

**Metal hold down clips** to lock the connector easily on the PCB and to release stress on solder joints

**Pre-assembled PCB contacts**  
- machined or stamped versions available  
- different solder tails lengths possible  
- different plating options

**Stand-offs** to allow cleaning after soldering

# Full Plastic Sealed Connectors



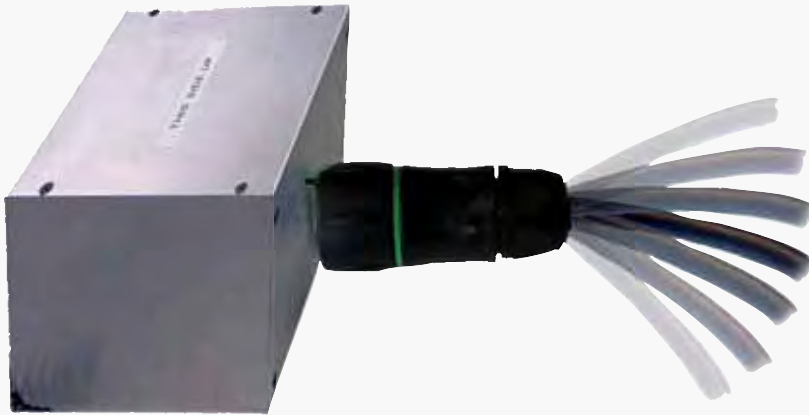
## Extreme environmental sealing performance

➡ **IP68 / IP69K sealing ... even in dynamic situations**

➡ **Dynamic IP68\***

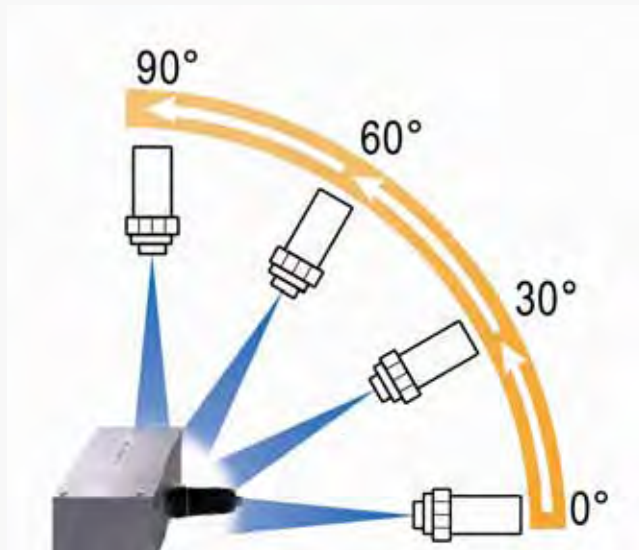
Connector will remain IP68 even when:

- Pulling on the cable
- Bending the cable



➡ **Dynamic IP69K\***

Connector withstands high pressure water cleaning



\* See table page 16 for more details

# Full Plastic Sealed Connectors



## Multiple contact arrangements with VDE 0110 performances

### Multiple contact arrangements within same connector size

- Different levels of current and rated voltages per VDE 0110
- Available in male and female genders
- Custom version available upon request such as:
  - Mixed contact sizes
  - Power versions
  - High speed versions (RJ45, USB, BNC)

### UTS insert arrangements, contact size, rated voltage per VDE 0110 & current ratings

Contact size	# 16 (dia. 1.6mm)		#20 (dia. 1.0mm)	
Rated voltage	250 V	125 V	125 V	
Overtoltage category	III	III	III	
Pollution degree	3	3	3	
Size 10				
	Number of contacts	3 (2+ grounding)	4	6
	Max current (per contact)	13A (machined + stamped)	13A (machine + stamped)	7.5A (machined) / 5A (stamped)
Size 12				
	Number of contacts	4 (3 + grounding)	8	10
	Max current (per contact)	13A (machined + stamped)	13A (machine + stamped)	7.5A (machined)/ 5A (stamped)
Size 14				
	Number of contacts	7 (6 + grounding)	12	19
	Max current (per contact)	13A (machined + stamped)	13A (machined + stamped)	7.5A (machined)/ 5A (stamped)

# Full Plastic Sealed Connectors



## Rapid and secure panel mounting

**Rear panel** mount solution suitable for pre-harnessing and PCB mounting

**Captive panel seal** to prevent misalignment

**Robust jam nut** to guarantee a rapid, secure and vibration proof panel mounting

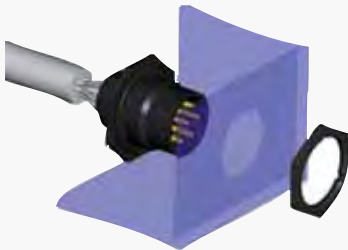
**D-shape panel cut** to ensure correct mounting and to prevent the connector from rotating

**O-ring seal** to guarantee sealing between receptacle and plug

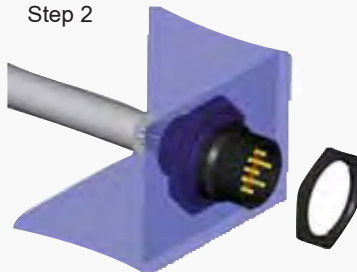


## Assembly procedure of jam nut receptacle

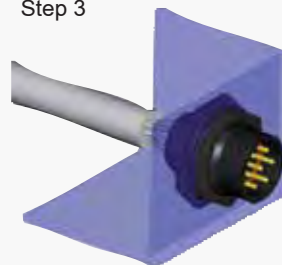
Step 1



Step 2



Step 3



## PCB receptacle...low profile with rapid installation features

**Low profile housing** to limit space between panel and PCB

**Metal hold down clips** to lock the connector easily on the PCB and to release stress on solder joints

**Pre-assembled PCB contacts**  
- machined or stamped versions available  
- different solder tails lengths possible  
- different plating options

**Stand-offs** to allow cleaning after soldering





# Full Plastic Sealed Connectors



## Technical characteristics

### MECHANICAL

- Durability: 250 matings & unmatings
- Vibration resistance: Per CEI 60512-4
- Thermal shock: Per MIL-STD1344 method 1003

### ELECTRICAL

- Insulation resistance: 5000 M $\Omega$  min
- Test potential: 2000 VAC
- As per VDE specifications (see page 8 for more details)

### ENVIRONMENTAL

- Operating temp: -40°C to + 105°C
- Flammability rating: UL94V0 and NFF16101 level 2
- Sealing (mated): Dynamic IP68 – 10m under water for 1 week per IEC60529  
Dynamic IP69K per DIN40050
- UV resistant
- Salt spray: 500 hours

### MATERIAL

- Connectors + Backshell: Thermoplastic



### PLATING (only for PCB version)

- Plating for machined contacts: min 0.4  $\mu$  gold all over
- Plating for stamped contacts: Min 0.4  $\mu$  gold in contact area  
3 – 5  $\mu$  tin on solder tail

Other platings upon request

### CONTACT ACCOMMODATION

- “UTS” connectors accept TRIM TRIO® size 16 or size 20 (depending on arrangement) removable snap-lock contacts
- Refer to TRIM TRIO® catalog for details
- Contacts to be ordered separately (except PCB versions)

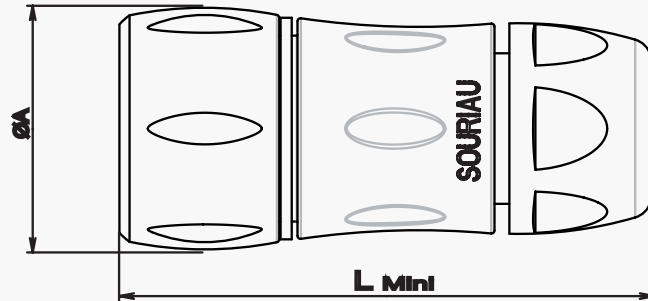
In accordance with UL requirements

# Full Plastic Sealed Connectors



## Cable plug with backshell for pin and socket contacts

UTS6JC...P / UTS6JC...S)



Each plug has 2 seals to cover the specified cable range (See table below).

The standard seal is preassembled

The second seal is supplied as loose piece together with a plug.

PN for pin contact	PN for socket	NB contacts	Shell size	L	Ø A	Ø Cable range
UTS6JC103P	UTS6JC103S	3	10	63.2	26.2	1.5 to 5.0 2.5 to 8.00 (standard)
UTS6JC104P	UTS6JC104S	4				
UTS6JC106P	UTS6JC106S	6				
UTS6JC124P	UTS6JC124S	4	12	66.7	29.7	3.0 to 9.0 5.0 to 12.0 (standard)
UTS6JC128P	UTS6JC128S	8				
UTS6JC1210P	UTS6JC1210S	10				
UTS6JC147P	UTS6JC147S	7	14	71.5	34.6	5.0 to 12.0 7.0 to 14.0 (standard)
UTS6JC1412P	UTS6JC1412S	12				
UTS6JC1419P	UTS6JC1419S	19				

Color coding ring is optional (See page 15).

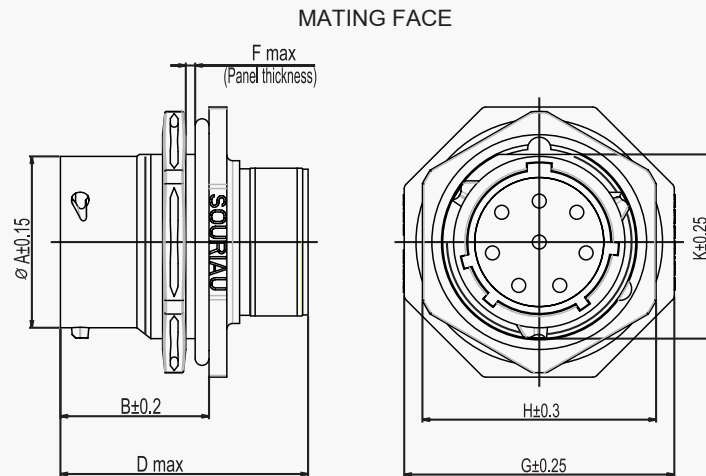
Notes : All dimensions are in mm.

Dimensions are not contractual and may be subject to modifications.

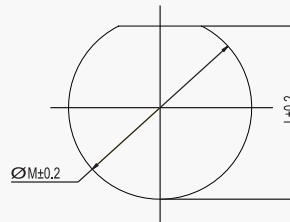
# Full Plastic Sealed Connectors



## Jam nut receptacle (wire version) for pin and socket contacts (UTS7...P / UTS7...S)



### PANEL CUT OUT



PN for pin contact	PN for socket	NB contacts	Shell size	$\varnothing A$	B	D Max	F Max	G	H	K	L	$\varnothing M$
UTS7103P	UTS7103S	3	10	14.9	19.3	33.9	3.2	27.0	22.2	16.6	16.5	17.7
UTS7104P	UTS7104S	4										
UTS7106P	UTS7106S	6										
UTS7124P	UTS7124S	4	12	19.0	19.3	33.9	3.2	31.8	27.0	20.8	21.2	22.5
UTS7128P	UTS7128S	8										
UTS71210P	UTS71210S	10										
UTS7147P	UTS7147S	7	14	22.2	19.3	33.9	3.2	34.9	30.2	23.9	24.3	25.7
UTS71412P	UTS71412S	12										
UTS71419P	UTS71419S	19										

Color coding ring is optional (See page 15).

Notes : All dimensions are in mm

Dimensions are not contractual and may be subject to modifications.

# Full Plastic Sealed Connectors

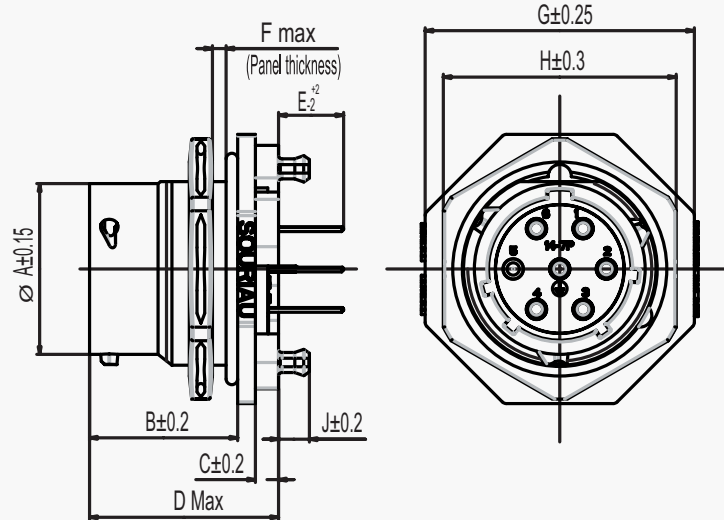


## PCB jam nut receptacle for male contacts

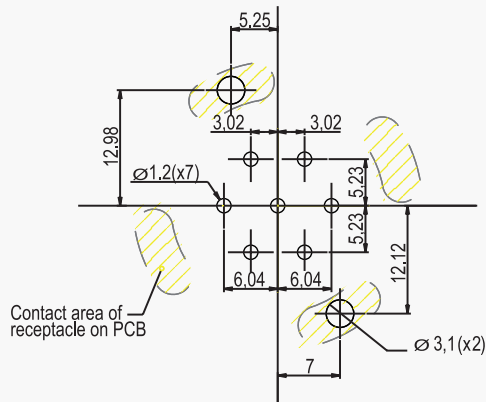
UTS714PSE4K9



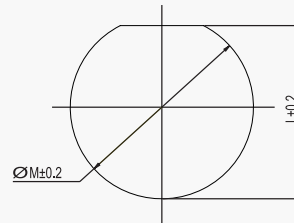
MATING FACE



DRILLING PATTERN



PANEL CUT OUT



Shell size	Ø A	B	C	D Max	E	F	G	H	J	L	Ø M
14	22.2	19.3	3	24.5	3.6	3.2	34.9	30.2	4	24.3	25.7

Other arrangements upon request.

Stamped and formed contacts.

Plating:

K9 (std) = Min 0.4µ Gold in contact area, 3 - 5µ Tin on solder tail

T = 3 - 5µ Tin all over

Notes : All dimensions are in mm.

Dimensions are not contractual and may be subject to modifications.

# Full Plastic Sealed Connectors



## Accessories

### Receptacle sealing cap



#### Part numbers

Size 10: UTS10DCG  
Size 12: UTS12DCG  
Size 14: UTS14DCG

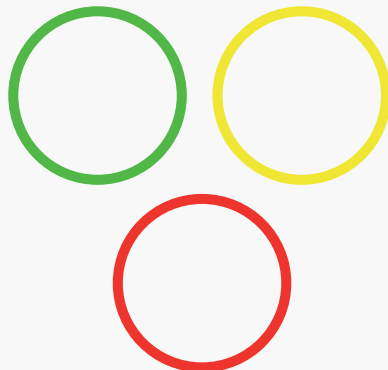
### Plug sealing cap



#### Part numbers

Size 10: UTS610DCG  
Size 12: UTS612DCG  
Size 14: UTS614DCG

### Color coding rings



#### Part numbers for receptacle

Size 10: UTS710CCR\*  
Size 12: UTS712CCR\*  
Size 14: UTS714CCR\*  
\* Add G for Green, Y for Yellow, R for Red

#### Part numbers for receptacle

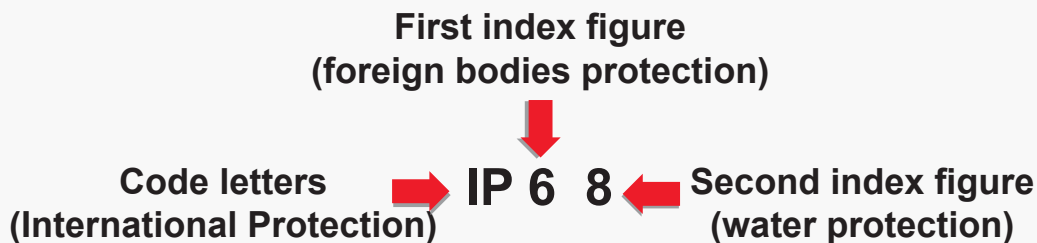
Size 10: UTS610CCR\*  
Size 12: UTS612CCR\*  
Size 14: UTS614CCR\*  
\* Add G for Green, Y for Yellow, R for Red

# Full Plastic Sealed Connectors



## What is sealing and how it is specified

- The connector's housing, sealing and locking mechanism protect the connection from external influences such as mechanical shocks, foreign bodies, humidity, dust, water and other fluids.
- The degree of protection is explained in IEC 60529, DIN EN60529 (DIN 40050) standards that categorize connections according to foreign body and water protection.
- The degree of protection is indicated by IP (International Protection) followed by 2 digits (See example below):



First Index	Degree of protection	Second Index	Degree of protection
0	No protection against accidental contact. No protection against solid foreign bodies.	0	No protection against water.
1	Protection against contacts with any large area by hand and against large solid foreign bodies with a diameter bigger than 50mm.	1	Drip-proof. Protection against vertical water drips.
2	Protection against contacts with the fingers. Protection against solid foreign bodies with a diameter bigger than 12mm.	2	Drip-proof. Protection against water drips up to a 15° angle.
3	Protection against tools, wires or similar objects with a diameter bigger than 2.5mm.. Protection against small solid bodies with a diameter bigger than 2.5mm.	3	Spray-proof. Protection against diagonal water drips up to a 60° angle.
4	As 3 however diameter is bigger than 1mm.	4	Splash-proof. Protection against splashed water from all directions.
5	Full protection against contacts. Protection against interior injurious dust deposits.	5	Hose-proof. Protection against water (out of a nozzle) from all directions.
6	Total protection against contacts. Protection against penetration of dust.	6	Protection against temporary flooding.
		7	Protection against temporary immersions.
		8	Protection against water pressure. Pressure to be specified by supplier.
		9K	High pressure hose-proof. Protection against high pressure water (out of a nozzle) from all directions.

UTS offers high sealing performance IP68 / IP69K... Even in dynamic situations.

SOURIAU reserves the right to make any engineering refinements, alterations or improvements deemed necessary on its products. The dimensions appearing in this catalogue are thus subject to change without notice. When dimensions are critical detailed drawings should be requested.



# Full Plastic Circular Connector



## UTP SERIES

### Description

"UTP" full plastic industrial circular connectors are a range of multiway connectors.

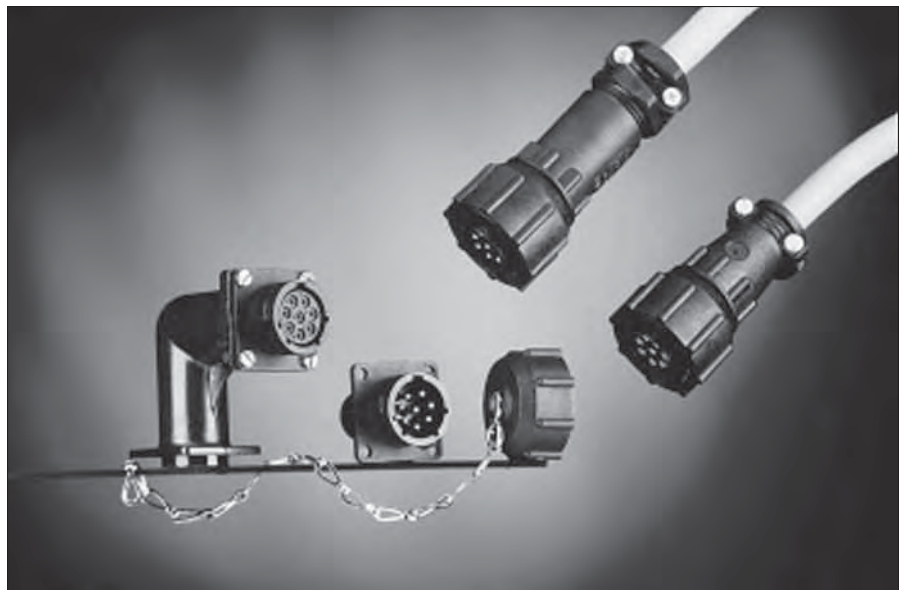
"UTP" provides the complete answer to the need for economical lightweight, robust circular connectors and is unique in offering a plastic bayonet coupling ring incorporating a metal wave spring, which locks with an audible positive "click".

It is available in 8 shell sizes, 10 insert arrangements all interchangeable, interchangeable and intermountable with the TRIM TRIO "UTO" (full metal) and "UTG" (plastic with metal coupling ring) industrial connector families.

### Features and benefits

- Available in 8 shell sizes and 10 insert

- arrangements incl. 2 VDE versions.
- Available in plug and receptacle versions for both male and female contacts.
- Connectors and accessories are moulded from highly durable glass-filled thermoplastic.
- Flammability rating: UL94-V0.
- Plastic bayonet ring:
  - Vibration proof thermoplast
  - Metal wave spring loaded.
  - Locks with audible positive "click"
  - UL recognized File Nr.: E238675



### Performance characteristics

Operating temperature:	-55°C to +125°C
Insulation resistance:	5000 MΩ min.
Test potential:	2000 VAC
Durability:	250 matings and unmatings.
Degree of protection per DIN 40050: IP65 in mated condition. "H" version used with water protected backshells.	

### Construction

Connector, Bayonet ring and accessories  
 Gass filled thermoplast UL94-V0  
 Colour: black  
 Coupling spring: Spring steel

### Contact accommodation

- "UTP" connectors accept TRIM TRIO size 16 removable snap-lock contacts (see contacts section)
- Contacts to be ordered seperately.

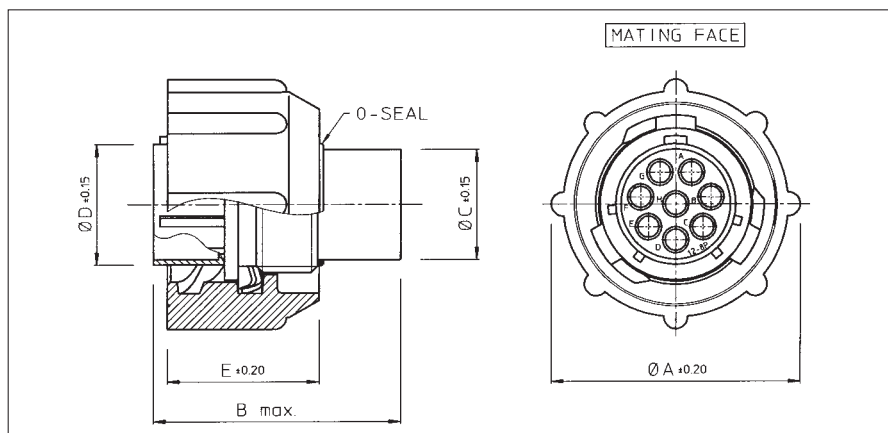
## How to order

<b>Connector family :</b>	<b>UTP</b>	<b>0</b>	<b>14</b>	<b>12</b>	<b>P</b>	<b>H</b>	--
	<b>UTP</b>	<b>6</b>	<b>14</b>	<b>12</b>	<b>S</b>		--
<b>Body variation:</b>	0 : Wall mounting receptacle 6 : Cable plug						
<b>Shell size:</b>							
<b>Insert arrangement:</b>							
<b>Type of contacts:</b>	P : Pin contacts S : Socket contacts						
<b>Application</b>	No letter : Standard version H : Water protected version (only receptacle)						
<b>Design variation</b>	No letter : Moulded-in contact marking (standard version) Others : Specials versions						

# Full Plastic Circular Connector



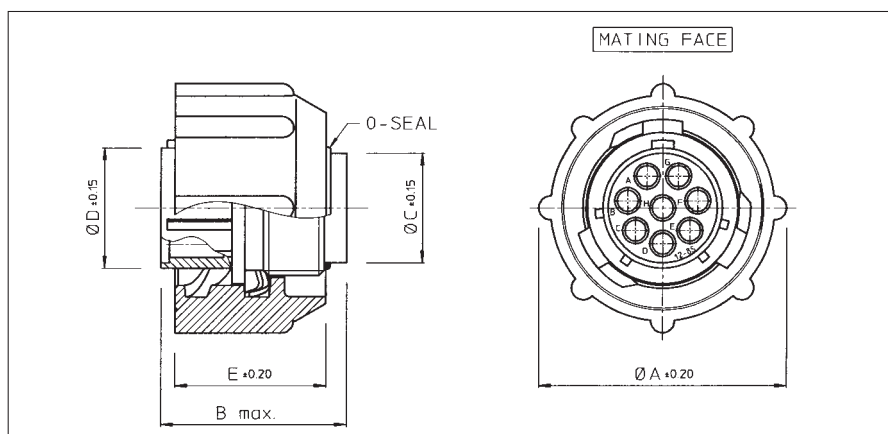
## Cable plug for pin contacts (UTP6- - - -P)



Part number	Shell size	$\varnothing A \pm 0.2$	B max.	$\varnothing C \pm 0.15$	$\varnothing D \pm 0.15$	$\varnothing E \pm 0.2$
<b>UTP6104P / UTP6103PVDE</b>	<b>10</b>	26.7	31.8	10.9	12.2	19.1
<b>UTP6128P</b>	<b>12</b>	31.4		13.8	15.1	
<b>UTP61412P</b>	<b>14</b>	34.5		17.0	18.3	
<b>UTP61619P</b>	<b>16</b>	37.8		19.9	21.5	
<b>UTP61823P / UTP6187PVDEU</b>	<b>18</b>	40.8	31.8 / 33.0	22.4	24.0	
<b>UTP62028P</b>	<b>20</b>	43.9	31.8	25.6	27.2	
<b>UTP62235P</b>	<b>22</b>	47.0		28.5	30.4	
<b>UTP62448P</b>	<b>24</b>	50.1		31.7	33.5	

Part numbers are suitable for both standard and IP65 water protection versions.

## Cable plug for socket contacts (UTP6- - - -S)



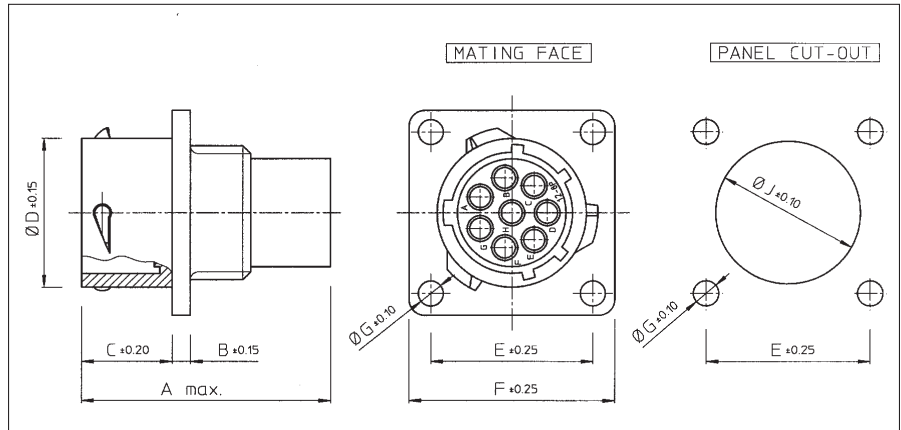
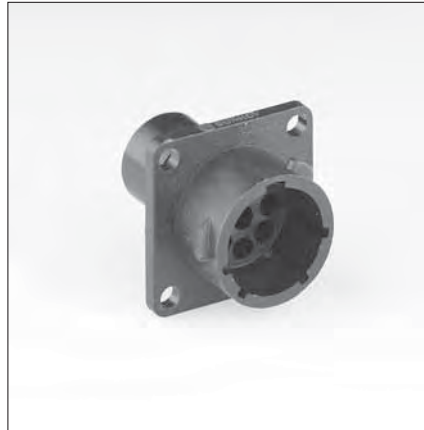
Part number	Shell size	$\varnothing A \pm 0.2$	B max.	$\varnothing C \pm 0.15$	$\varnothing D \pm 0.15$	$\varnothing E \pm 0.2$
<b>UTP6104S / UTP6103SVDE</b>	<b>10</b>	26.7	23.9 / 26.75	10.9	12.2	19.1
<b>UTP6128S</b>	<b>12</b>	31.4	23.9	13.8	15.1	
<b>UTP61412S</b>	<b>14</b>	34.5		17.0	18.3	
<b>UTP61619S</b>	<b>16</b>	37.8		19.9	21.5	
<b>UTP61823S / UTP6187SVDEU</b>	<b>18</b>	40.8	23.9 / 29.0	22.4	24.0	
<b>UTP62028S</b>	<b>20</b>	43.9	24.9	25.6	27.2	
<b>UTP62235S</b>	<b>22</b>	47.0		28.5	30.4	
<b>UTP62448S</b>	<b>24</b>	50.1	26.2	31.7	33.5	

Part numbers are suitable for both standard and IP65 water protection versions.

# Full Plastic Circular Connector



## Wall mounting receptacle for pin contacts (UTP0- - - -P)

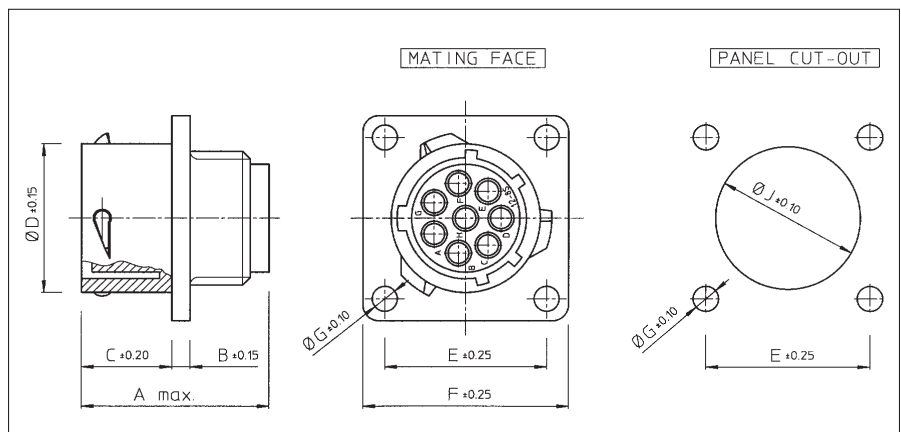


Part number	Shell size	A max.	B ±0.15	C ±0.2	Ø D ±0.15	E ±0.25	F ±0.25	Ø G ±0.1	Ø J ±0.1
UTP0104P / UTP0103PVDE	10	31.7	2.3	11.3	15.0	18.3	23.8	3.2	15.1
UTP0128P	12				19.0	20.6	26.2		18.2
UTP01412P	14				22.2	23.0	28.6		21.4
UTP01619P	16				25.3	24.6	31.0		24.6
UTP01823P / UTP0187PVDEU	18	31.7/34.0	2.5	11.3/17.9	28.5	27.0	33.3	3.9	27.8
UTP02028P	20	33.3			3.5	14.5	31.7		29.4
UTP02235P	22		34.9	31.8		39.7	34.1		
UTP02448P	24		15.3	38.0		34.9	42.9	37.3	

For IP65 waterprotected version add "H" behind "P" e.g. UTP01412PH

A square flange sealing has to be ordered separately to guarantee a sealing with the equipment. Refer to "Circular accessories" section (UTFD--).

## Wall mounting receptacle for socket contacts (UTP0- - - -S)



Part number	Shell size	A max.	B ±0.15	C ±0.2	Ø D ±0.15	E ±0.25	F ±0.25	Ø G ±0.1	Ø J ±0.1
UTP0104S / UTP0103SVDE	10	24.3/27.6	2.3	11.3	15.0	18.3	23.8	3.2	15.1
UTP0128S	12	24.3			19.0	20.6	26.2		18.2
UTP01412S	14				22.2	23.0	28.6		21.4
UTP01619S	16				25.3	24.6	31.0		24.6
UTP01823S / UTP0187SVDEU	18	24.3/30.4	2.5	11.3/17.9	28.5	27.0	33.3	3.9	27.8
UTP02028S	20	27.0			14.5	31.7	29.4		36.5
UTP02235S	22	28.0	3.5	15.3	34.9	31.8	39.7	3.9	34.1
UTP02448S	24	30.4			38.0	34.9	42.9		37.3

For IP65 waterprotected version add "H" behind "S" e.g. UTP01412SH

A square flange sealing has to be ordered separately to guarantee a sealing with the equipment. Refer to "Circular accessories" section (UTFD--).



# Plastic Connector with Metal Coupling



## UTG SERIES

### Description

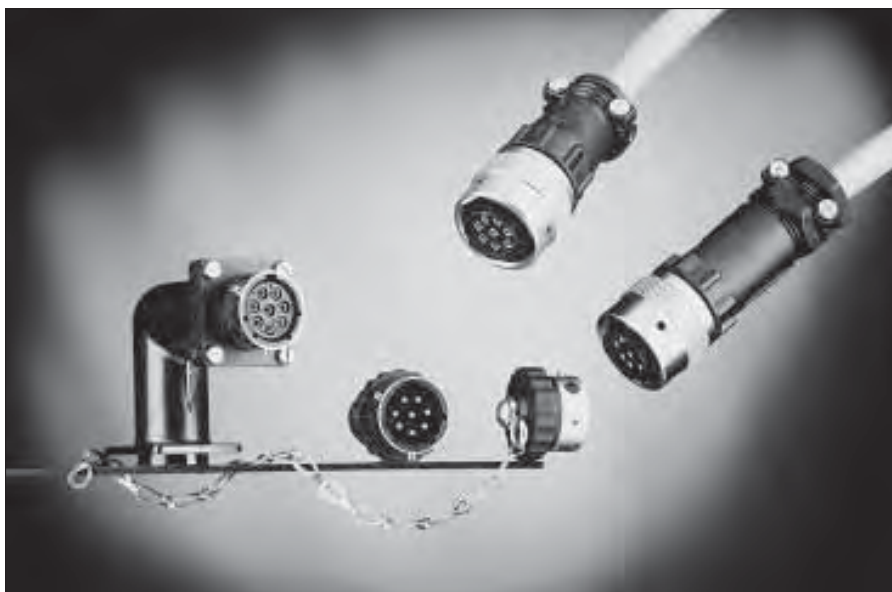
"UTG" Metalok Bantam plastic industrial circular connectors with metal coupling are a range of multiway connectors to provide the complete answer to the need for lightweight, robust circular connectors. They are available in 8 shell sizes, 11 insert arrangements **all intermateable, interchangeable and intermountable** with the TRIM TRIO "UTO" and "UTP" industrial connector families.

### Features and benefits

- Available in 8 shell sizes and 11 insert arrangements incl. 3 VDE versions.
- Available in plug and receptacle versions

for both male and female contacts.

- Connectors and accessories are moulded from highly durable glass-filled thermoplastic.
- Flammability rating: UL94-V0.
- Metal bayonet ring:
  - Metal wave spring loaded.
  - Locks with audible positive "click"
  - Assures 500 matings and unmatings
  - UL recognized file Nr.: E238675



### Performance characteristics

Operating temperature:	-55°C to +125°C
Insulation resistance:	5000 MΩ min.
Test potential:	2000 VAC
Durability:	Up to 1000 matings and unmatings.
Vibration resistance:	Per MIL-STD202 method 204
Thermal shock:	Per MIL-STD202 method 207
Degree of protection per DIN 40050:	IP65 in mated condition. "H" version used with waterprotected backshells.

### Construction

Connector body	Glass filled thermoplast UL94-V0
	Colour: black
Coupling ring:	Nickel plated brass
Tri-lock pins:	Stainless steel
Coupling spring:	Spring steel

### Contact accommodation

- "UTG" connectors accept TRIM TRIO size 16 removable snap-lock contacts (see contact section)
- Contacts to be ordered separately.

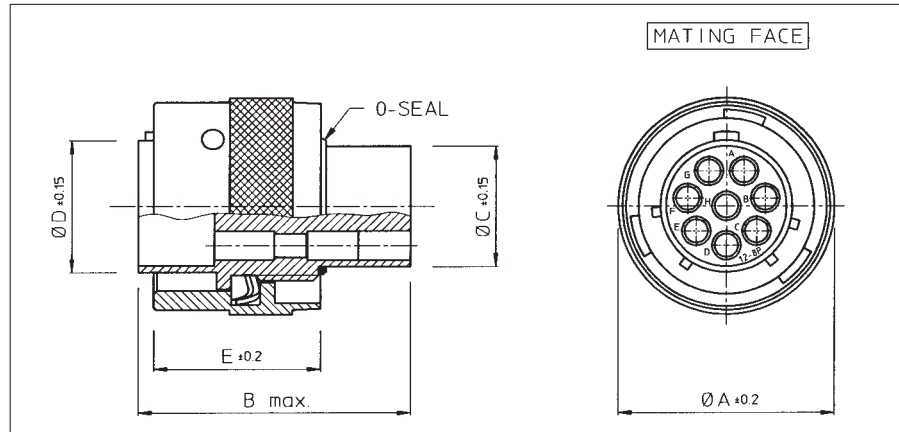
## How to order

<b>Connector family :</b>	<b>UTG</b>	<b>0</b>	<b>14</b>	<b>12</b>	<b>P</b>	<b>N</b>	<b>H</b>	<b>--</b>
	<b>UTG</b>	<b>6</b>	<b>14</b>	<b>12</b>	<b>S</b>			<b>--</b>
<b>Body variation:</b>	<b>0</b> : Wall mounting receptacle							
	<b>6</b> : Cable plug							
	<b>1</b> : Free hanging receptacle							
<b>Shell size:</b>								
<b>Insert arrangement:</b>								
<b>Type of contacts:</b>	<b>P</b> : Pin contacts							
	<b>S</b> : Socket contacts							
<b>Plating</b>	<b>N</b> : Nickelplated bayonet ring							
<b>Application</b>	<b>No letter</b> : Standard version							
	<b>H</b> : Water protected version (only receptacle)							
<b>Design variation</b>	<b>No letter</b> : Moulded-in contact marking (standard version)							
	<b>Others</b> : Specials versions							

# Plastic Connector with Metal Coupling



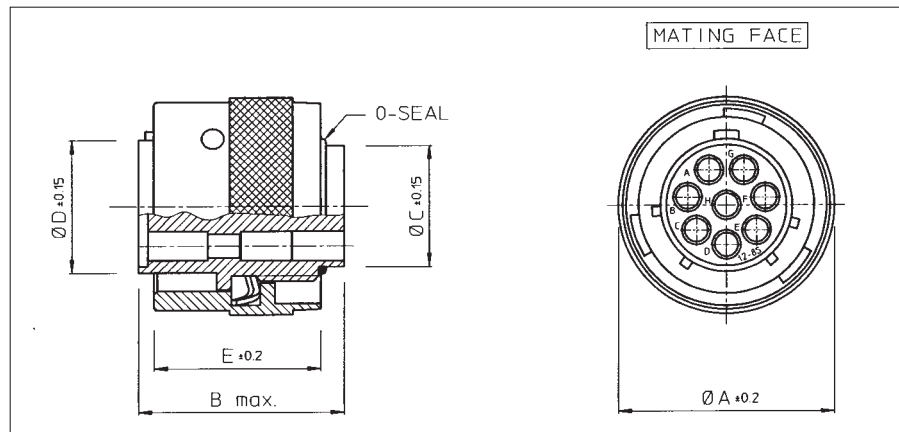
## Cable plug for pin contacts (UTG6- - - -PN)



Part number	Shell size	Ø A ±0.2	B max.	Ø C ±0.15	Ø D ±0.15	E ±0.2
<b>UTG6 104PN / UTG6 103PNVDE</b>	<b>10</b>	21.6	31.8	10.9	12.2	19.1
<b>UTG6 128PN</b>	<b>12</b>	24.8		13.8	15.1	
<b>UTG6 14 12PN</b>	<b>14</b>	28.0		17.0	18.3	
<b>UTG6 16 19PN</b>	<b>16</b>	31.2	19.9	21.5		
<b>UTG6 1823PN / UTG6 187PNVDEU</b>	<b>18</b>	34.3	31.8 / 33.0	22.4	24.0	
<b>UTG6 2028PN / UTG6 2020PN</b>	<b>20</b>	37.5	31.8 / 35.3	25.6	27.2	
<b>UTG6 2235PN</b>	<b>22</b>	40.7	31.8	26.5	30.4	
<b>UTG6 2448PN</b>	<b>24</b>	43.9		31.7	33.5	

Part numbers are suitable for both standard and IP65 water protection versions.

## Cable plug for socket contacts (UTG6- - - -SN)



Part number	Shell size	Ø A ±0.2	B max.	Ø C ±0.15	Ø D ±0.15	E ±0.2
<b>UTG6 104SN / UTG6 103SNVDE</b>	<b>10</b>	21.6	23.9 / 26.75	10.9	12.2	19.1
<b>UTG6 128SN</b>	<b>12</b>	24.8	23.9	13.8	15.1	
<b>UTG6 14 12SN</b>	<b>14</b>	28.0		17.0	18.3	
<b>UTG6 16 19SN</b>	<b>16</b>	31.2		19.9	21.5	
<b>UTG6 1823SN / UTG6 187SNVDEU</b>	<b>18</b>	34.3	23.9 / 29.0	22.4	24.0	
<b>UTG6 2028SN / UTG6 2020SN</b>	<b>20</b>	37.5	24.9	25.6	27.2	
<b>UTG6 2235SN</b>	<b>22</b>	40.7		28.5	30.4	
<b>UTG6 2448SN</b>	<b>24</b>	43.9	26.2	31.7	33.5	

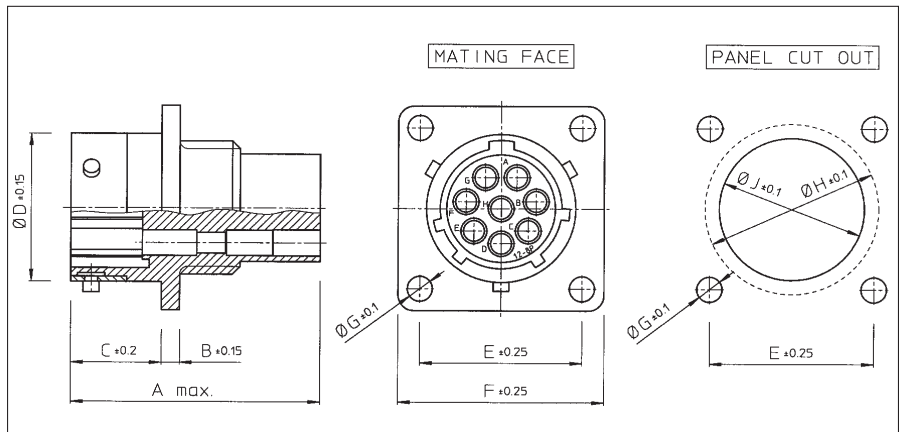
Part numbers are suitable for both standard and IP65 water protection versions.



# Plastic Connector with Metal Coupling



## Wall mounting receptacle for pin contacts (UTG0- - - -P)

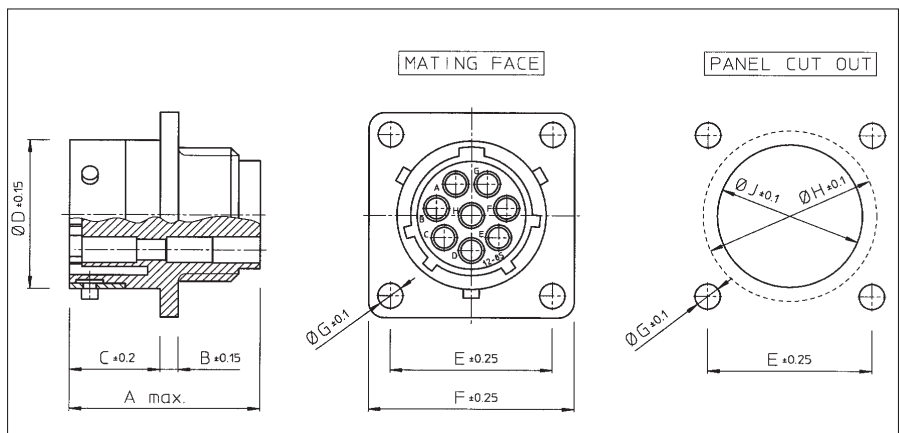


Part number	Shell size	A max.	B ±0.15	C ±0.2	Ø D ±0.15	E ±0.25	F -0.25	Ø G ±0.1	Ø H ±0.1	Ø J ±0.1
UTG0104P / UTG0103PVDE	10	31.7	2.3	11.3	15.0	18.3	23.8	3.2	17.3	15.1
UTG0128P	12				19.0	20.6	26.2		21.8	18.2
UTG01412P	14				22.2	23.0	28.6		25.0	21.4
UTG01619P	16				25.3	24.6	31.0		28.1	24.6
UTG01823P / UTG0187PVDEU	18	31.7/34.0	2.5	11.3/17.9	28.5	27.0	33.3	3.9	31.3	27.8
UTG02028P / UTG02020P	20	33.3/34.3			14.5	31.7	29.4		36.5	34.5
UTG02235P	22	33.3	3.5	15.3	34.9	31.8	39.7		37.7	34.1
UTG02448P	24				38.0	34.9	42.9		40.9	37.3

For IP65 waterprotected version add "H" behind "P" e.g. UTG01412PH

A square flange sealing has to be ordered separately to guarantee a sealing with the equipment. Refer to "Circular accessories" section (UTFD-).

## Wall mounting receptacle for socket contacts (UTG0- - - -S)



Part number	Shell size	A max.	B ±0.15	C ±0.2	Ø D ±0.15	E ±0.25	F -0.25	Ø G ±0.1	Ø H ±0.1	Ø J ±0.1
UTG0104S / UTG0103SVDE	10	24.3/27.6	2.3	11.3	15.0	18.3	23.8	3.2	17.3	15.1
UTG0128S	12	24.3			19.0	20.6	26.2		21.8	18.2
UTG01412S	14				22.2	23.0	28.6		25.0	21.4
UTG01619S	16	25.3			24.6	31.0	28.1		24.6	
UTG01823S / UTG0187SVDEU	18	24.3/30.4	2.5	11.3/17.9	28.5	27.0	33.3	3.9	31.3	27.8
UTG02028S / UTG02020S	20	27.0			14.5	31.7	29.4		36.5	34.5
UTG02235S	22	28.0	3.5	15.3	34.9	31.8	39.7		37.7	34.1
UTG02448S	24				30.4	38.0	34.9		42.9	40.9

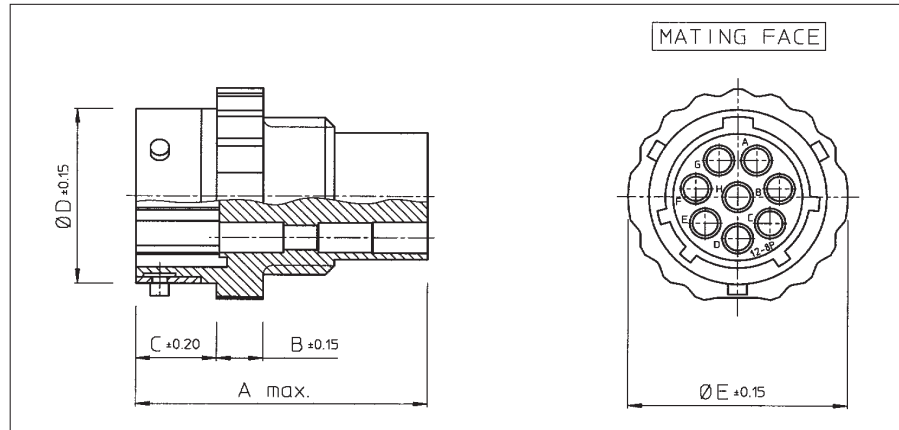
For IP65 waterprotected version add "H" behind "S" e.g. UTG01412SH

A square flange sealing has to be ordered separately to guarantee a sealing with the equipment. Refer to "Circular accessories" section (UTFD-).

# Plastic Connector with Metal Coupling



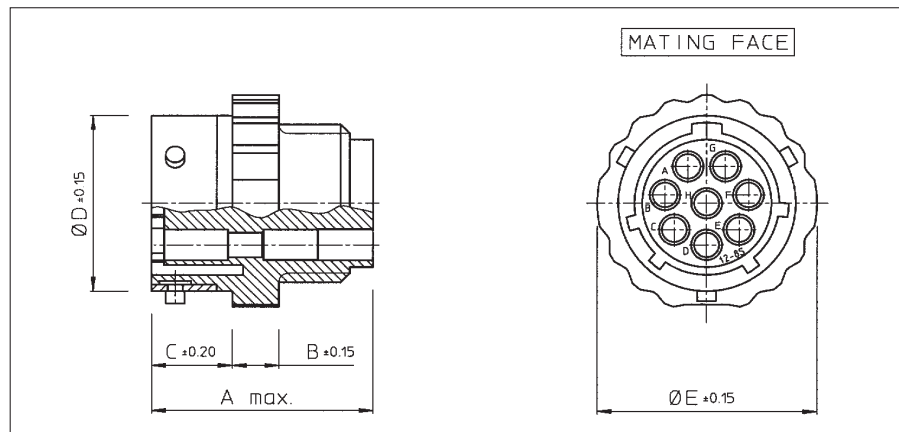
## Free hanging receptacle for pin contacts (UTG1- - - -P)



Part number	Shell size	A max.	B ±0.15	C ±0.2	Ø D ±0.15	Ø E ±0.15
<b>UTG1104P / UTG1103PVDE</b>	<b>10</b>	31.7	5.0	8.65	15.0	19.5
<b>UTG1128P</b>	<b>12</b>				19.0	23.5
<b>UTG11412P</b>	<b>14</b>				22.2	27.0
<b>UTG11619P</b>	<b>16</b>				25.3	30.0
<b>UTG11823P / UTG1187PVDEU</b>	<b>18</b>	31.7/34.0	5.0	8.65/15.35	28.5	33.0
<b>UTG12028P / UTG12020P</b>	<b>20</b>	33.3/34.3		12.05	31.7	36.5
<b>UTG12235P</b>	<b>22</b>	33.3		34.9	39.5	
<b>UTG12448P</b>	<b>24</b>			13.85	38.0	42.5

For IP65 waterprotected version add "H" behind "P" e.g. UTG11412PH

## Free hanging receptacle for socket contacts (UTG1- - - -S)



Part number	Shell size	A max.	B ±0.15	C ±0.2	Ø D ±0.15	Ø E ±0.15
<b>UTG1104S / UTG1103SVDE</b>	<b>10</b>	24.3/27.6	5.0	8.65	15.0	19.5
<b>UTG1128S</b>	<b>12</b>	24.3			19.0	23.5
<b>UTG11412S</b>	<b>14</b>				22.2	27.0
<b>UTG11619S</b>	<b>16</b>	25.3			30.0	
<b>UTG11823S / UTG1187SVDEU</b>	<b>18</b>	24.3/30.4	5.0	8.65/15.35	28.5	33.0
<b>UTG12028S / UTG12020S</b>	<b>20</b>	25.9		12.05	31.7	36.5
<b>UTG12235S</b>	<b>22</b>			34.9	39.5	
<b>UTG12448S</b>	<b>24</b>			13.85	38.0	42.5

For IP65 waterprotected version add "H" behind "S" e.g. UTG11412SH

# new Metal Circular Connector

Dynamic IP68 / IP69K  
High salt spray resistance  
RoHS compliant



## UTO SERIES

### Description

"UTO" industrial circular connectors are a range of multiway connectors available in 8 shell sizes and 8 insert arrangements all interchangeable, interchangeable and intermountable with the TRIM TRIO "UTG" and "UTP industrial connector families.

"UTO" is equipped with identical shells from military connectors complying to MIL-C-26482 spec.

Strong and rugged built to resist every environmental and mechanical requirement for indoor and outdoor applications.

Amongst several characteristics, "UTO" offers possibilities on: Shielding, High levels on sealing and salt spray. UTO is also the perfect solution to connect cat5e Ethernet applications in combination with other signals, using the same TRIM TRIO contacts (consult factory for more info).



### Features and benefits (see p2)

- Suitable for shielding applications
- Available in 8 shell sizes and 8 insert arrangements.
- Available in plug and receptacle versions for both male and female contacts.
- Different insert orientations possible.
- Plastic inserts with flammability rating: UL94-V0.
- **2 levels of water protection:** Dynamic IP67 and IP68 both versions are IP69K
- **2 levels of salt spray:** 48h and 96h Higher salt spray resistance (200/500h) upon request
- Cat5e Ethernet compatible. Can be combined with other signals offering the advantage to use same contacts (consult factory).
- UL recognition in process.
- Metal bayonet ring:
  - Metal wave spring loaded
  - Locks with audible positive "click"
  - Assures 500 matings and unmatings
- RoHS compliant

### Performance characteristics

Operating temp:	-40°C to +105°C
Insulation resistance:	5000 MΩ min.
Test potential:	2000 VAC
Durability:	Up to 2000 matings and unmatings.
Vibration resistance:	Per MIL-STD202 method 204
Thermal shock:	Per MIL-STD202 method 207
Corrosion:	Salt spray per MIL-STD 202 method 101 48h (standard version) 96h (black anodised coupling ring)
Higher salt spray resistance (200/500h) upon request	
Shielding effectiveness: 95 dB at 1 Mhz	
Degree of water protection per DIN 40050: Dynamic IP67 / IP68 / IP69K in mated condition and in combination with sealed back shell.	

### Construction

Shells: Zinc alloy
Backshells and cable glands: Brass
Coupling ring: Aluminium alloy
Coupling spring: Spring stainless steel
Insert: Glass-filled thermoplast UL94-V0
RoHS compliant

### Contact accommodation

- "UTO" connectors accept TRIM TRIO size 16 crimp-type removable snap-lock contacts (see contacts section)
- Contacts to be ordered separately.

### How to order

	UTO	0	14	12	P	-	H or H6	--	--
	UTO	6	14	12	S	-	H		
<b>Body variation:</b>		0 : Wall mounting receptacle 6 : Cable plug 7 : Jam nut receptacle for rear panel mounting							
<b>Shell size:</b>									
<b>Insert arrangement:</b>									
<b>Type of contacts:</b>		P : Pin contacts S : Socket contacts							
<b>Insert polarisation:</b>		No letter : Standard version W, X, Y, Z: Different orientations (consult factory)							
<b>Application:</b>		H : Standard version, water protected IP 67 & IP 69K H6 : Water protected IP 68 & IP 69K (only needed for wall mounting & jam nut receptacles)							
<b>Design variation:</b>		No letter : Standard version Others : Special versions							
<b>Plating:</b>		No letter : Standard is nickel plating (48h salt spray) 01: Black anodised jam nut (96h salt spray) 02: Black anodised coupling ring (96h salt spray)							

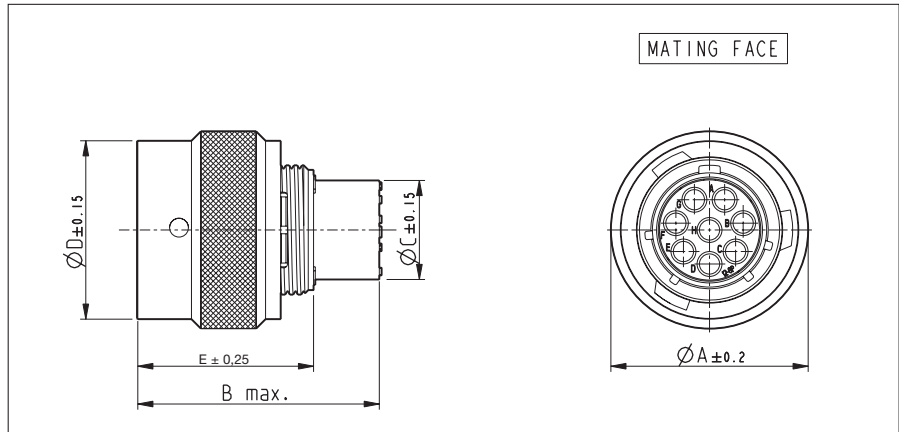
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# Metal Circular Connector

Dynamic IP68 / IP69K  
High salt spray resistance  
RoHS compliant



## Cable plug for pin contacts (UT06- - -PH)

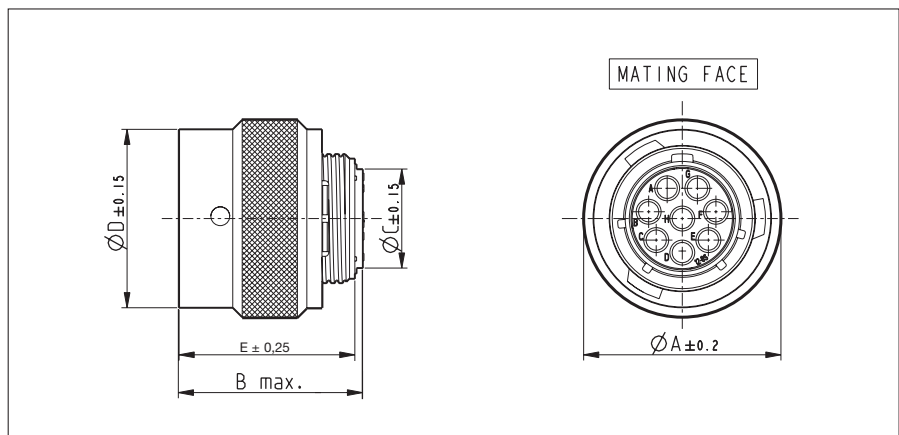


Part number	Shell size	$\varnothing A \pm 0.2$	B max.	$\varnothing C \pm 0.15$	$\varnothing D \pm 0.15$	E $\pm 0.25$
UT06104PH	10	21.80	33.00	10.2	20.00	23.25
UT06128PH	12	26.10		13.4	23.60	
UT061412PH	14	29.30		16.7	26.80	
UT061619PH	16	32.45		19.7	30.00	
UT061823PH	18	35.25		21.7	33.30	
UT062028PH	20	38.80		24.9	36.55	
UT062235PH	22	42.00	25.20	28.1	39.50	
UT062448PH	24	45.05		31.2	42.60	

Part numbers are suitable for both IP67 and IP68 water protection

For 96h salt spray version add "02" behind "H" e.g. UT061412PH02 (only bayonet ring will be black anodised)

## Cable plug for socket contacts (UT06- - -SH)



Part number	Shell size	$\varnothing A \pm 0.2$	B max.	$\varnothing C \pm 0.15$	$\varnothing D \pm 0.15$	E $\pm 0.25$
UT06104SH	10	21.80	33.00	10.2	20.00	23.25
UT06128SH	12	26.10		13.4	23.60	
UT061412SH	14	29.30		16.7	26.80	
UT061619SH	16	32.45		19.7	30.00	
UT061823SH	18	35.25		21.7	33.30	
UT062028SH	20	38.80		24.9	36.55	
UT062235SH	22	42.00	27.30	28.1	39.50	25.20
UT062448SH	24	45.05		31.2	42.60	

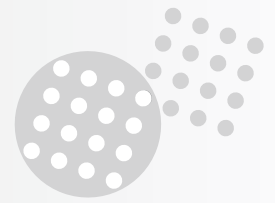
Part numbers are suitable for both IP67 and IP68 water protection

For 96h salt spray version add "02" behind "H" e.g. UT061412SH02 (only bayonet ring will be black anodised)

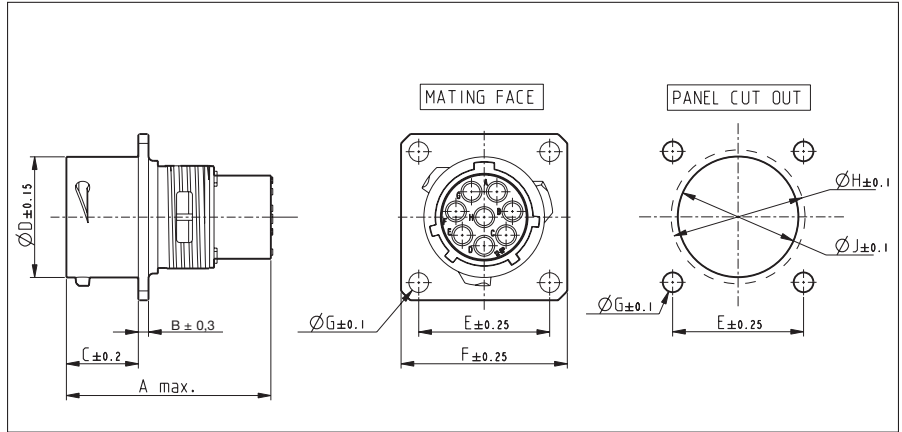
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# Metal Circular Connector

Dynamic IP68 / IP69K  
High salt spray resistance  
RoHS compliant



## Wall mounting receptacle for pin contacts (UT00----PH/PH6)

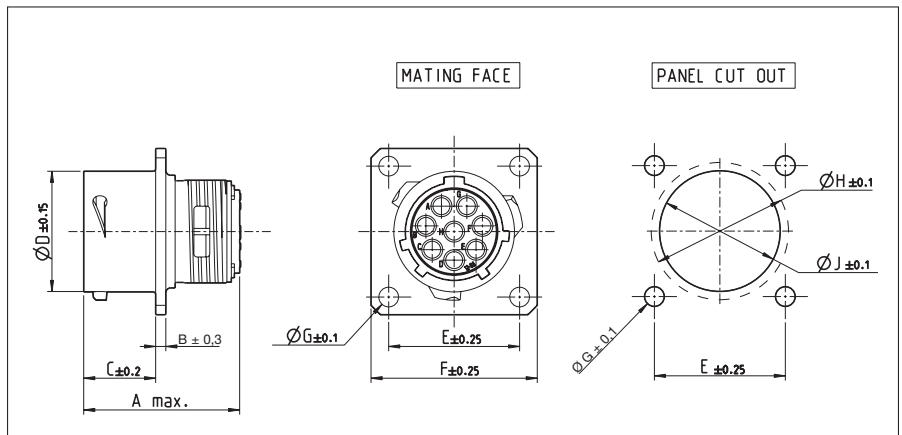


Part number		Shell size	A max.	B $\pm 0.3$	C $\pm 0.2$	$\varnothing D \pm 0.15$	E $\pm 0.25$	F $\pm 0.25$	$\varnothing G \pm 0.1$	$\varnothing H \pm 0.1$	$\varnothing J \pm 0.1$	
IP67	IP68											
UT00104PH	UT00104PH6	10	33.23	1.6	11.35	15.0	18.3	23.8	3.2	17.3	14.2	
UT00128PH	UT00128PH6	12				19.0	20.6	26.2		21.8	18.4	
UT001412PH	UT001412PH6	14				22.2	23.0	28.6		25.0	21.5	
UT001619PH	UT001619PH6	16				25.3	24.6	31.0		28.1	24.6	
UT001823PH	UT001823PH6	18				28.5	26.9	33.3		31.3	27.8	
UT002028PH	UT002028PH6	20	34.75	2.4	14.55	31.7	29.4	36.5	3.9	34.5	30.9	
UT002235PH	UT002235PH6	22				34.9	31.8	39.7		37.7	34.1	
UT002448PH	UT002448PH6	24				15.35	38.0	34.9		42.9	40.9	37.3

Part numbers are suitable for both 48h and 96h salt spray.

A square sealing has to be ordered separately to guarantee a sealing with equipment. Refer to "Circular accessories" section (UTFD--).

## Wall mounting receptacle for socket contacts (UT00----SH/SH6)



Part number		Shell size	A max.	B $\pm 0.3$	C $\pm 0.2$	$\varnothing D \pm 0.15$	E $\pm 0.25$	F $\pm 0.25$	$\varnothing G \pm 0.1$	$\varnothing H \pm 0.1$	$\varnothing J \pm 0.1$	
IP67	IP68											
UT00104SH	UT00104SH6	10	25.20	1.6	11.35	15.0	18.3	23.8	3.2	17.3	14.2	
UT00128SH	UT00128SH6	12				19.0	20.6	26.2		21.8	18.4	
UT001412SH	UT001412SH6	14				22.2	23.0	28.6		25.0	21.5	
UT001619SH	UT001619SH6	16				25.3	24.6	31.0		28.1	24.6	
UT001823SH	UT001823SH6	18				28.5	26.9	33.3		31.3	27.8	
UT002028SH	UT002028SH6	20	29.00	2.4	14.55	31.7	29.4	36.5	3.9	34.5	30.9	
UT002235SH	UT002235SH6	22				34.9	31.8	39.7		37.7	34.1	
UT002448SH	UT002448SH6	24				15.35	38.0	34.9		42.9	40.9	37.3

Part numbers are suitable for both 48h and 96h salt spray.

A square sealing has to be ordered separately to guarantee a sealing with equipment. Refer to "Circular accessories" section (UTFD--).



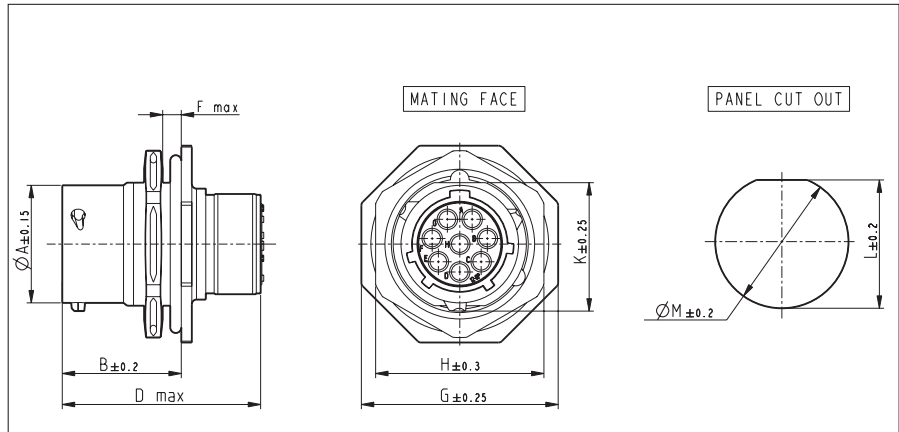
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# Metal Circular Connector

Dynamic IP68 / IP69K  
High salt spray resistance  
RoHS compliant



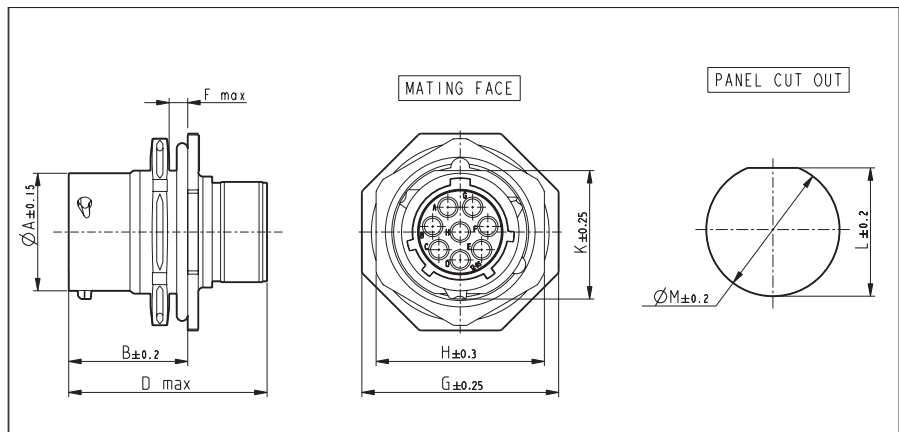
## Jam nut receptacle for pin contacts (UT07---PH/PH6) - suitable for rear panel mounting



Part number		Shell size	$\varnothing A$ $\pm 0.15$	B $\pm 0.2$	D Max.	F Max.	G $\pm 0.25$	H $\pm 0.3$	K $\pm 0.25$	L $\pm 0.2$	$\varnothing M$ $\pm 0.2$
IP67	IP68										
UT07104PH	UT07104PH6	10	14.9	19.30	33.90	3.2	27.0	22.2	16.6	17.0	17.7
UT07128PH	UT07128PH6	12	19.0								
UT071412PH	UT071412PH6	14	22.2								
UT071619PH	UT071619PH6	16	25.3								
UT071823PH	UT071823PH6	18	28.5								
UT072028PH	UT072028PH6	20	31.7	24.70	39.00	6.4	46.1	39.7	33.4	33.8	35.2
UT072235PH	UT072235PH6	22	34.9								
UT072448PH	UT072448PH6	24	38.0								

For 96h salt spray version add "01" at the end of the part number e.g. UT071412PH601 (only jam nut will be black anodised)

## Jam nut receptacle for socket contacts (UT07---SH/SH6) - suitable for rear panel mounting



Part number		Shell size	$\varnothing A$ $\pm 0.15$	B $\pm 0.2$	D Max.	F Max.	G $\pm 0.25$	H $\pm 0.3$	K $\pm 0.25$	L $\pm 0.2$	$\varnothing M$ $\pm 0.2$
IP67	IP68										
UT07104SH	UT07104SH6	10	14.9	19.30	33.00	3.2	27.0	22.2	16.6	17.0	17.7
UT07128SH	UT07128SH6	12	19.0								
UT071412SH	UT071412SH6	14	22.2								
UT071619SH	UT071619SH6	16	25.3								
UT071823SH	UT071823SH6	18	28.5								
UT072028SH	UT072028SH6	20	31.7	24.70	39.00	6.4	46.1	39.7	33.4	33.8	35.2
UT072235SH	UT072235SH6	22	34.9								
UT072448SH	UT072448SH6	24	38.0								

For 96h salt spray version add "01" at the end of the part number e.g. UT071412PH601 (only jam nut will be black anodised)



new

# Metal Circular Connector

Dynamic IP68 / IP69K  
High salt spray resistance  
RoHS compliant

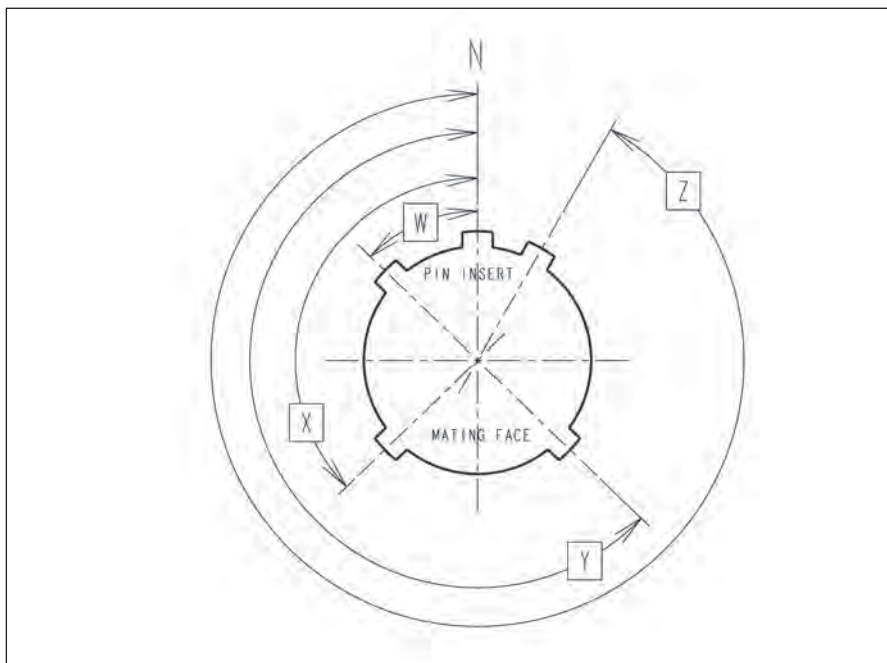


## Insert rotation positions

The table shows possible insert rotation positions. 5 positions N,W,X,Y and Z differ in the degree of rotation for the various connectors sizes. The table indicates the exact degree of rotation.

Note: Insert rotation positions are optional (consult factory)

Shell size	Contact number	Insert rotation positions			
		W	X	Y	Z
10	4	45	-	-	-
12	8	26	-	-	-
14	12	60	-	-	-
16	19	30	165	-	315
18	23	-	158	-	270
20	28	79	-	259	-
22	35	13	162	198	265
24	48	60	120	189	351



## Extra O-seals for wall mounting (UT00) and jam nut (UT07) receptacle connectors

An extra O-seal must be mounted on the receptacle connectors when a backshell is used. This to guarantee the IP68 sealing level

Part number	Shell size
UT010REARSEAL	10
UT012REARSEAL	12
UT014REARSEAL	14
UT016REARSEAL	16
UT018REARSEAL	18
UT020REARSEAL	20
UT022REARSEAL	22
UT024REARSEAL	24

# Metal Circular Connector



## Notes

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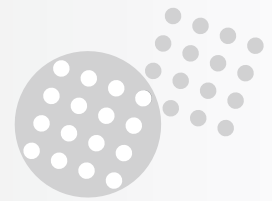
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new

# High Density Metal Circular Connector



## UTOW SERIES

### Description

"UTOW" industrial circular connectors are a range of multi way connectors available in 8 shell sizes and 8 high density insert arrangements.

"UTOW" wall mounting receptacle connectors have the same panel cut-out dimensions as the MIL-C-26482 series I specifications. Strong and rugged built to resist every environmental and mechanical requirement for indoor and outdoor applications.

Amongst several characteristics, "UTOW" offers possibilities on: Shielding, high levels on sealing and salt spray.

### Features and benefits (see p2)

- Suitable for EMC requirements.
- Available in 8 shell sizes and 8 insert arrangements.
- Available in plug and receptacle version for both male and female contacts.
- Different insert orientations possible
- Plastic inserts with flammability rating: UL94-V0.
- **2 levels of water protection:** Dynamic IP67 and IP68 both versions are IP69K
- **2 levels of salt spray:** 48h and 96h Higher salt spray resistance (200/500h) upon request
- Higher salt spray (200/500h) upon request.
- UL recognition in process.
- Metal bayonet ring:
  - Metal wave spring loaded
  - Locks with audible positive "click"
  - Assures 500 matings and unmatings
- RoHS compliant

### How to order



### Performance characteristics

Operating temperature:	-40°C to +105°C
Insulation resistance:	5000 MΩ min.
Test potential:	1500 VAC
Durability:	500 matings and unmatings.
Vibration resistance:	Per MIL-STD202 method 204
Thermal shock:	Per MIL-STD202 method 207
Corrosion:	Salt spray per MIL-STD 202 method 101 48h (standard version) 96h (black anodised coupling ring) Higher salt spray resistance (200/500h) upon request
Shielding effectiveness:	65 dB at 10 Mhz
Degree of water protection per DIN 40050:	Dynamic IP67 / IP68 / IP69K in mated condition and in combination with sealed back shell

### Construction

Shells and accessories:	Zinc alloy
Coupling ring:	Aluminium alloy
Coupling spring:	Spring stainless steel
Insert:	Glass-filled thermoplast UL94-V0
Finish:	Nickel plated
RoHS compliant	

### Contact accommodation

- "UTOW" connectors accept TRIM TRIO size 20 crimp-type removable snap-lock contacts (see contacts section)
- Contacts to be ordered separately

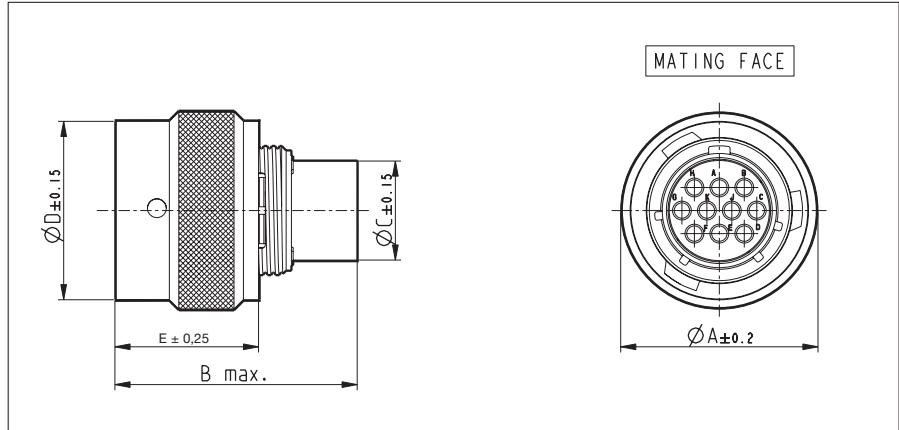
<b>Connector family:</b>	<b>UTOW</b>	<b>0</b>	<b>16</b>	<b>26</b>	<b>P</b>	<b>-</b>	<b>H or H6</b>	<b>--</b>	<b>-</b>
	<b>UTOW</b>	<b>6</b>	<b>16</b>	<b>26</b>	<b>S</b>	<b>-</b>	<b>H</b>	<b>--</b>	<b>-</b>
<b>Body variation :</b>	<b>0</b> : Wall mounting receptacle <b>6</b> : Cable plug <b>7</b> : Jam nut receptacle for rear panel mounting								
<b>Shell size :</b>									
<b>Insert arrangement :</b>									
<b>Type of contacts :</b>	<b>P</b> : Pin contacts <b>S</b> : Socket contacts								
<b>Insert polarisation :</b>	<b>No letter</b> : Standard version <b>W, X, Y, Z</b> : Different orientations (consult factory)								
<b>Application :</b>	<b>H</b> : Standard version, water protection IP 67 & IP 69K <b>H6</b> : Water protected IP 68 & IP 69K (only needed for wall mounting & jam nut receptacles)								
<b>Design variation :</b>	<b>No letter</b> : Standard version <b>Others</b> : Special versions								
<b>Plating :</b>	<b>No letter</b> : standard is nickel plating (48h salt spray) <b>01</b> : Black anodised, jam nut (96h salt spray) <b>02</b> : Black anodised coupling ring (96h salt spray)								

new

# High Density Metal Circular Connector



## Cable plug for pin contacts (UTOW6----PH)

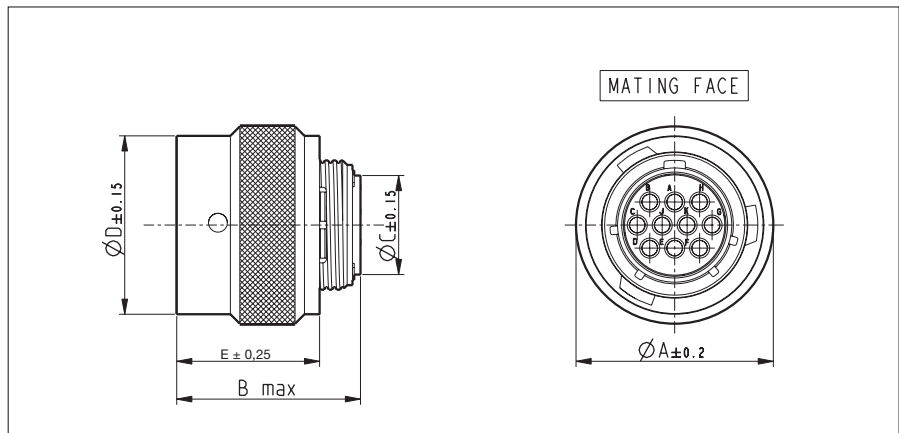


Part number	Shell size	$\varnothing A \pm 0.2$	B max.	$\varnothing C \pm 0.15$	$\varnothing D \pm 0.15$	$E \pm 0.25$
UTOW6106PH	10	21.80	33.00	10.2	20.00	19.00
UTOW61210PH	12	26.10		13.4	23.60	
UTOW61419PH	14	29.30		16.7	26.80	
UTOW61626PH	16	32.45		19.7	30.00	
UTOW61832PH	18	35.25		21.7	33.30	
UTOW62041PH	20	38.80		24.9	36.55	
UTOW62255PH	22	42.00		28.1	39.50	
UTOW62461PH	24	45.05		31.2	42.60	

Part numbers are suitable for both IP67 and IP68 water protection

For 96h salt spray version add "02" behind "H" e.g. UTOW61419PH02 (only bayonet ring will be black anodised)

## Cable plug for socket contacts (UTOW6----SH)



Part number	Shell size	$\varnothing A \pm 0.2$	B max.	$\varnothing C \pm 0.15$	$\varnothing D \pm 0.15$	$E \pm 0.25$
UTOW6106SH	10	21.80	25.30	10.2	20.00	19.00
UTOW61210SH	12	26.10		13.4	23.60	
UTOW61419SH	14	29.30		16.7	26.80	
UTOW61626SH	16	32.45		19.7	30.00	
UTOW61832SH	18	35.25		21.7	33.30	
UTOW62041SH	20	38.80	27.30	24.9	36.55	
UTOW62255SH	22	42.00		28.1	39.50	
UTOW62461SH	24	45.05		31.2	42.60	

Part numbers are suitable for both IP67 and IP68 water protection

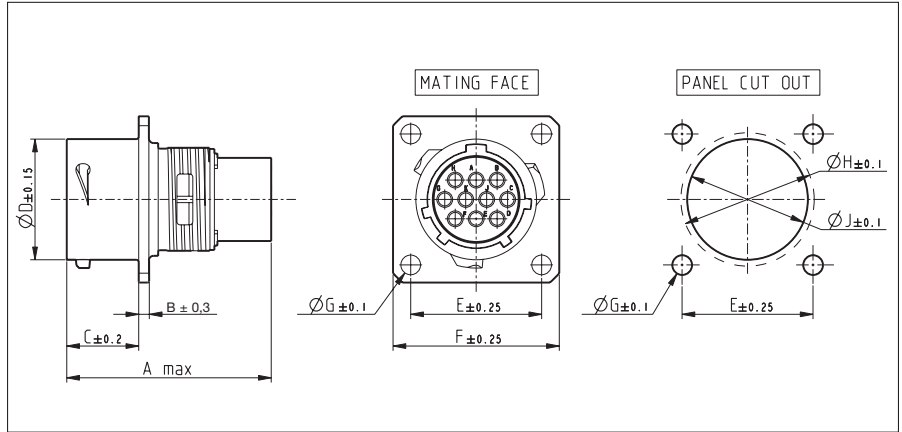
For 96h salt spray version add "02" behind "H" e.g. UTOW61419SH02 (only bayonet ring will be black anodised)

new

# High Density Metal Circular Connector



## Wall mounting receptacle for pin contacts (UTOW0---PH/PH6)

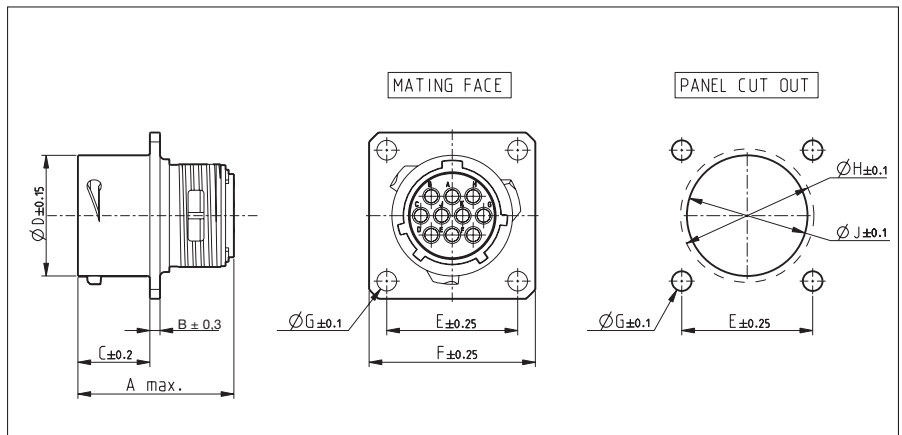


Part number		Shell size	A max.	B $\pm 0.3$	C $\pm 0.2$	$\varnothing D \pm 0.15$	E $\pm 0.25$	F $\pm 0.25$	$\varnothing G \pm 0.1$	$\varnothing H \pm 0.1$	$\varnothing J \pm 0.1$	
IP67	IP68											
UTOW0106PH	UTOW0106PH6	10	33.23	1.6	11.35	15.0	18.3	23.8	3.2	17.3	14.2	
UTOW01210PH	UTOW01210PH6	12				19.0	20.6	26.2		21.8	18.4	
UTOW01419PH	UTOW01419PH6	14				22.2	23.0	28.6		25.0	21.5	
UTOW01626PH	UTOW01626PH6	16				25.3	24.6	31.0		28.1	24.6	
UTOW01832PH	UTOW01832PH6	18				28.5	26.9	33.3		31.3	27.8	
UTOW02041PH	UTOW02041PH6	20	34.75	2.4	14.55	31.7	29.4	36.5	3.9	34.5	30.9	
UTOW02255PH	UTOW02255PH6	22				34.9	31.8	39.7		37.7	34.1	
UTOW02461PH	UTOW02461PH6	24				15.35	38.0	34.9		42.9	40.9	37.3

Part numbers are suitable for both 48hrs and 96h salt spray.

A square sealing has to be ordered separately to guarantee a sealing with equipment. Refer to "Circular accessories" section (UTFD--).

## Wall mounting receptacle for socket contacts (UTOW0---SH/SH6)



Part number		Shell size	A max.	B $\pm 0.3$	C $\pm 0.2$	$\varnothing D \pm 0.15$	E $\pm 0.25$	F $\pm 0.25$	$\varnothing G \pm 0.1$	$\varnothing H \pm 0.1$	$\varnothing J \pm 0.1$	
IP67	IP68											
UTOW0106SH	UTOW0106SH6	10	25.20	1.6	11.35	15.0	18.3	23.8	3.2	17.3	14.2	
UTOW01210SH	UTOW01210SH6	12				19.0	20.6	26.2		21.8	18.4	
UTOW01419SH	UTOW01419SH6	14				22.2	23.0	28.6		25.0	21.5	
UTOW01626SH	UTOW01626SH6	16				25.3	24.6	31.0		28.1	24.6	
UTOW01832SH	UTOW01832SH6	18				28.5	26.9	33.3		31.3	27.8	
UTOW02041SH	UTOW02041SH6	20	29.00	2.4	14.55	31.7	29.4	36.5	3.9	34.5	30.9	
UTOW02255SH	UTOW02255SH6	22				34.9	31.8	39.7		37.7	34.1	
UTOW02461SH	UTOW02461SH6	24				15.35	38.0	34.9		42.9	40.9	37.3

Part numbers are suitable for both 48hrs and 96h salt spray.

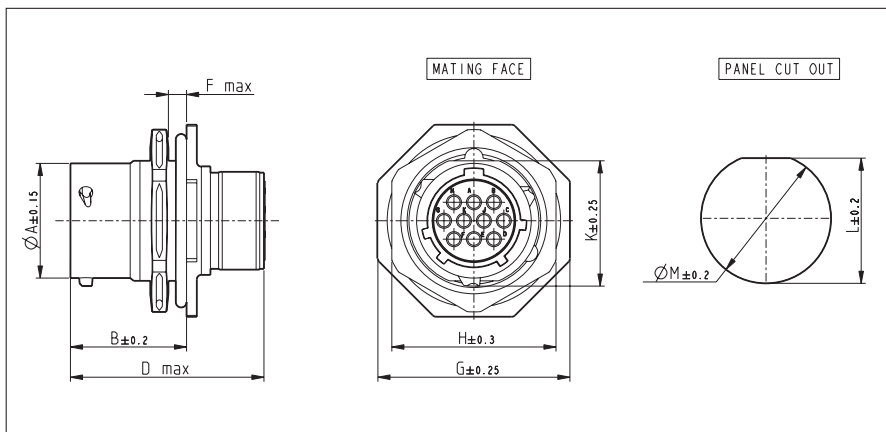
A square sealing has to be ordered separately to guarantee a sealing with equipment. Refer to "Circular accessories" section (UTFD--).

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# High Density Metal Circular Connector



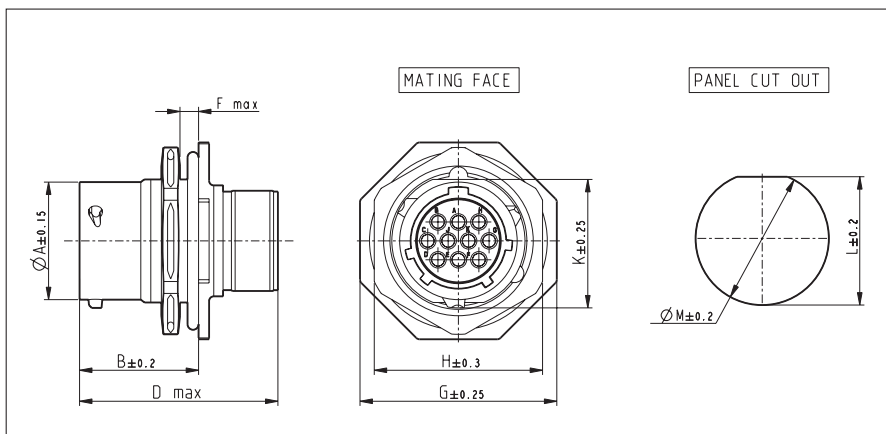
## Jam nut receptacle for pin contacts (UTOW7---PH/PH6) - suitable for rear panel mounting



Part number		Shell size	$\varnothing A$ $\pm 0.15$	B $\pm 0.2$	D Max.	F Max.	G $\pm 0.25$	H $\pm 0.3$	K $\pm 0.2$	L $\pm 0.2$	$\varnothing M$ $\pm 0.2$
IP67	IP68										
UTOW7106PH	UTOW7106PH6	10	14.9	19.30	33.90	3.2	27.0	22.2	16.6	17.0	17.7
UTOW71210PH	UTOW71210PH6	12	19.0				31.8	27.0	20.8	21.2	22.5
UTOW71419PH	UTOW71419PH6	14	22.2				34.9	30.2	23.9	24.3	25.7
UTOW71626PH	UTOW71626PH6	16	25.3				38.1	33.3	27.1	27.5	28.7
UTOW71832PH	UTOW71832PH6	18	28.5				41.3	36.5	30.3	30.6	32.0
UTOW72041PH	UTOW72041PH6	20	31.7	24.70	39.00	6.4	46.1	39.7	33.4	33.8	35.2
UTOW72255PH	UTOW72255PH6	22	34.9				49.2	42.9	36.6	37.0	38.4
UTOW72461PH	UTOW72461PH6	24	38.0				25.50	40.50	53.4	46.0	39.8

For 96h salt spray version add "01" at the end of the part number e.g. UTOW71419PH601 (only jam nut will be black anodised)

## Jam nut receptacle for socket contacts (UTOW7---SH/SH6) - suitable for rear panel mounting



Part number		Shell size	$\varnothing A$ $\pm 0.15$	B $\pm 0.2$	D Max.	F Max.	G $\pm 0.25$	H $\pm 0.3$	K $\pm 0.2$	L $\pm 0.2$	$\varnothing M$ $\pm 0.2$
IP67	IP68										
UTOW7106SH	UTOW7106SH6	10	14.9	19.30	33.00	3.2	27.0	22.2	16.6	17.0	17.7
UTOW71210SH	UTOW71210SH6	12	19.0				31.8	27.0	20.8	21.2	22.5
UTOW71419SH	UTOW71419SH6	14	22.2				34.9	30.2	23.9	24.3	25.7
UTOW71626SH	UTOW71626SH6	16	25.3				38.1	33.3	27.1	27.5	28.7
UTOW71832SH	UTOW71832SH6	18	28.5				41.3	36.5	30.3	30.6	32.0
UTOW72041SH	UTOW72041SH6	20	31.7	24.70	39.00	6.4	46.1	39.7	33.4	33.8	35.2
UTOW72255SH	UTOW72255SH6	22	34.9				49.2	42.9	36.6	37.0	38.4
UTOW72461SH	UTOW72461SH6	24	38.0				25.50	40.50	53.4	46.0	39.8

For 96h salt spray version add "01" at the end of the part number e.g. UTOW71419PH601 (only jam nut will be black anodised)



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# High Density Metal Circular Connector

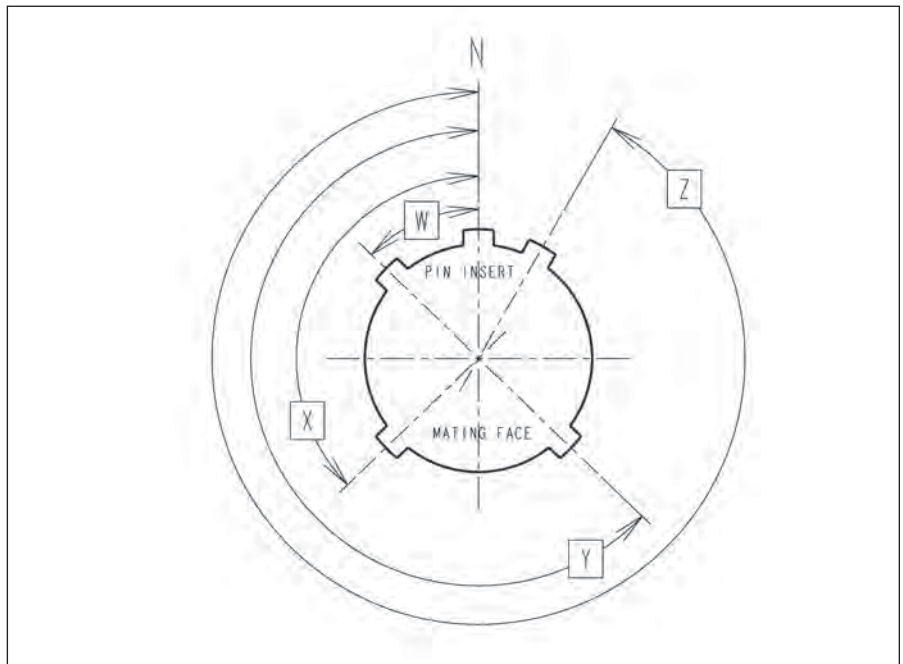


## Insert rotation positions

The table shows possible insert rotation positions. 5 positions N,W,X,Y and Z differ in the degree of rotation for the various connectors sizes. The table indicates the exact degree of rotation.

Note: Insert rotation positions are optional (consult factory)

Shell size	Contact number	Insert rotation positions			
		W	X	Y	Z
10	6	90	-	-	-
12	10	60	155	270	295
14	19	30	165	315	-
16	26	60	-	275	338
18	32	85	138	222	265
20	41	45	126	225	-
22	55	30	142	226	314
24	61	90	180	270	324



## Extra 0-seals for wall mounting (UT0W0) and jam nut (UT0W7) receptacle connectors

An extra 0-seal must be mounted on the receptacle connectors when a backshell is used. This to guarantee the IP68 sealing level

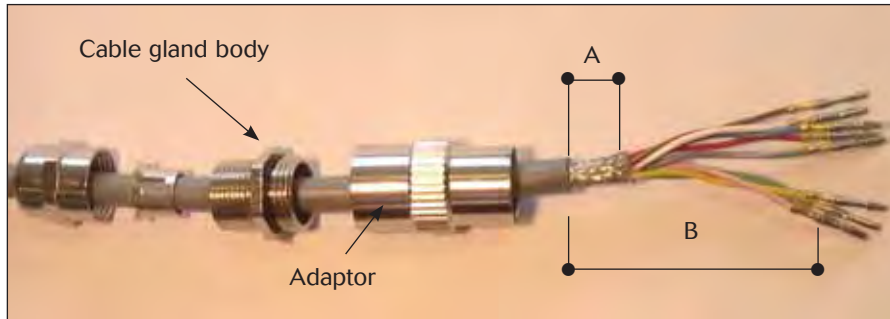
Part number	Shell size
UT010REARSEAL	10
UT012REARSEAL	12
UT014REARSEAL	14
UT016REARSEAL	16
UT018REARSEAL	18
UT020REARSEAL	20
UT022REARSEAL	22
UT024REARSEAL	24



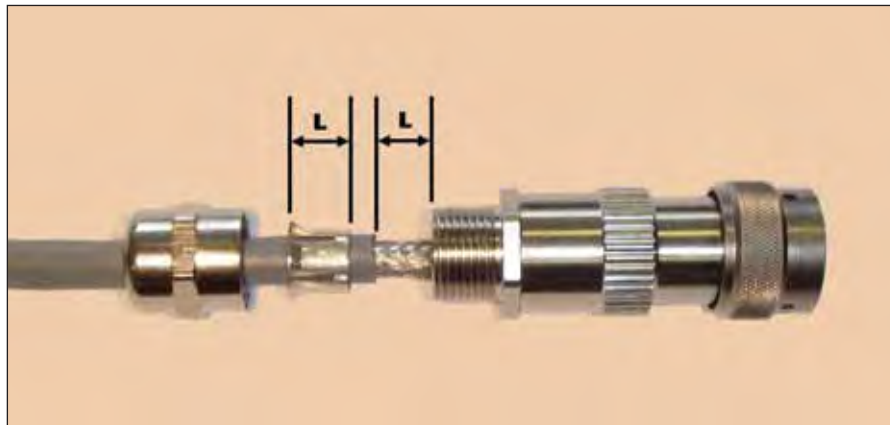
# Shielded Connectors



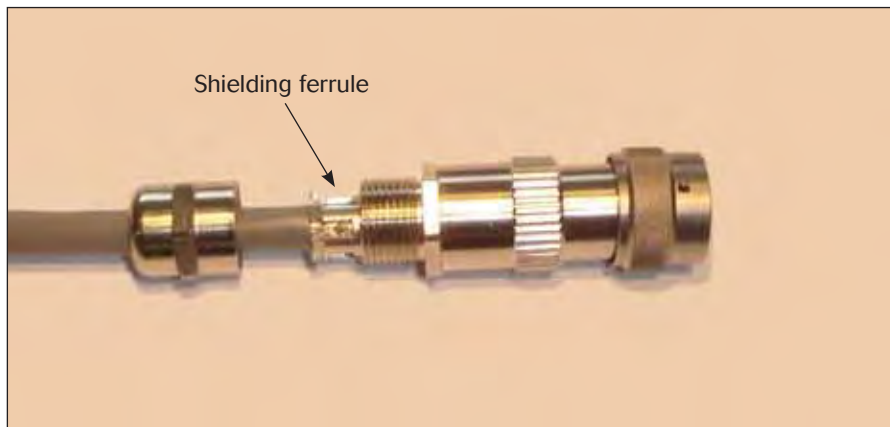
## How to assemble shielded connectors...



1. Put all the parts over the cable as shown on the picture.
2. Keep about 10mm of the shielding (dim A)
3. The total strip length (dim B) of the outer jacket has to be defined practically. This length is defined by the length of the adaptor, the cable gland body, type of contacts, the gender of the plug connector and the dim. L as shown on picture 2.
4. The strip length of the individual wires is defined in the different contact sections.



5. Put the contacts in the corresponding cavities
6. Screw / tighten the adaptor and the cable gland body. The max tightening torque is indicated in the table below.
7. Make sure the dim L is kept after the assembly of the adaptor and the cable gland body. This dimension is needed to allow repair of the harnessing. It will also release the stress on the contacts when the assembly of the cable clamp is finished.

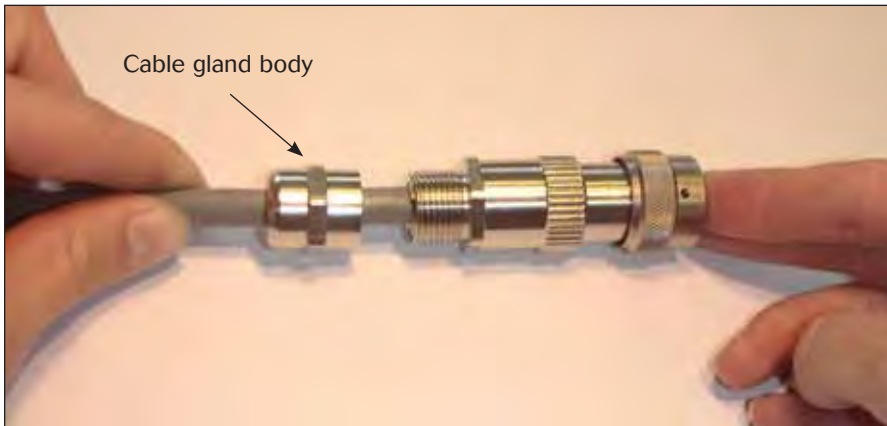


8. Carefully slide the shielding ferrule until is positioned over the shielding and as close as possible to the cable jacket.
9. Make sure that the shielding ferrule is correctly polarised. This polarisation is a feature to avoid twisting of the cable during the tightening of the cable gland.

# Shielded Connectors



## How to assemble shielded connectors... (con't)



10. Manually push the shielding ferrule inside the cable gland body.
11. Make sure the shielding ferrule does not slide over the cable jacket.
12. Hold the cable in this position prior to the assembly of the cable gland hood.



13. Hold the cable in the same position as explained above and tighten the cable gland hood. The max tightening torque is indicated in the table below.
14. To ease the tightening operation, an empty receptacle connector can be used when fixed in a bench.
15. Make sure that the cable is not twisted during the tightening operation.

## Max tightening torques in Nm

Shell size	Cable gland body	Cable gland hood
10	6	5
12	10	8
14	10	8
16	14	12
18	14	12
20	24	20
22	24	20
24	24	20

Above tightening torques are indicative and have to be adjusted in accordance to the cable diameter and application.

# Ruggedized Reverse Bayonet Connectors

Dynamic IP68 / IP69K  
Up to 500 hr salt spray  
VG95234 intermountable

## UTV SERIES

Completely *new*  
intermountable with  
VG 95234 :  
the MS 5015 reverse  
bayonet connectors

## Description

This connector series is an enhanced version of the VG 95234 connector standard but remains completely intermountable with VG 95234 : the MS 5015 reverse bayonet connectors.



## Features and benefits (see also page 3)

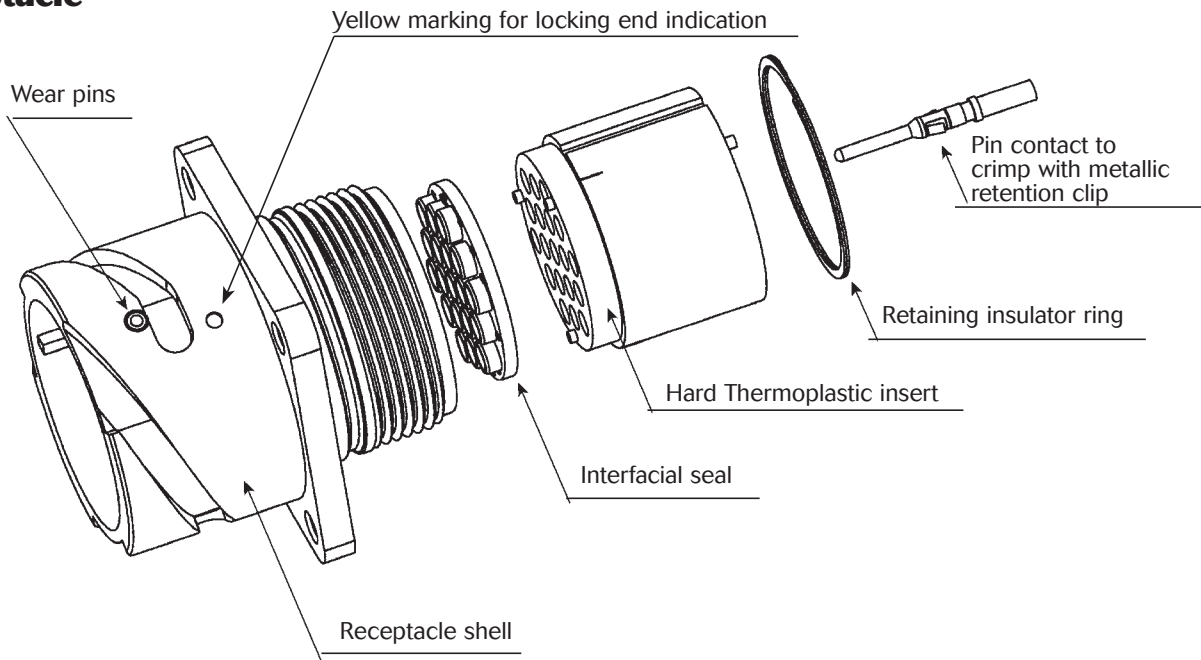
- An interfacial seal is present on the male inserts to extend the creepage distance and to have a better sealing when the connector is mated.
- The insulator is retained into the plug or receptacle shell by a metallic retaining ring which can be removed with a small screwdriver. Once removed, user can defined insulator orientation.
- Contacts gauge 8, 12 or 16 are machined crimp contacts, removable thanks to a clip on the contact.
- No tools are needed to insert contacts into the insulator. An extraction tool is available to extract the contacts. The tool is engaged by the front face of the connector and the contacts are rear released.
- Contacts are crimped thanks to very common toolings.
- The connector is rated 2 levels of water protection (see page 3):  
Dynamic IP67/IP68/IP69K when mated and used with suitable accessories, a grommet or a sealed back shell.
- This connector can be supplied fully assembled or in component form (please consult us).
- Corrosion spray resistance is rated up to 500 hours salt spray
- Cadmium and lead free materials are used

# Ruggedized Reverse Bayonet Connector

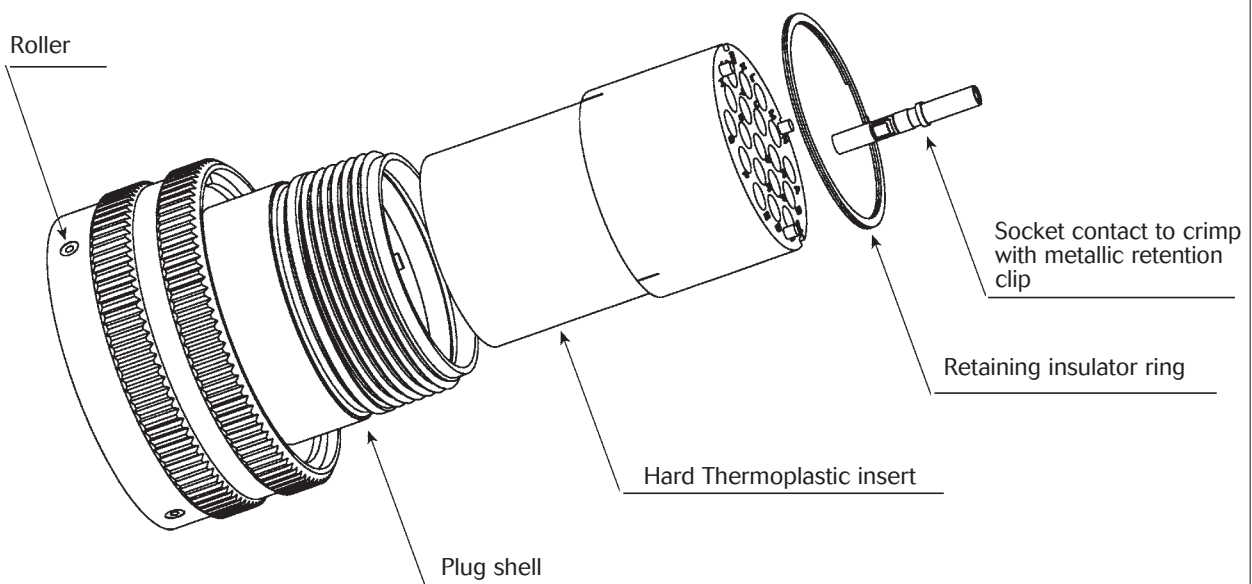


## Description

### Receptacle



### Plug





# Ruggedized Reverse Bayonet Connector



## Technical Features

### Mechanical

- Mechanical endurance : 500 mating and unmating
- Minimum retention force of the contact in the insulator :
  - 70 N for contacts # 16 (1.6 mm)
  - 90 N for contacts # 12 (2.4 mm)
  - 110 N for contacts # 8 (3.6 mm)

Minimum values with a maximum displacement of the contact of 0.3 mm (following NFF 61030)

- Retention of the insulator in the shell : (following MIL-C-26482G Series 2 class L standard)
- Bayonet coupling mechanism - Coupling torque : following VG 95234
- Vibrations : following NFF 61030
  - Sinus vibrations : 10 - 100 Hz
  - Acceleration : 2 g
- Shocks : Acceleration = 30 g
  - Duration = 18 ms following NFF 61030
- Impact strength (free fall of the plug). The connector plug is subjected to a free fall test. The height of drop is 0.75 m. No mechanical damage.

### Electrical

- Contact resistance :
  - 2.5 m $\Omega$  maxi for contact # 16
  - 1.3 m $\Omega$  maxi for contact # 12
  - 0.9 I maxi for contact # 8 following NFF 61030
- Maximum current per contact :
  - 15 Amps for contact # 16
  - 20 Amps for contact # 12
  - 30 Amps for contact # 8
- Withstanding voltage :
  - 2550 Vrms for layouts # 16
  - 3250 Vrms for layouts # 12 and 8
- Insulation resistance :
  - $\geq$  5000 M $\Omega$  under 500 Vcc
  - $\geq$  4000 M $\Omega$  under 220 Vcc
- Electrical continuity of the shells : 20 m $\Omega$  maximum
- In mated conditions (interfacial seal is compression) minimum creepage distance = minimum insulation distance in the air :
  - 9 mm minimum for layouts with contacts # 16
  - 12 mm minimum for layouts with contacts # 12 or # 8

### Environmental

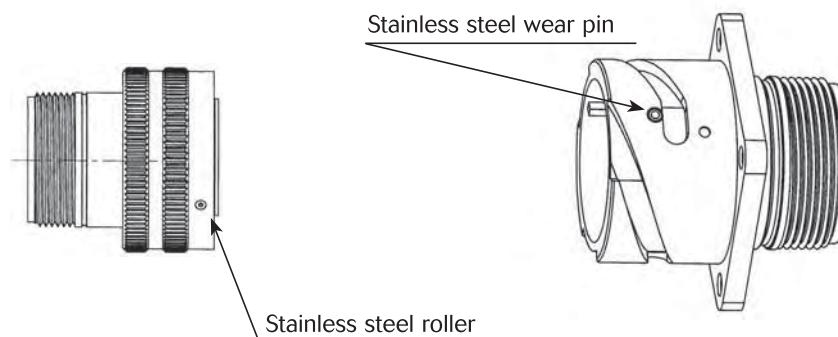
- Climatic category : -40°C +100°C
  - Dry heat test : +100°C during 96 h
- Corrosion spray resistance : up to 500 hours salt spray
- Damp heat : 21 days, 40°C, 95% relative humidity
- The connector is rated 2 levels of water protection (see page 3): Dynamic IP67/IP68/IP69K when mated and used with suitable accessories, a grommet or a sealed back shell.
- Cadmium and lead free materials are used

### Material

- Shell in aluminium alloy with black zinc cobalt plating
- Insulator : hard thermoplastic with glass fiber
- O'ring and interfacial seal in silicone
- Retaining insulator ring in carbon steel

This full product range is qualified by ALSTOM, RATP and SNCF.

### Robustness and high reliability of the locking mechanism



# Ruggedized Reverse Bayonet Connector



## Connectors Ordering Information (without contacts and accessories)

**Shells, backshells, contacts and accessories have to be ordered separately**

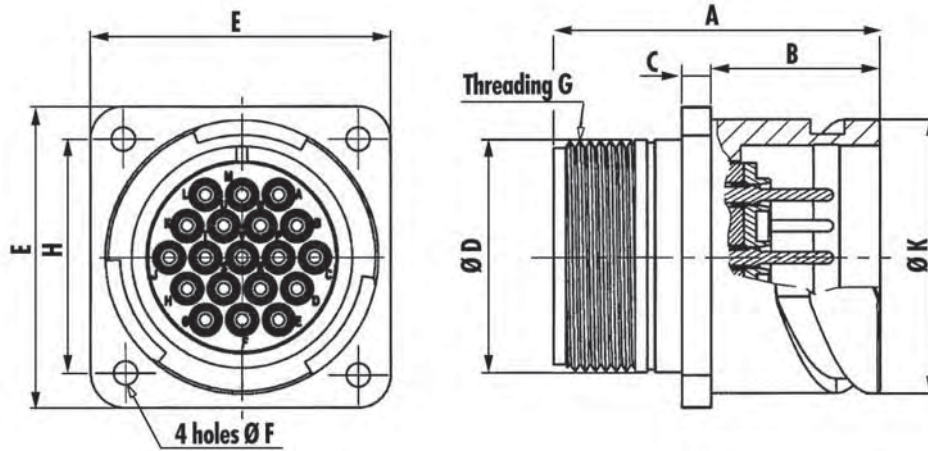
<b>UTV</b>	<b>B</b>	<b>22</b>	<b>- 14</b>	<b>P</b>	<b>N</b>	<b>--</b>
<b>Series</b>						
<b>Shell type</b>						
Rear mounting receptacle	<b>B</b>					
Plug	<b>D</b>					
Rear mounting receptacle for PC tails contact # 16 contacts mounted	<b>C</b>					
<b>Shell size : 18 - 20 - 22 - 24 - 28 - 32 - 36 - 40</b>						
<b>Layouts</b>						
<b>Contact type : P - Pin S - Socket</b>						
<b>Insert Orientation : N ; W ; X ; Y ; Z or 0</b>						
0 = for insulator not installed in the shell						
<b>Modification Code :</b>						
<i>Please consult us</i>						

**Nota : Please consult us if you want to order the connector in component form (shell and insert).**

# Ruggedized Reverse Bayonet Connector

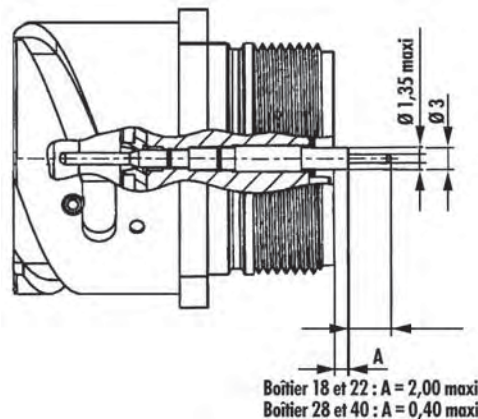


## Connector Dimensions Receptacle



Shell size	A Max	B 0/+0.4	C ±0.2	ØD Max	E ±0.3	ØF 0/+0.15	Threading G Class 2A	H ±0.1	ØK -0.15/0
18	45.50	23.05	4.00	25.50	35.00	3.25	1"x20 UNEF	27.00	30.80
20	45.50	23.05	4.00	28.70	38.00	3.25	1 1/8"x18 UNEF	29.40	34.20
22	45.50	23.05	4.00	31.90	41.00	3.25	1 1/4"x18 UNEF	31.80	37.40
24	48.00	23.05	4.00	35.20	44.50	3.75	1 3/8"x18 UNEF	34.90	40.90
28	48.00	24.05	4.00	41.50	50.80	3.75	1 5/8"x18 UNE	39.70	46.70
32	48.00	24.05	4.00	47.90	57.00	4.35	1 7/8"x16 UN	44.50	53.40
36	48.00	24.05	4.00	52.50	63.50	4.35	2 1/16"x16 UNS	49.20	59.60
40	48.00	24.05	4.00	59.00	70.00	4.35	2 5/16"x16 UN	55.50	65.50

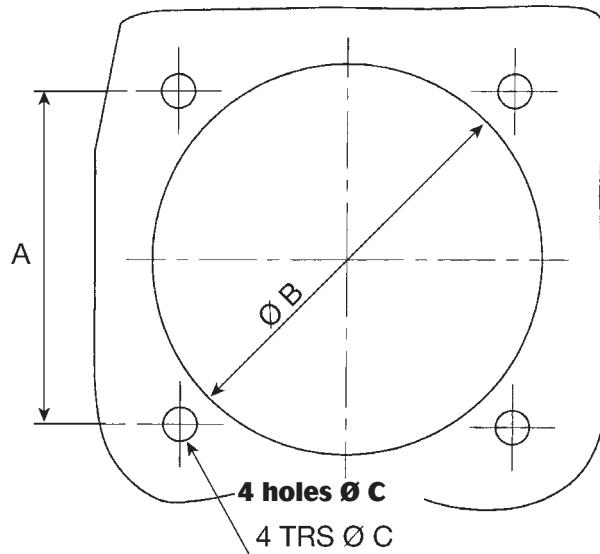
## Receptacle with PC tails contact # 16



# Ruggedized Reverse Bayonet Connector



## Panel Cutout



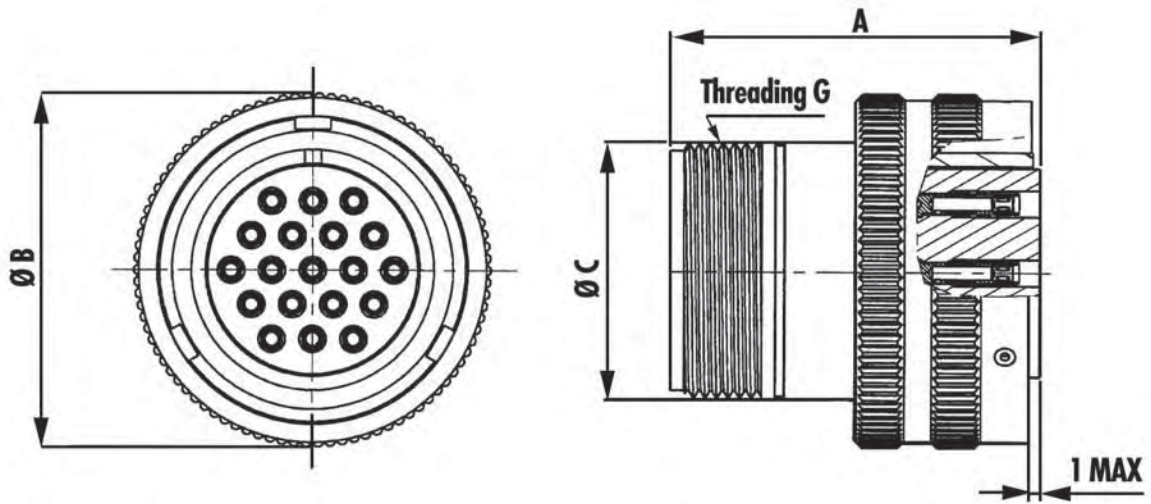
Shell size	A $\pm 0.15$	B 0/+0.3	C $\pm 0.10$	Maximum thickness of the panel for rear mounting
18	27	31,2	3,4	3
20	29,4	34,6	3,4	3
22	31,8	37,8	3,4	3
24	34,9	41,3	3,9	3
28	39,7	47,1	3,9	3
32	44,5	53,8	4,5	3
36	49,2	60	4,5	3
40	55,5	66,4	4,5	3

**Note :** The above panel cut-out enables front mounting of all receptacles.

# Ruggedized Reverse Bayonet Connector



## Plug

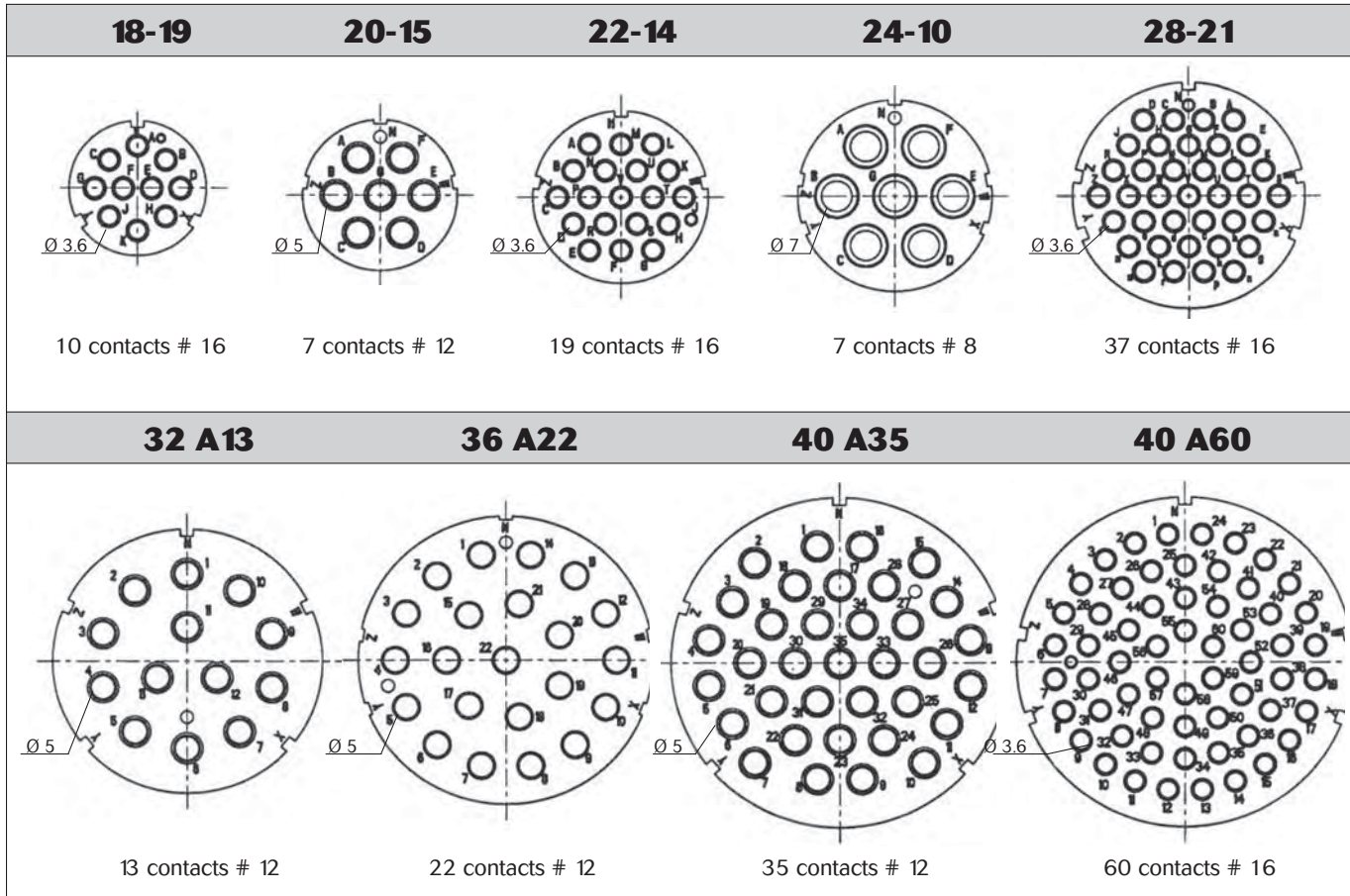


Shell size	A Max	B Max	C Max	Threading G Class 2A
18	45.60	37.30	25.50	1" x 20 UNEF
20	45.60	41.50	28.70	1 1/8" x 18 UNEF
22	45.60	44.00	31.90	1 1/4" x 18 UNEF
24	45.60	48.50	35.20	1 3/8" x 18 UNEF
28	48.10	55.30	41.50	1 5/8" x 18 UNEF
32	48.10	62.00	47.90	1 7/8" x 16 UN
36	48.10	66.80	52.50	2 1/6" x 16 UNS
40	48.10	74.50	59.00	2 5/16" x 16 UN

# Ruggedized Reverse Bayonet Connector

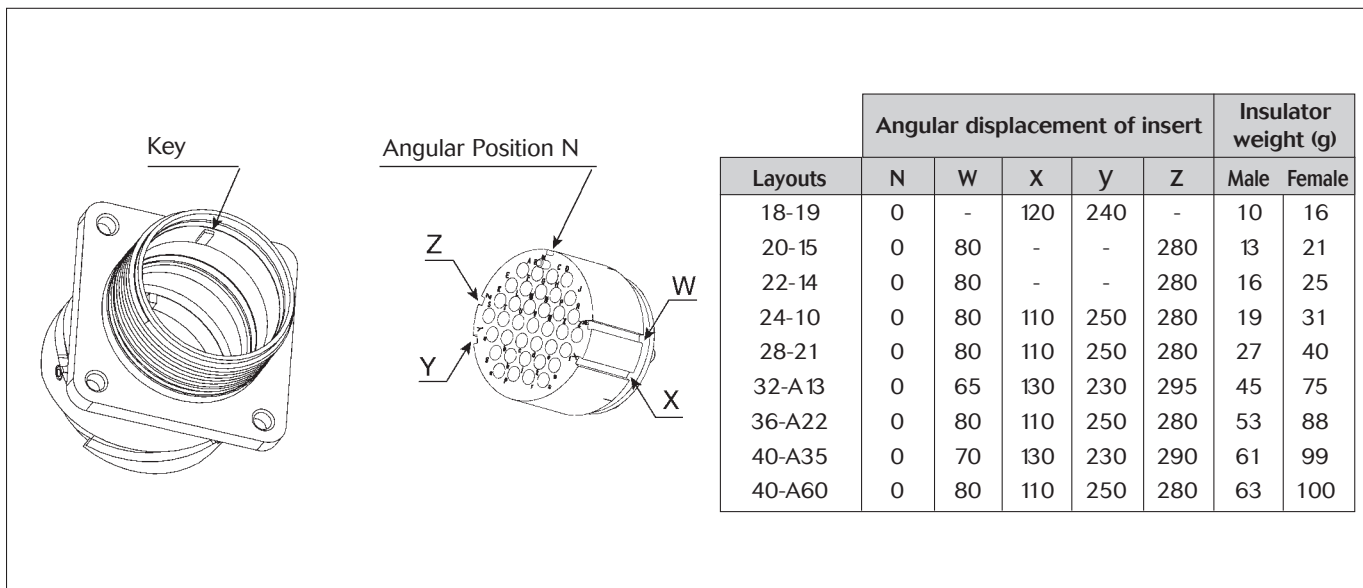


## Layouts (marking on front face of female insulator)



**Note :** For other layouts: consult factory.

## Alternative insert orientation positions





# Ruggedized Reverse Bayonet Connector



## Accessories

### Backshells ordering information

Series	UTV UTV	J C	S S	18 22	- 00 - 14	00 00	M
Backnut		R					
Cable clamp		C					
Backshell for PMA tube		S					
Cable clamp with sealing gland		J					
Cable clamp with sealing gland (trumpet)		K					
Cable clamp with sealing gland for shielding		T					
<b>S</b> - Straight backshell <b>E</b> - Elbow backshell							
<b>Shell size : 18 - 20 - 22 - 24 - 28 - 32 - 36 - 40</b>							
<b>Layout (grommet included) or 00 (without grommet)</b>							
<b>Adaptor type : 10</b> - long <b>00</b> - short							
<b>Grommet type : M for male or L for female (if grommet needed)</b>							



Plug cap: F  
ex: VGE1Fxx (xx = shell size)

receptacle cap: E  
ex: VGE1Exx (xx = shell size)

### Adaptor ordering information

Series	UTV	P	S	18	- 00	00
<b>P</b> - Adaptor with PG outlet*						
<b>S</b> - Adaptor for straight backshell						
<b>Shell size : 18 - 20 - 22 - 24 - 28 - 32 - 36 - 40</b>						
<b>Adaptor type : 10</b> - long <b>00</b> - short						

\* For metric threading: consult factory

# Ruggedized Reverse Bayonet Connector



## Accessories

### Grommet (only when needed on spare parts)

Grommet are delivered with a conical ring

Layout	Grommet type	Part number	Wire insulator diameter (mm)	
			Mini	Maxi *
18-19	male	UTVM18-1900	1,2	2,95
18-19	female	UTVL18-1900	1,2	2,95
20-15	male	UTVM20-1500	1,2	3,6
20-15	female	UTVL20-1500	1,2	3,6
22-14	male	UTVM22-1400	1,2	2,95
22-14	female	UTVL22-1400	1,2	2,95
24-10	male	UTVM24-1000	4,2	6,2
24-10	female	UTVL24-1000	4,2	6,2
28-21	male	UTVM28-2100	1,2	2,95
28-21	female	UTVL28-2100	1,2	2,95
32A13	male	UTVM32A1300	1,2	3,6
32A13	female	UTVL32A1300	1,2	3,6
36A22	male	UTVM36A2200	1,2	3,6
36A22	female	UTVL36A2200	1,2	3,6
40A35	male	UTVM40A3500	1,2	3,6
40A35	female	UTVL40A3500	1,2	3,6
40A60	male	UTVM40A6000	1,2	2,95
40A60	female	UTVL40A6000	1,2	2,95

\* Please consult us if your wire has an insulation diameter over these values, we will propose you another grommet.



### Grommet filler plug

Contact size	Part number	Color	Photo
# 16 # 12	8500-479	blue	

### Panel gasket

Shell size	Part number	Dimensions			
		A ± 0.5	B ± 0.2	C 0/+0.3	Ø D 0/+0.3
20	UTVG20	38	29.4	34.2	4.2
22	UTVG22	41	31.8	37.4	4.2
24	UTVG24	44.5	34.9	40.9	4.2
28	UTVG28	50.8	39.7	46.7	5.1
32	UTVG32	57	44.5	53.4	5.1
36	UTVG36	63.5	49.2	59.6	5.1
40	UTVG40	69.9	55.5	65.5	5.1



# Ruggedized Reverse Bayonet Connector



## Synoptic of straight backshells (for IP67 applications)



		+	+	+	+	+	+	+	+	+
<b>Description</b>	Backnut	Cable clamp	Backshell for PMA tube	Backshell for PMA tube	Cable clamp with sealing gland	Cable clamp with sealing gland	Cable clamp with sealing gland (trumpet shape to avoid cable wound)	Cable clamp with sealing gland (trumpet shape to avoid cable wound)	Cable clamp with sealing gland for shielding	Cable clamp with sealing gland for shielding
<b>Ref</b>	UTV RS****00	UTV CS****00	UTV SS****10	UTV SS****00	UTV JS****10	UTV JS****00	UTV KS****10	UTV KS****00	UTV TS****10	UTV TS****00

## Synoptic of adaptors

<b>Description</b>	Long adaptor with PG outlet	Short adaptor with PG outlet
<b>Ref</b>	UTV PS**0010	UTV PS**0000

**NB: IP68 backshells are available under request**

# Ruggedized Reverse Bayonet Connector



## Dimensions

	Shell 18		Shell 20		Shell 22		Shell 24		Shell 28		Shell 32		Shell 36		Shell 40	
	with grommet	without grommet	with grommet	without grommet	with grommet	without grommet	with grommet	without grommet	with grommet	without grommet	with grommet	without grommet	with grommet	without grommet	with grommet	without grommet
	**** = 18-19	**** = 18-00	**** = 20-15	**** = 20-00	**** = 22-14	**** = 22-00	**** = 24-10	**** = 24-00	**** = 28-21	**** = 28-00	**** = 32A13	**** = 32A00	**** = 36A22	**** = 36A00	**** = 40A35 40A60	**** = 40A00
<b>A</b>	22,5		22,5		22,5		22,5		24		24		24		24	
<b>B</b>	45,6		45,6		45,6		45,6		48,1		48,1		48,1		48,1	
<b>C</b>	18		18		18		18		17		17		17		17	
<b>D</b>	44		44		44		44		47							
<b>E</b>	28,5		28,5		26		26		23							
<b>F</b>	48,6		48,6		48,6		48,6		58		48		48		48	
<b>G</b>	34		34		34		34		33		33		33		33	
<b>H</b>	35,5		35,5		38,5		38,5		38,5		38,5		52		46	
<b>K</b>	PMA17		PMA17		PMA23		PMA23		PMA29		PMA29		PMA36		PMA48	
<b>M</b>	23		23		31		31		31,5		31,5		37,5		45	
<b>N</b>	7/12		9/14		10/18		10/18		14/24		14/24		22/30		25/35	
<b>P</b>	30		31,5		38,5		38,5		45		45		51,5		57	
<b>S</b>	33,5		33,5		43		43		52		52					
<b>T</b>	8/12,5		10/14,5		13,5/18		13,5/18		17/24		17/24					
<b>U</b>	4/15,5		7/15,5		9/15,5		8,5/19,5		9,5/19,5							
	PG13,5		PG16		PG 21		PG21		PG29		PG29		PG36		PG42	

**Note :** Dimensions are not contractual and may be subject to modifications.

⇒ All backshells are compatible with a grommet and a conical ring.

⇒ For cable or PMA tube diameter not included in the above chart please consult us.

### Example of rear dimensions calculation of a shell size 18 connector with a sealing gland cable clamp backshell without grommet and with a long adaptor

Backshell P/N : UTV JS 18 00 10

#### Rear dimensions receptacle + backshell :

$$A + F + M = 94,1 \text{ mm}$$

# Ruggedized Reverse Bayonet Connector



## Synoptic of elbow backshells (IP67 applications)



	+	+	+	+
<b>Description</b>	Backshell for PMA tube	Cable clamp with sealing gland	Cable clamp with sealing gland (trumpet shape to avoid cable wound)	Cable clamp with sealing gland for shielding
<b>Part number</b>	UTV SE****00	UTV JE****00	UTV KE****00	UTV TE****00



<b>Description</b>	Cable clamp
<b>Part number</b>	UTV CE****00

**NB: IP68 backshells are available upon request**

# Ruggedized Reverse Bayonet Connector



## Dimensions

	Shell 18		Shell 20		Shell 22		Shell 24		Shell 28		Shell 32		Shell 36		Shell 40	
	with grommet	without grommet	with grommet	without grommet	with grommet	without grommet	with grommet	without grommet	with grommet	without grommet	with grommet	without grommet	with grommet	without grommet	with grommet	without grommet
	**** =	**** =	**** =	**** =	**** =	**** =	**** =	**** =	**** =	**** =	**** =	**** =	**** =	**** =	**** =	**** =
	18-19	18-00	20-15	20-00	22-14	22-00	24-10	24-00	28-21	28-00	32A13	32A00	36A22	36A00	40A35 40A60	40A40
<b>A</b>	22,5		22,5		22,5		22,5		24		24		24		24	
<b>B</b>	45,6		45,6		45,6		45,6		48,1		48,1		48,1		48,1	
<b>C</b>	44		43,5		43,5		46		41							
<b>D</b>	26		25,5		17,5		20		18							
<b>E</b>	28,5		28,5		26		26		23							
<b>F</b>	43		44		44		49		46		59		60			
<b>H</b>	35,5		35,5		38,5		38,5		38,5		38,5		46			
<b>K</b>	PMA 17		PMA 17		PMA23		PMA23		PMA29		PMA36		PMA36			
<b>M</b>	23		23		31		31		31,5		31,5		37,5			
<b>N</b>	7/12		9/14		10/18		10/18		14/24		14/24		22/30			
<b>P</b>	30		31,5		38,5		38,5		45		45		51,5			
<b>S</b>	33,5		33,5		43		43		52		52					
<b>T</b>	8/12,5		10/14,5		13,5/18		13,5/18		17/24		17/24					
<b>U</b>	4/15,5		7/15,5		9/15,5		8,5/19,5		9,5/19,5							
	PG 13,5		PG16		PG 21		PG21		PG29		PG29		PG36		PG42	

**Note :** Dimensions are not contractual and may be subject to modifications.

⇒ All backshells are compatible with a grommet and a conical ring.

⇒ For cable or PMA tube diameter not included in the above chart please consult us.



# Ruggedized Reverse Bayonet Connector



## Tooling Data

Contact size	Contact type	Contact Ø mm	Contact Part number	Contact Size		Crimp tool	Locator	Extraction tool
				mm <sup>2</sup>	AWG			
#16	Male	1.6	RM16M23K	0.52 - 1.50	20-16	MH860 (M22520/7-01)	MH86164G	RX2025GE1
#16	Female	1.6	RC16M23K	0.52 - 1.50	20-16	MH860 (M22520/7-01)	MH86164G	RX2025GE1
#16	Male	1.6	RM14M30K	2.50	14	AF8 (M22520/3-1)	TP1142 (selector on 8)	RX2025GE1
#16	Female	1.6	RC14M30K	2.50	14	AF8 (M22520/3-1)	TP1142 (selector on 8)	RX2025GE1
#12	Male	2.4	8291 1437 NA	0.50	20	M317	VGE10077A	5106.021.09.24
#12	Female	2.4	8291 1436 A	0.50	20	M317	VGE10077A	5106.021.09.24
#12	Male	2.4	8291 1435 NA	0.75 - 1.00	18	M317	VGE10077A	5106.021.09.24
#12	Female	2.4	8291 1434 A	0.75 - 1.00	18	M317	VGE10077A	5106.021.09.24
#12	Male	2.4	8291 1463 NA	1.50	16	M317	VGE10077A	5106.021.09.24
#12	Female	2.4	8291 1462 A	1.50	16	M317	VGE10077A	5106.021.09.24
#12	Male	2.4	8291 1465 NA	2.50	14	M317	VGE10077A	5106.021.09.24
#12	Female	2.4	8291 1464 A	2.50	14	M317	VGE10077A	5106.021.09.24
#12	Male	2.4	8291 1437 NK	0.50	20	M317	VGE10077A	5106.021.09.24
#12	Female	2.4	8291 1436 K	0.50	20	M317	VGE10077A	5106.021.09.24
#12	Male	2.4	8291 1435 NK	0.75 - 100	18	M317	VGE10077A	5106.021.09.24
#12	Female	2.4	8291 1434 K	0.75 - 100	18	M317	VGE10077A	5106.021.09.24
#12	Male	2.4	8291 1463 NK	1.50	16	M317	VGE10077A	5106.021.09.24
#12	Female	2.4	8291 1462 K	1.50	16	M317	VGE10077A	5106.021.09.24
#12	Male	2.4	8291 1465 NK	2.50	14	M317	VGE10077A	5106.021.09.24
#12	Female	2.4	8291 1464 K	2.50	14	M317	VGE10077A	5106.021.09.24
#8	Male	3.6	8291 3601 A	1.50	16	M317	VGE10078A	5106.021.09.36
#8	Female	3.6	8291 3600 A	1.50	16	M317	VGE10078A	5106.021.09.36
#8	Male	3.6	8291 3603 A	2.50	14	M317	VGE10078A	5106.021.09.36
#8	Female	3.6	8291 3602 A	2.50	14	M317	VGE10078A	5106.021.09.36
#8	Male	3.6	8291 3605 A	4.00	12	M317	VGE10078A	5106.021.09.36
#8	Female	3.6	8291 3604 A	4.00	12	M317	VGE10078A	5106.021.09.36
#8	Male	3.6	8291 3607 A	6.00	10	M317	VGE10078A	5106.021.09.36
#8	Female	3.6	8291 3606 A	6.00	10	M317	VGE10078A	5106.021.09.36

For detailed information on crimp tooling: see crimp tooling section.



# Mixed Power and Signal



## Description

Power connectors are circular connectors to meet mixed power and signal requirements. This range of power connectors is an extension of the long established and popular TRIM TRIO connector series shown in this catalogue, but with the advantage of offering a number of additional features

## Features and benefits

- Connectors suitable for mixed power / signal application.
- Design in flexibility of TRIM TRIO.



## Our Design flexibilities are virtually unlimited on:

- **Contact arrangements**
- **Mixed contact lay-outs**
- **Power versions**
- **Hybrid contacts arrangements**
- **Filtered connectors**
- **High speed solutions**
- **Robust designs**
- **Higher corrosion withstandings**
- ...

The next pages are listing some of the mixed power / signal TRIM TRIO connector configurations.

It is intended to give you a general idea of our design capabilities.

As the creation of mixed power / signal TRIM TRIO connectors is an ongoing process, we advise you to contact our nearest SOURIAU sales office if you have specific connector needs.

Our design flexibility is virtually unlimited, so we are always willing to consider any customised design.

Separate data sheets with more detailed technical info of the listed mixed power / signal TRIM TRIO versions are available.

# Mixed Power and Signal



## UT0/UTG size 10-3W3 with: 3 contacts #20 (1.0mm) 3 standard TRIM TRIO contacts

### Description

UT0/UTG size 10-3W3 is a standard shell size 10 connector with a modified insert arrangement to accept:  
3 TRIM TRIO #20 (1.0mm) contacts  
3 TRIM TRIO #16 (1.6mm) contacts



### Typical performance characteristics

• For characteristics, refer to UTG/UT0 series and Contact sections

### Contact accommodation

- #20 cavities accept the #20 TRIM TRIO size 16 crimp type removable snap-lock contacts (see contacts section)
- #16 cavities accept the #16 TRIM TRIO crimp type removable snap-lock contacts (see contacts section)
- Contacts to be ordered separately.

### Available part numbers:

Part number	Shell size	Description
<b>UTG1103W3S</b>	<b>10</b>	Free hanging receptacle for socket contacts
<b>UTG6103W3PN</b>		Cable plug connector for pin contacts
<b>UT01103W3SH6</b>		Metal free hanging receptacle for socket contacts

For dimensions or others characteristics, refer to section UTG/UT0 with corresponding shell size or refer to the technical drawings

## UTG size 12-3 with 3 power contacts.

### Description

UTG size 12-3 is a standard shell size 12 connector with a modified insert arrangement to accept  
3 power contacts #12 (2.4mm).  
It also offers 3 extra discrimination cavities that accept the SMSPE3 discrimination pins.



### Typical performance characteristics

- Power contacts #12 (2.4mm) for up to 26 Amp
- For further characteristics, refer to UTG series and power contacts 8291 series.

### Contact accommodation

- Power cavities accept the 8291 power contacts (see power contacts 8291 section)
- Contacts to be ordered separately.

### Available part numbers:

Part number	Shell size	Description
<b>UTG0123S</b>	<b>12</b>	Panel mount receptacle for socket contacts.
<b>UTG0123SH</b>		Panel mount receptacle for socket contacts – IP65 waterprotection
UTG0123P (consult factory)		Panel mount receptacle for pin contacts.
UTG0123PH (consult factory)		Panel mount receptacle for pin contacts – IP65 waterprotection
UTG6123SN (consult factory)		Cable plug connector for socket contacts.
<b>UTG6123PN</b>		Cable plug connector for pin contacts.

For dimensions or others characteristics, refer to section UTG with corresponding shell size or refer to the technical drawings

# Mixed Power and Signal



## UTG size 14-8 with 4 power & 4 standard TRIM TRIO contacts.

### Description

UTG size 14-8 is a standard shell size 14 connector with a modified insert arrangement to accept 4 power contacts #12 (2.4mm) and 4 TRIM TRIO #16 (1.6mm) signal contacts.

### Typical performance characteristics

- Power contacts #12 (2.4mm) for up to 26 Amp
- Per VDE 0110 (refer to technical drawings)
- For further characteristics, refer to UTG series and power contacts 8291 series.

### Available part numbers:

Part number	Shell size	Description
<b>UTG0148P24PVDE</b>	<b>14</b>	Panel mount receptacle for pin contacts.
<b>UTG0148P24PHVDE</b>		Panel mount receptacle for pin contacts – IP65 waterprotection
UTG0148P24SVDE (consult factory)		Panel mount receptacle for socket contacts.
UTG0148P24SHVDE (consult factory)		Panel mount receptacle for socket contacts – IP65 waterprotection
<b>UTG6148P24SNVDE</b>		Cable plug connector for socket contacts.
UTG6148P24PNVDE (consult factory)		Cable plug connector for pin contacts.

For dimensions or others characteristics, refer to section UTG with corresponding shell size or refer to the technical drawings



### Contact accommodation

- Signal cavities accept the TRIM TRIO size 16 crimp-type removable snap-lock contacts (see contacts section)
- Power cavities accept the 8291 power contacts (see power contacts 8291 section)
- Contacts to be ordered separately.

## UTG size 18-7 with 2 power & 5 standard TRIM TRIO contacts.

### Description

UTG size 18-7 is a standard shell size 18 connector with a modified insert arrangement to accept 2 power contacts #12 (2.4mm) and 5 TRIM TRIO #16 (1.6mm) signal contacts.

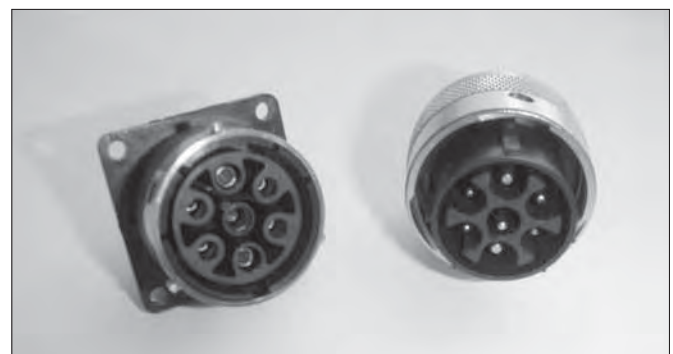
### Typical performance characteristics

- Power contacts #12 (2.4mm) for up to 26 Amp
- Per VDE 0110 Group C – 380V.
- 2 mating levels.
- For further characteristics, refer to UTG series and power contacts 8291 series.

### Available part numbers:

Part number	Shell size	Description
<b>UTG0187PVDE34</b>	<b>18</b>	Panel mount receptacle for pin contacts.
<b>UTG0187PHVDE34</b>		Panel mount receptacle for pin contacts – IP65 waterprotection
<b>UTG0187SVDE34</b>		Panel mount receptacle for socket contacts.
<b>UTG0187SHVDE34</b>		Panel mount receptacle for socket contacts – IP65 waterprotection
<b>UTG6187PNVDE34</b>		Cable plug connector for pin contacts.
<b>UTG6187SNVDE34</b>		Cable plug connector for socket contacts.

For dimensions or others characteristics, refer to section UTG with corresponding shell size or refer to the technical drawings



### Contact accommodation

- Signal cavities accept the TRIM TRIO size 16 crimp-type removable snap-lock contacts (see contacts section)
- Power cavities accept the 8291 power contacts (see power contacts 8291 section)
- Contacts to be ordered separately.

# Mixed Power and Signal



## UTG size 24-7 with 7 power & 2 standard TRIM TRIO contacts.

### Description

UTG size 24-7 is a standard shell size 24 connector with a modified insert arrangement to accept 7 power contacts #8 (3.6mm) and 2 TRIM TRIO #16 (1.6mm) signal contacts.

### Typical performance characteristics

- Power contacts #8 (3.6mm) for up to 44 Amp
- VDE 0110 Group C – 660V.
- UL recognized file Nr.: E238675
- Central power cavity is advanced for grounding purposes.
- For further characteristics, refer to UTG series and power contacts 8291 series.



### Contact accommodation

- Signal cavities accept the TRIM TRIO size 16 crimp-type removable snap-lock contacts (see contacts section)
- Power cavities accept the 8291 power contacts (see power contacts 8291 section)
- Contacts to be ordered separately.

### Available part numbers:

Part number	Shell size	Description
<b>UTG0247P</b>	<b>24</b>	Panel mount receptacle for pin contacts.
<b>UTG0247PH</b>		Panel mount receptacle for pin contacts – IP65 waterprotection
<b>UTG0247S</b>		Panel mount receptacle for socket contacts.
<b>UTG0247SH</b>		Panel mount receptacle for socket contacts – IP65 waterprotection
<b>UTG6247PN</b>		Cable plug connector for pin contacts.
<b>UTG6247SN</b>		Cable plug connector for socket contacts.

For dimensions or others characteristics, refer to section UTG with corresponding shell size or refer to the technical drawings

## UTG size 24-11 with 4 power & 7 standard TRIM TRIO contacts.

### Description

UTG size 24-11 is a standard shell size 24 connector with a modified insert arrangement to accept 4 power contacts #8 (3.6mm) and 7 TRIM TRIO #16 (1.6mm) signal contacts.

### Typical performance characteristics

- Power contacts #12 (2.4mm) for up to 26 Amp
- Per VDE 0110 (refer to technical drawings)
- For further characteristics, refer to UTG series and power contacts 8291 series..



### Contact accommodation

- Signal cavities accept the TRIM TRIO size 16 crimp-type removable snap-lock contacts (see contacts section)
- Power cavities accept the 8291 power contacts (see power contacts 8291 section)
- Contacts to be ordered separately.

### Available part numbers:

Part number	Shell size	Description
<b>UTG02411P</b>	<b>24</b>	Panel mount receptacle for pin contacts.
<b>UTG02411PH</b>		Panel mount receptacle for pin contacts – IP65 waterprotection
UTG02411S (consult factory)		Panel mount receptacle for socket contacts.
UTG02411SH (consult factory)		Panel mount receptacle for socket contacts – IP65 waterprotection
<b>UTG62411SN</b>		Cable plug connector for socket contacts.
UTG62411PN (consult factory)		Cable plug connector for pin contacts.

For dimensions or others characteristics, refer to section UTG with corresponding shell size or refer to the technical drawings



# Circular Boardmount Versions



## **UTP7 size 12-8 for boardmount applications**

### **Description**

UTP7 size 12-8 is a standard jam nut receptacle size 12 connector with pre-assembled TRIM TRIO #16 (1.6mm) dipsolder contacts

### **Performance characteristics**

Refer to technical drawings

### **Available part numbers (consult factory):**

Different part number are available with:

- Male or female contacts
- Machined or stamped and formed contacts
- Different solder tail lengths



# Mixed Power and Signal



**Notes**

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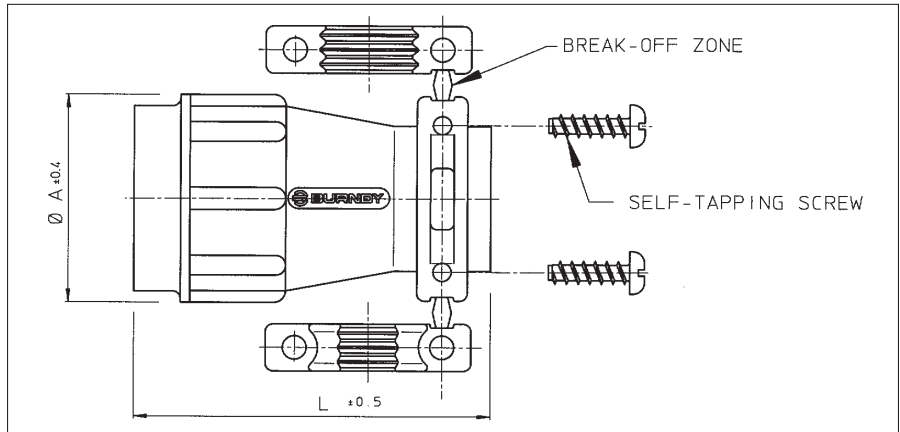
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# Circular Accessories



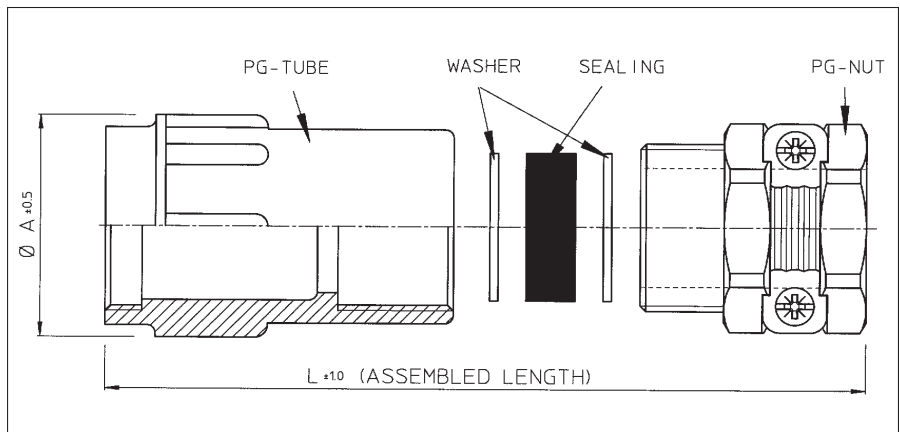
## Plastic cable clamp with strain relief (UTG--AC)



Part number	Shell size	Cable range $\varnothing$	$\varnothing A \pm 0.4$	$L \pm 0.5$
UTG10AC	10	3.0 - 8.7	21.0	40.0
UTG12AC	12	3.0 - 12.8	24.0	40.0
UTG14AC	14	4.0 - 13.8	27.0	46.0
UTG16AC	16	5.0 - 17.0	30.2	46.0
UTG18AC	18	5.0 - 19.0	33.3	50.0
UTG20AC	20	5.0 - 21.0	36.5	55.0
UTG22AC	22	5.0 - 23.0	39.7	60.0
UTG24AC	24	8.0 - 27.0	42.9	65.0

For threading specifications see last page of this section "Circular accessories"

## Plastic cable clamp with strain relief nut for waterprotected (IP65) applications (UTG--PG)



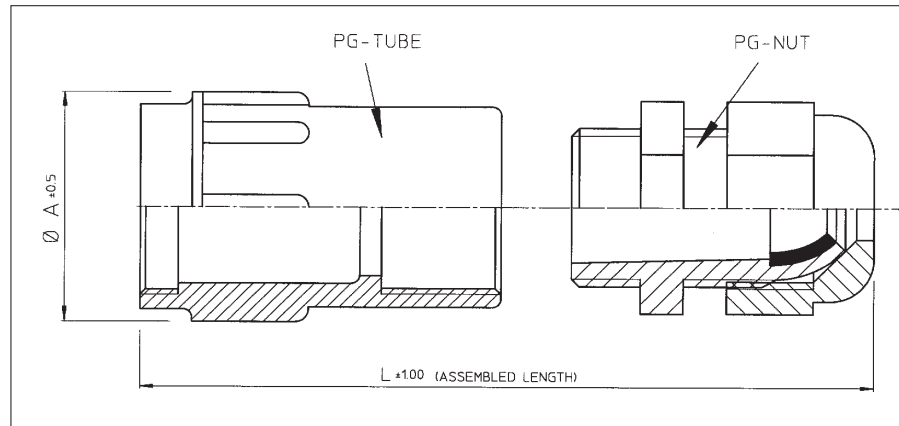
Part number	Shell size	Sealing* outer dia x inner dia's	$L \pm 1$	$A \pm 0.5$
UTG10PG	10	13.5 x 5 x 8	54	21.0
UTG12PG	12	16 x 7 x 10.5 x 13 x 16	57	24.0
UTG14PG	14	18.5 x 7 x 10.5 x 13 x 16	62	27.0
UTG16PG	16	20.5 x 8 x 10.5 x 13 x 16	68	30.2
UTG18PG	18	20.5 x 8 x 10.5 x 13 x 16	71	33.3
UTG20PG	20	26 x 11 x 15 x 18 x 22	82	36.5
UTG22PG	22	26 x 11 x 15 x 18 x 22	88	39.7
UTG24PG	24	35 x 19 x 23 x 27 x 31	103	42.9

\*In order to accommodate different cable dia's, the sealing exists of different layers which can be pulled out easily. Cable clamp has a PG style cable gland. For threading specifications see last page of this section "Circular accessories"

# Circular Accessories



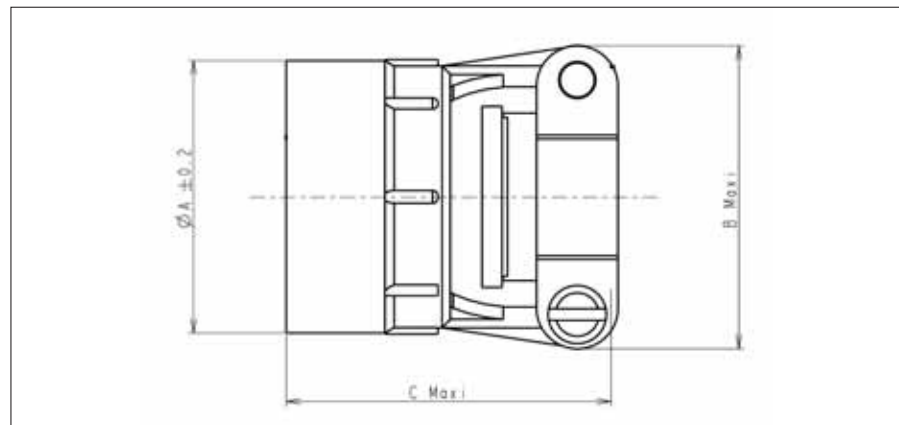
## Plastic cable clamp with strain relief nut for waterprotected (IP65) applications (UTG--ST)



Part number	Shell size	Cable range	Dia. A $\pm 0.5$	L $\pm 1$
UTG10ST	10	2 - 6	21.0	64
UTG12ST	12	3 - 7	24.0	64
UTG14ST	14	6 - 9	27.0	69
UTG16ST	16	7 - 12	30.2	72
UTG18ST	18		33.3	76
UTG20ST	20	9 - 16	36.5	80
UTG22ST	22		39.7	86
UTG24ST	24	13 - 20	42.9	91

Cable clamp has a PG style cable gland. For threading specifications see last page of this section "Circular

## Metal cable clamp with strain relief (UT0--AC)



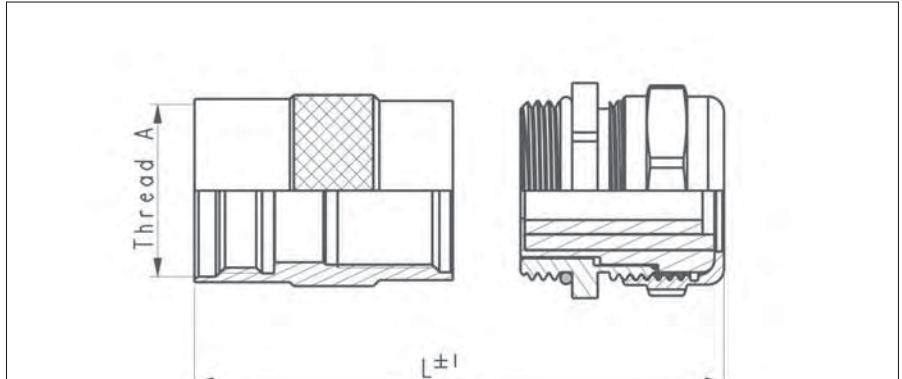
Part number	Shell size	Max cable dia. Excl. sealing	$\varnothing A \pm 0.2$	B maxi	C maxi
UT010AC	10	5.0	16.3	21.6	31.0
UT012AC	12	8.2	19.4	25.0	31.5
UT014AC	14	10.0	22.5	27.4	34.0
UT016AC	16	13.0	25.8	29.4	34.0
UT018AC	18	16.0	29.2	35.2	31.4
UT020AC	20	16.0	32.5	35.2	32.0
UT022AC	22	19.3	35.7	41.1	31.0
UT024AC	24	20.6	38.8	42.4	31.0

For threading specifications see last page of this section "Circular accessories"

# Circular Accessories



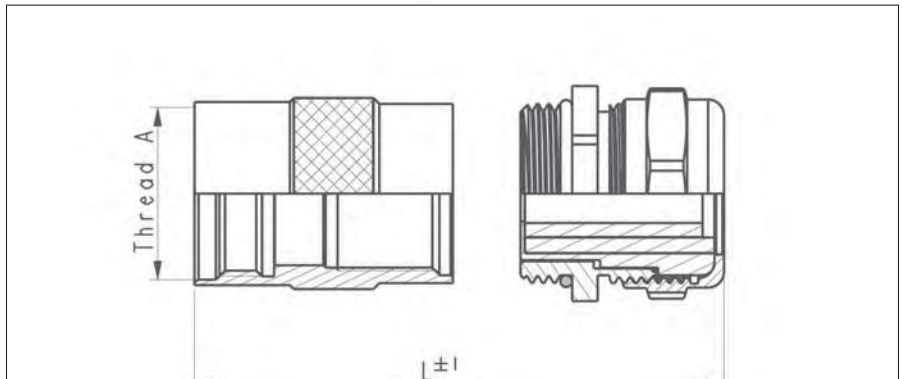
**Short cable clamp with strain relief nut for waterprotected applications (IP68). (UT0--JCS)**  
**Long cable clamp with strain relief nut for waterprotected applications (IP68). (UT0--JC)**



Part number		Shell size	Clamping range (Ø en mm) min / max	L± 1		Thread A
Short version	Long version			Short version	Long version	
UT010JCS	UT010JC	10	03 / 06	48.5	60.5	9/16 – 24 UNEF Class 2A
UT012JCS	UT012JC	12	06 / 10	49.5	61.5	11/16 – 24 UNEF Class 2A
UT014JCS	UT014JC	14	06 / 10	53.5	67.5	13/16 – 20 UNEF Class 2A
UT016JCS	UT016JC	16	9.5 / 14	62.5	73.5	15/16 – 20 UNEF Class 2A
UT018JCS	UT018JC	18	9.5 / 14	65.5	76.0	1" 1/16 – 18 UNEF Class 2A
UT020JCS	UT020JC	20	11.5 / 18	70.5	84.0	1" 3/16 – 18 UNEF Class 2A
UT022JCS	UT022JC	22	11.5 / 18	76.5	88.0	1" 5/16 – 18 UNEF Class 2A
UT024JCS	UT024JC	24	11.5 / 18	82.0	92.0	1" 7/16 – 18 UNEF Class 2A

Cable clamp has a Metric style cable gland. For threading specifications see last page of this section "Circular accessories"

**Short cable clamp with large strain relief nut for waterprotected applications (IP68). (UT0--JCSL)**  
**Long cable clamp with large strain relief nut for waterprotected applications (IP68). (UT0--JCL)**



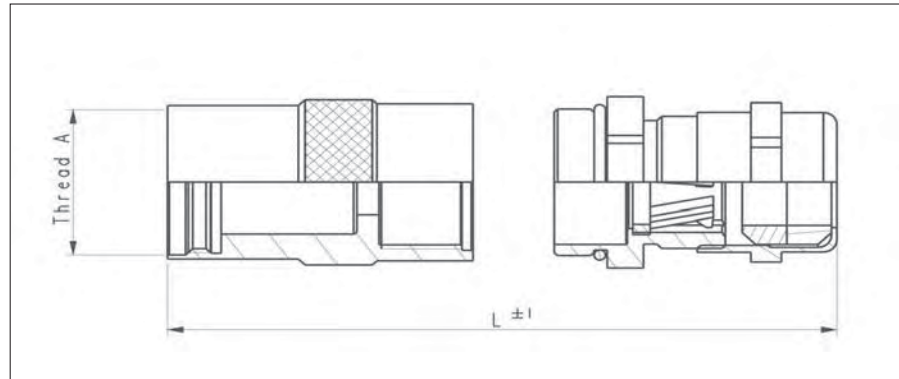
Part number		Shell size	Clamping range (Ø en mm) min / max	L± 1		Thread A
Short version	Long version			Short version	Long version	
UT010JCSL	UT010JCL	10	05 / 08	49.5	61.5	9/16 – 24 UNEF Class 2A
UT012JCSL	UT012JCL	12	08 / 12	49.5	62.5	11/16 – 24 UNEF Class 2A
UT014JCSL	UT014JCL	14	08 / 12	54.5	68.5	13/16 – 20 UNEF Class 2A
UT016JCSL	UT016JCL	16	11.5 / 18	68.5	79.5	15/16 – 20 UNEF Class 2A
UT018JCSL	UT018JCL	18	11.5 / 18	71.5	82.0	1" 1/16 – 18 UNEF Class 2A
UT020JCSL	UT020JCL	20	15 / 24	77.5	91.0	1" 3/16 – 18 UNEF Class 2A
UT022JCSL	UT022JCL	22	15 / 24	83.5	95.0	1" 5/16 – 18 UNEF Class 2A
UT024JCSL	UT024JCL	24	15 / 24	89.0	99.0	1" 7/16 – 18 UNEF Class 2A

Cable clamp has a Metric style cable gland. For threading specifications see last page of this section "Circular accessories"

# Circular Accessories



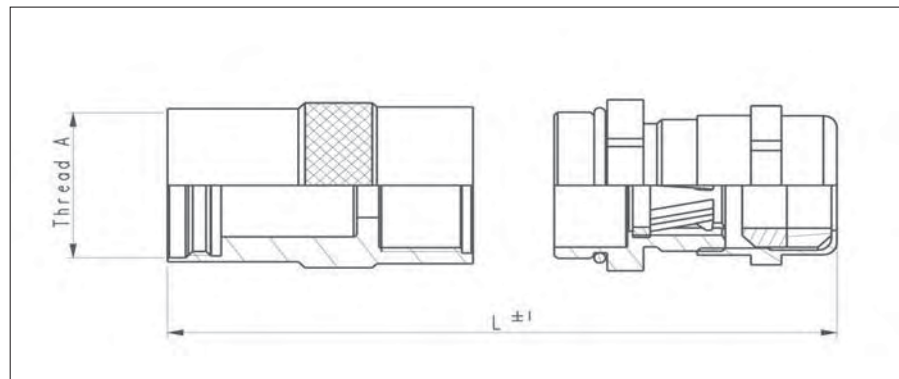
**Short shielded cable clamp with strain relief nut for waterprotected applications (IP68). (UT0S----JCS)**  
**Long shielded cable clamp with strain relief nut for waterprotected applications (IP68). (UT0S----JC)**



Part number		Shell size	Clamping range (Ø en mm) min / max	L ± 1		Thread A
Short version	Long version			Short version	Long version	
UT0S10JCS	UT0S10JC	10	04 / 6.5	58.5	70.5	9/16 – 24 UNEF Class 2A
UT0S12JCS	UT0S12JC	12	07 / 10.5	61.5	74.5	11/16 – 24 UNEF Class 2A
UT0S14JCS	UT0S14JC	14	07 / 10.5	66.5	80.5	13/16 – 20 UNEF Class 2A
UT0S16JCS	UT0S16JC	16	10 / 14.5	72.5	83.5	15/16 – 20 UNEF Class 2A
UT0S18JCS	UT0S18JC	18	10 / 14.5	75.5	86.0	1" 1/16 – 18 UNEF Class 2A
UT0S20JCS	UT0S20JC	20	13.5 / 18	84.5	97.5	1" 3/16 – 18 UNEF Class 2A
UT0S22JCS	UT0S22JC	22	13.5 / 18	90.0	101.5	1" 5/16 – 18 UNEF Class 2A
UT0S24JCS	UT0S24JC	24	13.5 / 18	95.5	105.5	1" 7/16 – 18 UNEF Class 2A

Cable clamp has a Metric style cable gland. For threading specifications see last page of this section "Circular accessories"

**Short shielded cable clamp with large strain relief nut for waterprotected applications (IP68). (UT0S----JCSL)**  
**Long shielded cable clamp with large strain relief nut for waterprotected applications (IP68). (UT0S----JCL)**



Part number		Shell size	Clamping range (Ø en mm) min / max	L ± 1		Thread A
Short version	Long version			Short version	Long version	
UT0S10JCSL	UT0S10JCL	10	05 / 8.5	59.5	71.5	9/16 – 24 UNEF Class 2A
UT0S12JCSL	UT0S12JCL	12	08 / 12.5	61.5	74.5	11/16 – 24 UNEF Class 2A
UT0S14JCSL	UT0S14JCL	14	08 / 12.5	66.5	80.5	13/16 – 20 UNEF Class 2A
UT0S16JCSL	UT0S16JCL	16	13.5 / 18	82.5	93.5	15/16 – 20 UNEF Class 2A
UT0S18JCSL	UT0S18JCL	18	13.5 / 18	85.5	96.0	1" 1/16 – 18 UNEF Class 2A
UT0S20JCSL	UT0S20JCL	20	17 / 24	93.0	106.5	1" 3/16 – 18 UNEF Class 2A
UT0S22JCSL	UT0S22JCL	22	17 / 24	99.0	110.5	1" 5/16 – 18 UNEF Class 2A
UT0S24JCSL	UT0S24JCL	24	17 / 24	104.5	114.5	1" 7/16 – 18 UNEF Class 2A

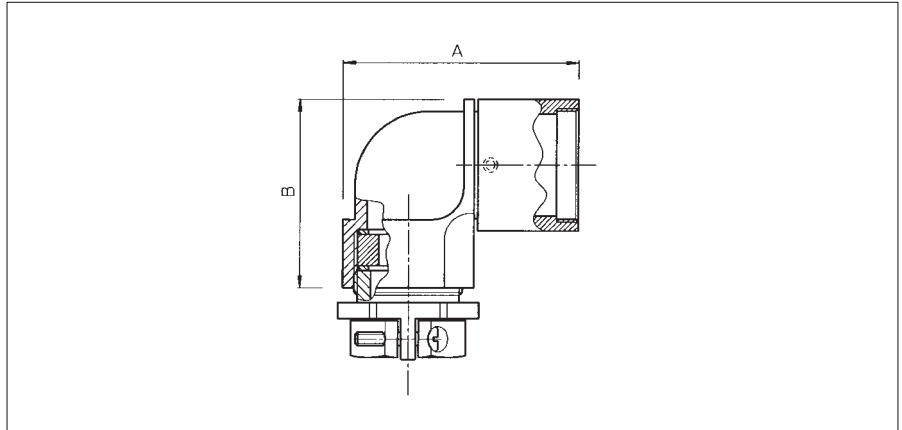
Cable clamp has a Metric style cable gland. For threading specifications see last page of this section "Circular accessories"



# Circular Accessories



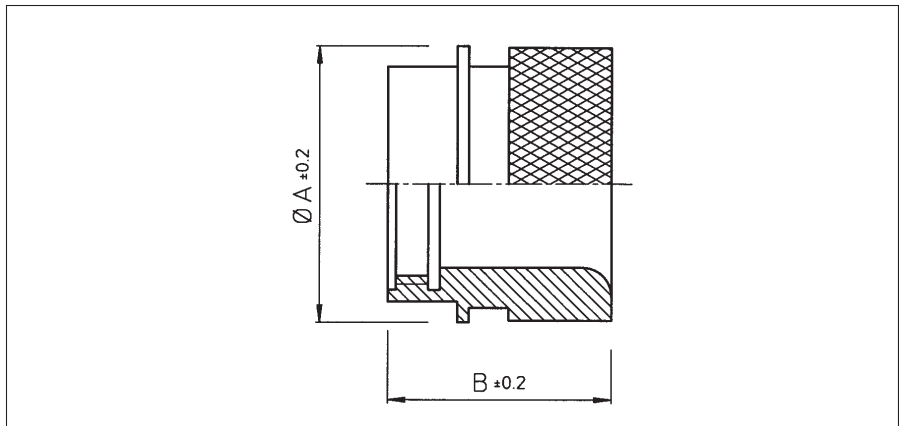
## Metal right angle cable clamp with strain relief nut (UTG--LPGN / UT0--LPGN)



Part number For UTP / UTG	Part number For UT0 / UT0W	Shell size	A max	B max	Cable range
UTG10LPGN	UT010LPGN	10	48.0	30.0	13.5 x 5 x 8
UTG12LPGN	UT012LPGN	12	50.0	33.5	16 x 7 x 10.5 x 13
UTG14LPGN	UT014LPGN	14	52.0	36.5	18.5 x 7 x 10.5 x 13 x 16
UTG16LPGN	UT016LPGN	16	55.0	39.5	20.5 x 8 x 10.5 x 13 x 16
UTG18LPGN	UT018LPGN	18	60.0	46.0	20.5 x 8 x 10.5 x 13 x 16
UTG20LPGN	UT020LPGN	20	58.0	47.0	26 x 11 x 15 x 18 x 22
UTG22LPGN	UT022LPGN	22	58.0	48.5	26 x 11 x 15 x 18 x 22
UTG24LPGN	UT024LPGN	24	67.0	54.5	35 x 19 x 23 x 27 x 31

Cable clamp has a PG style cable gland. For threading specifications see last page of this section "Circular accessories"

## Metal shrink boot adaptor (UTG--AD) for UTP and UTG



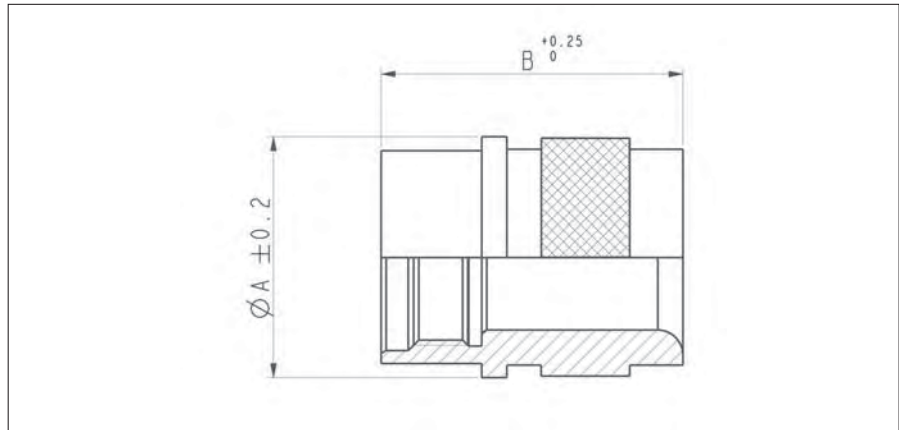
Part number	Shell size	Ø A ±0.2	B
UTG10AD	10	21.0	19.2
UTG12AD	12	24.0	
UTG14AD	14	27.0	
UTG16AD	16	30.0	21.5
UTG18AD	18	33.3	
UTG20AD	20	36.5	22.8
UTG22AD	22	39.7	
UTG24AD	24	42.9	21.9

Standard plating is anodised black. For tin plating add "T" at the end of the part number e.g. UTG12ADT  
For threading specifications see last page of this section "Circular accessories"

# Circular Accessories



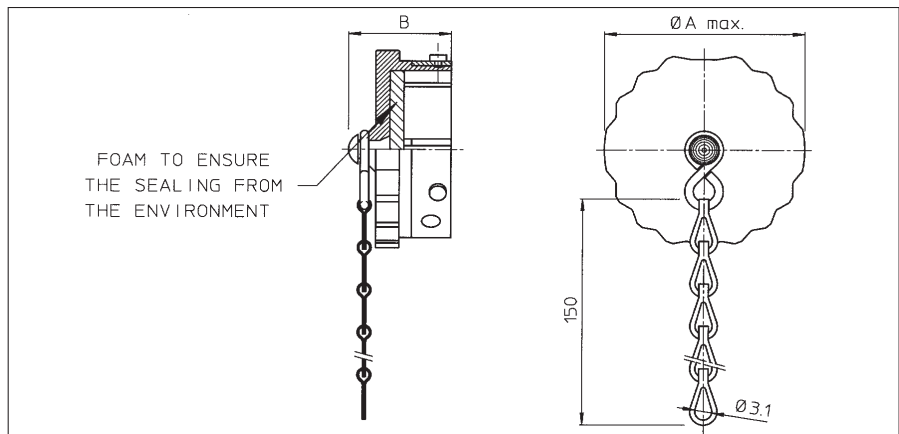
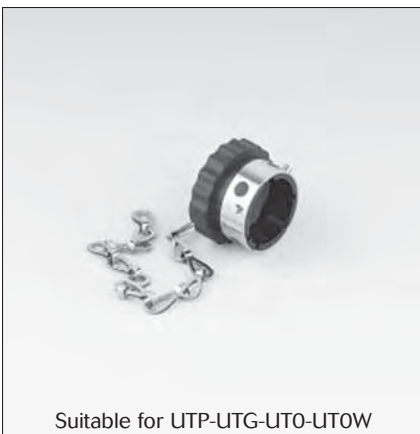
## Metal shrink boot adaptor for UTO and UTOW



Part number	Shell size	$\varnothing A \pm 0.2$	B
<b>UT010AD</b>	<b>10</b>	21	24.7
<b>UT012AD</b>	<b>12</b>	24	
<b>UT014AD</b>	<b>14</b>	27	
<b>UT016AD</b>	<b>16</b>	30	27
<b>UT018AD</b>	<b>18</b>	33.3	
<b>UT020AD</b>	<b>20</b>	36.5	
<b>UT022AD</b>	<b>22</b>	39.7	
<b>UT024AD</b>	<b>24</b>	42.9	

For threading specifications see last page of this section "Circular accessories"

## Environmental dustcap for plugs (UTG6--DCG)



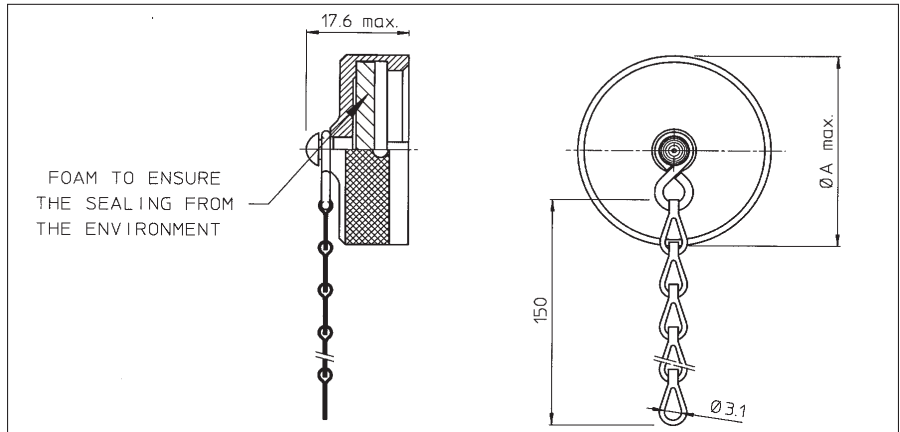
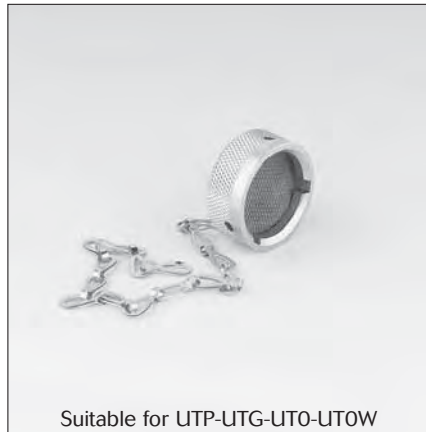
Part number	Shell size	A max.	B
<b>UTG610DCG</b>	<b>10</b>	20.0	20.8
<b>UTG612DCG</b>	<b>12</b>	24.0	
<b>UTG614DCG</b>	<b>14</b>	27.5	
<b>UTG616DCG</b>	<b>16</b>	30.5	
<b>UTG618DCG</b>	<b>18</b>	33.5	
<b>UTG620DCG</b>	<b>20</b>	36.5	22.5
<b>UTG622DCG</b>	<b>22</b>	40.0	
<b>UTG624DCG</b>	<b>24</b>	43.0	

For dustcap without chain skip "G" e.g. UTG612DC

# Circular Accessories



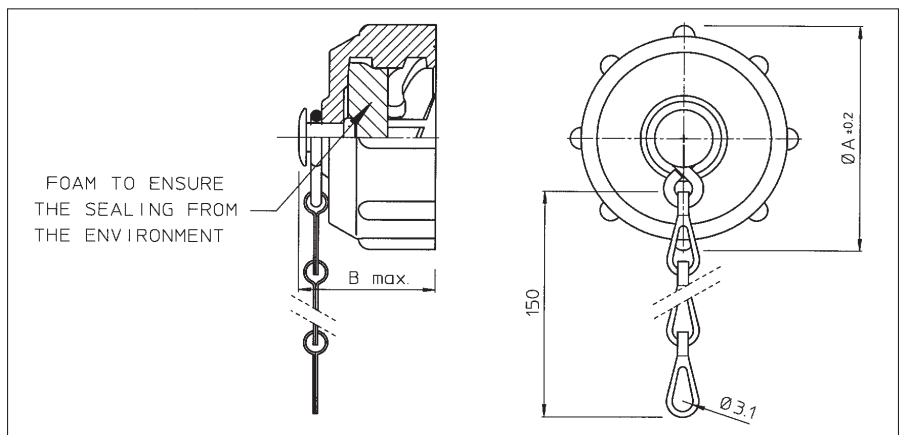
## Metal environmental dustcap for receptacles (UT0--DCG)



Part number	Shell size	A max.
<b>UT010DCG</b>	<b>10</b>	20.8
<b>UT012DCG</b>	<b>12</b>	24.9
<b>UT014DCG</b>	<b>14</b>	28.1
<b>UT016DCG</b>	<b>16</b>	31.3
<b>UT018DCG</b>	<b>18</b>	34.4
<b>UT020DCG</b>	<b>20</b>	37.6
<b>UT022DCG</b>	<b>22</b>	40.8
<b>UT024DCG</b>	<b>24</b>	43.9

For dustcap without chain skip "G" e.g. UTG12DC  
 For jam dustcap consult factory

## Plastic environmental dustcap for receptacles (UTP--DCG)



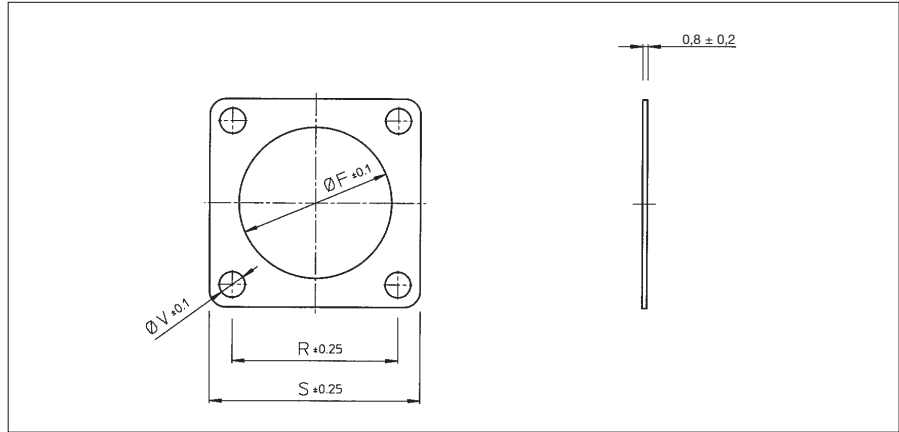
Part number	Shell size	Ø A ±0.2	B max.
<b>UTP10DCG</b>	<b>10</b>	26.7	19.3
<b>UTP12DCG</b>	<b>12</b>	31.4	20.0
<b>UTP14DCG</b>	<b>14</b>	34.5	20.2
<b>UTP16DCG</b>	<b>16</b>	37.8	
<b>UTP18DCG</b>	<b>18</b>	40.8	
<b>UTP20DCG</b>	<b>20</b>	43.9	21.8
<b>UTP22DCG</b>	<b>22</b>	47.0	
<b>UTP24DCG</b>	<b>24</b>	50.1	

For dustcap without chain skip "G" e.g. UTP12DC  
 For jam dustcap consult factory

# Circular Accessories



## Sealing for wall mounting receptacle (UTFD1-B)



Part number	Shell size	$\text{Ø F} \pm 0.1$	$\text{R} \pm 0.25$	$\text{S} \pm 0.25$	$\text{Ø V}$
<b>UTFD12B</b>	<b>10</b>	15.9	18.3	23.8	3.3
<b>UTFD13B</b>	<b>12</b>	19.0	20.6	26.2	
<b>UTFD14B</b>	<b>14</b>	22.2	23.0	28.6	
<b>UTFD15B</b>	<b>16</b>	25.4	24.6	31.0	
<b>UTFD16B</b>	<b>18</b>	28.6	27.0	33.3	
<b>UTFD17B</b>	<b>20</b>	31.8	29.4	36.5	
<b>UTFD18B</b>	<b>22</b>	34.9	31.8	39.7	
<b>UTFD19B</b>	<b>24</b>	38.1	34.9	42.9	4.0

## Adaptors for flexible cable protection systems (conduits)



Adaptors for flexible cable protections systems that fit to the TRIM TRIO circular connectors are available from cable protection systems manufacturers (e.g. PMA).

2 solutions are offered:

- UNEF Adaptors that fit directly onto the connectors (left picture)
- METRIC Adaptors that fit onto the metal cable clamp tubes as indicated on pages 43 and 44 (right picture)

These types of adaptors offer extra protection to single wire applications (electrical, coax, Fiber optic ... etc.)

Note: the adaptors are not available from Souriau. They must be ordered directly from the manufacturers



## Cable gland threadings used on cable clamps

Shell size	Thread size on connectors	PG threading	Metric threading
<b>10</b>	9/16 - 24 UNEF	PG9	M16 x 1.5
<b>12</b>	11/16 - 24 UNEF	PG11	M20 x 1.5
<b>14</b>	13/16 - 20 UNEF	PG13.5	M20 x 1.5
<b>16</b>	15/16 - 20 UNEF	PG16	M25 x 1.5
<b>18</b>	1-1/16 - 18 UNEF	PG16	M25 x 1.5
<b>20</b>	1-3/16 - 18 UNEF	PG21	M32 x 1.5
<b>22</b>	1-5/16 - 18 UNEF	PG21	M32 x 1.5
<b>24</b>	1-7/16 - 18 UNEF	PG29	M32 x 1.5

# 5000 Mating Cycle Plastic Connector



## MBG SERIES

### Description

The BANTAMATE II cylindrical plastic connector has been designed for use in applications requiring a high number of mating cycles and rapid connections and disconnections.

BANTAMATE II meets minimum durability requirements of **5000 mating/unmating cycles** by using a unique contact wiping system consisting of a lubricant saturated foam pad bonded to a spring loaded stripper plate within the receptacle or plug. On mating, the stripper plate is pushed deep into the connector wiping a thin film of lubricant onto the male contacts.

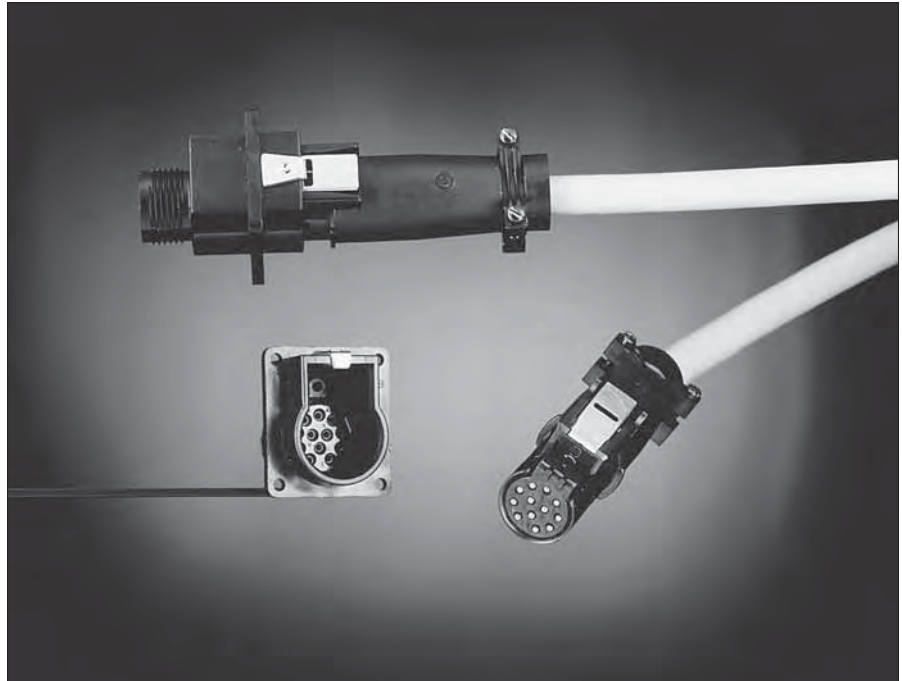
A distinctive shape provides mating ease in blind or difficult to reach applications. Some typical applications would include test equipment, medical diagnostic equipment, or any of the hardware interconnections found in the modern electronic office.

### Features and benefits

- 5000 mating / unmating cycles
- Lubricated male contacts with spring actuated foam plate
- Quick and easy installation with latching mechanism
- Easy mating due to the positive polarisation, even in blind spots
- Unmated male contacts are protected by the spring actuated plate
- Available with 4, 12, 19, 30, and 46 contact positions.
- Applicable for front or rear panel mounting as well as free hanging applications
- UL recognized File nr.: E238675
- CSA certified LR54977

### Performance characteristics

Operating temperature:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$   
Insulation



resistance:	5000 M $\Omega$ min.
Test potential:	2000 VAC
Durability:	Min. 5000 matings cycles
Vibration	5-50Hz, 0,5 dA; 8 hours axis
Thermal	5 cycles $-55^{\circ}\text{C}$ to $+105^{\circ}\text{C}$
Humidity:	10 days at 85% RH, $+85^{\circ}\text{C}$

### Construction

Connector body and strain relief:	Glass filled thermoplast UL94-V0 Colour: black
Locking latch and hook:	Stainless steel, passivated
Compression	
Spring:	Music wire, Nickel plated
Lubricating pad:	Polyurethane foam
Rivet:	Brass, Tin plated
Strain relief screws:	Steel, Cadmium plated

### Contact accommodation

- "MBG" connectors accept TRIM TRIO size 16 removable snap-lock contacts (see contact section)
- Contacts to be ordered separately.

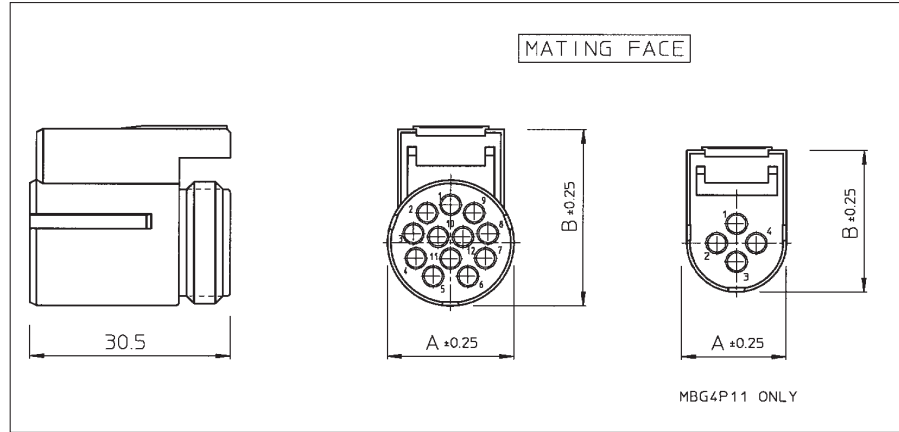
## How to order

Connector family	MBG	12	P	1
<b>Insert arrangement:</b>	4, 12, 19, 30, 46 positions			
<b>Body variation:</b>	<b>P:</b> Plug body <b>R:</b> Receptacle body <b>S:</b> Strain relief			
<b>Design variation:</b>	<b>1:</b> Standard version with male contacts in receptacle <b>11:</b> Reversed version with male contacts in plug			

# 5000 Mating Cycle Plastic Connector

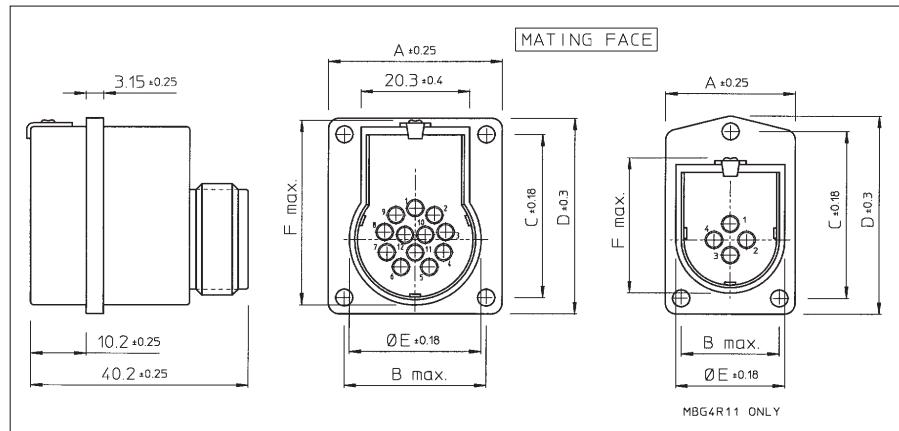


**Female plug connector for socket contacts (MBG--P1) - Standard version**  
**Male plug connector for pin contacts (MBG--P11) - Reversed version**



Female plug	Part number Male plug	$\varnothing A \pm 0.25$	$B \pm 0.25$
<b>MBG4P1</b>	<b>MBG4P11</b>	15.08	21.90
<b>MBG12P1</b>	<b>MBG12P11</b>	19.43	27.25
<b>MBG19P1</b>	<b>MBG19P11</b>	22.83	30.53
<b>MBG30P1</b>	<b>MBG30P11</b>	27.94	35.51
<b>MBG46P1</b>	<b>MBG46P11</b>	34.42	41.91

**Panel mounting male receptacle connector for pin contacts (MBG--R1) - Standard version**  
**Panel mounting female receptacle connector for socket contacts (MBG--R11) - Reversed version**



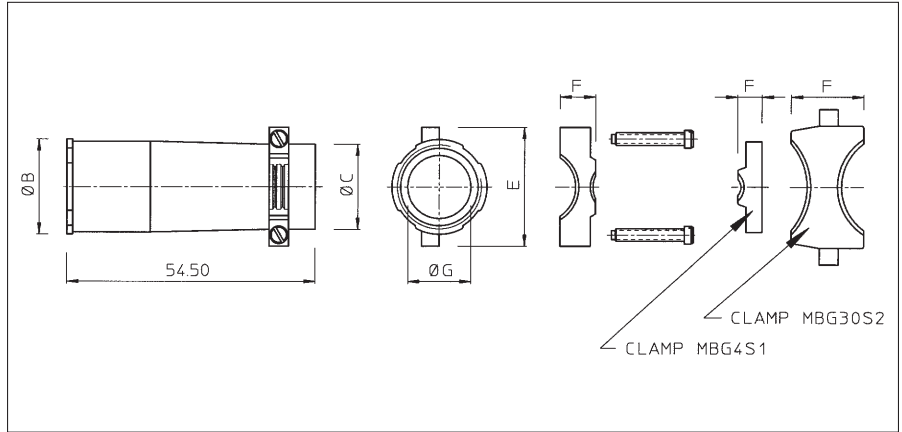
Male receptacle	Part number Female receptacle	$\varnothing A \pm 0.25$	$B \text{ max.}$	$C \pm 0.18$	$D \pm 0.30$	$\varnothing E \pm 0.18$	$F \text{ max.}$
<b>MBG4R1</b>	<b>MBG4R11</b>	23.90	18.08	31.45	37.36	20.07	29.46
<b>MBG12R1</b>	<b>MBG12R11</b>	32.49	26.54	30.76	36.86	24.64	34.93
<b>MBG19R1</b>	<b>MBG19R11</b>	32.44	26.54	34.04	40.13	27.86	38.10
<b>MBG30R1</b>	<b>MBG30R11</b>	35.61	28.65	38.00	44.91	33.10	43.31
<b>MBG46R1</b>	<b>MBG46R11</b>	42.24	35.13	46.94	54.05	39.70	49.61



# 5000 Mating Cycle Plastic Connector

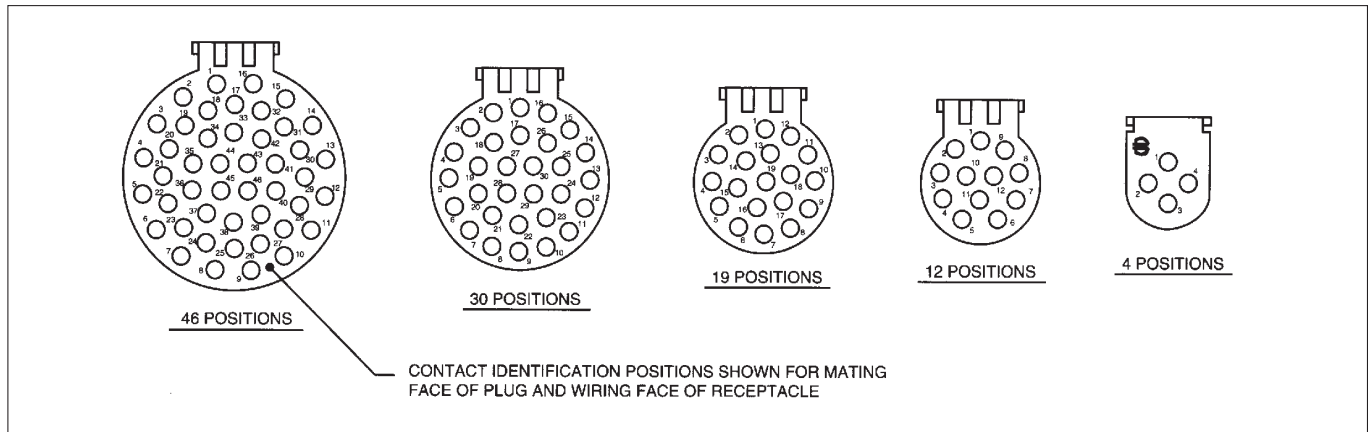


## Strain relief (MBG--S1)



Part number	$\varnothing C$	$\varnothing D$	E	F	Cable range $\varnothing G$ side A	Cable range $\varnothing G$ side B
<b>MBG4S1</b>	12.2	15.0	20.1	5.3	8.51/6.35	—
<b>MBG12S1</b>	18.8	21.1	26.4	7.9	11.30/7.65	14.99/11.38
<b>MBG19S1</b>	21.3	24.4	29.0	9.4	13.08/8.66	17.53/13.12
<b>MBG30S1</b>	26.7	29.0	34.5	16.3	19.02/15.88	22.86/19.05
<b>MBG30S2</b>	26.7	29.0	34.5	15.9	12.67/10.01	15.85/12.70
<b>MBG46S1</b>	Not available					

## Insert arrangements and moulded-in contact identification

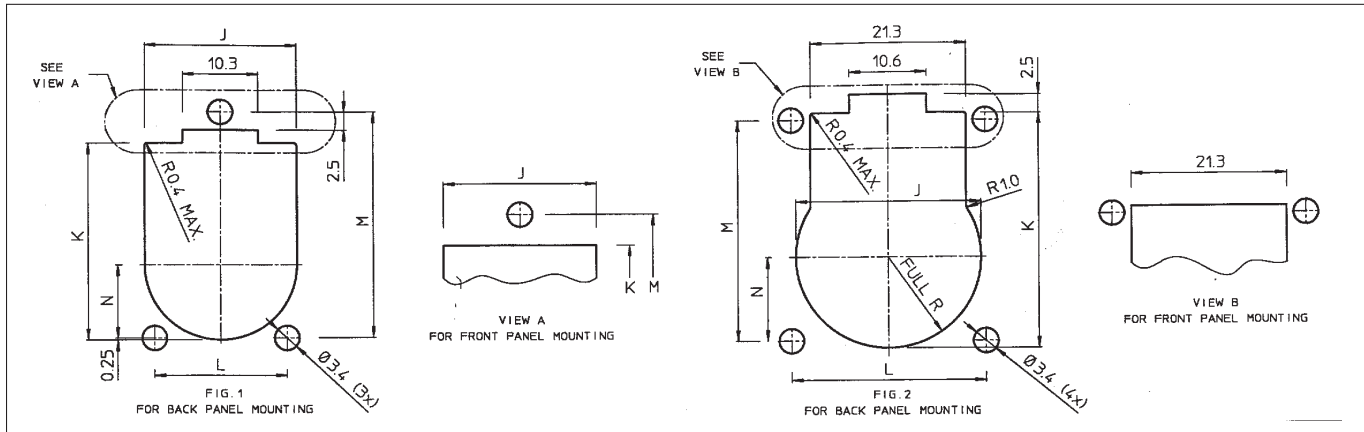


Contact identification positions shown are for mating face of plug and wiring face of receptacle.

# 5000 Mating Cycle Plastic Connector

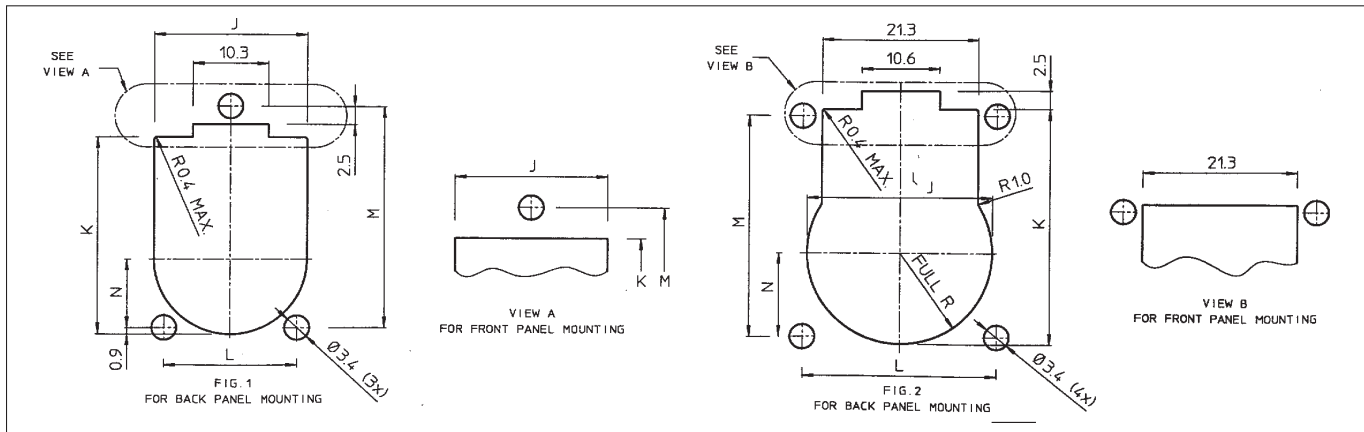


## Panel cut-out dimensions for receptacle - Standard version (MBG--R1)



Part number	Fig.	J	K	L	M	N
<b>MBG4R1</b>	<b>1</b>	20.86	27.41	18.08	31.45	10.16
<b>MBG12R1</b>	<b>2</b>	25.30	32.74	26.54	30.76	11.65
<b>MBG19R1</b>	<b>2</b>	28.50	35.89		34.04	13.32
<b>MBG30R1</b>	<b>2</b>	33.73	40.97		38.00	15.49
<b>MBG46R1</b>	<b>2</b>	40.36	47.22	35.13	46.94	18.85

## Panel cut-out dimensions for receptacle - Reversed version (MBG--R11)

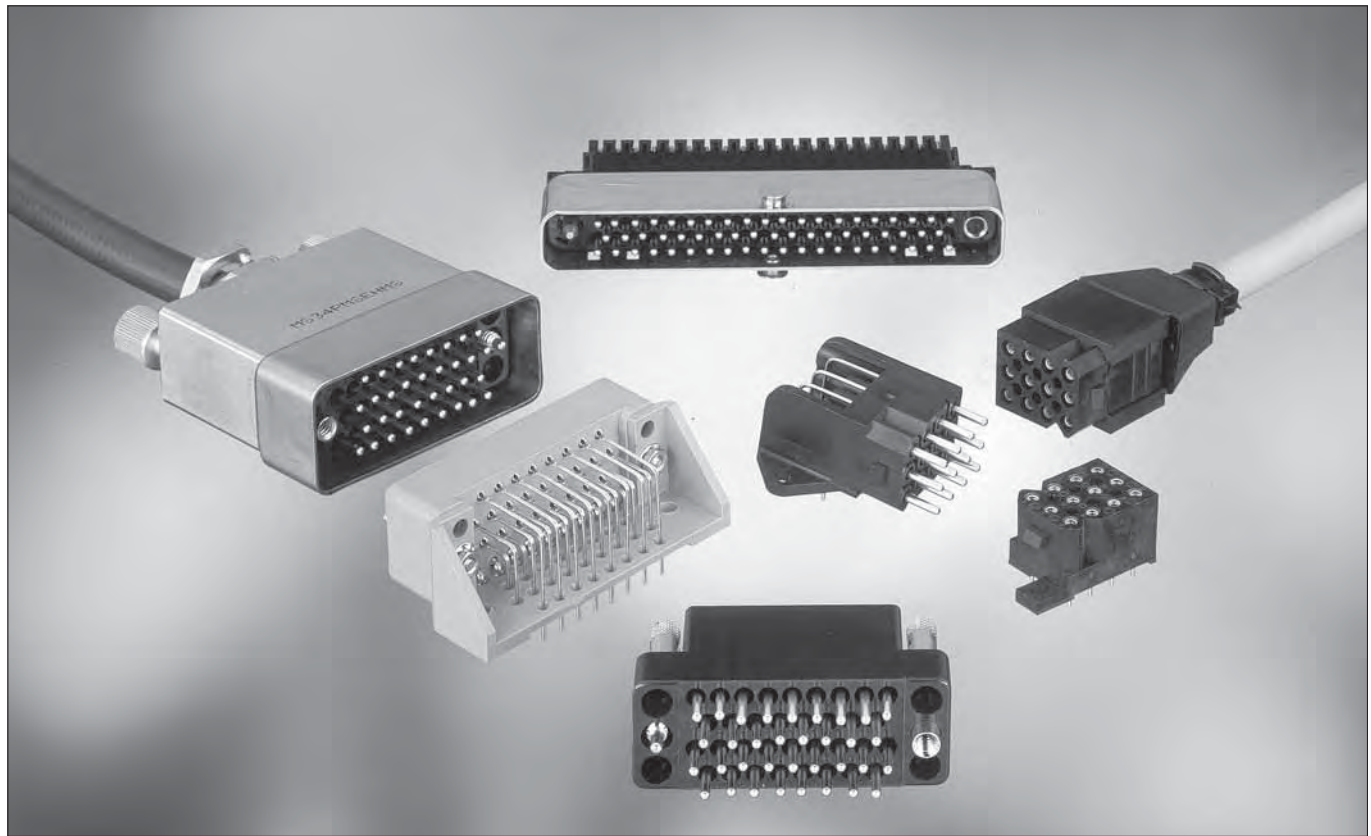


Part number	Fig.	J	K	L	M	N
<b>MBG4R11</b>	<b>1</b>	20.86	27.41	18.08	31.45	10.16
<b>MBG12R11</b>	<b>2</b>	25.30	32.74	26.54	30.76	11.65
<b>MBG19R11</b>	<b>2</b>	28.50	35.89		34.04	13.32
<b>MBG30R11</b>	<b>2</b>	33.73	40.97		38.00	15.49
<b>MBG46R11</b>	<b>2</b>	40.36	47.22	35.13	46.94	18.85

# Rectangular



## Overview rectangular TRIM TRIO connectors



**Rectangular TRIM TRIO connectors are a wide and versatile range that are offered in many options from low cost plastic to top class metal solutions.**

This section gives an overview on available rectangular connectors for:

### **1. Connectors with jackscrew locking using size 16 contacts (1.6mm).**

- MSM – High performance cable connectors.
- MSO – High performance boardmount connectors.
- V.35 – DTE/DCE interface connectors.

### **2. Connectors with lever locking using size 16 contacts (1.6mm).**

- MSG – low profile version.
- MB – Robust version.

### **3. Connectors with quick mating feature using size 16 contacts (1.6mm).**

- SMS – Cable connectors.
- SMS – Boardmount connectors.
- SMS – Low profile pinheader cable and boardmount connectors.

### **4. Mixed power / signal + heavy duty and drawer connectors using size 16 contacts (1.6mm).**

- A range of connectors with contact arrangements offered with a mix of signal and power contacts up to 26 A.
- Robust heavy duty connectors.
- Drawer connector.

# Rectangular



## Notes

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# High Performance Hyfen Rectangular Cable Connectors



## MS-M SERIES

### Description

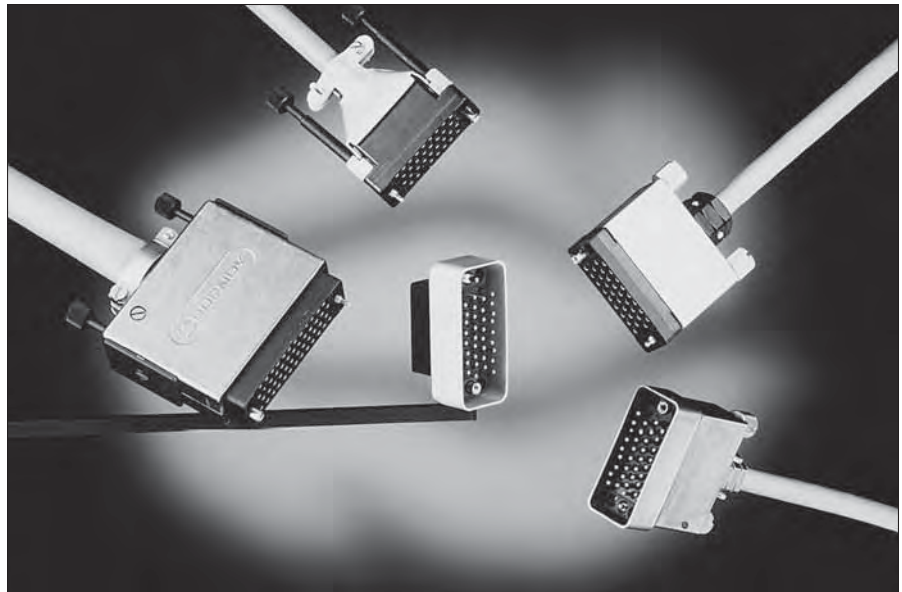
MSM rectangular connectors offers an extremely reliable, rugged, and versatile connection system . They are a range of multiway connectors available in 9 sizes from 9 to 75 positions. MS-M cable connectors can be offered with a full range of hardware and accessories. Guiding pins and sockets, turnable jackscrews, a variety of cable hoods, pin protection shrouds and discrimination pins make this connector range a truly versatile system.

### Features and benefits

- Connectors supplied pre-assembled except for panel mount versions.
- Available in 14-20-26-34-42-50-75 and 104 positions.
- **34 contact positions suitable for V.35 applications (see V.35 section)**
- Full range of accessories available including hoods, strain relief clamps, guide pins, jackscrews and pin protection shrouds.
- MS-M hyfen complies with NFC 93426 - HE 621-622 and MIL-C-28748 specifications.
- UL recognized File Nr.: E238675

### Performance characteristics

Operating temperature: -55°C to +125°C



Insulation resistance:	5000 MΩ min.
Test potential:	2000 VAC
Durability:	500 matings and unmatings.
Vibration resistance	Per MIL-STD 202 method 204
Shock:	Per MIL-C-STD 202 method 207

### Construction

Connector Material : Glass filled Phenolic  
Flammability rating : UL94-V0

Hoods: Aluminium alloy	gold chromate or anodized
Cable clamps: Stainless steel	Polyamide 6.6 - black - UL94-V2
Polarizing hardware:	Brass nickel plated
Shrouds: Aluminium alloy	gold chromate or anodized

### Contact accommodation

- "MS-M" Hyfen connectors accept TRIM TRIO size 16 removable snap-lock contacts (see contact section)
- Contacts to be ordered separately.

## How to order

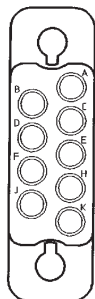
<b>Connector family</b>	<b>MS</b>	<b>34</b>	<b>P</b>	<b>M</b>	<b>124</b>	<b>S</b>	<b>GE</b>	<b>16</b>
	<b>MS</b>	<b>34</b>	<b>P</b>	<b>M</b>	<b>120</b>	<b>S-</b>	<b>--</b>	<b>--</b>
<b>Contact arrangement</b>								
<b>Type of housing:</b>	<b>P:</b> plug body for male contacts <b>R:</b> Receptacle housing for female contacts							
<b>N° 16 contact</b>								
<b>Design variation</b>								
<b>Pin protection shroud</b>								
<b>GE</b>	= plastic turnable jackscrews							
<b>Code for special variations</b>								

# High Performance Hyfen Rectangular Cable Connectors

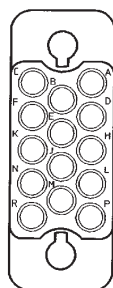


## Contact arrangement

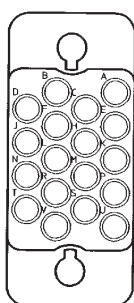
9 POS.



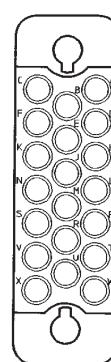
14 POS.



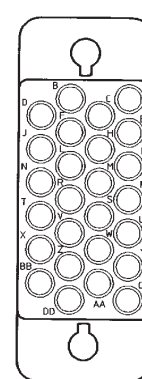
18 POS.



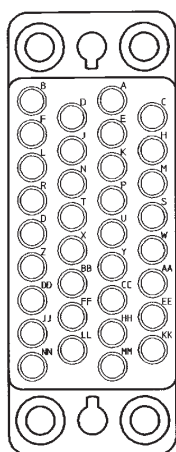
20 POS.



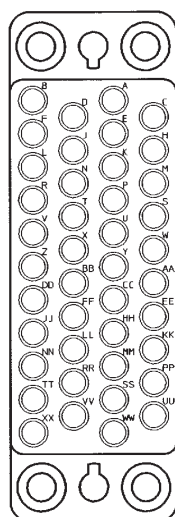
26 POS.



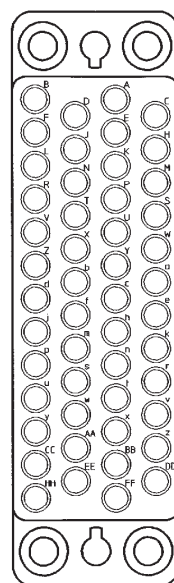
34 POS.



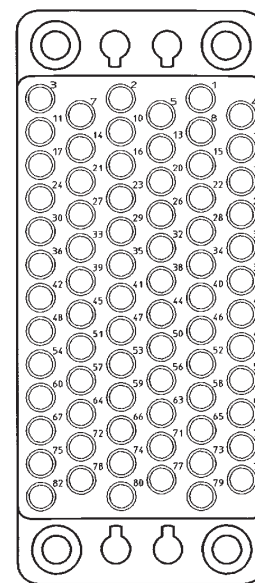
42 POS.



50 POS.



75 POS.



The contact position identification letters or numbers shown in the above diagrams apply to MS-M plug and receptacle connectors. Dimensionally, corresponding types of plug and receptacle mouldings are the same and differ only in that the contact position lettering/numbering of the plug (MS-PM) is a mirror image of that of the receptacle (MS-RM). Note that pins and/or sockets can be used in either the plug or receptacle moulding.

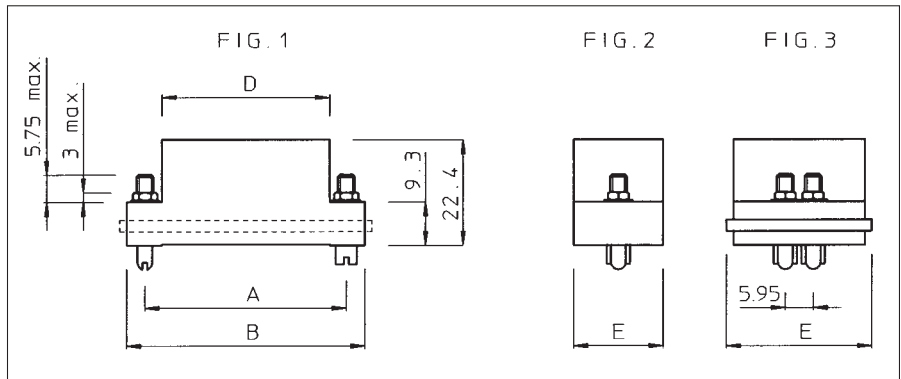
Note: Contact identification is shown for wiring face of the receptacle and mating face at plug connector.



# High Performance Hyfen Rectangular Cable Connectors



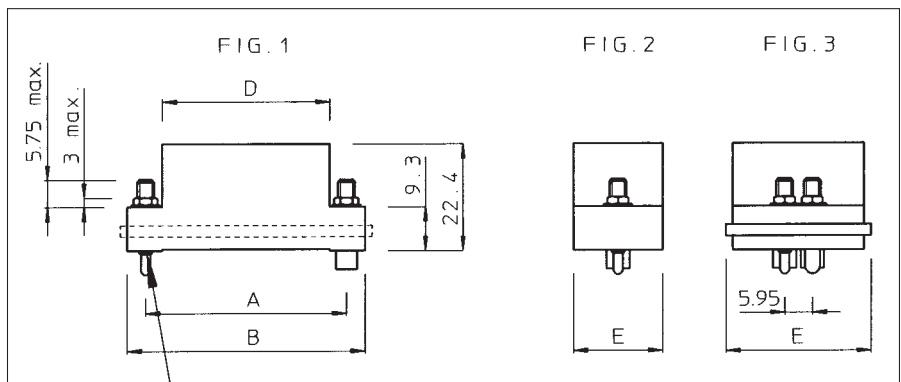
## Panel mount connectors with guiding hardware (MS--M1GE00)



Connector size	Part number		A	B	D	E	Fig.
	Plug version for male contacts	Receptacle version for female contacts					
9	MS9PM1GE00	MS9RM1GE00	25.4	33.3	20.5	9.5	1-2
14	MS14PM1(*)GE00	MS14RM1(*)GE00	23.8	31.8	20.1	11.7	
18	MS18PM1GE00	MS18RM1GE00	25.4	33.3	20.5	14.2	
20	MS20PM1(*)GE00	MS20RM1(*)GE00	31.75	39.65	27.95	11.7	
26	MS26PM1(*)GE00	MS26RM1(*)GE00	33.3	41.3	27.2	15.0	
34	MS34PM1(*)GE00	MS34RM1(*)GE00	42.8	50.8	35.7	19.05	
42	MS42PM1(*)GE00	MS42RM1(*)GE00	50.55	58.65	42.95		
50	MS50PM1(*)GE00	MS50RM1(*)GE00	57.95	65.85	50.85	18.95	
75	MS75PM1(*)GE00	MS75RM1(*)GE00				28.1	

(\*) Complete part number with "S" for connector with protective shroud.

## Panel mount connectors with fixed jackscrew hardware (MS--M58GE00)



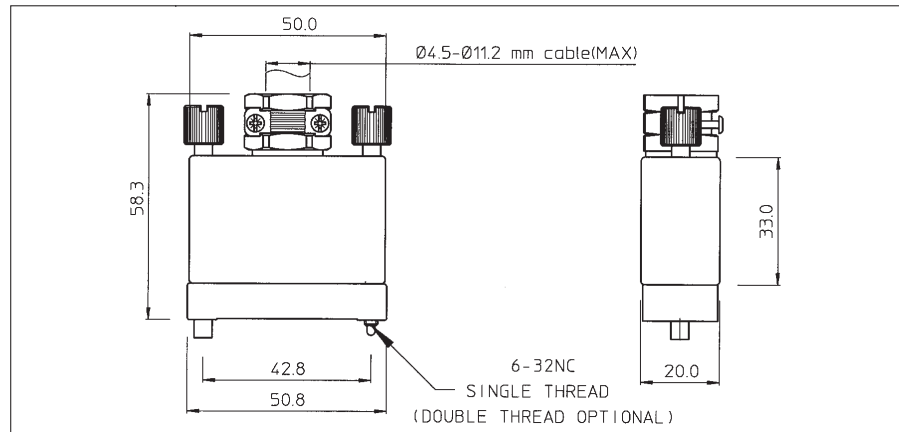
Connector size	Part number		A	B	D	E	Fig.
	Plug version for male contacts	Receptacle version for female contacts					
9	MS9PM58GE00	MS9RM58GE00	25.4	33.3	20.5	9.5	1-2
14	MS14PM58(*)GE00	MS14RM58(*)GE00	23.8	31.8	20.1	11.7	
18	MS18PM58GE00	MS18RM58GE00	25.4	33.3	20.5	14.2	
20	MS20PM58(*)GE00	MS20RM58(*)GE00	31.75	39.65	27.95	11.7	
26	MS26PM58(*)GE00	MS26RM58(*)GE00	33.3	41.3	27.2	15.0	
34	MS34PM58(*)GE00	MS34RM58(*)GE00	42.8	50.8	35.7	19.05	
42	MS42PM58(*)GE00	MS42RM58(*)GE00	50.55	58.65	42.95		
50	MS50PM58(*)GE00	MS50RM58(*)GE00	57.95	65.85	50.85	18.95	
75	MS75PM58(*)GE00	MS75RM58(*)GE00				28.1	

(\*) Complete part number with "S" for connector with protective shroud.

# High Performance Hyfen Rectangular Cable Connectors



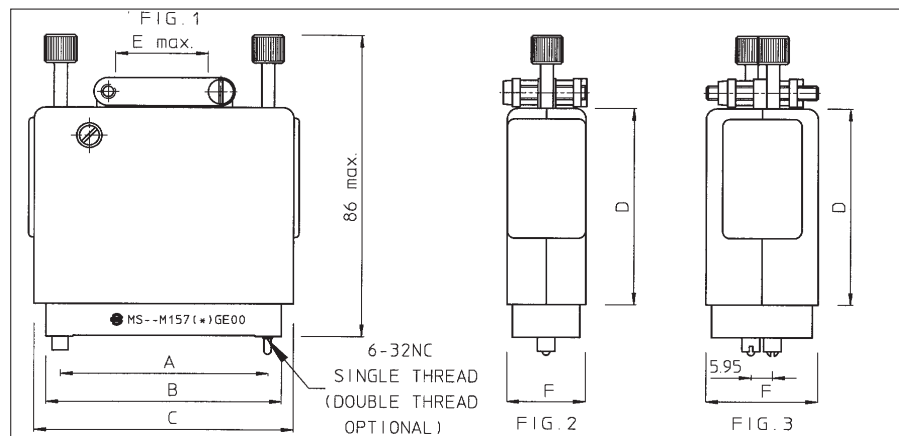
## MS34 Cable connector with 1 piece metal suitcase hood (MS34--MEHM)



Part number		Description
Plug version for male contacts	Receptacle version for female contacts	
<b>MS34PMEHM</b>	<b>MS34RMEHM</b>	Anodised hood, plastic strain relief and turnable hardware.
<b>MS34PMSEHM</b>	<b>MS34RMSEHM</b>	Shielded version with nickel plated hood, metal strain relief and turnable hardware
<b>MS34PMEHMMET1</b>	<b>MS34RMEHMMET1</b>	Version with spring loaded jackscrews

(\*) Complete part number with "S" for connector with protective shroud.

## Cable connector with Alu die cast hood (MS-M157GE00)



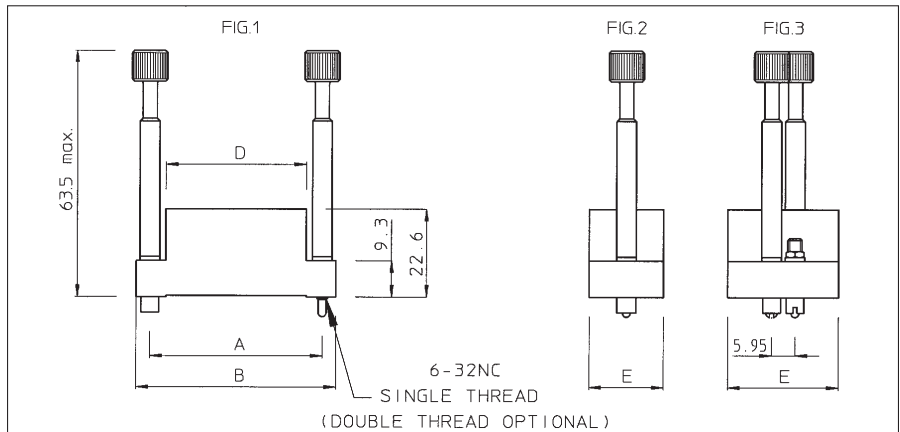
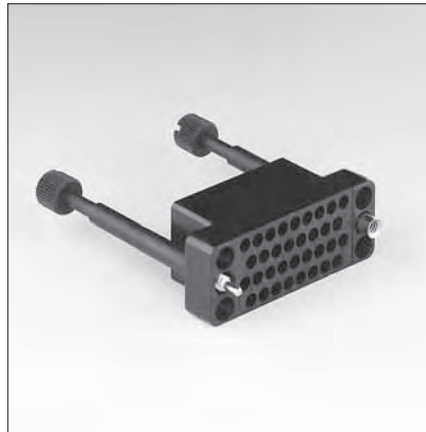
Connector size	Part number		A	B	C	D	E max.	F	Fig.
	Plug version for male contacts	Receptacle version for female contacts							
<b>50</b>	<b>MS50PM157GE00</b>	<b>MS50RM157GE00</b>	57.95	65.85	73.0	56.0	20.0	22.2	1-2
<b>75</b>	<b>MS75PM157GE00</b>	<b>MS75RM157GE00</b>	57.95	65.85	73.0	56.0	25.0	31.2	1-3

(\*) Complete part number with "S" for connector with protective shroud.

# High Performance Hyfen Rectangular Cable Connectors



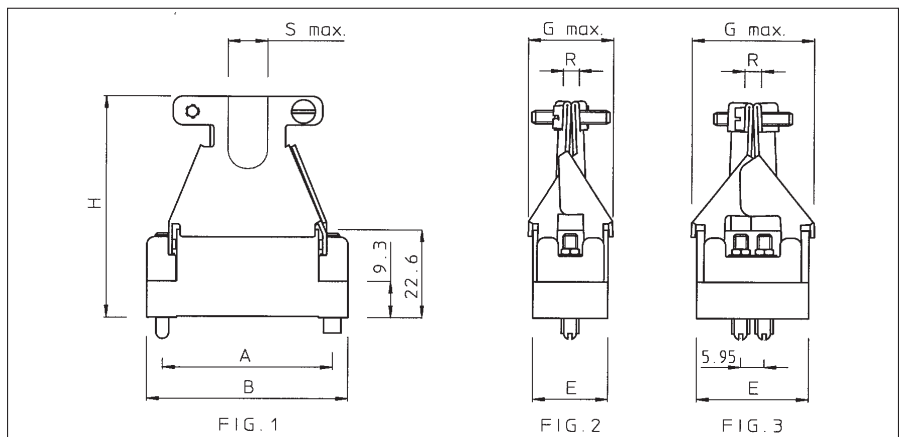
## Cable connector without strain relief and turnable jackscrew hardware (MS-M007GE00)



Connector size	Plug version for male contacts	Receptacle version for female contacts	A	B	D	E	Fig.
9	MS9PM007GE00	MS9RM007GE00	25.4	33.3	20.5	9.5	1-2
14	MS14PM007(*)GE00	MS14RM007(*)GE00	23.8	31.8	20.1	11.7	
18	MS18PM007GE00	MS18RM007GE00	25.4	33.3	20.5	14.2	
20	MS20PM007(*)GE00	MS20RM007(*)GE00	31.75	39.65	27.95	11.7	
26	MS26PM007(*)GE00	MS26RM007(*)GE00	33.3	41.3	27.2	15.0	
34	MS34PM007(*)GE00	MS34RM007(*)GE00	42.8	50.8	35.7	19.05	
42	MS42PM007(*)GE00	MS42RM007(*)GE00	50.55	58.65	42.95	18.95	
50	MS50PM007(*)GE00	MS50RM007(*)GE00	57.95	65.85	50.85	18.95	1-3
75	MS75PM007(*)GE00	MS75RM007(*)GE00				28.1	

(\*) Complete part number with "S" for connector with protective shroud.

## Cable connector with metal butterfly hood and guiding hardware (MS--M120GE00)



Connector size	Part number		A	B	E	G max.	H	S max.	R max.	Fig.
	Plug version for male contacts	Receptacle version for female contacts								
34	MS34PM120(*)GE00	MS34RM120(*)GE00	42.8	50.8	19.05	22.2	56.7	10	13	1-2

(\*) Complete part number with "S" for connector with protective shroud.

# High Performance Hyfen Rectangular Cable Connectors



## Notes

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# High Performance Rectangular Boardmount Connectors



## MSO SERIES

### Description

The MSO series, derived from the MSM series, is for straight or right-angled application on a printed circuit board. Pre-assembled MSO connectors with pin or socket N(16 contacts are intermateable with the existing MSM rectangular cable connectors.

The N° 16 TRIM TRIO .0625" (1.6mm) diameter contacts are available in either solid machined or stamped and formed versions.

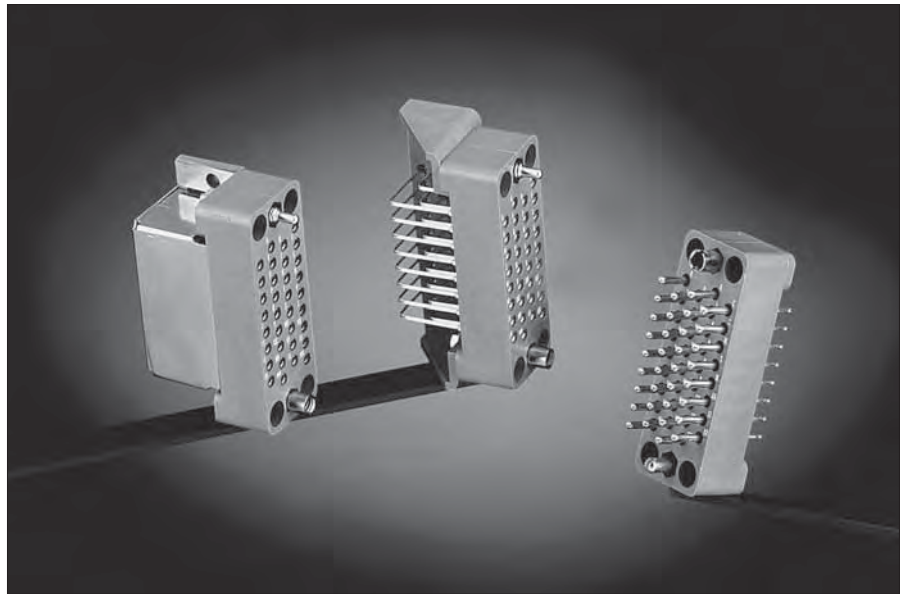
The polarizing hardware can be delivered in either guiding or jackscrew versions.

### Features and benefits

- Connectors supplied pre-assembled with dip solder contacts.
- Contacts available in solid machined or stamped and formed version.
- Available in 9-18-34-50-75 positions.
- For right-angled versions, there is a choice of 9-18 and 34 contact positions.
- 34 contact positions suitable for V.35 applications (see section V.35)
- Polarising hardware prevent mismatching.
- UL94-V0 rated thermoplast.

### Performance characteristics

Operating temperature:	-55°C to +125°C
Current rating:	5 Amp for stamped contacts 7.5 Amp for machined contacts
Contact resistance:	≤ 3 mΩ
Insulation resistance:	5000 M min.
Test potential:	2000 VAC
Durability:	500 matings and unmatings.



### Construction

Connector Material : Glass filled polysulfone  
Flammability rating : UL94-V0

Polarizing hardware: Brass nickel plated

Contacts: High conductive copper alloy

### Plating table

Plating for solid machined contacts:

No digit (std) = Min. 0.4 μ Gold all over,  
over Nickel.

T = 3 - 5μ Tin all over

Plating for Stamped and formed contacts :

K9 (std) = Min. 0.4μ Gold in contact area,  
3 - 5μ SnPb on solder tail.

T = 3 - 5μ Tin all over

### Intermateability

- "MSO" with pre-assembled contacts are intermateable with the "MSM" rectangular cable connectors equipped with TRIM TRIO crimp-type removable snap-lock contacts.

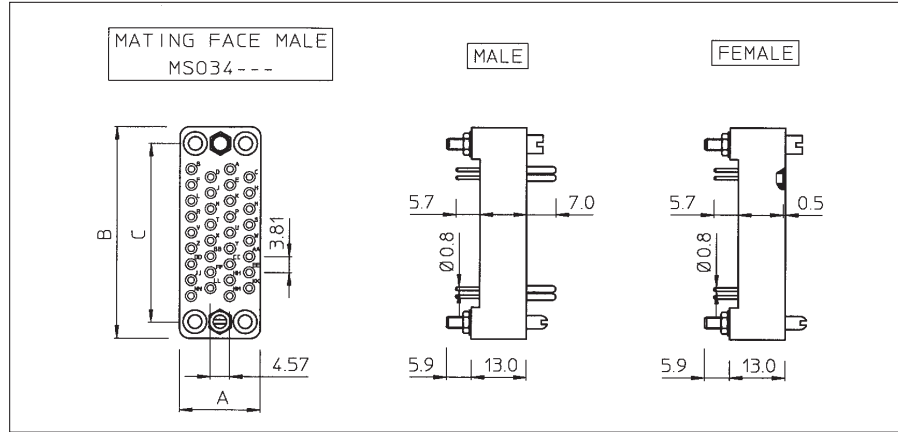
## How to order

<b>Connector family</b>		<b>MSO</b>	<b>34</b>	<b>M</b>	<b>R</b>	<b>G</b>	<b>58</b>	<b>SE1</b>	<b>K9</b>
<b>Contact arrangement</b>									
<b>N° 16 contacts</b>									
<b>Type of housing</b>	<b>P:</b> Plug body with male contacts <b>R:</b> Receptacle body with female contacts								
<b>Contact termination</b>	<b>K:</b> straight dipsolder <b>G:</b> Right angle dipsolder								
<b>Type of hardware</b>	<b>1:</b> Guide pin and socket <b>58:</b> Threaded jackscrew pin and socket								
<b>Design variation</b>	<b>E1:</b> Solid machined contacts <b>SE1:</b> stamped and formed contacts								
<b>Plating indication</b>									

# High Performance Rectangular Boardmount Connectors



## Straight boardmount with guiding hardware (MSO--M-K1--)



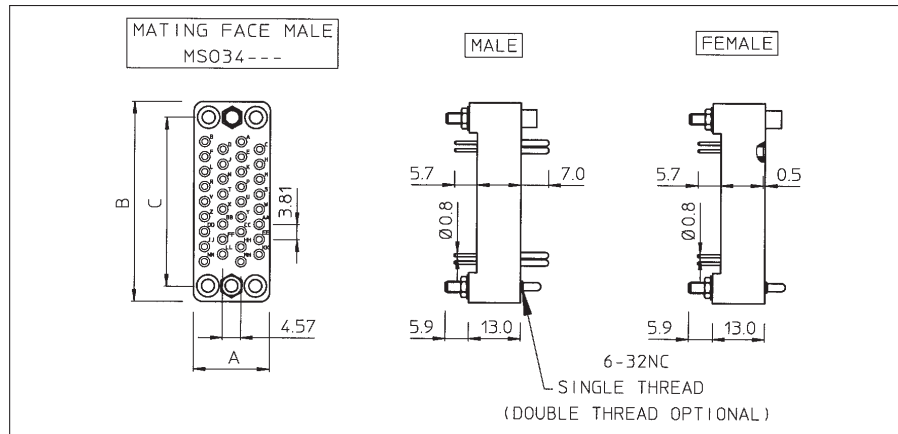
connector size	Part number				A	B	C
	Version with solid machined contacts		Version with stamped and formed contacts				
	male	female	male	female			
9	MSO9MPK1E1	MSO9MRK1E1	MSO9MPK1SE1K9	MSO9MRK1SE1K9	9.5	33.3	25.4
18	MSO18MPK1E1	MSO18MRK1E1	MSO18MPK1SE1K9	MSO18MRK1SE1K9	15.2		
34	MSO34MPK1E1	MSO34MRK1E1	MSO34MPK1SE1K9	MSO34MRK1SE1K9	19.0	50.8	42.8
50	MSO50MPK1E1	MSO50MRK1E1	MSO50MPK1SE1K9	MSO50MRK1SE1K9	18.9	65.8	57.9
75	MSO75MPK1E1	MSO75MRK1E1	MSO75MPK1SE1K9	MSO75MRK1SE1K9	19.4		

For other platings: See plating table.

Other solder tail lengths on request

Selective loading on request

## Straight boardmount with jackscrew hardware (MSO--M-K58--)



connector size	Part number				A	B	C
	Version with solid machined contacts		Version with stamped and formed contacts				
	male	female	male	female			
9	MSO9MPK58E1	MSO9MRK58E1	MSO9MPK58SE1K9	MSO9MRK58SE1K9	9.5	33.3	25.4
18	MSO18MPK58E1	MSO18MRK58E1	MSO18MPK58SE1K9	MSO18MRK58SE1K9	15.2		
34	MSO34MPK58E1	MSO34MRK58E1	MSO34MPK58SE1K9	MSO34MRK58SE1K9	19.0	50.8	42.8
50	MSO50MPK58E1	MSO50MRK58E1	MSO50MPK58SE1K9	MSO50MRK58SE1K9	18.9	65.8	57.9
75	MSO75MPK58E1	MSO75MRK58E1	MSO75MPK58SE1K9	MSO75MRK58SE1K9	19.4		

For other platings: See plating table.

Other solder tail lengths on request

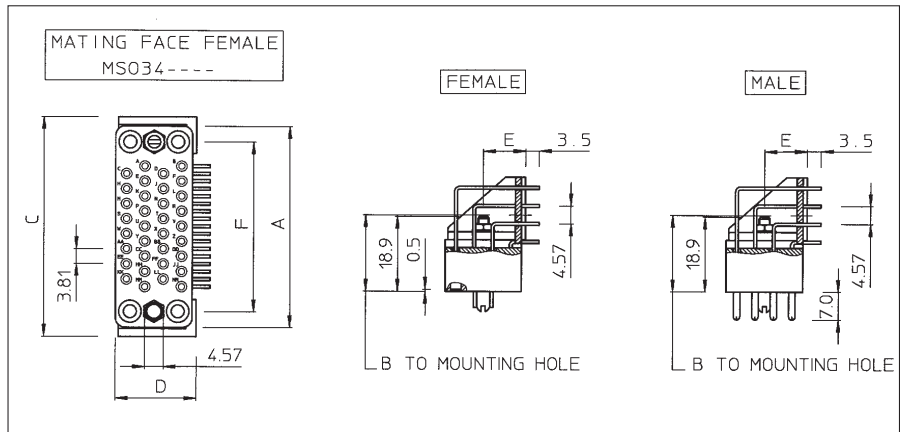
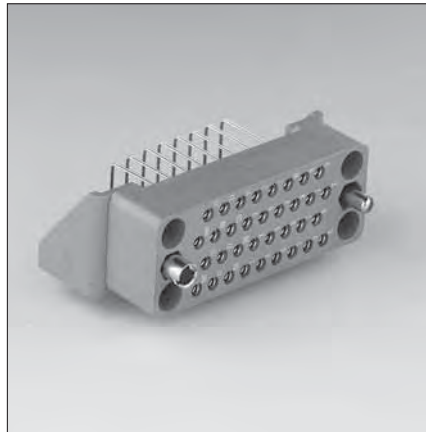
Selective loading on request



# High Performance Rectangular Boardmount Connectors



## Right angle boardmount with guiding hardware (MSO--M-G1--)



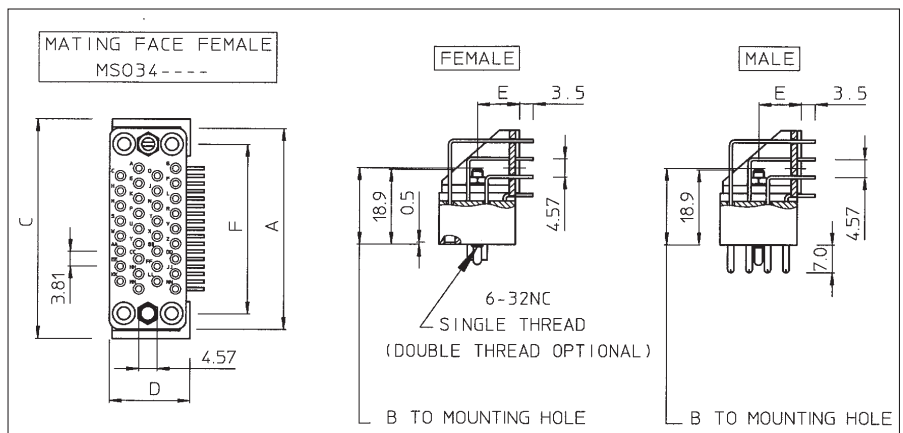
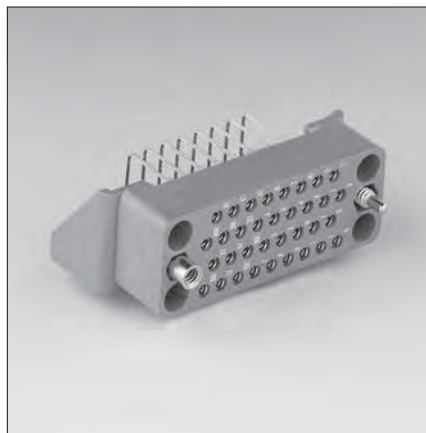
connector size	Version with solid machined contacts		Version with stamped and formed contacts		A	B	C	D	E	F
	male	female	male	female						
9	MSO9MPG1E1	MSO9MRG1E1			33.3	23.0	38.0	16.0	10.0	25.4
18	MSO18MPG1E1	MSO18MRG1E1						18.0		
34	MSO34MPG1E1	MSO34MRG1E1	MSO34MPG1SE1K9	MSO34MRG1SE1K9	50.8	19.3	55.5	20.5	10.5	42.8

For other platings: See plating table.

Other solder tail lengths on request

Selective loading on request

## Right angle boardmount with jackscrew hardware (MSO--M-G58--)



connector size	Version with solid machined contacts		Version with stamped and formed contacts		A	B	C	D	E	F
	male	female	male	female						
9	MSO9MPG58E1	MSO9MRG58E1			33.3	23.0	38.0	16.0	10.0	25.4
18	MSO18MPG58E1	MSO18MRG58E1						18.0		
34	MSO34MPG58E1	MSO34MRG58E1	MSO34MPG58SE1K9	MSO34MRG58SE1K9	50.8	19.3	55.5	20.5	10.5	42.8

For other platings: See plating table.

Other solder tail lengths on request

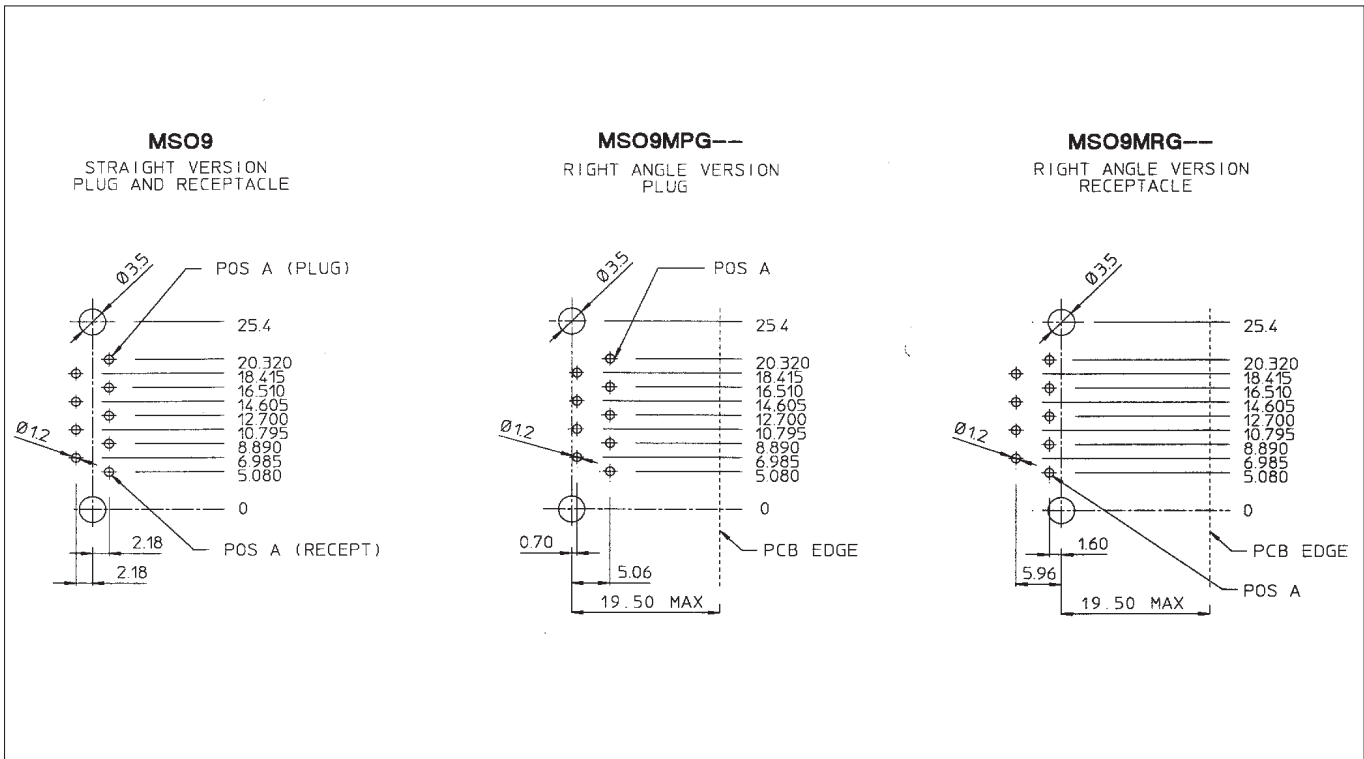
Selective loading on request

# High Performance Rectangular Boardmount Connectors

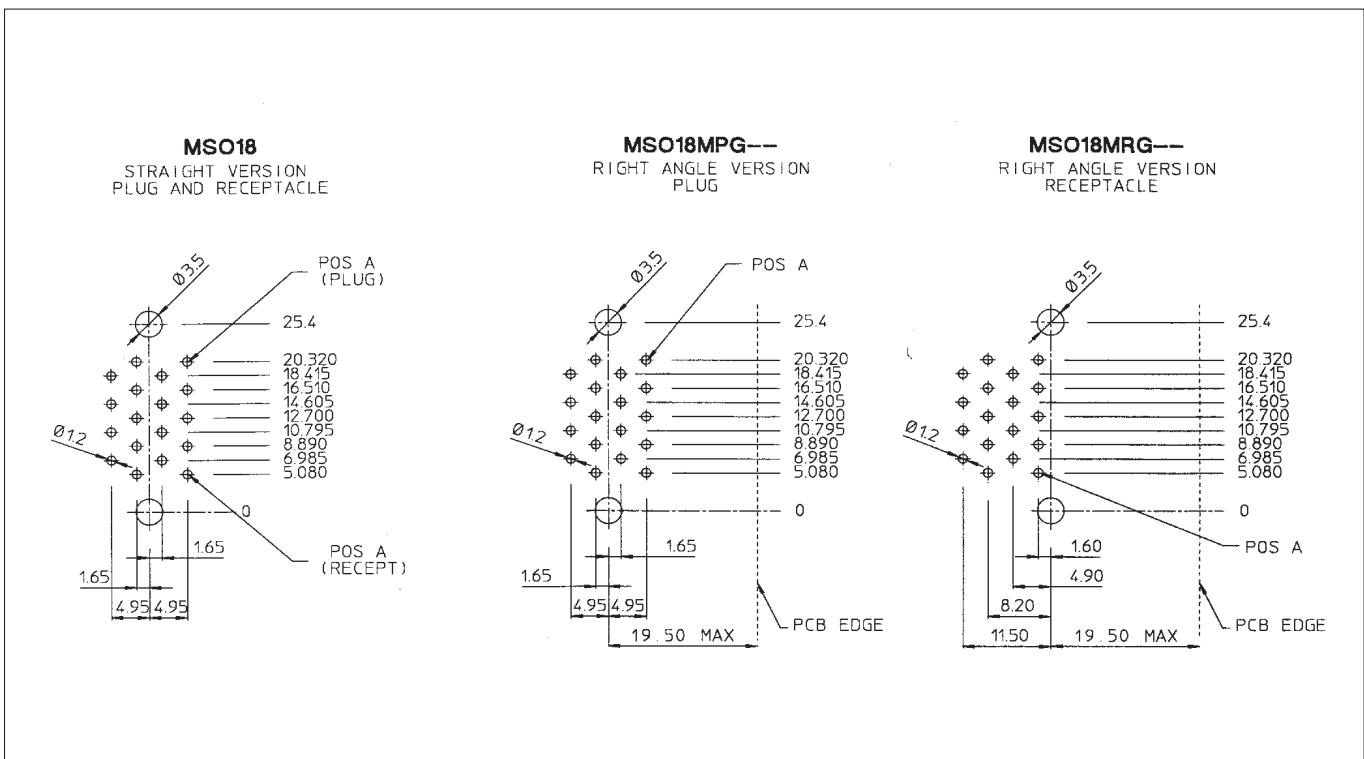


## MSO recommended drilling hole pattern

### Size 9



### Size 18

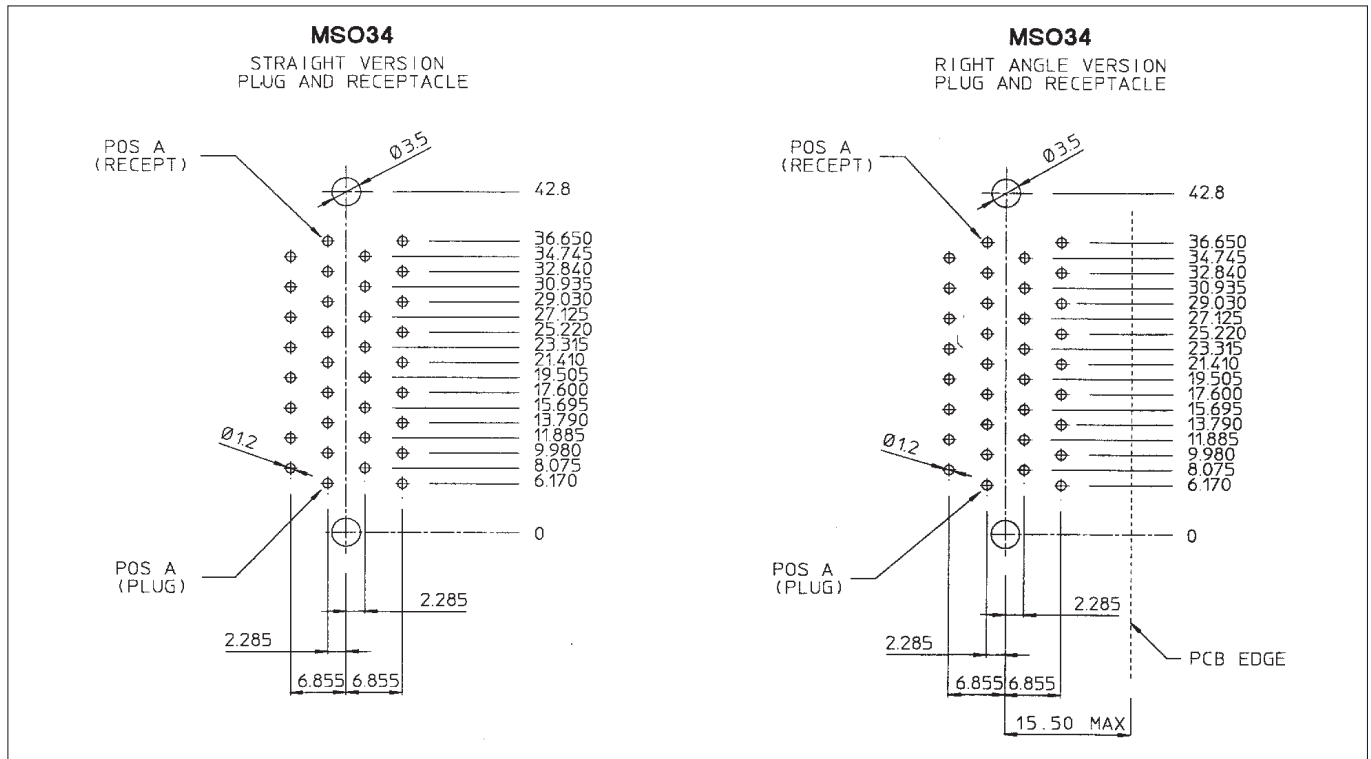


# High Performance Rectangular Boardmount Connectors

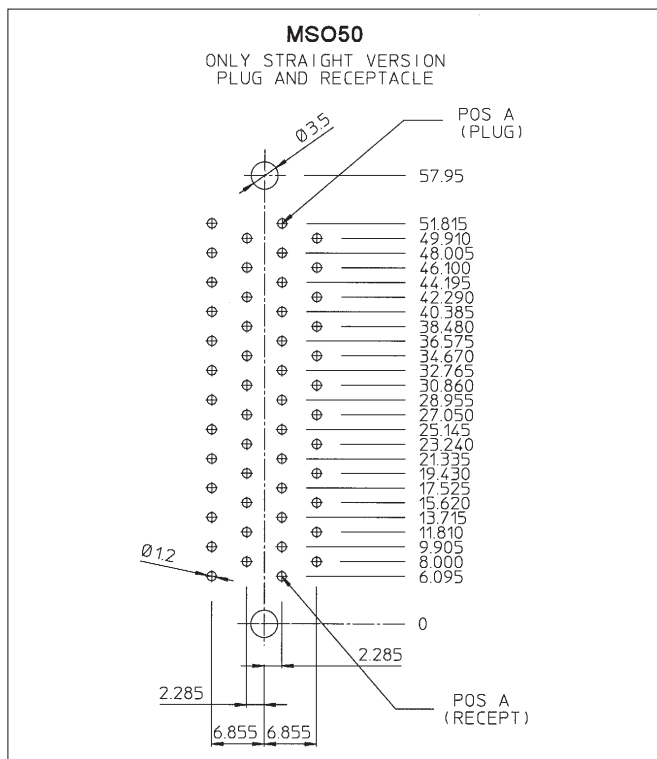


## MSO recommended drilling hole pattern

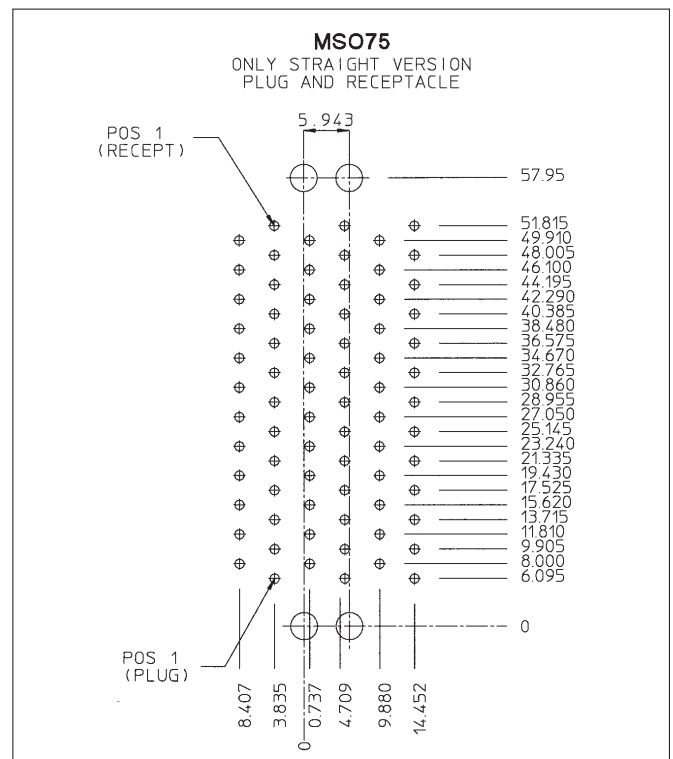
### Size 34



### Size 50



### Size 75



# High Performance Rectangular Boardmount Connectors



## Notes

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# V.35 - Interface connectors



## V.35 DTE/DCE Interface connectors

### Description

The Telecommunications Standardization Sector TSS V.35, formerly CCITT V.35 is the international standard termed "Data Transmission at 48 Kbps using 60-108 Khz Group-Band Circuits. It makes use of a 34 contact connection system specially designed to be used for DTE/DCE that interface to high speed digital carriers found in computer, modem and telecommunication industries.

Being part of the TRIM TRIO wide range of high reliable rectangular connectors, **MSO34** (boardmount connectors) and **MS34** (cable connectors) are in complete compliance to this specification.

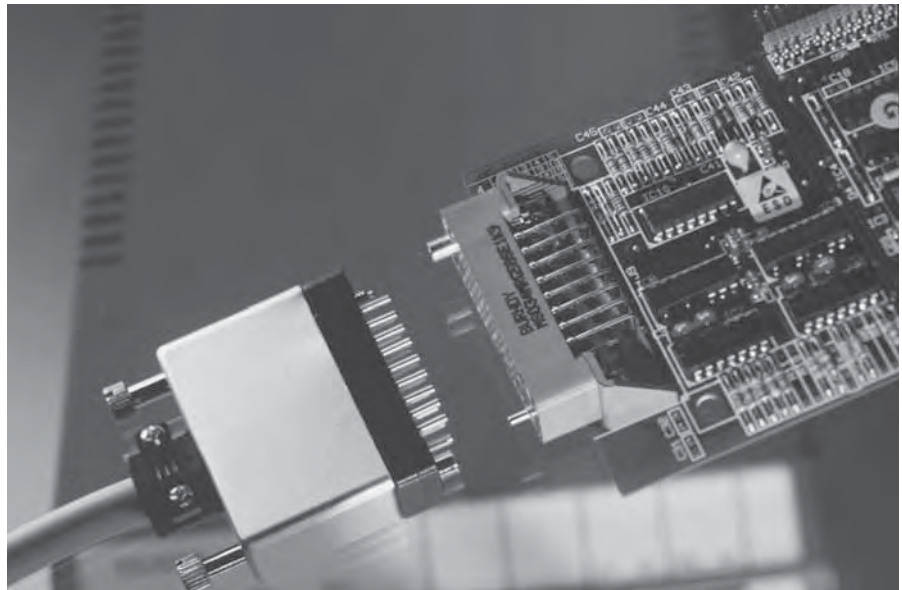
To meet this specification, insulators have been manufactured with 34 contact positions which can be loaded with the international accepted N° 16 TRIM TRIO .0625" (1.6mm) diameter contacts.

The boardmount connectors (**MSO34**) are available in straight and right angle versions equipped with either solid machined or stamped and formed male / female contacts.

The cable connectors (**MS34**) can be offered with a full range of hardware and accessories. Guiding pins and sockets, turnable jackscrew system, different cable hoods with strain relief, pin protection shrouds and discrimination pins make this connector range as complete as possible.

### Features and benefits

- Complete compliance with International Standards of ISO 2593 for TTS V.35 (formerly CCITT V.35) interfacing.
- In compliance with NFC 93426 - HE621-622 and MIL-C-28748 specifications.
- UL recognised.
- UL94-V0 rated thermoplastic
- Boardmount connectors supplied pre-assembled with dipsolder contacts in either:
  - Male or female contacts.
  - Machined or stamped and formed contacts
  - Straight or right angle
- Stamped and formed contacts have selective tin plating on solder tails, thus eliminating extra flux operations.
- Selective loading possible on request.
- Right angle version equipped with true position location wafer.
- Hold-down feature available



### Intermateability

All the references mentioned are perfectly intermateable, provided that 1 mated pair exists out of a plug half and a receptacle half.

Mated pairs can be made for following applications:

- Cable to cable
- Cable to panel
- Cable to straight or right-angled boardmount

*Technical data on MSO34  
PC-Boardmount connectors*

### Performance characteristics

Operating temperature:	-55°C to +125°C
Current rating:	5 Amp for stamped contacts 7.5 Amp for machined contacts
Contact resistance:	≤ 3mΩ
Insulation resistance:	5000 MΩ min.
Test potential:	2000 VAC
Durability:	500 matings and unmatings.

### Plating table

Plating for solid machined contacts:

**No digit (std)** = Min. 0.4μ Gold all over, over Nickel.

T = 3 - 5μ Tin all over

Plating for Stamped and formed contacts :

**K9 (std)** = Min. 0.4μ Gold in contact area, 3 - 5μ SnPb on solder tail.

T = 3 - 5μ Tin all over

### Construction

Material : Glass-reinforced thermoplastic  
Flammability rating : UL94-V0  
Polarising hardware: Brass nickel plated  
Contacts: High conductive copper alloy

*Technical data on MS34  
Cable connectors*

### Performance characteristics

Operating temperature:	-55°C to +125°C
Insulation resistance:	5000 MΩ min.
Test potential:	2000 VAC
Durability:	500 matings and unmatings.
Vibration resistance:	Per MIL-STD 202 method 204
Shock:	Per MIL-STD 202 method 207

### Contact accommodation

- "MS" Cable connectors accept TRIM TRIO size 16 removable snap-lock contacts (see contact section)
- Contacts to be ordered separately

### Construction

Connector body: Glass-reinforced Phenolic  
Flammability rating : UL94-V0  
Cable hoods: Aluminium alloy or Polyamide 6.6  
Cable clamps: Stainless steel  
Protection Shrouds: Aluminium alloy  
Polarising hardware: Brass nickel plated

# V.35 - Interface connectors

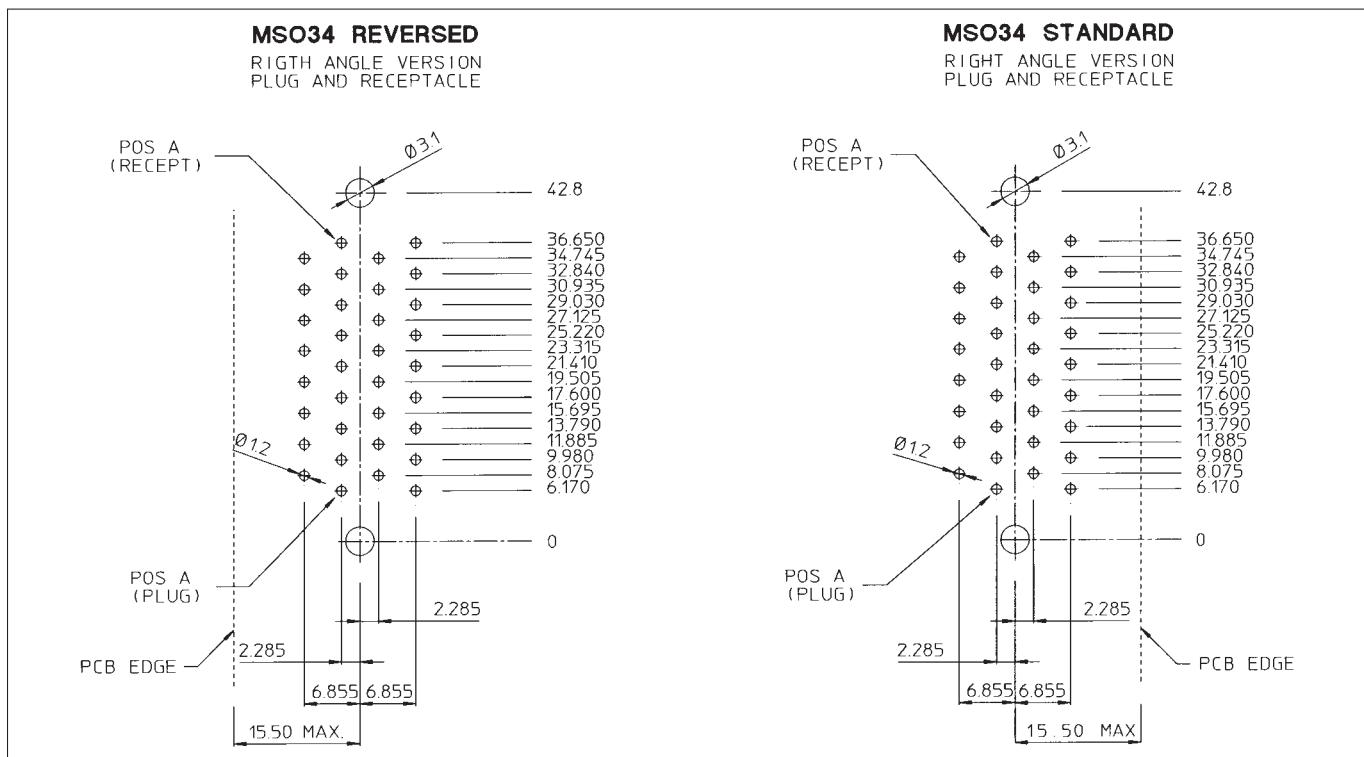


## How to order

<b>Connector family</b>	<b>MSO</b>	<b>34</b>	<b>M</b>	<b>R</b>	<b>G</b>	<b>58</b>	<b>SE1</b>	<b>K9</b>
<b>Contact arrangement</b>								
<b>N° 16 contacts</b>								
<b>Type of housing</b>	<b>P:</b> Plug body with male contacts <b>R:</b> Receptacle body with female contacts							
<b>Contact termination</b>	<b>K:</b> straight dipsolder <b>G:</b> Right angle dipsolder <b>H:</b> Reversed version							
<b>Type of hardware</b>	<b>1:</b> Guide pin and socket <b>58:</b> Threaded jackscrew pin and socket							
<b>Design variation</b>	<b>E1:</b> Solid machined contacts <b>SE1:</b> Stamped and formed contacts <b>SL1:</b> Metal bracket <b>SEH1:</b> Hold down rivets							
<b>Plating indication</b>								

## MSO34 recommended drilling hole pattern

### Size 34

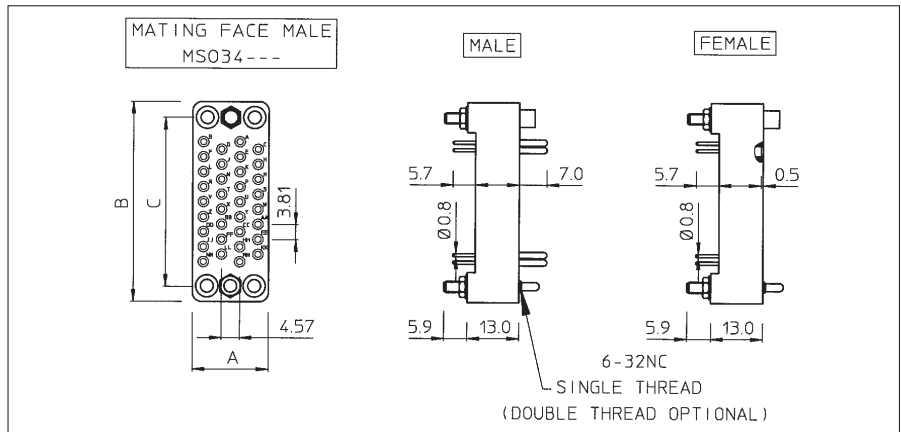




# V.35 - Interface connectors



## MSO34 Straight boardmount connectors



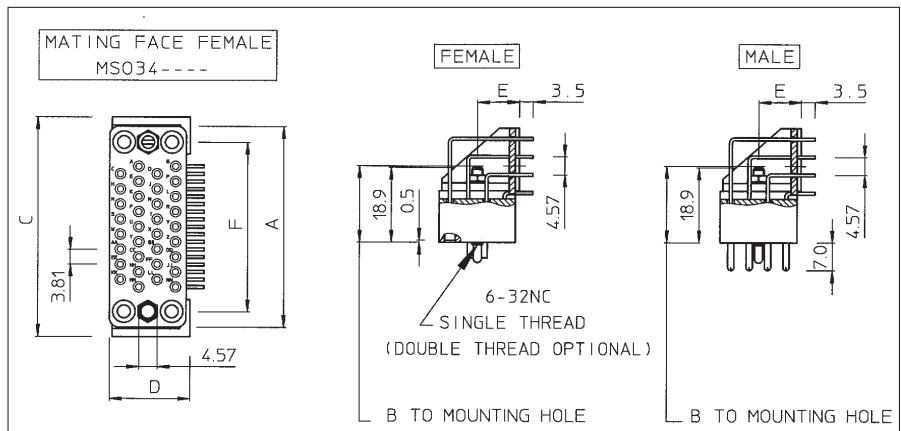
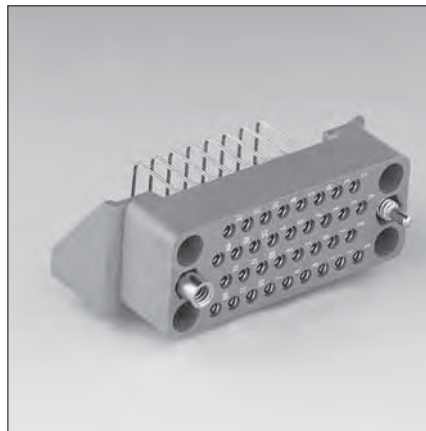
Part number		Description
Version with solid machined contacts	Version with stamped and formed contacts	
<b>MSO34MPK1E1</b>	<b>MSO34MPK1SE1K9</b>	Guide pin, guide socket and male contacts
<b>MSO34MRK1E1</b>	<b>MSO34MRK1SE1K9</b>	Guide pin, guide socket and female contacts
<b>MSO34MPK58E1</b>	<b>MSO34MPK58SE1K9</b>	Jackscrew pin, jackscrew socket and male contacts
<b>MSO34MRK58E1</b>	<b>MSO34MRK58SE1K9</b>	Jackscrew pin, jackscrew socket and female contacts

For other platings: See plating table

Other solder tail lengths on request

Selective loading on request

## MSO34 Right-angled boardmount connectors



Part number		Description
Version with solid machined contacts	Version with stamped and formed contacts	
<b>MSO34MPG1E(*)1</b>	<b>MSO34MPG1SE(*)1K9</b>	Guide pin, guide socket and male contacts
<b>MSO34MRG1E(*)1</b>	<b>MSO34MRG1SE(*)1K9</b>	Guide pin, guide socket and female contacts
<b>MSO34MPG58E(*)1</b>	<b>MSO34MPG58SE(*)1K9</b>	Jackscrew pin, jackscrew socket and male contacts
<b>MSO34MRG58E(*)1</b>	<b>MSO34MRG58SE(*)1K9</b>	Jackscrew pin, jackscrew socket and female contacts

For other platings: See plating table

Other solder tail lengths on request

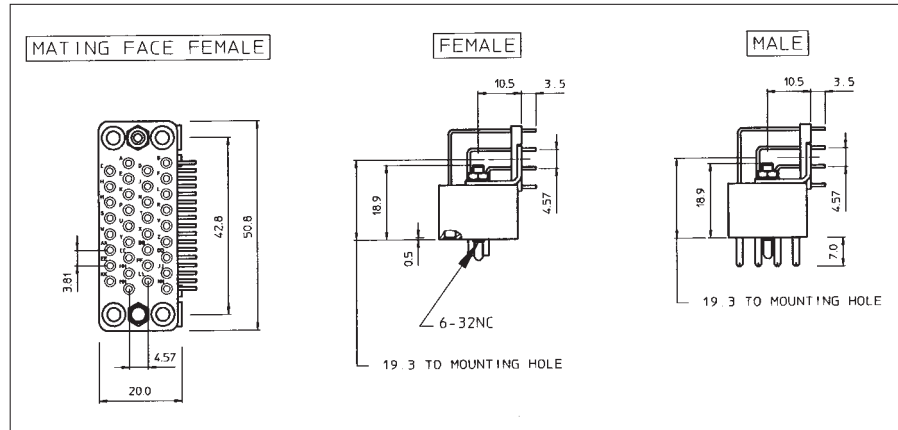
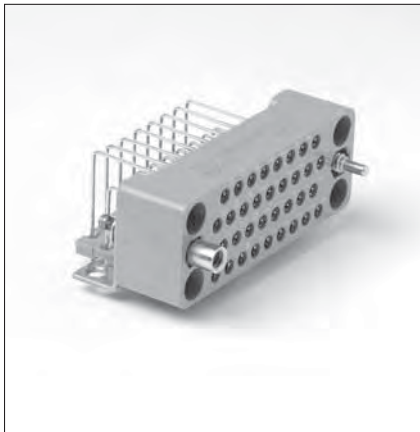
Selective loading on request

(\*) Complete part number with "H" for connector with hold down rivets

# V.35 - Interface connectors



## MSO34 Right-angled boardmount connectors – Standard version with metal brackets



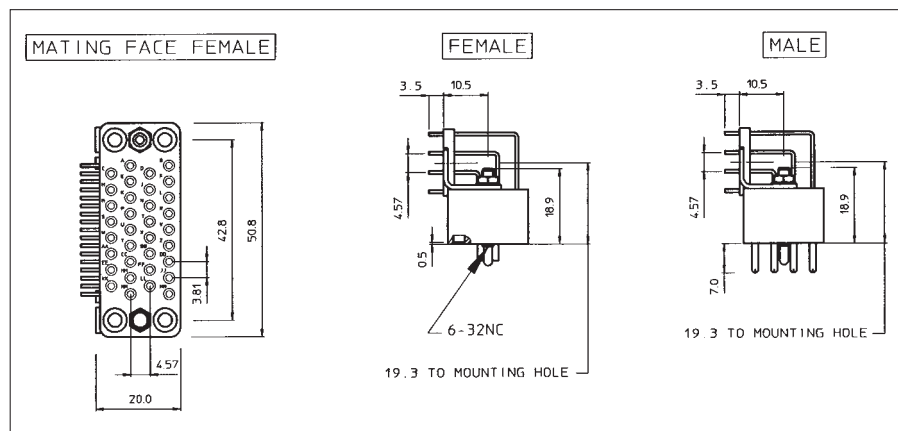
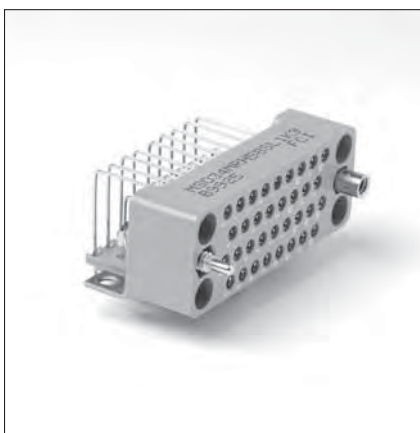
Part number Version with stamped and formed contacts	Description
<b>MSO34MPG1SL1K9</b>	Guide pin, guide socket and male contacts
<b>MSO34MRG1SL1K9</b>	Guide pin, guide socket and female contacts
<b>MSO34MPG58SL1K9</b>	Jackscrew pin, jackscrew socket and male contacts
<b>MSO34MRG58SL1K9</b>	Jackscrew pin, jackscrew socket and female contacts

For other platings: See plating table

Other solder tail lengths on request

Selective loading on request

## MSO34 Right-angled boardmount connectors – Reversed version with metal brackets



Part number Version with stamped and formed contacts	Description
<b>MSO34MPH1SL1K9</b>	Guide pin, guide socket and male contacts
<b>MSO34MRH1SL1K9</b>	Guide pin, guide socket and female contacts
<b>MSO34MPH58SL1K9</b>	Jackscrew pin, jackscrew socket and male contacts
<b>MSO34MRH58SL1K9</b>	Jackscrew pin, jackscrew socket and female contacts

For other platings: See plating table

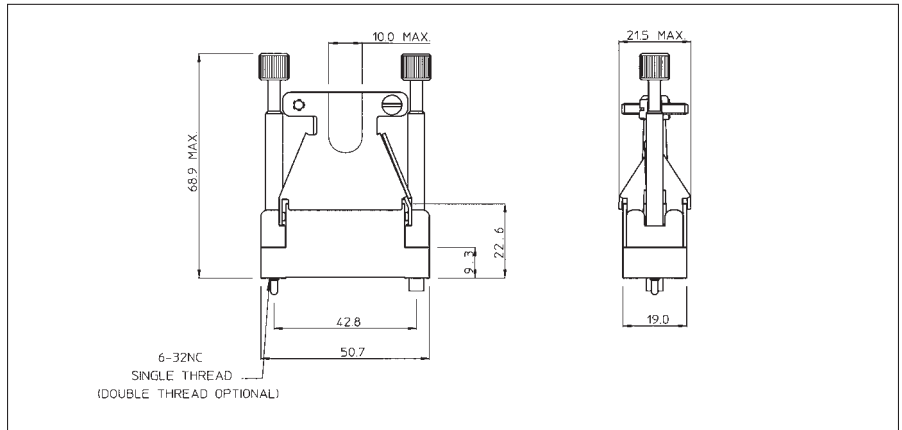
Other solder tail lengths on request

Selective loading on request

# V.35 - Interface connectors



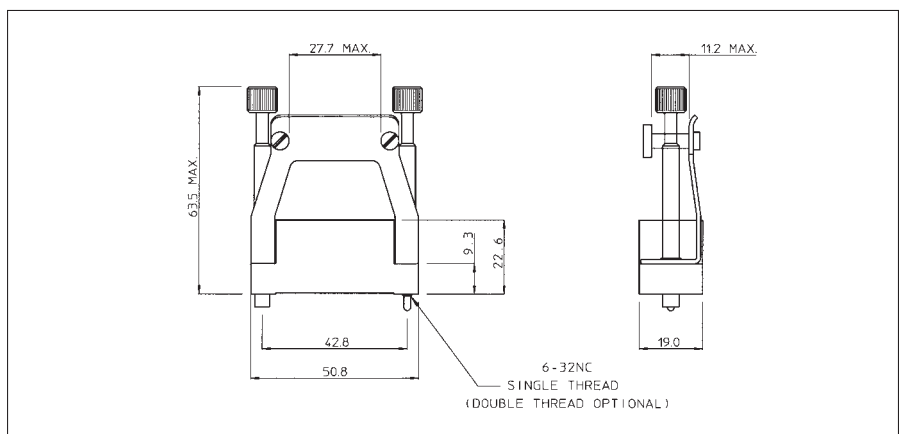
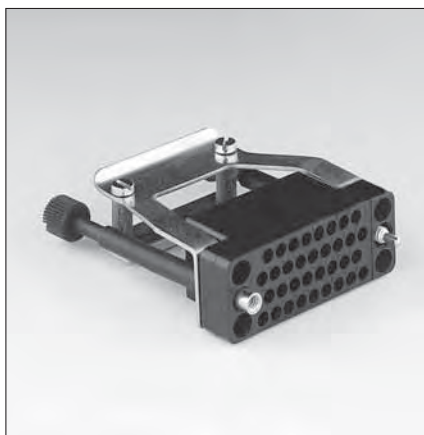
## MS34 Cable connectors with metal butterfly hood



Part number		Description
Version with male contacts	Version with female contacts	
<b>MS34PM120(*)GE00</b>	<b>MS34RM120(*)GE00</b>	Guide pin, guide socket and butterfly hood.
<b>MS34PM140(*)GE00</b>	<b>MS34RM140(*)GE00</b>	Jackscrew pin , jackscrew socket and butterfly hood.
<b>MS34PM124(*)GE00</b>	<b>MS34RM124(*)GE00</b>	Turnable jackscrew pin, turnable jackscrew socket and butterfly hood.
<b>MS34PM1(*)GE00</b>	<b>MS34RM1(*)GE00</b>	Guide pin and guide socket. No strain relief hood
<b>MS34PM58(*)GE00</b>	<b>MS34RM58(*)GE00</b>	Jackscrew pin and jackscrew socket. No strain relief hood.
<b>MS34PM007(*)GE00</b>	<b>MS34RM007(*)GE00</b>	Turnable jackscrew pin and turnable jackscrew socket. No strain relief hood.

(\*) Complete catalogue number with " S " for connector with protective shroud.

## MS34 Cable connectors with cable clamp



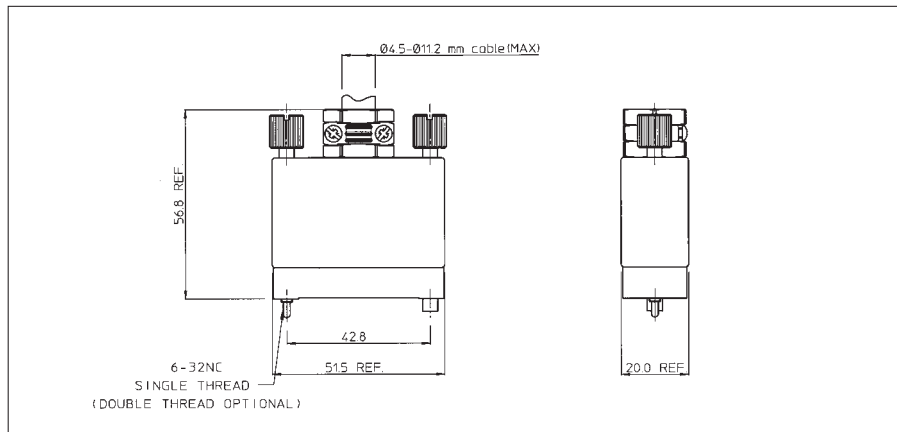
Part number		Description
Version with male contacts	Version with female contacts	
<b>MS34PM117(*)GE00</b>	<b>MS34RM117(*)GE00</b>	Guide pin, guide socket and cable clamp
<b>MS34PM127(*)GE00</b>	<b>MS34RM127(*)GE00</b>	Jackscrew pin, jackscrew socket and cable clamp
<b>MS34PM107(*)GE10</b>	<b>MS34RM107(*)GE10</b>	Turnable jackscrew pin, turnable jackscrew socket and cable clamp.

(\*) Complete catalogue number with "S" for connector with protective shroud.

# V.35 - Interface connectors



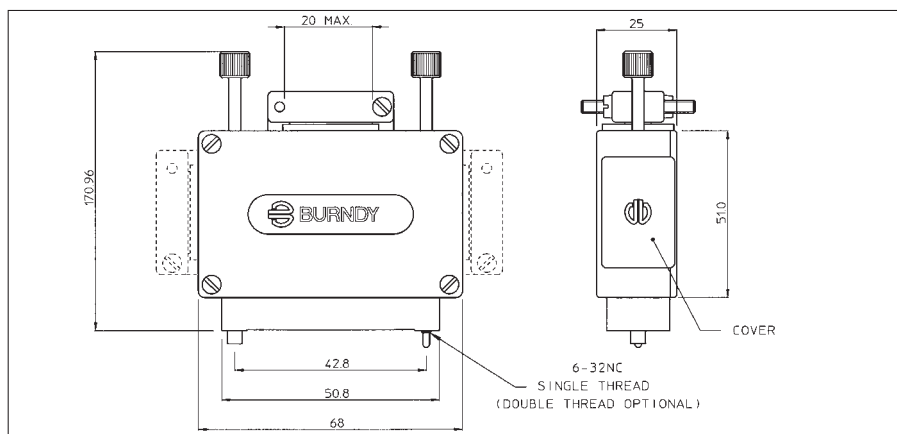
## MS34 Cable connectors with metal suitcase hood



Part number		Description
Version with male contacts	Version with female contacts	
<b>MS34PMEHM(*)</b>	<b>MS34RMEHM(*)</b>	Anodised hood, plastic strain relief and turnable hardware.
<b>MS34PMSEHM(*)</b>	<b>MS34RMSEHM(*)</b>	Shielded version with nickel plated hood, metal strain relief and turnable hardware.
<b>MS34PMEHMMET1</b>	<b>MS34RMEHMMET1</b>	Version with spring loaded jackscrews

(\*) Complete catalogue number with " S " for connector with protective shroud.

## MS34 Cable connectors with plastic suitcase hood



Part number		Description
Version with male contacts	Version with female contacts	
<b>MS34PMEH2(*)</b>	<b>MS34RMEH2(*)</b>	Guide pin, guide socket and plastic suitcase hood.
<b>MS34PMEH3(*)</b>	<b>MS34RMEH3(*)</b>	Jackscrew pin, jackscrew socket and plastic suitcase hood.
<b>MS34PMEH0(*)</b>	<b>MS34RMEH0(*)</b>	Turnable jackscrew pin, turnable jackscrew socket and plastic suitcase hood.

(\*) Complete catalogue number with " S " for connector with protective shroud.

# High Performance Low Profile Rectangular Connectors



## MSG SERIES

### Description

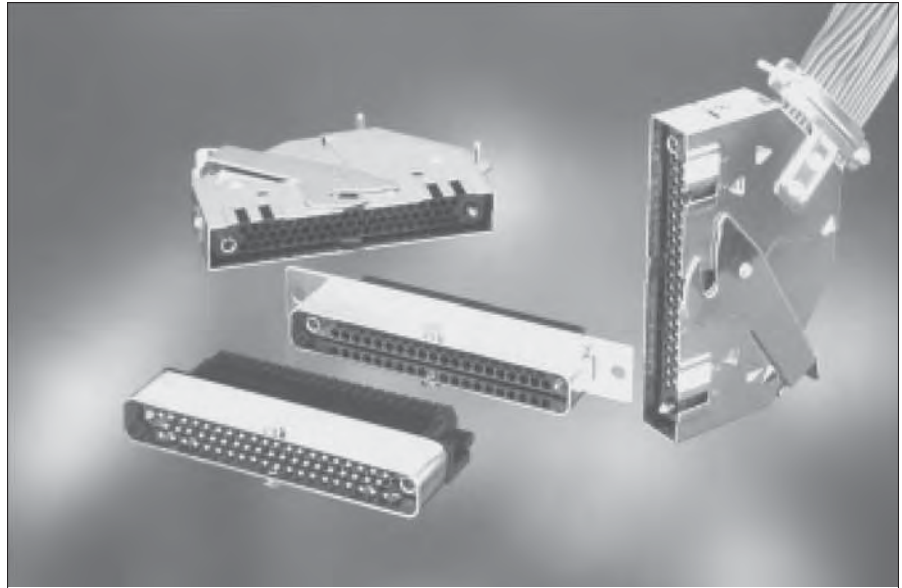
MSG Series connectors is a 50 and 59 position low profile, compact design rectangular I/O connector. MSG has been developed for industrial and railway control equipments which require a easy handling and high density connector. In addition to its panel mount version, a PCB mount version has been especially designed to fit 19 inch Euro-rack system.

### Features and benefits

- Connectors supplied pre-assembled.
- Available in 50 and 59 contact versions.
- PCB mount version fully equipped with male contacts. Selective contact loading optional.
- Accessories : polarizing screws (receptacle)  
polarizing plate (plug)  
dust cap (plug)

### Performance characteristics

Operating temperature:	-55°C to +125°C
Insulation resistance:	5000 MΩ min.



Test potential:	2000 VAC
Current rating:	7.5A - cable to PCB 13A - cable to cable
Creepage distance:	2.5mm (50 positions) 2.2mm (59 positions)
Durability:	500 matings and unmatings.
Vibration:	Per JIS-C STD 0040
Salt Spray:	Per JIS-C STD 0023

### Construction

Connector Material :	Glass filled thermoplast
Flammability rating :	UL94-V0
Hoods, skirts :	Steel, nickel plated
Cable clamps:	Steel, nickel plated

Guiding hardware:	Stainless steel
Contacts receptacle :	Copper alloy (Au over Ni)

### Contact accommodation

- "MSG" Rectangular connectors accept TRIM TRIO size 16 crimp-type removable contacts (see contact section)
- For the plug connector and the panel mount receptacle, contacts have to be ordered separately.

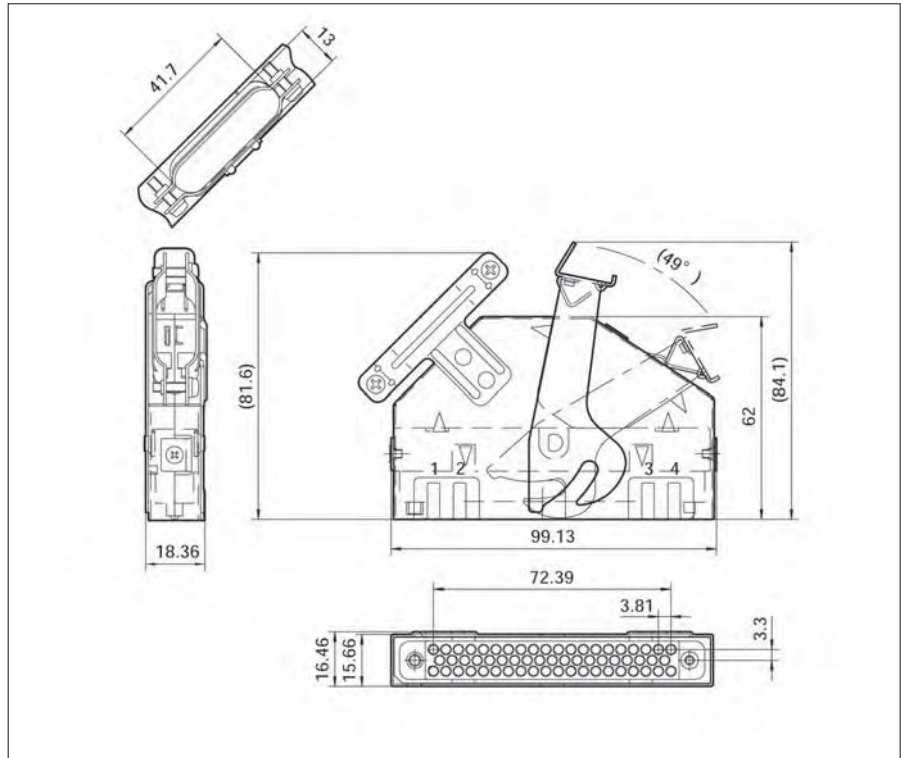
## How to order

Number of contacts	Part number	Description
59	MSG59P-L11	Plug for cable up
	MSG59P-L21	Plug for cable down
	MSG59R-PL110	Panel mount receptacle
	MSG59R-RL111	Right angle PCB mount receptacle without flange
	MSG59R-FL111	Right angle PCB mount receptacle with flange
50	MSG50P-L11	Cable plug
	MSG50RG-L111	Right angle PCB mount receptacle with flange

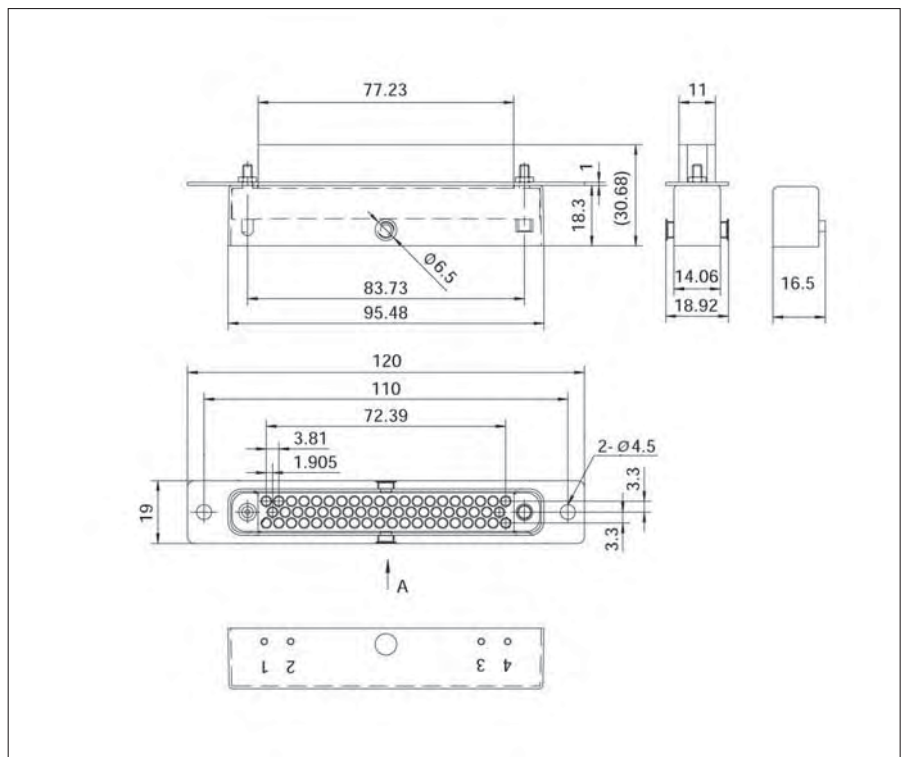
# High Performance Low Profile Rectangular Connectors



**Plug connector with metal hood (MSG59P-L11)**



**Panel mount receptacle (MSG59RP-L110)**

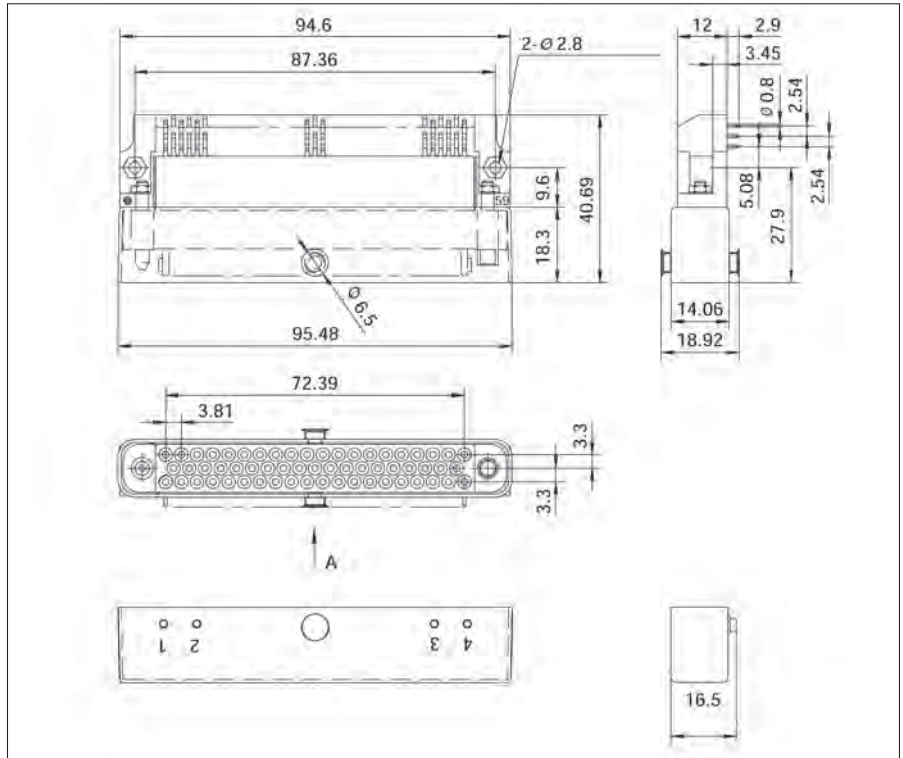




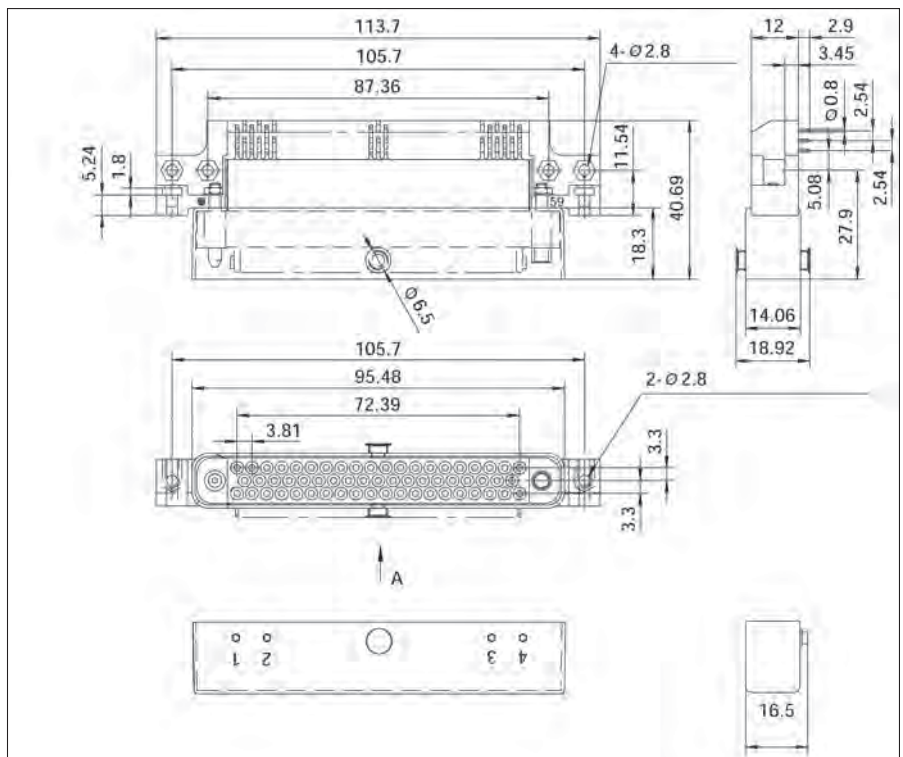
# High Performance Low Profile Rectangular Connectors



## Right angle PCB mount receptacle without flange (MSG59RR-L111)



## Right angle PCB mount receptacle with flange (MSG59RF-L111)

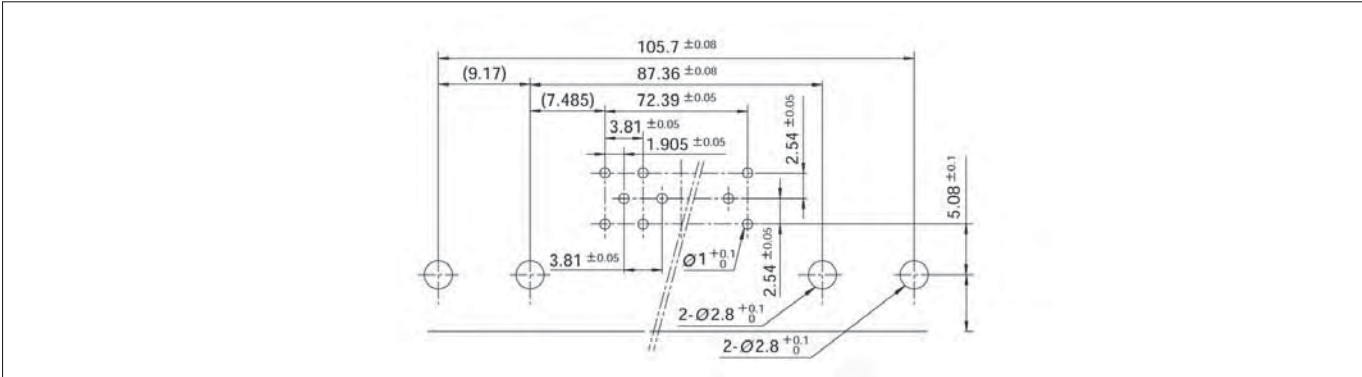




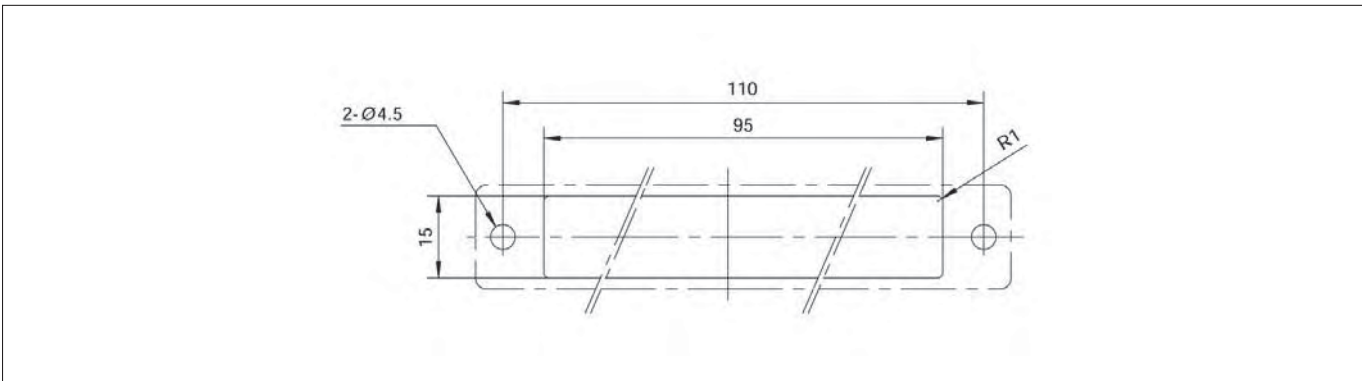
# High Performance Low Profile Rectangular Connectors



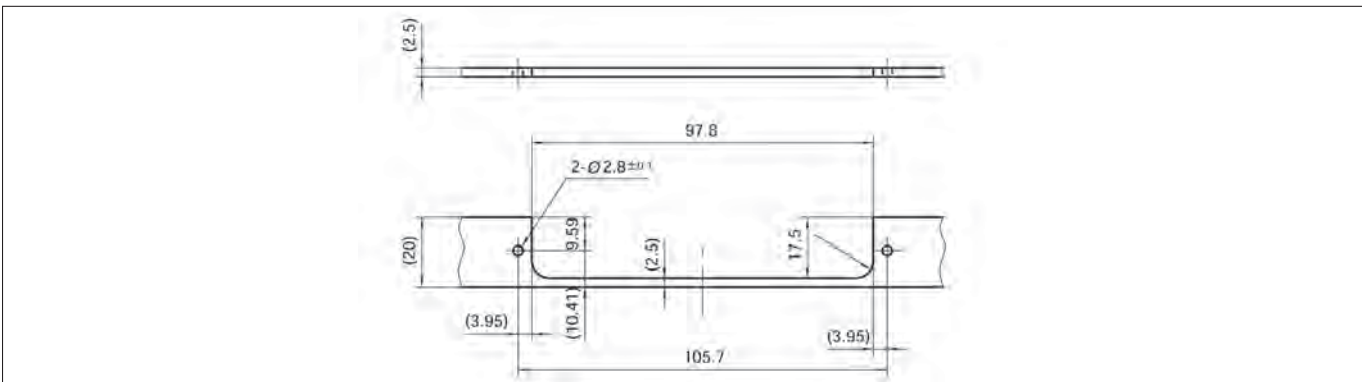
## MSG59 recommended drilling hole pattern (for PCB) (MSG59RR-L111, MSG59RF-L111)



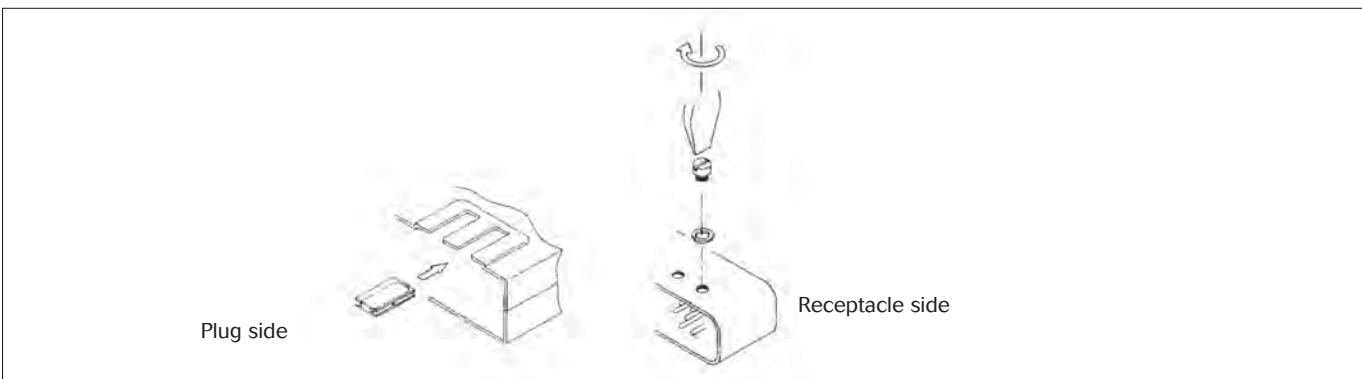
## MSG59 recommended panel cut-out (front mount) (MSG59RR-L110)



## MSG59 recommended for front mount (MSG59RR-L111, MSG59RF-L111)



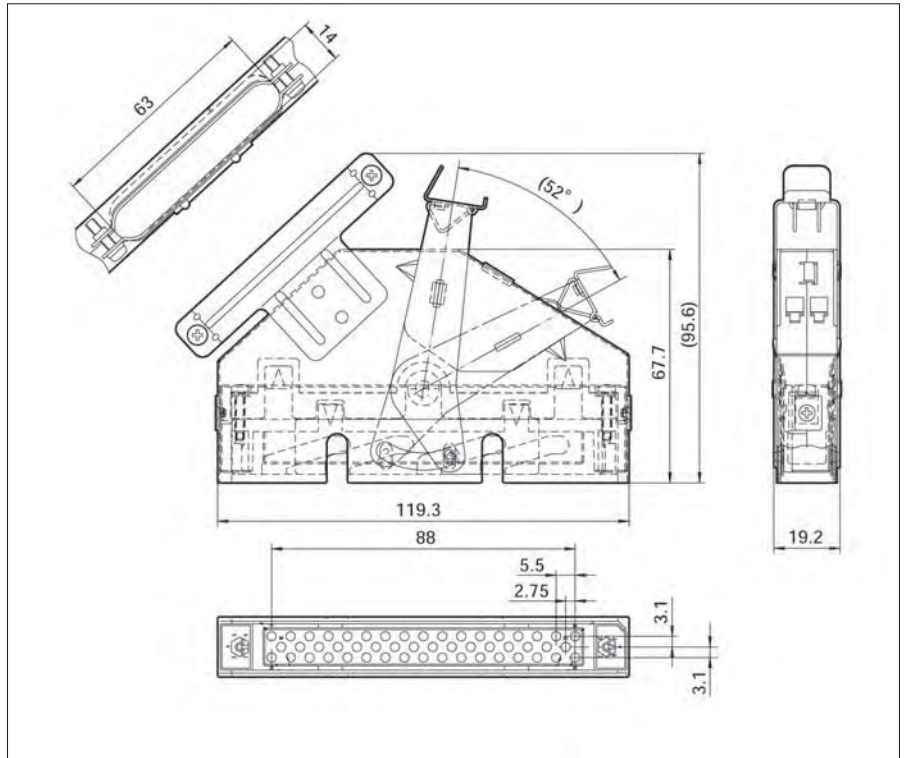
## Polarizing hardware



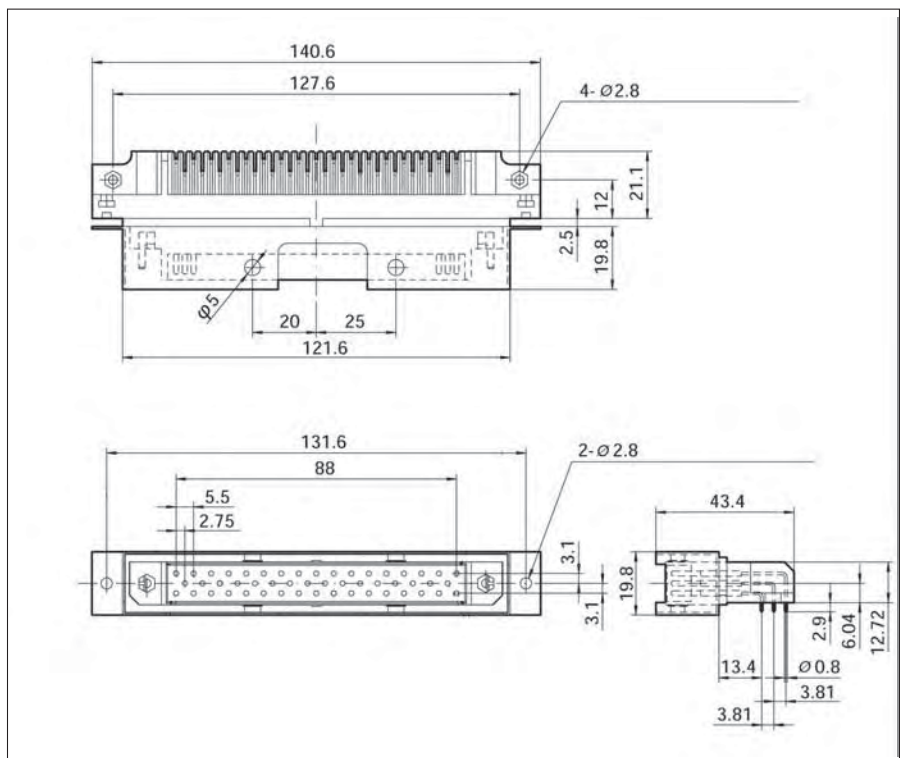
# High Performance Low Profile Rectangular Connectors



**(MSG50P-L11)**



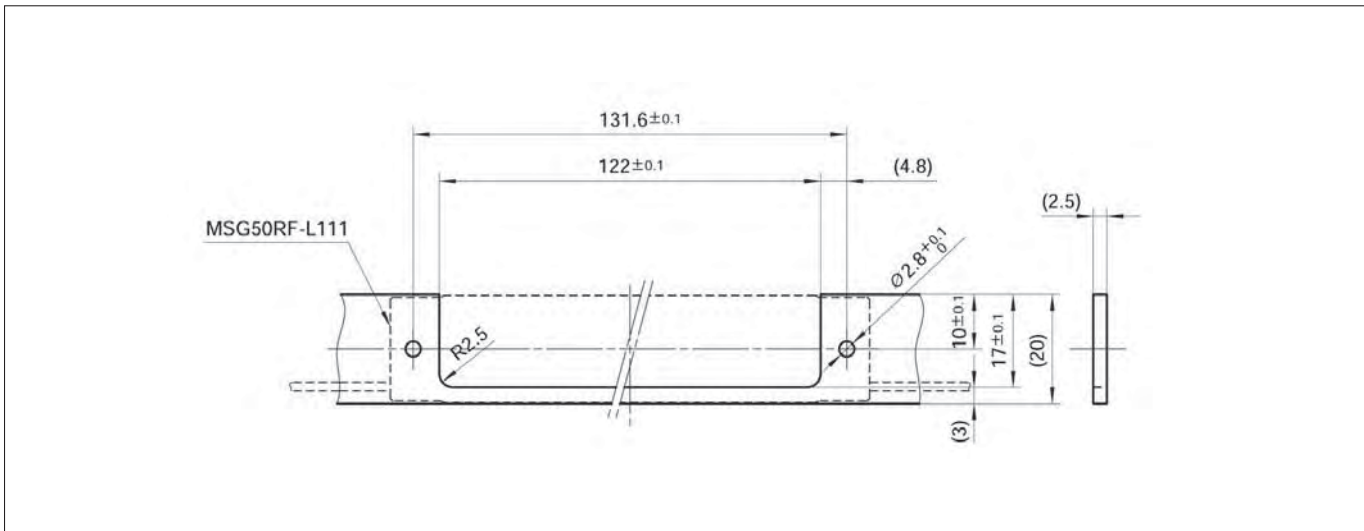
**(MSG50RF-L111)**



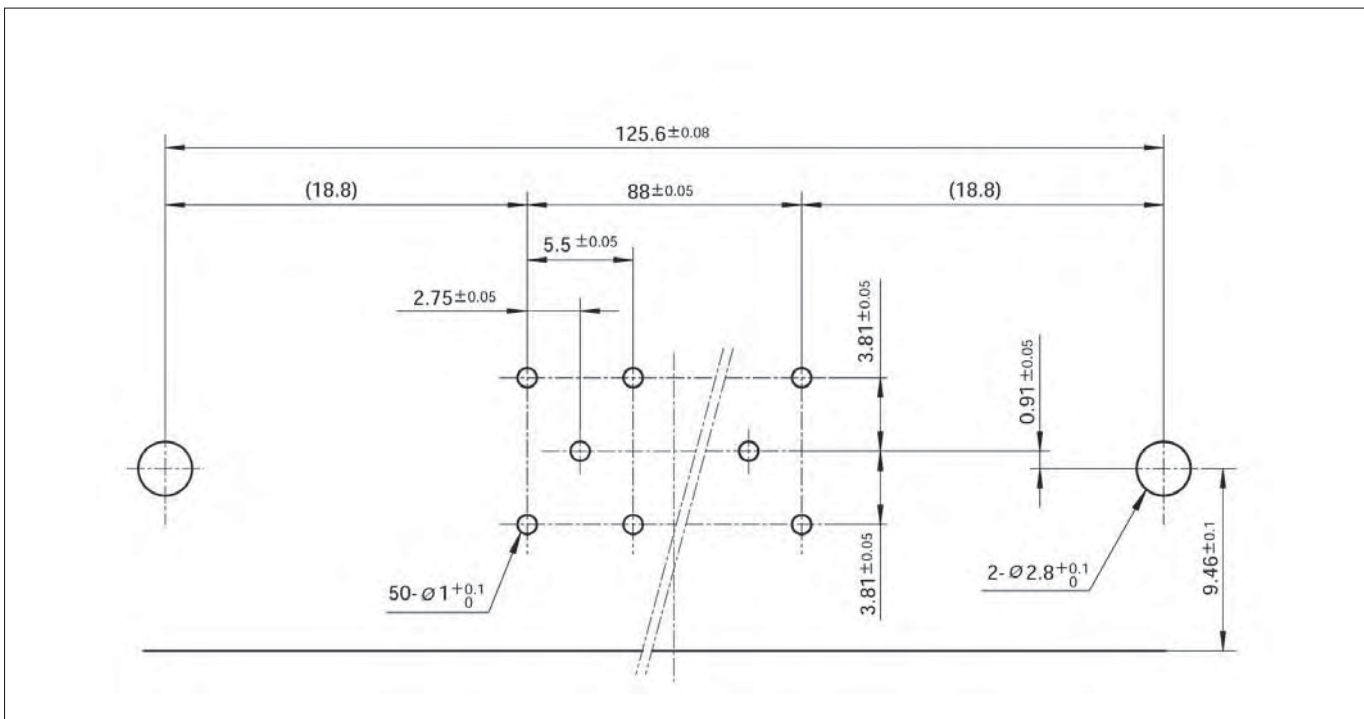
# High Performance Low Profile Rectangular Connectors



**(MSG50RF-L111)**



**(MSG50RF-L111)**



# Robust Lever Locking Connector



## MB SERIES

### Description

- 52 contact, rectangular, one action lever locking connector
- Same receptacle can be front or rear mounted
- 2 cable clamp orientations available: perpendicular or parallel to mating face
- Anti Jack knife system, guide plate on plug and wide entry docket contact for a smooth and reliable mating
- Adapted to shielded cable
- Easy assembly

### Application

- Signalling

### Mechanical

- Hood: Steel, Nickel plated
- Lever: stainless steel
- Grip and insulator: glass filled PBT
- Contact body: copper
- Contact plating: consult us
- Endurance: 500 mating/unmating operations
- Vibration: per JIS C 0040



### Electrical

- Withstanding voltage 2000 Veff
- Insulation resistance: 5000M
- Current rating: 13A
- Contact accommodation: standard TRIM TRIO size 16 contacts

### Environmental

- Temperature range: -55°C + 125°C
- Flammability rating: UL94V0

## How to order

### Receptacle

Basic series		<b>MB</b>	<b>52</b>	<b>R</b>	<b>-L</b>	<b>1</b>	<b>1</b>	<b>0</b>
Number of contacts	52							
Receptacle:								
Lever type:								
Contact type:	1: TRIM TRIO contact							
Cable clamp:	1: Lever down; 2: Lever up							
Variation:	0: contacts to be ordered separately							

### Plug

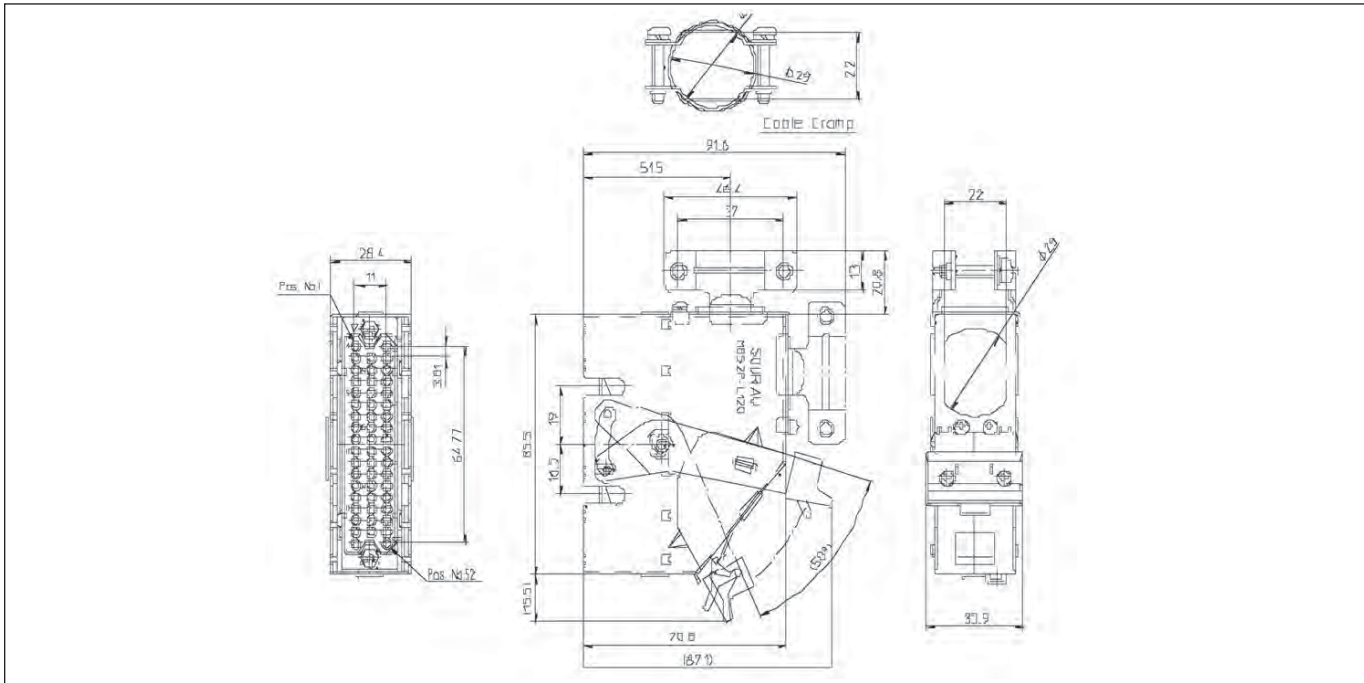
Basic series		<b>MB</b>	<b>52</b>	<b>P</b>	<b>-L</b>	<b>1</b>	<b>1</b>	<b>0</b>
Number of contacts	52							
Plug								
Lever								
Cable clamp:	1: Lever down; 2: Lever up							
Cable direction	1: Parallel; 2: Perpendicular to mating face							
Variation	0							

# Robust Lever Locking Connector

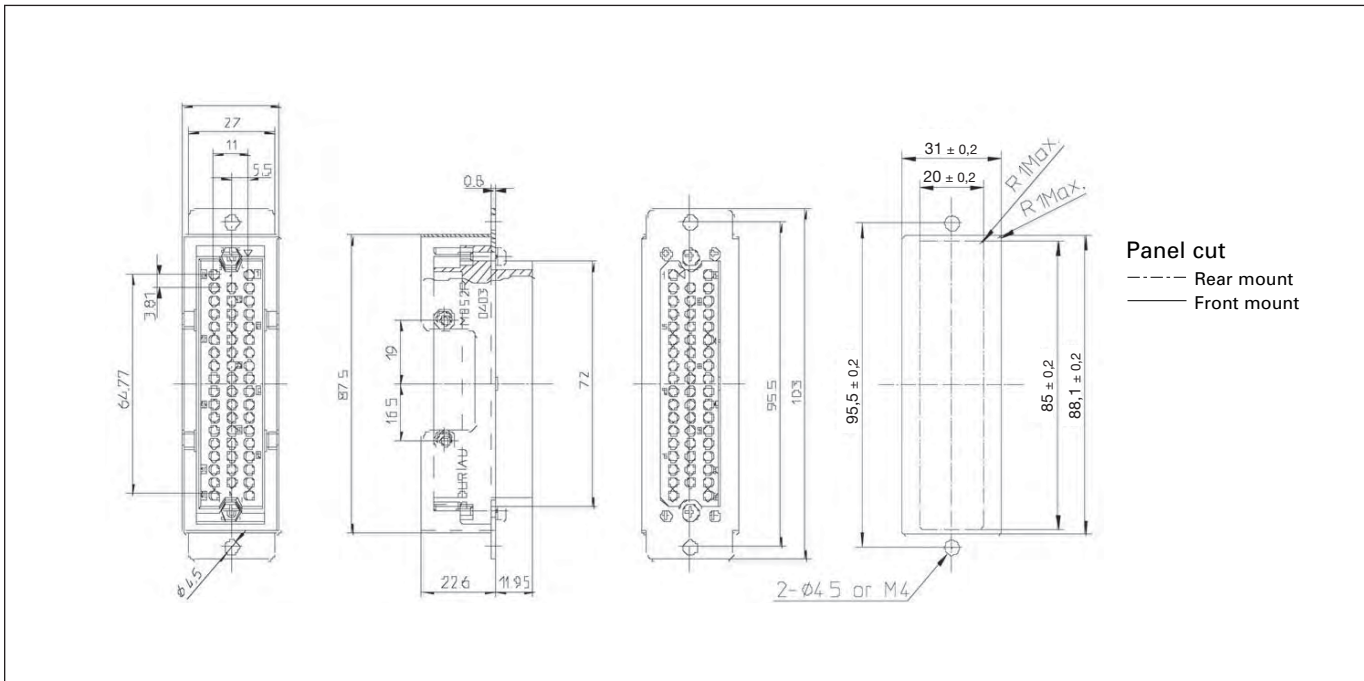


## Dimensions

### Plug MB52P-L120



### Receptacle MB52R-L110





# Plastic Panel and Cable Connectors



## SMS - QIKMATE SERIES

### Description

The versatile "SMS" Qikmate panel and cable connectors are a highly cost-effective system approach to solving the constant demand for more cost effective interconnection techniques.

It is a range of multiway connectors using N° 16 TRIM TRIO .0625" (1.6mm) diameter contacts and available in 10 contact arrangements from 2 to 36 positions. Having no additional hardware, Panel receptacle connectors snap and lock into panel cutouts and cable plugs quick connect and disconnect with positive retention locks.

Cable plug connectors also feature pin-protection skirts, positive polarisation and can be supplied with or without integrated strain relief hoods.

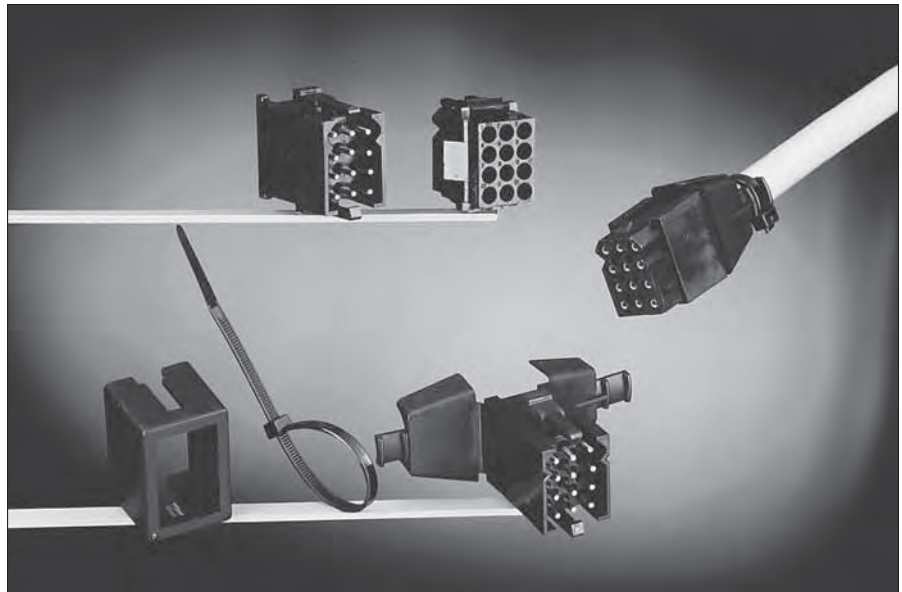
Cable receptacle connectors (only with integrated strain relief hoods) are developed to mate with cable plug connectors thus offering solutions for cable to cable applications.

### Features and benefits

- Available in 10 contact arrangements.
- Self mountable panel receptacle with positive housing retention.
- Cable plugs with retaining latches for positive locking.
- Cable plug has pin protection skirt to prevent damage of male contacts
- Positive polarization keys prevent mismatching.
- Cable plug and receptacle have integrated strain relief hood which can take a wide range of cables.
- Cable plug and receptacle have discrimination cavities in between contact cavities, thus offering discrimination without contact loss.
- UL recognized File Nr.: E238675

### Performance characteristics

Operating



temperature: -55°C to +105°C

Insulation

resistance: 5000 MΩ min.

Test potential: 2000 VAC

Durability: 500 matings and unmatings.

### Construction

Material : Polyamide 6.6

Flammability rating : UL94-V2

### Contact accommodation

- "SMS" Qikmate connectors accept TRIM TRIO size 16 removable snap-lock contacts (see contact section)
- Contacts to be ordered separately.

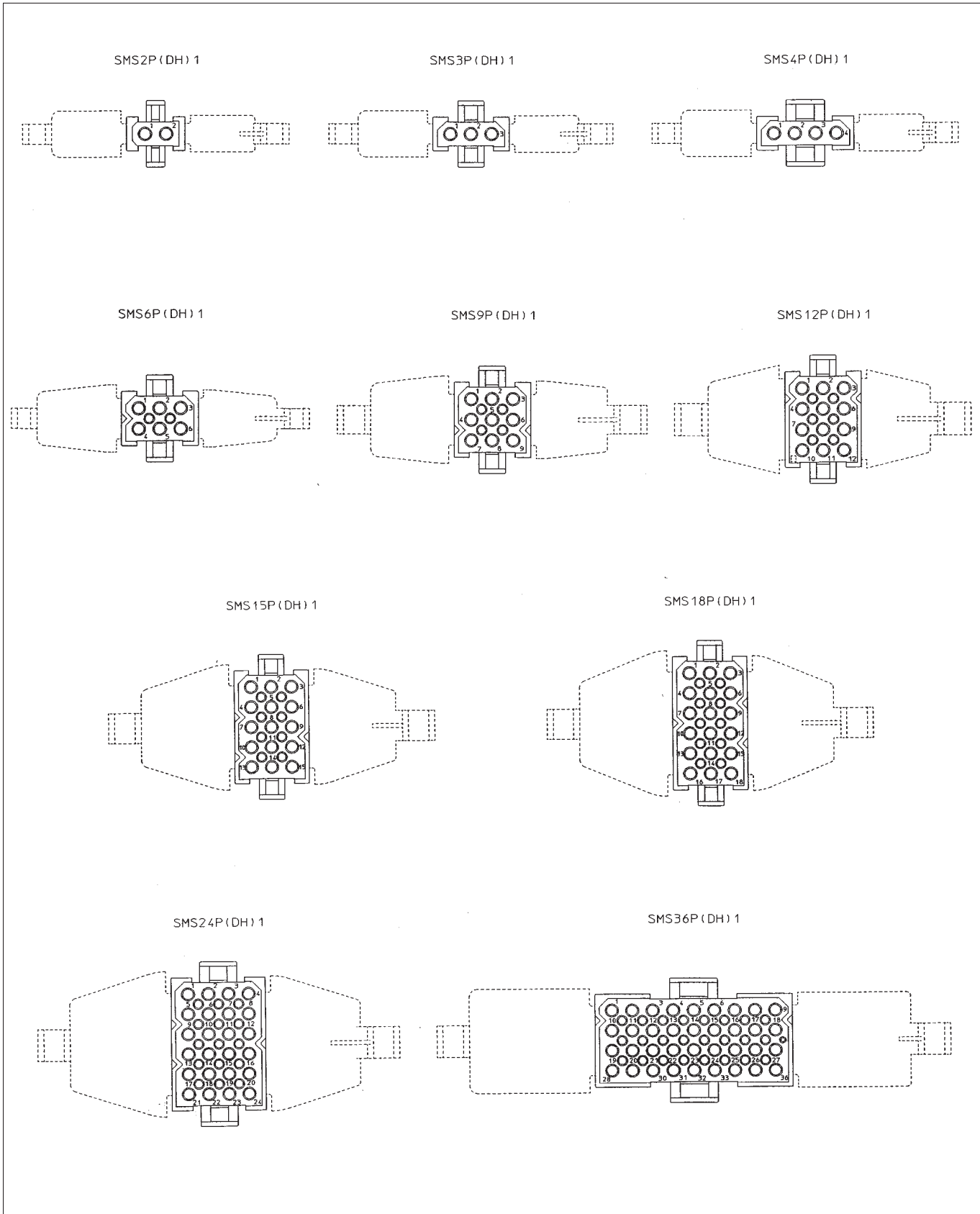
### How to order

<b>Connector family</b>	<b>SMS</b> <b>SMS</b>	<b>12</b> <b>12</b>	<b>PDH1</b> <b>P1</b>
<b>Contact arrangement</b>			
<b>Body variation:</b>	<b>R1:</b> Panel mount receptacle <b>P1:</b> Cable plug without strain relief hood <b>PDH1:</b> Cable plug with integrated strain relief hood <b>RDH1:</b> Cable receptacle with integrated strain relief hood		

# Plastic Panel and Cable Connectors



## Contact arrangements for cable plug connectors (SMS--P1 and SMS--PDH1)



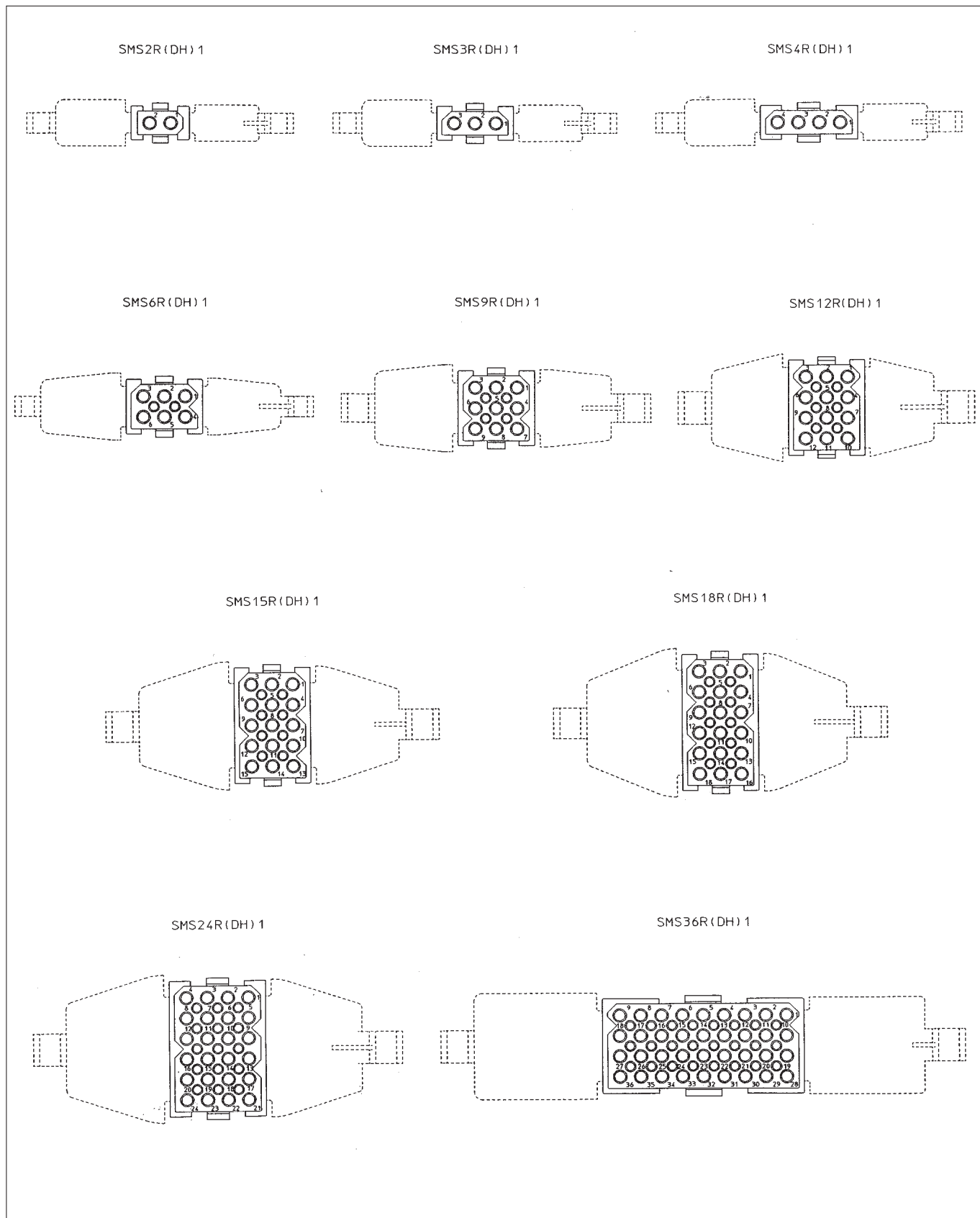
Contact identifications shown are for mating face. Contact identifications of wiring face are identical as shown on the receptacle arrangements



# Plastic Panel and Cable Connectors



## Contact arrangements for cable and panel mount receptacle connectors (SMS--R1 and SMS--RDH1)



Contact identifications shown are for mating face. Contact identifications of wiring face are identical as shown on the plug arrangements

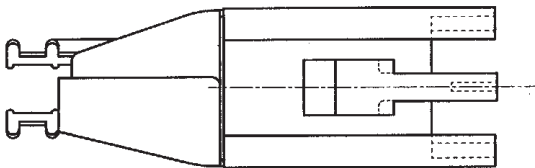
# Plastic Panel and Cable Connectors



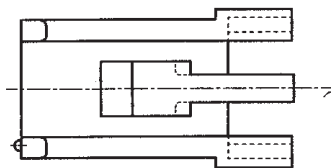
## SMS - Standard Qikmate intermateability chart

### INTERMATEABILITY

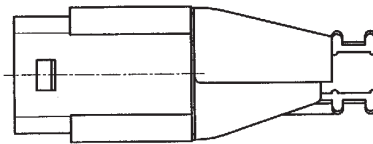
SMS--PDH1  
(PLUG WITH MOULDED  
ON CABLE HOODS)



SMS--P1  
(PLUG WITHOUT MOULDED  
ON CABLE HOODS)



SMS--RDH1  
(RECEPTACLE WITH MOULDED  
ON CABLE HOODS)



STRAIGHT BOARDMOUNT  
FEMALE

SMS--GE3 MACHINED CONTACT

SMS--R/SE3 STAMPED CONTACT

MALE

SMS--GE4 MACHINED CONTACT

SMS--R/SE4 STAMPED CONTACT



RIGHT ANGLE BOARDMOUNT  
FEMALE

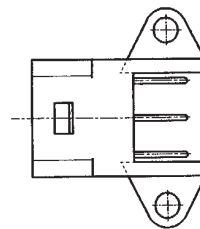
SMS--GE5 MACHINED CONTACT

SMS--SE5 STAMPED CONTACT

MALE

SMS--GE6 MACHINED CONTACT

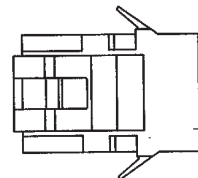
SMS--SE6 STAMPED CONTACT



(ONLY IN SIZES

3, 6, 12 AND 18)

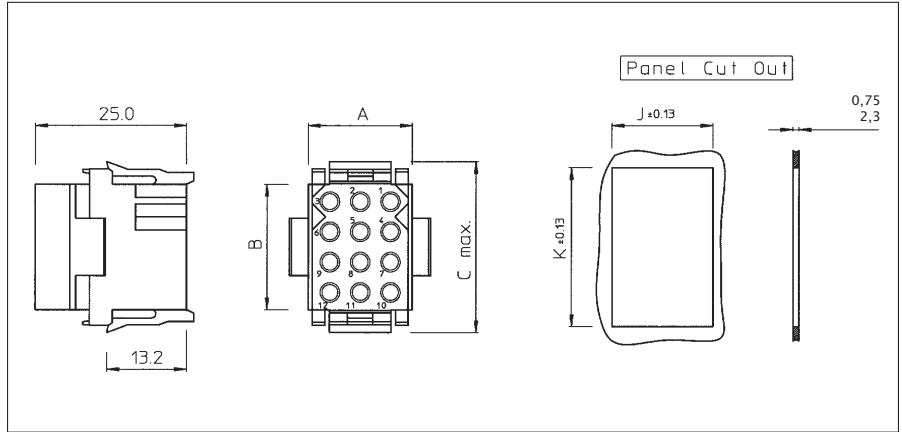
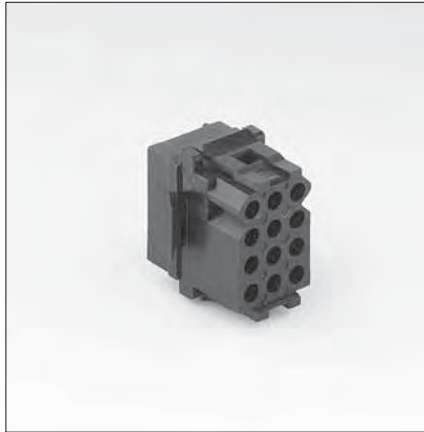
SMS--R-1  
(PANEL MOUNT  
RECEPTACLE)



# Plastic Panel and Cable Connectors

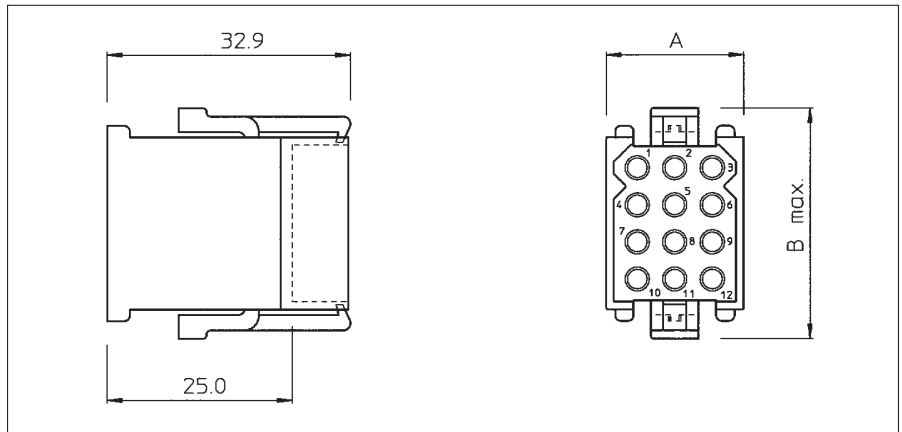
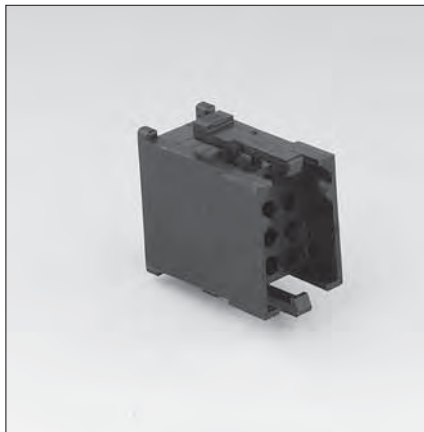


## Panel mount receptacle (SMS--R1)



Part number	Number of contact pos.	A	B	C max.	J ±0.13	K ±0.13
SMS2R1	2	11.0	5.8	15.2	11.4	11.6
SMS3R1	3	16.2			16.5	
SMS4R1	4	21.2			21.7	
SMS6R1	6	16.2	10.9	20.3	16.5	16.7
SMS9R1	9		16.0	25.4	21.6	
SMS12R1	12		21.1	30.5	26.7	
SMS15R1	15		26.2	35.6	31.8	
SMS18R1	18		31.2	40.6	36.9	
SMS24R1	24	21.2	21.1	30.5	21.7	26.7
SMS36R1	36	46.6			47.1	

## Cable plug without strain relief hood (SMS--P1)

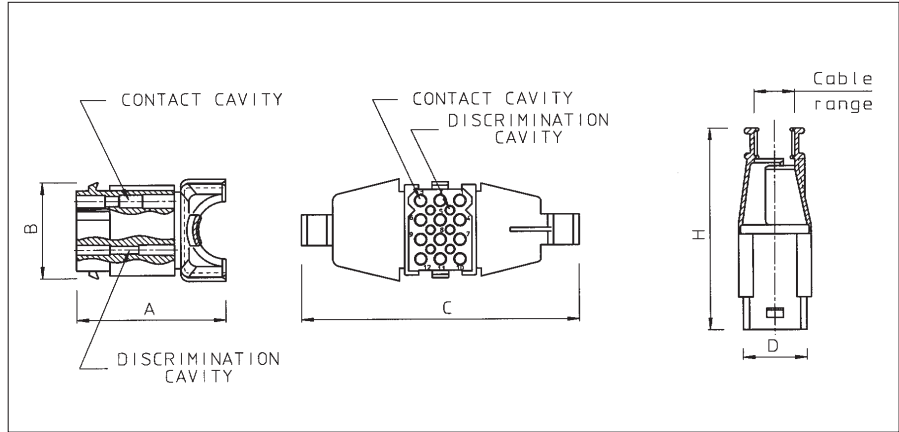


Part number	Number of contact pos.	A	C max.
SMS2P1	2	15.0	17.8
SMS3P1	3	18.6	
SMS4P1	4	23.7	
SMS6P1	6	18.6	22.9
SMS9P1	9		27.9
SMS12P1	12		33.0
SMS15P1	15		38.1
SMS18P1	18		43.2
SMS24P1	24	23.7	33.0
SMS36P1	36	49.1	

# Plastic Panel and Cable Connectors

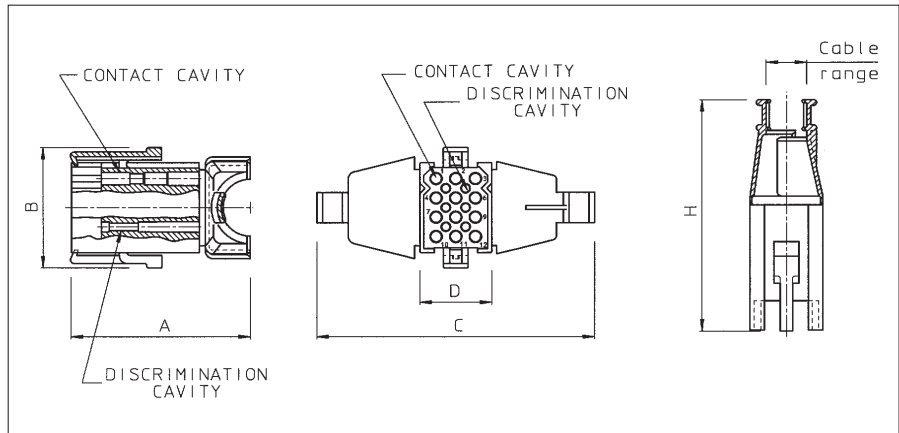


## Cable receptacle with integrated strain relief hood ( SMS--RDH1 )



Part number contact	Number of disrimi-pos.	Number of nation pos.	A	B	C	D	H	Cable range	Recommended unrap cable tie
SMS2RDH1	2	0	31.6	9.9	64.8	11.1	49.2	0.5 - 8.4	TF4D
SMS3RDH1	3	0	35.1		69.0	16.2		0.8 - 7.3	
SMS4RDH1	4	0	38.2		74.4	21.2		1.5 - 10.0	
SMS6RDH1	6	2	34.6	15.0	72.6	16.2	50.9	1.7 - 9.2	TF5D
SMS9RDH1	9	4	35.8	20.0	75.3		52.2	3.9 - 14.3	
SMS12RDH1	12	6	38.1	25.1	72.0		52.7	4.0 - 15.0	
SMS15RDH1	15	8	35.9	30.2	81.3		55.2	5.0 - 16.2	
SMS18RDH1	18	10	36.1	35.3	90.4		21.2	57.2	
SMS24RDH1	24	15	39.7	25.1		128.0	46.6	63.3	7.1 - 20.4
SMS36RDH1	36	24	54.6						8.8 - 24.5

## Cable plug with integrated strain relief hood ( SMS--PDH1 )



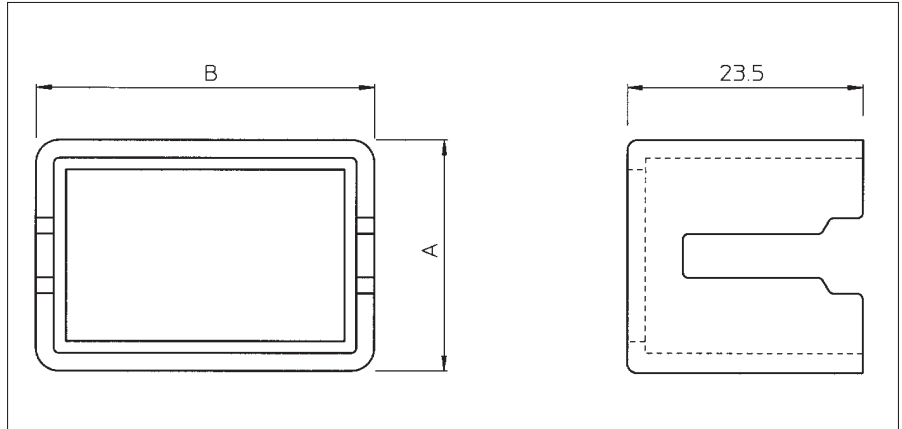
Part number contact	Number of disrimi-pos.	Number of nation pos.	A	B	C	D	H	Cable range	Recommended unrap cable tie
SMS2PDH1	2	0	39.5	16.4	64.8	14.1	57.1	0.5 - 8.4	TF4D
SMS3PDH1	3	0	43.0		69.0	18.6		0.8 - 7.3	
SMS4PDH1	4	0	46.1		74.4	23.7		1.5 - 10.0	
SMS6PDH1	6	2	42.5	21.5	72.6	18.6	58.8	1.7 - 9.2	TF5D
SMS9PDH1	9	4	43.7	26.7	75.3		60.1	3.9 - 14.3	
SMS12PDH1	12	6	46.0	31.7	72.0		60.6	4.0 - 15.0	
SMS15PDH1	15	8	43.8	36.7	81.3		63.1	5.0 - 16.2	
SMS18PDH1	18	10	44.0	41.8	90.4		23.7	65.1	
SMS24PDH1	24	15	47.6	31.7		128.0	49.1	71.2	7.1 - 20.4
SMS36PDH1	36	24	62.5						8.8 - 24.5

# Plastic Panel and Cable Connectors



## Accessories for standard Qikmate connectors

### Pin protection shroud for panel mount receptacle (SMS--CSB1)



When pins are inserted into the panelmount receptacle half (SMS--R1) of the QIKMATE connector, an optional pin protection shroud can be installed.

The shroud is mounted at the same time as the receptacle by holding the shroud against the mating side of the panel with both cutouts lined up. The receptacle is then inserted in place, trapping the shroud between the receptacle and panel. The use of the pin protection shroud reduces the allowable thickness of the panel from 2.3 to 1.6 mm max.

Part number	Number of contact positions	A	B
<b>SMS2CSB1</b>	<b>2</b>	19.8	18.8
<b>SMS3CSB1</b>	<b>3</b>	23.4	
<b>SMS4CSB1</b>	<b>4</b>	28.4	
<b>SMS6CSB1</b>	<b>6</b>	23.4	23.9
<b>SMS9CSB1</b>	<b>9</b>		29.0
<b>SMS12CSB1</b>	<b>12</b>		34.0
<b>SMS15CSB1</b>	<b>15</b>		39.1
<b>SMS18CSB1</b>	<b>18</b>		44.2
<b>SMS24CSB1</b>	<b>24</b>		28.4
<b>SMS36CSB1</b>	<b>36</b>	54.1	

### Strain relief hoods (SMS--H1)



Separate strain relief hoods are available for all standard plugs SMS--P1.

The hoods consist of identical halves that snap into position on the plug and are secured in place with the cable tie drawn tightly around the cable entry collar.

Catalog numbers designate a complete hood (2 halves) SMS--H1

The cable tie is not included (TF4D – TF5D)

Two three and four position hoods are single piece units

### Discrimination pins

For discrimination pins on both standard Qikmate and Qikmate Pin Headers cable and boardmount: See accessories section.

# Plastic Panel and Cable Connectors



## Notes

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# Plastic PC Boardmount Connectors



## SMS - BOARDMOUNT QIKMATE SERIES

### Description

These PC boardmount connectors enable QIKMATE and preassembled TRIM TRIO contacts to be PC board mounted, using conventional solder production techniques. They will then mate and latch with the standard QIKMATE plugs.

Straight boardmount QIKMATE is available in 10 insert arrangements from 2 to 36 positions.

Right-angled boardmount QIKMATE is available in 3, 6, 12 and 18 positions.

All boardmount connectors are supplied fully loaded with pin or socket contacts, either in solid machined or stamped and formed contacts.

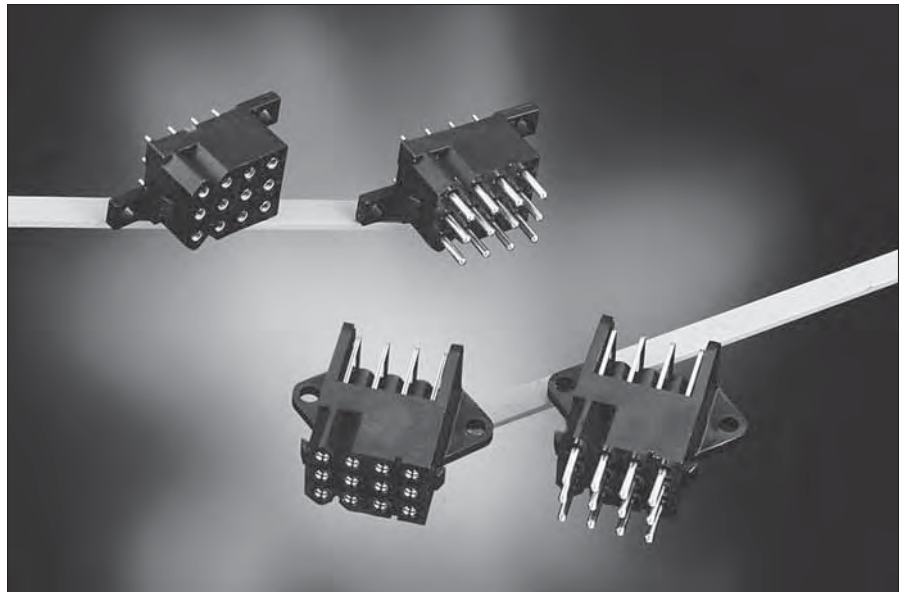
Stamped and formed contact have selective tin plating on the solder tails, thus eliminating flux operations.

### Features and benefits

- Straight versions available in 10 contact arrangements from 2 to 36 positions
- Right-angled versions available in 3, 6, 12 and 18 positions.
- All versions are available with:
  - Pin or socket contacts
  - Stamped and formed or solid machined contacts.
- Some boardmount connectors have discrimination cavities in between contact cavities, thus offering discrimination without contact loss.
- UL recognized File Nr.: E238675

### Performance characteristics

Operating



temperature:	-55°C to +125°C
Insulation	
resistance:	5000 MΩ min.
Test potential:	2000 VAC
Current rating:	5 Amp for stamped contacts 7.5 Amp for machined contacts
Durability:	500 matings and unmatings.

### Construction

Connector body: Glass filled thermoplast UL94-V0

Contacts: High conductive copper alloy

### Plating table

Plating for solid machined contacts:

**No digit (std)** = Min. 0.4μ Gold all over, over Nickel.

T = 3 - 5μ Tin all over

Plating for Stamped and formed contacts :  
**K9 (std)** = Min. 0.4μ Gold in contact area, 3 - 5μ Tin on solder tail.  
T = 3 - 5μ Tin all over

### Intermateability

- "SMS" Qikmate boardmount connectors with preassembled TRIM TRIO size 16 boardmount contacts are intermateable only with the "SMS" Qikmate cable plug connectors equipped with TRIM TRIO crimp type removable snap-lock contacts (see contact section)

## How to order

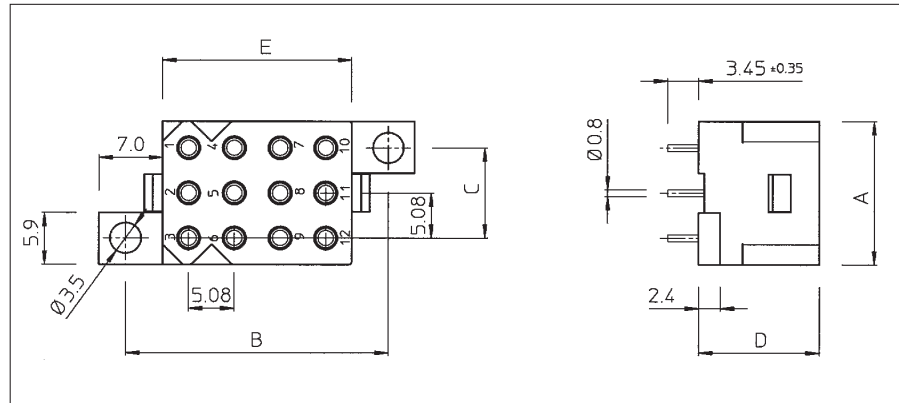
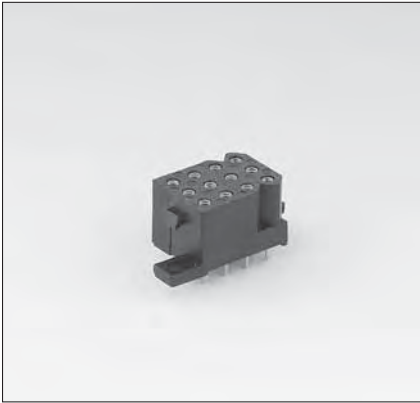
Connector family	SMS	12	GE	3	-
	SMS	12	SE	3	K9
<b>Contact arrangement</b>					
<b>Contact type:</b>	<b>GE:</b> Solid machined contacts <b>SE:</b> Stamped and formed contacts				
<b>Design variation:</b>	<b>3:</b> Straight boardmount with female contacts <b>4:</b> Straight boardmount with male contacts <b>5:</b> Right angle boardmount with female contacts <b>6:</b> Right angle boardmount with male contacts				
<b>Plating indication</b>					



# Plastic PC Boardmount Connectors



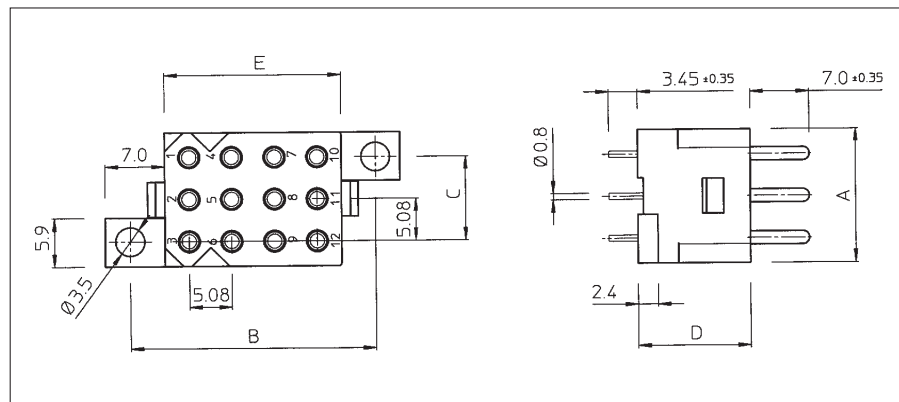
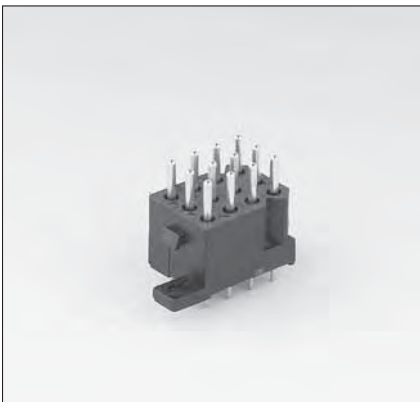
## Straight boardmount with female contacts (SMS--GE3 / SMS--SE3K9)



Part number Solid machined contacts	Part number Stamped and formed contacts	Number of contact pos.	Number of discrimination pos.	A	B	C	D	E
SMS2GE3	SMS2SE3K9	2	0	11.0	-	19.1	13.4	5.9
SMS3GE3	SMS3SE3K9	3	0	16.2	14.0	10.2		
SMS4GE3	SMS4SE3K9	4	0	21.3		15.2		
SMS6GE3	SMS6SE3K9	6	0	16.2	19.2	10.2		10.9
SMS9GE3	SMS9SE3K9	9	4		24.2			16.0
SMS12GE3	SMS12SE3K9	12	0		29.2			21.1
SMS15GE3	SMS15SE3K9	15	8		34.3			26.1
SMS18GE3	SMS18SE3K9	18	10		39.4	31.2		
SMS24GE3	SMS24SE3K9	24	0	21.2		15.2		20.9
SMS36GE3	SMS36SE3K9	36	0	46.5	15.2	54.6		

For other platings: see plating table

## Straight boardmount with male contacts (SMS--GE4 / SMS--SE4K9)



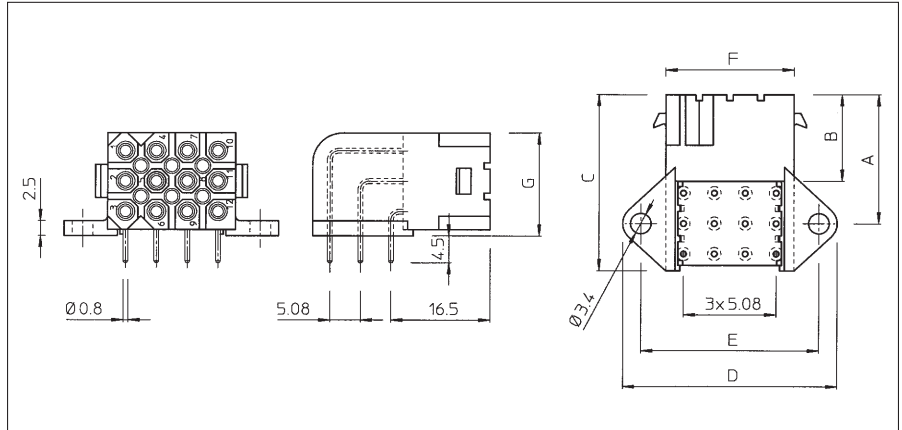
Part number Solid machined contacts	Part number Stamped and formed contacts	Number of contact pos.	Number of discrimination pos.	A	B	C	D	E
SMS2GE4	SMS2SE4K9	2	0	11.1	-	19.1	13.4	5.9
SMS3GE4	SMS3SE4K9	3	0	16.2	14.0	10.2		
SMS4GE4	SMS4SE4K9	4	0	21.3		15.2		
SMS6GE4	SMS6SE4K9	6	0	16.2	19.2	10.2		10.9
SMS9GE4	SMS9SE4K9	9	4		24.2			16.0
SMS12GE4	SMS12SE4K9	12	0		29.2			21.1
SMS15GE4	SMS15SE4K9	15	8		34.3			26.1
SMS18GE4	SMS18SE4K9	18	10		39.4	31.2		
SMS24GE4	SMS24SE4K9	24	0	21.2		15.2		20.9
SMS36GE4	SMS36SE4K9	36	0	46.5	15.2	54.6		

For other platings: see plating table

# Plastic PC Boardmount Connectors



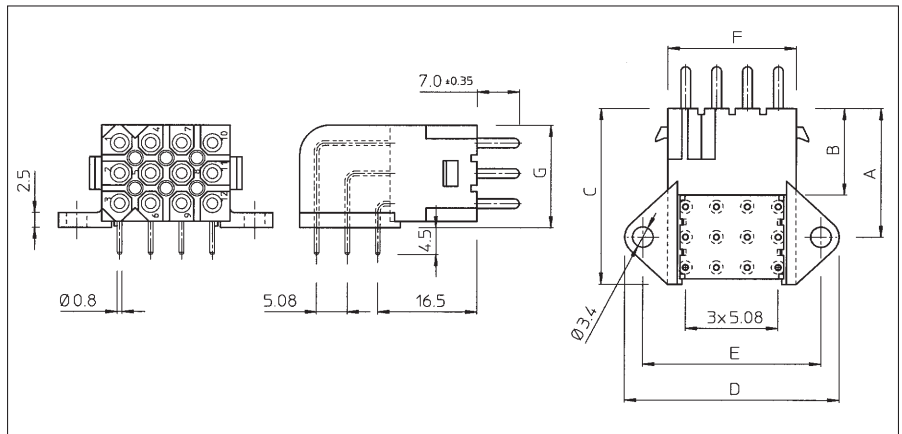
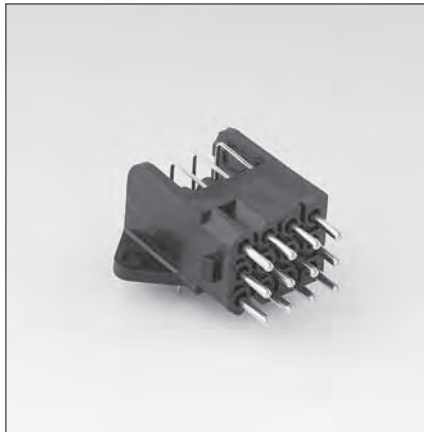
## Right angle boardmount with female contacts (SMS--GE5 / SMS--SE5K9)



Part number Solid machined contacts	Part number Stamped and formed contacts	Number of contact pos.	Number of discrimination pos.	A	B	C	D	E	F	G			
<b>SMS3GE5</b>	<b>SMS3SE5K9</b>	<b>3</b>	<b>0</b>	16.5	14.4	20.5	30.2	24.2	16.2	6.8			
<b>SMS6GE5</b>	<b>SMS6SE5K9</b>	<b>6</b>	<b>0</b>	19.0		24.5				11.9			
<b>SMS12GE5</b>	<b>SMS12SE5K9</b>	<b>12</b>	<b>6</b>	21.6		29.5				35.2	29.2	21.2	17.2
<b>SMS18GE5</b>	<b>SMS18SE5K9</b>	<b>18</b>	<b>10</b>			45.4				39.4	31.2		

For other platings: see plating table

## Right angle boardmount with male contacts (SMS--GE6 / SMS--SE6K9)



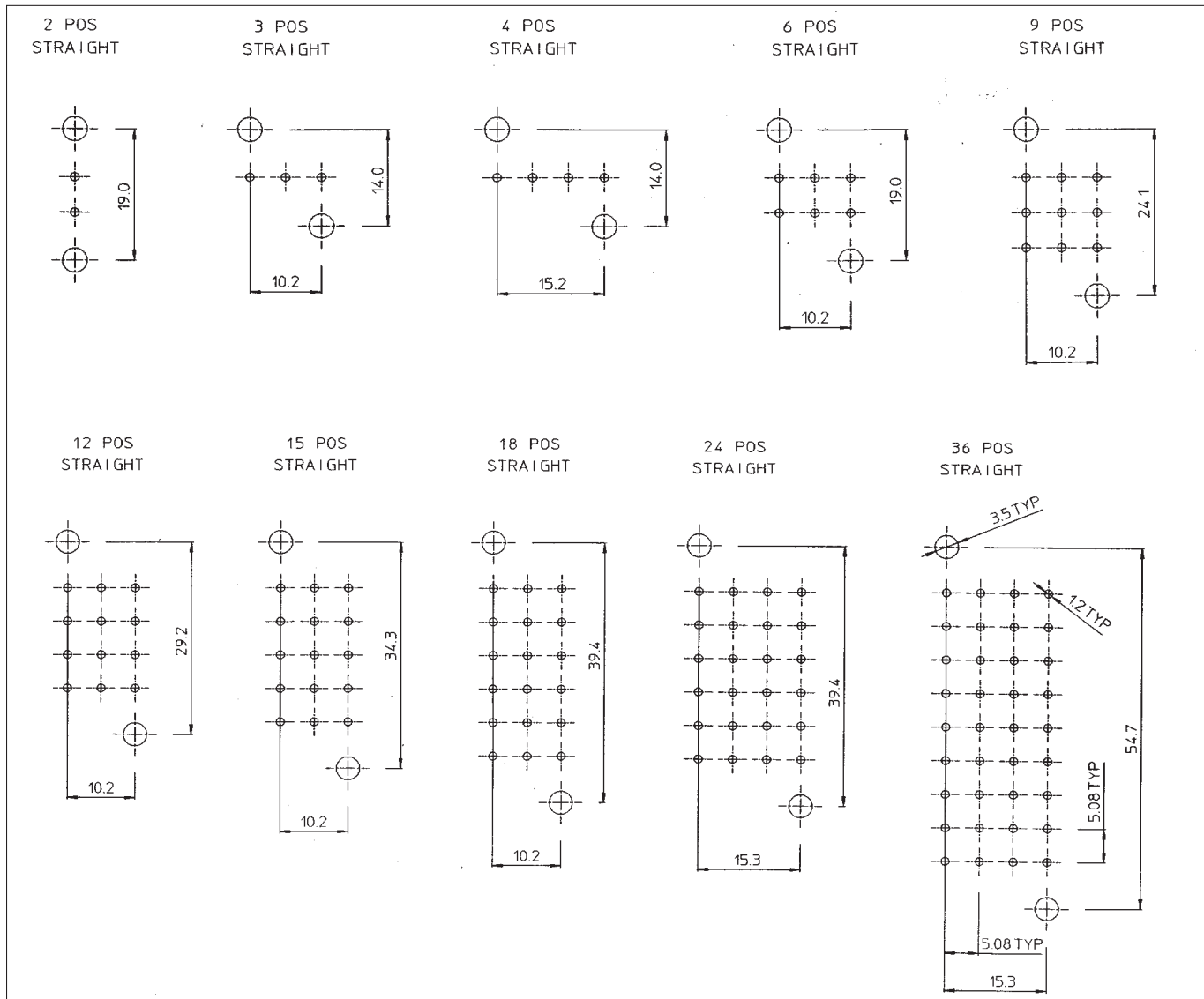
Part number Solid machined contacts	Part number Stamped and formed contacts	Number of contact pos.	Number of discrimination pos.	A	B	C	D	E	F	G			
<b>SMS3GE6</b>	<b>SMS3SE6K9</b>	<b>3</b>	<b>0</b>	16.5	14.4	20.5	30.2	24.2	16.2	6.8			
<b>SMS6GE6</b>	<b>SMS6SE6K9</b>	<b>6</b>	<b>0</b>	19.0		24.5				11.9			
<b>SMS12GE6</b>	<b>SMS12SE6K9</b>	<b>12</b>	<b>6</b>	21.6		29.5				35.2	29.2	21.2	17.2
<b>SMS18GE6</b>	<b>SMS18SE6K9</b>	<b>18</b>	<b>10</b>			45.4				39.4	31.2		

For other platings: see plating table

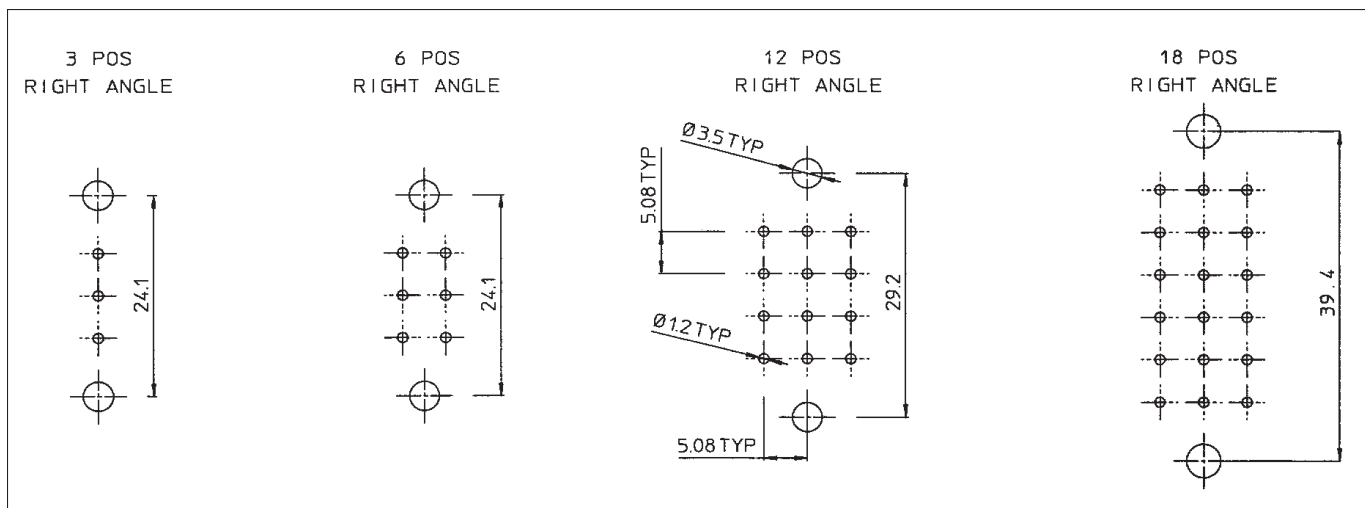
# Plastic PC Boardmount Connectors



## Recommended PC-Board hole lay out for straight male and female boardmount connectors



## Recommended PC-Board hole lay out for right-angled male and female boardmount connectors



# Full Plastic Boardmount Pin Headers and Plugs



## SMS - Qikmate Pin Header Series

### Description

Qikmate Pin Header, available in 3, 4, 6, 9 and 10 positions, provides the additional versatility of straight and right angle board mounting.

Offered as an alternative to stacked connectors, the in-line contact design of the pin header provides the user with significant PC board space savings.

The boardmount receptacle features positive polarization and a moulded on pin protection skirt and is supplied preassembled with straight or right angled:

- Solid machined or stamped and formed PC board pin contacts.
- Coax PC board pin contacts.

The socket cable plug features positive quick connect / disconnect latches and is designed to accept N° 16 TRIM TRIO .0625" (1.6mm) diameter socket contacts for maximum contact protection.

### Features and benefits

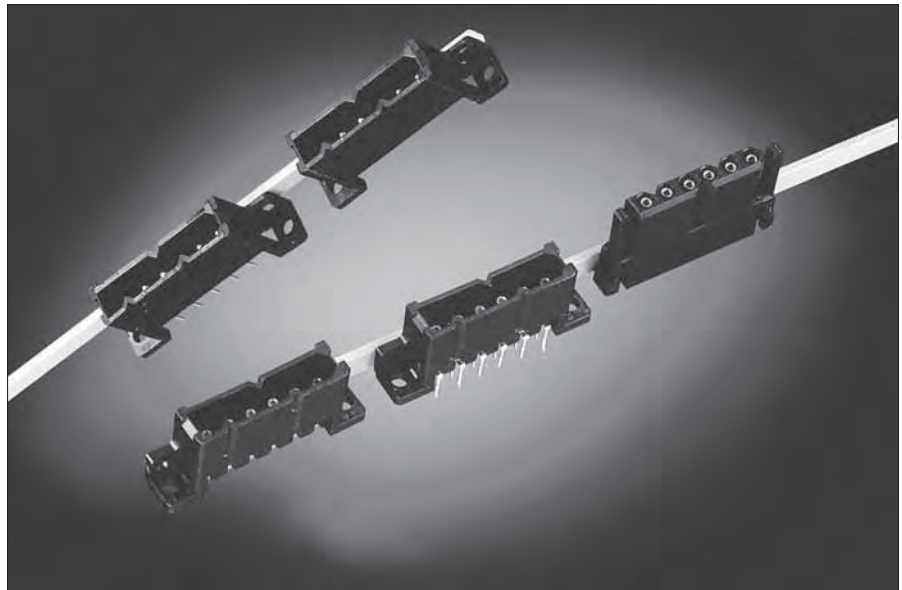
- Available in 3, 4, 6, 9 and 10 positions.
- In-line contact design, offering significant PC board space savings.
- Boardmount connectors available in straight and right-angled version preassembled with:
  - Solid machined or stamped and formed pin contacts.
  - Coax pin contacts.
- UL recognized File Nr.: E238675

### Construction

Connector body:  
Glass filled thermoplast UL94-V0  
Colour: Black

Contacts: High conductive copper alloy

### Performance characteristics



Operating temperature:	-55°C to +125°C
Insulation resistance:	5000 MΩ min.
Test potential:	2000 VAC
Current rating:	5 Amp for stamped contacts 7.5 Amp for machined contacts
Durability:	500 matings and unmatings.

### Intermateability

- "SMS" Socket plugs accept TRIM TRIO size 16 removable snap-lock contacts (see contact section)
- Contacts to be ordered separately.

### Plating table

Plating for solid machined contacts:
<b>No digit (std)</b> = Min. 0.4μ Gold all over, over Nickel.
T = 3 - 5μ Tin all over
Plating for Stamped and formed contacts :
D28 = Min. 0.75μ Au over nickel.
D70 = Gold flash all over
TR29 = 1.2μ Pre-plated Tin all over.
Plating for coax contacts:
Z17 = Min. 0.75μ Au in contact area, Flash on solder tail (inner)
Min 0.75μ Au in contact area, Tin on solder tail (outer)

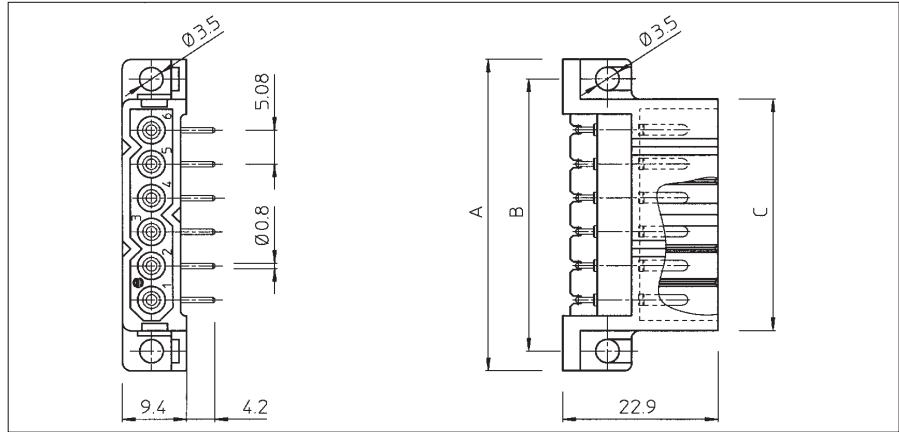
## How to order

Connector family	SMS	9	PH	3	TR29
	SMS	9	CH	1	Z17
	SMS	9	P3	-	-
Contact arrangement					
Contact type:	<b>PH:</b> Pin header boardmount.				
	<b>CH:</b> Coax header boardmount.				
	<b>P3:</b> Socket cable plug for pin and coax boardmount header.				
Design variation:	<b>1:</b> Right angle coax header boardmount with male contacts.				
	<b>2:</b> Straight coax header boardmount with male contacts				
	<b>3:</b> Right angle pin header boardmount with stamped male contacts				
	<b>4:</b> Straight pin header boardmount with stamped male contacts				
	<b>GE6:</b> Right angle pin header boardmount with machined male contacts				
	<b>GE4:</b> Straight pin header boardmount with machined male contacts				
Plating indication					

# Full Plastic Boardmount Pin Headers and Plugs



## Right angle pin header boardmount with male contacts (SMS--PH3 / SMS--PHGE6)

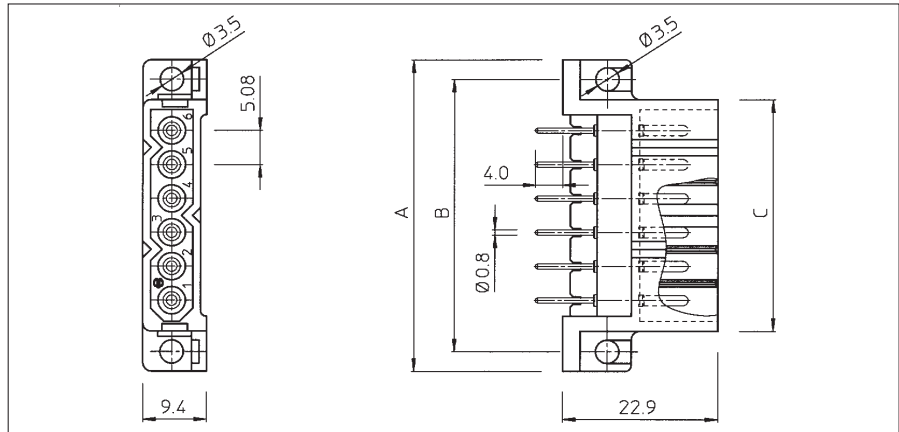


Part number Stamped and formed contacts	Part number Solid machined contacts	Number of contact positions	A	B	C
SMS3PH3TR29	SMS3PHGE6	3	31.2	25.4	19.3
SMS4PH3TR29	SMS4PHGE6	4	36.3	30.4	24.4
SMS6PH3TR29	SMS6PHGE6	6	46.5	40.6	34.5
SMS9PH3TR29	SMS9PHGE6	9	61.7	55.9	49.8
SMS10PH3TR29	SMS10PHGE6	10	66.8	61.0	54.9

For other platings: see plating table.

Other solder tail lengths on request

## Straight pin header boardmount with male contacts (SMS--PH4 / SMS--PHGE4)

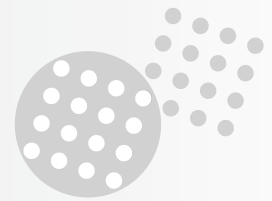


Part number Stamped and formed contacts	Part number Solid machined contacts	Number of contact positions	A	B	C
SMS3PH4TR29	SMS3PHGE4	3	31.2	25.4	19.3
SMS4PH4TR29	SMS4PHGE4	4	36.3	30.4	24.4
SMS6PH4TR29	SMS6PHGE4	6	46.5	40.6	34.5
SMS9PH4TR29	SMS9PHGE4	9	61.7	55.9	49.8
SMS10PH4TR29	SMS10PHGE4	10	66.8	61.0	54.9

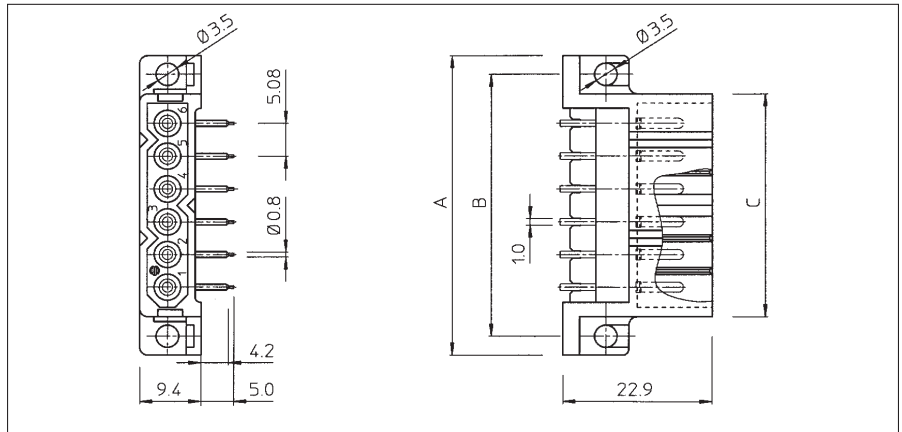
For other platings: see plating table.

Other solder tail lengths on request

# Full Plastic Boardmount Pin Headers and Plugs



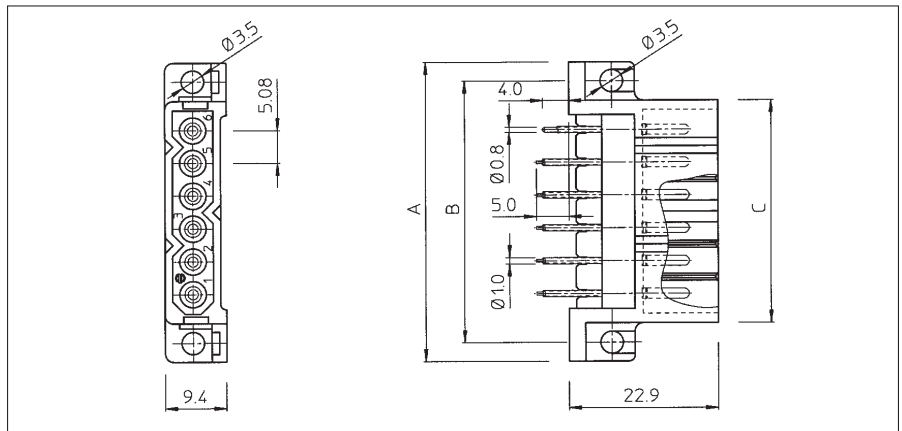
## Right angle coax header boardmount with male contacts (SMS--CH1Z17)



Part number positions	Number of contact	A	B	C
<b>SMS3CH1Z17</b>	<b>3</b>	31.2	25.4	19.3
<b>SMS4CH1Z17</b>	<b>4</b>	36.3	30.4	24.4
<b>SMS6CH1Z17</b>	<b>6</b>	46.5	40.6	34.5
<b>SMS9CH1Z17</b>	<b>9</b>	61.7	55.9	49.8
<b>SMS10CH1Z17</b>	<b>10</b>	66.8	61.0	54.9

For plating spec.: see plating table.

## Straight coax header boardmount with male contacts (SMS--CH2Z17)



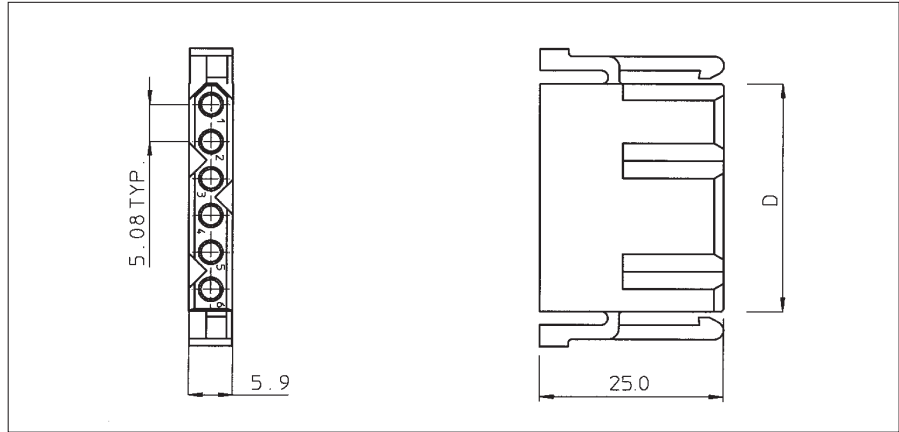
Part number positions	Number of contact	A	B	C
<b>SMS3CH2Z17</b>	<b>3</b>	31.2	25.4	19.3
<b>SMS4CH2Z17</b>	<b>4</b>	36.3	30.4	24.4
<b>SMS6CH2Z17</b>	<b>6</b>	46.5	40.6	34.5
<b>SMS9CH2Z17</b>	<b>9</b>	61.7	55.9	49.8
<b>SMS10CH2Z17</b>	<b>10</b>	66.8	61.0	54.9

For plating spec.: see plating table.

# Full Plastic Boardmount Pin Headers and Plugs

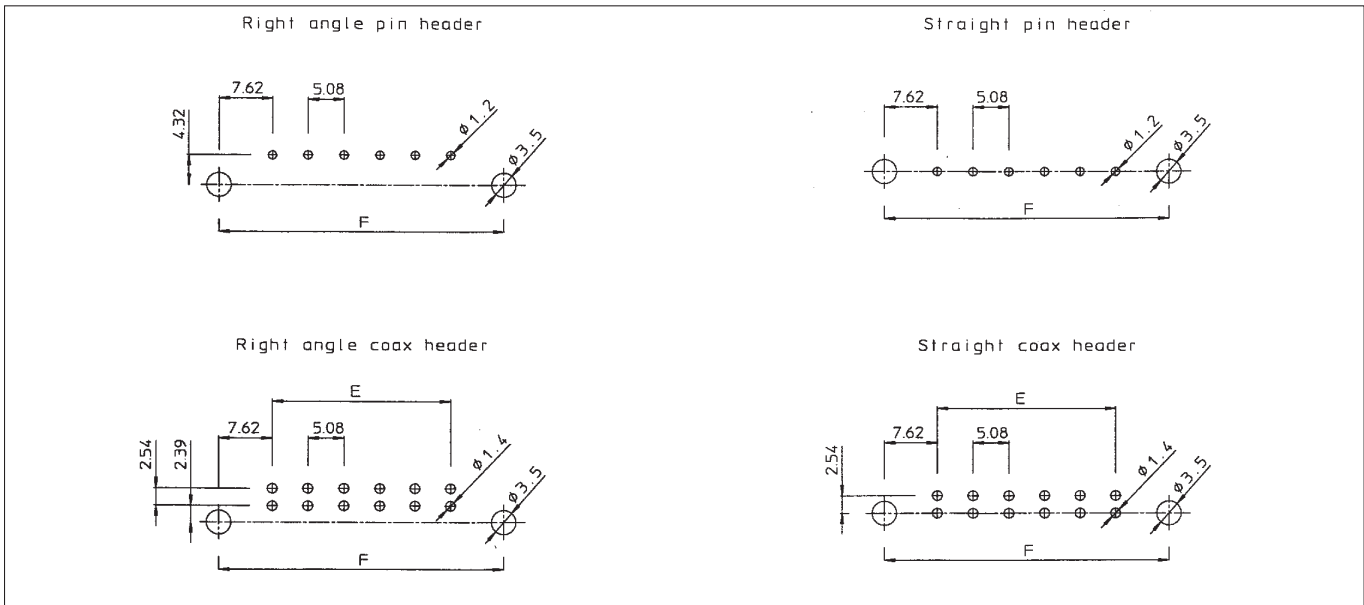


## Socket cable plug for pin and coax boardmount header (SMS--P3)



Part number	Number of contact positions	D
SMS3P3	3	16.0
SMS4P3	4	21.1
SMS6P3	6	31.2
SMS9P3	9	46.5
SMS10P3	10	51.6

## Recommended PC-board hole layouts



Part number of contact positions	E	F
3	10.18	25.40
4	15.24	30.48
6	25.40	40.64
9	40.64	55.88
10	45.72	60.96



# Rectangular Mixed Power/ Signal



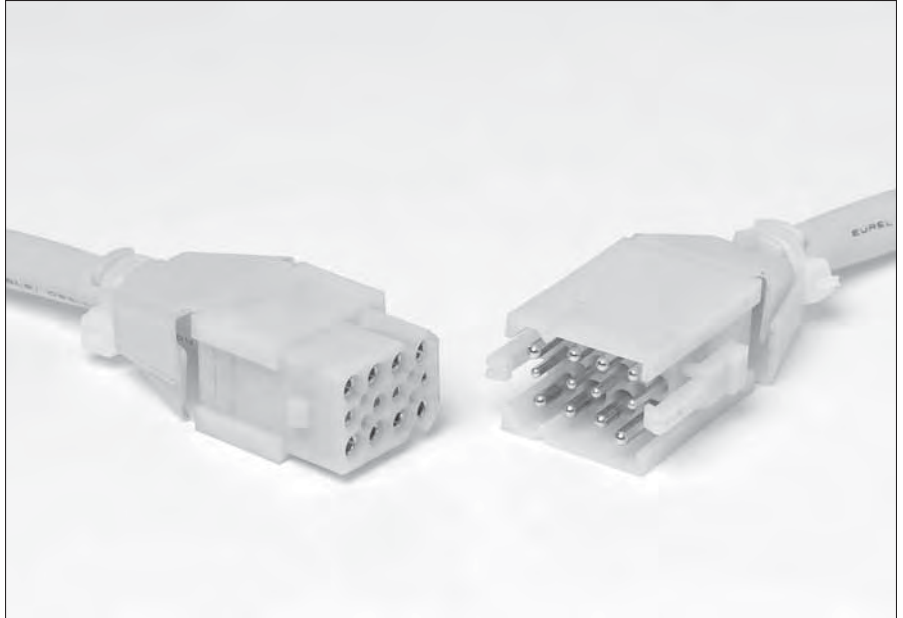
## Description

Power connectors are connectors to meet mixed power and signal requirements.

This range of power connectors is an extension of the long established and popular TRIM TRIO connector series shown in this catalogue, but with the advantage of offering a number of additional features

## Features and benefits

- Connectors suitable for mixed power / signal application.
- Design in flexibility of TRIM TRIO.



## Our Design flexibilities are virtually unlimited on:

- **Contact arrangements**
- **Mixed contact lay-outs**
- **Power versions**
- **Hybrid contacts arrangements**
- **Filtered connectors**
- **High speed solutions**
- **Robust designs**
- **Higher corrosion withstandings**
- ...

The next page lists some of the mixed power / signal TRIM TRIO connector configurations.

It is intended to give you a general idea of our design capabilities.

As the creation of mixed power / signal TRIM TRIO connectors is an ongoing process, we advise you to contact our nearest SOURIAU sales office if you have specific connector needs.

Our design flexibility is virtually unlimited, so we are always willing to consider any customised design.

Separate data sheets with more detailed technical info of the listed mixed power / signal TRIM TRIO connectors are available.

# Rectangular Mixed Power/Signal



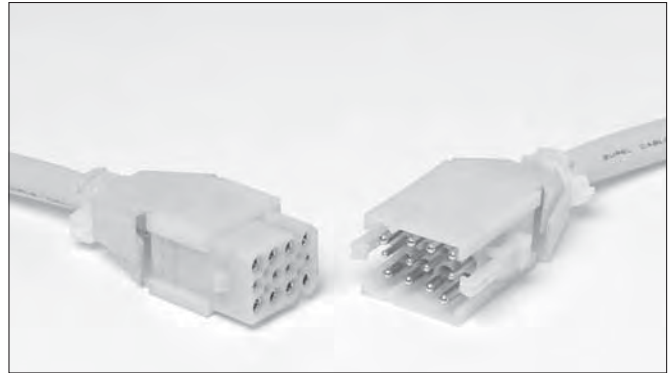
## SMS 12 with 8 power & 4 standard TRIM TRIO contacts

### Description

It is an SMS12 connector with a modified insert arrangement to accept

8 power contacts #12 (2.4mm) and 4 TRIM TRIO #16 (1.6mm) signal contacts.

It also offers 4 extra discrimination cavities that accept the SMSPK3 discrimination pins.



### Typical performance characteristics.

- Power contacts #12 (2.4mm) for up to 26 Amp
- Operating temp: -55°C to +150°C
- For future characteristics, refer to technical drawings)

### Contact accommodation

- Signal cavities accept the TRIM TRIO size 16 crimp-type removable snap-lock contacts (see contacts section)
- Power cavities accept the 8291 power contacts (see power contacts 8291 section)
- Contacts to be ordered separately.

### Available part numbers:

Part number	Shell size	Description
SMS12PDH2NA	12	Plug connector
SMS12RDH2NA		Receptacle connector

For dimensions or other characteristics, refer to section SMS with corresponding shell size or refer to the technical drawings

## SMS 12P24 with 8 power & 4 standard TRIM TRIO contacts

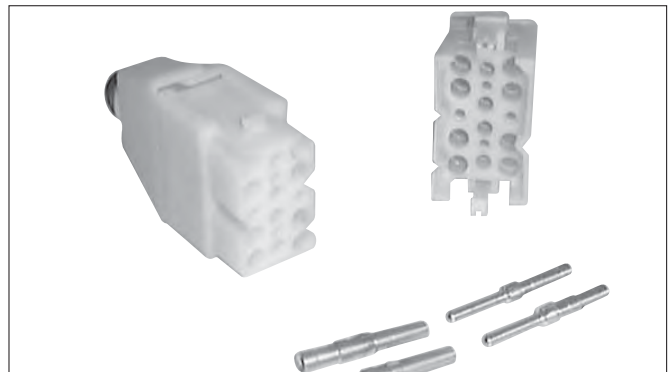
### Description

It is an SMS15 connector with a modified insert arrangement to accept

8 power contacts #12 (2.4mm) and 4 TRIM TRIO #16 (1.6mm) signal contacts.

Designed per VDE 0110

It also offers 4 extra discrimination cavities that accept the SMSPK3 discrimination pins.



### Typical performance characteristics.

- Power contacts #12 (2.4mm) for up to 26 Amp
- Operating temp: -55°C to +150°C
- Per VDE 0110 (refer to technical drawings)
- For future characteristics, refer to technical drawings)

### Contact accommodation

- Signal cavities accept the TRIM TRIO size 16 crimp-type removable snap-lock contacts (see contacts section)
- Power cavities accept the 8291 power contacts (see power contacts 8291 section)
- Contacts to be ordered separately.

### Available part numbers:

Part number	Shell size	Description
SMS12P24PDH1NA	15	Plug connector
SMS12P24RDH1NA		Receptacle connector

For dimensions or other characteristics, refer to section SMS with corresponding shell size or refer to the technical drawings

# Rectangular Heavy Duty Connectors



## MS75 with die cast hood & integrated shroud

### Description

This MS75 connector features a robust cable hood with integrated shroud and turnable jackscrews. It is available for different cable diameters.

### Performance characteristics.

Refer to technical drawings

### Available part numbers (consult factory):

Several part numbers are available with cable glands to accept different cable diameters.



### Contact accommodation

- “MS-M” Hyfen connectors accept TRIM TRIO size 16 crimp-type removable snap-lock contacts (see contact section)
- Contacts to be ordered separately

## MS50 & MS75 with robust cable hood & shroud

### Description

This MS50 & MS75 connector features a robust cable hood with shroud. It also features enlarged turnable jackscrews to ease the connector mating and unmating in extreme conditions.

### Performance characteristics.

Refer to technical drawings



### Contact accommodation

- “MS-M” Hyfen connectors accept TRIM TRIO size 16 crimp-type removable snap-lock contacts (see contact section)
- Contacts to be ordered separately

### Available part numbers:

Part number	Shell size	Description
MS50RM157SGMSP2256	50	50 position cable connector with shroud
MS75RM157SGMSP2256	75	75 position cable connector with shroud

# Rectangular Drawer Connector



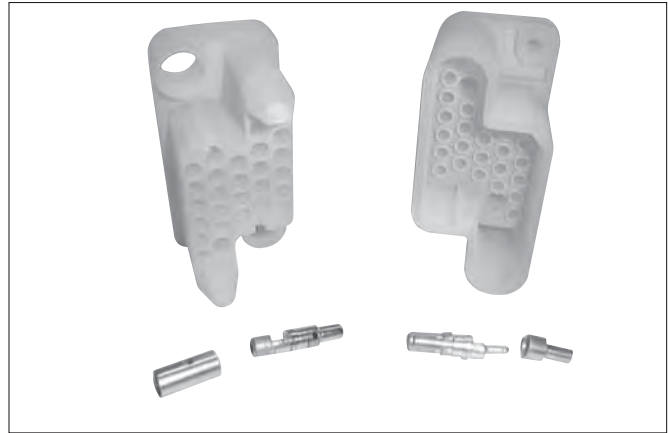
## DRW25 drawer connector with 2 DIN 41626 coax cavities

### Description

DRW25 drawer connector is made for blind mating applications and accept:  
25 TRIM TRIO contacts and  
2 DIN 41626 coax contacts

### Performance characteristics.

Refer to technical drawings



### Contact accommodation

- Signal cavities accept the TRIM TRIO size 16 crimp-type removable snap-lock contacts (see contacts section)
- Coax cavities accept DIN 41626 coax contacts (not available from Souriau)
- TRIM TRIO Contacts to be ordered separately.

### Available part numbers:

Part number	Description
<b>DRW25C2P1</b>	25 + 2 Positions, female drawer plug.
<b>DRW25C2R1</b>	25 + 2 Positions, male drawer receptacle.

# Monolink

## Single Position Connector



**The one-position connector offers an unlimited wiring versatility. It uses all Trim Trio contacts.**

### Performance characteristics.

Operating Temperature: -55°C to +125°C

Durability: 500 Cycles

Vibration Resistance: Per MIL-STD-202, method 204

Shock: Per MIL-STD-202, method 207

### Construction

Connector Body: Polyamide 6.6



### Features and Benefits

- Locking with a positive snap
- Unmating force between 3 and 15 lbs., therefore locked until intentionally separated
- Molded-in serrations which improve grip on both plug and receptacle while mating and unmating
- Both parts cover the contacts entirely, to prevent accidental damage to contacts
- White color makes coding for discrimination purposes possible
- Removable crimp snap-in pin and socket Trim Trio contacts
- Ideal for repairing co-axial cables (RG 178, RG 179, RG187, RG188, etc.)

### Contact Accommodation

Quick disconnect cable splice accept:

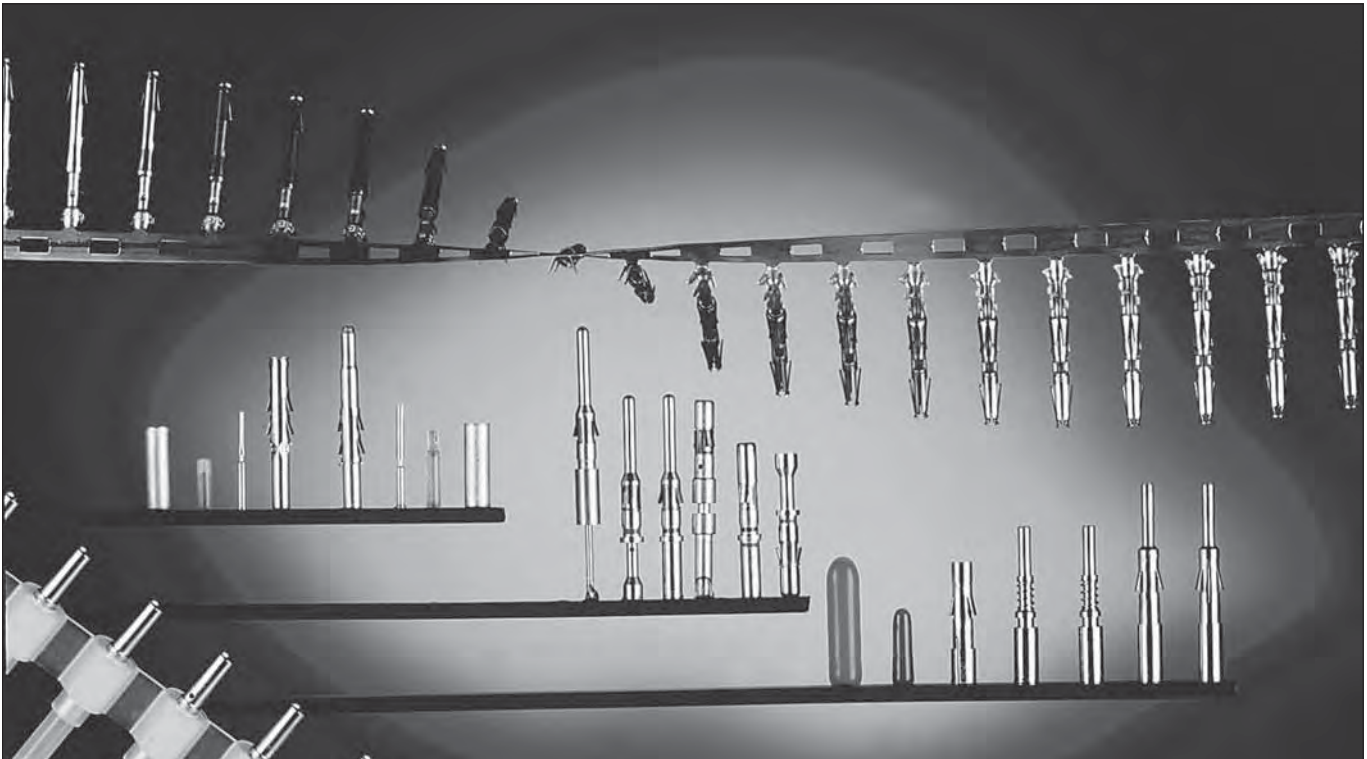
- RM/RC Machined Contacts
- SM/SC Formed one-piece Contacts
- SM/SC Formed two-piece Contacts
- RMDX/RCDX Coaxial Contacts

Part number	Description
<b>RSCDEX2</b>	Plug Body
<b>RSMDEX1</b>	Receptacle Body

# Contacts



## Overview TRIM TRIO contacts



### **TRIM TRIO contacts are a wide and versatile range that are offered in many options for crimp, coax and Fiber optic applications**

This section gives an overview on available rectangular connectors for:

#### **1. Size 16 contacts (1.6mm).**

- RM/RC – High performance machined contacts.
- SM-M/SC-M – Stamped and formed contacts.
- RMDX/RCDX – Coax Contacts.
- Fiber optic contacts

#### **2. Size 20 contacts (1.0mm).**

- RM-W/RC-W – High performance machined contacts.
- SM-W/SC-W – Stamped and formed contacts.

#### **3. 8291 power contacts.**

- Size 12 contacts (2.4mm)
- Size 8 contacts (3.6mm)



# Machined Crimp Contacts size 16



## RM/RC-M

### Description

Size 16 RM/RC .063" (1.6mm) diameter contacts are precision solid machined crimp snap-in pin and sockets for heavy duty top performance requirements.

Springs on both contacts are made of spring-tempered, heat-treated, beryllium copper.

The socket inner spring supplies high contact pressure to ensure low-resistance contact between pin and socket. The socket contact features closed entry to prevent probe damage. Crimp barrels have insulation grips for vibration support and are provided with a cable stop and inspection hole.

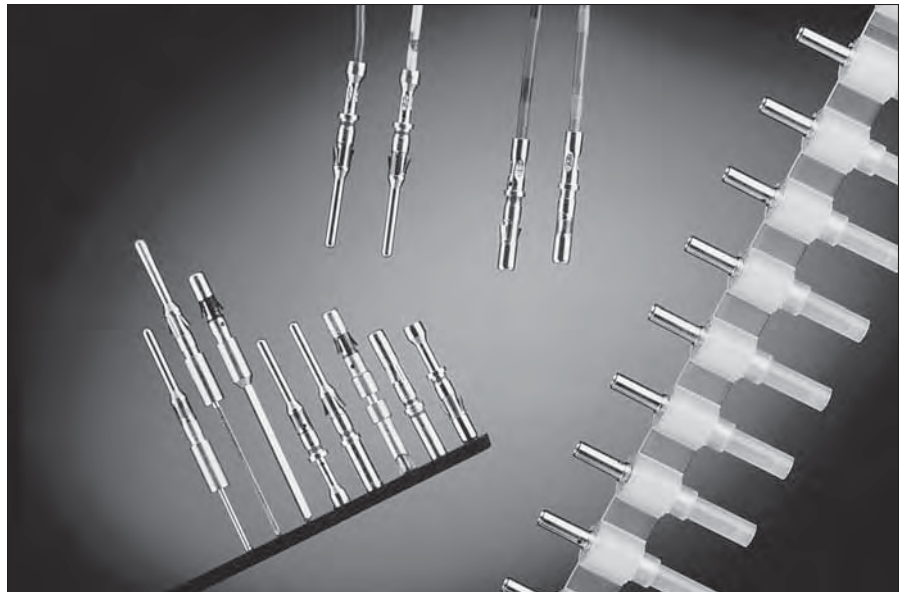
### Features and benefits

- Made from high conductive copper alloy with gold or tin over nickel plate finish.
- Heat-treated beryllium copper locking springs assure proper locking and alignment of contacts in the housing.
- Closed entry design on RC socket contact to prevent probe damage.
- Contacts available in bulk packing

### Performance characteristics

Current rating:	13 Amp
Contact resistance:	≤ 3 mΩ

Contact retention in body:	110 N min.
Individual insertion force:	3.5 N max.
Individual withdrawal force:	0.55 N min.



### Construction

Contact body: High conductive copper alloy.

Outer spring: Tempered, heat-treated, beryllium copper.

Inner spring socket: Tempered, heat-treated, plated beryllium copper.

### Plating table

K (std)	= Min. 0.4 μ Gold all over, over Nickel
J	= Gold flash all over, over Nickel
N	= Min. 0.75 μ Gold all over, over Nickel
T	= 3 - 5 μ Tin all over, over Nickel
Other platings on request	

### Connector accommodation

Any TRIM TRIO size 16 contact can be used in any contact position in any connector in the TRIM TRIO size 16 interconnection system.

- MS-M / MSG / MB
- SMS Qikmate
- UTG
- UTP
- UTO
- UTS
- UTV
- MBG

## How to order

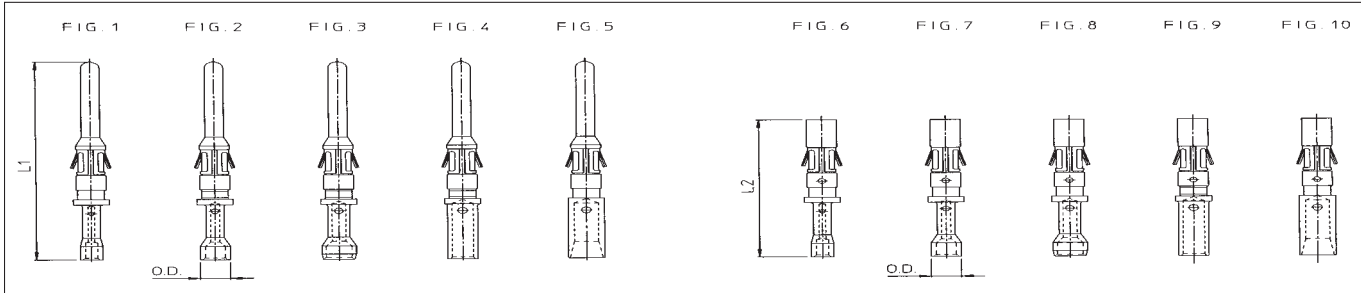
		<b>(K) RM</b>	<b>16</b>	<b>M</b>	<b>23</b>	<b>(GE1)</b>	<b>K</b>	<b>-</b>
		<b>(K) RC</b>	<b>16</b>	<b>M</b>	<b>23</b>	<b>(GE1)</b>	<b>K</b>	<b>-</b>
<b>Contact type:</b>	<b>RM:</b>	Male contact bulk packing						
	<b>RC:</b>	Female contact bulk packing						
	<b>KRM:</b>	Male contact on plastic carrier strip						
	<b>KRC:</b>	Female contact on plastic carrier strip						
<b>AWG Size:</b>	16, 20, 24, 28							
<b>Size 16:</b>	.0625" (1.6mm) Diameter contacts							
<b>Design variation:</b>	Crimp barrel							
<b>Grounding contact:</b>								
<b>Plating indication:</b>	See plating table							
<b>Packing quantity:</b>	<b>No digit (std)</b> : 50 pcs. bulk packing (RM/RC) : 2000 pcs on reel (KRM/KRC)							
	<b>1000</b> : 1000 pcs bulk packing (RM/RC)							



# Machined Crimp Contacts size 16



## Standard RM/RC crimp contacts: Contact size 16 - Pin diameter 1.6mm (.063")



### Dimensional table

Pin contacts	Part number		Fig.	Wire size		Max. wire dia.	Max. insul. dia.	Wire strip length	O.D.	L1	L2
	Fig.	Socket contacts Standard		AWG	mm <sup>2</sup>						
RM28M1(*)	1	RC28M1(*)	6	30-28	0.05-0.08	0.55	1.1	4.8	1,90	26,2	18.2
RM24M9(*)	2	RC24M9(*)	7	26-24	0.13-0.20	0.8	1.6		2,55		
RM20M13(*)	3	RC20M13(*)	8	22-20	0.32-0.52	1.18	1.8		2,92		
RM20M12(*)		RC20M12(*)					2.2	2,92			
RM16M23(*)	4	RC16M23(*)	9	20-16	0.52-1.50	1.80	3.2	7.1	2,55	27,2	19.7
RM16M23GE1(*)		RC16M23GE1(*)	9						3,10	26,2	18.2
RM14M50(*)	5	RC14M50(*)	10	16-14	1,5-2,5	2,05			3,10	26,2	18.2
RM14M30(*)	5	RC14M30(*)	10	16-14	1,5-2,5	2,28	3,10	3,10	26,2	18.2	

(\*) Plating indication : See plating table

For machined contact reeled on plastic carrier: put "K" in front of part number e.g. KRM16M23K

For grounding contacts (1 mm longer) add "GE1" to the part number (e.g. RM16M23GE1K)

For last make contacts (0,3 mm shorter) add "GE3" to the part number (e.g. RM16M23GE3K)

### Special RM / RC contacts: Contact size 16 - Pin diameter 1.6mm (.063")

Pin contacts	Part number		Type	Wire size		Post cross section A	Length out of TRIM TRIO cavity	Anti-rotating bushing part number
	Socket contacts			AWG	mm <sup>2</sup>			
RM16SEO(*)	RC16SE4(*)		Soldercup	16 - 20	1.50 - 0.52	ø1.7	3.5	-
RM20M12G4(*)	RC20M12G4(*)		Mini - wrap	28 - 30	0.08 - 0.05	ø 0.636	16.0	J1661

(\*) Plating indication : See plating table.

### Crimptooling table

Size	Hand crimp tooling for loose contacts						Automatic crimp tooling for contacts on strip		Extraction tools
	Hand tools die set included	MH860		M10S1		M8ND	P100MAN (Press)		
		Positioner (not incl.)	Locator setting	Die set (not incl.)	Stop bushing (not incl.)	Die set (not incl.)	Left side applicator KRM/KRC (not incl.)	Stripper unit (not incl.)	
28-1	Y16RCM or AF8 + TP120	MH86164G	4/6	S9	SL40	N24RT10	--	Consult Factory	RX2025GE1 or RX2025GE2 or RX16D11D1
24-9			5/6						
20-12/13			5/7	S10	N20RT30	MLSP2764			
16-23			6/8	S3D1	SL39	N16RT21	MLSP2765		
16-GE1		MH86186	SL115	N16RT25					
14-50	--	--	S3-14	SL39	--	--	--		
14-30	--	--	--	--	--	--	--		

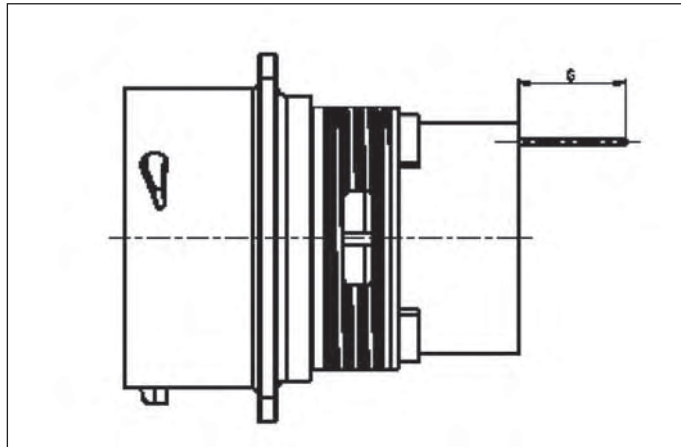
For detailed information on crimp tooling : See crimp tooling section

# Machined Contacts

## PC Boardmount size 16



**Nominal length (dim G) of dipsolder contacts out of connector (contacts to be ordered separately)**



### UTP0 / UTG0 wall mounting receptacle connectors

Connector size	Pin contact		Socket contact		
	RM20M12E8*	RM20M12E83*	RC20M12E8*	RC20M12E83*	RC20M12E84*
<b>All sizes</b>	5.2	10.3	5.2	10.4	13.9

\* Plating indication: See (plating table)

### UT00 wall mounting receptacle connectors

Connector size	Pin contact		Socket contact		
	RM20M12E8*	RM20M12E83*	RC20M12E8*	RC20M12E83*	RC20M12E84*
<b>10</b>	4	9.1	3.3	8.5	12.1
<b>12</b>	4	9.1	3.3	8.5	12.1
<b>14</b>	4	9.1	3.3	8.5	12.1
<b>16</b>	4	9.1	3.3	8.5	12.1
<b>18</b>	4	9.1	3.3	8.5	12.1
<b>20</b>	4.1	9.2	1.8	7	10.6
<b>22</b>	4.1	9.2	1.1	6.3	9.9
<b>24</b>	4.1	9.2	1.1	6.3	9.9

\* Plating indication: See (plating table)

### UT07 jam nut receptacle connectors

Connector size	Pin contact		Socket contact		
	RM20M12E8*	RM20M12E83*	RC20M12E84*	RC20M12E85*	RC20M12E86*
<b>10</b>	4.1	9.2	4.65	7.15	7.95
<b>12</b>	4.1	9.2	4.65	7.15	7.95
<b>14</b>	4.1	9.2	5.35	7.85	8.65
<b>16</b>	4.1	9.2	4.65	7.15	7.95
<b>18</b>	4.1	9.2	4.65	7.15	7.95
<b>20</b>		4.85		3.4	4.2
<b>22</b>		4.85		2.7	3.5
<b>24</b>		3.35		1.3	2.1

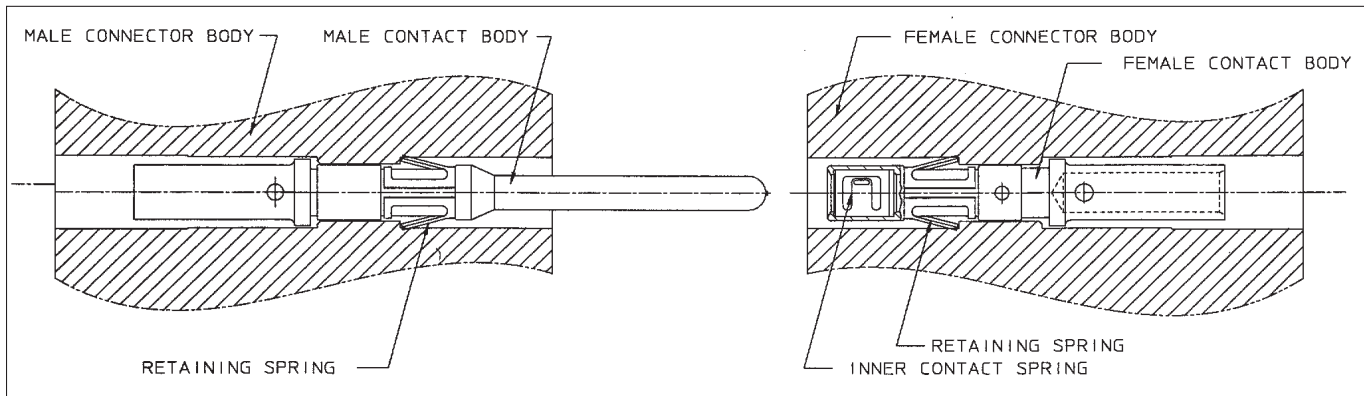
For recommended PC-Board hole lay out: Consult factory

\* Plating indication: See (plating table)

# Machined Contacts size 16



## The RM/RC contact principle



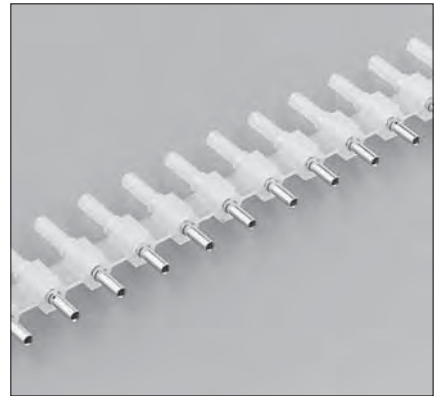
## The RM/RC contact packing



50 pcs bulk packing (standard)



1000 pcs bulk packing



Reeled contacts on plastic carrier (qty 2000 pcs)

# Stamped and Formed Contacts size 16 One Piece



## SM/SC-M

### Description

Size 16 SM/SC .063" (1.6mm) diameter contacts are two piece strip formed crimp snap-in pin and sockets.

These contacts consist of a crimp body made of high conductive copper alloy, and a stainless steel retaining spring featuring retention in the housing cavity and a closed entry socket to prevent probe damage. The contact with its open barrel is standard available on strip and packaged with 3000 pcs on reel. This reel packaging combined with semi or even full automatic crimp tooling provides the added advantage of a lower installed cost.

### Features and benefits

- Made from high conductive copper alloy with gold or tin over nickel plate finish.
- Two piece construction with dual purpose spring which serves for contact retention and protects the body against damage.
- Contacts available on reel (standard) and in bulk packing (25 pcs).
- Suitable for high volumes and lower installation cost.

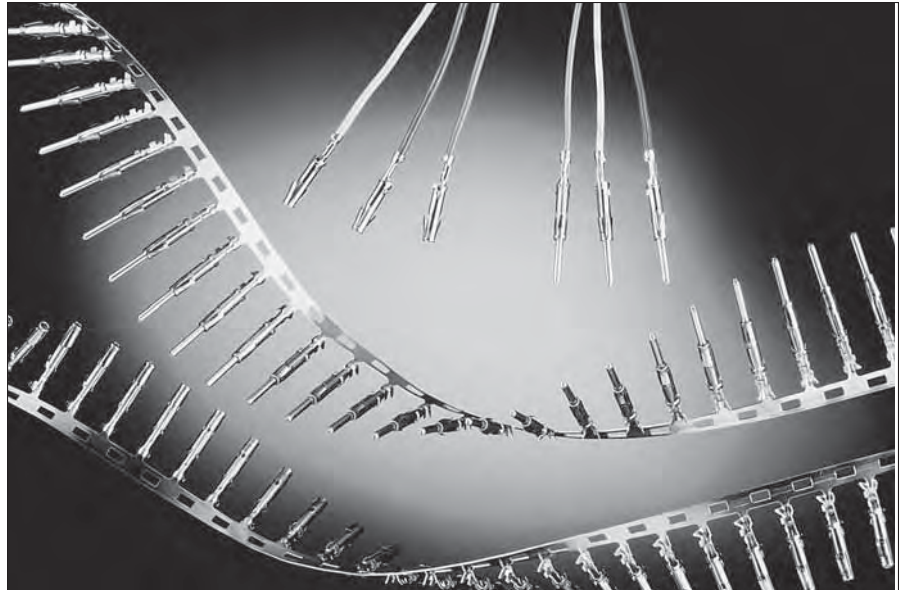
### Performance characteristics

Current rating:	13 Amp
Contact resistance:	≤ 6 mΩ

Contact retention in body:	65 N min.
Individual insertion force:	3.5 N max.
Individual withdrawal force:	0.55 N min.

### Construction

Contact body:	High conductive copper alloy.
Outer spring:	Stainless steel



### Plating table

S6	= 0.75m Gold min. in contact area, flash on crimp barrel over Nickel.
D70	= Gold flash all over, over Nickel.
TK6	= Preplated Tin all over.

- MS-M / MSG / MB
- SMS Qikmate
- UTG
- UTP
- UTO
- MBG
- UTS
- UTV

Note:  
Reeled contacts are for applicator with left side feeding.

### Connector accommodation

Any TRIM TRIO size 16 contact can be used in any contact position in any connector in the TRIM TRIO size 16 interconnection system.

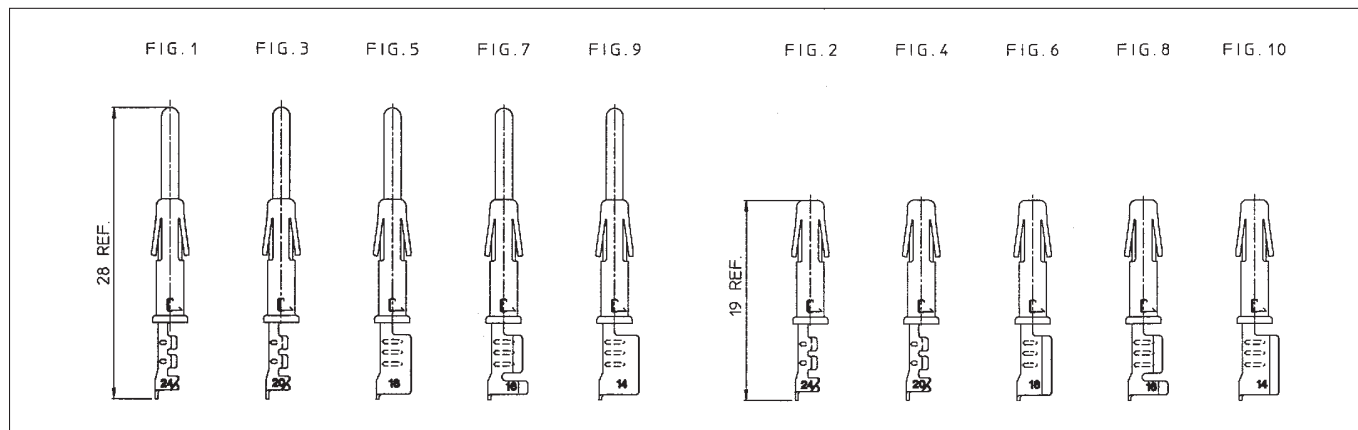
## How to order

	SM SC	16 16	M M	(L) (L)	1 1	S6 S6
<b>Contact type:</b>	<b>SM:</b> Male contact <b>SC:</b> Female contact					
<b>AWG Size:</b>	14, 16, 20, 24					
<b>Type of crimp barrel:</b>	American open crimp barrel					
<b>Packing:</b>	<b>No digit:</b> Contacts on strip (qty 3000 per reel) <b>L:</b> Preformed loose piece contacts					
<b>Design variation</b>	<b>1</b> : Only wire crimp for size 14 and 16 : Wire + insulation crimp for sizes 20 and 24 <b>11</b> : Wire + insulation crimp for size 16					
<b>Plating indication:</b>	See plating table					

# Stamped and Formed Contacts size 16 One Piece



## Standard SM/SC crimp contacts: Contact size 16 - Pin diameter 1.6mm (.063")



### Dimensional table

Part number: contacts on strip Loose pieces				Wire size		Insulation diameter	Wire strip length
Pin contacts	Fig.	Socket contacts	Fig.	AWG	mm <sup>2</sup>		
<b>SM24M1S6</b> <b>SM24ML1S6</b>	<b>1</b>	<b>SC24M1S6</b> <b>SC24ML1S6</b>	<b>2</b>	26 - 24	0.13 - 0.25	0.89 - 1.58	4.0
<b>SM20M1S6</b> <b>SM20ML1S6</b>	<b>3</b>	<b>SC20M1S6</b> <b>SC20ML1S6</b>	<b>4</b>	22 - 20	0.35 - 0.50	1.17 - 2.08	4.0
<b>SM16M1S6</b> <b>SM16ML1S6</b>	<b>5</b>	<b>SC16M1S6</b> <b>SC16ML1S6</b>	<b>6</b>	18 - 16	0.80 - 1.50	3.0	6.35
<b>SM16M11S6</b> <b>SM16ML11S6</b>	<b>7</b>	<b>SC16M11S6</b> <b>SC16ML11S6</b>	<b>8</b>	18 - 16	0.80 - 1.50	2.0 - 3.0	4.65
<b>SM14M1S6</b> <b>SM14ML1S6</b>	<b>9</b>	<b>SC14M1S6</b> <b>SC14ML1S6</b>	<b>10</b>	14	2.0 - 2,5	3.2	6.35

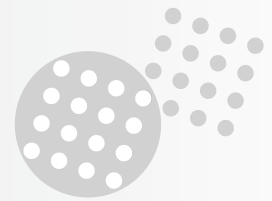
For other platings: See plating table.

### Crimptooling table

Size	Hand crimp tooling for loose contacts		Automatic crimp tooling for contacts on strip		Extraction tooling
	Hand tools die set included	M8ND Die set (not included)	P100 MAN Mini Applicator (not included)	(Stripper - crimper)	
<b>24</b>	Y16SCM2 (ratchet)	N24RT11	MLS0318B	SC10S1	RX2025GE1 or RX2025GE2 or RX16D11D1
<b>20</b>	Y14SCM2 (not ratchet) Y14MTV (ratchet)	N20RT29	MLS0555A		
<b>16M(L)11</b>	Y16SCM2 (ratchet) Y14SCM2 (not ratchet)	N16RT26	MLS0356A		
<b>16M(L)1</b>	Y14SCM (ratchet) Y14MTV (ratchet)	N16RT24	MLS1579		
<b>14</b>	Y14SCM (ratchet) Y14MTV (ratchet)	N14RT13	MLS1047		

For detailed information on crimp tooling : See crimp tooling section

# Stamped and Formed Contacts size 16 One Piece



## SM/SC-M - One Piece Description

Economic one piece contacts are formed of brass and available with tin or gold plate finishes. Contacts accommodate No. 16 stranded through No. 26 solid or stranded. They are supplied 3,000 to a reel and installed with the Burndy UTM-2 installation machine. These one-piece formed contacts are rated to 5 amps.

### Features and benefits

- Made from high conductive copper alloy with gold or tin over nickel plate finish.
- Contacts available on reel (standard) and in bulk packing (25 pcs).
- Suitable for high volumes and lower installation cost.

### Performance characteristics

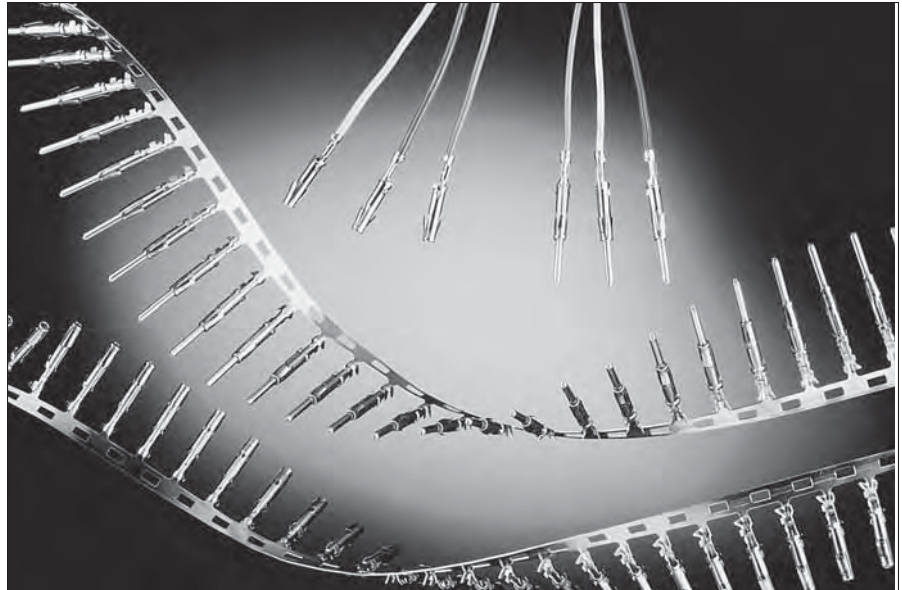
Current rating:	5 Amp
Contact resistance:	≤ 7 mΩ

### Construction

Contact body: High conductive copper alloy.

### Plating table

S6 = 0.75m Gold min. in contact area, flash on crimp barrel over Nickel.  
TK6 = Preplated Tin all over.



### Connector accommodation

Any TRIM TRIO size 16 contact can be used in any contact position in any connector in the TRIM TRIO size 16 interconnection system.

- MS-M / MSG / MB
- SMS Qikmate
- UTG
- UTP
- UTO
- MBG
- UTS
- UTV

## Dimensional table

Pin contacts	Socket contacts	Wire Range AWG	Insulation Range	Installation Tools		Extraction Tool
				M8ND/y8ND Die Set	UTM-2 Crimp Mechanism	
<b>SM24M6S6</b> <b>SM24M6TK6</b>	<b>SC24M62S6</b> <b>SC24M62TK6</b>	26 - 24 SOL / STR	.038" - .062"	N24RT-11	CM11G1	RX16D11-D1
<b>SM20M6S6</b> <b>SM20M6TK6</b>	<b>SC20M62S6</b> <b>SC20M62TK6</b>	20 - 22 SOL / STR	.046" - .082"	N20RT-29	CM11G1	
<b>SM16M6S6</b> <b>SM16M6TK6</b>	<b>SC16M62S6</b> <b>SC16M62TK6</b>	16 - 18 STR	—	N16RT-24	CM11	
<b>SM16M16S6</b> <b>SM16M6TK6</b>	<b>SC16M62S6</b> <b>SC16M62TK6</b>	16 - 18 STR	.082" - .118"	N16RT-26	CM27	



# Coaxial Contact Kits size 16



## RMDX/RCDX-K

### Description

Size 16 RMDX/RCDX Monocrimp .0625" (1.6mm) diameter contacts are one-piece monocrimp subminiature coaxial contacts to cover a wide range of subminiature coaxial and twisted pair cables. They provide cost effective solutions in applications where a mix of signal, power and coaxial cable terminations for low frequency, shielded signal and high frequency applications are needed. Monocrimp one piece coaxial contacts offer high reliability plus the economic advantage of a 95% reduction in installation time over conventional assembly methods currently in use.

### Features and benefits

- The monocrimp one-piece coaxial contacts offer high reliability plus the economic advantage of a 95% reduction in installation time over conventional assembly methods.
- This economy is achieved by simultaneously crimping of both the inner and outer conductor

### Performance characteristics

Operating voltage between inner / outer contact:	230 VDC
Test potential between inner / outer contact	450 VAC 1 min.
Operating temperature:	-55°C to + 125°C
Contact retention in body:	65 N min.
Contact voltage drop a 1A:	30m V max.
Isolation at 30 MHZ:	140 db.

### Construction

Inner and outer contacts: High conductive copper alloy



Retaining spring: beryllium copper  
Insulating bushing: Polyamide 6.6

### Plating table

Retaining spring: Nickel plated  
Inner and outer contacts:  
D28: 0.75 µ Gold min. over Nickel

### Connector accommodation

Any TRIM TRIO size 16 contact can be used in any contact position in any

connector in the TRIM TRIO size 16 interconnection system.

- MS-M / MSG / MB
- SMS Qikmate
- UTG
- UTP
- UTO
- MBG

## How to order

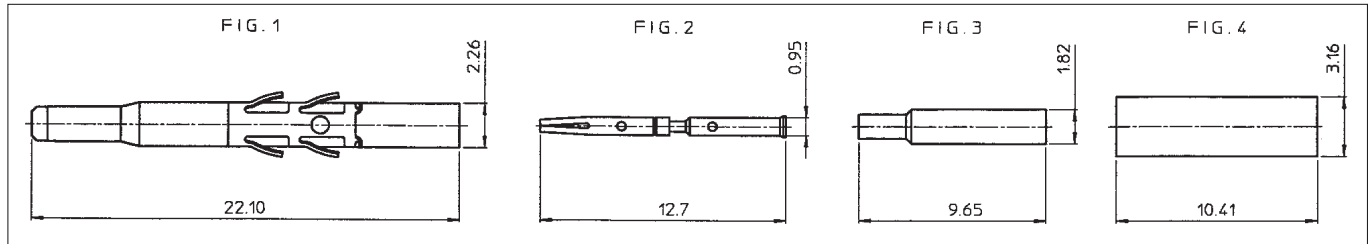
	RMDX RCDX	K10 K1	D28 D28
<b>Contact type:</b>	RMDX = Male subminiature coax. RCDX = Female subminiature coax.		
<b>Monocrimp design variation</b>			
<b>Plating indication</b>			



# Coaxial Contact Kits size 16



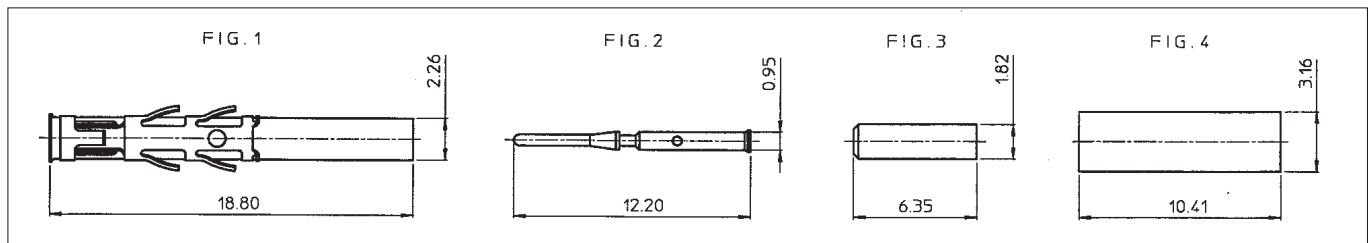
## MULTIPIECE Subminiature coax - Male contact for coaxial cable



Type of coaxial cable	Contact for inner conductor				Contact for outer braid						Extrac tool
	Inner female contact		Crimp tool M10S1		Outer male contact		Hyring		Crimp tool M10S1		
	Part number	Fig.	Die Set	Stop Bushing	Part number	Fig	Part number	Fig	Die Set	Stop Bushing	
RG161U RG179A/U RG179B/U RG187U	RFD26L1D28	2	S23D2	SL46D2	RMDX602D28	1	yOC074	4	S22-1	SL47-1	RX2025 GE1
S26D2			yOC074				4				
S23D2			yOC074 + RMDXB0553				4 3				
RG174/U RG188/U Amphenol 21-598 RG178A/U RG196U											RX16D11 D1

Kit reference RMDXK10D28 includes RMDX602D28 + RFD26L1D28 + yOC074 + RMDXB0553 and are packed in plastic bag.

## MULTIPIECE Subminiature coax - Female contact for coaxial cable



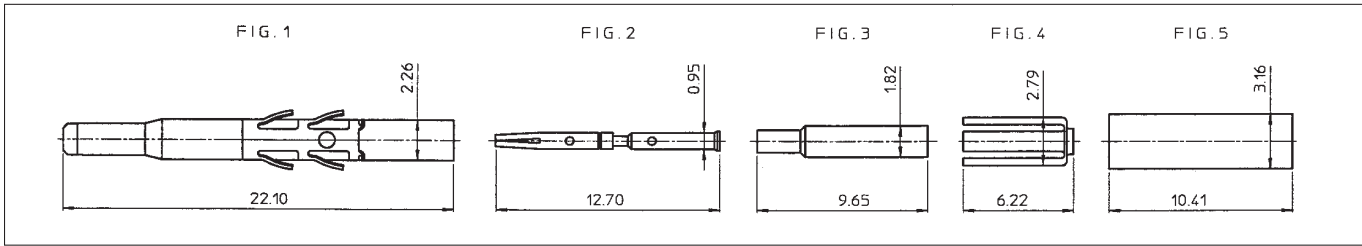
Type of coaxial cable	Contact for inner conductor				Contact for outer braid						Extrac tool
	Inner male contact		Crimp tool M10S1		Outer female contact		Hyring		Crimp tool M10S1		
	Part number	Fig.	Die Set	Stop Bushing	Part number	Fig	Part number	Fig	Die Set	Stop Bushing	
RG161U RG179A/U RG179B/U RG187U	RMD26L1D28	2	S23D2	SL46D2	RCDX602D28	1	yOC074	4	S22-1	SL47-1	RX2025 GE1
S26D2			yOC074				4				
S23D2			yOC074 + RCDXB0551				4 3				
RG174/U RG188/U Amphenol 21-598 RG178A/U RG196U											or RX16D11 D1

Kit reference RCDXK1D28 includes RCDX602D28 + RMD26L1D28 + yOC074 + RCDXB0551 and are packed in plastic bag.

# Coaxial Contact Kits size 16

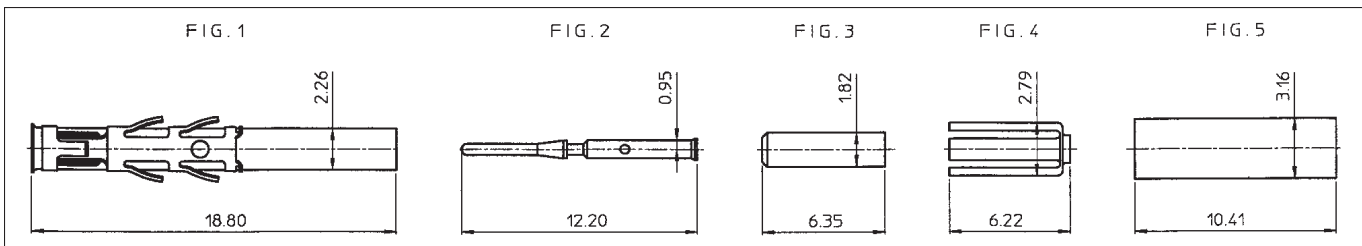


## MULTIPIECE Subminiature coax - Male contact for twisted pair cable



Type of coaxial cable	Contact for inner conductor				Contact for outer braid						Extrac tool	
	Inner female contact		Crimp tool M10S1		Outer male contact		Hyring		Crimp tool M10S1			
	Part number	Fig.	Die set	Stop bushing	Part number	Fig	Part number	Fig	Die set	Stop bushing		
2 #24 solid or stranded 2 #26 str	RFD26L1D28	2	S26D2	SL46D2	RMDX602D28	1	YORX090	4	S221	SL471	RX2025 GE1  or RX16D11D1	
YOC074							5					
RMDXB0553							3					
2 #24 7/0,20 str. MIL-W-76 or MIL-W-16878 type B	RFD26L1D28	2	S26D2	SL46D2	RMDX602D28	1	YORX090	4	S221	SL471		RX2025 GE1  or RX16D11D1
YOC074							5					
RMDXB0554							3					
#28 per MIL-W- 81822/3	RFD26L1D28	2	S26D2	SL46D2	RMDX602D28	1	YORX090	4	S221	SL471	RX2025 GE1  or RX16D11D1	
YOC074							5					
RMDXB0553							3					

## MULTIPIECE Subminiature coax - Female contact for twisted pair cable



Type of coaxial cable	Contact for inner conductor				Contact for outer braid						Extrac tool	
	Inner male contact		Crimp tool M10S1		Outer female contact		Hyring		Crimp tool M10S1			
	Part number	Fig.	Die set	Stop bushing	Part number	Fig	Part number	Fig	Die set	Stop bushing		
2 #24 solid or stranded 2 #26 str	RMD26L1D28	2	S26D2	SL46D2	RCDX602D28	1	YORX090	4	S221	SL471	RX2025 GE1  or RX16D11D1	
YOC074							5					
RCDXB0551							3					
2 #24 7/0,20 str. MIL-W-76 or MIL-W-16878 type B	RMD26L1D28	2	S26D2	SL46D2	RCDX602D28	1	YORX090	4	S221	SL471		RX2025 GE1  or RX16D11D1
YOC074							5					
RCDXB0552							3					
#28 per MIL-W- 81822/3	RMD26L1D28	2	S26D2	SL46D2	RCDX602D28	1	YORX090	4	S221	SL471	RX2025 GE1  or RX16D11D1	
YOC074							5					
RCDXB0551							3					

# Monocrimp Coaxial Contacts size 16



## RMDX/RCDX

### Description

Size 16 RMDX/RCDX Multipiece .0625" (1.6mm) diameter contacts are subminiature coaxial contacts to cover a wide range of subminiature coaxial and twisted pair cables. They are suitable in applications where a mix of signal, power and coaxial cable terminations for low frequency, shielded signal and high frequency applications are needed. The contact consists of an inner pin/socket and an outer male/female body. The thermoplastic insulating bushing in the outer body is designed to accept and permanently retain the inner contact. The outer ferrule holds the outer braid to the outer contact and acts as an insulating support to ensure against bending and vibrating stresses. The inner and the outer conductor are crimped individually, thereby enabling inspection of both critical crimp points.

### Features and benefits

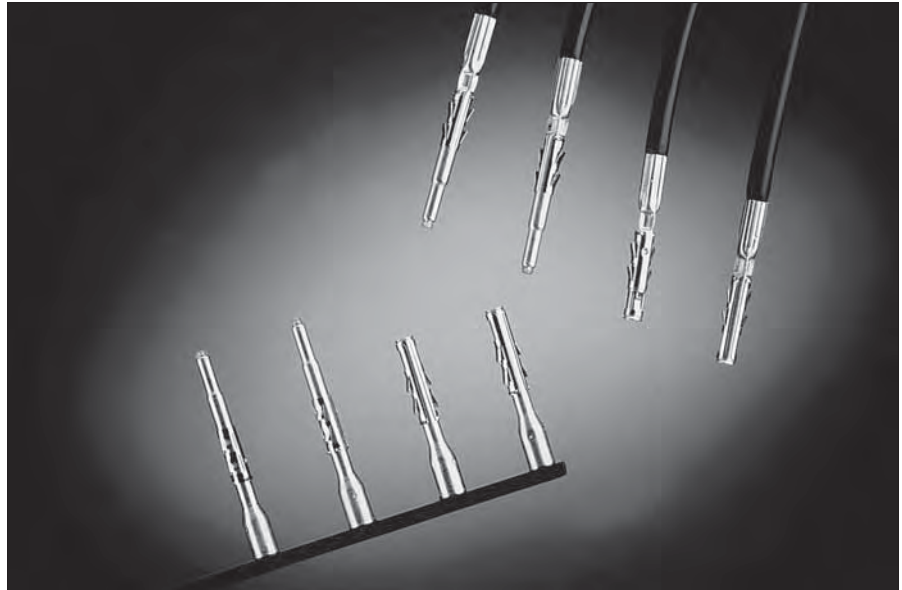
- The inner and outer conductors are crimped individually
- The thermoplastic insulating bushing in the outer body is designed to accept and permanently retain the inner contact.
- Outer ferrule holds the outer braid to the outer contact and acts as an insulating support to ensure against bending and vibration.

### Performance characteristics

Operating voltage between inner / outer contact:	230 VDC
Test potential between inner / outer contact	750 VAC 1 min.
Operating temperature:	-55°C to + 125°C
Contact retention in body:	65 N min.
Contact voltage drop at 1A:	25m V max.
Isolation at 30 MHz:	140 db.

### Construction

Inner and outer contacts: High conductive copper alloy



Retaining spring: beryllium copper  
Insulating bushing: Polyamide 6.6

### Plating table

Retaining spring: Nickel plated  
Inner and outer contacts:  
D28: 0.75µ Gold min. over Nickel

### Connector accommodation

Any TRIM TRIO size 16 contact can be used in any contact position in any connector in the TRIM TRIO size 16

interconnection system.

- MS-M / MSG / MB
- SMS Qikmate
- UTG
- UTP
- UTO
- MBG

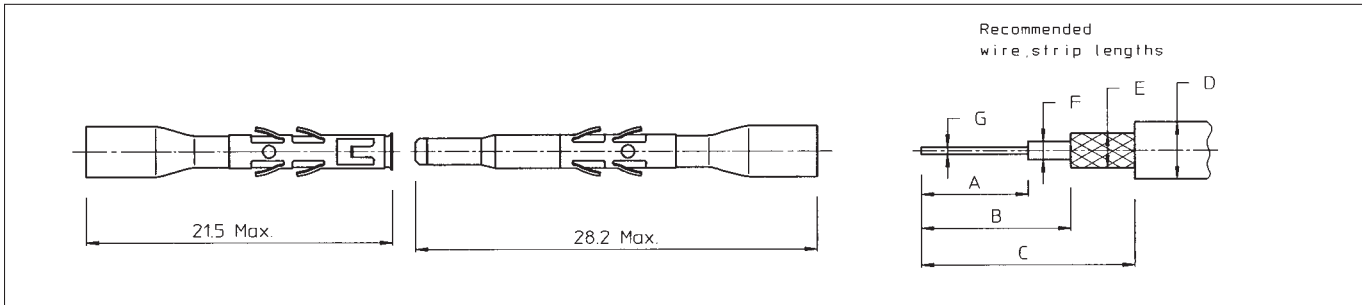
## How to order

	RMDX60 RCDX60	36 36	D28 D28
<b>Contact type:</b>	RMDX = Male subminiature coax. RCDX = Female subminiature coax.		
<b>Multipiece coax kit</b>	K10 = Lit male coax. K1 = Kit female coax.		
<b>Plating indication</b>			

# Monocrimp Coaxial Contacts size 16

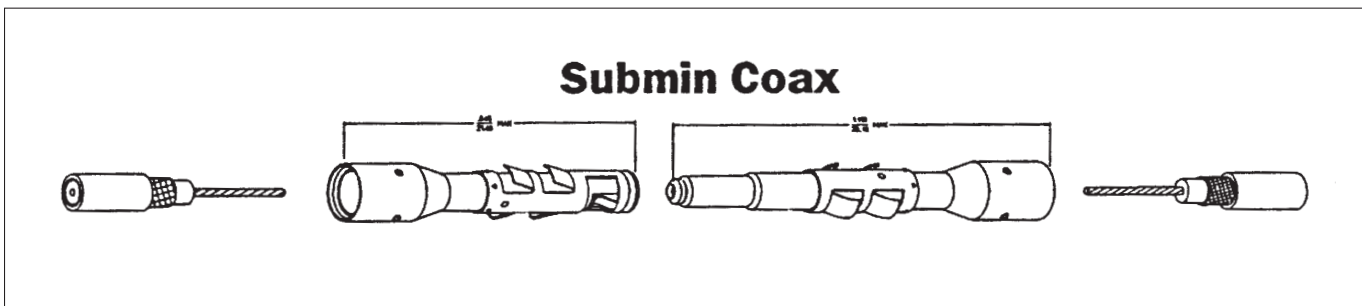


## MONOCRIMP Subminiature coax



Part number Male Female	AWG inner conduct.	Cable type	Coax dimensions				Coax strip lengths			Crimp tool M10S1		Extraction tool
			D max	E	F	G	A	B	C	Die set not incl.	stop bushing not incl.	
<b>RMDX6050D28</b> <b>RCDX6050D28</b>	30	-	2.64	2.11	1.70	0.30	5.1	6.35	8.9	S80	SL105	RX2025GE1  OR RX16D11D1
<b>RMDX6050D28</b> <b>RCDX6050D28</b>		-	2.29	1.63	1.22	0.30			4.2	8.5		
<b>RMDX6032D28</b> <b>RCDX6032D28</b>	28	-	2.90	2.29	1.91	0.38	5.1	6.35	11.7	S80		
<b>RMDX6024D28</b> <b>RCDX6024D28</b>	-	1.78	1.37	0.97	0.48	0.38			S82			
<b>RMDX6032D28</b> <b>RCDX6032D28</b>	26	RG174/U	2.92	2.24	1.52	0.48	5.1	6.35	11.7	S80		
<b>RMDX6026D28</b> <b>RCDX6026D28</b>		-	3.05	2.44	1.96	0.41				S82		
<b>RMDX6036D28</b> <b>RCDX6036D28</b>		RG188A/U	2.79			0.51				S80		
<b>RMDX6036D28</b> <b>RCDX6036D28</b>		RG316/U	2.72	1.98	1.52							

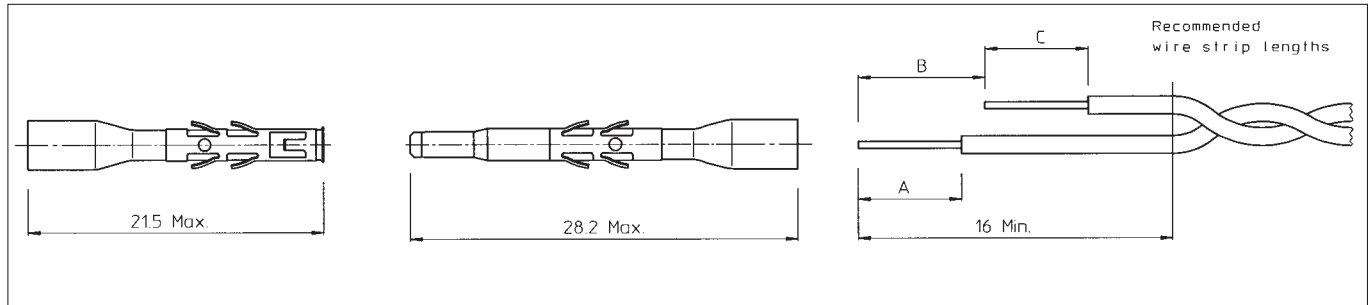
\* M10SG8 consists of die set, stop bushing and M10S1 tool



# Monocrimp Coaxial Contacts size 16

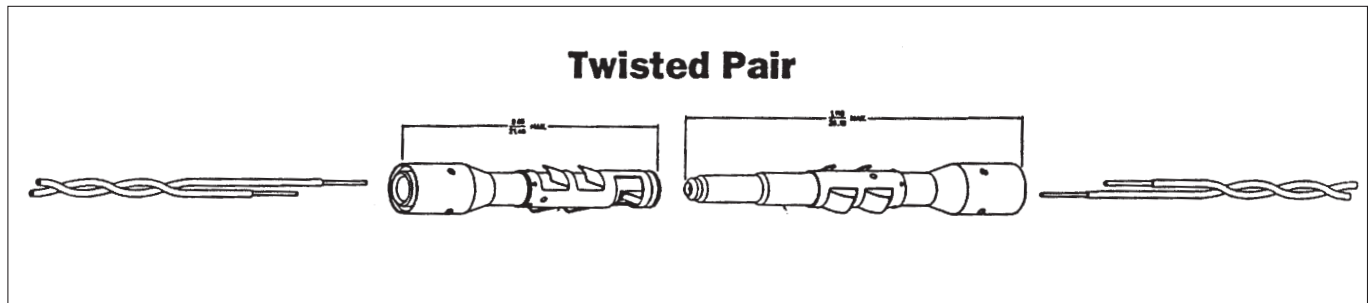


## MONOCRIMP Twisted pair



Part number		AWG inner conduct.	Dia. outer jacket (single wire)	Cable strip lengths			Crimp tool M10S1		Extraction tool
Male	Female			A	B	C	Die set not incl.	Stop bushing not. incl.	
<b>RMDX6019D28</b>	26 (19 x 0.10)	1.25	4.7	6.0	4.0	M10SG8* Crimping kit		RX2025GE1 or RX16D11D1	
<b>RCDX6019D28</b>	24 (7 x 0.20)	1.25							
	24 (19 x 0.13)	1.45							
<b>RMDX6031D28</b>	26 (7 x 0.16)	0.70				S80	SL105		
<b>RCDX6031D28</b>									

\* M10SG8 consist of die set, stop bushing and M10S1 tool.



# Fiber Optic Contacts size 16



## RM/RC POF

### Description

Size 16 Fiber optic contacts are optical contacts designed for the integration of optical links in all TRIM TRIO cable connectors.

The F.O. contacts are designed to accommodate:

- Plastic Optical Fiber (POF)  
1mm core and 2.2mm jacket
- Plastic Clad Fiber (PCF)  
230 μm core and 2.2mm jacket
- Multimode Silica Fiber  
50/125 μm type 1.5mm (or 900μm) jacket

### Features and benefits

- Socket contact is spring loaded to avoid any air gap between the two optical faces.
- Low insertion loss is provided by high precision pieces.
- Single jumpers, multiway harness and active device housings can be supplied regarding customer requirement.



### Performance characteristics

Fiber type	POF / PCF	Silica 50 / 125μm
Wave length	650 nm	850 or 1300 nm
Optical insertion loss (typ.)	2 dB max.	< 0.5 dB
Jacketed external diameter	2.2mm	1.5mm (or 0.9mm with adaptor)
Temperature range	-25°C to +70°C	-40°C to +70°C
Cable retention	49N	60N
Mating cycles without cleaning	50	50
Max. mating cycles	500	250

### Connector accommodation

Any TRIM TRIO size 16 contact can be used in any contact position in any connector in the TRIM TRIO size 16 interconnection system.

- MS-M / MSG / MB
- SMS Qikmate
- UTG
- UTP
- UTO

### Construction

Contact body: Copper alloy

Outer spring: BeCu

### How to order

#### POF Contacts (Plastic Optical Fiber)

Male contact: RMPOF1000

Female contact: RCPOF1000

#### PCF Contacts (Plastic Clad Fiber)

Male contact: RMPCF230

Female contact: RCPCF230

#### Silica Contacts

Male contact: 8012P14G353

Female contact: 8012S14G353

### Tool kit

#### Crimping / polishing technic

The tool kit contains all necessary tools to terminate contacts for POF Fiber or Silica Fiber, such as

- Stripping plier
- Crimping plier
- Polishing plate and tool
- Miscellaneous

Part number: consult factory

# Machined Contacts

## Solder Cup Style



### Solder Cups

- No crimp tool required
- Ideal for prototype & repair
- Gold plating for high performance



Size	Pin Contacts	Sockets	Current Rating	Wire Size
16	RM16SE0K	RC165E4K	13 Amps	16 - 20 AWG
12	RM12Z43028	RC12Z42028	26 Amps	12 - 14 AWG
8	82911685NZX	82911684ZX	44 Amps	8 - 12 AWG
20	RM20W3KZS (consult factory)	RC20W3KZS (consult factory)	7.5 Amps	22 - 26 AWG



# Contacts for UTOW/UTS Connectors size 20



## RM/RC-W Machined Contacts SM/SC-W Stamped Contacts

### Description

Size 20 contacts with a .040" (1.0mm) pin diameter are two piece crimp snap-in contacts in pin and socket version available in:

- Solid machined version
- Stamped and formed version
- Solid machined dip solder contacts
  - 50A7
  - 5016

And designed for heavy duty top performance requirements.

These contacts consist of a crimp/solder body made of high conductive copper alloy, and a stainless steel retaining spring featuring retention in the housing cavity and a closed entry socket to prevent probe damage.

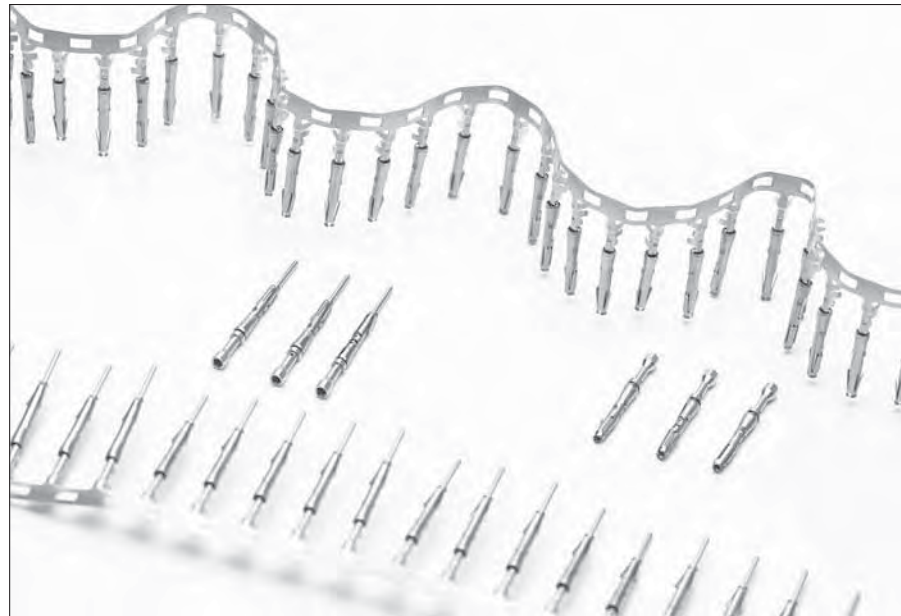
Crimp contacts accommodate AWG20 through AWG26 wire and the crimp barrels.

All contacts have to be ordered separately

### Features and benefits

- Made from high conductive copper alloy with gold plate finish.
- Two piece construction with dual purpose spring which serves for contact retention and protects the body against damage.
- Stamped and formed contacts packaging
  - On reel: 3000 pcs
  - In bulk packing: 100 pcs in plastic bag
- Solid machined crimp and dip solder contacts packaging
  - 50 pcs in plastic box

### How to order



### Performance characteristics

	Machined	Stamped and Formed
Current rating:	7,5 Amps	5 Amps
Contact resistance:	≤ 6 mΩ	≤ 15 mΩ
Dielectric withstanding voltage:	1500 V Rms min	
Contact retention in body:	90 N max.	
Contact engagement force:	5 N max.	
Contact separation force:	0,3 N min.	
Plating:	0.40 μ gold over nickel	0.75 μ gold over nickel

### Construction

Contact body: High conductive copper alloy.  
Outer spring: Stainless steel

### Connector accommodation

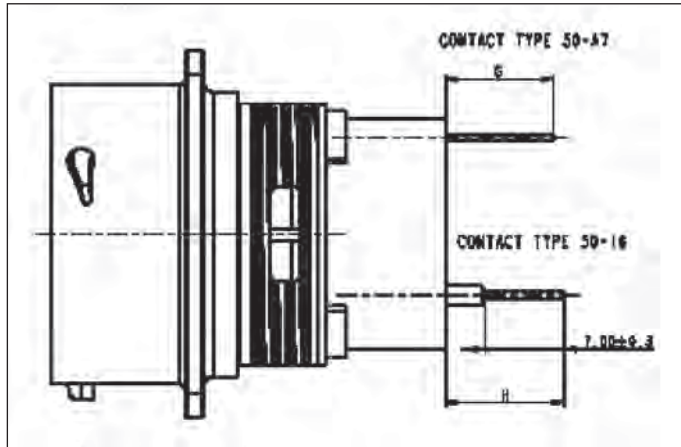
Any size 20 contacts for UTOW connectors can be used in any contact position.

Contact type		Part number	AWG	Section mm2	Insulation diameter	Tooling
Machined crimp	Pin	RM24W3K	26 – 24	0.13 – 0.25	1.58 max.	MH860 + positionner MH86301
		RM20W3K	22 – 20	0.35 – 0.50	1.58 max.	
		RM18W3K	20 - 18	0.50 - 1.00	2.10 max.	
	Socket	RC24W3K	26 – 24	0.13 – 0.25	1.58 max.	
		RC20W3K	22 – 20	0.35 – 0.50	1.58 max.	
Stamped & formed crimp	Pin	SM24W3S26	26 – 24	0.13 – 0.25	0.89 – 1.58	Y16SCM3 or Y14MTV
		SM24WL3S26				
	Socket	SM20W3S26	22 – 20	0.35 – 0.50	1.17 – 2.08	
		SM20WL3S26				
		SC24W3S25				
SC24WL3S25						
Machined Dip solder	Pin	50A7	RMW50A7K	For solder tail details see next page.		
		5016			RMW5016K	
	Socket	50A7	RCW50A7K			
		5016	RCW5016K			

# PC Boardmount Contacts for UTOW size 20



**Nominal length (dim G) of dipsolder contacts out of connector (contacts to be ordered separately)**



## UTOW0 wall mounting receptacle connectors

Connector size	Pin contact		Socket contact	
	RMW50A7K	RMW5016K	RCW50A7K	RCW5016K
10	9.43	10.33	9.85	10.50
12				
14				
16				
18	9.24	10.32	7.65	8.31
20				
22				
24				

## UTOW7 jam nut receptacle connectors

Connector size	Pin contact		Socket contact	
	RMW50A7K	RMW5016K	RCW50A7K	RCW5016K
10	9.51	10.41	2.4	3.04
12				
14				
16				
18	5	6	-	-
20				
22				
24				

For recommended PC-Board hole lay out: Consult factory

# Power contacts 8291



## Contacts

TRIM TRIO Connectors also offer possibilities to use or combine power contacts with the standard size 16 signal contacts into the same housing. It offers customers to reduce the number of connectors when combining signal and high current applications into 1 connector.

The signal cavities accept the full range of TRIM TRIO size 16 contacts for applications up till 13 A.

Power cavities will either accept:

- Size 12 contacts for applications up till 26 A
- Size 8 contacts for applications up till 44 A

Pin and Socket contacts are solid machined crimp snap-in and sockets for heavy duty top performance requirements

Springs on both contacts are made of spring tempered, heat-treated, beryllium copper.



### Construction

Contact body : High conductive copper alloy

Outer spring : Tempered, heat-treated, non plated beryllium copper.

### Plating

K = 0.4m Gold mini all over, over Nickel

A = 3μ Silver all over

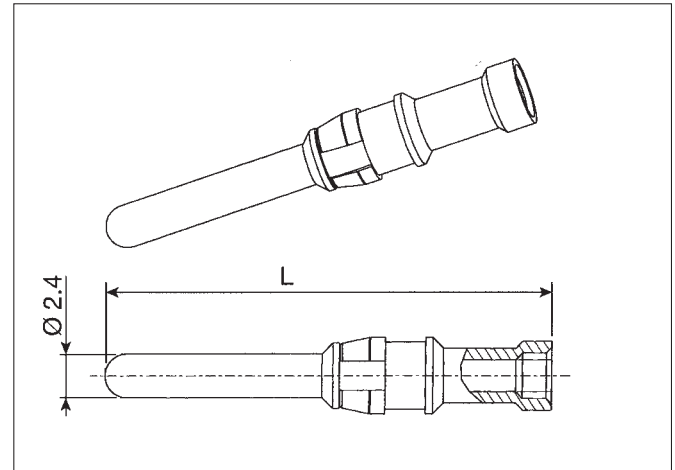
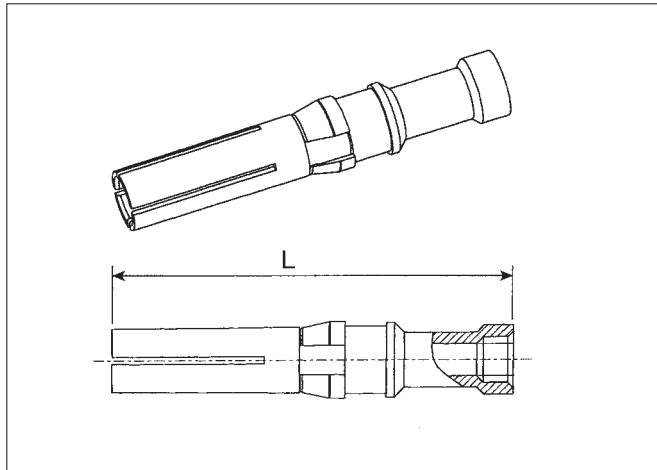
## Performance characteristics

	Contacts # 12 (Ø 2,4)	Contacts # 8 (Ø 3,6)
Current rating :	26 A	44 A
Contact resistance :	≤ 5 mΩ	≤ 5 mΩ

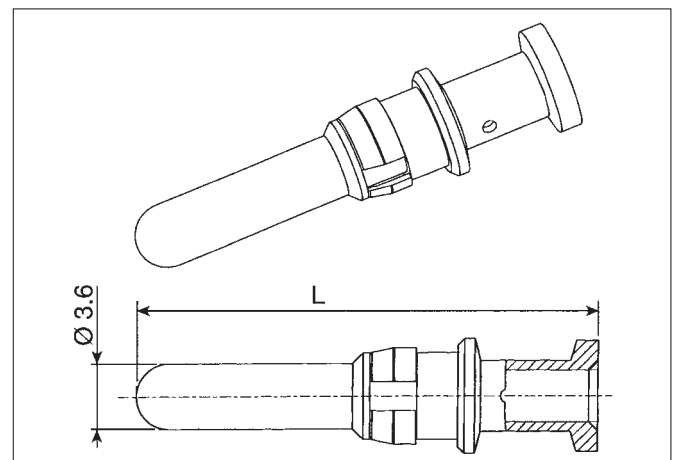
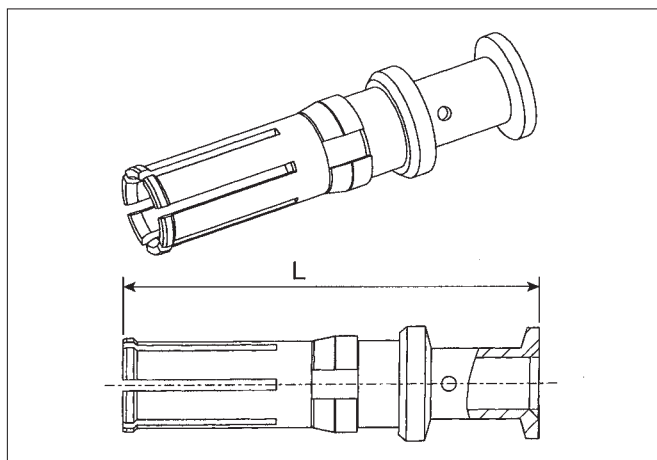
# Power contacts 8291



## Contacts # 12 (2.4 mm)



## Contacts # 8 (3.6 mm)



## How to order

Part number		Contact size	Contact diameter	Cable			Locator	Extraction tooling	
Pin	Socket			Section		Insulator diameter			
				mm <sup>2</sup>	AWG				mm
		mm	mm <sup>2</sup>	AWG	mm				
82911437NA	82911436A	# 12	2.4	0.5	20	4.9	M317	VGE10077A	51060210924
82911435NA	82911434A			0.75-1.0	18				
82911463NA	82911462A			1.5	16				
82911465NA	82911464A			2.5	14				
82911437NK	82911436K	# 12	2.4	0.5	20	4.9	M317	VGE10077A	51060210924
82911435NK	82911434K			0.75-1.0	18				
82911463NK	82911462K			1.50	16				
82911465NK	82911464K			2.5	14				
82913601A	82913600A	# 8	3.6	1.5	16	6.5	M317	VGE10078A	51060210936
82913603A	82913602A			2.5	14				
82913605A	82913604A			4	12				
82913607A	82913606A			6	10				
82913609A	82913608A			10	8				
RM12Z43D28	RC12Z43D28	12	2.4	10-4	8-12	N/A		NO TOOL REQUIRED	
82911685NZX	82911684ZX	8	3.6	4-25	12-14	N/A		SOLDER CUP - NO TOOL REQUIRED	

# Accessories



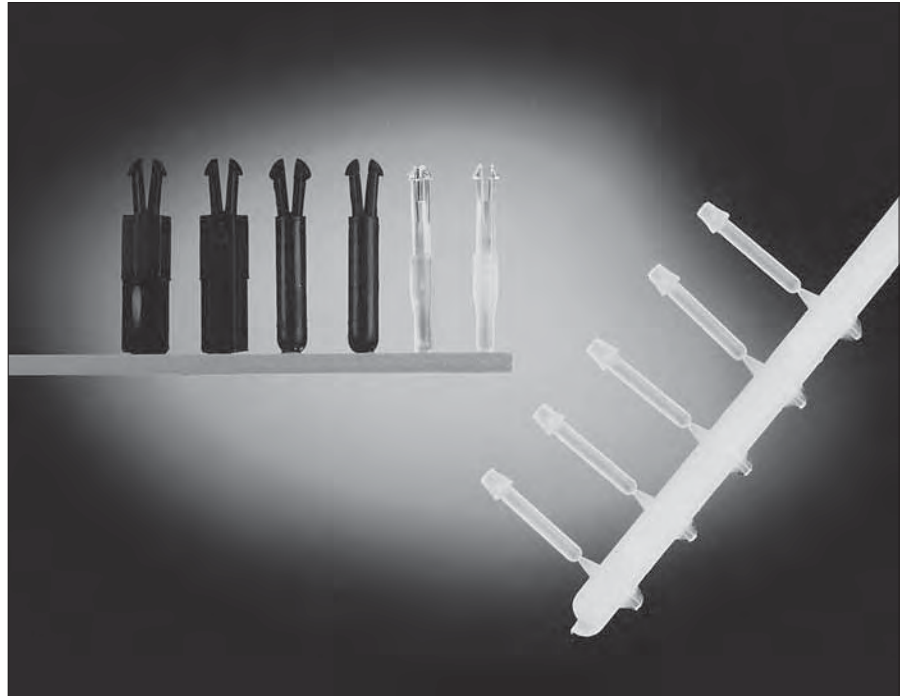
## Discrimination keys for TRIM TRIO size 16 connectors

### Description

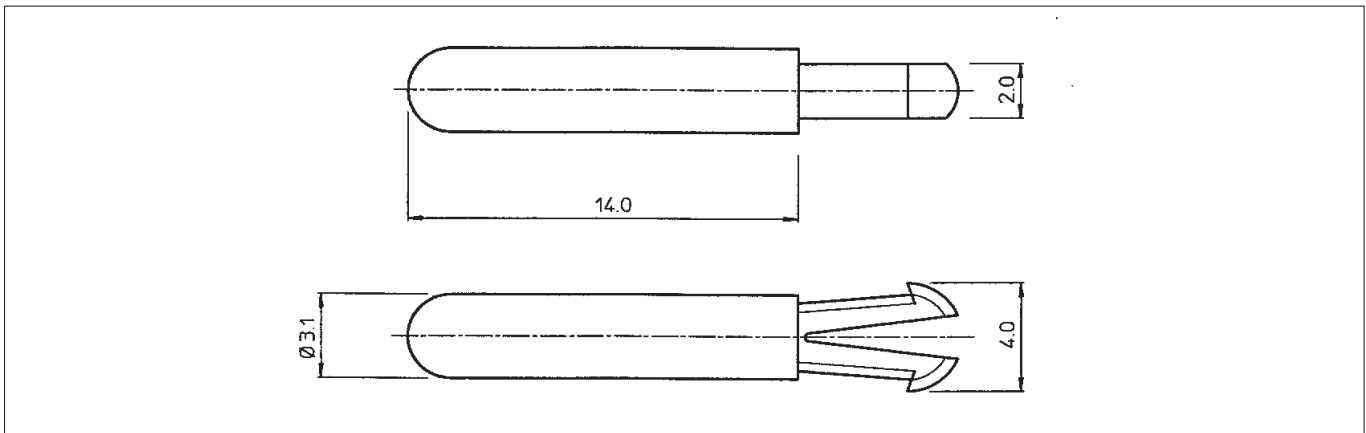
In applications where similar connectors are used next to each other, mismatching can be a reason for disturbances, system failure or even danger to operating personnel. To eliminate mismatching, all TRIM TRIO connectors can be equipped with discrimination keys, which offer unlimited possibilities for a "fool - proof" interconnection system.

When one of these discrimination keys is used, the TRIM TRIO connector will only mate with a connector which has a vacant contact or discrimination cavity at the corresponding position.

This system offers boundless opportunities for all applications which involve several identical TRIM TRIO connectors.

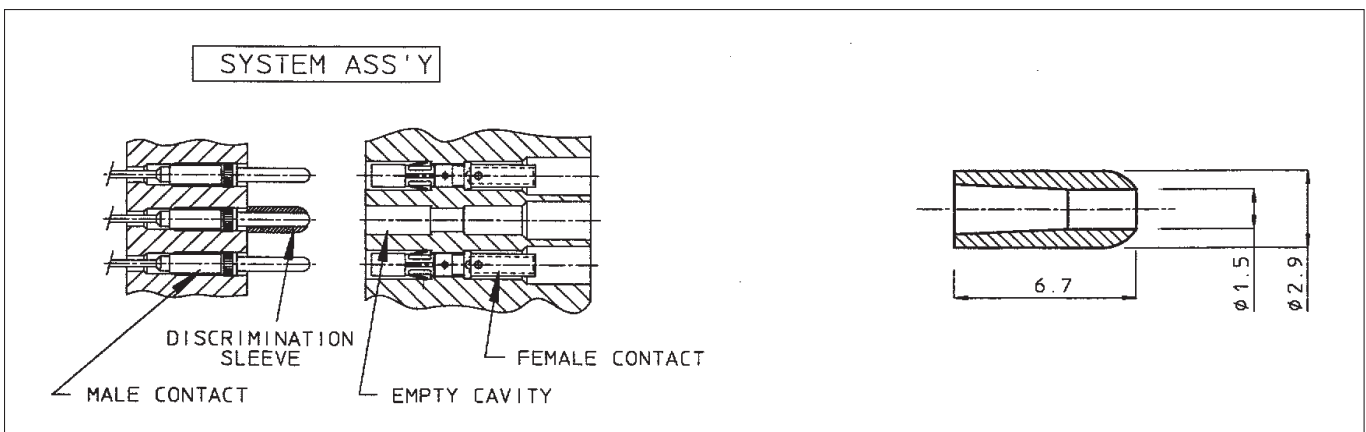


**The material used is polyamide 6.6**



### SMSPKE0

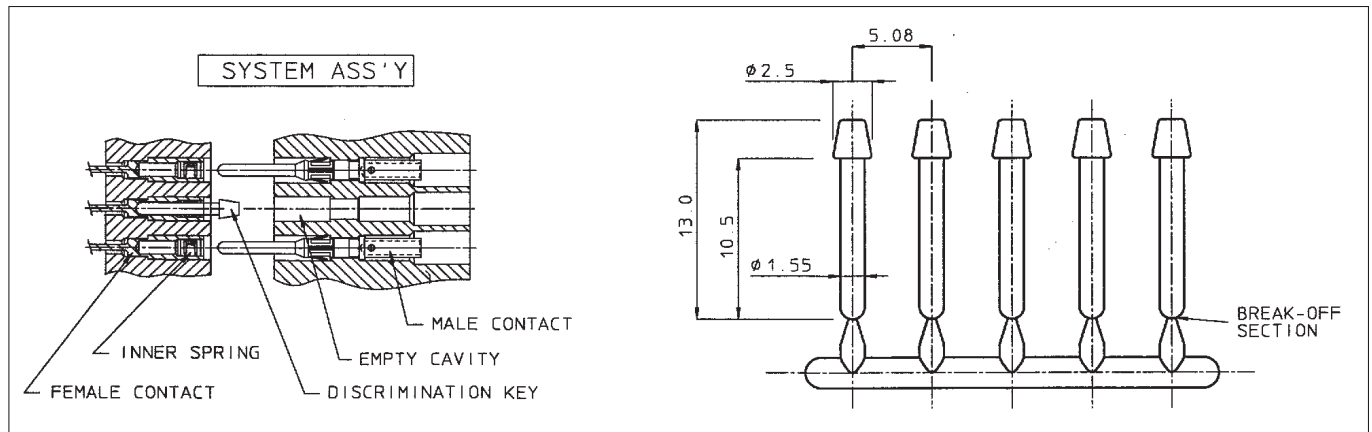
A dummy contact, which can be inserted into an empty contact cavity in any of the TRIM TRIO connectors.



### SMSPKB2

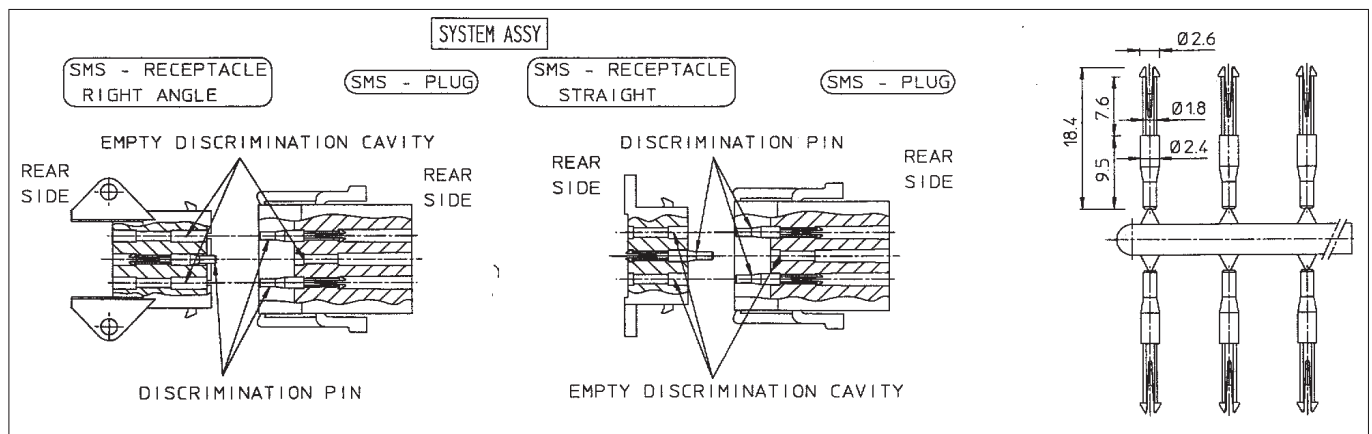
A tube, which can be fitted over a preassembled male contact in all TRIM TRIO male boardmount connectors MSO, SMS, MSG.

# Accessories



## SMSPK2V1

A pin, which can be inserted into a preassembled female contact in all TRIM TRIO female boardmount connectors MSO, SMS.



## SMSPK3

A pin, which can be inserted in the discrimination cavities of the SMS Qikmate cable and boardmount connectors. The discrimination cavities are in between of the contact cavities and offer the advantage that no contact cavities are lost due to discrimination.

As extraction tool, the RX2025GE1 without the "extraction tool tip" can be used.

To unlock the discrimination pin, insert the extraction tool in the discrimination cavity at the rear side of the connector. Meanwhile, the pin can be extracted manually at the mating side.



# Tooling – intro



## Overview TRIM TRIO tooling



## Crimptooling for TRIM TRIO contacts

The TRIM TRIO connection system not only offers versatility in connectors but production versatility in tooling as well.

All information needed on tooling ranges from simple handtools for small production, over semi-automatic to full automatic strip-and-crimp machines can be found on the hereafter paragraphs.

All the TRIM TRIO tooling and this for machined, stamped and formed and coax contacts, is specially designed for this system to make reliable, trouble-free connections.



# Tooling



## Crimptooling for Size 16 contacts (Ø 1,6 mm)

For an overview on crimping refer to “crimping tables” at the different contact sections.

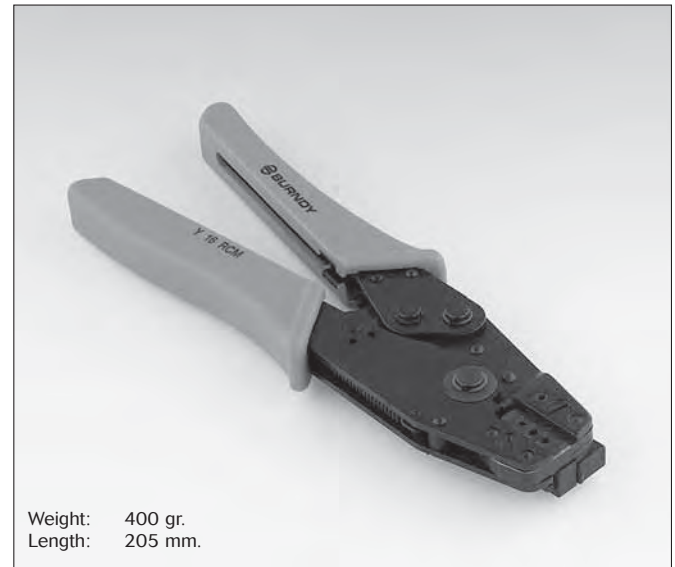


Weight: 425 gr.  
Length: 250 mm.

### M10S1 - for machined contacts

A robust, versatile, full cycling handtool which is fully qualified to the requirements of MIL-C-22520. Interchangeable 4-indent die sets are available for a wide range of machined contacts and gives a simultaneous crimp on both wire and insulation.

**This tool is suitable for application of RM/RC machined contacts and coaxial from the TRIM TRIO range.**



Weight: 400 gr.  
Length: 205 mm.

### Y16RCM - for machined contacts

A light weight, low cost crimping tool with fixed, 3-groove die set to crimp **Size 16 TRIM TRIO RM/RC loose piece machined contacts**.

The tool is ratchet controlled to guarantee a complete crimp cycle. Each crimping tool is supplied with a locator to guarantee a perfect crimp indent positioning.



Weight: 300 gr.  
Length: 170 mm.

### MH860 - for machined contacts

A light weight crimping tool Qualified to MIL-C-22520/7 that gives an 8 impression crimp with a precision cycle-controlled ratcheting mechanism. It features an 8 step crimp-depth selector knob and is designed to crimp **Size 16 TRIM TRIO RM/RC loose piece machined contacts**. The tool can be provided with different locators heads to crimp different contact types.



Weight: 425 gr.  
Length: 250 mm.

### AF8 - for machined contacts

Qualified to MIL-C-22520/1, has virtually limitless application within the specified wire range of 12 through 26 AWG. It gives an 8 impression crimp with a precision cycle-controlled ratcheting mechanism and **is used for certain machined power contacts and certain coax contacts**. The tool can be provided with different locators turret heads to crimp different contact types.

# Tooling



## Crimptooling for Size 16 contacts (Ø 1,6 mm)

For an overview on crimping refer to “crimping tables” at the different contact sections.



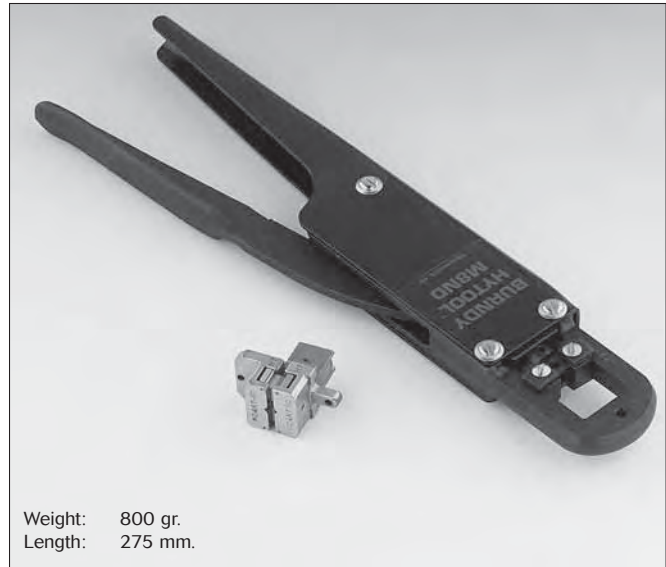
Weight: 340 gr.  
Length: 220 mm

### Y14SCM2 - for formed contacts

A low cost non ratchet plier type handtool for AWG26 to 16 + insulation crimp for:

**Size 16 TRIM TRIO SM-M/SC-M loose piece formed contacts.**

**Size 20 SEALOK SM-W/SC-W loose piece formed contacts.**



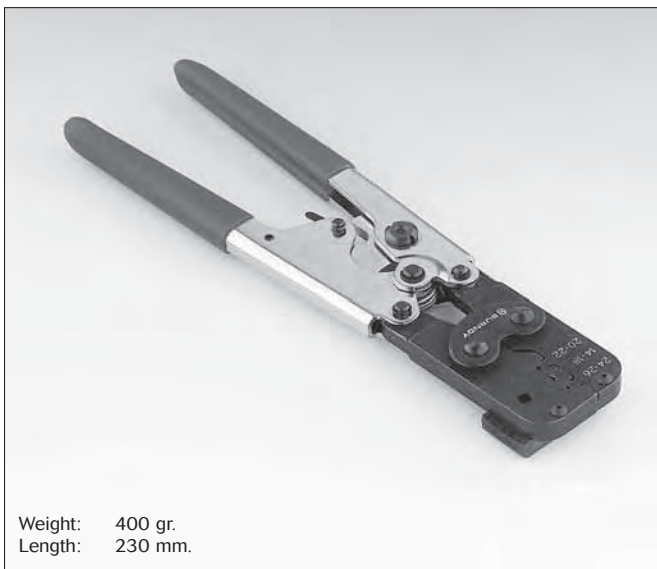
Weight: 800 gr.  
Length: 275 mm.

### M8ND - for machined and formed contacts

A robust full cycling hand ratchet tool which utilises interchangeable “N” die sets to crimp

**Size 16 TRIM TRIO RM/RC loose piece machined contacts.**

**Size 16 TRIM TRIO SM-M/SC-M loose piece formed contacts.**

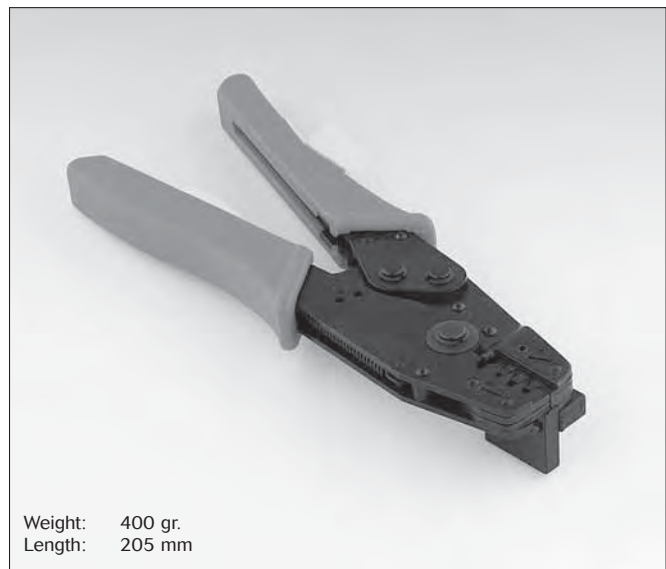


Weight: 400 gr.  
Length: 230 mm.

### Y14MTV - for formed contact

A light weight crimping tool with fixed 3-groove die set for AWG26 to 14 for: **Size 16 TRIM TRIO SM-M/SC-M loose piece formed contacts.**

Ratchet controlled to guarantee a complete crimp cycle.



Weight: 400 gr.  
Length: 205 mm

### Y16SCM2 - for formed contacts

A light weight crimping tool with fixed 3-groove die set for AWG26 to 16 for:

**Size 16 TRIM TRIO SM-M/SC-M loose piece formed contacts.**

Ratchet controlled to guarantee a complete crimp cycle.

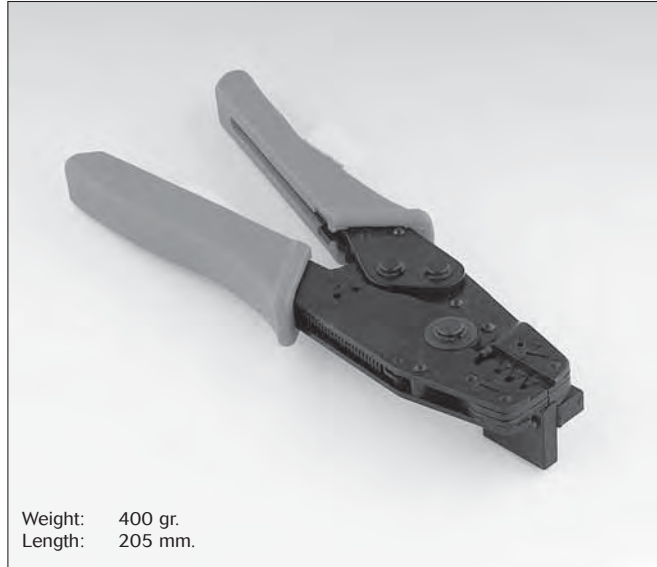
Each crimping tool is supplied with a locator to guarantee a perfect crimp indent positioning.

# Tooling



## **Crimptooling for Size 16 contacts (Ø 1,6 mm)**

For an overview on crimping refer to “crimping tables” at the different contact sections.



### **Y14SCM - for formed contacts**

A light weight crimping tool with fixed 3-groove die set for AWG18 to 14 for:

#### **Size 16 TRIM TRIO SM-M/SC-M loose piece formed contacts.**

Ratchet controlled to guarantee a complete crimp cycle.  
Each crimping tool is supplied with a locator to guarantee a perfect crimp indent positioning.

# Tooling



## Extraction and insertion tooling for size 16 contacts (Ø 1,6 mm)



### RX2025GE1

A spring loaded extraction tool **for the full range of TRIM TRIO contacts**. This tool ensures that the contact locking louvres are fully retracted before any pressure is applied to extract a contact. Part number for extraction tip: RX2025GE1P4.



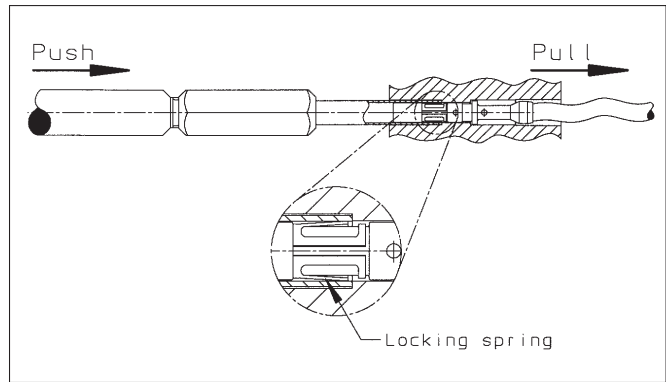
### RX2025GE2

A low cost spring loaded extraction tool for the full range of **TRIM TRIO contacts**.



### RX16D11D1

A spring loaded extraction tool **for the full range of TRIM TRIO contacts**. This tool ensures that the contact locking louvres are fully retracted before any pressure is applied to extract a contact. It is especially suitable for applications where the integrity of the assemblies are of the utmost importance.



### How to extract a contact out of its cavity?

Slide the extraction tip over contact from mating side till the locking spring from the contact is depressed. Push on handle to push out the contact with the spring loaded inner plunger.

## Insertion tooling



### RTM205

This tool is especially designed to ease insertion **of any TRIM TRIO contact** crimped on very flexible or small wire sizes. Simply position the insertion tool so that the tip of the tool bears against the back of the wire barrel, retaining the wire with thumb in the groove of the tool. Push the contact slowly into the connector until it snaps into position.

# Tooling



## Crimptooling for Size 20 contacts (Ø 1,0 mm)

For an overview on crimping refer to “crimping tables” at the different contact sections.



Weight: 300 gr.  
Length: 170 mm.

### MH860 - for machined contacts

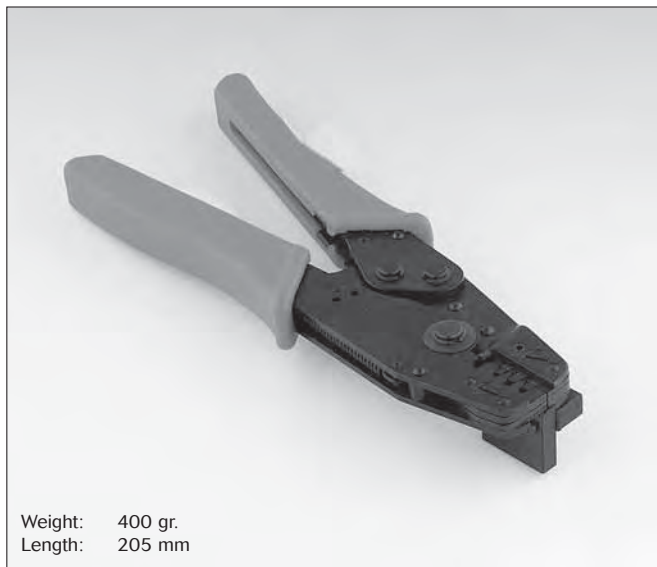
A light weight crimping tool Qualified to MIL-C-22520/7 that gives an 8 impression crimp with a precision cycle-controlled ratcheting mechanism. It features an 8 step crimp-depth selector knob. The tool can be provided with different locator heads to crimp different contact types.



Weight: 340 gr.  
Length: 220 mm

### Y14SCM2 - for formed contacts

A low cost non ratchet plier type handtool for AWG26 to 16 + insulation crimp.



Weight: 400 gr.  
Length: 205 mm

### Y16SCM3 - for formed contacts

A light weight crimping tool with fixed 3-groove die set for AWG26 to 16 for:

#### Size 20 loose piece formed contacts.

Ratchet controlled to guarantee a complete crimp cycle. Each crimping tool is supplied with a locator to guarantee a perfect crimp indent positioning.



Weight: 400 gr.  
Length: 230 mm.

### Y14MTV - for formed contact

A light weight crimping tool with fixed 3-groove die set for AWG26 to 14. Ratchet controlled to guarantee a complete crimp cycle.

# Tooling

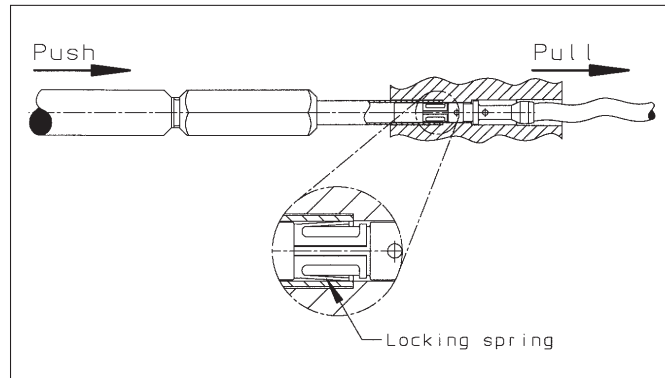


## Extraction and insertion tooling for size 20 contacts (Ø 1,0 mm)



### **RX20D44**

A spring loaded extraction tool. This tool ensures that the contact locking louvres are fully retracted before any pressure is applied to extract a contact. It is especially suitable for applications where the integrity of the assemblies are of the utmost importance.



### **How to extract a contact out of its cavity?**

Slide the extraction tip over contact from mating side till the locking spring from the contact is depressed.

Push on handle to push out the contact with the spring loaded inner plunger.

## Insertion tooling



### **RTM205**

This tool is especially designed to ease insertion **of any contact** crimped on very flexible or small wire sizes. Simply position the insertion tool so that the tip of the tool bears against the back of the wire barrel, retaining the wire with thumb in the groove of the tool. Push the contact slowly into the connector until it snaps into position.



# Tooling



## Automatic crimp tooling for size 16 (Ø 1,6 mm) and size 20 (Ø 1,0 mm) contacts

### P100 MAN Press

This electromechanical high speed full automatic crimping press is specially designed for mass production and is realised totally in assembled steel parts.

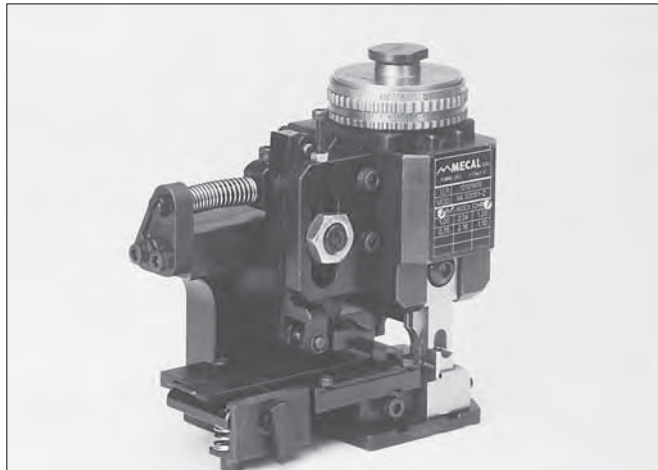
The available force consents the crimping of a wire section up to 2.5mm<sup>2</sup>.

The press has a 40mm stroke and can be used together with automatic cut and stripping machines.

It uses a new electronic module to control the bracking of the press at the desired point. The noise level of the press is less than 70dB.

There is a safety mechanism that stops the press if the working speed is too high or the press does not complete its cycle. This protects the press or equipment mounted on board from damage.

Ref.: P100MAN  
Power.: 0.37 kWatt  
Weight: 35 kg  
Dimensions: 200x300x580

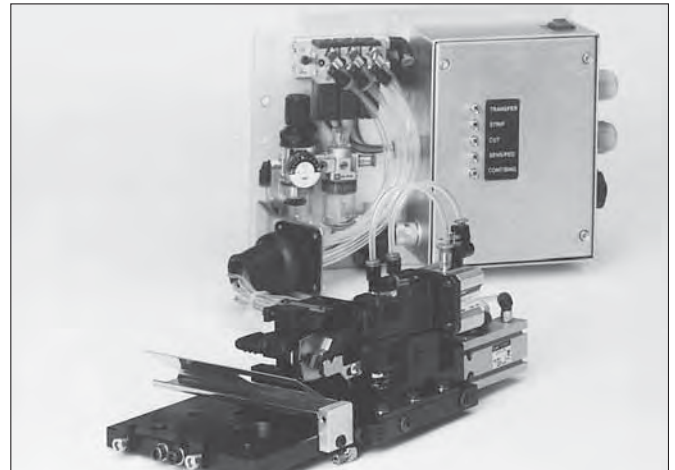


### MLS--- Left side miniapplicator

Miniapplicatorsn to crimp machined or stamped and formed TRIM TRIO and SEALOK contacts.

All the adjustments requested to make tool correctly functioning (crimp feeding pitch, crimp height...) can be simply made. Resolution of 0.03mm. Regulation range from 0 to 2.7 mm.

Ref.: See contact sections  
Stroke: 40 mm  
Weight: 4.5 kg  
Dimensions: 145x107x150



### SC10S1 Stripper-crimper

This stripper unit is used to strip insulation, immediately before the crimping of the contact terminal. The stripper unit is totally separate from the miniapplicator that allows the execution in a way that the setup and trial of the stripper unit can be done independently.

Ref.: SC10S1  
Pressure: 5 - 7 bars  
Cable section: 0.2 - 3 mm<sup>2</sup>  
Stripping length: 2.5 - 12 mm  
Weight: 7.5 kg

### Options

#### 1 - Quality assurance for crimping technology...

A crimping force sensor continuously checks the quality of each individual crimp and records it without impairing the processing speed. The sensor detects bad crimp connections, eliminating the high subsequent costs otherwise caused by them.

For ordering consult factory

### Options

#### 2 - Crimp pull press gauge

The crimp pull press gauge allows to measure the resistance to the pulling of crimped terminals.

#### 3 - Crimp height measuring device

#### 4 - Kit press lighting lamp

For ordering consult factory



# Tooling



## **Crimptooling & extraction tooling for power contacts:**

**Size 12 (dia. 2.4mm)**

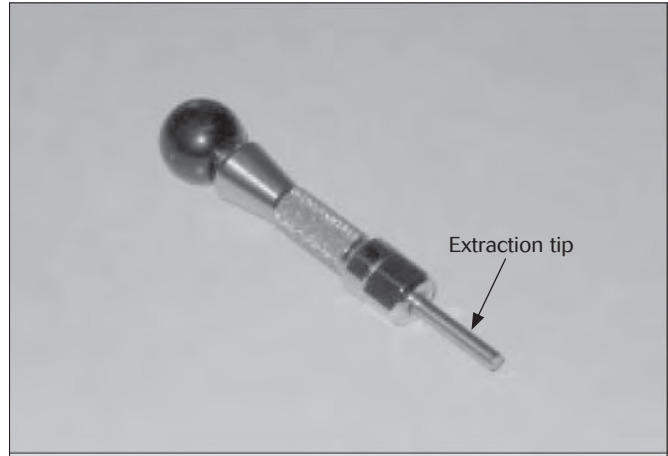
**Size 8 (dia. 3.6mm)**

Hand tooling for machined power contact # 12 (2,4 mm)



**Crimp tooling M317 and locator VGE1 0077A**

Extraction tooling for power contact # 12 (2,4 mm)



**Extraction tooling 5106.021.09.24**

Extraction tip: 5106.021.34.24

Handtooling for machined power contacts # 8 (3,6 mm)



**Crimp tooling M317 and locator VGE1 0078A**

Extraction tooling for contact # 8 (3,6 mm)



**Extraction tooling 5106.021.09.36**

Extraction tip: 5106.021.34.36

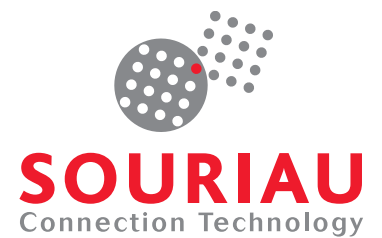


## 26482 Series I Connectors

• Rapid

• Secure

• High Performance



# 26482 Series I Solder Connectors



- Main Features - Part Numbering System.....169**
- Backshells / Hermetic Connectors .....170**
- Contacts.....172**
- Layouts.....173**
- Technical Characteristics .....174**
- Dimensions.....174**
- Protective Caps.....191**
- Push-Pull Plug .....194**
- 8F51 Filter Connector .....197**

# 26482 Series I Solder Connectors

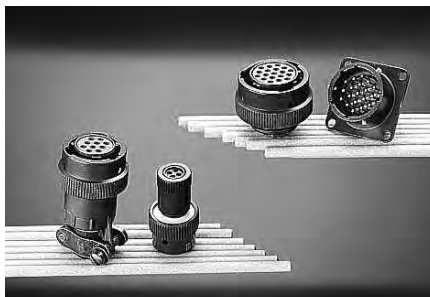


## Applications

Formerly used exclusively in military applications, these connectors are now used in a wide variety of commercial applications.

## Standards

MIL-C 26482 G Series 1  
NFC 93422-He 301 B  
VG 95328  
BS 9522 F 0017  
GAM T1 list  
QPL approved (solder version)



## Description

- Bayonet coupling
- Environmental and hermetic versions
- Solder, crimp, straight spills and wire wrap versions
- Thermocouple contacts available
- Cadmium free plating (Zinc Cobalt) version

## Characteristics

### Mechanical

- Shell :
  - environmental version :
    - aluminum alloy plating
    - olive green cadmium
    - black anodized
    - white cadmium
    - satin finish bright nickel
    - zinc cobalt (olive green)
  - hermetic version : steel
  - plating : - iridescent yellow cadmium, nickel
- Insulator :
  - front section : neoprene elastomer (85 shore)
  - rear section : neoprene elastomer (40 shore)
- Contact :
  - crimp : inserted and removed from rear of insulator retained by metallic clip ; solder and straight spills : non removable ; wire wrap : removable or not removable
  - material : copper alloy
  - plating : gold overall or gold plated active zone and tin/lead plated termination
  - min retention force of contacts in insulator

contact size	crimp	solder straight spill ww
20 (Ø 1 mm)	≥ 68 N	≥ 68 N
16 (Ø 1.6 mm)	≥ 113 N	≥ 113 N

- Mechanical durability :  
500 cycles (full mating-unmating)

### Electrical

- Dielectric withstanding voltage :
  - at standard pressure :
    - mated and unmated connectors
    - 1 500 Vrms between size 20 contacts (service 1)
    - 2 300 Vrms between size 16 contacts (service 2)
    - 1 500 Vrms between mixed size 20 and 16 contacts (service 1)
  - at reduced pressure (10 mbar) :
    - connectors mated and unmated
    - 200 Vrms between size 20 contacts (service 1)
    - 300 Vrms between size 16 contacts (service 2)
- Insulation resistance : ≥ 5 000 MΩ under 500 Vdc
- Current rating per contact :
  - size 20 : 7.5 A
  - size 16 : 13 A

- Contact resistance :
  - environmental version :
    - size 20 : 4 mΩ
    - size 16 : 3 mΩ
  - hermetic version :
    - size 20 : 30 mΩ
    - size 16 : 14 mΩ
- Shielding : 70 dB to 5 MHz  
40 dB to 100 MHz

### Environmental

- Working temperature : -55°C to +125°C
- Sealing :
  - crimp contact version, 1 bar differential pressure, leakage ≤ 8 cm<sup>3</sup>/hr
  - solder contact version, 2 bar differential pressure, leakage ≤ 16 cm<sup>3</sup>/hr
- Hermiticity : 1 bar differential pressure leakage ≤ 2,8 mm<sup>3</sup>/hr
- Chemical resistance :
  - to MIL-C 26482 G Series 1 and
  - NFC 93422-HE 301 B code A
- Resistance to salt spray : 48 hours at environmental temperature
- Damp heat : 21 days
- Vibration : to NFC 20-616

## Ordering information - Environmental connectors

<b>basic series</b>	solder version	<b>851 - 00</b>	<b>E</b>	<b>8 - 3A</b>	<b>P</b>	<b>• 50</b>	<b>•••</b>
	crimp version	<b>851 - 00</b>	<b>R</b>	<b>8 - 3A</b>	<b>P</b>	<b>• 50</b>	<b>•••</b>
<b>shell type</b>	solder	crimp					
	<b>00</b>	<b>00</b>	- square flange receptacle accepting backshells				
	<b>01</b>	<b>01</b>	- cable connecting receptacle				
	<b>02E</b>	<b>02R</b>	- square flange receptacle not accepting backshells				
	<b>07</b>	<b>07</b>	- jam nut receptacle accepting backshells				
	<b>07A</b>		- jam nut receptacle not accepting backshells				
	<b>06</b>	<b>06</b>	- plug for use with straight backshells				
	<b>08</b>	<b>08</b>	- plug for use with 90° backshells				
	<b>36</b>	<b>36</b>	- screened plug for use with straight backshells				
	<b>76</b>	<b>76</b>	- screened plug with lock finger				
<b>backshell type</b>	see table next page						
<b>shell size</b>	<b>8 - 10 - 12 - 14 - 16 - 18 - 20 - 22 - 24</b>						
<b>contact layout</b>	see table p 20						
<b>contact type</b>	<b>P = male - S = female</b>						
<b>orientation</b>	normal (not included in part number) <b>w, x, y, z</b> , see table p 21						
<b>obligatory suffix</b>	<b>B</b>	crimped version which used layouts 8-2 / 8-3 / 8-4 / 12-14					
	<b>50</b>	gold plated crimp contacts - solder contacts size 20 - contacts with a gold plated active zone and tin plated terminations - other gold plated terminations					
	<b>51</b>	solder contacts gold plated size 20					
	<b>52</b>	zinc cobalt olive green plated (contacts : idem specif. 50)					
	<b>54</b>	black zinc nickel plating					
<b>specification</b>	-	olive green cadmium plate (without specification)					
	<b>29</b>	black anodized (solder contacts)					
	<b>031</b>	black anodized (crimp contacts)					
	<b>44</b>	nickel plate					
	<b>38</b>	nickel plate					
	<b>42</b>	olive green cadmium plate } backshell type T* and RT*					

# 26482 Series I Solder Connectors



## Backshell type

solder	crimp	shells backshell	solder version				crimp version									
			00	01	07	06	08	36	76	00	01	07	06	08	36	76
E	R	backnut	•	•	•	•	-	-	-	•	•	•	•	-	-	-
EC	RC	straight cable clamp	•	•	•	•	-	-	-	•	•	•	•	-	-	-
EC	RC	90° cable clamp	-	-	-	-	•	-	-	-	-	-	-	•	-	-
AC		straight cable clamp without grommet	•	•	•	•	-	-	-	-	-	-	-	-	-	-
P	RP	straight backshell for potting	•	•	•	•	-	-	-	•	•	•	•	-	-	-
P	RP	90° backshell for potting	-	-	-	-	•	-	-	-	-	-	-	•	-	-
A	RA	straight adapter	•	•	-	•	-	•	-	•	•	-	•	-	•	-
T	RT	straight backshell for heatshrink sleeving	•	•	•	•	-	-	-	•	•	•	•	-	-	-
M	RM	straight removable backshell for heatshrink sleeving	•	•	-	•	-	-	-	•	•	-	•	-	-	-
*T	*RT	straight removable backshell for screen termination and heatshrink sleeving	•	•	•	-	-	•	-	•	•	•	-	-	•	-
G	RG	straight removable backshell for screen termination and heatshrink sleeving	•	•	•	-	-	•	-	•	•	•	-	-	•	-
J		straight backshell with sealing gland	•	•	-	•	-	-	-	-	-	-	-	-	-	-
JC		straight backshell with sealing gland and cable clamp	•	•	-	•	-	-	-	-	-	-	-	-	-	-
U	RU	short backshell for screen termination and heatshrink sleeving	-	-	-	-	-	-	•	-	-	-	-	-	-	•
Z	RZ	straight adapter for electrical pitch access	-	-	-	•	-	-	-	-	-	-	•	-	-	-

## Hermetic connectors

<b>basic series</b>	851 -02H 8 -3A P • 50 ••
<b>shell type</b>	02H - square flange receptable 07H - jam nut receptable IH - solder fixing receptable
<b>shell size</b>	8 - 10 - 12 - 14 - 16 - 18 - 20 - 22 - 24
<b>contact layout</b>	see table p 20
<b>contact type</b>	P = male only
<b>orientation</b>	N normal (not included in part number) w, x, y, z, see table p 21
<b>obligatory suffix</b>	50 - gold plating for size 20 contacts
<b>specification</b>	- 02H and 07H, yellow cadmium plating. IH, nickel (without specification) 44 - 02H and 07H, nickel

# 26482 Series I Solder Connectors



## Straight spills and wire wrap connectors

<b>basic series</b>	<b>851 -02E 8 -3A P • 50 16</b>
<b>shell type</b>	02E - square flange receptable not accepting backshell 07A - jam nut receptable not accepting backshell
<b>shell size</b>	8 - 10 - 12 - 14 - 16 - 18 - 20 - 22 - 24
<b>contact layout</b>	see table p 20
<b>contact type</b>	P = male - S = female
<b>orientation</b>	N normal (not included in part number) w, x, y, z, see table p 21
<b>obligatory suffix</b>	50 - pre-tinning for straight spill size 20 contacts (termination area), gold plating for other contacts 51 - gold plating for straight spill contacts size 20 52 - zinc cobalt olive green plated (contacts : idem specif. 50) 54 - black zinc nickel plating
<b>specification</b>	
<b>straight spill</b>	16 olive green cadmium plated body - Ø 1 mm contact, Ø 0,6 mm terminal 45 nickel plating - Ø 1,6 mm contact, Ø 1 mm terminal - Ø 1 mm contact, Ø 0,6 mm terminal - Ø 1,6 mm contact, Ø 1 mm terminal
<b>wire wrap</b>	34 non-bonded contacts, olive green cadmium plated shell 34A bonded contacts, olive green cadmium plated shell

## Cross reference list

### 26482 Series I version with crimp contacts (olive green cadmium plating) connectors with backshells

Souriau	NFC 93422 (HE 301 B)	MIL-C 26482 G Series I	VG 95328
851 00 R .. .. 50 ..	HE 301 B 00 R .. .. 1A	* MS 3120 E .. ..	VG 95328 A .. ..
851 00 RC .. .. 50 ..	HE 301 B 00 RC .. .. 1A	* MS 3120 F .. ..	VG 95328 B .. ..
851 00 RP .. .. 50 ..	HE 301 B 00 RP .. .. 1A	* MS 3120 P .. ..	
851 00 RG .. .. 50 ..			VG 95328 R .. ..
851 00 RA .. .. 50 ..	HE 301 B 00 RA .. .. 1A		
851 01 R .. .. 50 ..	HE 301 B 01 R .. .. 1A	* MS 3121 E .. ..	
851 01 RC .. .. 50 ..	HE 301 B 01 RC .. .. 1A	* MS 3121 F .. ..	
851 01 RP .. .. 50 ..	HE 301 B 01 RP .. .. 1A	* MS 3121 P .. ..	
851 01 RA .. .. 50 ..	HE 301 B 01 RA .. .. 1A		
851 02 R .. .. 50 ..	HE 301 B 02 R .. .. 1A	* MS 3122 E .. ..	VG 95328 C .. ..
851 06 R .. .. 50 ..	HE 301 B 06 R .. .. 1A	* MS 3126 E .. ..	
851 06 RC .. .. 50 ..	HE 301 B 06 RC .. .. 1A	* MS 3126 F .. ..	VG 95328 K .. ..
851 06 RP .. .. 50 ..	HE 301 B 06 RP .. .. 1A	* MS 3126 P .. ..	
851 06 RT .. .. 50 ..			VG 95328 J .. ..
851 06 RA .. .. 50 ..	HE 301 B 06 RA .. .. 1A		
851 36 RG .. .. 50 ..			VG 95328 M .. ..
851 36 RA .. .. 50 ..			VG 95328 N .. ..
851 07 R .. .. 50 ..	HE 301 B 07 R .. .. 1A	* MS 3124 E .. ..	VG 95328 D .. ..
851 07 RC .. .. 50 ..	HE 301 B 07 RC .. .. 1A	* MS 3124 F .. ..	VG 95328 E .. ..
851 07 RP .. .. 50 ..	HE 301 B 07 RP .. .. 1A	* MS 3124 P .. ..	
851 07 RT .. .. 50 ..			VG 95328 S .. ..
851 07 RG .. .. 50 ..			VG 95328 T .. ..
851 76 RU .. .. 50 ..			VG 95328 U .. ..
851 08 RC .. .. 50 ..	HE 301 B 08 RC .. .. 1A		
851 08 RP .. .. 50 ..	HE 301 B 08 RP .. .. 1A		

\* Not QPL.

## Other plating

plating	Souriau		NFC 93422 (HE 301 B)
	solder version	crimp version	
black anodized	851 .. .. 5029	851 .. .. 50031	HE 301 B .. .. 4A
nickel	851 .. .. 5044	851 .. .. 5044	HE 301 B .. .. 5A

# 26482 Series I Solder Connectors



## 26482 Series I version with solder contacts (olive green cadmium plating) connectors with backshells

Souriau	NFC 93422 (HE 301 B)	MIL-C 26482 G Series I	VG 95328
851 00 E .. .. 50 ..	HE 301 B 00 E .. .. 1A	MS 3110 E .. ..	
851 00 EC .. .. 50 ..	HE 301 B 00 EC .. .. 1A	MS 3110 F .. ..	
851 00 AC .. .. 50 ..	HE 301 B 00 AC .. .. 1A		
851 00 P .. .. 50 ..	HE 301 B 00 P .. .. 1A	MS 3110 P .. ..	
851 00 A .. .. 50 ..	HE 301 B 00 A .. .. 1A		
851 00 J .. .. 50 ..	HE 301 B 00 J .. .. 1A		
851 00 JC .. .. 50 ..		MS 3110 J .. ..	
851 01 E .. .. 50 ..	HE 301 B 01 E .. .. 1A	MS 3111 E .. ..	
851 01 EC .. .. 50 ..	HE 301 B 01 EC .. .. 1A	MS 3111 F .. ..	
851 01 AC .. .. 50 ..	HE 301 B 01 AC .. .. 1A		
851 01 P .. .. 50 ..	HE 301 B 01 P .. .. 1A	MS 3111 P .. ..	
851 01 A .. .. 50 ..	HE 301 B 01 A .. .. 1A		
851 01 J .. .. 50 ..	HE 301 B 01 J .. .. 1A		
851 01 JC .. .. 50 ..		MS 3111 J .. ..	
851 02 E .. .. 50 ..	HE 301 B 02 E .. .. 1A	MS 3112 E .. ..	VG 95328 H .. ..
851 06 E .. .. 50 ..	HE 301 B 06 E .. .. 1A	MS 3116 E .. ..	
851 06 EC .. .. 50 ..	HE 301 B 06 EC .. .. 1A	MS 3116 F .. ..	
851 06 AC .. .. 50 ..	HE 301 B 06 AC .. .. 1A		
851 06 P .. .. 50 ..	HE 301 B 06 P .. .. 1A	MS 3116 P .. ..	
851 06 A .. .. 50 ..	HE 301 B 06 A .. .. 1A		
851 06 J .. .. 50 ..	HE 301 B 06 J .. .. 1A		
851 06 JC .. .. 50 ..		MS 3116 J .. ..	
851 08 EC .. .. 50 ..	HE 301 B 08 EC .. .. 1A		
851 08 P .. .. 50 ..	HE 301 B 08 P .. .. 1A		
851 07 E .. .. 50 ..	HE 301 B 07 E .. .. 1A	MS 3114 E .. ..	
851 07 EC .. .. 50 ..	HE 301 B 07 EC .. .. 1A	MS 3114 F .. ..	
851 07 AC .. .. 50 ..	HE 301 B 07 AC .. .. 1A		
851 07 P .. .. 50 ..	HE 301 B 07 P .. .. 1A	MS 3114 P .. ..	
851 07 A .. .. 50 ..	HE 301 B 07 A .. .. 1A		

## 851 hermetic version

Souriau	NFC 93422 (model HE 301 B)	MIL-C 26482 G Series I	VG 95328
851 02 H .. .. P.50	HE 301 B 02 H .. .. P.3A		
851 07 H .. .. P.50	HE 301 B 07 H .. .. P.3A	* MS 3114 H .. .. P.	VG 95328 F .. ..
851 1H .. .. P.50	HE 301 B 1 H .. .. P.3A	* MS 3113 H .. .. P.	VG 95328 G .. ..

\* Not QPL.

## Contacts - Crimp contacts

contact type			contact size	part numbers	section in mm <sup>2</sup>	gauge AWG	Ø over insulation min/Max (mm)		
standard	male	for contact layouts 82, 83 84 and 12.14	20	8500-9573	0.21	24	1.20 / 2.11		
	female			8500-9213				to	
	male	for other contact layouts		8500-697	0.93	18			
	female			8500-1758A					
	male			16	8500-1300	0.93		18	
	female				8500-9331	to		14	
reducing sleeve			20	8500-781	0.06 to 0.21	30 to 24			
			16	8500-1985	0.60	20			
thermocouple	chromel	male	20	8500-809	0.21	24	1.20 / 2.11		
	alumel			8500-812				to	
	chromel	female		8500-2054	0.93	18			
	alumel			8500-2055					
	chromel	male		8500-1053	0.93	18			
	alumel			8500-1058				to	14
	chromel	female		8500-1054	1.91	14			
	alumel			8500-1059					

## Wire wrap contacts

contact type	contact size	part numbers	diagonals	gauge AWG	number of wraps	
male	20	8500-4220	0.78 0.85	26-28-30	3	
female		8500-9351	0.78 0.85	26-28-30	3	
male	16	8500-4304	1.55 1.70	20-22-24-26	3	
female		8500-4305	1.55 1.70	20-22-24-26	3	



# 26482 Series I Solder Connectors



## Contact layouts

Viewed from front face of male insulator

shells <b>8</b>	<b>2</b>  2 Ø 1 (# 20)	<b>3</b>  3 Ø 1 (# 20)	<b>3A OU 98</b>  3 Ø 1 (# 20)	<b>4</b>  4 Ø 1 (# 20)	<b>33</b>  3 Ø 1 (# 20)	
<b>10</b>	<b>6</b>  6 Ø 1 (# 20)	<b>7</b>  7 Ø 1 (# 20)	<b>98</b>  6 Ø 1 (# 20)			
<b>12</b>	<b>3</b>  3 Ø 1,6 (# 16)	<b>8</b>  8 Ø 1 (# 20)	<b>10</b>  10 Ø 1 (# 20)	<b>2</b>  2 Ø 1,6 (# 16)	<b>14</b>  14 Ø 1 (# 20)	
<b>14</b>	<b>5</b>  5 Ø 1,6 (# 16)	<b>12</b>  8 Ø 1 (# 20) 4 Ø 1,6 (# 16)	<b>15</b>  14 Ø 1 (# 20) 1 Ø 1,6 (# 16)	<b>18</b>  18 Ø 1 (# 20)	<b>19</b>  19 Ø 1 (# 20)	
<b>16</b>	<b>8</b>  8 Ø 1,6 (# 16)	<b>23</b>  22 Ø 1 (# 20) 1 Ø 1,6 (# 16)	<b>26</b>  26 Ø 1 (# 20)			
<b>18</b>	<b>11</b>  11 Ø 1,6 (# 16)	<b>32</b>  32 Ø 1 (# 20)	<b>30</b>  29 Ø 1 (# 20) 1 Ø 1,6 (# 16)			
<b>20</b>	<b>16</b>  16 Ø 1,6 (# 16)	<b>39</b>  37 Ø 1 (# 20) 2 Ø 1,6 (# 16)	<b>41</b>  41 Ø 1 (# 20)	<b>24</b>  24 Ø 1 (# 20)	<b>25</b>  25 Ø 1 (# 20)	<b>27</b>  27 Ø 1 (# 20)
<b>22</b>	<b>21</b>  21 Ø 1,6 (# 16)	<b>36</b>  36 Ø 1 (# 20)	<b>55</b>  55 Ø 1 (# 20)	<b>32</b>  32 Ø 1 (# 20)	<b>34</b>  34 Ø 1 (# 20)	
<b>24</b>	<b>61</b>  61 Ø 1 (# 20)					

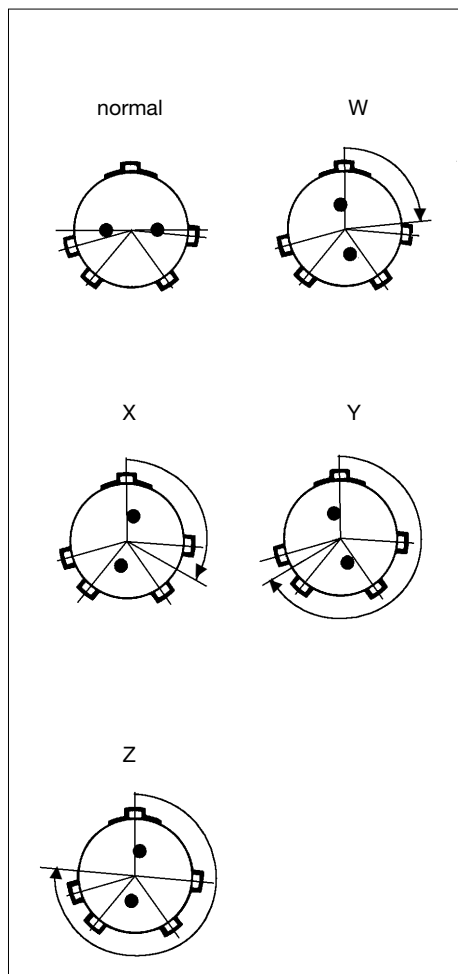
- solder contact layouts (QPL)
- SHTP
- solder contact layouts
- hermetic version contact layouts
- + solder contact layouts without grommet
- ◆ straight spills contact layouts
- ▲ crimp contact layouts
- wire wrap contact layouts

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## Polarization - insulator rotated inside metal body

Front face of pin insulator shown  
(receptacle or plug)

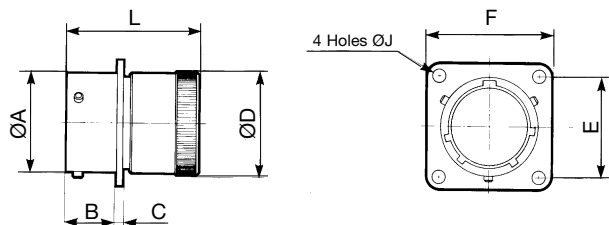


shell	layout	angle in degrees				NFC 93422 HE 30 1B		MIL-C 26482G Serie 1		service 1	service 2
		W	X	Y	Z	solder	crimp	solder	crimp	1500 Vrms	2300 Vrms
8	2	58	122	—	—			•		X	
	3	60	210	—	—			•		X	
	3A (98)*	60	210	—	—			•	•	X	
	4	45	—	—	—			•		X	
	33	90	—	—	—		•	•	•	X	
10	6	90	—	—	—	•	•	•	•	X	
	7	—	—	—	—			•		X	
	98	90	180	240	270			•	•	X	
12	3	—	—	180	—	•	•	•	•	X	X
	8	90	112	203	292			•	•	X	
	10	60	155	270	295	•	•	•	•	X	
	2	—	—	—	—			•		X	X
14	14	—	—	—	—			•		X	
	5	40	92	184	273	•	•	•	•	X	X
	12	43	90	—	—	•	•	•	•	X	
	15	17	110	155	234	•	•	•	•	X	
	18	15	90	180	270	•	•	•	•	X	
16	19	30	165	315	—	•	•	•	•	X	
	8	54	152	180	331	•	•	•	•	X	X
	23	158	270	—	—	•	•	•	•	X	
18	26	60	—	275	338	•	•	•	•	X	
	11	62	119	241	340	•	•	•	•	X	X
	32	85	138	222	265	•	•	•	•	X	
20	30	180	193	285	350	•	•	•	•	X	
	16	238	318	333	347	•	•	•	•	X	X
	39	63	144	252	333	•	•	•	•	X	
	41	45	126	225	—	•	•	•	•	X	
	24	70	145	215	290			•	•	X	
22	25	72	144	216	288			•	•	X	
	27	72	144	216	288		•	•	•	X	
	21	16	135	175	349	•	•	•	•	X	X
	36	72	144	216	288		•	•	•	X	
	55	30	142	226	314	•	•	•	•	X	
24	32	72	145	215	288			•	•	X	
	34	62	142	218	298			•	•	X	
	61	90	180	270	324	•	•	•	•	X	

\* 8-98 layout W and non standard orientations

## Dimensions - square flange receptacle with backnut

solder 00 E	HE 301 B 00 E MS 3110 E	shell size	L Max		A	B Max	C Max	D Max	E	F Max	J
			solder	crimp							
crimp 00 R	HE 301 B 00 R MS 3120 E VG 95328 A	08	32.70	32.00	12.03	11.70	1.32	13.50	15.09	20.99	3.13
			1.287	1.260	.474	.461	.052	.531	.594	.826	.123
		10	32.70	32.00	15.01	11.70	1.32	16.70	18.26	24.19	3.13
			1.287	1.260	.591	.461	.052	.657	.719	.952	.123
		12	32.70	32.00	19.07	11.70	1.32	19.90	20.62	26.54	3.13
			1.287	1.260	.751	.461	.052	.783	.812	1.045	.123
		14	32.70	32.00	22.25	11.70	1.32	23.40	23.00	28.89	3.13
			1.287	1.260	.876	.461	.052	.921	.906	1.137	.123
		16	32.70	32.00	25.42	11.70	1.32	26.60	24.61	31.29	3.13
			1.287	1.260	1.001	.461	.052	1.047	.969	1.232	.123
		18	32.70	32.00	28.60	11.70	1.32	29.50	26.97	33.69	3.13
			1.287	1.260	1.126	.461	.052	1.161	1.062	1.326	.123
20	34.50	33.40	31.77	14.35	2.15	32.70	29.36	36.89	3.13		
	1.358	1.315	1.251	.565	.085	1.287	1.156	1.452	.123		
22	34.50	33.40	34.95	14.35	2.15	36.00	31.75	39.99	3.13		
	1.358	1.315	1.376	.565	.085	1.417	1.250	1.574	.123		
24	34.50	33.40	38.12	15.20	2.15	39.10	34.92	43.15	3.81		
	1.358	1.315	1.501	.598	.085	1.539	1.375	1.699	.150		

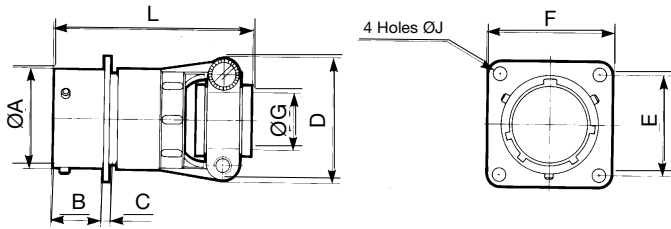


# 26482 Series I Solder Connectors



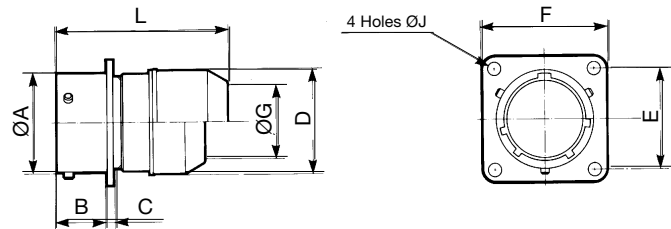
## Square flange receptacle with straight cable clamp

solder 00 EC	HE 301 B 00 EC MS 3110 F	shell size	L Max		A	B Max	C Max	D Max	E	F Max	G	J
			solder	crimp								
00 AC	HE 301 B 00 AC	08	48.00 1.890	47.30 1.862	12.03 .474	11.70 .461	1.32 .052	19.90 .783	15.09 .594	20.99 .826	3.50 .138	3.13 .123
crimp 00 RC	HE 301 B 00 RC MS 3120 F VG 95328 B	10	48.00 1.890	47.30 1.862	15.01 .591	11.70 .461	1.32 .052	21.50 .846	18.26 .719	24.19 .952	5.00 .197	3.13 .123
		12	48.00 1.890	47.30 1.862	19.07 .751	11.70 .461	1.32 .052	25.00 .984	20.62 .812	26.54 1.045	8.20 .323	3.13 .123
		14	48.00 1.890	47.30 1.862	22.25 .876	11.70 .461	1.32 .052	27.80 1.094	23.00 .906	28.89 1.137	10.00 .394	3.13 .123
		16	51.00 2.008	50.50 1.988	25.42 1.001	11.70 .461	1.32 .052	29.40 1.157	24.61 .969	31.29 1.232	13.00 .512	3.13 .123
		18	51.00 2.008	50.50 1.988	28.60 1.126	11.70 .461	1.32 .052	35.30 1.390	26.97 1.062	33.69 1.326	16.00 .630	3.13 .123
		20	53.00 2.087	51.50 2.028	31.77 1.251	14.35 .565	2.15 .085	35.30 1.390	29.36 1.156	36.89 1.452	16.00 .630	3.13 .123
		22	53.00 2.087	51.50 2.028	34.95 1.376	14.35 .565	2.15 .085	41.10 1.618	31.75 1.250	39.99 1.574	19.30 .760	3.13 .123
		24	53.00 2.087	51.50 2.028	38.12 1.501	15.20 .598	2.15 .085	42.40 1.669	34.92 1.375	43.15 1.699	20.60 .811	3.81 .150



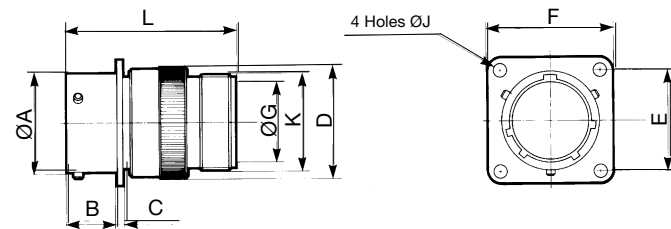
## Square flange receptacle with straight backshell for potting

solder 00 P	HE 301 B 00 P MS 3110 P	shell size	L Max		A	B Max	C Max	D Max	E	F Max	G Max	J
			solder	crimp								
crimp 00 RP	HE 301 B 00 RP MS 3120 P	08	36.20 1.425	41.70 1.642	12.03 .474	11.70 .461	1.32 .052	15.34 .604	15.09 .594	20.99 .826	10.46 .412	3.13 .123
		10	36.20 1.425	41.70 1.642	15.01 .591	11.70 .461	1.32 .052	17.70 .697	18.26 .719	24.19 .952	13.55 .533	3.13 .123
		12	36.20 1.425	41.70 1.642	19.07 .751	11.70 .461	1.32 .052	21.69 .854	20.62 .812	26.54 1.045	13.96 .550	3.13 .123
		14	36.20 1.425	41.70 1.642	22.25 .876	11.70 .461	1.32 .052	23.90 .941	23.00 .906	28.89 1.137	17.42 .686	3.13 .123
		16	36.20 1.425	41.70 1.642	25.42 1.001	11.70 .461	1.32 .052	27.00 1.063	24.61 .969	31.29 1.232	20.56 .809	3.13 .123
		18	36.91 1.453	44.46 1.750	28.60 1.126	11.70 .461	1.32 .052	30.50 1.201	26.97 1.062	33.69 1.326	23.66 .931	3.13 .123
		20	43.80 1.724	50.93 2.005	31.77 1.251	14.35 .565	2.15 .085	33.65 1.325	29.36 1.156	36.89 1.452	23.92 .942	3.13 .123
		22	43.80 1.724	50.93 2.005	34.95 1.376	14.35 .565	2.15 .085	37.10 1.461	31.75 1.250	39.99 1.574	25.52 1.005	3.13 .123
		24	43.80 1.724	51.40 2.024	38.12 1.501	15.20 .598	2.15 .085	40.00 1.575	34.92 1.375	43.15 1.699	32.00 1.260	3.81 .150



## Square flange receptacle with straight adapter

solder 00 A	HE 301 B 00A	shell size	L Max		A	B Max	C Max	D Max	E	F Max	G Max	J	K threading UNEFP 2A
			solder	crimp									
crimp 00 RA	HE 301 B 00 RA	08	41.00 1.614	12.03 .474	11.70 .461	1.32 .052	14.50 .571	15.09 .594	20.99 .826	9.10 .358	3.13 .123	1/2 18	
		10	41.00 1.614	15.01 .591	11.70 .461	1.32 .052	18.70 .736	18.26 .719	24.19 .952	12.08 .476	3.13 .123	5/8 24	
		12	41.00 1.614	19.07 .751	11.70 .461	1.32 .052	21.70 .854	20.62 .812	26.54 1.045	15.25 .600	3.13 .123	3/4 20	
		14	41.00 1.614	22.25 .876	11.70 .461	1.32 .052	25.10 .988	23.00 .906	28.89 1.137	18.15 .715	3.13 .123	7/8 20	
		16	41.00 1.614	25.42 1.001	11.70 .461	1.32 .052	28.13 1.107	24.61 .969	31.29 1.232	21.32 .839	3.13 .123	1-20	
		18	41.00 1.614	28.60 1.126	11.70 .461	1.32 .052	31.38 1.235	26.97 1.062	33.69 1.326	24.32 .957	3.13 .123	1-3/16 18	
		20	44.00 1.732	31.77 1.251	14.35 .565	2.15 .085	34.30 1.350	29.36 1.156	36.89 1.452	26.73 1.052	3.13 .123	1-3/16 18	
		22	44.00 1.732	34.95 1.376	14.35 .565	2.15 .085	37.60 1.480	31.75 1.250	39.99 1.574	30.67 1.207	3.13 .123	1-7/16 18	
		24	44.00 1.732	38.12 1.501	15.20 .598	2.15 .085	40.70 1.602	34.92 1.375	43.15 1.699	33.08 1.302	3.81 .150	1-7/16 18	



# 26482 Series I Solder Connectors



## Square flange receptacle with straight backshell for heatshrink sleeving

solder 00 T	crimp 00 RT	shell size	L Max		A	B Max	C Max	D Max	E	F Max	L Max		J	M Max
			solder	crimp							solder	crimp		
		08	36.70 1.445	36.00 1.417	12.03 .474	11.70 .461	1.32 .052	15.35 .604	15.09 .594	20.99 .826	7.20 .283	6.70 .264	3.13 .123	3.70 .146
		10	36.70 1.445	36.00 1.417	15.01 .591	11.70 .461	1.32 .052	18.15 .715	18.26 .719	24.19 .952	10.20 .402	9.40 .370	3.13 .123	3.70 .146
		12	36.70 1.445	36.00 1.417	19.07 .751	11.70 .461	1.32 .052	23.45 .923	20.62 .812	26.54 1.045	13.20 .520	11.95 .470	3.13 .123	3.70 .146
		14	36.70 1.445	36.00 1.417	22.25 .876	11.70 .461	1.32 .052	24.25 .955	23.00 .906	28.89 1.137	16.10 .634	15.15 .596	3.13 .123	3.70 .146
		16	39.00 1.535	38.30 1.508	28.60 1.001	11.70 .461	1.32 .052	31.75 1.163	26.97 .969	33.69 1.232	21.30 .758	19.95 .711	3.13 .123	3.70 .146
		18	39.00 1.535	38.30 1.508	28.60 1.126	11.70 .461	1.32 .052	31.75 1.250	26.97 1.062	33.69 1.326	21.30 .839	19.95 .785	3.13 .123	3.70 .146
		20	45.30 1.783	44.20 1.740	31.77 1.251	14.35 .565	2.15 .085	35.85 1.411	29.36 1.156	36.89 1.452	24.40 .961	23.05 .907	3.13 .123	3.70 .146
		22	45.30 1.783	44.20 1.740	34.95 1.376	14.35 .565	2.15 .085	38.20 1.504	31.75 1.250	39.99 1.574	27.50 1.083	25.55 1.006	3.13 .123	3.70 .146
		24	44.00 1.732	42.60 1.677	38.12 1.501	15.20 .598	2.15 .085	41.30 1.626	34.92 1.375	43.15 1.699	30.60 1.205	28.65 1.128	3.81 .150	3.70 .146

## Square flange receptacle with removable straight backshell for heatshrink sleeving

solder 00 M	crimp 00 RM	shell size	L Max		A	B Max	C Max	D Max	E	F Max	G Max	J	M Max
			solder	crimp									
		08	50.00 1.969	12.03 .474	11.70 .461	1.32 .052	13.55 .604	15.09 .719	20.99 .952	7.05 .390	3.13 .123	3.50 .138	
		10	50.00 1.969	15.01 .591	11.70 .461	1.32 .052	15.35 .767	18.26 .812	24.19 1.045	9.90 .496	3.13 .123	3.50 .138	
		12	50.00 1.969	19.07 .751	11.70 .461	1.32 .052	19.48 .767	20.62 .812	26.54 1.045	12.60 .496	3.13 .123	3.50 .138	
		14	50.00 1.969	22.25 .876	11.70 .461	1.32 .052	21.30 .839	23.00 .906	28.89 1.137	15.90 .626	3.13 .123	3.50 .138	
		16	50.00 1.969	25.42 1.001	11.70 .461	1.32 .052	24.50 .965	24.61 .969	31.29 1.232	18.95 .746	3.13 .123	3.50 .138	
		18	50.00 1.969	28.60 1.126	11.70 .461	1.32 .052	26.45 1.041	26.97 1.062	33.69 1.326	20.90 .823	3.13 .123	3.50 .138	
		20	53.30 2.098	31.70 1.376	14.35 .565	2.15 .085	34.24 1.348	31.75 1.250	39.99 1.574	26.60 1.047	3.13 .123	3.50 .138	
		22	53.30 2.098	34.95 1.376	14.35 .565	2.15 .085	34.24 1.348	31.75 1.250	39.99 1.574	26.60 1.047	3.13 .123	3.50 .138	
		24	53.30 2.098	38.12 1.501	15.20 .598	2.15 .085	36.47 1.436	34.92 1.375	43.15 1.699	29.30 1.154	3.81 .150	3.50 .138	

## Square flange receptacle with removable straight backshell for screen termination and heatshrink sleeving (38 and 42 suffix)

solder 00 T	crimp 00 RT	shell size	L Max		A	B Max	C Max	D Max	E	F Max	G Max	J	M Max
			solder	crimp									
		08	51.60 2.031	12.03 .474	11.70 .461	1.32 .052	18.25 .719	15.09 .594	20.99 .826	7.45 .293	3.13 .123	3.70 .146	
		10	51.60 2.031	15.01 .591	11.70 .461	1.32 .052	20.25 .797	18.26 .719	24.19 .952	9.00 .354	3.13 .123	3.70 .146	
		12	51.60 2.031	22.25 .751	11.70 .461	1.32 .052	24.75 .974	20.62 .812	26.54 1.045	13.30 .524	3.13 .123	3.70 .146	
		14	51.60 2.031	22.25 .876	11.70 .461	1.32 .052	27.75 1.093	23.00 .906	28.89 1.137	16.50 .650	3.13 .123	3.70 .146	
		16	51.60 2.031	25.42 1.001	11.70 .461	1.32 .052	30.05 1.183	24.61 .969	31.29 1.232	18.50 .728	3.13 .123	3.70 .146	
		18	52.00 2.047	28.60 1.126	11.70 .461	1.32 .052	34.15 1.344	26.97 1.062	33.69 1.326	21.90 .862	3.13 .123	3.70 .146	
		20	55.10 2.169	31.77 1.251	14.35 .565	2.15 .085	37.25 1.467	29.36 1.156	36.89 1.452	25.10 .988	3.13 .123	3.70 .146	
		22	55.10 2.169	34.95 1.376	14.35 .565	2.15 .085	40.45 1.593	31.75 1.250	39.99 1.574	28.20 1.110	3.13 .123	3.70 .146	
		24	55.10 2.169	38.12 1.501	15.20 .598	2.15 .085	36.47 1.719	34.92 1.375	43.15 1.699	29.30 1.236	3.81 .150	3.50 .146	

# 26482 Series I Solder Connectors



## Square flange receptacle with removable straight backshell for screen termination and heatshrink sleeving

solder 00 G	VG 95328 R	shell size	L Max solder crimp	A	B Max	C Max	D Max	E	F Max	G Max	J	M Max
		08	51.60 2.031	12.03 .474	11.70 .461	1.32 .052	18.25 .719	15.09 .594	20.99 .826	7.45 .293	3.13 .123	3.70 .146
		10	51.60 2.031	15.01 .591	11.70 .461	1.32 .052	20.25 .797	18.26 .719	24.19 .952	9.00 .354	3.13 .123	3.70 .146
		12	51.60 2.031	19.07 .751	11.70 .461	1.32 .052	24.75 .974	20.62 .812	26.54 1.045	13.30 .524	3.13 .123	3.70 .146
		14	51.60 2.031	22.25 .876	11.70 .461	1.32 .052	27.75 1.093	23.00 .906	28.89 1.137	16.50 .650	3.13 .123	3.70 .146
		16	51.60 2.031	25.42 1.001	11.70 .461	1.32 .052	30.05 1.183	24.61 .969	31.29 1.232	18.50 .728	3.13 .123	3.70 .146
		18	52.00 2.047	28.60 1.126	11.70 .461	1.32 .052	34.15 1.344	26.97 1.062	33.69 1.326	21.90 .862	3.13 .123	3.70 .146
		20	55.10 2.169	31.77 1.251	14.35 .565	2.15 .085	37.25 1.467	29.36 1.156	36.89 1.452	25.10 .988	3.13 .123	3.70 .146
		22	55.10 2.169	34.95 1.376	14.35 .565	2.15 .085	40.45 1.593	31.75 1.250	39.99 1.574	28.20 1.110	3.13 .123	3.70 .146
		24	55.10 2.169	38.12 1.501	15.20 .598	2.15 .085	43.65 1.719	34.92 1.375	43.15 1.699	31.40 1.236	3.81 .150	3.70 .146

## Square flange receptacle with straight sealing gland backshell

solder 00 J	HE 301 B 00 J	shell size	L Max solder	A	B Max	C Max	D Max	E	F Max	G		J
										min	Max	
		08	47.60 1.874	12.03 .474	11.70 .461	1.32 .052	14.40 .567	15.09 .594	20.99 .826	5.02 .198	5.84 .230	3.13 .123
		10	47.60 1.874	15.01 .591	11.70 .461	1.32 .052	17.60 .693	18.26 .719	24.19 .952	5.94 .234	6.76 .266	3.13 .123
		12	48.70 1.917	19.07 .751	11.70 .461	1.32 .052	21.10 .831	20.62 .812	26.54 1.045	9.34 .368	10.16 .400	3.13 .123
		14	53.50 2.106	22.25 .876	11.70 .461	1.32 .052	24.40 .961	23.00 .906	28.89 1.137	11.32 .446	12.14 .478	3.13 .123
		16	59.00 2.323	25.42 1.001	11.70 .461	1.32 .052	27.60 1.087	24.61 .969	31.29 1.232	14.73 .580	15.55 .612	3.13 .123
		18	65.00 2.559	28.60 1.126	11.70 .461	1.32 .052	30.80 1.213	26.97 1.062	33.69 1.326	16.00 .630	16.82 .662	3.13 .123
		20	79.10 3.114	31.77 1.251	14.35 .565	2.15 .085	34.10 1.343	29.36 1.156	36.89 1.452	16.89 .665	17.70 .697	3.13 .123
		22	80.00 3.150	34.95 1.376	14.35 .565	2.15 .085	37.30 1.469	31.75 1.250	39.99 1.574	17.78 .700	18.60 .732	3.13 .123
		24	90.00 3.543	38.12 1.501	15.20 .598	2.15 .085	40.50 1.594	34.92 1.375	43.15 1.699	20.34 .801	21.16 .833	3.81 .150

## Square flange receptacle with straight sealing gland and cable clamp

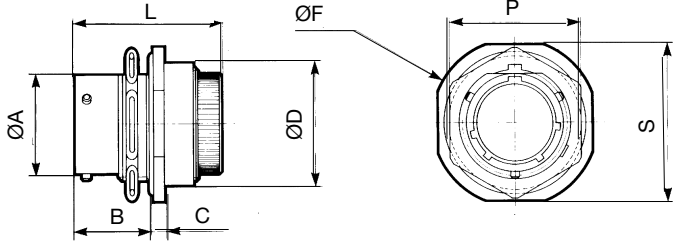
solder 00 JC	MS 3110J	shell size	L Max solder	A	B Max	C Max	D Max	E	F Max	G		J
										min	Max	
		08	57.68 2.271	12.03 .474	11.70 .461	1.32 .052	19.90 .783	15.09 .594	20.99 .826	5.02 .198	5.84 .230	3.13 .123
		10	57.68 2.271	15.01 .591	11.70 .461	1.32 .052	21.50 .846	18.26 .719	24.19 .952	5.94 .234	6.76 .266	3.13 .123
		12	61.24 2.411	19.07 .751	11.70 .461	1.32 .052	25.00 .984	20.62 .812	26.54 1.045	9.34 .368	10.16 .400	3.13 .123
		14	66.01 2.599	22.25 .876	11.70 .461	1.32 .052	27.80 1.094	23.00 .906	28.89 1.137	11.32 .446	12.14 .478	3.13 .123
		16	74.75 2.943	25.42 1.001	11.70 .461	1.32 .052	29.40 1.157	24.61 .969	31.29 1.232	14.73 .580	15.55 .612	3.13 .123
		18	80.57 3.172	28.60 1.126	11.70 .461	1.32 .052	35.30 1.390	26.97 1.062	33.69 1.326	16.00 .630	16.82 .662	3.13 .123
		20	91.69 3.610	31.77 1.251	14.35 .565	2.15 .085	35.30 1.390	29.36 1.156	36.89 1.452	16.89 .665	17.70 .697	3.13 .123
		22	95.66 3.766	34.95 1.376	14.35 .565	2.15 .085	41.10 1.618	31.75 1.250	39.99 1.574	17.78 .700	18.60 .732	3.13 .123
		24	101.22 3.985	38.12 1.501	15.20 .598	2.15 .085	42.40 1.669	34.92 1.375	43.15 1.699	20.34 .801	21.16 .833	3.81 .150

# 26482 Series I Solder Connectors



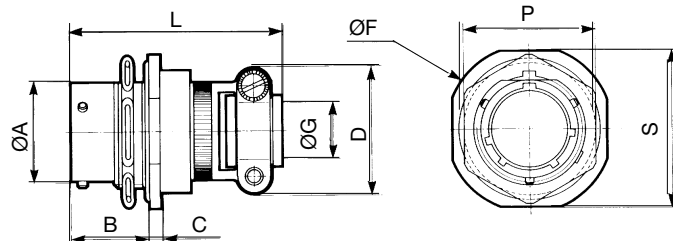
## Jam nut receptacle with backnut

solder	HE 301 B 07 E MS 3114 E	shell size	L Max		A	B Max	C Max	D Max	F Max	P Max	S Max
			solder	crimp							
07 E		08	34.10 1.343	33.50 1.319	12.03 .474	17.90 .705	2.64 .104	18.50 .728	26.94 1.061	19.29 .759	23.94 .943
crimp		10	34.10 1.343	33.50 1.319	15.01 .591	17.90 .705	2.64 .104	21.70 .854	30.14 1.187	22.38 .881	26.94 1.061
07 R	HE 301 B 07 R MS 3124 E VG 95328 D	12	34.10 1.343	33.50 1.319	19.07 .751	17.90 .705	2.64 .104	24.90 .980	34.94 1.376	27.13 1.068	31.74 1.250
		14	34.10 1.343	33.50 1.319	22.25 .876	17.90 .705	2.64 .104	28.10 1.106	38.04 1.498	30.33 1.194	34.94 1.376
		16	34.10 1.343	33.50 1.319	25.42 1.001	17.90 .705	2.64 .104	31.20 1.228	41.24 1.624	33.48 1.318	38.24 1.506
		18	34.10 1.343	33.50 1.319	28.60 1.126	17.90 .705	2.64 .104	34.40 1.354	44.44 1.750	36.68 1.444	41.34 1.628
		20	39.30 1.547	37.90 1.492	31.77 1.251	22.45 .884	3.44 .135	38.30 1.508	49.14 1.935	39.83 1.568	46.04 1.813
		22	39.30 1.547	37.90 1.492	34.95 1.376	22.45 .884	3.44 .135	41.50 1.634	52.24 2.057	43.03 1.694	49.24 1.939
		24	39.30 1.547	37.90 1.492	38.12 1.501	23.30 .917	3.44 .135	44.70 1.760	55.54 2.187	46.18 1.818	52.74 2.076



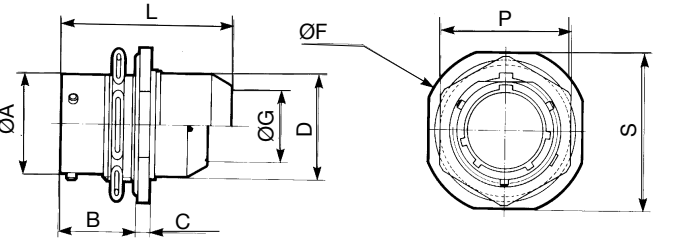
## Jam nut receptacle with straight cable clamp

solder	HE 301 B 07 EC MS 3114 F	shell size	L Max		A	B Max	C Max	D Max	F Max	G	P Max	S Max
			solder	crimp								
07 EC		08	49.31 1.941	49.10 1.933	12.03 .474	17.90 .705	2.64 .104	19.90 .783	26.94 1.061	3.50 .138	19.29 .759	23.94 .943
07 AC	HE 301 B 07 AC	10	49.31 1.941	49.10 1.933	15.01 .591	17.90 .705	2.64 .104	21.50 .846	30.14 1.187	5.00 .197	22.38 .881	26.94 1.061
crimp		12	49.17 1.936	49.10 1.933	19.07 .751	17.90 .705	2.64 .104	25.00 .984	34.94 1.376	8.20 .323	27.13 1.068	31.74 1.250
07 RC	HE 301 B 07 RC MS 3124 F VG 95328 E	14	49.17 1.936	49.10 1.933	22.25 .876	17.90 .705	2.64 .104	27.80 1.094	38.04 1.498	10.00 .394	30.33 1.194	34.94 1.376
		16	52.34 2.061	52.20 2.055	25.42 1.001	17.90 .705	2.64 .104	29.40 1.157	41.24 1.624	13.00 .512	33.48 1.318	38.24 1.506
		18	53.22 2.095	53.10 2.091	28.60 1.126	17.90 .705	2.64 .104	35.30 1.390	44.44 1.750	16.00 .630	36.68 1.444	41.34 1.628
		20	58.10 2.287	58.00 2.283	31.77 1.251	22.45 .884	3.44 .135	35.30 1.390	49.14 1.935	16.00 .630	39.83 1.568	46.04 1.813
		22	58.10 2.287	58.00 2.283	34.95 1.376	22.45 .884	3.44 .135	41.10 1.618	52.24 2.057	19.30 .760	43.03 1.694	49.24 1.939
		24	58.10 2.287	58.00 2.283	38.12 1.501	23.30 .917	3.44 .135	42.40 1.669	55.54 2.187	20.60 .811	46.18 1.818	52.74 2.076



## Jam nut receptacle with straight backshell for potting

solder	HE 301 B 07 P MS 3114 P	shell size	L Max		A	B Max	C Max	D Max	F Max	G Max	P Max	S Max
			solder	crimp								
07 P		08	34.30 1.350	39.80 1.567	12.03 .474	17.90 .705	2.64 .104	15.34 .604	26.94 1.061	10.46 .412	19.29 .759	23.94 .943
crimp		10	34.30 1.350	39.80 1.567	15.01 .591	17.90 .705	2.64 .104	17.70 .697	30.14 1.187	13.55 .533	22.38 .881	26.94 1.061
07 RP	HE 301 B 07 RP MS 3124 P	12	34.30 1.350	39.80 1.567	19.07 .751	17.90 .705	2.64 .104	21.69 .854	34.94 1.376	13.96 .550	27.13 1.068	31.74 1.250
		14	34.30 1.350	39.80 1.567	22.25 .876	17.90 .705	2.64 .104	23.90 .941	38.04 1.498	17.42 .686	30.33 1.194	34.94 1.376
		16	34.30 1.350	39.80 1.567	25.42 1.001	17.90 .705	2.64 .104	27.00 1.063	41.24 1.624	20.56 .809	33.48 1.318	38.24 1.506
		18	34.10 1.343	41.80 1.646	28.60 1.126	17.90 .705	2.64 .104	30.50 1.201	44.44 1.750	23.66 .931	36.68 1.444	41.34 1.628
		20	42.25 1.663	49.92 1.965	31.77 1.251	22.45 .884	3.44 .135	33.65 1.325	49.14 1.935	23.92 .942	39.83 1.568	46.04 1.813
		22	42.25 1.663	49.92 1.965	34.95 1.376	22.45 .884	3.44 .135	37.10 1.461	52.24 2.057	25.52 1.005	43.03 1.694	49.24 1.939
		24	43.26 1.703	51.30 2.020	38.12 1.501	23.30 .917	3.44 .135	40.00 1.575	55.54 2.187	32.00 1.260	46.18 1.818	52.74 2.076





# 26482 Series I Solder Connectors



## Jam nut receptacle with straight backshell for heatshrink sleeving

solder 07 T		VG 95328 S		<table border="1"> <thead> <tr> <th rowspan="2">shell size</th> <th colspan="2">L Max</th> <th rowspan="2">A</th> <th rowspan="2">B Max</th> <th rowspan="2">C Max</th> <th rowspan="2">D Max</th> <th rowspan="2">F Max</th> <th colspan="2">G Max</th> <th rowspan="2">M Max</th> <th rowspan="2">P Max</th> <th rowspan="2">S Max</th> </tr> <tr> <th>solder</th> <th>crimp</th> <th>solder</th> <th>crimp</th> </tr> </thead> <tbody> <tr><td>08</td><td>42.60</td><td>41.50</td><td>12.03</td><td>17.90</td><td>2.64</td><td>15.35</td><td>26.94</td><td>7.20</td><td>6.70</td><td>3.70</td><td>19.29</td><td>23.94</td></tr> <tr><td></td><td>1.677</td><td>1.634</td><td>.474</td><td>.705</td><td>.104</td><td>.604</td><td>1.061</td><td>.283</td><td>.264</td><td>.146</td><td>.759</td><td>.943</td></tr> <tr><td>10</td><td>42.60</td><td>41.50</td><td>15.01</td><td>17.90</td><td>2.64</td><td>18.15</td><td>30.14</td><td>10.20</td><td>9.40</td><td>3.70</td><td>22.38</td><td>26.94</td></tr> <tr><td></td><td>1.677</td><td>1.634</td><td>.591</td><td>.705</td><td>.104</td><td>.715</td><td>1.187</td><td>.402</td><td>.370</td><td>.146</td><td>.881</td><td>1.061</td></tr> <tr><td>12</td><td>42.60</td><td>41.50</td><td>19.07</td><td>17.90</td><td>2.64</td><td>23.45</td><td>34.94</td><td>13.20</td><td>11.95</td><td>3.70</td><td>27.13</td><td>31.74</td></tr> <tr><td></td><td>1.677</td><td>1.634</td><td>.751</td><td>.705</td><td>.104</td><td>.923</td><td>1.376</td><td>.520</td><td>.470</td><td>.146</td><td>1.068</td><td>1.250</td></tr> <tr><td>14</td><td>42.60</td><td>41.50</td><td>22.25</td><td>17.90</td><td>2.64</td><td>24.25</td><td>38.04</td><td>16.10</td><td>15.15</td><td>3.70</td><td>30.33</td><td>34.94</td></tr> <tr><td></td><td>1.677</td><td>1.634</td><td>.876</td><td>.705</td><td>.104</td><td>.955</td><td>1.498</td><td>.634</td><td>.596</td><td>.146</td><td>1.194</td><td>1.376</td></tr> 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<tr><td></td><td>2.004</td><td>1.961</td><td>1.251</td><td>.884</td><td>.135</td><td>1.411</td><td>1.935</td><td>.961</td><td>.907</td><td>.146</td><td>1.568</td><td>1.813</td></tr> <tr><td>22</td><td>50.90</td><td>49.80</td><td>34.95</td><td>22.45</td><td>3.44</td><td>38.20</td><td>52.24</td><td>27.50</td><td>25.55</td><td>3.70</td><td>43.03</td><td>49.24</td></tr> <tr><td></td><td>2.004</td><td>1.961</td><td>1.376</td><td>.884</td><td>.135</td><td>1.504</td><td>2.057</td><td>1.083</td><td>1.006</td><td>.146</td><td>1.694</td><td>1.939</td></tr> <tr><td>24</td><td>49.60</td><td>48.50</td><td>38.12</td><td>23.30</td><td>3.44</td><td>41.30</td><td>55.54</td><td>30.60</td><td>28.65</td><td>3.70</td><td>46.18</td><td>52.74</td></tr> <tr><td></td><td>1.953</td><td>1.909</td><td>1.501</td><td>.917</td><td>.135</td><td>1.626</td><td>2.187</td><td>1.205</td><td>1.128</td><td>.146</td><td>1.818</td><td>2.076</td></tr> </tbody> </table>	shell size	L Max		A	B Max	C Max	D Max	F Max	G Max		M Max	P Max	S Max	solder	crimp	solder	crimp	08	42.60	41.50	12.03	17.90	2.64	15.35	26.94	7.20	6.70	3.70	19.29	23.94		1.677	1.634	.474	.705	.104	.604	1.061	.283	.264	.146	.759	.943	10	42.60	41.50	15.01	17.90	2.64	18.15	30.14	10.20	9.40	3.70	22.38	26.94		1.677	1.634	.591	.705	.104	.715	1.187	.402	.370	.146	.881	1.061	12	42.60	41.50	19.07	17.90	2.64	23.45	34.94	13.20	11.95	3.70	27.13	31.74		1.677	1.634	.751	.705	.104	.923	1.376	.520	.470	.146	1.068	1.250	14	42.60	41.50	22.25	17.90	2.64	24.25	38.04	16.10	15.15	3.70	30.33	34.94		1.677	1.634	.876	.705	.104	.955	1.498	.634	.596	.146	1.194	1.376	16	44.40	43.80	25.42	17.90	2.64	29.55	41.24	19.25	18.05	3.70	33.48	38.24		1.748	1.724	1.001	.705	.104	1.163	1.624	.758	.711	.146	1.318	1.506	18	44.40	43.80	28.60	17.90	2.64	31.75	44.44	21.30	19.95	3.70	36.68	41.24		1.748	1.724	1.126	.705	.104	1.250	1.750	.839	.785	.146	1.444	1.624	20	50.90	49.80	31.77	22.45	3.44	35.85	49.14	24.40	23.05	3.70	39.83	46.04		2.004	1.961	1.251	.884	.135	1.411	1.935	.961	.907	.146	1.568	1.813	22	50.90	49.80	34.95	22.45	3.44	38.20	52.24	27.50	25.55	3.70	43.03	49.24		2.004	1.961	1.376	.884	.135	1.504	2.057	1.083	1.006	.146	1.694	1.939	24	49.60	48.50	38.12	23.30	3.44	41.30	55.54	30.60	28.65	3.70	46.18	52.74		1.953	1.909	1.501	.917	.135	1.626	2.187	1.205	1.128	.146	1.818	2.076
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## Jam nut receptacle with removable straight backshell for screen termination and heatshrink sleeving (38 and 42 suffix)

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	2.496	1.251	.884	.135	1.467	1.935	.988	.146	1.568	1.813																																																																																																																																																																																																														
22	63.40	34.95	22.45	3.44	40.45	52.24	28.20	3.70	43.03	49.24																																																																																																																																																																																																														
	2.496	1.376	.884	.135	1.593	2.057	1.110	.146	1.694	1.939																																																																																																																																																																																																														
24	63.40	38.12	23.30	3.44	43.65	55.54	31.40	3.70	46.18	52.74																																																																																																																																																																																																														
	2.496	1.501	.917	.135	1.719	2.187	1.236	.146	1.818	2.076																																																																																																																																																																																																														
crimp 07 RT																																																																																																																																																																																																																								

## Jam nut receptacle with removable straight backshell for screen termination and heatshrink sleeving

solder 07 G		VG 95328 T		<table border="1"> <thead> <tr> <th rowspan="2">shell size</th> <th colspan="2">L Max</th> <th rowspan="2">A</th> <th rowspan="2">B Max</th> <th rowspan="2">C Max</th> <th rowspan="2">D Max</th> <th rowspan="2">F Max</th> <th rowspan="2">G Max</th> <th rowspan="2">M Max</th> <th rowspan="2">P Max</th> <th rowspan="2">S Max</th> </tr> <tr> <th>solder</th> <th>crimp</th> </tr> </thead> <tbody> <tr><td>08</td><td>62.20</td><td>12.03</td><td>11.90</td><td>2.64</td><td>16.30</td><td>26.94</td><td>7.45</td><td>3.60</td><td>19.29</td><td>23.94</td></tr> <tr><td></td><td>2.449</td><td>.474</td><td>.469</td><td>.104</td><td>.642</td><td>1.061</td><td>.293</td><td>.142</td><td>.759</td><td>.943</td></tr> <tr><td>10</td><td>62.20</td><td>15.01</td><td>17.90</td><td>2.64</td><td>18.30</td><td>30.14</td><td>10.30</td><td>3.60</td><td>22.38</td><td>26.94</td></tr> <tr><td></td><td>2.449</td><td>.591</td><td>.705</td><td>.104</td><td>.720</td><td>1.187</td><td>.406</td><td>.142</td><td>.881</td><td>1.061</td></tr> <tr><td>12</td><td>62.20</td><td>19.07</td><td>17.90</td><td>2.64</td><td>22.30</td><td>34.94</td><td>13.20</td><td>3.60</td><td>27.13</td><td>31.74</td></tr> <tr><td></td><td>2.449</td><td>.751</td><td>.705</td><td>.104</td><td>.878</td><td>1.376</td><td>.520</td><td>.142</td><td>1.068</td><td>1.250</td></tr> <tr><td>14</td><td>62.40</td><td>22.25</td><td>17.90</td><td>2.64</td><td>25.30</td><td>38.04</td><td>16.50</td><td>3.60</td><td>30.33</td><td>34.94</td></tr> <tr><td></td><td>2.457</td><td>.876</td><td>.705</td><td>.104</td><td>.996</td><td>1.498</td><td>.650</td><td>.142</td><td>1.194</td><td>1.376</td></tr> <tr><td>16</td><td>62.40</td><td>25.42</td><td>17.90</td><td>2.64</td><td>28.30</td><td>41.24</td><td>19.35</td><td>3.60</td><td>33.48</td><td>38.24</td></tr> <tr><td></td><td>2.457</td><td>1.001</td><td>.705</td><td>.104</td><td>1.114</td><td>1.624</td><td>.762</td><td>.142</td><td>1.318</td><td>1.506</td></tr> <tr><td>18</td><td>62.40</td><td>28.60</td><td>17.90</td><td>2.64</td><td>32.30</td><td>44.44</td><td>21.60</td><td>3.60</td><td>36.68</td><td>41.34</td></tr> <tr><td></td><td>2.457</td><td>1.126</td><td>.705</td><td>.104</td><td>1.272</td><td>1.750</td><td>.850</td><td>.142</td><td>1.444</td><td>1.628</td></tr> <tr><td>20</td><td>67.50</td><td>31.77</td><td>22.45</td><td>3.44</td><td>34.30</td><td>49.14</td><td>24.80</td><td>3.60</td><td>39.83</td><td>46.04</td></tr> <tr><td></td><td>2.657</td><td>1.251</td><td>.884</td><td>.135</td><td>1.350</td><td>1.935</td><td>.976</td><td>.142</td><td>1.568</td><td>1.813</td></tr> <tr><td>22</td><td>67.50</td><td>34.95</td><td>22.45</td><td>3.44</td><td>38.30</td><td>52.24</td><td>27.90</td><td>3.60</td><td>43.03</td><td>49.24</td></tr> <tr><td></td><td>2.657</td><td>1.376</td><td>.884</td><td>.135</td><td>1.508</td><td>2.057</td><td>1.098</td><td>.142</td><td>1.694</td><td>1.939</td></tr> <tr><td>24</td><td>67.50</td><td>38.12</td><td>23.30</td><td>3.44</td><td>41.30</td><td>55.54</td><td>31.00</td><td>3.60</td><td>46.18</td><td>52.74</td></tr> <tr><td></td><td>2.657</td><td>1.501</td><td>.917</td><td>.135</td><td>1.626</td><td>2.187</td><td>1.220</td><td>.142</td><td>1.818</td><td>2.076</td></tr> </tbody> </table>	shell size	L Max		A	B Max	C Max	D Max	F Max	G Max	M Max	P Max	S Max	solder	crimp	08	62.20	12.03	11.90	2.64	16.30	26.94	7.45	3.60	19.29	23.94		2.449	.474	.469	.104	.642	1.061	.293	.142	.759	.943	10	62.20	15.01	17.90	2.64	18.30	30.14	10.30	3.60	22.38	26.94		2.449	.591	.705	.104	.720	1.187	.406	.142	.881	1.061	12	62.20	19.07	17.90	2.64	22.30	34.94	13.20	3.60	27.13	31.74		2.449	.751	.705	.104	.878	1.376	.520	.142	1.068	1.250	14	62.40	22.25	17.90	2.64	25.30	38.04	16.50	3.60	30.33	34.94		2.457	.876	.705	.104	.996	1.498	.650	.142	1.194	1.376	16	62.40	25.42	17.90	2.64	28.30	41.24	19.35	3.60	33.48	38.24		2.457	1.001	.705	.104	1.114	1.624	.762	.142	1.318	1.506	18	62.40	28.60	17.90	2.64	32.30	44.44	21.60	3.60	36.68	41.34		2.457	1.126	.705	.104	1.272	1.750	.850	.142	1.444	1.628	20	67.50	31.77	22.45	3.44	34.30	49.14	24.80	3.60	39.83	46.04		2.657	1.251	.884	.135	1.350	1.935	.976	.142	1.568	1.813	22	67.50	34.95	22.45	3.44	38.30	52.24	27.90	3.60	43.03	49.24		2.657	1.376	.884	.135	1.508	2.057	1.098	.142	1.694	1.939	24	67.50	38.12	23.30	3.44	41.30	55.54	31.00	3.60	46.18	52.74		2.657	1.501	.917	.135	1.626	2.187	1.220	.142	1.818	2.076
shell size	L Max					A	B Max										C Max	D Max	F Max	G Max	M Max	P Max	S Max																																																																																																																																																																																																	
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08	62.20	12.03	11.90	2.64	16.30	26.94	7.45	3.60	19.29	23.94																																																																																																																																																																																																														
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10	62.20	15.01	17.90	2.64	18.30	30.14	10.30	3.60	22.38	26.94																																																																																																																																																																																																														
	2.449	.591	.705	.104	.720	1.187	.406	.142	.881	1.061																																																																																																																																																																																																														
12	62.20	19.07	17.90	2.64	22.30	34.94	13.20	3.60	27.13	31.74																																																																																																																																																																																																														
	2.449	.751	.705	.104	.878	1.376	.520	.142	1.068	1.250																																																																																																																																																																																																														
14	62.40	22.25	17.90	2.64	25.30	38.04	16.50	3.60	30.33	34.94																																																																																																																																																																																																														
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16	62.40	25.42	17.90	2.64	28.30	41.24	19.35	3.60	33.48	38.24																																																																																																																																																																																																														
	2.457	1.001	.705	.104	1.114	1.624	.762	.142	1.318	1.506																																																																																																																																																																																																														
18	62.40	28.60	17.90	2.64	32.30	44.44	21.60	3.60	36.68	41.34																																																																																																																																																																																																														
	2.457	1.126	.705	.104	1.272	1.750	.850	.142	1.444	1.628																																																																																																																																																																																																														
20	67.50	31.77	22.45	3.44	34.30	49.14	24.80	3.60	39.83	46.04																																																																																																																																																																																																														
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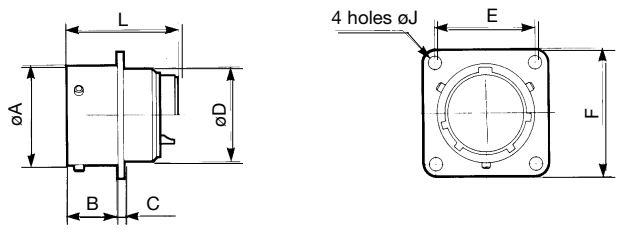


# 26482 Series I Solder Connectors



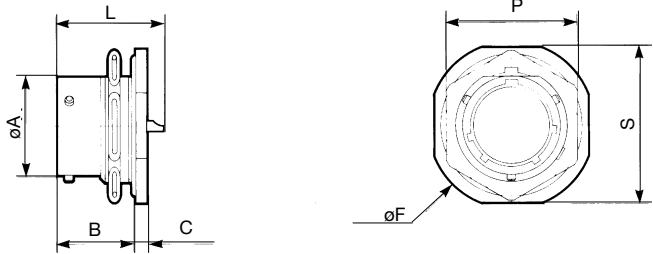
## Square flange receptacle not accepting backshell

solder	HE 301 B 02 E MS 3112 E VG 95328 H	shell size	L Max		A	B Max	C Max	D Max	E	F Max	J
			solder	crimp							
02 E		08	25.18 .991	32.35 1.274	12.03 .474	11.70 .461	1.32 .052	10.84 .427	15.09 .594	20.99 .826	3.13 .123
crimp	HE 301 B 02 R MS 3122 E VG 95328 C	10	25.10 .988	32.35 1.274	15.01 .591	11.70 .461	1.32 .052	13.99 .551	18.26 .719	24.19 .952	3.13 .123
		12	25.10 .988	32.35 1.274	19.07 .751	11.70 .461	1.32 .052	17.37 .684	20.62 .812	26.54 1.045	3.13 .123
02 R		14	25.10 .988	32.35 1.274	22.25 .876	11.70 .461	1.32 .052	20.57 .810	23.00 .906	28.89 1.137	3.13 .123
		16	25.10 .988	32.35 1.274	25.42 1.001	11.70 .461	1.32 .052	23.72 .934	24.61 .969	31.29 1.232	3.13 .123
		18	25.10 .988	32.35 1.274	28.60 1.126	11.70 .461	1.32 .052	26.69 1.051	26.97 1.062	33.69 1.326	3.13 .123
		20	26.67 1.050	33.95 1.337	31.77 1.251	14.35 .565	2.15 .085	29.89 1.177	29.36 1.156	36.89 1.452	3.13 .123
		22	26.67 1.050	33.95 1.337	34.95 1.376	14.35 .565	2.15 .085	33.04 1.301	31.75 1.250	39.99 1.574	3.13 .123
		24	26.67 1.050	33.95 1.337	38.12 1.501	15.20 .598	2.15 .085	36.24 1.427	34.92 1.375	43.15 1.699	3.81 .150



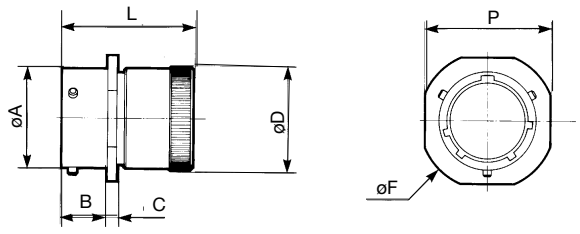
## Jam nut receptacle not accepting backshell

solder	HE 301 B 07 A	shell size	L Max	A	B Max	C Max	F Max	P Max	S Max
			solder						
07 A		08	25.18 .991	12.03 .474	17.90 .705	2.64 .104	26.94 1.061	19.29 .759	23.94 .943
		10	25.10 .988	15.01 .591	17.90 .705	2.64 .104	30.14 1.187	22.38 .881	26.94 1.061
		12	25.10 .988	19.07 .751	17.90 .705	2.64 .104	34.94 1.376	27.13 1.068	31.74 1.250
		14	25.10 .988	22.25 .876	17.90 .705	2.64 .104	38.04 1.498	30.33 1.194	34.94 1.376
		16	25.10 .988	25.42 1.001	17.90 .705	2.64 .104	41.24 1.624	33.48 1.318	38.24 1.506
		18	25.10 .988	28.60 1.126	17.90 .705	2.64 .104	44.44 1.750	36.68 1.444	41.34 1.628
		20	26.67 1.050	31.77 1.251	22.45 .884	3.44 .135	49.14 1.935	39.83 1.568	46.04 1.813
		22	26.67 1.050	34.95 1.376	22.45 .884	3.44 .135	52.24 2.057	43.03 1.694	49.24 1.939
		24	26.67 1.050	38.12 1.501	23.30 .917	3.44 .135	55.54 2.187	46.18 1.818	52.74 2.076



## Cable connecting receptacle with backnut

solder	HE 301 B 01 E MS 3111 E	shell size	L Max		A	B Max	C Max	D Max	F Max	P Max
			solder	crimp						
01 E		08	32.70 1.287	32.00 1.260	12.03 .474	10.60 .417	2.10 .083	13.50 .531	24.24 .954	20.99 .826
crimp	HE 301 B 01 R MS 3121 E	10	32.70 1.287	32.00 1.260	15.01 .591	10.60 .417	2.10 .083	16.70 .657	27.44 1.080	24.19 .952
		12	32.70 1.287	32.00 1.260	19.07 .751	10.60 .417	2.10 .083	19.90 .783	29.79 1.173	26.54 1.045
01 R		14	32.70 1.287	32.00 1.260	22.25 .876	10.60 .417	2.10 .083	23.40 .921	32.10 1.264	28.89 1.137
		16	32.70 1.287	32.00 1.260	25.42 1.001	10.60 .417	2.10 .083	26.60 1.047	34.59 1.362	31.29 1.232
		18	32.70 1.287	32.00 1.260	28.60 1.126	10.60 .417	2.10 .083	29.50 1.161	36.94 1.454	33.69 1.326
		20	34.50 1.358	33.40 1.315	31.77 1.251	13.85 .545	2.65 .104	32.70 1.287	40.14 1.580	36.89 1.452
		22	34.50 1.358	33.40 1.315	34.95 1.376	13.85 .545	2.65 .104	36.00 1.417	43.24 1.702	40.00 1.575
		24	34.50 1.358	33.40 1.315	38.12 1.501	14.70 .579	2.65 .104	39.10 1.539	46.44 1.828	43.29 1.704

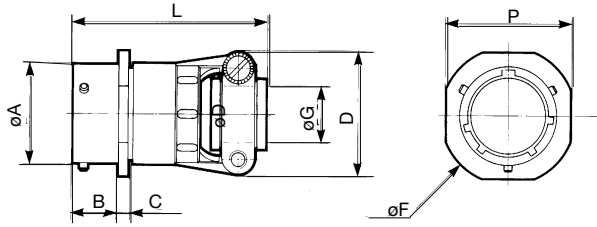


# 26482 Series I Solder Connectors



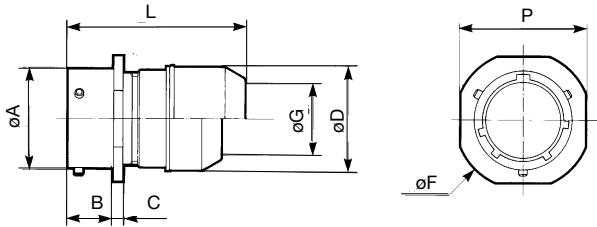
## Cable connecting receptacle with straight cable clamp

solder		shell size	L Max		A	B Max	C Max	D Max	F Max	G Max	P Max
			solder	crimp							
01 EC	HE 301 B 01 EC MS 3111 F	08	48.00	47.30	12.03	10.60	2.10	19.90	24.24	3.50	20.99
01 AC	HE 301 B 01 AC		1.890	1.862	.474	.417	.083	.783	.954	.138	.826
crimp	HE 301 B 01 RC MS 3121 F	10	48.00	47.30	15.01	10.60	2.10	21.50	27.44	5.00	24.19
01 RC			1.890	1.862	.591	.417	.083	.846	1.080	.197	.952
		12	48.00	47.30	19.07	10.60	2.10	25.00	29.79	8.20	26.54
			1.890	1.862	.751	.417	.083	.984	1.173	.323	1.045
		14	48.00	47.30	22.25	10.60	2.10	27.80	32.10	10.00	28.89
			1.890	1.862	.876	.417	.083	1.094	1.264	.394	1.137
		16	51.00	50.50	25.42	10.60	2.10	29.40	34.59	13.00	31.29
			2.008	1.988	1.001	.417	.083	1.157	1.362	.512	1.232
		18	51.00	50.50	28.60	10.60	2.10	35.30	36.94	16.00	33.69
			2.008	1.988	1.126	.417	.083	1.390	1.454	.630	1.326
		20	53.00	51.50	31.77	13.85	2.65	35.30	40.14	16.00	36.89
			2.087	2.028	1.251	.545	.104	1.390	1.580	.630	1.452
		22	53.00	51.50	34.95	13.85	2.65	41.10	43.24	19.30	40.00
			2.087	2.028	1.376	.545	.104	1.618	1.702	.760	1.575
		24	53.00	51.50	38.12	14.70	2.65	42.40	46.44	20.60	43.29
			2.087	2.028	1.501	.579	.104	1.669	1.828	.811	1.704



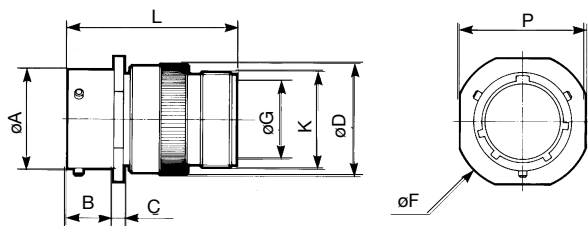
## Cable connecting receptacle with straight backshell for potting

solder		shell size	L Max		A	B Max	C Max	D Max	F Max	G Max	P Max
			solder	crimp							
01 P	HE 301 B 01 P MS 3111 P	08	36.20	41.70	12.03	10.60	2.10	15.34	24.24	10.46	20.99
crimp	HE 301 B 01 RP MS 3121 P		1.425	1.642	.474	.417	.083	.604	.954	.412	.826
01 RP			10	36.20	41.70	15.01	10.60	2.10	17.70	27.44	13.55
		1.425		1.642	.591	.417	.083	.697	1.080	.533	.952
		12	36.20	41.70	19.07	10.60	2.10	21.69	29.79	13.96	26.54
			1.425	1.642	.751	.417	.083	.854	1.173	.550	1.045
		14	36.20	41.70	22.25	10.60	2.10	23.90	32.10	17.42	28.89
			1.425	1.642	.876	.417	.083	.941	1.264	.686	1.137
		16	36.20	41.70	25.42	10.60	2.10	27.00	34.59	20.56	31.29
			1.425	1.642	1.001	.417	.083	1.063	1.362	.809	1.232
		18	36.91	44.46	28.60	10.60	2.10	30.50	36.94	23.66	33.69
			1.453	1.750	1.126	.417	.083	1.201	1.454	.931	1.326
		20	43.80	50.93	31.77	13.85	2.65	33.65	40.15	23.92	36.89
			1.724	2.005	1.251	.545	.104	1.325	1.581	.942	1.452
		22	43.80	50.93	34.95	13.85	2.65	37.10	42.24	25.52	40.00
			1.724	2.005	1.376	.545	.104	1.461	1.663	1.005	1.575
		24	43.80	50.93	38.12	14.70	2.65	40.00	46.44	32.00	43.29
			1.724	2.005	1.501	.579	.104	1.575	1.828	1.260	1.704



## Cable connecting receptacle with straight adapter

solder		shell size	L Max	A	B Max	C Max	D Max	F Max	G Max	K	P Max
01 A	HE 301 B 01 A	08	41.00	12.03	10.60	2.10	14.50	24.24	9.10	1/2 28	20.99
crimp	HE 301 B 01 RA		1.614	.474	.417	.083	.571	.954	.358		.826
01 RA			10	41.00	15.01	10.60	2.10	18.70	27.44	12.08	5/8 24
		1.614		.591	.417	.083	.736	1.080	.476		.952
		12	41.00	19.07	10.60	2.10	21.70	29.79	15.25	3/4 20	26.54
			1.614	.751	.417	.083	.854	1.173	.600		1.045
		14	41.00	22.25	10.60	2.10	25.10	32.10	18.15	7/8 20	28.89
			1.614	.876	.417	.083	.988	1.264	.715		1.137
		16	41.00	25.42	10.60	2.10	28.13	34.59	21.32	1-20	31.29
			1.614	1.001	.417	.083	1.107	1.362	.839		1.232
		18	41.00	28.60	10.60	2.10	31.38	36.94	24.32	1-3/16 18	33.69
			1.614	1.126	.417	.083	1.235	1.454	.957		1.326
		20	44.00	31.77	13.85	2.65	34.30	40.15	26.73	1-3/16 18	36.89
			1.732	1.251	.545	.104	1.350	1.581	1.052		1.452
		22	44.00	34.95	13.85	2.65	37.60	42.24	30.67	1-7/16 18	40.00
			1.732	1.376	.545	.104	1.480	1.663	1.207		1.575
		24	44.00	38.12	14.70	2.65	40.70	46.44	33.08	1-7/16 18	43.29
			1.732	1.501	.579	.104	1.602	1.828	1.302		1.704

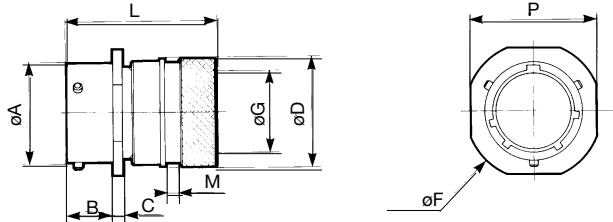


# 26482 Series I Solder Connectors



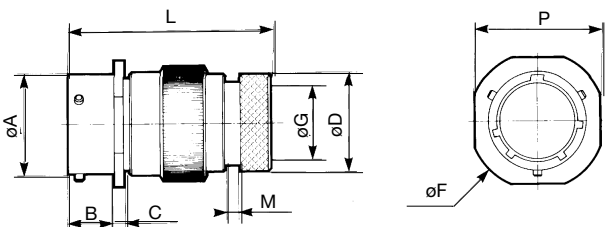
## Cable connecting receptacle with straight backshell for heatshrink sleeving

solder 01 T	crimp 01 RT	shell size	L Max		A	B Max	C Max	D Max	F Max	G Max		P Max	M Max
			solder	crimp						solder	crimp		
		08	36.70	36.00	12.03	10.60	2.10	15.35	24.24	7.20	6.70	20.99	3.70
			1.445	1.417	.474	.417	.083	.604	.954	.283	.264	.826	.146
		10	36.70	36.00	15.01	10.60	2.10	18.15	27.44	10.20	9.40	24.19	3.70
			1.445	1.417	.591	.417	.083	.715	1.080	.402	.370	.952	.146
		12	36.70	36.00	19.07	10.60	2.10	23.45	29.70	13.20	11.95	26.54	3.70
			1.445	1.417	.751	.417	.083	.923	1.169	.520	.470	1.045	.146
		14	36.70	36.00	22.25	10.60	2.10	24.25	32.10	16.10	15.15	28.89	3.70
			1.445	1.417	.876	.417	.083	.955	1.264	.634	.596	1.137	.146
		16	39.00	38.30	25.42	10.60	2.10	29.55	34.59	19.25	18.05	31.29	3.70
			1.535	1.508	1.001	.417	.083	1.163	1.362	.758	.711	1.232	.146
		18	39.00	38.30	28.60	10.60	2.10	31.75	36.94	21.30	19.95	33.69	3.70
			1.535	1.508	1.126	.417	.083	1.250	1.454	.839	.785	1.326	.146
		20	45.30	44.20	31.77	13.85	2.65	35.85	40.15	24.40	23.05	36.89	3.70
			1.783	1.740	1.251	.545	.104	1.411	1.581	.961	.907	1.452	.146
		22	45.30	44.20	34.95	13.85	2.65	38.20	42.24	27.50	25.55	40.00	3.70
			1.783	1.740	1.376	.545	.104	1.504	1.663	1.083	1.006	1.575	.146
		24	44.00	42.60	38.12	14.70	2.65	41.30	46.44	30.60	28.65	43.29	3.70
			1.732	1.677	1.501	.579	.104	1.626	1.828	1.205	1.128	1.704	.146



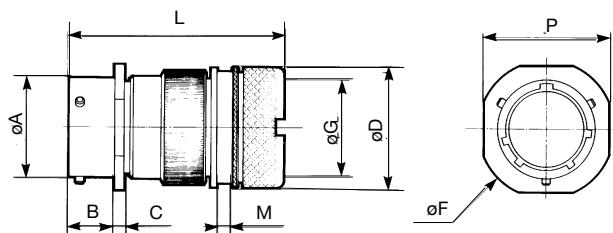
## Cable connecting receptacle with removable straight backshell for heatshrink sleeving

solder 01 M	crimp 01 RM	shell size	L Max		A	B Max	C Max	D Max	F Max	G Max	P Max	M Max
			solder	crimp								
		08	50.00	12.03	10.60	2.10	13.55	24.24	7.05	20.99	3.50	
			1.969	.474	.417	.083	.533	.954	.278	.826	.138	
		10	50.00	15.01	10.60	2.10	15.35	27.44	9.90	24.19	3.50	
			1.969	.591	.417	.083	.604	1.080	.390	.952	.138	
		12	50.00	19.07	10.60	2.10	19.48	29.79	12.60	26.54	3.50	
			1.969	.751	.417	.083	.767	1.173	.496	1.045	.138	
		14	50.00	22.25	10.60	2.10	21.30	32.10	15.90	28.89	3.50	
			1.969	.876	.417	.083	.839	1.264	.626	1.137	.138	
		16	50.00	25.42	10.60	2.10	24.50	34.59	18.95	31.29	3.50	
			1.969	1.001	.417	.083	.965	1.362	.746	1.232	.138	
		18	50.00	28.60	10.60	2.10	26.45	36.94	20.90	33.69	3.50	
			1.969	1.126	.417	.083	1.041	1.454	.823	1.326	.138	
		20	53.30	31.77	13.85	2.65	30.75	40.15	23.70	36.89	3.50	
			2.098	1.251	.545	.104	1.211	1.581	.933	1.452	.138	
		22	53.30	34.95	13.85	2.65	34.24	42.24	26.60	40.00	3.50	
			2.098	1.376	.545	.104	1.348	1.663	1.047	1.575	.138	
		24	53.30	38.12	14.70	2.65	36.47	46.44	29.30	43.29	3.50	
			2.098	1.501	.579	.104	1.436	1.828	1.154	1.704	.138	



## Cable connecting receptacle with removable straight backshell for screen termination and heatshrink sleeving (38 and 42 suffix)

solder 01 T	crimp 01 RT	shell size	L Max		A	B Max	C Max	D Max	F Max	G Max	M Max	P Max
			solder	crimp								
		08	51.60	12.03	10.60	2.10	18.25	24.24	7.45	3.70	20.99	
			2.031	.474	.417	.083	.719	.954	.293	.146	.826	
		10	51.60	15.01	10.60	2.10	20.25	27.44	9.00	3.70	24.19	
			2.031	.591	.417	.083	.797	1.080	.354	.146	.952	
		12	51.60	19.07	10.60	2.10	24.75	29.79	13.30	3.70	26.54	
			2.031	.751	.417	.083	.974	1.173	.524	.146	1.045	
		14	51.60	22.25	10.60	2.10	27.75	32.10	16.50	3.70	28.89	
			2.031	.876	.417	.083	1.093	1.264	.650	.146	1.137	
		16	51.60	25.42	10.60	2.10	30.05	34.59	18.50	3.70	31.29	
			2.031	1.001	.417	.083	1.183	1.362	.728	.146	1.232	
		18	52.00	28.60	10.60	2.10	34.15	36.94	21.90	3.70	33.69	
			2.047	1.126	.417	.083	1.344	1.454	.862	.146	1.326	
		20	55.10	31.77	13.85	2.65	37.25	40.15	25.10	3.70	36.89	
			2.169	1.251	.545	.104	1.467	1.581	.988	.146	1.452	
		22	55.10	34.95	13.85	2.65	40.45	42.24	28.20	3.70	40.00	
			2.169	1.376	.545	.104	1.593	1.663	1.110	.146	1.575	
		24	55.10	38.12	14.70	2.65	43.65	46.44	31.40	3.70	43.29	
			2.169	1.501	.579	.104	1.719	1.828	1.236	.146	1.704	

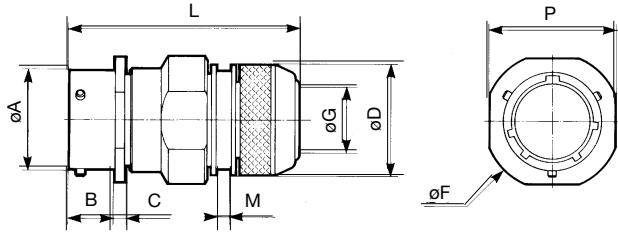


# 26482 Series I Solder Connectors



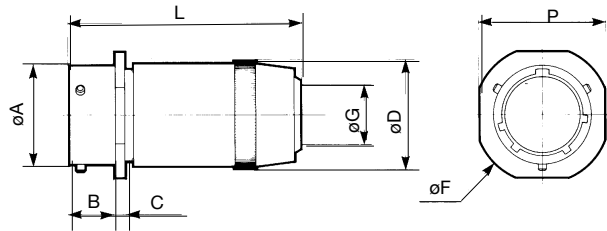
## Cable connecting receptacle with removable straight backshell for screen termination and heatshrink sleeving

solder 01 G	crimp 01 RG	shell size	L Max solder crimp	A	B Max	C Max	D Max	F Max	G Max	M Max	P Max
		08	54.00 2.126	12.03 .474	10.60 .417	2.10 .083	16.30 .642	24.24 .954	7.45 .293	3.60 .142	20.99 .826
		10	54.00 2.126	15.01 .591	10.60 .417	2.10 .083	18.30 .720	27.44 1.080	10.30 .406	3.60 .142	24.19 .952
		12	54.00 2.126	19.07 .751	10.60 .417	2.10 .083	22.30 .878	29.79 1.173	13.20 .520	3.60 .142	26.54 1.045
		14	54.00 2.126	22.25 .876	10.60 .417	2.10 .083	25.30 .996	32.10 1.264	16.50 .650	3.60 .142	28.89 1.137
		16	54.00 2.126	25.42 1.001	10.60 .417	2.10 .083	28.30 1.114	34.59 1.362	19.35 .762	3.60 .142	31.29 1.232
		18	54.00 2.126	28.60 1.126	10.60 .417	2.10 .083	32.30 1.272	36.94 1.454	21.60 .850	3.60 .142	33.69 1.326
		20	59.30 2.335	31.77 1.251	13.85 .545	2.65 .104	34.30 1.350	40.15 1.581	24.80 .976	3.60 .142	36.89 1.452
		22	59.30 2.335	34.95 1.376	13.85 .545	2.65 .104	38.30 1.508	42.24 1.663	27.90 1.098	3.60 .142	40.00 1.575
		24	59.30 2.335	38.12 1.501	14.70 .579	2.65 .104	41.30 1.626	46.44 1.828	31.00 1.220	3.60 .142	43.29 1.704



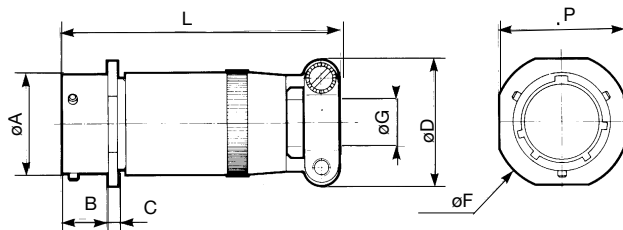
## Cable connecting receptacle with straight sealing gland backshell

solder 01 J	HE 301 B 01 J	shell size	L Max solder	A	B Max	C Max	D Max	F Max	G		P Max
									min	Max	
		08	47.60 1.874	12.03 .474	10.60 .417	2.10 .083	14.40 .567	24.24 .954	5.02 .198	5.84 .230	20.99 .826
		10	47.60 1.874	15.01 .591	10.60 .417	2.10 .083	17.60 .693	27.44 1.080	5.94 .234	6.76 .266	24.19 .952
		12	48.70 1.917	19.07 .751	10.60 .417	2.10 .083	21.10 .831	29.79 1.173	9.34 .368	10.16 .400	26.54 1.045
		14	53.50 2.106	22.25 .876	10.60 .417	2.10 .083	24.40 .961	32.10 1.264	11.32 .446	12.14 .478	28.89 1.137
		16	59.00 2.323	25.42 1.001	10.60 .417	2.10 .083	27.60 1.087	34.59 1.362	14.73 .580	15.55 .612	31.29 1.232
		18	65.00 2.559	28.60 1.126	10.60 .417	2.10 .083	30.80 1.213	36.94 1.454	16.00 .630	16.82 .662	33.69 1.326
		20	79.10 3.114	31.77 1.251	13.85 .545	2.65 .104	34.10 1.343	40.15 1.581	16.89 .665	17.71 .697	36.89 1.452
		22	80.00 3.150	34.95 1.376	13.85 .545	2.65 .104	37.30 1.469	42.24 1.663	17.78 .700	18.60 .732	40.00 1.575
		24	90.00 3.543	38.12 1.501	14.70 .579	2.65 .104	40.50 1.594	46.44 1.828	20.34 .801	21.16 .833	43.29 1.704



## Cable connecting receptacle with straight sealing gland and cable clamp backshell

solder 01 JC	MS 3111 J	shell size	L Max solder	A	B Max	C Max	D Max	F Max	G		P Max
									min	Max	
		08	57.68 2.271	12.03 .474	10.60 .417	2.10 .083	19.90 .783	24.24 .954	5.02 .198	5.84 .230	20.99 .826
		10	57.68 2.271	15.01 .591	10.60 .417	2.10 .083	21.50 .846	27.44 1.080	5.94 .234	6.76 .266	24.19 .952
		12	61.24 2.411	19.07 .751	10.60 .417	2.10 .083	25.00 .984	29.79 1.173	9.34 .368	10.16 .400	26.54 1.045
		14	66.01 2.599	22.25 .876	10.60 .417	2.10 .083	27.80 1.094	32.10 1.264	11.32 .446	12.14 .478	28.89 1.137
		16	74.75 2.943	25.42 1.001	10.60 .417	2.10 .083	29.40 1.157	34.59 1.362	14.73 .580	15.50 .610	31.29 1.232
		18	80.57 3.172	28.60 1.126	10.60 .417	2.10 .083	35.30 1.390	36.94 1.454	16.00 .630	16.82 .662	33.69 1.326
		20	91.69 3.610	31.77 1.251	13.85 .545	2.65 .104	35.30 1.390	40.15 1.581	16.89 .665	17.71 .697	36.89 1.452
		22	95.66 3.766	34.95 1.376	13.85 .545	2.65 .104	41.10 1.618	42.24 1.663	17.78 .700	18.60 .732	40.00 1.575
		24	101.22 3.985	38.12 1.501	14.70 .579	2.65 .104	42.40 1.669	46.44 1.828	20.34 .801	21.16 .833	43.29 1.704



# 26482 Series I Solder Connectors



## Plug with backnut

solder 06 E	HE 301 B 06 E MS 3116 E	shell size	L Max		A Max	D Max
			solder	crimp		
crimp 06 R	HE 301 B 06 R MS 3126 E	08	32.54 1.281	32.00 1.260	19.05 .750	13.50 .531
		10	32.54 1.281	32.00 1.260	21.80 .858	16.70 .657
		12	32.54 1.281	32.00 1.260	26.15 1.030	19.90 .783
		14	32.54 1.281	32.00 1.260	29.35 1.156	23.40 .921
		16	32.54 1.281	32.00 1.260	32.50 1.280	26.60 1.047
		18	32.54 1.281	32.00 1.260	35.30 1.390	29.60 1.165
		20	33.30 1.311	32.10 1.264	38.85 1.530	32.70 1.287
		22	33.30 1.311	32.10 1.264	42.05 1.656	36.00 1.417
		24	33.30 1.311	32.10 1.264	45.10 1.776	39.10 1.539

## Plug with straight cable clamp

solder 06 EC	HE 301 B 06 EC MS 3116 F	shell size	L Max		A Max	D Max	G
			solder	crimp			
06 AC	HE 301 B 06 AC	08	48.00 1.890	47.30 1.862	19.05 .750	19.90 .783	3.50 .138
		10	48.00 1.890	47.30 1.862	21.80 .858	21.50 .846	5.00 .197
crimp 06 RC	HE 301 B 06 RC MS 3126 F VG 95328 K	12	48.00 1.890	47.30 1.862	26.15 1.030	25.00 .984	8.20 .323
		14	48.00 1.890	47.30 1.862	29.35 1.156	27.80 1.094	10.00 .394
		16	51.00 2.008	50.50 1.988	32.50 1.280	29.40 1.157	13.00 .512
		18	51.00 2.008	50.50 1.988	35.30 1.390	35.30 1.390	16.00 .630
		20	52.00 2.047	50.20 1.976	38.85 1.530	35.30 1.390	16.00 .630
		22	52.00 2.047	50.20 1.976	42.05 1.656	41.10 1.618	19.30 .760
		24	52.00 2.047	50.20 1.976	45.10 1.776	42.40 1.669	20.60 .811

## Plug with straight backshell for potting

solder 06 P	HE 301 B 06 P MS 3116 P	shell size	L Max		A Max	D Max	G Max
			solder	crimp			
crimp 06 RP	HE 301 B 06 RP MS 3126 P	08	36.20 1.425	42.10 1.657	19.05 .750	15.34 .604	10.46 .412
		10	36.20 1.425	42.10 1.657	21.80 .858	17.70 .697	13.55 .533
		12	36.20 1.425	42.10 1.657	26.15 1.030	21.69 .854	13.96 .550
		14	36.20 1.425	42.10 1.657	29.35 1.156	23.90 .941	17.42 .686
		16	36.20 1.425	42.10 1.657	32.50 1.280	27.00 1.063	20.56 .809
		18	37.70 1.484	45.40 1.787	35.30 1.390	30.50 1.201	23.66 .931
		20	42.40 1.669	50.00 1.969	38.85 1.530	33.65 1.325	23.92 .942
		22	42.40 1.669	50.00 1.969	42.05 1.656	37.10 1.461	25.52 1.005
		24	42.85 1.687	50.00 1.969	45.10 1.776	40.00 1.575	32.00 1.260

# 26482 Series I Solder Connectors



## Plug with straight adapter

solder 06 A	HE 301 B 06 A		shell size	L Max		A Max	D Max	G Max	K Threading UNEF 2 A
crimp 06 RA	HE 301 B 06 RA			solder	crimp				
08		41.00 1.614	41.00 1.614	19.05 .750	14.50 .571	9.10 .358	1/2 28		
10		41.00 1.614	41.00 1.614	21.80 .858	18.70 .736	12.08 .476	5/8 24		
12		41.00 1.614	41.00 1.614	26.15 1.030	21.70 .854	15.25 .600	3/4 20		
14		41.00 1.614	41.00 1.614	29.35 1.156	25.10 .988	18.15 .715	7/8 20		
16		41.00 1.614	41.00 1.614	32.50 1.280	28.13 1.107	21.32 .839	1-20		
18		41.00 1.614	41.00 1.614	35.30 1.390	31.38 1.235	24.32 .957	1-3/16 18		
20		44.00 1.732	43.30 1.705	38.85 1.530	34.30 1.350	26.73 1.052	1-3/16 18		
22		44.00 1.732	43.30 1.705	42.05 1.656	37.60 1.480	30.67 1.207	1-7/16 18		
24		44.00 1.732	43.50 1.713	45.10 1.776	40.70 1.602	33.08 1.302	1-7/16 18		

## Plug with straight backshell for heatshrink sleeving

solder 06 T		shell size	L Max		A	D Max	G Max		M Max
crimp 06 RT			VG 95328 J	solder			crimp	solder	
08		36.70 1.445	36.00 1.417	19.05 .750	15.35 .604	7.20 .283	6.70 .264	3.70 .146	
10		36.70 1.445	36.00 1.417	21.80 .858	18.15 .715	10.20 .402	9.40 .370	3.70 .146	
12		36.70 1.445	36.00 1.417	26.15 1.030	23.45 .923	13.20 .520	11.95 .470	3.70 .146	
14		36.70 1.445	36.00 1.417	29.35 1.156	24.25 .955	16.10 .634	15.15 .596	3.70 .146	
16		39.00 1.535	38.30 1.508	32.50 1.280	29.55 1.163	19.25 .758	18.05 .711	3.70 .146	
18		39.00 1.535	38.30 1.508	35.30 1.390	31.75 1.250	21.30 .839	19.95 .785	3.70 .146	
20		44.00 1.732	42.90 1.689	38.85 1.530	35.85 1.411	24.40 .961	23.05 .907	3.70 .146	
22		44.00 1.732	42.90 1.689	42.05 1.656	38.20 1.504	27.50 1.083	25.55 1.006	3.70 .146	
24		42.70 1.681	41.60 1.638	45.10 1.776	41.30 1.626	30.60 1.205	28.65 1.128	3.70 .146	

## Plug with removable straight backshell for heatshrink sleeving

solder 06 M		shell size	L Max	A Max	D Max	G Max	M Max
crimp 06 RM			solder/crimp				
08		50.00 1.969	19.05 .750	13.55 .533	7.05 .278	3.50 .138	
10		50.00 1.969	21.80 .858	15.35 .604	9.90 .390	3.50 .138	
12		50.00 1.969	26.15 1.030	19.48 .767	12.60 .496	3.50 .138	
14		50.00 1.969	29.35 1.156	21.30 .839	15.90 .626	3.50 .138	
16		50.00 1.969	32.50 1.280	24.50 .965	18.95 .746	3.50 .138	
18		50.00 1.969	35.30 1.390	26.45 1.041	20.90 .823	3.50 .138	
20		52.00 2.047	38.85 1.530	30.73 1.210	23.70 .933	3.50 .138	
22		52.00 2.047	42.05 1.656	34.24 1.348	26.60 1.047	3.50 .138	
24		52.00 2.047	45.10 1.776	36.47 1.436	29.30 1.154	3.50 .138	



# 26482 Series I Solder Connectors



## Plug with straight sealing gland backshell

solder 06 J	HE 301 B 06 J		shell size	L Max	A Max	D Max	G	
				solder			min	Max
			08	47.60 1.874	19.05 .750	14.40 .567	5.02 .198	5.84 .230
			10	47.60 1.874	21.80 .858	17.60 .693	5.94 .234	6.76 .266
			12	49.20 1.937	26.15 1.030	21.10 .831	9.34 .368	10.16 .400
			14	54.00 2.126	29.35 1.156	24.40 .961	11.32 .446	12.14 .478
			16	59.60 2.346	32.50 1.280	27.60 1.087	14.73 .580	15.55 .612
			18	65.60 2.583	35.30 1.390	30.80 1.213	16.00 .630	16.80 .661
			20	78.00 3.071	38.85 1.530	34.10 1.343	16.89 .665	17.71 .697
			22	79.50 3.130	42.05 1.656	37.30 1.469	17.78 .700	18.60 .732
			24	90.00 3.543	45.10 1.776	40.50 1.594	20.34 .801	21.16 .833

## Plug with straight sealing gland and cable clamp backshell

solder 06 JC	MS 3116 J		shell size	L Max	A Max	D Max	G	
				solder			min	Max
			08	57.68 2.271	19.05 .750	19.90 .783	5.02 .198	5.84 .230
			10	57.68 2.271	21.80 .858	21.50 .846	5.94 .234	6.76 .266
			12	61.24 2.411	26.15 1.030	25.00 .984	9.34 .368	10.16 .400
			14	66.01 2.599	29.35 1.156	27.80 1.094	11.32 .446	12.14 .478
			16	74.75 2.943	32.50 1.280	29.40 1.157	14.73 .580	15.50 .610
			18	80.57 3.172	35.30 1.390	35.30 1.390	16.00 .630	16.82 .662
			20	91.69 3.610	38.85 1.530	35.30 1.390	16.89 .665	17.71 .697
			22	95.66 3.766	42.05 1.656	41.10 1.618	17.78 .700	18.60 .732
			24	101.22 3.985	45.10 1.776	42.40 1.669	20.34 .801	21.16 .833

## Plug with elbow cable clamp backshell

solder 08 EC	HE 301 B 08 EC		shell size	L Max	A Max	D Max	G	R Max
				solder/crimp				
crimp 08 RC	HE 301 B 08 RC		08	50.10 1.972	19.05 .750	19.70 .776	3.50 .138	16.00 .630
			10	52.60 2.071	21.80 .858	21.20 .835	5.00 .197	18.00 .709
			12	54.90 2.161	26.15 1.030	24.20 .953	8.20 .323	19.50 .768
			14	58.50 2.303	29.35 1.156	27.50 1.083	10.00 .394	22.00 .866
			16	60.80 2.394	32.50 1.280	29.10 1.146	13.00 .512	23.50 .925
			18	65.00 2.559	35.30 1.390	35.70 1.406	16.00 .630	25.00 .984
			20	69.10 2.720	38.85 1.530	35.70 1.406	16.00 .630	26.50 1.043
			22	71.00 2.795	42.05 1.656	39.70 1.563	19.30 .760	28.00 1.102
			24	75.50 2.972	45.10 1.776	43.50 1.713	20.60 .811	31.00 1.220



# 26482 Series I Solder Connectors



## Plug with elbow backshell for potting

solder 08 P	HE 301 B 08 P		<table border="1"> <thead> <tr> <th rowspan="2">shell size</th> <th>L Max</th> <th rowspan="2">A Max</th> <th rowspan="2">G Max</th> <th rowspan="2">R Max</th> <th rowspan="2">S Max</th> </tr> <tr> <th>solder/crimp</th> </tr> </thead> <tbody> <tr><td>08</td><td>40.70 1.602</td><td>19.05 .750</td><td>8.10 .319</td><td>11.70 .461</td><td>11.30 .445</td></tr> <tr><td>10</td><td>44.90 1.768</td><td>21.80 .858</td><td>11.30 .445</td><td>14.35 .565</td><td>14.50 .571</td></tr> <tr><td>12</td><td>46.90 1.846</td><td>26.15 1.030</td><td>13.30 .524</td><td>15.90 .626</td><td>17.70 .697</td></tr> <tr><td>14</td><td>49.20 1.937</td><td>29.35 1.156</td><td>16.10 .634</td><td>16.30 .642</td><td>20.10 .791</td></tr> <tr><td>16</td><td>50.60 1.992</td><td>32.50 1.280</td><td>16.90 .665</td><td>19.30 .760</td><td>22.80 .898</td></tr> <tr><td>18</td><td>51.80 2.039</td><td>35.30 1.390</td><td>18.10 .713</td><td>20.60 .811</td><td>25.60 1.008</td></tr> <tr><td>20</td><td>53.70 2.114</td><td>38.85 1.530</td><td>19.70 .776</td><td>21.90 .862</td><td>28.80 1.134</td></tr> <tr><td>22</td><td>54.80 2.157</td><td>42.05 1.656</td><td>20.80 .819</td><td>23.50 .925</td><td>31.60 1.244</td></tr> <tr><td>24</td><td>58.20 2.291</td><td>45.10 1.776</td><td>24.20 .953</td><td>30.15 1.187</td><td>35.20 1.386</td></tr> </tbody> </table>	shell size	L Max	A Max	G Max	R Max	S Max	solder/crimp	08	40.70 1.602	19.05 .750	8.10 .319	11.70 .461	11.30 .445	10	44.90 1.768	21.80 .858	11.30 .445	14.35 .565	14.50 .571	12	46.90 1.846	26.15 1.030	13.30 .524	15.90 .626	17.70 .697	14	49.20 1.937	29.35 1.156	16.10 .634	16.30 .642	20.10 .791	16	50.60 1.992	32.50 1.280	16.90 .665	19.30 .760	22.80 .898	18	51.80 2.039	35.30 1.390	18.10 .713	20.60 .811	25.60 1.008	20	53.70 2.114	38.85 1.530	19.70 .776	21.90 .862	28.80 1.134	22	54.80 2.157	42.05 1.656	20.80 .819	23.50 .925	31.60 1.244	24	58.20 2.291	45.10 1.776	24.20 .953	30.15 1.187	35.20 1.386
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## Screened plug with straight adapter

solder 36 A		<table border="1"> <thead> <tr> <th rowspan="2">shell size</th> <th>L Max</th> <th rowspan="2">A Max</th> <th rowspan="2">D Max</th> <th rowspan="2">G Max</th> <th rowspan="2">K threading UNEF 2 A</th> </tr> <tr> <th>solder/crimp</th> </tr> </thead> <tbody> <tr><td>08</td><td>41.00 1.614</td><td>19.05 .750</td><td>14.50 .571</td><td>9.10 .358</td><td>1/2 28</td></tr> <tr><td>10</td><td>41.00 1.614</td><td>21.80 .858</td><td>18.70 .736</td><td>12.08 .476</td><td>5/8 24</td></tr> <tr><td>12</td><td>41.00 1.614</td><td>26.15 1.030</td><td>21.70 .854</td><td>15.25 .600</td><td>3/4 20</td></tr> <tr><td>14</td><td>41.00 1.614</td><td>29.35 1.156</td><td>25.10 .988</td><td>18.15 .715</td><td>7/8 20</td></tr> <tr><td>16</td><td>41.00 1.614</td><td>32.50 1.280</td><td>28.13 1.107</td><td>21.32 .839</td><td>1-20</td></tr> <tr><td>18</td><td>41.00 1.614</td><td>35.30 1.390</td><td>31.38 1.235</td><td>24.32 .957</td><td>1-3/16 18</td></tr> <tr><td>20</td><td>43.30 1.705</td><td>38.85 1.530</td><td>34.30 1.350</td><td>26.73 1.052</td><td>1-3/16 18</td></tr> <tr><td>22</td><td>43.30 1.705</td><td>42.05 1.656</td><td>37.60 1.480</td><td>30.67 1.207</td><td>1-7/16 18</td></tr> <tr><td>24</td><td>43.50 1.713</td><td>45.10 1.776</td><td>40.70 1.602</td><td>33.08 1.302</td><td>1-7/16 18</td></tr> </tbody> </table>	shell size	L Max	A Max	D Max	G Max	K threading UNEF 2 A	solder/crimp	08	41.00 1.614	19.05 .750	14.50 .571	9.10 .358	1/2 28	10	41.00 1.614	21.80 .858	18.70 .736	12.08 .476	5/8 24	12	41.00 1.614	26.15 1.030	21.70 .854	15.25 .600	3/4 20	14	41.00 1.614	29.35 1.156	25.10 .988	18.15 .715	7/8 20	16	41.00 1.614	32.50 1.280	28.13 1.107	21.32 .839	1-20	18	41.00 1.614	35.30 1.390	31.38 1.235	24.32 .957	1-3/16 18	20	43.30 1.705	38.85 1.530	34.30 1.350	26.73 1.052	1-3/16 18	22	43.30 1.705	42.05 1.656	37.60 1.480	30.67 1.207	1-7/16 18	24	43.50 1.713	45.10 1.776	40.70 1.602	33.08 1.302	1-7/16 18
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crimp 36 RA	VG 95328 N																																																														

## Screened plug with removable straight backshell for screen termination and heatshrink sleeving (38 and 42 suffix)

solder 36 T		<table border="1"> <thead> <tr> <th rowspan="2">shell size</th> <th>L Max</th> <th rowspan="2">A Max</th> <th rowspan="2">D Max</th> <th rowspan="2">G Max</th> <th rowspan="2">M Max</th> </tr> <tr> <th>solder/crimp</th> </tr> </thead> <tbody> <tr><td>08</td><td>51.60 2.031</td><td>19.05 .750</td><td>18.25 .719</td><td>7.45 .293</td><td>3.70 .146</td></tr> <tr><td>10</td><td>51.60 2.031</td><td>21.80 .858</td><td>20.25 .797</td><td>9.00 .354</td><td>3.70 .146</td></tr> <tr><td>12</td><td>51.60 2.031</td><td>26.15 1.030</td><td>24.75 .974</td><td>13.30 .524</td><td>3.70 .146</td></tr> <tr><td>14</td><td>51.60 2.031</td><td>29.35 1.156</td><td>27.75 1.093</td><td>16.50 .650</td><td>3.70 .146</td></tr> <tr><td>16</td><td>51.60 2.031</td><td>32.50 1.280</td><td>30.05 1.183</td><td>18.50 .728</td><td>3.70 .146</td></tr> <tr><td>18</td><td>52.00 2.047</td><td>35.30 1.390</td><td>34.15 1.344</td><td>21.90 .862</td><td>3.70 .146</td></tr> <tr><td>20</td><td>53.90 2.122</td><td>38.85 1.530</td><td>37.25 1.467</td><td>25.10 .988</td><td>3.70 .146</td></tr> <tr><td>22</td><td>53.90 2.122</td><td>42.05 1.656</td><td>40.45 1.593</td><td>28.20 1.110</td><td>3.70 .146</td></tr> <tr><td>24</td><td>53.90 2.122</td><td>45.10 1.776</td><td>43.65 1.719</td><td>31.40 1.236</td><td>3.70 .146</td></tr> </tbody> </table>	shell size	L Max	A Max	D Max	G Max	M Max	solder/crimp	08	51.60 2.031	19.05 .750	18.25 .719	7.45 .293	3.70 .146	10	51.60 2.031	21.80 .858	20.25 .797	9.00 .354	3.70 .146	12	51.60 2.031	26.15 1.030	24.75 .974	13.30 .524	3.70 .146	14	51.60 2.031	29.35 1.156	27.75 1.093	16.50 .650	3.70 .146	16	51.60 2.031	32.50 1.280	30.05 1.183	18.50 .728	3.70 .146	18	52.00 2.047	35.30 1.390	34.15 1.344	21.90 .862	3.70 .146	20	53.90 2.122	38.85 1.530	37.25 1.467	25.10 .988	3.70 .146	22	53.90 2.122	42.05 1.656	40.45 1.593	28.20 1.110	3.70 .146	24	53.90 2.122	45.10 1.776	43.65 1.719	31.40 1.236	3.70 .146
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crimp 36 RT																																																															

# 26482 Series I Solder Connectors



## Screened plug with removable straight backshell for screen termination and heatshrink sleeving

solder 36 G			<table border="1"> <thead> <tr> <th rowspan="2">shell size</th> <th>L Max</th> <th>A Max</th> <th>D Max</th> <th>G Max</th> <th>M Max</th> </tr> <tr> <th>solder/crimp</th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr><td>08</td><td>54.00 2.126</td><td>19.05 .750</td><td>16.30 .642</td><td>7.45 .293</td><td>3.60 .142</td></tr> <tr><td>10</td><td>54.00 2.126</td><td>21.80 .858</td><td>18.30 .720</td><td>10.30 .406</td><td>3.60 .142</td></tr> <tr><td>12</td><td>54.00 2.126</td><td>26.15 1.030</td><td>22.30 .878</td><td>13.20 .520</td><td>3.60 .142</td></tr> <tr><td>14</td><td>54.00 2.126</td><td>29.35 1.156</td><td>25.30 .996</td><td>16.50 .650</td><td>3.60 .142</td></tr> <tr><td>16</td><td>54.00 2.126</td><td>32.50 1.280</td><td>28.30 1.114</td><td>19.35 .762</td><td>3.60 .142</td></tr> <tr><td>18</td><td>54.00 2.126</td><td>35.30 1.390</td><td>32.30 1.272</td><td>21.60 .850</td><td>3.60 .142</td></tr> <tr><td>20</td><td>58.00 2.283</td><td>38.85 1.530</td><td>34.30 1.350</td><td>24.80 .976</td><td>3.60 .142</td></tr> <tr><td>22</td><td>58.00 2.283</td><td>42.05 1.656</td><td>38.30 1.508</td><td>27.90 1.098</td><td>3.60 .142</td></tr> <tr><td>24</td><td>58.00 2.283</td><td>45.10 1.776</td><td>41.30 1.626</td><td>31.00 1.220</td><td>3.60 .142</td></tr> </tbody> </table>	shell size	L Max	A Max	D Max	G Max	M Max	solder/crimp					08	54.00 2.126	19.05 .750	16.30 .642	7.45 .293	3.60 .142	10	54.00 2.126	21.80 .858	18.30 .720	10.30 .406	3.60 .142	12	54.00 2.126	26.15 1.030	22.30 .878	13.20 .520	3.60 .142	14	54.00 2.126	29.35 1.156	25.30 .996	16.50 .650	3.60 .142	16	54.00 2.126	32.50 1.280	28.30 1.114	19.35 .762	3.60 .142	18	54.00 2.126	35.30 1.390	32.30 1.272	21.60 .850	3.60 .142	20	58.00 2.283	38.85 1.530	34.30 1.350	24.80 .976	3.60 .142	22	58.00 2.283	42.05 1.656	38.30 1.508	27.90 1.098	3.60 .142	24	58.00 2.283	45.10 1.776	41.30 1.626	31.00 1.220	3.60 .142
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crimp 36 RG	VG 95328 M																																																																			

## Plug with straight adapter for electrical pitch access

solder 06 Z			<table border="1"> <thead> <tr> <th rowspan="2">shell size</th> <th>L Max</th> <th>A Max</th> <th>B Max</th> <th>C Max</th> <th>D</th> </tr> <tr> <th>solder/crimp</th> <th></th> <th></th> <th></th> <th>threading PE</th> </tr> </thead> <tbody> <tr><td>08</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>10</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>12</td><td>43.00 1.693</td><td>26.15 1.030</td><td>9.00 .354</td><td>24.80 .976</td><td>11</td></tr> <tr><td>14</td><td>45.00 1.772</td><td>29.35 1.156</td><td>11.00 .433</td><td>28.80 1.134</td><td>16</td></tr> <tr><td>16</td><td>45.00 1.772</td><td>32.50 1.280</td><td>11.00 .433</td><td>30.80 1.213</td><td>16</td></tr> <tr><td>18</td><td>46.00 1.811</td><td>35.30 1.390</td><td>12.00 .472</td><td>40.80 1.606</td><td>21</td></tr> <tr><td>20</td><td>46.50 1.831</td><td>38.85 1.530</td><td>12.00 .472</td><td>40.80 1.606</td><td>21</td></tr> <tr><td>22</td><td>46.50 1.831</td><td>42.05 1.656</td><td>12.00 .472</td><td>40.80 1.606</td><td>21</td></tr> <tr><td>24</td><td>65.50 2.579</td><td>45.10 1.776</td><td>31.40 1.236</td><td>45.00 1.772</td><td>29</td></tr> </tbody> </table>	shell size	L Max	A Max	B Max	C Max	D	solder/crimp				threading PE	08	-	-	-	-	-	10	-	-	-	-	-	12	43.00 1.693	26.15 1.030	9.00 .354	24.80 .976	11	14	45.00 1.772	29.35 1.156	11.00 .433	28.80 1.134	16	16	45.00 1.772	32.50 1.280	11.00 .433	30.80 1.213	16	18	46.00 1.811	35.30 1.390	12.00 .472	40.80 1.606	21	20	46.50 1.831	38.85 1.530	12.00 .472	40.80 1.606	21	22	46.50 1.831	42.05 1.656	12.00 .472	40.80 1.606	21	24	65.50 2.579	45.10 1.776	31.40 1.236	45.00 1.772	29
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crimp 06 RZ																																																																				

## Screened plug with lock finger and short backshell for screen termination and heatshrink sleeving

solder 76 U			<table border="1"> <thead> <tr> <th rowspan="2">shell size</th> <th>L Max</th> <th>A Max</th> <th>D Max</th> <th>H Max</th> <th>G Max</th> <th>E Max</th> <th>M Max</th> </tr> <tr> <th>solder/crimp</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr><td>08</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>10</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>12</td><td>35.60 1.402</td><td>25.00 .984</td><td>22.50 .886</td><td>32.00 1.260</td><td>13.20 .520</td><td>19.50 .768</td><td>3.70 .146</td></tr> <tr><td>14</td><td>35.60 1.402</td><td>29.00 1.142</td><td>25.50 1.004</td><td>32.00 1.260</td><td>16.10 .634</td><td>21.00 .827</td><td>3.70 .146</td></tr> <tr><td>16</td><td>35.60 1.402</td><td>32.00 1.260</td><td>28.50 1.122</td><td>32.00 1.260</td><td>19.25 .758</td><td>22.50 .886</td><td>3.70 .146</td></tr> <tr><td>18</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>20</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>22</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>24</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr> </tbody> </table>	shell size	L Max	A Max	D Max	H Max	G Max	E Max	M Max	solder/crimp							08	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	12	35.60 1.402	25.00 .984	22.50 .886	32.00 1.260	13.20 .520	19.50 .768	3.70 .146	14	35.60 1.402	29.00 1.142	25.50 1.004	32.00 1.260	16.10 .634	21.00 .827	3.70 .146	16	35.60 1.402	32.00 1.260	28.50 1.122	32.00 1.260	19.25 .758	22.50 .886	3.70 .146	18	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	24	-	-	-	-	-	-	-
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crimp 76 RU	VG 95328 U																																																																																									

# 26482 Series I Solder Connectors



## Hermetic connectors

square flange receptacle 02 H   HE 301 B 02 H		shell size	A	C Max	D Max	E	F	G	H Max	J	M Max	N Max
	08	12.03 .474	21.42 .843	27.09 1.067	15.09 .594	13.84 .545	14.27 .562	6.97 .274	3.13 .123	11.24 .443	1.67 .066	
	10	15.01 .591	24.62 .969	31.87 1.255	18.26 .719	13.84 .545	17.06 .672	6.97 .274	3.13 .123	11.24 .443	1.67 .066	
	12	19.07 .751	26.98 1.062	35.04 1.380	20.62 .812	13.84 .545	19.85 .781	6.97 .274	3.13 .123	11.24 .443	1.67 .066	
	14	22.25 .876	29.36 1.156	38.22 1.505	23.00 .906	13.84 .545	23.00 .906	6.97 .274	3.13 .123	11.24 .443	1.67 .066	
	16	25.42 1.001	31.73 1.249	41.39 1.630	24.61 .969	13.84 .545	26.18 1.031	6.97 .274	3.13 .123	11.24 .443	1.67 .066	
	18	28.60 1.126	34.12 1.343	44.57 1.755	26.97 1.062	13.84 .545	29.36 1.156	6.97 .274	3.13 .123	11.24 .443	1.67 .066	
	20	31.77 1.251	37.20 1.465	47.74 1.880	29.36 1.156	15.42 .607	31.74 1.250	6.99 .275	3.13 .123	12.00 .472	2.48 .098	
	22	34.95 1.376	40.47 1.593	50.92 2.005	31.75 1.250	16.23 .639	34.92 1.375	6.99 .275	3.13 .123	12.00 .472	2.48 .098	
	24	38.12 1.501	43.66 1.719	55.69 2.193	34.92 1.375	17.04 .671	38.10 1.500	6.19 .244	3.81 .150	12.81 .504	2.48 .098	

jam nut receptacle 07 H   HE 301 B 07 H MS 3114 H VG 95328 F		shell size	A	C Max	D Max	G	L Max	M Max	P
	08	12.03 .474	24.07 .948	27.37 1.078	14.26 .561	20.53 .808	17.93 .706	13.33 .525	
	10	15.01 .591	27.22 1.072	30.57 1.204	17.43 .686	20.53 .808	17.93 .706	16.51 .650	
	12	19.07 .751	32.00 1.260	35.32 1.391	22.19 .874	20.53 .808	17.93 .706	20.63 .812	
	14	22.25 .876	35.17 1.385	38.50 1.516	25.36 .998	20.53 .808	17.93 .706	23.78 .936	
	16	25.42 1.001	38.35 1.510	41.67 1.641	28.54 1.124	20.53 .808	17.93 .706	26.93 1.060	
	18	28.60 1.126	41.52 1.635	44.85 1.766	31.71 1.248	20.53 .808	17.93 .706	30.10 1.185	
	20	31.77 1.251	46.27 1.822	49.62 1.954	34.89 1.374	26.10 1.028	22.70 .894	33.28 1.310	
	22	34.95 1.376	49.47 1.948	52.77 2.078	38.06 1.498	26.10 1.028	22.70 .894	36.45 1.435	
	24	38.12 1.501	52.62 2.072	55.97 2.204	41.24 1.624	26.93 1.060	23.54 .927	39.63 1.560	

solder fixing receptacle IH   HE 301 B 1 H MS 3113 H VG 95328 G		shell size	A	D Max	H Max	F	G Max	M Max	N Max
	08	12.03 .474	16.40 .646	8.19 .322	13.84 .545	14.27 .562	10.69 .421	0.76 .030	
	10	15.01 .591	19.40 .764	8.19 .322	13.84 .545	17.06 .672	10.69 .421	0.76 .030	
	12	19.07 .751	21.80 .858	8.19 .322	13.84 .545	19.83 .781	10.69 .421	0.76 .030	
	14	22.25 .876	25.00 .984	8.19 .322	13.84 .545	23.00 .906	10.69 .421	0.76 .030	
	16	25.42 1.001	28.10 1.106	8.19 .322	13.84 .545	26.18 1.031	10.69 .421	0.76 .030	
	18	28.60 1.126	31.30 1.232	8.19 .322	13.84 .545	29.36 1.156	10.69 .421	0.76 .030	
	20	31.77 1.251	33.70 1.327	8.16 .321	15.42 .607	31.74 1.250	12.32 .485	0.76 .030	
	22	34.95 1.376	36.90 1.453	8.16 .321	16.23 .639	34.92 1.375	12.32 .485	0.76 .030	
	24	38.12 1.501	40.10 1.579	7.36 .290	17.04 .671	38.10 1.500	13.12 .517	0.76 .030	

# 26482 Series I Solder Connectors



## Wire wrap and straight spills connectors

### Square flange receptacle type 02 E

shell size	wire wrap version									
	A	B Max	C Max	Ø D Max	E	F Max	H	J	L Max	T
08	12.03 .474	11.70 .461	1.32 .052	10.84 .427	15.09 .594	20.99 .826	12.42 .489	3.13 .123	20.50 .807	9.46 .372
10	15.01 .591	11.70 .461	1.32 .052	13.99 .551	18.26 .719	24.19 .952	12.42 .489	3.13 .123	20.50 .807	9.46 .372
12	19.07 .751	11.70 .461	1.32 .052	17.37 .684	20.62 .812	26.54 1.045	12.42 .489	3.13 .123	20.50 .807	9.46 .372
14	22.25 .876	11.70 .461	1.32 .052	20.57 .810	23.00 .906	28.89 1.137	12.42 .489	3.13 .123	20.50 .807	9.46 .372
16	25.42 1.001	11.70 .461	1.32 .052	23.62 .930	24.61 .969	31.29 1.232	12.42 .489	3.13 .123	20.50 .807	9.46 .372
18	28.60 1.126	11.70 .461	1.32 .052	26.69 1.051	26.97 1.062	33.69 1.326	12.42 .489	3.13 .123	20.50 .807	9.46 .372
20	31.77 1.251	14.35 .565	2.15 .085	29.89 1.177	29.36 1.156	36.89 1.452	10.69 .421	3.13 .123	23.80 .937	7.76 .306
22	34.95 1.376	14.35 .565	2.15 .085	33.04 1.301	31.75 1.250	39.99 1.574	10.69 .421	3.13 .123	23.80 .937	7.76 .306
24	38.12 1.501	15.20 .598	2.15 .085	36.24 1.427	34.92 1.375	43.15 1.699	10.69 .421	3.81 .150	23.80 .937	7.76 .306

### Jam nut receptacle type 07 A

shell size	wire wrap version									
	A	B Max	C Max	F Max	H	L Max	P Max	S Max	T	
08	12.03 .474	17.90 .705	2.64 .104	26.94 1.061	12.42 .489	20.64 .813	19.29 .759	23.94 .943	9.46 .372	
10	15.01 .591	17.90 .705	2.64 .104	30.14 1.187	12.42 .489	20.64 .813	22.38 .881	26.95 1.061	9.46 .372	
12	19.07 .751	17.90 .705	2.64 .104	34.94 1.376	12.42 .489	20.64 .813	27.13 1.068	31.74 1.250	9.46 .372	
14	22.25 .876	17.90 .705	2.64 .104	38.04 1.498	12.42 .489	20.64 .813	30.33 1.194	34.94 1.376	9.46 .372	
16	25.42 1.001	17.90 .705	2.64 .104	41.26 1.624	12.42 .489	20.64 .813	33.48 1.318	38.24 1.506	9.46 .372	
18	28.60 1.126	17.90 .705	2.64 .104	44.44 1.750	12.42 .489	20.64 .813	36.68 1.444	41.34 1.628	9.46 .372	
20	31.77 1.251	22.45 .884	3.44 .135	49.14 1.935	8.64 .340	25.99 1.023	39.83 1.568	46.04 1.813	8.49 .334	
22	34.95 1.376	22.45 .884	3.44 .135	52.24 2.057	8.64 .340	25.99 1.023	43.03 1.694	49.24 1.939	8.49 .334	
24	38.12 1.501	23.30 .917	3.44 .135	55.54 2.187	7.79 .307	26.84 1.057	46.18 1.818	52.74 2.076	7.79 .307	

# 26482 Series I Solder Connectors



## Protective Caps

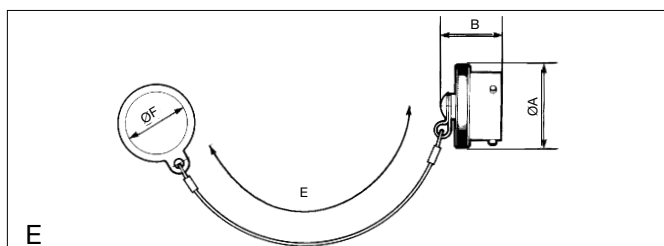
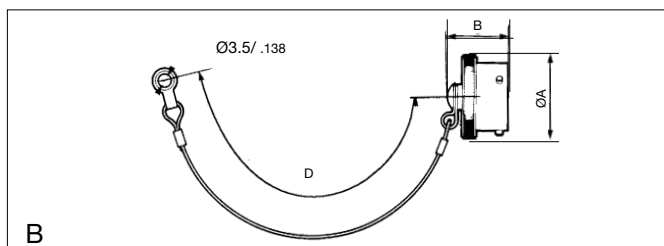
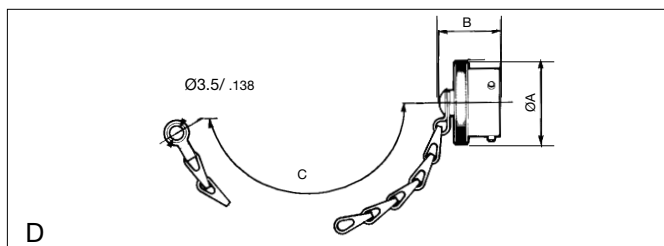
### Part numbers

<b>basic series</b>	<b>8500</b>									<b>05</b>	...
<b>shell size</b>	8	10	12	14	16	18	20	22	24		
<b>part numbers for receptacle</b>	02	03	04	05	27	06	07	08	09		
<b>part numbers for plug</b>	10	11	12	13	28	14	15	16	17		
<b>specification</b>	for cap type and plating										

### Type and plating

Cap type	receptacle cap			plug cap			
	olive green cadmium	black anodized	nickel	olive green cadmium	white cadmium	black anodized	nickel
cap with chain and ring	D	29 D	44 D	D	02 D	29 D	44 D
cap with nylon cord and ring	B	29 B	44 B	B	02 B	29 B	44 B
cap with nylon cord and washer (shell 10, 12 and 14)	-	-	-	E	-	-	-
cap with nylon cord and washer	H	-	-	-	-	-	-
cap with chain and washer	J	-	-	-	-	-	-

### Caps for plug

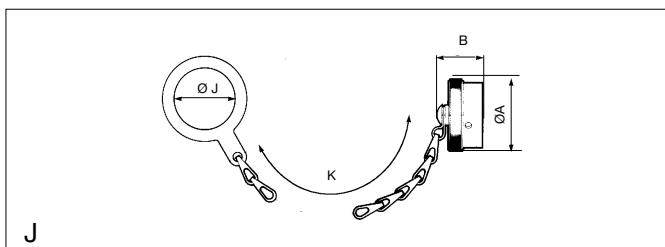
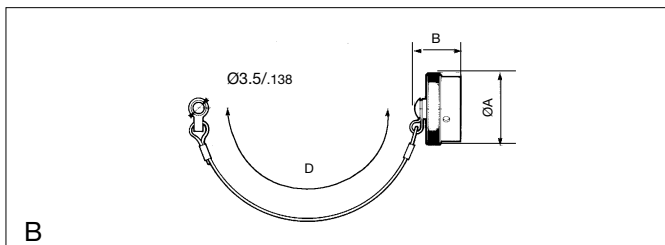
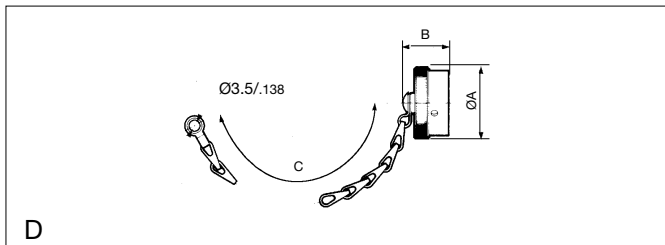


shell size	Ø A Maxi	B Maxi	C	D	E	Ø F
08	16.80 .661	19.84 .781	132.00 5.197	128.00 5.039	-	-
10	19.80 .780	19.84 .781	132.00 5.197	128.00 5.039	132.00 5.197	14.00 .551
12	23.90 .941	19.84 .781	148.00 5.827	148.00 5.827	148.00 5.827	17.60 .693
14	27.00 1.063	19.84 .781	148.00 5.827	148.00 5.827	148.00 5.827	20.80 .819
16	30.20 1.189	19.84 .781	148.00 5.827	148.00 5.827	-	-
18	33.40 1.315	19.84 .781	148.00 5.827	148.00 5.827	-	-
20	36.50 1.437	21.44 .844	168.00 6.614	153.00 6.024	-	-
22	39.80 1.567	21.44 .844	168.00 6.614	153.00 6.024	-	-
24	42.90 1.689	22.22 .875	168.00 6.614	153.00 6.024	-	-

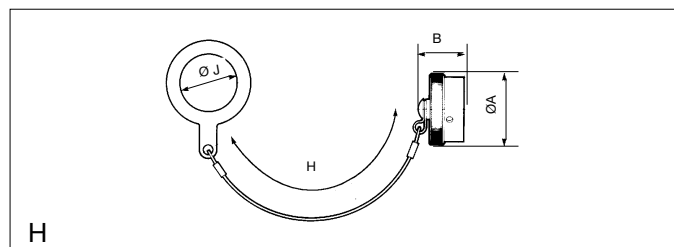
# 26482 Series I Solder Connectors



## Caps for receptacle



shell size	Ø A Max	B Max	C	D	J Max	H	K
08	19.00	21.44	84.00	77.00	14.80	80.00	84.00
	.748	.844	3.307	3.031	.583	3.150	3.307
10	21.80	21.44	84.00	77.00	17.90	80.00	84.00
	.858	.844	3.307	3.031	.705	3.150	3.307
12	26.10	21.44	100.00	89.00	22.70	90.00	100.00
	1.028	.844	3.937	3.504	.894	3.543	3.937
14	29.30	21.44	100.00	89.00	25.90	90.00	100.00
	1.154	.844	3.937	3.504	1.020	3.543	3.937
16	32.50	21.44	100.00	89.00	29.00	90.00	100.00
	1.280	.844	3.937	3.504	1.142	3.543	3.937
18	35.30	21.44	100.00	89.00	32.20	90.00	100.00
	1.390	.844	3.937	3.504	1.268	3.543	3.937
20	38.80	21.44	116.00	102.00	35.40	110.00	116.00
	1.528	.844	4.567	4.016	1.394	4.331	4.567
22	42.00	21.44	116.00	102.00	38.60	110.00	116.00
	1.654	.844	4.567	4.016	1.520	4.331	4.567
24	45.10	22.22	116.00	102.00	41.70	110.00	116.00
	1.776	.875	4.567	4.016	1.642	4.331	4.567



## Tools Crimping pliers

contact sizes	wire size		crimping tool	part numbers	
	mm <sup>2</sup>	AWG		locator	
20	0,93	18	8465 (MS 3191-1) 8476-01 (M 22520 / 2-01) 8365 (M 22520 / 1-01)	MS 3191-20 A	
	0,60	20		8476-02 (M 22520 / 2-02)	
	0,38	22		8365-02 (M 22520 / 1-02)	
	0,21	24			
16	1,91	14	8465 (MS 3191-1) 8365 (M 22520 / 1-01)	MS 3191-16 A	
	1,34	16		8365-02 (M 22520 / 1-02)	
	0,93	18			

## Insertion and extraction tools

contact type	contact size	part numbers	
		insertion tools	extraction tools
crimp	20	8500-29 B *	8500-36 A
	16	8500-39	8500-38 A
for wire cap	20	8500-31	8500-31
	16	8500-39 or 8500-37	8500-37

Spare tube for tool : - 8500-36 A PN : 8500-1163  
- 8500-38 A PN : 8500-1184

\* Except 8-2, 8-3, 8-4, 12-14 contact layouts :  
insertion tool 8500-93B

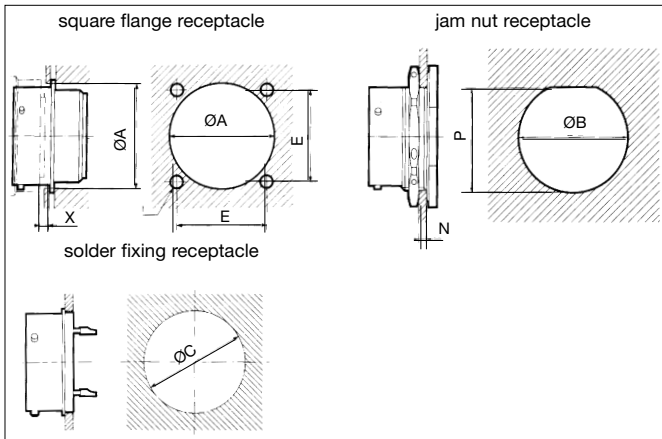
## Filler plug

contact size	part numbers	colour	profile
20	8500-4144	grey	
16	8500-479	blue	
20	8500-4144 A (MS 3187 A 20)	red	
16	8500-4267 (MS 3187-16)	blue	

# 26482 Series I Solder Connectors



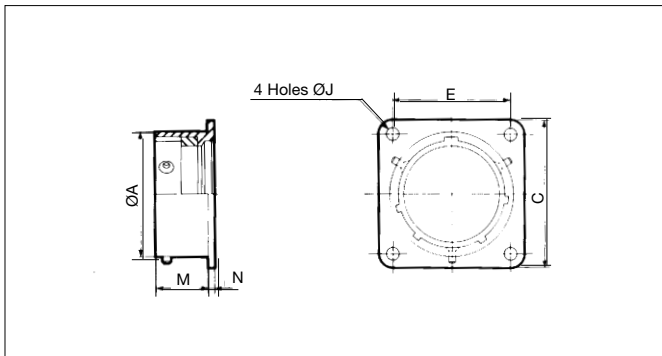
## Panel cut-out



shell size	A	B	C	E	J	N		P	X min
						min	Max		
08	15.55 .612	14.60 .575	14.70 .579	15.10 .594	3.15 .124	1.57 .062	3.17 .125	13.75 .541	2.90 .114
10	18.80 .740	17.75 .699	17.50 .689	18.26 .719	3.15 .124	1.57 .062	3.17 .125	16.95 .667	2.90 .114
12	22.15 .872	22.50 .886	20.20 .795	20.62 .812	3.15 .124	1.57 .062	3.17 .125	21.50 .846	2.90 .114
14	25.30 .996	25.70 1.012	23.40 .921	23.00 .906	3.15 .124	1.57 .062	3.17 .125	24.20 .953	2.90 .114
16	28.45 1.120	28.85 1.136	26.60 1.047	24.60 .969	3.15 .124	1.57 .062	3.17 .125	27.35 1.077	2.90 .114
18	31.65 1.246	32.05 1.262	29.80 1.173	26.97 1.062	3.15 .124	1.57 .062	3.17 .125	30.55 1.203	2.90 .114
20	34.80 1.370	35.20 1.386	32.10 1.264	29.36 1.156	3.15 .124	1.57 .062	6.35 .250	33.70 1.327	5.50 .217
22	38.00 1.496	38.40 1.512	35.30 1.390	31.75 1.250	3.15 .124	1.57 .062	6.35 .250	36.90 1.453	5.50 .217
24	41.20 1.622	41.55 1.636	38.40 1.512	34.92 1.375	3.73 .147	1.57 .062	6.35 .250	40.05 1.577	5.50 .217

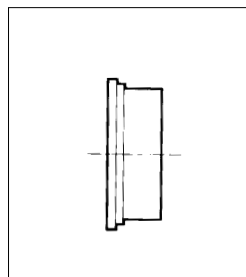
## Accessories

### Dummy receptacle



Shell size	A	C Max	E	J	M Max	N Max
08	12.03 .474	20.99 .826	15.09 .594	3.13 .123	11.70 .461	1.32 .052
10	15.01 .591	24.19 .952	18.26 .719	3.13 .123	11.70 .461	1.32 .052
12	19.07 .751	26.54 1.045	20.62 .812	3.13 .123	11.70 .461	1.32 .052
14	22.25 .876	28.89 1.137	23.00 .906	3.13 .123	11.70 .461	1.32 .052
16	25.42 1.001	31.29 1.232	24.61 .969	3.13 .123	11.70 .461	1.32 .052
18	28.60 1.126	33.69 1.326	26.97 1.062	3.13 .123	11.70 .461	1.32 .052
20	31.77 1.251	36.89 1.452	29.36 1.156	3.13 .123	14.35 .565	2.15 .085
22	34.95 1.376	39.99 1.574	31.75 1.250	3.13 .123	14.35 .565	2.15 .085
24	38.12 1.501	43.15 1.699	34.92 1.375	3.81 .150	15.20 .598	2.15 .085

### Plastic protective caps for receptacle and plug



Shell size	caps for receptacle	caps for plug
08	8500-5585A	8500-5594
10	8500-5586A	8500-5595
12	8500-5587A	8500-5596
14	8500-5588A	8500-5597
16	8500-5589A	8500-5598
18	8500-5590A	8500-5599
20	8500-5591A	8500-5600
22	8500-5592A	8500-5601
24	8500-5593A	8500-5602

### Gaskets

Shell size	gaskets for square flange receptacle		gaskets for jam nut receptacle	
	neoprene	fairprene	neoprene	vitton (for hermetic receptacle)
8	8500-275	8500-4164	3330102	3330675
10	8500-276	8500-4165	3330103	3330670
12	8500-277	8500-4166	3330104	3330671
14	8500-278	8500-4167	3330105	3330672
16	8500-283	8500-4168	3330106	3331048
18	8500-279	8500-4169	3330107	3331049
20	8500-280	8500-4170	3330108	3331050
22	8500-281	8500-4171	3330109	3331051
24	8500-282	8500-4172	3330110	3331052

### Re-usable fixing plate

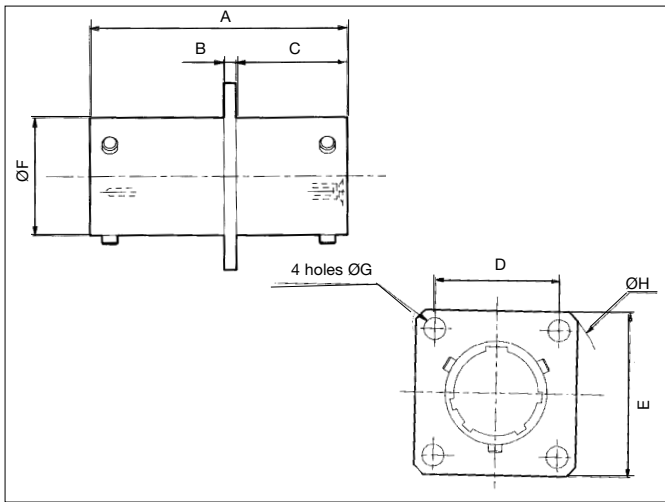
Two, three or four-holes self-locking fixing-plates are available at SHTP. See page 126.



# 26482 Series I Solder Connectors



## Male - female square flange through bulkhead receptacle

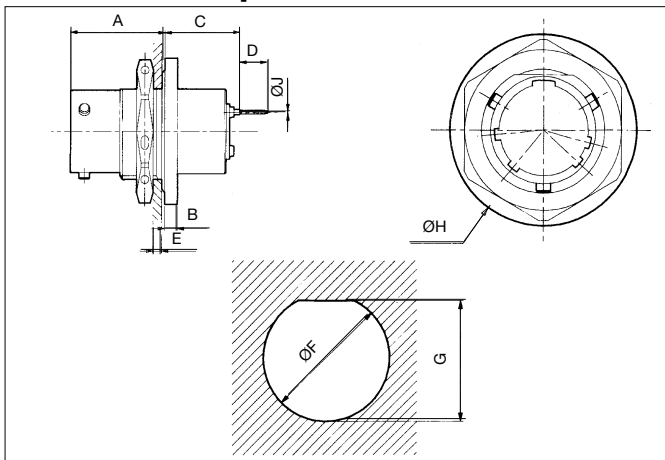


shell size	A	B	C	D	E	F	G	H
08	33.20 1.307	1.60 .063	14.30 .563	15.10 .594	20.60 .811	12.00 .472	3.20 .126	27.30 1.075
10	33.20 1.307	1.60 .063	14.30 .563	18.30 .720	23.80 .937	15.00 .591	3.20 .126	31.80 1.252
12	33.20 1.307	1.60 .063	14.30 .563	20.60 .811	26.20 1.031	19.05 .750	3.20 .126	35.10 1.382
14	33.20 1.307	1.60 .063	14.30 .563	23.00 .906	28.60 1.126	22.23 .875	3.20 .126	38.50 1.516
16	33.20 1.307	1.60 .063	14.30 .563	24.60 .969	30.90 1.217	25.40 1.000	3.20 .126	41.30 1.626
18	33.20 1.307	1.60 .063	14.30 .563	27.00 1.063	33.30 1.311	28.60 1.126	3.20 .126	44.70 1.760
20	36.40 1.433	2.40 .094	17.50 .689	29.40 1.157	36.50 1.437	31.75 1.250	3.20 .126	49.10 1.933
21	36.40 1.433	2.40 .094	17.50 .689	30.60 1.205	38.50 1.516	33.85 1.333	3.20 .126	51.20 2.016
22	36.40 1.433	2.40 .094	17.50 .689	31.80 1.252	39.70 1.563	34.90 1.374	3.20 .126	53.10 2.091
24	36.40 1.433	2.40 .094	17.50 .689	34.90 1.374	42.90 1.689	38.10 1.500	4.20 .165	57.30 2.256

### Part numbers

basic series	EC 52 B	**	**	PS	*
shell size	851 range				
contact layout	please consult us				
contact type	P - male S - female				
polarization	N, W, X, Y, Z				

## Jam nut receptacle with front release straight spills



shell size	A	B	C	D	E Max	E min	F	G	H	J
08	17.25 .679	2.30 .091	13.68 .539	5.00 .197	5.00 .197	1.57 .062	14.60 .575	23.15 .911	23.15 .911	.60 .024
10	17.25 .679	2.30 .091	13.68 .539	5.00 .197	5.00 .197	1.57 .062	17.70 .697	16.80 .661	26.45 1.041	.60 .024
12	17.25 .679	2.30 .091	13.68 .539	5.00 .197	5.00 .197	1.57 .062	22.70 .894	20.90 .823	31.20 1.228	.60 .024
14	17.25 .679	2.30 .091	13.68 .539	5.00 .197	5.00 .197	1.57 .062	25.70 1.012	24.10 .949	34.40 1.354	.60 .024
16	17.25 .679	2.30 .091	13.68 .539	5.00 .197	5.00 .197	1.57 .062	28.80 1.134	27.20 1.071	37.55 1.478	.60 .024
18	17.25 .679	2.30 .091	13.68 .539	5.00 .197	5.00 .197	1.57 .026	32.00 1.260	30.40 1.197	40.75 1.604	.60 0.24
20	18.85 .742	2.50 .098	13.79 .543	5.00 .197	6.60 .260	1.57 .062	35.20 1.386	33.60 1.323	45.50 1.791	.60 .024
22	18.85 .742	2.50 .098	13.79 .543	5.00 .197	6.60 .260	1.57 .062	38.40 1.512	36.80 1.449	48.70 1.917	.60 .024
24	18.85 .742	2.50 .098	13.79 .543	5.00 .197	5.90 .232	1.57 .062	41.50 1.634	39.90 1.571	51.85 2.041	.60 .024

### Part numbers

basic series	851	07A	**	**	P	*	SN0378
shell type	07A - jam nut receptacle without backshell						
shell size	851 range						
contact layout	consult SHTP						
contact type	P - male						
polarization							
manufactures specifications							

# 26482 Series I Solder Connectors



## Push-pull locking plug

### General characteristics

- Locking : by pushing on the coupling nut
- Unlocking : by pulling a lanyard
- Mounted : on all 851 receptacles
- Layouts and crimp solder contacts : (see pages 7 and 11)
- Other characteristics : (see page 6)

### Ordering information - Environmental connectors

<b>basic series</b>	crimp version	<b>856</b>	-	<b>06</b>	<b>R</b>	••	-	••	<b>P</b>	•	<b>50</b>	-	•
	solder version	<b>856</b>	-	<b>06</b>	<b>E</b>	••	-	••	<b>P</b>	•	<b>50</b>	-	•
<b>shell type</b>													
	<b>06</b>	-		plug for use with straight backshell									
	<b>08</b>	-		plug for use with 90° backshell									
<b>backshell type</b>													
	<b>R/E</b>	backnut											
	<b>RC/EC</b>	-		straight cable clamp									
	<b>RA/A</b>	-		straight adaptor									
	<b>RP/P</b>	-		straight backshell for potting									
	<b>RM/M</b>	-		straight removable backshell for heatshrink sleeving									
	<b>RT/T</b>	-		spécification 38 or 42									
	<b>RC/EC</b>	-		straight removable backshell for screen termination and heatshrink sleeving									
	<b>RC/EC</b>	-		90° cable clamp									
	<b>RP/P</b>	-		90° backshell for potting									
<b>shell size</b>													
				8 - 10 - 12 - 14 - 16 - 18 - 20 - 22 - 24									
<b>contact layout</b>													
				see table p ?									
<b>contact type</b>													
				P = male - S = female									
<b>orientation</b>													
				normal (not included in part number) <b>w, x, y, z</b> , see table p ?									
<b>obligatory suffix</b>													
<b>specification</b>													
	<b>07</b>			olive-green cadmium plate (solder version)									
	<b>08</b>			olive-green cadmium plate (crimp version)									
	<b>09</b>			white cadmium plate (crimp and solder version)									

# 26482 Series I Solder Connectors



Dimensions	Shell size	8	10	12	14	16	18	20	22	24
	A	19,50	22,80	27,30	30,80	34,00	37,00	41,00	44,50	49,20
	B	24,95	28,75	32,55	36,05	39,05	42,05	45,80	49,20	53,45
06 R	E	32,00	32,00	32,00	32,00	32,00	32,00	31,80	31,80	31,80
06 RC	E	47,30	47,30	47,30	47,30	50,50	50,50	49,90	49,90	49,90
06 RP	E	42,10	42,10	42,10	42,10	42,10	45,40	49,80	49,80	49,80
06 RA	E	41,00	41,00	41,00	41,00	41,00	41,00	43,00	43,00	43,20
06 RM	E	50,00	50,00	50,00	50,00	50,00	50,00	51,70	51,70	51,70
06 RT spécifications 38 or 42	E	50,00	50,00	50,00	50,00	50,00	50,00	51,70	51,70	51,70
08 RC	E	50,10	52,60	54,90	58,50	60,80	65,00	68,80	71,20	76,20
	D <sub>max</sub>	16,00	18,00	19,50	22,00	23,50	25,00	26,50	28,00	31,00
08 RP	E	40,70	44,90	47,00	49,20	50,60	51,80	53,10	54,50	57,90
	D <sub>max</sub>	11,00	14,35	15,90	16,30	19,30	20,60	21,90	23,50	30,15

Note : for backshells dimensions refer to values given in preceding pages

# 26482 Series I Solder Connectors



## 8F51 filter connector

### Overview

These connectors are derived from standard specifications MIL-C-26482 G series 1 - NFC 93422 (HE 301 B) - VG 95328. They are intermountable and intermateable with standard connectors.

Different types of filters may be fitted in these connectors to eliminate RFI/EMI in different frequency ranges.

Built-in tubular filter offers following advantages :

- rational filtering on interferences at electronic equipment input or output,
- case screen-shielding efficiency is maintained,
- cost and volume saving as compared with the use of discrete filters wired down the line,
- 4 types of filter contacts are available,
- a wide choice of combinations of filter, unfiltered and grounded contacts.

An adaptor version is also a simple technique to equip existing systems which do not incorporate filters.

### Electrical characteristics

- Max. current rating per contact : 3 A or 7 A depending on contact type
- Max. operating voltage : 100 or 200 V depending on filter
- Attenuation for HF filter contact : 35 dB min between 40 and 1000 MHz
- Attenuation for LF filter contact : 35 dB min between 10 and 1000 MHz

For this product, consult our **FILTER CONNECTOR** department.

## Cadmium free plating

SOURIAU propose a 851 connector with cadmium free black zinc-nickel plating. This plating has been introduced in accordance with European directive 76/769 EEC.

### Reason :

- Reduction in level of heavy metal pollutants produced by cadmium.
- Reduction in health associated with the corrosive by products of cadmium.

### Characteristics :

- Mechanical
  - shell : aluminium alloy
  - plating : zinc-nickel
- Electrical
  - shell continuity :  $\leq 2.5 \text{ m}\Omega$
- Environmental
  - salt spray : 200 hours

### Part numbers :

- Solder version 851 00 E 8-3A P.54 zinc-nickel plating
- Crimp version 851 00 R 8-3A P.54 zinc-nickel plating

\* See part numbers system

- page 8 (solder and crimp version)
- page 10 (straight spills and wire-wrap versions)

### This plating is available for shell type

- 00 : square flange receptacle accepting backshells
- 02 : square flange receptacle not accepting backshells
- 07 : jam nut receptacle accepting backshell
- 07A : jam nut receptacle not accepting backshells
- 06 : plug for use without straight backshell
- 36 : screened plug for use with straight backshells

Backshells, please consult us.

# 26482 Series I Solder Connectors



• **Notes:**



## Push Pull Connectors

• Rapid

• Secure

• High Performance

# Push-Pull connectors



## Introduction

This catalogue presents the push-pull connectors ranges for industrial applications.

These products are particularly suitable for high reliability and high quality applications where a simple yet fast method to connect/disconnect is required. Also suitable for high endurance and ease of operation in very limited spaces. The aesthetics of the product allows for perfect integration on front panel equipments.

SOURIAU offers 3 main series of metallic circular connectors :

- **JBX series** : basic push-pull series for signal transmission
- **JKX series** : environmental version of the JBX series sealed to IP68
- **JDX series** : environmentally sealed. Breakaway version.

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All dimensions are in mm





## Where and Why **push-pull ?**

**Medical**



**Professional audio-video**



- Extremely fast and easy to use
- A thousand matings/unmatings.
- Enhanced appearance to add value to equipment
- Space saving

**GPS**



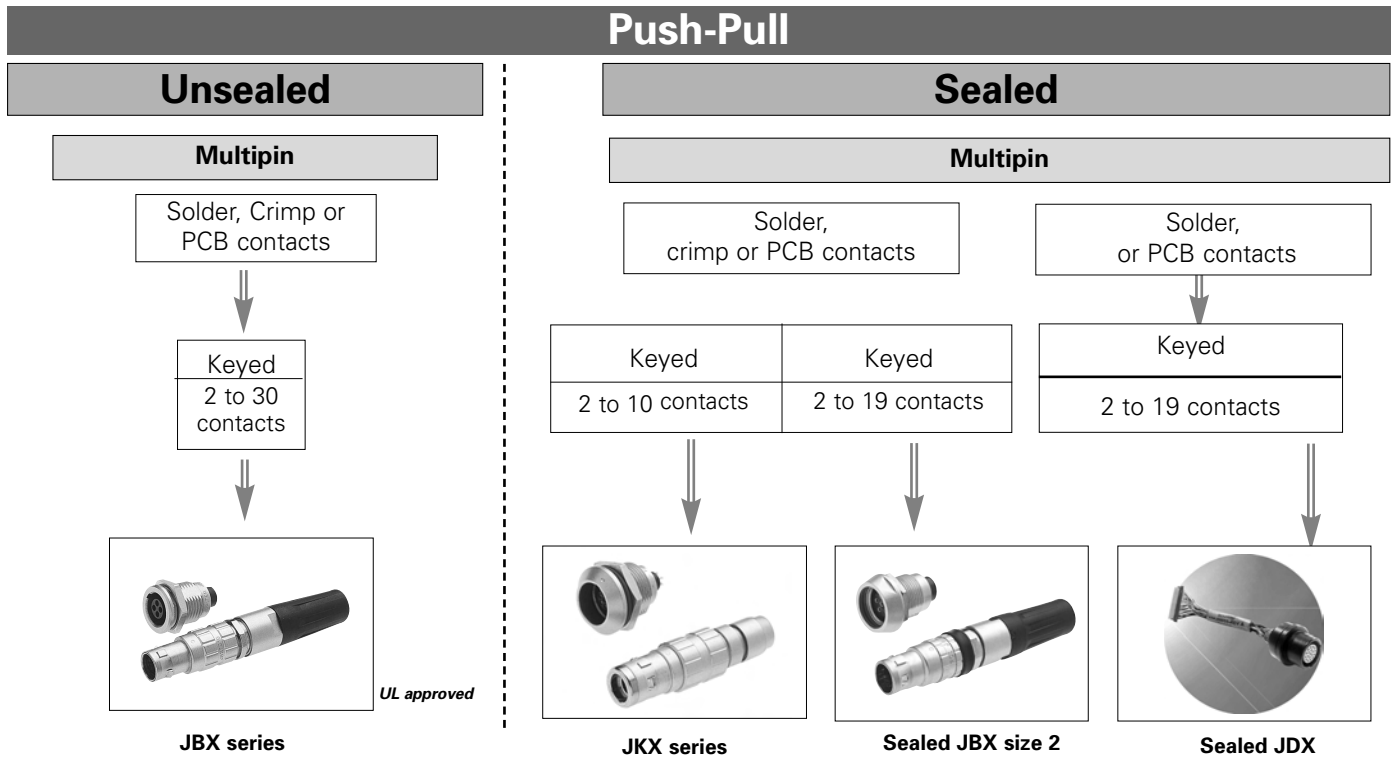
**Instrumentation**



**Telecommunications**



# Selection Guide



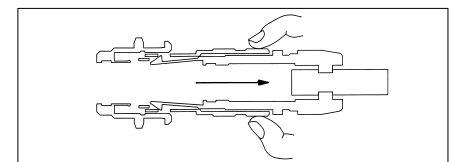
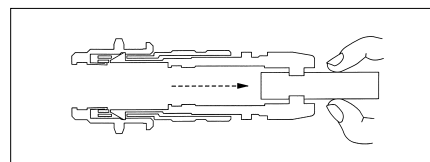
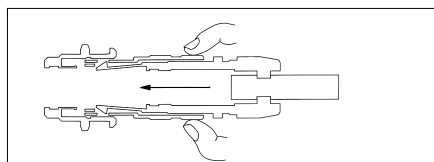
<b>Shell material</b>	Brass	Brass	Brass	Brass and Aluminum
<b>Insulator material</b>	PEEK	PEEK	PEEK	PEEK
<b>Shielding</b>	Shielded (55 dB up to 100 MHz)	Shielded (55 dB up to 100 MHz)	Shielded (55 dB up to 100 MHz)	Shielded (35 dB up to 1GHz)
<b>Endurance</b>	> 1000 cycles	> 1000 cycles	> 1000 cycles	> 2500 cycles
<b>Current rating</b>	up to 30 A	up to 15 A	up to 30 A	up to 30 A
<b>Temperature range</b>	- 40°C ; + 125°C (- 58°F ; + 257°F)	- 40°C ; + 125°C (- 58°F ; + 257°F)	- 40°C ; +125°C (- 40°F ; + 257°F)	- 40°C ; +125°C (- 40°F ; + 257°F)
<b>Protection index</b>	IP 40	IP 68 when mated	IP 67	IP 68 mated and unmated

## Push-pull locking system

The locking of the plug into the receptacle is achieved by a simple axial push on the outer shell.

Connection cannot be broken by pulling the cable or any other parts of the plug than the outer shell.

To unmate the plug from the receptacle, just pull axially the outer shell.



# Push Pull Connectors



## Key features

- Mechanically keyed : ensures correct polarisation and alignment.
- Contact layouts from 2 to 30 contacts.
- Wire gauges range from 30 AWG to 12 AWG.
- High contact density in a small space.
- Contact termination in either crimp, solder, PCB or right angle PCB contacts.



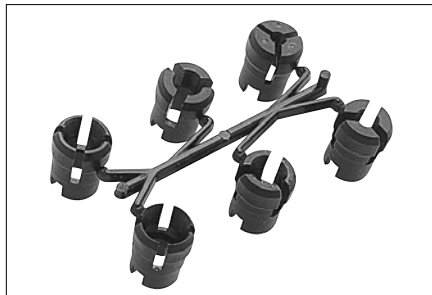
## User advantages

### Blister packaging



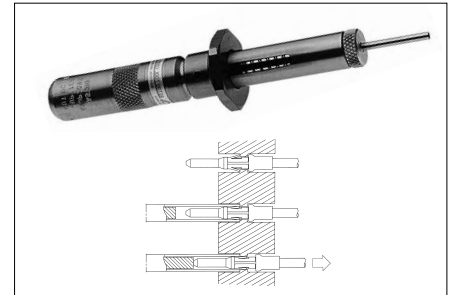
### 6-collet cluster

Allows a wide range of cable diameter applications for a single connector.



### Removable contacts

Available crimp versions allow easier wiring and maintenance.



## Part number system

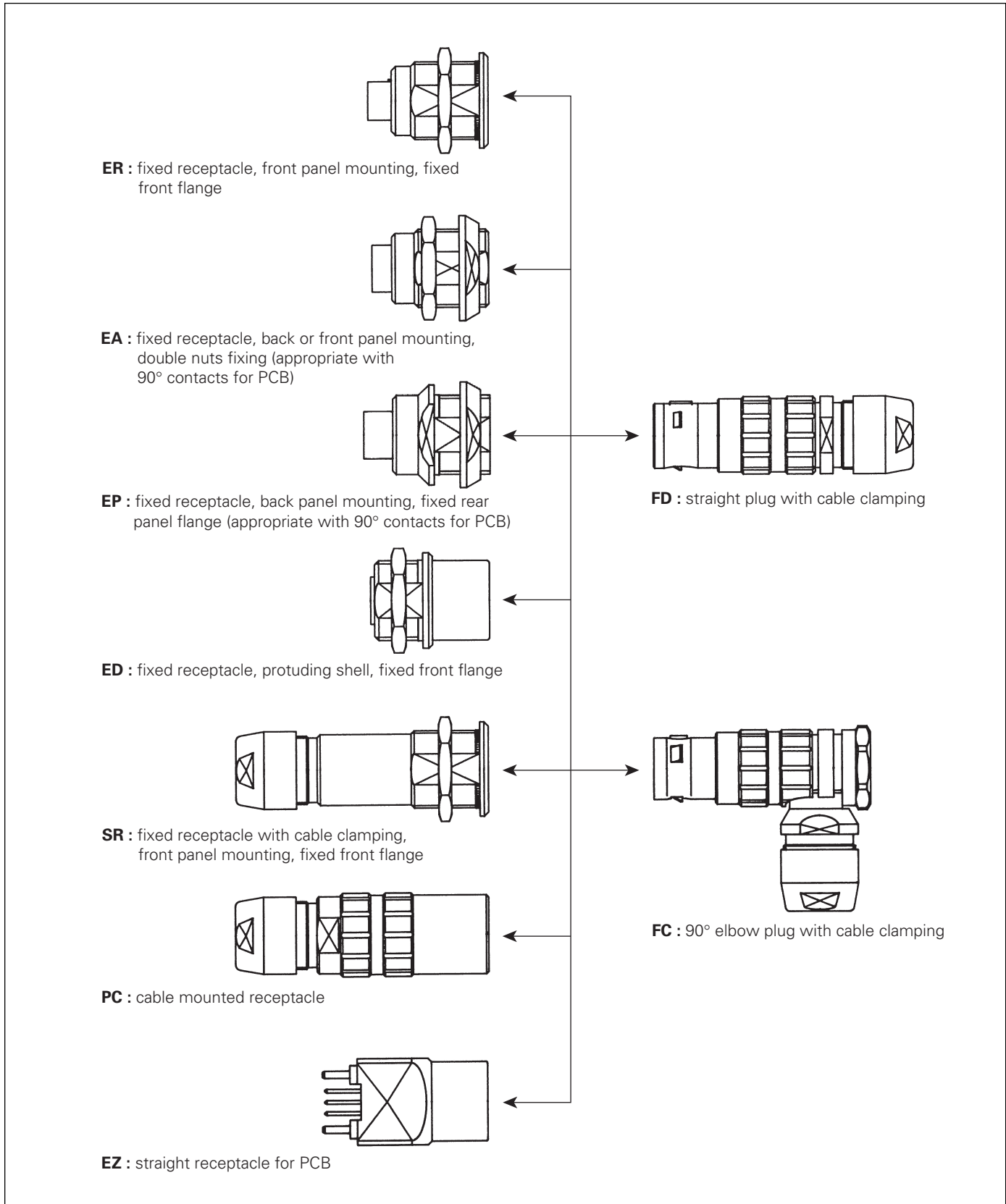
Basic series	<b>JBX</b>	<b>FD</b>	<b>1</b>	<b>G</b>	<b>05</b>	<b>M</b>	<b>C</b>	<b>S</b>	<b>D</b>	<b>S</b>	<b>M</b>
Shell type	<b>FD-FC-ER-EA-SR-PC-ED-EP-EZ</b>										
Shell size	<b>00 - 0 - 1 - 2 - 3</b>										
Keying	<b>G - J - A - B</b>										
Contact layout	<b>02 ----- 30</b>										
Contact type	<b>M</b> : pin <b>F</b> : socket (in relation with keying)										
Contact termination	<b>C</b> : crimp ; <b>S</b> : solder ; <b>P*</b> : straight PCB tails ; <b>Q*</b> : 90° PCB tails										
Material & surface plating	<b>S</b> : Outer shell in brass alloy with chrome over nickel										
	<b>N</b> : Outer shell in brass alloy with black plating (consult Souriau USA)										
	<b>D</b> : Obligatory suffix										
	<b>S</b> : All content diameters except .05 mm										
	<b>P</b> : 0.5 mm contact only										
Options	<b>M</b> : Connector with backnut for protective boot - Protective boot to order separately page 13										
	<b>R</b> : Red dot (possible for FD, FC, PC, SR, ER, ED, EZ only)										

\* For receptacles with female contacts only.

# Push Pull Connectors



## Shell types

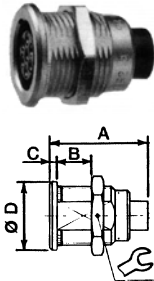


# Push Pull Connectors



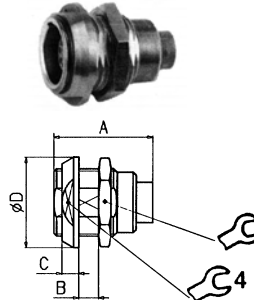
## Dimensions

**ER** : Fixed receptacle, front panel mounting



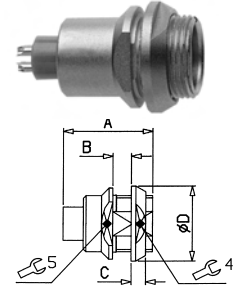
Size	00	0	1	2	3
<b>A</b>	14	19	21	24	28
<b>B</b>	6	8	10	10	12
<b>C</b>	0.8	1.2	1.5	1.8	2.0
<b>Ø D</b>	8	10	14	18	22

**EA** : Double nut receptacle



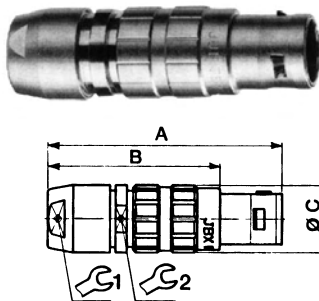
Size	0	1	2	3
<b>A</b>	19	21	24	28
<b>B</b>	6.7	8.3	8	9.5
<b>C</b>	2.5	3.2	3.8	4.5
<b>Ø D</b>	12	16	20	24

**EP** : Fixed receptacle, back panel mounting



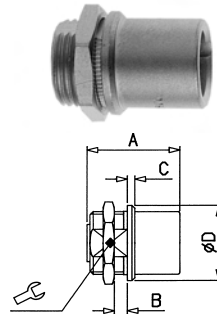
Size	0	1	2
<b>A</b>	19	21	24
<b>B</b>	4.5	6	6.5
<b>C</b>	2.5	3.2	3.8
<b>Ø D</b>	12	16	20

**FD** : Straight plug



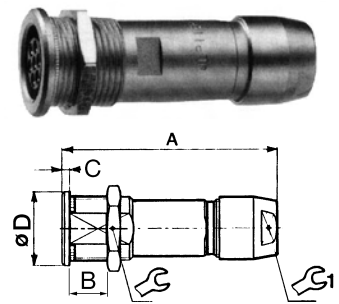
Size	00	0	1	2	3
<b>A</b>	31	39	45	52	62
<b>B</b>	23	29	34	40	47
<b>Ø C</b>	7	10	12	15	18

**ED** : Protruding receptacle



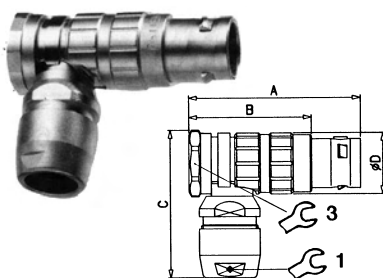
Size	0	1	2
<b>A</b>	19	21	24
<b>B</b>	3	4.5	6.3
<b>C</b>	1.2	1.5	1.8
<b>Ø D</b>	10	14	18

**SR** : Cable clamp receptacle



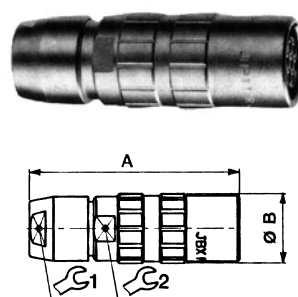
Size	0	1	2	3
<b>A</b>	38	43	50	59
<b>B</b>	8	10	10	12
<b>C</b>	1.2	1.5	1.8	2
<b>Ø D</b>	10	14	18	22

**FC** : 90° elbow plug



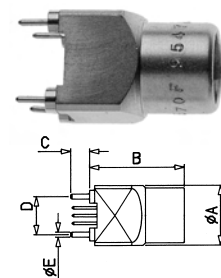
Size	0	1	2	3
<b>A</b>	30.5	36.5	42.5	50.5
<b>B</b>	20.5	25.5	30.5	35.5
<b>C</b>	29.5	33.5	36.5	45
<b>Ø D</b>	10	12	15	18

**PC** : Cable mounted receptacle



Size	0	1	2	3
<b>A</b>	38	43	50	59
<b>Ø B</b>	10	13	16	19.5

**EZ** : Receptacle for PCB



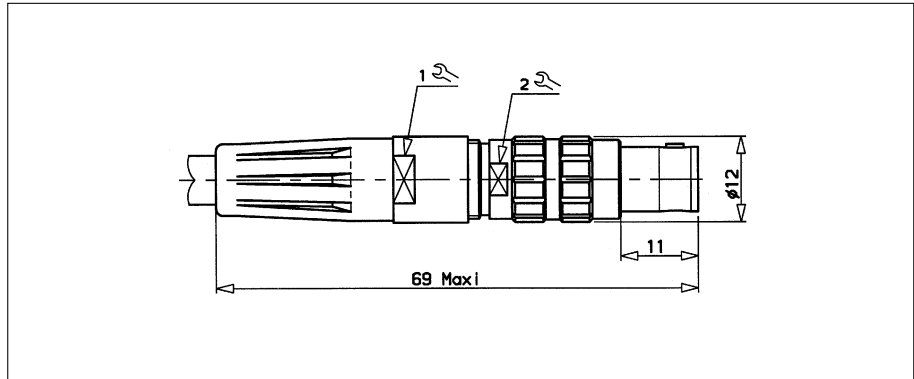
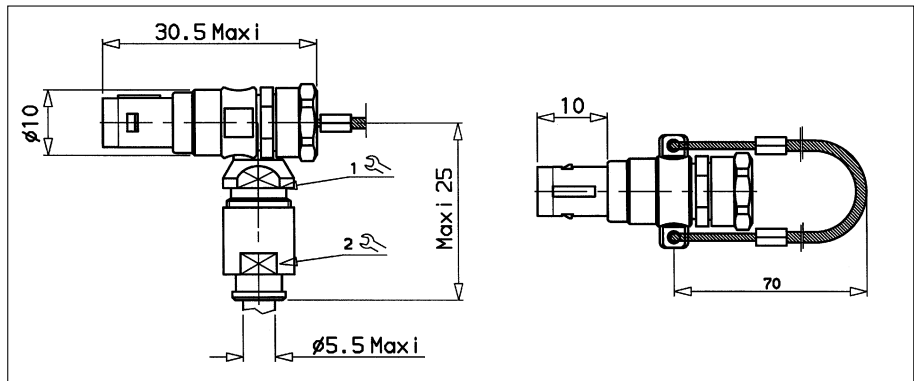
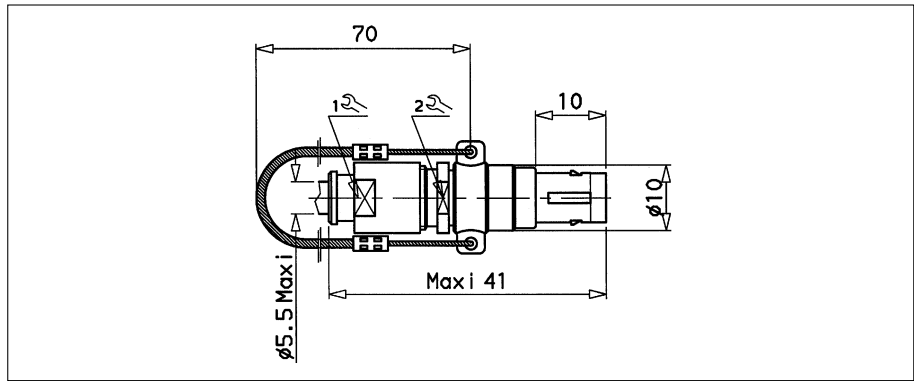
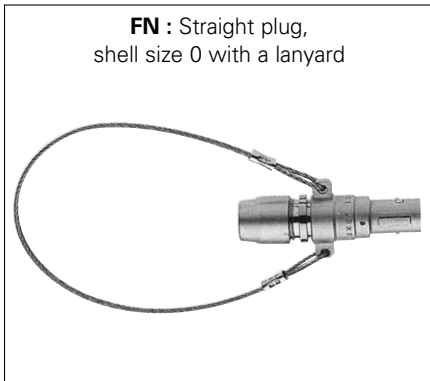
Size	0	1
<b>Ø A</b>	10	12
<b>B</b>	19	21
<b>C</b>	4	4
<b>D</b>	7.62	7.62
<b>Ø E</b>	1.1	1.1

# Push Pull Connectors



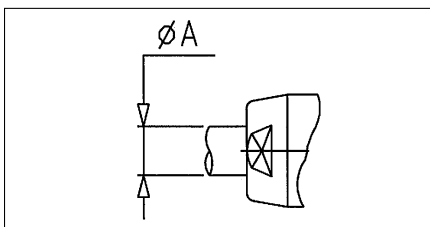
## Dimensions

### • Special custom shells



## Range of cable diameters

With the plastic collet set supplied with the standard product, a wide range of cable diameters is allowed. Find below the maximum and the minimum for each size of shell (for information only because it can change with the cable characteristics).



Size	00	0	1	2	3
$\phi A \text{ min}$	1.1	1.5	2.0	3.5	4.9
$\phi A \text{ Max}$	3.5	5.5	7.5	9.7	12.0

# Push Pull Connectors



## Keying

### • Keying angles

JBX Series are mechanically keyed to ensure correct alignment of the inserts before the contacts mate.

«G» : **normal inserts** ; 0° keying angle, plugs with pin contacts, receptacles with socket contacts

«J» : **reversed gender inserts** ; twin narrow keys, plugs with socket contacts, receptacles with pin contacts.

Key	G	J		A	B
		sizes 0 - 1	sizes 2 - 3		sizes 0 - 1
Keying angle	0°	45°	37.5°	30°	60°
Plug					
Receptacle					

### • Keyed shells availability

Shell size	Key	ER	EA	ED	EP	EZ	SR	PC	FD	FC
00	G	●							●	
0	G	●	●	●	●	●	●	●	●	●
	J	●	●						●	●
	A	●							●	
	B	●							●	
1	G	●	●	●	●	●	●	●	●	●
	J	●	●						●	●
	A	●							●	
2	G	●	●	●	●		●	●	●	●
	J	●	●						●	●
	A	●							●	
3	G	●	●				●	●	●	●

● Available for JBX Series, Customs can be ordered, contact Product Management.



# Push Pull Connectors



## Contact layouts

### • Multi contact inserts

Shell size	Male insulator viewed from wiring side	Contact layout	Contact types available				Ø Contact	AWG		Max. current rating (A)	Testing voltage (Vrms)	Working voltage (Vdc / Vrms)
			S solder	C crimp	P* straight PCB tails	Q* 90° PCB tails		Solder wire Max.	Crimp wire Max.			
00		04	S				0.5	30	-	2	1000	500/350
0		02	S	C	P	Q	0.9	24	20	10	1400	660/460
		03	S	C	P	Q	0.9	24	20	8	1300	600/420
		04	S	C	P	Q	0.7	26	22	7	1400	660/460
		05	S	C	P	Q	0.7	26	22	6.5	800	400/260
		06	S		P		0.5	28	-	2.5	680	320/220
		07	S		P		0.5	28	-	2.5	680	320/220
1		02	S	C			1.3	20	18	15	1600	760/530
		03	S	C			1.3	20	18	12	1300	600/420
		04	S	C	P	Q	0.9	24	20	10	1900	900/630
		05	S	C	P	Q	0.9	24	20	9	1400	660/460
		06	S	C	P	Q	0.7	26	22	7	1400	660/460
		07	S	C	P	Q	0.7	26	22	7	1400	660/460
		08	S	C	P	Q	0.7	26	22	5	1200	600/420
		10	S				0.5	28	-	2.5	600	300/200

Inserts with fixed non removable contacts

\* For receptacles with female contacts only.

**Note** : Contacts are numbered counter clock wise in the plug and clock wise in the receptacle.

# Push Pull Connectors



## Contact layouts

### • Multi contact inserts

Shell size	Male insulator viewed from wiring side	Contact layout	Contact types available				Ø Contact	AWG		Max. current rating (A)	Testing voltage (Vrms)	Working voltage (Vdc / Vrms)
			S solder	C crimp	P* straight PCB tails	Q* 90° PCB tails		Solder wire Max.	Crimp wire Max.			
2		02	S	C			2	16	12	30	2100	1000/700
		03	S	C			1.6	18	14	17	1700	830/560
		04	S	C			1.3	20	18	15	2400	1000/800
		05	S	C			1.3	20	18	14	1900	900/630
		06	S	C			1.3	20	18	12	1900	900/630
		07	S	C			1.3	20	18	11	1500	730/500
		08	S	C	P	Q	0.9	24	20	10	1700	830/560
		10	S	C	P	Q	0.9	24	20	8	1700	830/560
		12	S	C	P	Q	0.7	26	22	7	1700	830/560
		16	S	C	P	Q	0.7	26	22	6	1500	730/500
		18	S	C	P		0.7	26	22	5.5	1400	660/460
		19	S	C	P		0.7	26	22	5	1400	660/460
3		03	S	C			2	16	12	25	3600	1600/1200
		04	S	C			2	16	12	25	2500	1100/830

Inserts with fixed non removable contacts

\* For receptacles with female contacts.

**Note :** Contacts are numbered counter clock wise in the plug and clock wise in the receptacle.

# Push Pull Connectors



## Contact layouts

### • Multi contact inserts

Shell size	Male insulator viewed from wiring side	Contact layout side	Contact types available				Ø Contact	AWG		Max. current rating (A)	Testing voltage (Vrms)	Working voltage (Vdc / Vrms)
			S solder	C crimp	P* straight PCB tails	Q* 90° PCB tails		Solder wire Max.	Crimp wire Max.			
3		07	S	C			1.6	16	12	15	2200	1000/730
		10	S	C			1.3	20	18	12	1400	660/460
		14	S	C	P		0.9	24	20	9	1700	830/560
		18	S	C	P		0.9	24	20	7	1400	660/460
		22	S	C	P		0.7	26	22	5.5	1200	560/400
		30	S	C	P		0.7	26	26	3.5	800	400/260

Inserts with fixed non removable contacts

\* For receptacles with female contacts.

**Note :** Contacts are numbered counter clock wise in the plug and clock wise in the receptacle.

### • Voltage Test Procedure

- **The testing voltage** corresponds to the maximum voltage the connector is able to withstand in normal climatic conditions. The value is about 75% of the electrical breakdown voltage. The testing voltage level can be reached several times in connectors life, but never applied for a continuous duration.

- **The working voltage** corresponds to the maximum voltage the connector is able to withstand continuously during its life time, in real environmental conditions, even with high temperature. The value is around 1/3 of the testing voltage.

### • Maximum current rating

- **This indicated maximum current rating** corresponds to the maximum current that can be applied **simultaneously on each line of the connector mated pair**, continuously during its life time, in normal climatic conditions.

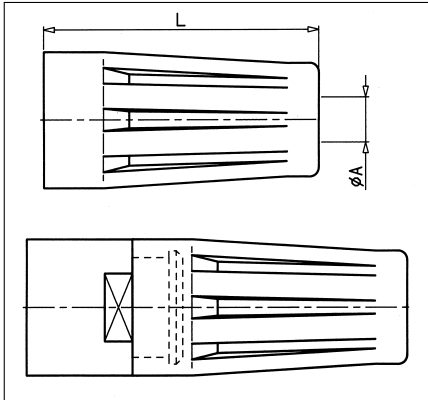
Remark : If the current is applied on only one contact of the layout, then an increased current value can be achieved over a long duration.

# Push Pull Connectors



## Options

### • Protective boot



Part number	Shell size	Dimensions			
		Ø A	L	Ø Cable	
				min	Max.
JBX 00 MPN	00	1.5	15	1	3.5
JBX 0 MP*	0	2.2	20	1.5	5.5
JBX 1 MP*	1	2.6	25	2	7.5
JBX 2 MP*	2	4	30	3.5	9.7
JBX 3 MP*	3	5	35	4.9	12

\* Color code / In size 00, available only in black

Color code	Colors
A	blue
B	white
G	grey
J	yellow
M	brown
N	black
R	red
V	green
O	orange

#### Material :

ELASTOLLAN (PUR)

#### Working temperature :

- 40°C ; + 80°C

- 40°F ; + 176°F

Parts that require a protective boot need to be ordered with an M suffix, see page 5. Protective boots are ordered separately.

With each JBX connector, one protective boot can accept diverse cable diameters thus the end-user can manage various cable diameters without bothering with multiple part numbers.

### • Caps : an efficient protection against dust



Part number	Ø
JBX BR0	12
JBX BR1	14
JBX BR2	18
JBX BR3	20

# Push Pull Connectors



## Technical characteristics

### • Material and treatment

**UL approved - homologation file E118235 - **

Component	Material	Standard		Surface treatment (µm)		
		ISO	ASTM	Cr	Ni	Au
Outer shell and collet nut	Brass	CuZn40Pb3	C38500/C360	0.1 - 0.6	5 - 8	-
Latching sleeve	Brass	CuZn40Pb3	C38500/C360	-	5 - 8	-
Shielding ring	Brass	CuZn40Pb3	C38500/C360	-	3 - 7	-
Nut	Brass	CuZn40Pb3	C38500/C360	-	5 - 8	-
Half bushes	Brass	CuZn40Pb3	C38500/C360	-	5 - 8	-
Socket contact (1)	Cupro-nickel	CuNi1Pb1P	CDAC19150	-	3 - 5	0.5
Pin contact (1)	Brass	CuZn35Pb2	C35300/C360	-	3 - 5	0.5
Clip	Beryllium copper	CuBe1,9	C17200/C360	-	-	-

(1) Gold thickness as per MIL-G-45204C type 1, class 00.

Component	Material	Color	Working Temperature	
Insert	PEEK + 15%GF	brown	- 50°C + 250°C	- 58°F + 482°F
Collet	PA 6/6 + MoS2	black	- 55°C + 125°C	- 67°F + 257°F

### • Mechanical and climatics

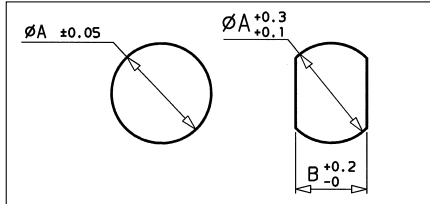
Characteristics	Values	Standard	Method
Endurance	> 1000 cycles (except for 0.7 mm crimp contacts for which endurance is limited to 500 cycles)	MIL-STD 1344A	2016.1
Shock	50 g, duration 6 ms ; contact Ø 0.7 mm and 0.9 mm 100 g, duration 6 ms ; contact Ø 1.3 mm - 1.6 mm and 2 mm	MIL-STD 1344A	2004.1
Vibrations	10 to 2000 Hz $\gamma = 15$ g, contact Ø 0.7 mm and 0.9 mm $\gamma = 20$ g, contact Ø 1.3 mm - 1.6 mm and 2 mm	MIL-STD 1344A	2005.1
Protection index	IP 40	CEI 529	
Operating temperature	with plastic collets } - 55°C + 125°C - 67°F + 257°F	-	-
	with optional metal collets } - 55°C + 200°C - 67°F + 392°F (only on request, consult SOURIAU)	-	-



# Push Pull Connectors

## Wiring and assembly instructions

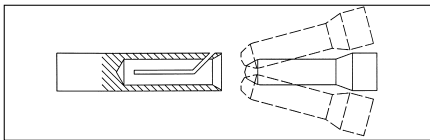
### • Panel cutout



Size	00	0	1	2	3
$\varnothing A$	7.1	9.1	12.1	15.1	18.1
<b>B</b>	6.4	8.3	10.6	13.6	16.6

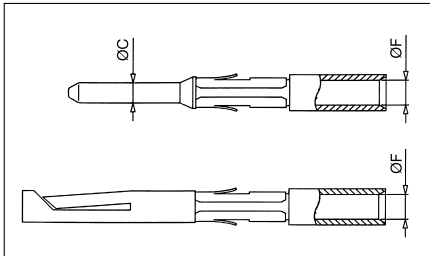
### • Removable contacts

#### Reliable design



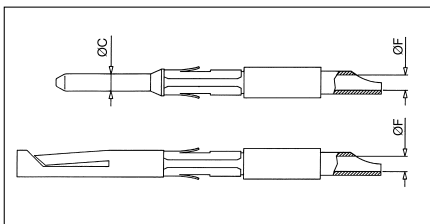
- Conical entry with chamfered edge on the socket contact and smooth slope on the pin contact ensure perfect concentric mating even when handled carelessly.
- The pressure spring of the socket contact maintains a constant force on the pin contact when mated.

### Crimp contacts



Contact		Usable cables			Max. current rating (A)	Contact resistance (m $\Omega$ )	Endurance (number of cycles)
$\varnothing C$	$\varnothing F$	Core section (mm $^2$ )		AWG			
		min	Max.				
0.7	0.85	0.129	0.326	22-24-26	7	5	500 Max.
0.9	1.1	0.205	0.518	20-22-24	10	3.5	> 1000
1.3	1.4	0.326	0.823	18-20-22	15	3	> 1000
1.6	1.9	0.823	2.081	14-16-18	17	2.5	> 1000
2.0	2.4	1.309	3.309	12-14-16	30	2.5	> 1000

### Solder contacts

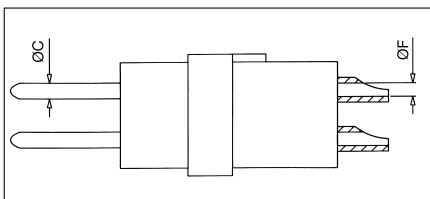


Contact		Usable cables			Max. current rating (A)	Contact resistance (m $\Omega$ )	Endurance (number of cycles)
$\varnothing C$	$\varnothing F$	Core section (mm $^2$ )		AWG			
		min	Max.				
0.7	0.7	-	0.30	26	7	5	500 max
0.9	0.8	-	0.21	24	10	3.5	> 1000
1.3	1.1	-	0.60	20	15	3	> 1000
1.6	1.5	-	0.93	18	17	2.5	> 1000
2	1.9	-	1.34	16	30	2.5	> 1000

The conductor bucket on the solder contacts is designed with an angle to form a cup into which the solder can flow easily.

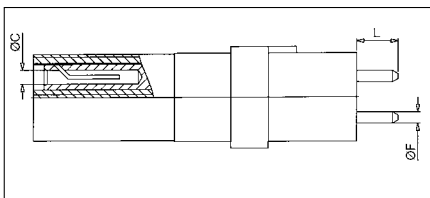
### • Fixed contacts

#### Solder contacts



Contact		Shell size	Usable cables		Max. current rating (A)	Contact resistance (m $\Omega$ )	Endurance (number of cycles)
$\varnothing C$	$\varnothing F$		Core section (mm $^2$ ) Max.	AWG			
0.5	0.4	00	0.06	30	5	10	> 1000
	0.5	0 - 1	0.096	28			
0.7	0.63	0 - 1 - 2 - 3	0.15	26	7	5	> 1000

#### Contacts for PCB



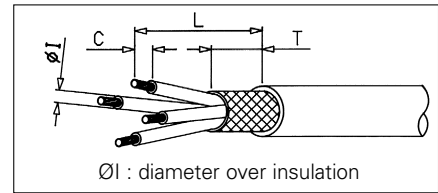
Contacts for PCB		Contact length dimensions "L"	
PCB tail length size 0		dimension "L" 5.5 mm	
0.7 mm female PCB tail length size 0		dimension "L" 3.5 mm	
0.7 mm female PCB tail length size 1		dimension "L" 4.0 mm	
0.7 mm female PCB tail length size 2		dimension "L" 6.0 mm	
0.7 mm female PCB tail length size 3		dimension "L" 6.0 mm	
0.9 mm female PCB tail length size 0		dimension "L" 3.5 mm	
0.9 mm female PCB tail length size 1		dimension "L" 4.0 mm	
0.9 mm female PCB tail length size 2		dimension "L" 6.0 mm	
4.3 mm female PCB tail length size 1		dimension "L" 4.0 mm, dimension "F" 0.7 mm	
4.3 mm female PCB tail length size 2		dimension "L" 6.0 mm, dimension "F" 0.7 mm	
4.3 mm female PCB tail length size 3		dimension "L" 6.0 mm, dimension "F" 0.7 mm	

# Push Pull Connectors



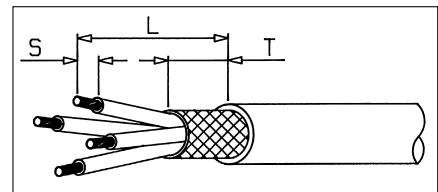
## Wiring and assembly instructions

### • Cable stripping for connectors with crimp contacts



Shell size	Ø contacts	Ø I	Stripping for FD, SR, PC			Stripping for FC		
			L	C	T	L	C	T
0	0.7	? 1.35	15	4	7	19	4	7
		> 1.35		5.5			5.5	
0	0.9	? 1.6	15	4	7	19	4	7
		> 1.6		5.5			5.5	
1	0.7	? 1.35	16	4	8	22	4	8
		> 1.35		5.5			5.5	
	0.9	? 1.6	16	4	8	22	4	8
> 1.6	5.5	5.5						
2	0.7	? 2.1	19	4	9	28	4	9
		> 2.1		5.5			5.5	
	0.9	? 1.6	19	4	9	28	4	9
		> 1.6		5.5			5.5	
	1.3	? 2.1	19	4	9	28	4	9
> 2.1		5.5		5.5				
3	0.7	? 2.6	21	5.5	9	28	5.5	9
		> 2.6		7			7	
	2.0	? 3.2	21	5.5	9	28	5.5	9
> 3.2	7	7						
3	0.7	? 1.35	25	4	10	35	4	10
		> 1.35		7			7	
	0.9	? 1.6	25	4	10	35	4	10
		> 1.6		7			7	
	1.3	? 2.1	25	4	10	35	4	10
> 2.1		7		7				
2	1.6	? 2.6	27	5.5	10	35	5.5	10
		> 2.6		8.5			8.5	
	2.0	? 3.2	27	5.5	10	35	5.5	10
> 3.2	8.5	8.5						

### • Cable stripping for connectors with solder contacts



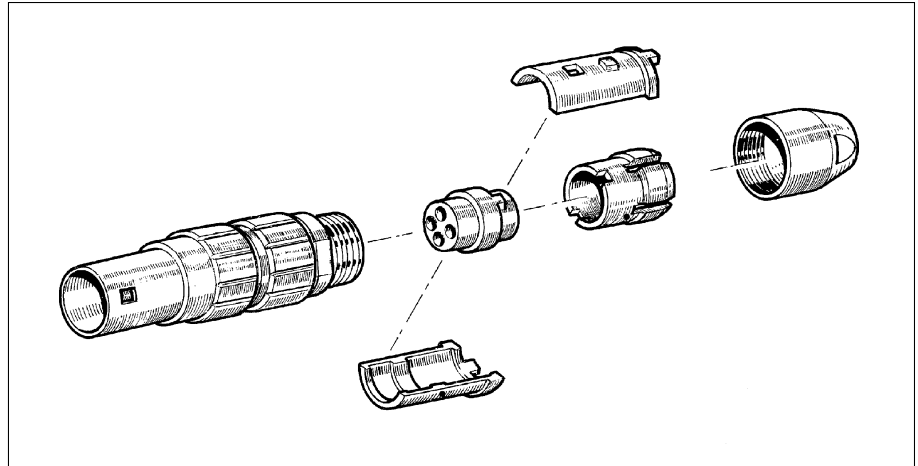
Shell size	Ø Contacts	Stripping for FD, SR, PC			Stripping for FC		
		L	S	T	L	S	T
00	0.5	9	2	4	/	/	/
0	0.5	11	2	7	16	2	7
	0.7	12	3	7	16	3	7
	0.9	12	3	7	16	3	7
1	0.5	12	2	8	19	2	8
	0.7	13	3	8	19	3	8
	0.9	13	3	8	19	3	8
	1.3	13	3.5	8	19	3.5	8
2	0.7	16	3	9	25	3	9
	0.9	16	3	9	25	3	9
	1.3	16	3.5	9	25	3.5	9
	1.6	18	4	9	25	4	9
	2	18	4	9	25	4	9
3	0.7	20	3	10	30	3	10
	0.9	20	3	10	30	3	10
	1.3	20	3.5	10	30	3.5	10
	1.6	22	4	10	30	4	10
	2	22	4	10	30	4	10



# Push Pull Connectors

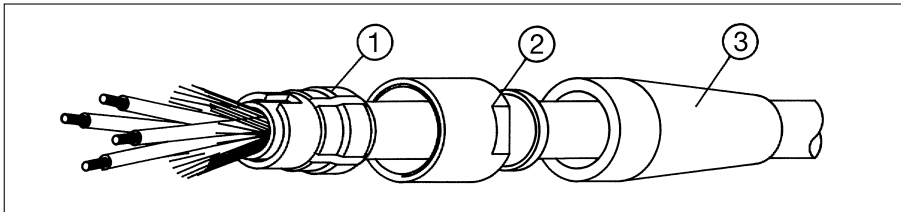


## Wiring and assembly instructions : STRAIGHT PLUG



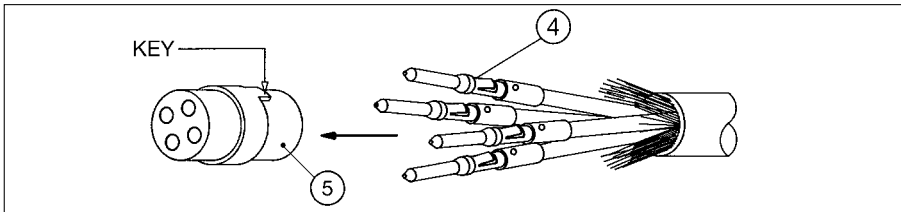
• **Cable stripping** : see page 16

### • Connector preparation



- 1 - Select the proper collet ①. (see page 19)
- 2 - Slide the protective boot ③ the backnut ② and the collet ① onto the cable.
- 3 - In case of a screened cable, combs out the screen and fold back over the collet ①.

### • Contacts wiring : crimp contacts

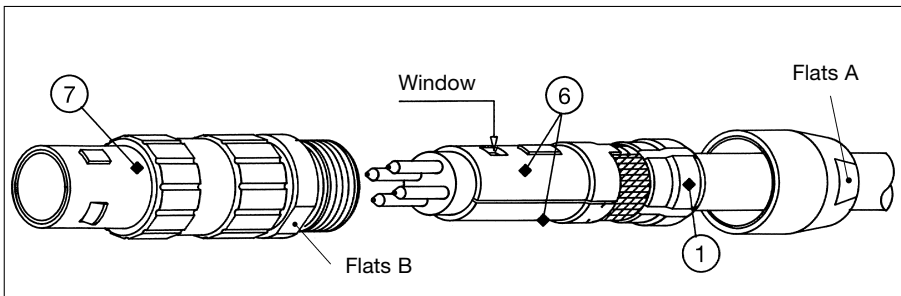


- 1 - Select the proper crimping tool (see page 48) and locator according to the connectors involved.
- 2 - Adjust the tool selector for the corresponding conductor AWG.
- 3 - Crimp the contacts † and then engage them into the insert cavities ⑤ till clip tightening.

### • Contacts wiring : solder contacts

Fixed solder contacts 0.5 mm and 0.7 mm	Removable solder contacts from 0.9 mm to 2 mm
1 - Terminate the bucket contacts using solder method	1 - Solder the conductors to the contact buckets then engage them into the insert cavities ⑤ till clip holding

### • Connector assembly



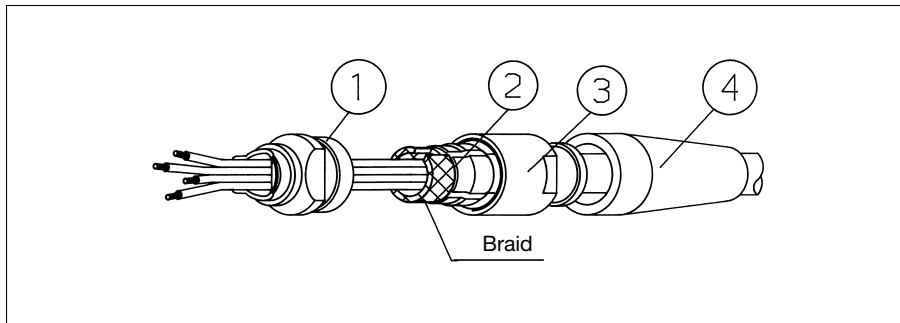
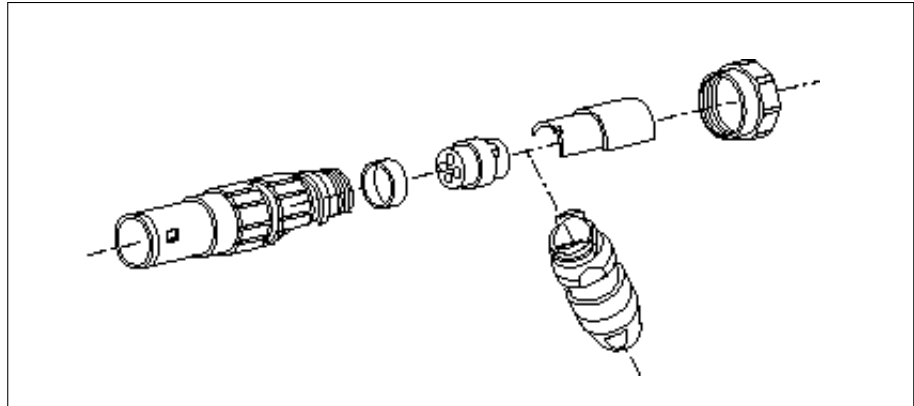
- 1 - Position 2 half bushes † on the insert ⑤ making sure that the insert key appears through window of one bush.
- 2 - Position the collet and the half bushes while maintaining the screen. Bush keys are seated in the collet keying slots.
- 3 - Position all the sub-assembly in the connector housing † making sure to keep sub-assembly aligned.
- 4 - Install the backnut ② and screw it. Use the two wrenches well positionned on the flats A and B. Place a wrench to grip flats B, use the other wrench to tighten the backnut at the flats A following the torque values on page 19.
- 5 - Install the protective boot ③ if exists.

# Push Pull Connectors



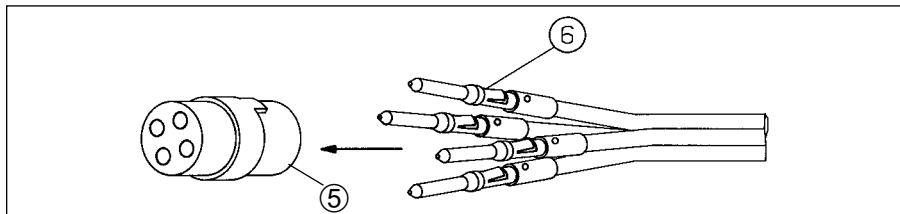
## Wiring and assembly instructions : 90° ELBOW PLUG

- **Cable stripping** : see page 16
- **Connector preparation**



- 1 - Select the proper collet ② (see page 19).
- 2 - Slide the protective boot †, the backnut ③, the collet ② and the elbow outlet ① onto the cable.
- 3 - In case of a screened cable, comb out the screen and fold back over the collet ②.
- 4 - Position in the elbow outlet making sure the anti-rotating keys are well aligned.
- 5 - Tighten the backnut ③ till bottomed.
- 6 - Install the protective boot † if exists.

### • Contacts wiring : crimp contacts

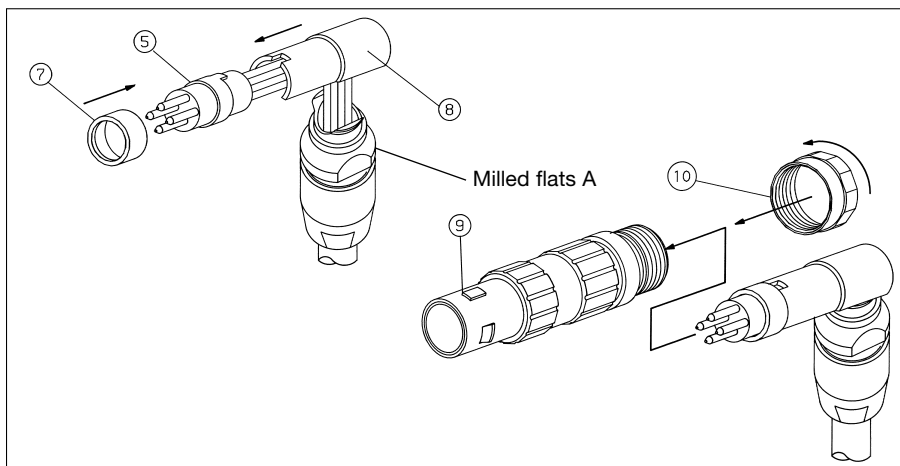


- 1 - Select the proper crimping tool (see page 49) and positionner according to connectors involved.
- 2 - Adjust the tool selector for the corresponding conductor AWG.
- 3 - Crimp the contacts † then engage them into the insert cavities ⑤ till clip tightening.

### • Contacts wiring : solder contacts

Fixed solder contacts 0.5 mm and 0.7 mm	Removable solder contacts from 0.9 mm to 2 mm
1 - Terminate the bucket contacts using solder method	1 - Solder the conductors to the contact buckets then engage them into the insert cavities ⑤ till clip holding

### • Connector assembly



- 1 - Position the ring † on the insert ⑤ then engage all in the spacer ⑧.
- 2 - Position all the sub-assembly in the connector housing ⑨ with milled flats A of the elbow outlet facing to the rear of the plug housing.
- 3 - Tighten the screw ⑩ at the torque values defined on page 19.

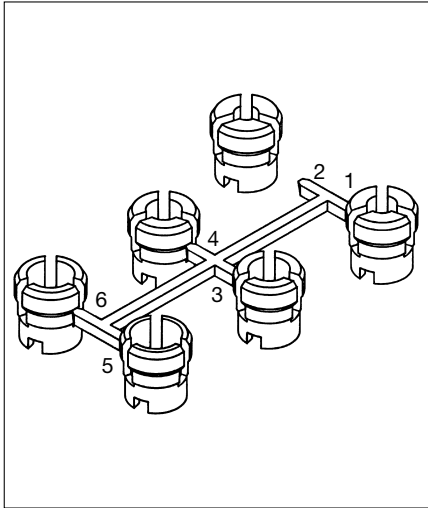
# Push Pull Connectors



## Wiring and assembly instructions

### • Collets selection according to cable diameters

4 or 6 collets per shell size allow a wide range of cable diameters for a single connector ; outer cable diameters are for reference only, since values will change with specific manufacturers cable properties.

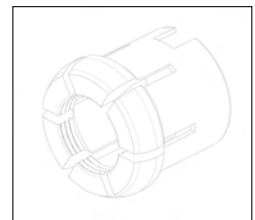


Collet number	Cable diameter				
	Shell size 00	Shell size 0	Shell size 1	Shell size 2	Shell size 3
1	<b>1.1</b> - 1.9	<b>1.5</b> - 2.5	<b>2.0</b> - 2.5	<b>3.5</b> - 4.7	<b>4.9</b> - 6
2	2 - 2.8	2.6 - 3.5	2.6 - 3.5	4.8 - 5.7	6.1 - 7.2
3	2.9 - <b>3.5</b>	3.6 - 4.5	3.6 - 4.5	5.8 - 6.7	7.3 - 8.4
4	-	4.6 - <b>5.5</b>	4.6 - 5.5	6.8 - 7.7	8.5 - 9.6
5	-	-	5.6 - 6.6	7.8 - 8.7	9.7 - 10.8
6	-	-	6.7 - <b>7.5</b>	8.8 - <b>9.7</b>	10.9 - <b>12.0</b>

### • Coupling torques

Tools (jaw dimensions)	7 x 0.5	9 x 0.6	12 x 1	15 x 1	18 x 1	Advised torques* in Nm				
	00	0	1	2	3	00	0	1	2	3
	7	11	14	17	21	0.5	0.7	1.3	1.7	2
	6	8	10	13	15	0.7	0.8	1	1.5	2
	6	9	11	14	16	0.7	0.8	1	1.5	2
	-	10	12	15	17	-	0.4 to 0.5		0.5 to 0.7	
	-	10	13	17	20	0.5	0.7	1.3	1.7	2
	-	9	13	15	-	-	-	-	-	-

Metal collet available for all sizes



Discreet application based on cable diameter

Torque values are the maximum allowable for each connector size.

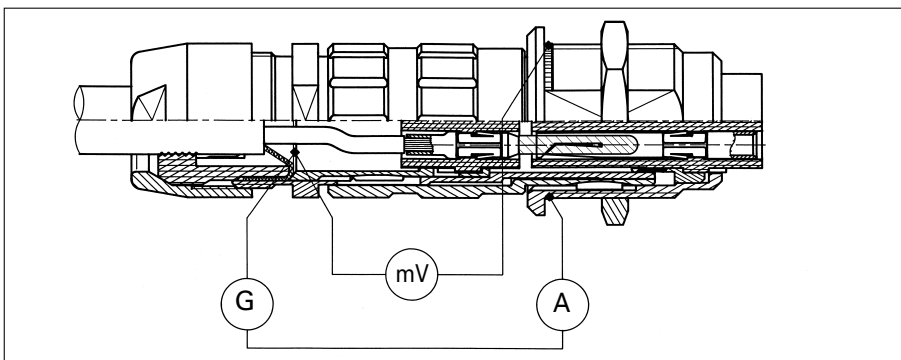
Torque values will vary due to the type and size of the cable used.

\*Apply thread lock to back nut prior to assembly.

Note : All the tooling numbers refer to the drawings page 205

### • Shielding

Tested according to MIL-STD 1344 A, method 3007

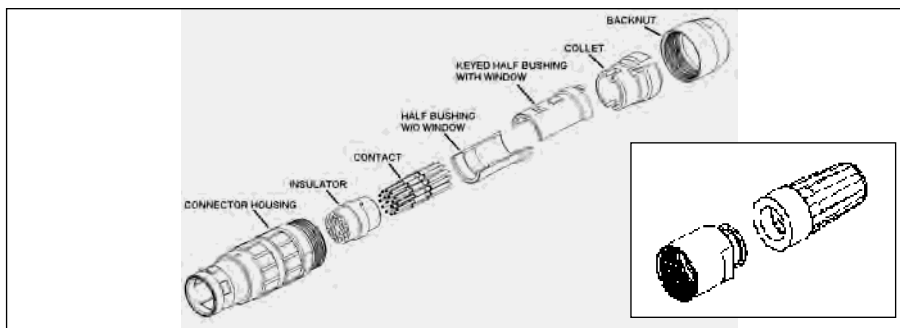


Shell size	Electrical continuity (mΩ)
<b>00</b>	4.5
<b>0</b>	4
<b>1</b>	3
<b>2</b>	2.5
<b>3</b>	2.5

# JBX Plug Assembly Instructions

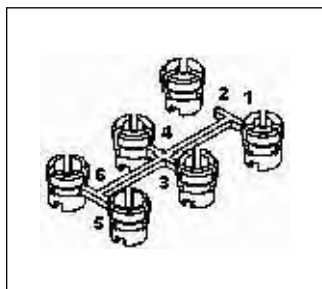


1. Determine what size cable you will be using. Then select the proper collet number for that cable.



## • Collets selection according to cable diameter

3 or 5 collets per shell size allow a wide range of cable diameters for a single connector. Cable out diameters are for information only, since values will change with each cable construction.

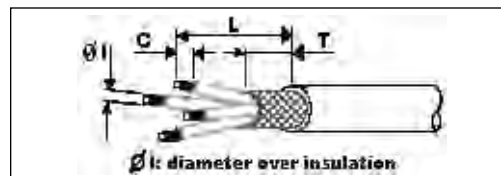


Collet Number	Cable Diameter			
	Shell Size 0	Size 0, Option G	Shell Size 1	Size 1, Option G
1	1.5 - 2.5	—	2 - 2.5	—
2	2.6 - 3.5	—	2.6 - 3.5	—
3	3.6 - 4.5	—	3.6 - 4.5	6.1 - 6.7
4	—	4.6 - 5.5	4.6 - 5.5	6.8 - 7.7
5	—	5.6 - 6	5.6 - 6	7.8 - 8

Collet number 4 in shell size 0 and collet number 6 in shell size 1 are not used

2. Strip the cable and each wire to the required strip length.

## • Cable stripping for connectors with crimp contacts

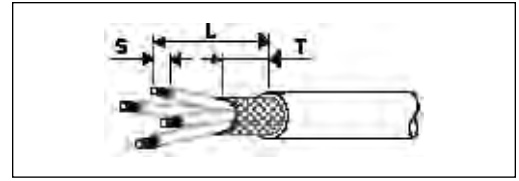


Shell Size	ø Contacts	ø I	Stripping for FD, SR, PC			Stripping for FC		
			L	C	T	L	C	T
0	0.7	≤1.35	15	4	7	19	4	7
		>1.35		5.5			5.5	
0	0.9	≤1.6	15	4	7	19	4	7
		>1.6		5.5			5.5	
1	0.7	≤1.35	16	4	8	22	4	8
		>1.35		5.5			5.5	
	0.9	≤1.6	16	4	8	22	4	8
		>1.6		5.5			5.5	
	1.3	≤2.1	16	4	8	22	4	8
		>2.1		5.5			5.5	
2	0.7	≤1.35	19	4	9	28	4	9
		>1.35		5.5			5.5	
	0.9	≤1.6	19	4	9	28	4	9
		>1.6		5.5			5.5	
	1.3	≤2.1	19	4	9	28	4	9
		>2.1		5.5			5.5	
1.6	≤2.6	21	5.5	9	28	5.5	9	
	>2.6		7			7		
2.0	≤3.2	21	5.5	9	28	5.5	9	
	>3.2		7			7		
3	0.7	≤1.35	25	4	10	35	4	10
		>1.35		7			7	
	0.9	≤1.6	25	4	10	35	4	10
		>1.6		7			7	
	1.3	≤2.1	25	4	10	35	4	10
		>2.1		7			7	
	1.6	≤2.6	27	5.5	10	35	5.5	10
		>2.6		8.5			8.5	
	2.0	≤3.2	27	5.5	10	35	5.5	10
		>3.2		8.5			8.5	

# JBX Plug Assembly Instructions

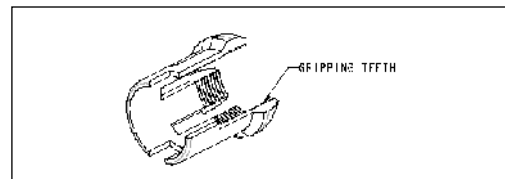
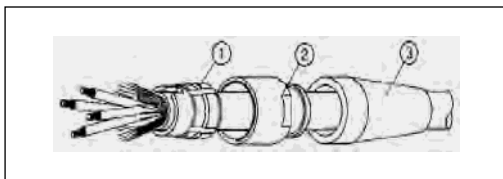


## • Cable stripping for connectors with solder contacts



Shell Size	ø Contacts	Stripping for FD, SR, PC			Stripping for FC		
		L	S	T	L	S	T
00	0.5	9	2	4	/	/	/
0	0.5	11	2	7	16	2	7
	0.7	12	3	7	16	3	7
	0.9	12	3	7	16	3	7
1	0.5	12	2	8	19	2	8
	0.7	13	3	8	19	3	8
	0.9	13	3	8	19	3	8
	1.3	13	3.5	8	19	3.5	8
2	0.7	16	3	9	25	3	9
	0.9	16	3	9	25	3	9
	1.3	16	3.5	9	25	3.5	9
	1.6	18	4	9	25	4	9
	2.0	18	4	9	25	4	9
3	0.7	20	3	10	30	3	10
	0.9	20	3	10	30	3	10
	1.3	20	3.5	10	30	3.5	10
	1.6	22	4	10	30	4	10
	2.0	22	4	10	30	4	10

3. When assembling a plug with a protective boot (#3), prep the cable by taking the protective boot and sliding it with the small inside diameter first onto the cable. Then slide the end of the back nut (#2) that has the smaller diameter onto the cable. Next, take the collet (#1) and slide the end with the gripping teeth first onto the cable until the opposite end of the collet is flush with the cut end of the jacket. If the cable has shielding, fold back the braid so that it is covering the outside diameter of the collet. Do not place braid into any area of the alignment slots. Then insure that the braid does not interfere with the alignment slots of the collet.



4. Attach removable contacts to wires:
- If using crimped contacts, crimp the contacts onto the ends of the exposed wires using the proper crimping tool set on the correct AWG wire. (see FIGURE 4.A). After the contact has been crimped to the wire, check each contact to insure that the contact is securely crimped to the wire.

# JBX Plug Assembly Instructions



Locator for pin and socket 0.7 - 0.9 mm and 1.3 mm contacts

**FIGURE 4.A**

Shell Size	ø Contacts	AWG	Male Contact			Female Contact		
			Souriau P/N	Daniels P/N	Astro P/N	Souriau P/N	Daniels P/N	Astro P/N
0	0.7	22 - 24 - 26	JBX 0 OUT LP07	86 - 223	/	JBX 0 OUT LP07	86 - 224	/
	0.9	20 - 22 - 24	JBX 0 OUT LP09	86 - 225	/	JBX 0 OUT LP09	86 - 226	/
1	0.7	22 - 24 - 26	JBX 1 OUT LP07	86 - 196	642 - 001	JBX 1 OUT LP07	86 - 197	642 - 004
	0.9	20 - 22 - 24	JBX 1 OUT LP09	86 - 198	642 - 002	JBX 1 OUT LP09	86 - 199	642 - 005
	1.3	18 - 20 - 22	JBX 1 OUT LP13	86 - 200	642 - 003	JBX 1 OUT LP13	86 - 201	642 - 006
2	0.7	22 - 24 - 26	JBX 2 OUT LP07	86 - 202	642 - 007	JBX 2 OUT LP07	86 - 203	642 - 010
	0.9	20 - 22 - 24	JBX 2 OUT LP09	86 - 204	642 - 008	JBX 2 OUT LP09	86 - 205	642 - 011
	1.3	18 - 20 - 22	JBX 2 OUT LP13	86 - 206	642 - 009	JBX 2 OUT LP13	86 - 207	642 - 012
3	0.7	22 - 24 - 26	JBX 3 OUT LP07	86 - 217	642 - 014	JBX 3 OUT LP07	86 - 214	642 - 017
	0.9	20 - 22 - 24	JBX 3 OUT LP09	86 - 218	642 - 015	JBX 3 OUT LP09	86 - 215	642 - 018
	1.3	18 - 20 - 22	JBX 3 OUT LP13	86 - 219	642 - 016	JBX 3 OUT LP13	86 - 216	642 - 019

Turret with locator for pin and socket 1.6 mm and 2 mm contacts



Shell Size	ø Contacts	AWG	Male and Female Contacts		
			Souriau P/N	Daniels P/N	Astro P/N
2	1.6	14 - 16 - 18	JBX 2 OUT LT16	TH 564	650 - 030
	2	12 - 14 - 16	JBX 2 OUT LT20	TH 565	650 - 031
3	1.6	14 - 16 - 18	JBX 3 OUT LT16	TH 566	650 - 038
	2	12 - 14 - 16	JBX 3 OUT LT20	TH 567	650 - 035

## Crimping Tool

Specifications MIL-C-22520 / 7.01			
	Contacts 0.7 mm - 0.9 mm and 1.3 mm	MIL P/N - Souriau P/N	Supplier P/N
		MIL-22520/7-01	Daniels: MH860
Specifications MIL-C-22520 / 1.01			
	Contacts 1.6 mm and 2 mm	MIL P/N - Souriau P/N	Supplier P/N
		MIL-22520/1-01	Daniels: AF8 Buchanan: 615708

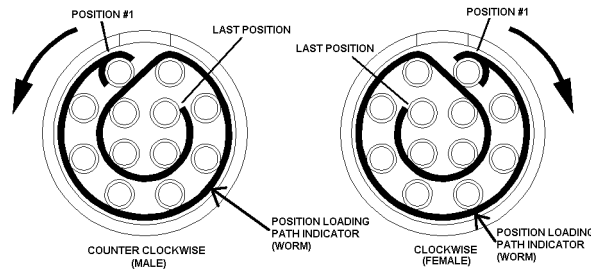
- b. If using soldered contacts, prep each wire with flux and then tin dip each exposed wire end. Next pre-load a piece of heat shrink onto the wire (Individual heat shrink tubes are optional). Solder each wire to the solder cup end of the contact. To avoid shorts, make sure that no solder comes in contact with any other contact or wire on the connector. After the contact has been soldered to the wire, check each contact to insure that the contact is securely soldered to the wire. Slide the pre-loaded heat shrink over the solder joint and shrink into place. Do not over-heat the solder joint area as it can cause the solder to re-flow or it could burn the wire insulation.

# JBX Plug Assembly Instructions



## 5. If inserting removable contacts:

- a. Starting with the interface end of the contact, carefully insert each contact into the backside of the insulator that has the position loading path indicator (worm) on it. Start with the end of the position loading path indicator (worm) that has the half circle on it (Position #1). Then follow the position loading path indicator (worm) around the insulator. You will go counter clockwise if using a male contact and clockwise if using a female contact (see diagram below for the position loading path indicator (worm) layout). If the connector has center contacts, it is sometimes easier to start at the end of the position loading path indicator (worm) (last position) and work backwards. This is up to the assembler and the process they are using to insert the contacts. Make sure not to bend the contact when inserting it into the insulator. It is extremely important that the contact is completely seated in to the insulator. For the connector to function properly, the contact should click/snap into place when seated. To confirm the seating of the contact, check each contact for proper seating.



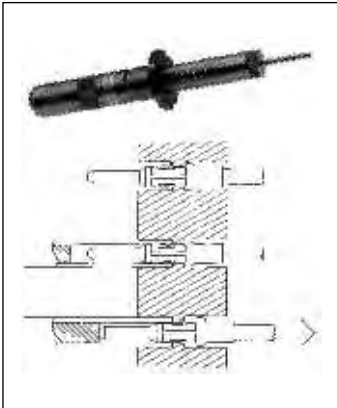
## 6. Removal of contacts:

- a. Using the proper extraction tool insert the tool over the front of the contact and push contact out. Failure to use the proper extraction tool can result in damage to the contact.

### TOOLINGS – JBX – JKX Manual Extraction Tools

Contacts automatically extracted without pulling on the cable.

The extraction tool is the same for both male and female contacts.



Shell Size	ø Contacts	Souriau Part Number	Astro Part Number
0	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
1	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
2	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
	1.6	JBX OUT DC 16	ATJP 2095
	2.0	JBX OUT DC 20	ATJP 2115
3	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
	1.6	JBX OUT DC 16	ATJP 2095
	2.0	JBX OUT DC 20	ATJP 2115

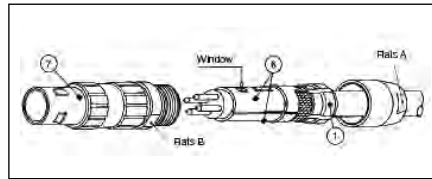
7. Take the keyed half bushing (#6) and place it over the insulator so that the window is lined up with the key on the insulator and the key on the half bushing is pointing to the back of the insulator (position loading path indicator (worm end)). Then take the half bushing without the window (#6) and place on the opposite side of the insulator so that both half bushings are aligned with each other.



# JBX Plug Assembly Instructions



8. Take the collet that is pre-loaded on the cable and align the slots in the collet with the keys on the end of the half bushings (you may need to move the braid away from the slots and spin the collet slightly). Once they are aligned, compress the assembly so that it is in line and there are no gaps between the collet & the half bushings. The braid should still be in place once the assembly is inserted.
9. Take a connector housing (#7) and slide it over the insulator so that the red dot on the connector housing lines up with the key on the half bushing with window. Push the whole assembly into the connector housing until it bottoms out. Insure that the keys are seated properly by turning the collet that is already aligned with the half bushings. If the collet does not turn, then the keys are correctly aligned. If the collet does turn, then you must withdraw the assembly & realign the keys.

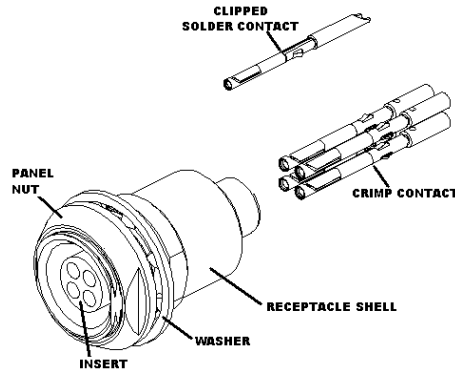


10. Once the assembly is installed into the connector housing and is aligned properly, apply thread lock to thread area. Then slide the back nut up until you can manually start the back nut threads onto the threaded end of the connector housing. Tighten the back nut up as far as you can by hand, then take the appropriate wrenches and place the wrenches onto the flats located on the connector housing. Do not over torque back nut as it can cause connector failure.
11. If the connector requires a protective boot, slide the boot over the lip on the back nut.
12. Potting of backend of plug with clipped contacts:  
Clipped contacts are designed to float in the connector so that they self align when mated. It is sometimes necessary to pot the back end of the connector so that the contacts are sealed off from the environment. When this application is needed, it is recommended that the assembler engage a mating connector/alignment tool to the assembly being potted. Once the mating connector/alignment tool is engaged, it must be left engaged until the potting compound has hardened. This will insure that the true position requirements are met. If the application is for low volume, a mating connector can be used. If the application is for high volume, it is recommended that an alignment tool be purchased from the supplier.

## Trouble Shooting

Problem:	Cause:	Correction:
Contact will not seat in connector, contact backing out.	Wrong wire or insulation size, wrong strip length, poor crimping, broken clips, damaged insulator, removed contact without proper removal tool, bad crimp.	Use correct wire, adjust strip length, strip and re-crimp with new contact, replace insulator, using wrong crimp tool, replace contact.
Bent solder contact	Bent in handling, bent in soldering operation, connector assembled incorrectly. Pins and insulator were inserted into electrical test while unprotected by shell	Replace insert with contacts.
Connector will not release from mating part or operate correctly	Not using flats on latching sleeve and back nut to torque connector, improper assembly of the connector, over mold material inside connector.	Release back nut and re-torque, disassemble and reassemble, replace connector.
Over tightened the back nut.	Connector will not release from mating part or operate correctly, damage connector.	Loosen back nut and retighten.
Collet will not grip cable.	Loose cable in connector.	Check correct collet size is being used.
Connector will not assemble.	Incorrect alignment of key in connector, half bushings, connector housing, insulator, collet, braid in key slots in collet.	Disassemble connector and reassemble connector-aligning keys, relocate braid in collet.
Contact stubbing after mating.	Bent contact and damaged contact, connector-assembled incorrectly.	Re-align contact, replace insert with contacts.
Electrical failure.	Improper crimping, wrong wire strip length, wire loading incorrect location, poor solder joint.	Remove contact with correct removal tool, re-install new contact, and verify strip length.

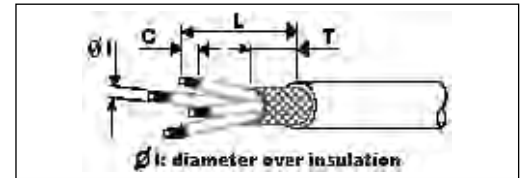
# JBX Receptacle Assembly Instructions



1. Select the proper JBX receptacle and contact size for the specific cable application by using the contact layout chart as depicted in the Push Pull catalog.

2. Strip the cable/wire to the required strip length.

Wiring and assembly instructions  
Cable stripping for connectors with crimp contacts

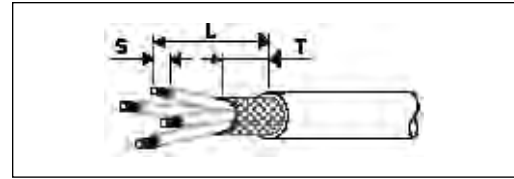


Shell Size	ø Contacts	ø I	Stripping for FD, SR, PC			Stripping for FC		
			L	C	T	L	C	T
0	0.7	≤1.35	15	4	7	19	4	7
		>1.35		5.5				
	0.9	≤1.6	15	4	7	19	4	7
		>1.6		5.5				
1	0.7	≤1.35	16	4	8	22	4	8
		>1.35		5.5				
	0.9	≤1.6	16	4	8	22	4	8
		>1.6		5.5				
	1.3	≤2.1	16	4	8	22	4	8
		>2.1		5.5				
2	0.7	≤1.35	19	4	9	28	4	9
		>1.35		5.5				
	0.9	≤1.6	19	4	9	28	4	9
		>1.6		5.5				
	1.3	≤2.1	19	4	9	28	4	9
		>2.1		5.5				
	1.6	≤2.6	21	5.5	9	28	5.5	9
		>2.6		7				
2.0	≤3.2	21	5.5	9	28	5.5	9	
	>3.2		7					
3	0.7	≤1.35	25	4	10	35	4	10
		>1.35		7				
	0.9	≤1.6	25	4	10	35	4	10
		>1.6		7				
	1.3	≤2.1	25	4	10	35	4	10
		>2.1		7				
	1.6	≤2.6	27	5.5	10	35	5.5	10
		>2.6		8.5				
	2.0	≤3.2	27	5.5	10	35	5.5	10
		>3.2		8.5				

# JBX Receptacle Assembly Instructions



Wiring and assembly instructions  
Cable stripping for connectors with solder contacts



Shell Size	ø Contacts	Stripping for FD, SR, PC			Stripping for FC		
		L	S	T	L	S	T
00	0.5	9	2	4	/	/	/
0	0.5	11	2	7	16	2	7
	0.7	12	3	7	16	3	7
	0.9	12	3	7	16	3	7
1	0.5	12	2	8	19	2	8
	0.7	13	3	8	19	3	8
	0.9	13	3	8	19	3	8
	1.3	13	3.5	8	19	3.5	8
2	0.7	16	3	9	25	3	9
	0.9	16	3	9	25	3	9
	1.3	16	3.5	9	25	3.5	9
	1.6	18	4	9	25	4	9
	2.0	18	4	9	25	4	9
3	0.7	20	3	10	30	3	10
	0.9	20	3	10	30	3	10
	1.3	20	3.5	10	30	3.5	10
	1.6	22	4	10	30	4	10
	2.0	22	4	10	30	4	10

3. Depending on application and shell type, the nut and washer may be removed before attaching the wires to the contacts.

4. Attach crimped contacts to wires:

- a. If using crimped contacts, crimp the contacts onto the ends of the exposed wires using the proper crimping tool and locator set on the correct AWG wire size (see FIGURE 4.A). After the contact has been crimped to the wire, check each contact to insure that the contact is securely crimped.

Locator for pin and socket 0.7 - 0.9 mm and 1.3 mm contacts



FIGURE 4.A

Shell Size	ø Contacts	AWG	Male Contact			Female Contact		
			Souriau P/N	Daniels P/N	Astro P/N	Souriau P/N	Daniels P/N	Astro P/N
0	0.7	22 - 24 - 26	JBX 0 OUT LP07	86 - 223	/	JBX 0 OUT LP07	86 - 224	/
	0.9	20 - 22 - 24	JBX 0 OUT LP09	86 - 225	/	JBX 0 OUT LP09	86 - 226	/
1	0.7	22 - 24 - 26	JBX 1 OUT LP07	86 - 196	642 - 001	JBX 1 OUT LP07	86 - 197	642 - 004
	0.9	20 - 22 - 24	JBX 1 OUT LP09	86 - 198	642 - 002	JBX 1 OUT LP09	86 - 199	642 - 005
	1.3	18 - 20 - 22	JBX 1 OUT LP13	86 - 200	642 - 003	JBX 1 OUT LP13	86 - 201	642 - 006
2	0.7	22 - 24 - 26	JBX 2 OUT LP07	86 - 202	642 - 007	JBX 2 OUT LP07	86 - 203	642 - 010
	0.9	20 - 22 - 24	JBX 2 OUT LP09	86 - 204	642 - 008	JBX 2 OUT LP09	86 - 205	642 - 011
	1.3	18 - 20 - 22	JBX 2 OUT LP13	86 - 206	642 - 009	JBX 2 OUT LP13	86 - 207	642 - 012
3	0.7	22 - 24 - 26	JBX 3 OUT LP07	86 - 217	642 - 014	JBX 3 OUT LP07	86 - 214	642 - 017
	0.9	20 - 22 - 24	JBX 3 OUT LP09	86 - 218	642 - 015	JBX 3 OUT LP09	86 - 215	642 - 018
	1.3	18 - 20 - 22	JBX 3 OUT LP13	86 - 219	642 - 016	JBX 3 OUT LP13	86 - 216	642 - 019

# JBX Receptacle Assembly Instructions



Turret with locator for pin and socket 1.6 mm and 2 mm contacts



Shell Size	ø Contacts	AWG	Male and Female Contacts		
			Souriau P/N	Daniels P/N	Astro P/N
2	1.6	14 - 16 - 18	JBX 2 OUT LT16	TH 564	650 - 030
	2	12 - 14 - 16	JBX 2 OUT LT20	TH 565	650 - 031
3	1.6	14 - 16 - 18	JBX 3 OUT LT16	TH 566	650 - 038
	2	12 - 14 - 16	JBX 3 OUT LT20	TH 567	650 - 035

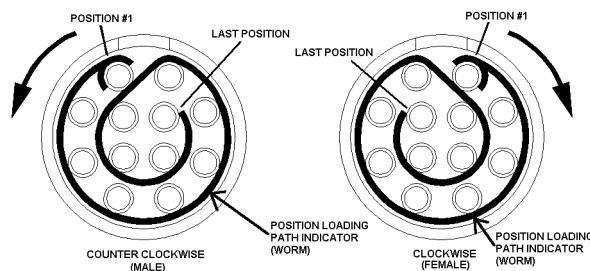
## Crimping Tool

Specifications MIL-C-22520 / 7.01			
	Contacts 0.7 mm - 0.9 mm and 1.3 mm	MIL P/N - Souriau P/N	Supplier P/N
		MIL-22520/7-01	Daniels: MH860
Specifications MIL-C-22520 / 1.01			
	Contacts 1.6 mm and 2 mm	MIL P/N - Souriau P/N	Supplier P/N
		MIL-22520/1-01	Daniels: AF8 Buchanan: 615708

b. If using clipped solder contacts, prep each wire with flux and then tin dip each exposed wire end. Next pre-load a piece of heat shrink onto the wire (Individual heat shrink tubes are optional). Solder each wire to the solder cup end of the contact. To avoid shorts, make sure that no solder comes in contact with any other contact or wire on the connector. After the contact has been soldered to the wire, check each contact to insure that the contact is securely soldered to the wire. Slide the pre-loaded heat shrink over the solder joint and shrink into place. Do not over-heat the solder joint area as it can cause the solder to re-flow or it could burn the wire insulation.

5. If inserting terminated contacts:

a. Starting with the interface end of the contact, insert each contact into the backside of the insulator that has the position loading path indicator (worm) on it. Start with the end of the position loading path indicator (worm) that has the half circle on it (Position #1). Then follow the position loading path indicator (worm) around the insulator. You will go counter clockwise if using a male contact and clockwise if using a female contact (see diagram below for the position loading path indicator (worm) layout). If the connector has center contacts, it is sometimes easier to start at the end of the position loading path indicator (worm) (last position) and work backwards. This is up to the assembler and the process used to insert the contacts. Make sure not to bend the contact when inserting it into the insulator. It is extremely important that the contact is seated in the insulator for the connector to function properly. The contact should click/snap into place when seated. Check each contact for proper seating.



Removal of contacts:

Using the proper extraction tool (See FIGURE 6.A), insert the tool over the front of the contact and push contact out. Failure to use the proper extraction tool can result in damage to the contact.

# JBX Receptacle Assembly Instructions



Manual extraction tools



The extraction tool is the same for both male and female contacts.

FIGURE 6.A

Shell Size	ø Contacts	Souriau Part Number	Astro Part Number
0	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
1	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
2	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
	1.6	JBX OUT DC 16	ATJP 2095
	2.0	JBX OUT DC 20	ATJP 2115
3	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
	1.6	JBX OUT DC 16	ATJP 2095
	2.0	JBX OUT DC 20	ATJP 2115

## 7. Potting of backend of receptacle with clipped contacts

Clipped contacts are designed to float in the connector so that they self align when mated. It is sometimes necessary to pot the backend of the connector so that the contacts are sealed off from the environment. When this application is needed, it is recommended that the assembler engage a mating connector/alignment tool to the assembly being potted. Once the mating connector/alignment tool is engaged, it must be left engaged until the potting compound has hardened. This will insure that the true position requirements are met. If the application is low volume, a mating connector can be used. If the application is for high volume, it is recommended that an alignment tool be purchased from the supplier.

### Trouble shooting

Problem:	Cause:	Correction:
Contact will not seat in connector, contact backing out.	Wrong wire or insulation size, wrong strip length, poor crimping, broken clips, damaged insulator, removed contact without proper removal tool, bad crimp.	Use correct wire, adjust strip length, strip and re-crimp with new contact, replace insulator, using correct crimp tool, replace contact.
Bent solder contact	Bent in handling, bent in soldering operation, connector assembled incorrectly.	Re-align contact, replace insert with contacts.
Contact stubbing after mating.	Bent contact and damaged contact, connector-assembled incorrectly.	Re-align contact, replace insert with contacts. If using clipped contacts and receptacle is potted, a mating connector must be applied to the connector that is being potted. This insures that the contacts will be properly aligned.
Electrical failure.	Improper crimping, wrong wire strip length, wire loading incorrect location, poor solder joint.	Remove contact with correct removal tool, re-install new contact, and verify strip length.

# Environmentally Sealed Push Pull Connectors



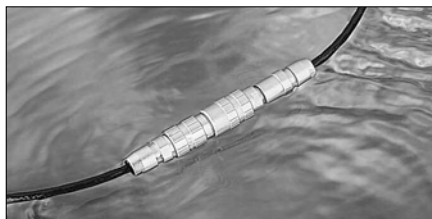
## Key features

- Sealed IP 68 (mated connectors)
- Mechanically keyed : ensures correct polarization and alignment.
- Contact arrangements : from 2 to 10 contacts.
- Wire gauge range from 28 AWG to 14 AWG.
- High contact density in a small space.
- Contact termination in either crimp, solder, PC or right angle PCB contacts.



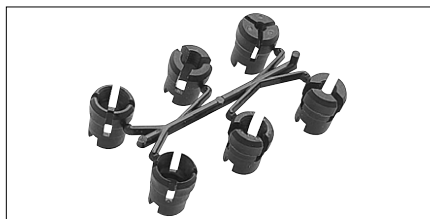
## User advantages

### Temporary immersion IP 68



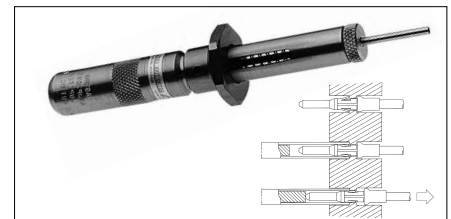
### 6-collet cluster

Allows a wide range of cable diameter applications for a single connector.  
Reduces inventory



### Removable contacts

Crimp versions allow easier wiring and maintenance.



## Part number system

Basic series	<b>JKX</b>	<b>FD</b>	<b>1</b>	<b>G</b>	<b>05</b>	<b>M</b>	<b>C</b>	<b>S</b>	<b>D</b>	<b>S</b>	<b>M</b>
Shell configuration	<b>FD - ER - EP - PC</b>										
Size	<b>0 - 1</b>										
Keying	<b>G</b>										
Contact layouts	<b>02 ----- 10</b> (see page 33)										
Contact type	<b>M</b> : pin <b>F</b> : socket (in relation with keying)										
Contact termination	<b>C</b> : crimp ; <b>S</b> : solder ; <b>P*</b> : straight PCB tails ; <b>Q*</b> : 90° PCB tails										
Material & surface plating	<b>S</b> : Outer shell in brass alloy with glossy chrome over nickel <b>N</b> : Outer shell in brass alloy with black plating (consult SOURIAU US) <b>D</b> : Obligatory suffix										
	<b>S</b> : All contact diamete except 0.5 mm <b>P</b> : 0.5 mm contacts only										
Options	<b>M</b> : Connector with backnut for protective boot (protective boot to order separately page 34) <b>G</b> : Connector with adaptation to accomodate big cables (Ø 4.5 to 6 in size 0 and Ø 6 to 8 in size 1) <b>R</b> : Red dot (possible for FD, PC, ER only)										

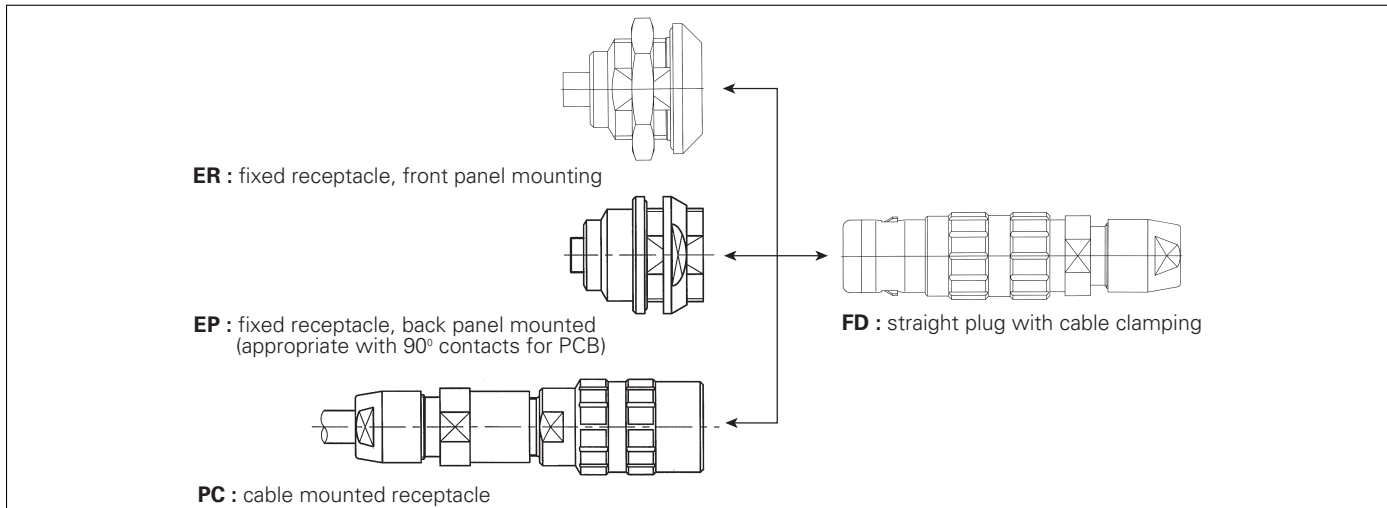
\* For receptacles with female contacts only.

# Environmentally Sealed Push Pull Connectors



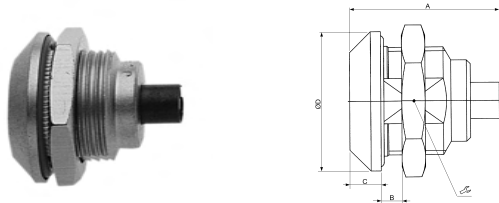
## Shell type

### • Available JKX shells



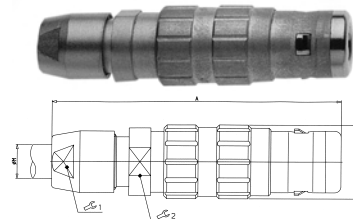
### • Dimensions

**ER** : Fixed receptacle, front panel mounting



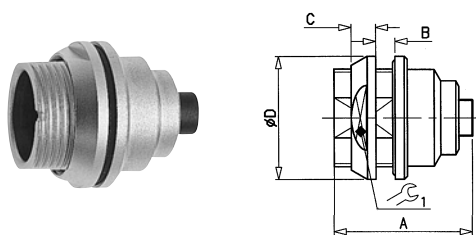
Size	A	B	C	Ø D
0	19.5	4.5	4	18
1	24.5	8.5	4.5	20

**FD** : Straight plug with cable clamping



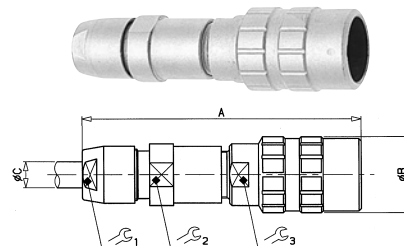
Size	A	Ø B	Ø M
0	47	12	1.5 to 4.5
1	57	15	2 to 6

**EP** : Fixed receptacle, back panel mounting



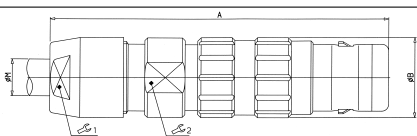
Size	A	B	C	Ø D
0	19.5	4.5	3.2	18
1	24.5	6	4	20

**PC** : Cable mounted receptacle



Size	A	Ø B	Ø C
0	-	-	-
1	60	16	2 to 6

### • Option G : to accomodate bigger cables



Size	A	Ø B	Ø M
0	51	12	4.6 to 6
1	60	15	6 to 8



# Environmentally Sealed Push Pull Connectors



## Keying

Only G keying is available in standard version (0° keying angle, plugs with pin contacts, receptacles with female contacts) for the shell styles.

Shell size	Key	ER	EP	PC	FD
0	G	●	●	-	●
1	G	●	●	●	●

## Contacts

● Concerning the availability of other alternatives, please consult our commercial office.

### • Multi contacts inserts

Shell size	Male insulator viewed from wiring side	Contact layout	Available Contact types				∅ Contact	AWG		Max. current rating (A)	Testing voltage (Vrms)	Working voltage (Vdc / Vrms)
			S solder	C crimp	P* straight PCB tails	Q* 90° PCB tails		Solder wire Max.	Crimp wire Max.			
0		02	S	C	P	Q	0.9	24	20	10	1400	660/460
		03	S	C	P	Q	0.9	24	20	8	1300	600/420
		04	S	C	P	Q	0.7	26	22	7	1400	660/460
		05	S	C	P	Q	0.7	26	22	6.5	800	400/260
		06	S		P		0.5	28	-	2.5	680	320/220
		07	S		P		0.5	28	-	2.5	680	320/220
1		02	S	C			1.3	20	18	15	1600	760/530
		03	S	C			1.3	20	18	12	1300	600/420
		04	S	C	P	Q	0.9	24	20	10	1900	900/630
		05	S	C	P	Q	0.9	24	20	9	1400	660/460
		06	S	C	P	Q	0.7	26	22	7	1400	660/460
		07	S	C	P	Q	0.7	26	22	7	1400	660/460
		08	S	C	P	Q	0.7	26	22	5	1200	600/420
		10	S				0.5	28	-	2.5	600	300/200

Inserts with fixed contacts (non removable contacts)

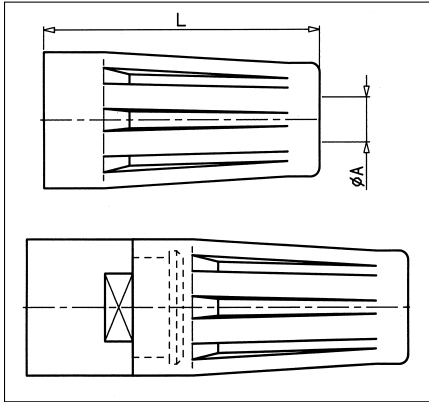
\* For receptacles with female contacts only

# Environmentally Sealed Push Pull Connectors



## Options

### • Protective boot



Part number	Shell size	Shell size option G	Dimensions			
			Ø A	L	Ø Câble	
					min	Max.
JBX 0 MP*	0	-	2.2	20	1.5	5.5
JBX 1 MP*	1	0	2.6	25	2	7.5
JBX 2 MP*	-	1	4	30	3.5	9.7

\* Color code



Color code	Colors
A	blue
B	white
G	grey
J	yellow
M	brown
N	black
R	red
V	green
O	orange

#### Material :

ELASTOLLAN (PUR)

#### Working temperature :

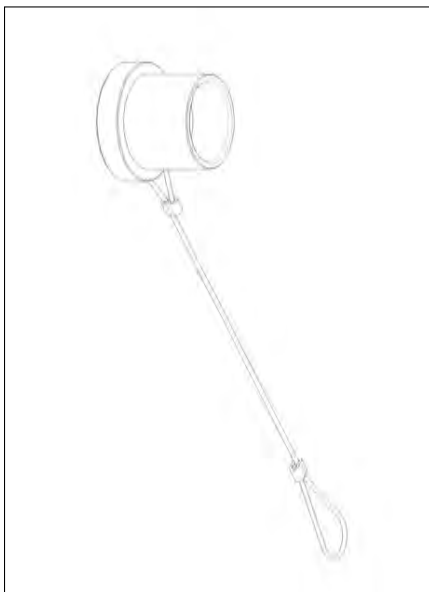
- 40°C ; + 80°C

- 40°F ; + 176°F

Parts that require a protective boot need to be ordered with an M suffix. Protective boots are ordered separately.

With each JKX connector, one protective boot can accept diverse cable diameters thus the end-user can manage various cable diameters without bothering with multiple part numbers.

### • Caps : Protect the receptacle to IP68



Part number	Ø
JKX BR0	14
JKX BR1	16

# Environmentally Sealed Push Pull Connectors



## Technical characteristics

### • Material and treatment

Component	Material	Standard		Surface treatment (µm)		
		ISO	ASTM	Cr	Ni	Au
Outer shell and collet nut	Brass	CuZn40Pb3	C38500/C360	0.1 - 0.6	5 - 8	-
Latching sleeve	Brass	CuZn40Pb3	C38500/C360	-	5 - 8	-
Shielding ring	Brass	CuZn40Pb3	C38500/C360	-	3 - 7	-
Nut	Brass	CuZn40Pb3	C38500/C360	-	5 - 8	-
Tapered washer and half bushes	Brass	CuZn40Pb3	C38500/C360	-	5 - 8	-
Socket contact (1)	Cupro-nickel	CuNi1Pb1P	CDAC19150	-	3 - 5	0.5
Pin contact (1)	Brass	CuZn35Pb2	C38500/C360	-	3 - 5	0.5
Clip	Beryllium copper	CuBe1,9	C17200/C360	-	-	-

(1) Gold thickness as per MIL-G-45204C type 1, class 00.

Component	Material	Color	Temperature withstanding	
Insert	PEEK + 30%GF	brown	- 50°C + 250°C	- 58°F + 482°F
Collet	PA 6/6 + MoS2	black	- 55°C + 125°C	- 67°F + 257°F
Cable seal	Silicon rubber	red	- 50°C + 250°C	- 58°F + 482°F

### • Mechanical and climatic

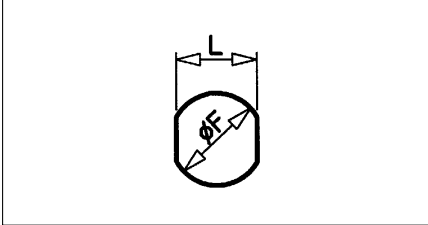
Characteristics	Values	Standard	Method
Endurance	> 1000 cycles (except for 0.7 mm crimp contacts for which endurance is limited to 500 cycles)	MIL-STD 1344A	2016.1
Shock	50 g, duration 6 ms ; contact Ø 0.7 mm and 0.9 mm 100 g, duration 6 ms ; contact Ø 1.3 mm - 1.6 mm and 2 mm	MIL-STD 1344A	2004.1
Vibrations	10 to 2000 Hz $\gamma$ = 15 g, contact Ø 0.7 mm and 0.9 mm $\gamma$ = 20 g, contact Ø 1.3 mm - 1.6 mm and 2 mm	MIL-STD 1344A	2005.1
Protection index	IP 68 (watertight - 48 hours under 1 m of water)	CEI 529	
Operating temperature	with plastic collets } - 55°C + 125°C - 67°F + 257°F  with optional metal collets } - 55°C + 200°C - 67°F + 392°F (only on request, consult SOURIAU)	-  -	-  -

# Environmentally Sealed Push Pull Connectors



## Wiring and assembly instructions

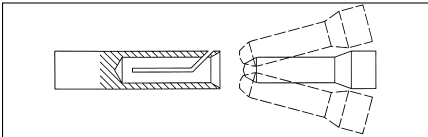
### • Panel cutout



Size	0	1
Ø F	14.1	16.1
L	12.6	14.6

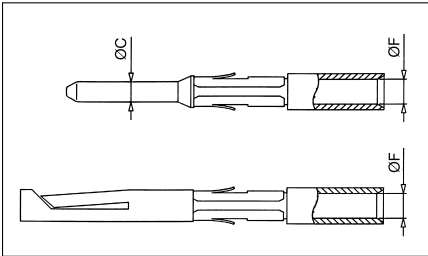
### • Removable contacts

#### Reliable design



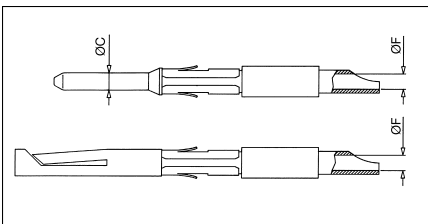
- Conical entry with chamfered edge on the socket contact and smooth slope on the pin contact ensure perfect concentric mating even when handled carelessly.
- The pressure spring of the socket contact maintains a constant force on the pin contact when mated.

### Crimp contacts



Contact		Usable cables			Max. current rating (A)	Contact resistance (m?)	Endurance (number of cycles)
Ø C	Ø F	Core section (mm <sup>2</sup> )		AWG			
		min	Max.				
0.7	0.85	0.129	0.326	22 - 24 - 26	7	5	500 Max.
0.9	1.1	0.205	0.518	20 - 22 - 24	10	3.5	> 1000
1.3	1.4	0.326	0.823	18 - 20 - 22	15	3	> 1000

### Solder contacts

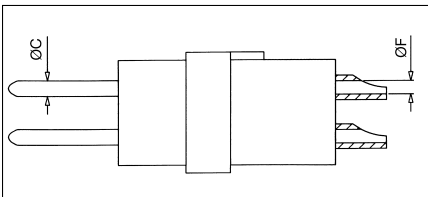


Contact		Usable cables			Max. current rating (A)	Contact resistance (m?)	Endurance (number of cycles)
Ø C	Ø F	Core section (mm <sup>2</sup> )		AWG			
		min	Max.				
0.9	0.8	-	0.21	24	10	3.5	> 1000
1.3	1.1	-	0.60	20	15	3	> 1000

The conductor bucket on the solder contacts is designed with an angle to form a cup into which the solder can flow easily.

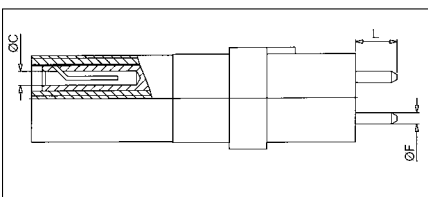
### • Fixed contacts

#### Solder contacts



Contact		Shell size	Usable cables		Max. current rating (A)	Contact resistance (m?)	Endurance (number of cycles)
Ø C	Ø F		Core section (mm <sup>2</sup> ) Max.	AWG			
0.5	0.5	0 - 1	0.096	28	5	10	> 1000
0.7	0.63	0 - 1	0.15	26	7	5	> 1000

#### Contacts for PCB



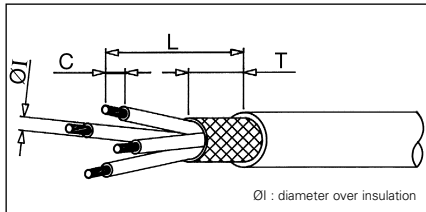
Contact		Shell size	L	Max. current rating (A)	Contact resistance (m?)	Endurance (number of cycles)
Ø C	Ø F					
0.5	0.5	0	5.5	5	10	> 1000
0.7	0.5	0	5	7	5	> 1000
		1	6			
0.9	0.7	0	5	10	3.5	> 1000
		1	6			

# Environmentally Sealed Push Pull Connectors



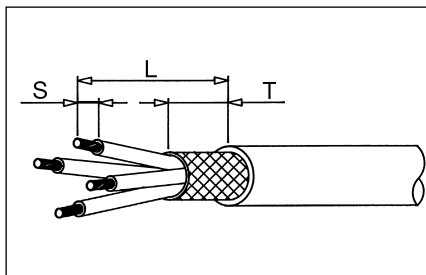
## Wiring and assembly instructions

### • Cable stripping for connectors with crimp contacts



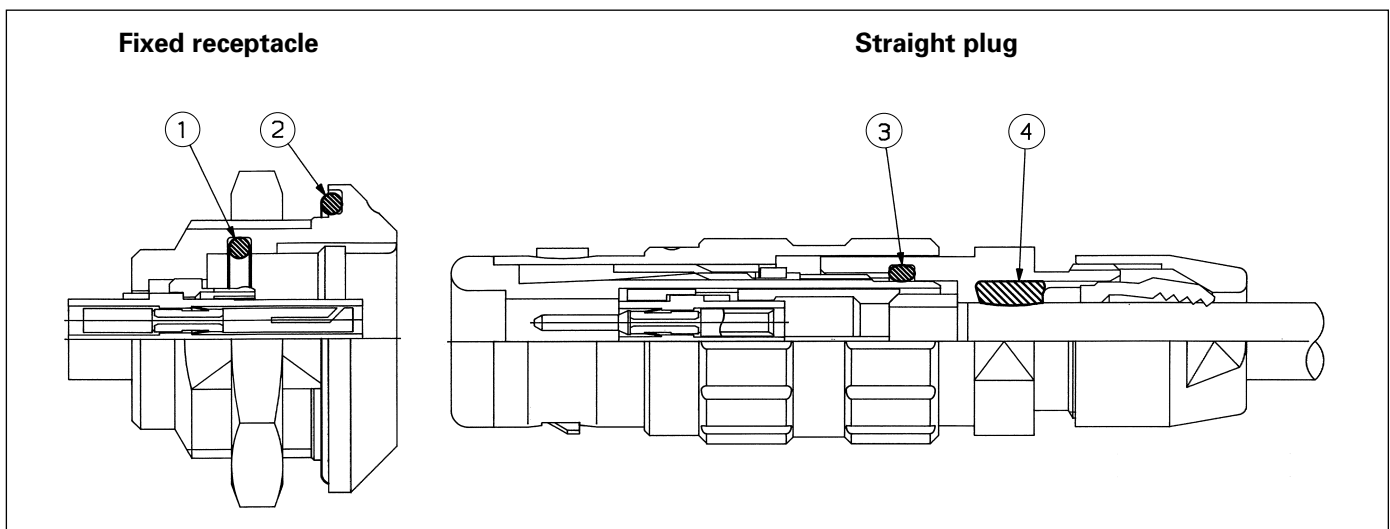
Shell size	Ø Contacts	Ø I	Stripping for FD / PC		
			L	C	T
0	0.7	? 1.35	15	4	7
		> 1.35		5.5	
	0.9	? 1.6	15	4	7
		> 1.6		5.5	
1	0.7	? 1.35	17	4	8
		> 1.35		5.5	
	0.9	? 1.6	17	4	8
> 1.6		5.5			
	1.3	? 2.1	17	4	8
		> 2.1		5.5	

### • Cable stripping for connectors with solder contacts



Shell size	Ø Contacts	Stripping for FD / PC		
		L	S	T
0	0.5	11	2	7
	0.7	12	3	7
	0.9	12	3	7
1	0.5	13	2	8
	0.7	14	3	8
	0.9	14	3	8
	1.3	14	3.5	8

### • Watertightness design (mated connectors)



① : O'ring for sealing between receptacle and plug shell

② : O'ring for sealing between receptacle and panel

③ : O'ring for sealing between plug body and backshell

† : seals to accomodate variety of cable diameters

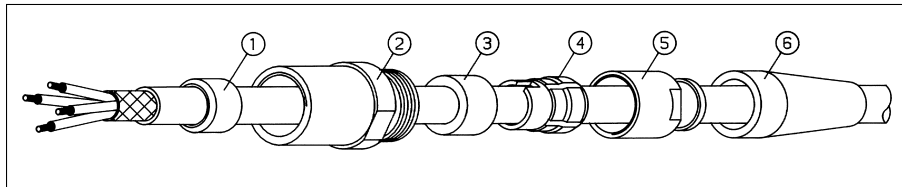
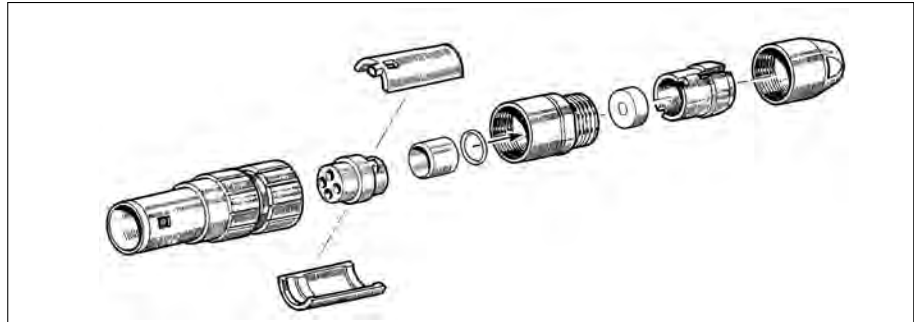
# Environmentally Sealed Push Pull Connectors



## Wiring and assembly instructions : STRAIGHT PLUG

• **Cable stripping** : see page 37

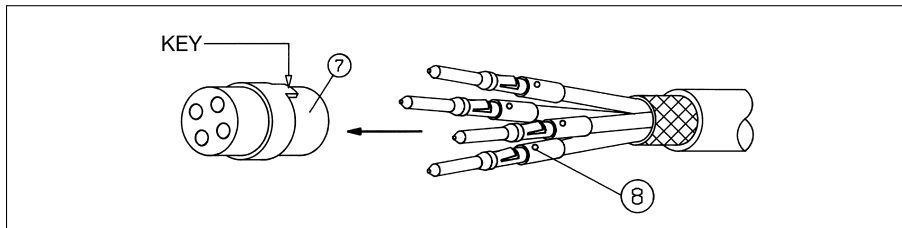
### • Connector preparation



1 - Select the proper collet † and the cable gland ③ (see page 39).

2 - Slide protective boot †, the backnut ⑤, the collet †, the cable gland ③, the outer shell ② and the taper seat ① onto the cable.

### • Contacts wiring : crimp contacts



1 - Select the proper crimping tool (see page 49) and positioner according to connectors involved.

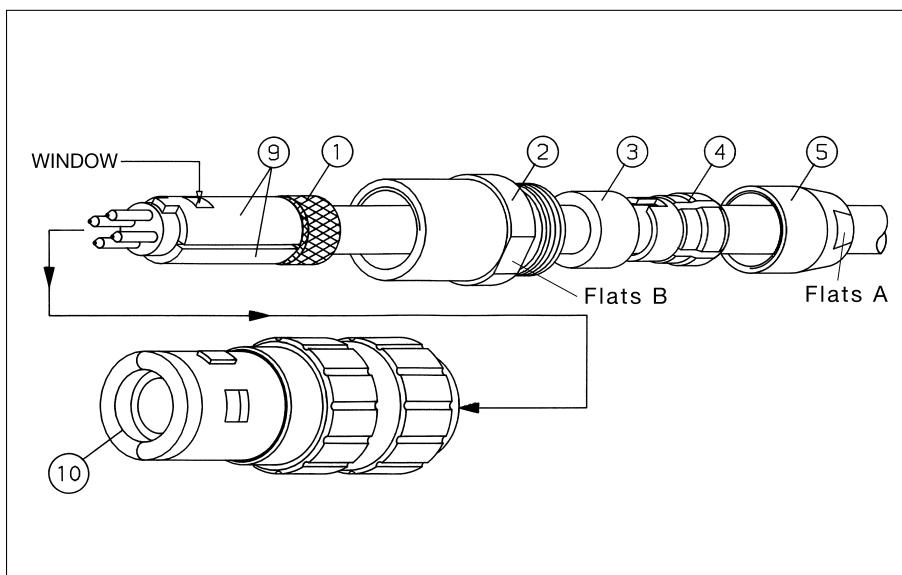
2 - Adjust the tool selector for the corresponding conductor AWG.

3 - Crimp the contacts ⑧ then engage them into the insert cavities † till clip tightening.

### • Contacts wiring : solder contacts

Fixed solder contacts 0.5 mm and 0.7 mm	Removable solder contacts from 0.9 mm to 1.3 mm
1 - Terminate the bucket contacts using solder method	1 - Solder the conductors to the contact buckets then engage them into the insert cavities † till clip tightening

### • Connector assembly



1 - In case of screened cable, comb out the screen and fold back over the taper seat ①.

2 - Position 2 half bushes ⑨, making sure that the insert key appears through the windows of one bush.

3 - Position the taper seat ① on the half bushes ⑨.

4 - Position all the sub-assembly in connector housing ⑩, making sure to keep the sub-assembly well aligned.

5 - Screw the outer shell ② following the torque values on page 39. Install the cable gland ③ and the collet † into the outer shell ② then screw the backnut ⑤ till bottoming. Use 2 wrenches well positioned on the flats A and B. Place a wrench to grip flats B, use the other wrench to tighten the backnut at the flats A following the torque values on page 39.

6 - Install the protective boot † if exists.

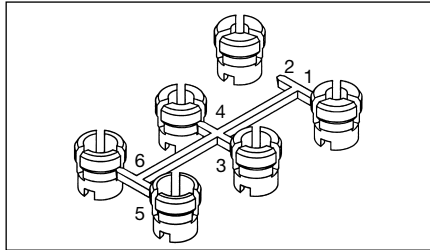
# Environmentally Sealed Push Pull Connectors



## Wiring and assembly instructions

### • Collets selection according to cable diameters

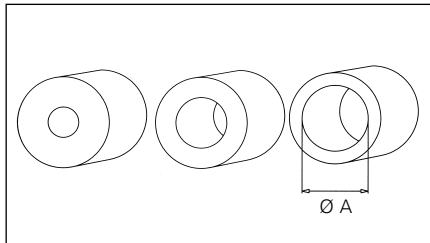
3 or 5 collets per shell size allow a wide range of cable diameters for a single connector. Cable out diameters are for information only, since values will change with each cable construction.



Collet number	Cable diameter			
	Shell size 0	Size 0, option G	Shell size 1	Size 1, option G
1	1.5 - 2.5	-	2 - 2.5	-
2	2.6 - 3.5	-	2.6 - 3.5	-
3	3.6 - 4.5	-	3.6 - 4.5	6.1 - 6.7
4	-	4.6 - 5.5	4.6 - 5.5	6.8 - 7.7
5	-	5.6 - 6	5.6 - 6	7.8 - 8

Collet number 4 in shell size 0 and collet number 6 in shell size 1 are not used.

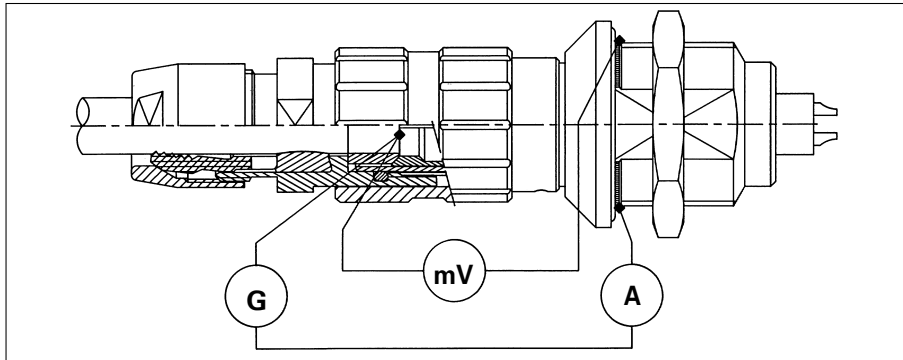
### • Glands selection to accommodate cable diameters



Cable gland Ø A	Cable diameter			
	Shell size 0	Size 0, option G	Shell size 1	Size 1, option G
2	1.5 - 2.9			
3.5	3 - 4.5			
2.5			2 - 3.4	-
4		4.6 - 4.9	3.5 - 4.9	-
5.5		5 - 6	5 - 6	6.1 - 6.4
7				6.5 - 8

### • Shielding

Tested according to MIL-STD 1344 A, method 3007



Shell size	Electrical continuity (m?)
0	4
1	3

### • Coupling torques

Size	Advised torque* in Nm			
	0	0 (option G)	1	1 (option G)
	1.6	/	1.8	/
1	1.5	2	2	2.5
2	0.8	0.8	1	1

Tools (jaw dimensions)	14 x 1		16 x 1	
	0	0 (option G)	1	1 (option G)
	17		19	
1	8	10		13
2	10	11	12	14

Torque values are the maximum allowable for each connector size. Torque values will vary due to the type and size of the cable used.

\*Apply thread lock to back nut prior to assembly.

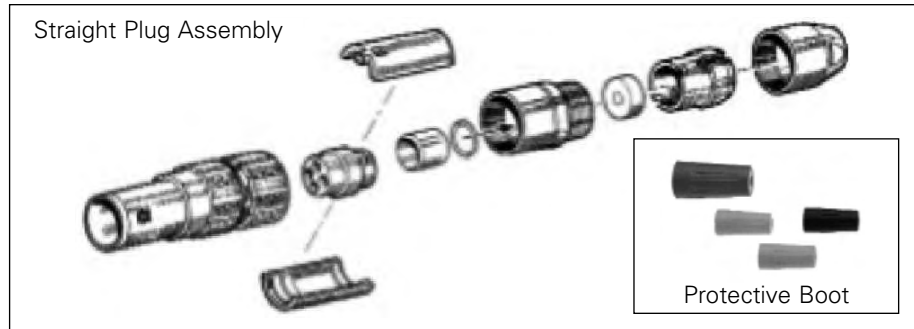
Tool numbers can be found on page 228.



# JKX Plug Assembly Instructions

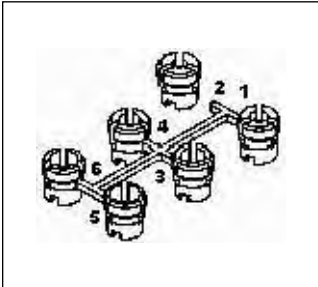


1. Determine what size cable you will be using. Then select the proper collet number for that cable.



## • Collets selection according to cable diameter

3 or 5 collets per shell size allow a wide range of cable diameters for a single connector. Cable out diameters are for information only, since values will change with each cable construction.

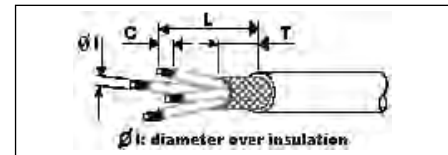


Collet Number	Cable Diameter			
	Shell Size 0	Size 0, Option G	Shell Size 1	Size 1, Option G
1	1.5 - 2.5	—	2 - 2.5	—
2	2.6 - 3.5	—	2.6 - 3.5	—
3	3.6 - 4.5	—	3.6 - 4.5	6.1 - 6.7
4	—	4.6 - 5.5	4.6 - 5.5	6.8 - 7.7
5	—	5.6 - 6	5.6 - 6	7.8 - 8

Collet number 4 in shell size 0 and collet number 6 in shell size 1 are not used

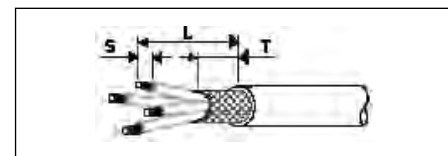
2. Strip the cable and each wire to the required strip length.

## • Cable stripping for connectors with crimp contacts



Shell Size	ø Contacts	ø I	Stripping for FD/PC		
			L	C	T
0	0.7	≤1.35	15	4	7
		>1.35		5.5	
0	0.9	≤1.6	15	4	7
		>1.6		5.5	
1	0.7	≤1.35	17	4	8
		>1.35		5.5	
	0.9	≤1.6	17	4	8
		>1.6		5.5	
	1.3	≤2.1	17	4	8
		>2.1		5.5	

## • Cable stripping for connectors with solder contacts

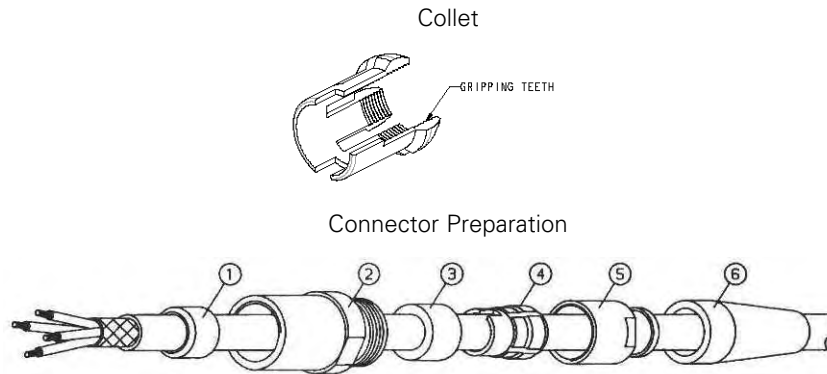


Shell Size	ø Contacts	Stripping for FD/PC		
		L	S	T
0	0.5	11	2	7
	0.7	12	3	7
	0.9	12	3	7
1	0.5	13	2	8
	0.7	14	3	8
	0.9	14	3	8
	1.3	14	3.5	8

# JKX Plug Assembly Instructions





3. When assembling a plug with a protective boot, prep the cable by taking the protective boot (#6) and sliding it with the small inside diameter first onto the cable. Then slide the small diameter end of the back nut (#5) onto the cable. Next, take the collet (#4) and slide the end with the gripping teeth (See below) first onto the cable. Then take a cable gland (#3) and slide it onto the cable. Once the cable gland is in place take an outer shell (#2) and slide it onto the cable with the outside threads going onto the cable first. Then take the flat end of a taper seat (#1) and slide that onto the cable so that the chamfer side is pointing outward.



4. Attach removable contacts to wires:  
 a. If using crimped contacts, crimp the contacts onto the ends of the exposed wires using the proper crimping tool set on the correct AWG wire size. After the contact has been crimped to the wire, check each contact to insure that the contact is securely crimped to the wire.

## Crimping Tool

Specifications MIL-C-22520 / 7.01			
	Contacts 0.7 mm - 0.9 mm and 1.3 mm	MIL P/N - Souriau P/N	Supplier P/N
		MIL-22520/7-01	Daniels: MH860 Buchanan: 616 336
Specifications MIL-C-22520 / 1.01			
	Contacts 1.6 mm and 2 mm	MIL P/N - Souriau P/N	Supplier P/N
		MIL-22520/1-01	Daniels: AF8 Buchanan: 615 708

# JKX Plug Assembly Instructions



Locator Pin and Socket .07-.09 mm and 1.3 mm contacts



Shell Size	ø Contacts	AWG	Male Contact			Female Contact		
			Souriau P/N	Daniels P/N	Astro P/N	Souriau P/N	Daniels P/N	Astro P/N
0	0.7	22 - 24 - 26	JBX 0 OUT LP07	86 - 223	/	JBX 0 OUT LP07	86 - 224	/
	0.9	20 - 22 - 24	JBX 0 OUT LP09	86 - 225	/	JBX 0 OUT LP09	86 - 226	/
1	0.7	22 - 24 - 26	JBX 1 OUT LP07	86 - 196	642 - 001	JBX 1 OUT LP07	86 - 197	642 - 004
	0.9	20 - 22 - 24	JBX 1 OUT LP09	86 - 198	642 - 002	JBX 1 OUT LP09	86 - 199	642 - 005
	1.3	18 - 20 - 22	JBX 1 OUT LP13	86 - 200	642 - 003	JBX 1 OUT LP13	86 - 201	642 - 006
2	0.7	22 - 24 - 26	JBX 2 OUT LP07	86 - 202	642 - 007	JBX 2 OUT LP07	86 - 203	642 - 010
	0.9	20 - 22 - 24	JBX 2 OUT LP09	86 - 204	642 - 008	JBX 2 OUT LP09	86 - 205	642 - 011
	1.3	18 - 20 - 22	JBX 2 OUT LP13	86 - 206	642 - 009	JBX 2 OUT LP13	86 - 207	642 - 012
3	0.7	22 - 24 - 26	JBX 3 OUT LP07	86 - 217	642 - 014	JBX 3 OUT LP07	86 - 214	642 - 017
	0.9	20 - 22 - 24	JBX 3 OUT LP09	86 - 218	642 - 015	JBX 3 OUT LP09	86 - 215	642 - 018
	1.3	18 - 20 - 22	JBX 3 OUT LP13	86 - 219	642 - 016	JBX 3 OUT LP13	86 - 216	642 - 019

Turret with locator for pin and socket 1.6 mm and 2 mm contacts



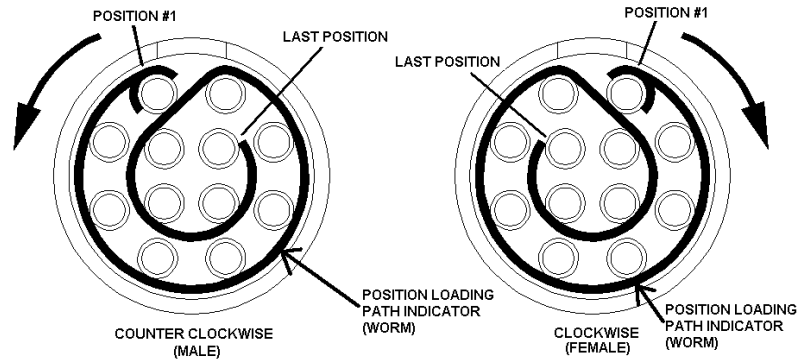
Shell Size	ø Contacts	AWG	Male and Female Contacts		
			Souriau P/N	Daniels P/N	Astro P/N
2	1.6	14 - 16 - 18	JBX 2 OUT LT16	TH 564	650 - 030
	2	12 - 14 - 16	JBX 2 OUT LT20	TH 565	650 - 031
3	1.6	14 - 16 - 18	JBX 3 OUT LT16	TH 566	650 - 038
	2	12 - 14 - 16	JBX 3 OUT LT20	TH 567	650 - 035

b. If using soldered contacts, prep each wire with flux and then tin dip each exposed wire end. Next pre-load a piece of heat shrink onto the wire (Individual heat shrink tubes are optional). Solder each wire to the solder cup end of the contact. To avoid shorts, make sure that no solder comes in contact with any other contact or wire on the connector. After the contact has been soldered to the wire, check each contact to insure that the contact is securely soldered to the wire. Slide the pre-loaded heat shrink over the solder joint and shrink into place. Do not over-heat the solder joint area as it can cause the solder to re-flow or it could burn the wire insulation.

5. If inserting removable contacts:

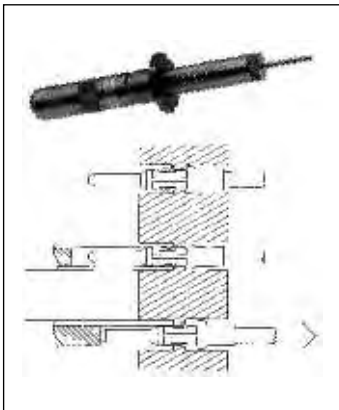
- a. Starting with the interface end of the contact, carefully insert each contact into the backside of the insulator that has the position loading path indicator (worm) on it. Start with the end of the position loading path indicator (worm) that has the half circle on it (Position #1). Then follow the position loading path indicator (worm) around the insulator. You will go counter clockwise if using a male contact and clockwise if using a female contact (see diagram below for the position loading path indicator (worm) layout). If the connector has center contacts, it is sometimes easier to start at the end of the position loading path indicator (worm) (last position) and work backwards. This is up to the assembler and the process they are using to insert the contacts. Make sure not to bend the contact when inserting it into the insulator. It is extremely important that the contact is completely seated in to the insulator. For the connector to function properly, the contact should click/snap into place when seated. To confirm the seating of the contact, check each contact for proper seating.

# JKX Plug Assembly Instructions



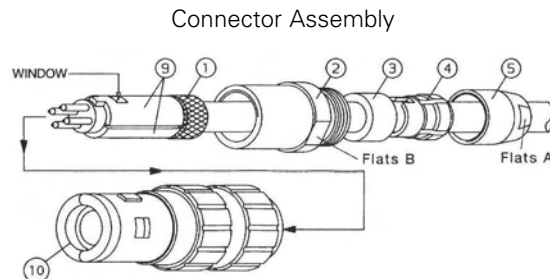
## 6. Removal of Contacts:

- a. Using the proper extraction tool insert the tool over the front of the contact and push contact out. Failure to use the proper extraction tool can result in damage to the contact.



Shell Size	ø Contacts	Souriau Part Number	Astro Part Number
0	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
1	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
2	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
	1.6	JBX OUT DC 16	ATJP 2095
	2.0	JBX OUT DC 20	ATJP 2115
3	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
	1.6	JBX OUT DC 16	ATJP 2095
	2.0	JBX OUT DC 20	ATJP 2115

7. Take the keyed half bushing (#9) and place it over the insulator so that the window is lined up with the key on the insulator and the key on the half bushing is pointing to the interface end of the insulator (interface end of connector). Then take the half bushing without the window (#9) and place on the opposite side of the insulator so that both half bushings are aligned with each other.

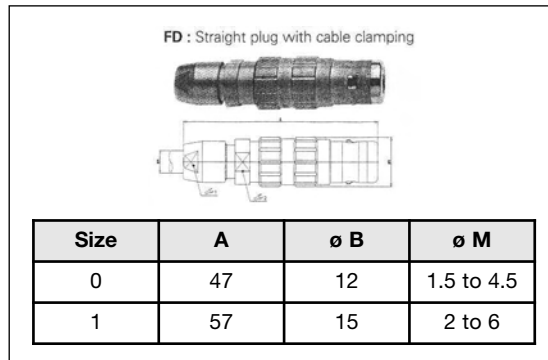


8. Take the contact assembly that is mounted on the cable and using the red dot as a reference, align the slot on the inside of the connector (#10) with the keys on the end of the half bushings (you may need to spin the assembly slightly). Insure that the keys are seated properly by turning the insulator and contact assembly. If the assembly does not turn, then the keys are correctly aligned. If the assembly does turn, then you must withdraw the assembly & realign the keys.

# JKX Plug Assembly Instructions



- Then push the preloaded taper seat (if a shielded cable is being used, comb out the shielding and fold back over the taperseat) and outer shell into the connector housing and thread the outer shell into the housing until it is hand tight and you can feel the o-ring being compressed.
- Once the outer shell is installed onto the connector housing, apply thread lock to thread area. Then slide the cable glade (#3) collet (#4) and back nut (#5) up until you can manually start the back nut threads onto the threaded end of the connector housing. Tighten the back nut up as far as you can by hand, then take the appropriate wrenches and place the wrenches onto the "A" & "B" flats located on the connector housing. Do not over torque back nut as it can cause connector failure. (See torque requirements listed below)



## Coupling Torques

Advised torque* in Nm					Tools (jaw dimensions)		14 x 1		16 x 1	
Size	0	0 (Option G)	1	1 (Option G)	Size	0	0 (Option G)	1	1 (Option G)	
	1.6	/	1.8	/		17		19		
	1.5	2	2	2.5		8	10		13	
	0.8	0.8	1	1		10	11	12	14	

- If the connector requires a protective boot, slide the boot over the lip on the back nut.

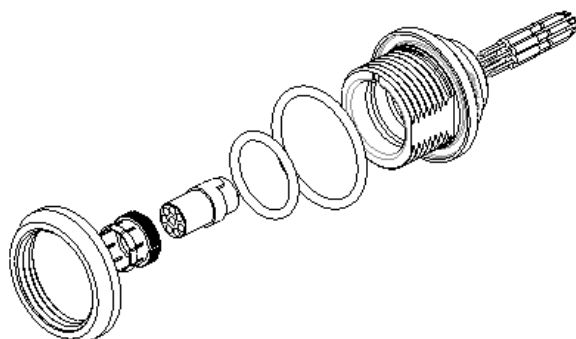
# JKX Plug Assembly Instructions



## Trouble shooting

<b>Problem:</b>	<b>Cause:</b>	<b>Correction:</b>
Contact will not seat in connector, contact backing out.	Wrong wire or insulation size, wrong strip length, poor crimping, broken clips, damaged insulator, removed contact without proper removal tool, bad crimp.	Use correct wire, adjust strip length, strip and re-crimp with new contact, replace insulator, using wrong crimp tool, replace contact.
Bent solder contact	Bent in handling, bent in soldering operation, connector assembled incorrectly.	Replace with new insert and/or contacts.
	Pins and insulator were inserted into electrical test while unprotected by shell	
Connector will not release from mating part or operate correctly	Not using flats on latching sleeve and back nut to torque connector, improper assembly of the connector, over mold material inside connector.	Release back nut and re-torque, disassemble and reassemble, replace connector.
Over tightened the back nut.	Connector will not release from mating part or operate correctly, damage connector.	Loosen back nut and retighten.
Collet will not grip cable.	Loose cable in connector.	Check correct collet size is being used.
Connector will not assemble.	Incorrect alignment of key in connector, half bushings, connector housing, insulator, collet, braid in key slots in collet.	Disassemble connector and reassemble connector-aligning keys, relocate braid in collet.
Contact stubbing after mating.	Bent contact and damaged contact, connector-assembled incorrectly.	Re-align contact, replace insert with contacts.
Electrical failure.	Improper crimping, wrong wire strip length, wire loading incorrect location, poor solder joint.	Remove contact with correct removal tool, re-install new contact, and verify strip length.
Leakage of Seals	Over torque of nut	Disassemble connector and inspect seals

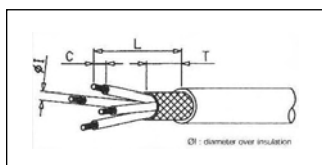
# JKX Receptacle Assembly Instructions



1. Select the proper JKX receptacle and contact size for the specific cable application by using the contact layout chart as depicted in the Push Pull catalog.
2. Strip the cable/wire to the required strip length.

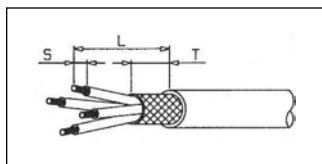
## Wiring and Assembly Instructions

### • Cable stripping for connectors with crimp contacts



Shell Size	ø Contacts	ø I	Stripping for FD/PC		
			L	C	T
0	0.7	≤1.35	15	4	7
		>1.35		5.5	
0	0.9	≤1.6	15	4	7
		>1.6		5.5	
1	0.7	≤1.35	17	4	8
		>1.35		5.5	
1	0.9	≤1.6	17	4	8
		>1.6		5.5	
1	1.3	≤2.1	17	4	8
		>2.1		5.5	

### • Cable stripping for connectors with solder contacts



Shell Size	ø Contacts	Stripping for FD/PC		
		L	S	T
0	0.5	11	2	7
	0.7	12	3	7
	0.9	12	3	7
1	0.5	13	2	8
	0.7	14	3	8
	0.9	14	3	8
	1.3	14	3.5	8



3. Depending on application and shell type, the nut and washer may be removed before attaching the wires to the contacts.
4. Attach crimped contacts to wires:
  - a. If using crimped contacts, crimp the contacts onto the ends of the exposed wires using the proper crimping tool and locator set on the correct AWG wire size. After the contact has been crimped to the wire, check each contact to insure that the contact is securely crimped.



# JKX Receptacle Assembly Instructions



## Crimping Tool

Specifications MIL-C-22520 / 7.01			
	Contacts 0.7 mm - 0.9 mm and 1.3 mm	MIL P/N - Souriau P/N	Supplier P/N
		MIL-22520/7-01	Daniels: MH860 Buchanan: 616 336
Specifications MIL-C-22520 / 1.01			
	Contacts 1.6 mm and 2 mm	MIL P/N - Souriau P/N	Supplier P/N
		MIL-22520/1-01	Daniels: AF8 Buchanan: 615 708

Locator Pin and Socket .07-.09 mm and 1.3 mm contacts



Shell Size	ø Contacts	AWG	Male Contact			Female Contact		
			Souriau P/N	Daniels P/N	Astro P/N	Souriau P/N	Daniels P/N	Astro P/N
0	0.7	22 - 24 - 26	JBX 0 OUT LP07	86 - 223	/	JBX 0 OUT LP07	86 - 224	/
	0.9	20 - 22 - 24	JBX 0 OUT LP09	86 - 225	/	JBX 0 OUT LP09	86 - 226	/
1	0.7	22 - 24 - 26	JBX 1 OUT LP07	86 - 196	642 - 001	JBX 1 OUT LP07	86 - 197	642 - 004
	0.9	20 - 22 - 24	JBX 1 OUT LP09	86 - 198	642 - 002	JBX 1 OUT LP09	86 - 199	642 - 005
	1.3	18 - 20 - 22	JBX 1 OUT LP13	86 - 200	642 - 003	JBX 1 OUT LP13	86 - 201	642 - 006
2	0.7	22 - 24 - 26	JBX 2 OUT LP07	86 - 202	642 - 007	JBX 2 OUT LP07	86 - 203	642 - 010
	0.9	20 - 22 - 24	JBX 2 OUT LP09	86 - 204	642 - 008	JBX 2 OUT LP09	86 - 205	642 - 011
	1.3	18 - 20 - 22	JBX 2 OUT LP13	86 - 206	642 - 009	JBX 2 OUT LP13	86 - 207	642 - 012
3	0.7	22 - 24 - 26	JBX 3 OUT LP07	86 - 217	642 - 014	JBX 3 OUT LP07	86 - 214	642 - 017
	0.9	20 - 22 - 24	JBX 3 OUT LP09	86 - 218	642 - 015	JBX 3 OUT LP09	86 - 215	642 - 018
	1.3	18 - 20 - 22	JBX 3 OUT LP13	86 - 219	642 - 016	JBX 3 OUT LP13	86 - 216	642 - 019

Turret with locator for pin and socket 1.6 mm and 2 mm contacts



Shell Size	ø Contacts	AWG	Male and Female Contacts		
			Souriau P/N	Daniels P/N	Astro P/N
2	1.6	14 - 16 - 18	JBX 2 OUT LT16	TH 564	650 - 030
	2	12 - 14 - 16	JBX 2 OUT LT20	TH 565	650 - 031
3	1.6	14 - 16 - 18	JBX 3 OUT LT16	TH 566	650 - 038
	2	12 - 14 - 16	JBX 3 OUT LT20	TH 567	650 - 035

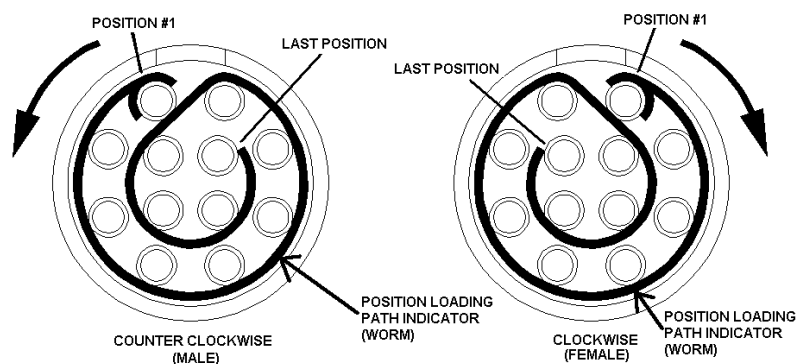
- b. If using clipped solder contacts, prep each wire with flux and then tin dip each exposed wire end. Next pre-load a piece of heat shrink onto the wire (Individual heat shrink tubes are optional). Solder each wire to the solder cup end of the contact. To avoid shorts, make sure that no solder comes in contact with any other contact or wire on the connector. After the contact has been soldered to the wire, check each contact to insure that the contact is securely soldered to the wire. Slide the pre-loaded heat shrink over the solder joint and shrink into place. Do not over-heat the solder joint area as it can cause the solder to re-flow or it could burn the wire insulation.

# JKX Receptacle Assembly Instructions



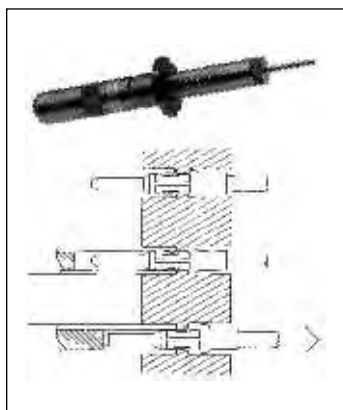
## 5. If inserting terminated contacts:

- a. Starting with the interface end of the contact, insert each contact into the backside of the insulator that has the position loading path indicator (worm) on it. Start with the end of the position loading path indicator (worm) that has the half circle on it (Position #1). Then follow the position loading path indicator (worm) around the insulator. You will go counter clockwise if using a male contact and clockwise if using a female contact (see diagram below for the position loading path indicator (worm) layout). If the connector has center contacts, it is sometimes easier to start at the end of the position loading path indicator (worm) (last position) and work backwards. This is up to the assembler and the process used to insert the contacts. Make sure not to bend the contact when inserting it into the insulator. It is extremely important that the contact is seated in the insulator for the connector to function properly. The contact should click/snap into place when seated. Check each contact for proper seating.



## 6. Removal of contacts:

- a. Using the proper extraction tool (See FIGURE 6.A), insert the tool over the front of the contact and push contact out. Failure to use the proper extraction tool can result in damage to the contact.



Shell Size	ø Contacts	Souriau Part Number	Astro Part Number
0	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
1	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
2	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
	1.6	JBX OUT DC 16	ATJP 2095
	2.0	JBX OUT DC 20	ATJP 2115
3	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
	1.6	JBX OUT DC 16	ATJP 2095
	2.0	JBX OUT DC 20	ATJP 2115

# JKX Receptacle Assembly Instructions



## **Trouble shooting**

<b>Problem:</b>	<b>Cause:</b>	<b>Correction:</b>
Contact will not seat in connector, contact backing out.	Wrong wire or insulation size, wrong strip length, poor crimping, broken clips, damaged insulator, removed contact without proper removal tool, bad crimp.	Use correct wire, adjust strip length, strip and re-crimp with new contact, replace insulator, using correct crimp tool, replace contact.
Bent solder contact	Bent in handling, bent in soldering operation, connector assembled incorrectly.	Replace insert with contacts.
Contact stubbing after mating.	Bent contact and damaged contact, connector-assembled incorrectly.	Re-align contact, replace insert with contacts.
Electrical failure.	Improper crimping, wrong wire strip length, wire loading incorrect location, poor solder joint.	Remove contact with correct removal tool, re-install new contact, and verify strip length.

# Push Pull Connectors sealed version size 2



## Key features

- Sealed IP 67 (mated connectors)
- Mechanically keyed : ensure correct polarisation and alignment.
- Contact arrangements : from 2 to 19 contacts.
- Wire gauge range from 26 AWG to 12 AWG.
- High contact density in a small space.
- Contact termination in either crimp, solder, or PCB contacts.



## User advantages

### Wet environment

Splash proof IP 67



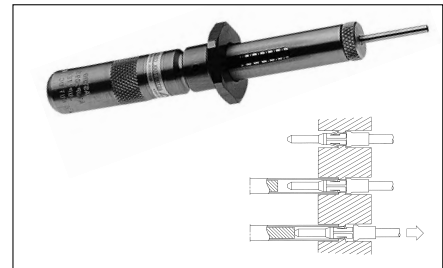
### 6-collet cluster

Allows a wide range of cable diameter applications for a single connector.



### Removable contacts

Crimp versions allow easier wiring and maintenance.



## Part number system

Basic series	<b>JBX FE 2 G 12 M C S D S R</b>
Shell type	<b>FE-EC-PE-SE</b>
Shell size	<b>2</b>
Keying	<b>G</b>
Contact layouts	<b>02 ----- 19</b>
Contact type	<b>M</b> : pin <b>F</b> : socket (in relation with keying)
Contact termination	<b>C</b> : crimp ; <b>S</b> : solder ; <b>P*</b> : straight PCB tails ; <b>Q*</b> : 90° PCB tails
Material & surface plating	<b>S</b> : Outer shell in brass alloy with chrome over nickel <b>N</b> : Outer shell in brass alloy with black plating (consult Souriau US) <b>D</b> : Obligatory suffix <b>S</b> : Obligatory suffix
Option	<b>R</b> : Red dot (possible for FE, PE, HH, HHE only)

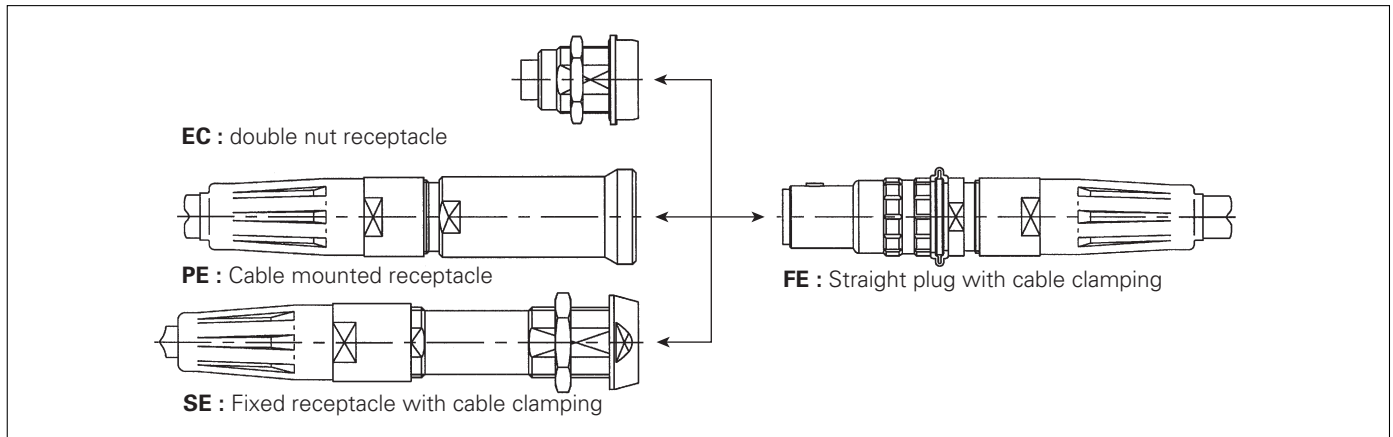
\* For receptacles with female contacts only.

# Push Pull Connectors sealed version size 2

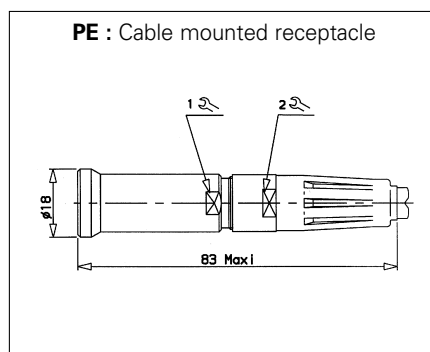
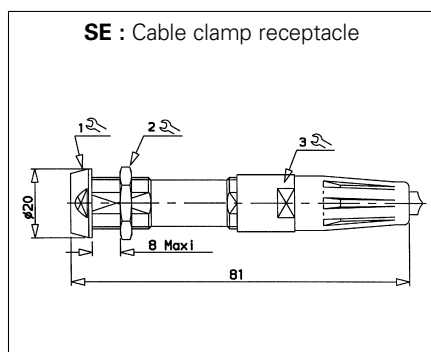
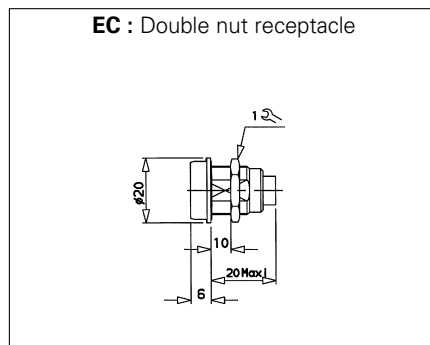
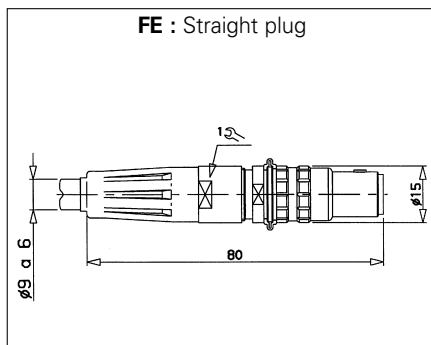


## Shell type

- Available sealed JBX, Size 2



## • Dimensions



**Note 1 :** For the plug, the cable clamp receptacle and the free receptacle, a black protective boot is included in the P/N.

# Push Pull Connectors sealed version size 2



## Keying

Only G keying is available in standard version (0° keying angle, plugs with pin contacts, receptacles with female contacts) for the different types of shells.

## Contact layouts

### • Multi contact inserts

Shell size	Male insulator viewed from wiring side	Contact layout	Available Contact types				Ø Contact	AWG		Max. current rating (A)	Testing voltage (Vrms)	Working voltage (Vdc / Vrms)
			S solder	C crimp	P* straight PCB tails	Q* 90° PCB tails		Solder wire Max.	Crimp wire Max.			
2		02	S	C			2	16	12	30	2100	1000/700
		03	S	C			1.6	18	14	17	1700	830/560
		04	S	C			1.3	20	18	15	2400	1000/800
		05	S	C			1.3	20	18	14	1900	900/630
		06	S	C			1.3	20	18	12	1900	900/630
		07	S	C			1.3	20	18	11	1500	730/500
		08	S	C	P	Q	0.9	24	20	10	1700	830/560
		10	S	C	P	Q	0.9	24	20	8	1700	830/560
		12	S	C	P	Q	0.7	26	22	7	1700	830/560
		16	S	C	P	Q	0.7	26	22	6	1500	730/500
		18	S	C	P		0.7	26	22	5.5	1400	660/460
		19	S	C	P		0.7	26	22	5	1400	660/460

Inserts with fixed non removable contacts  
\* For EC receptacles with female contacts.

# Push Pull Connectors sealed version size 2



## Technical characteristics

The technical characteristics are the same as for the standard JBX series except the following ones:

### • Material - Specific additional elements

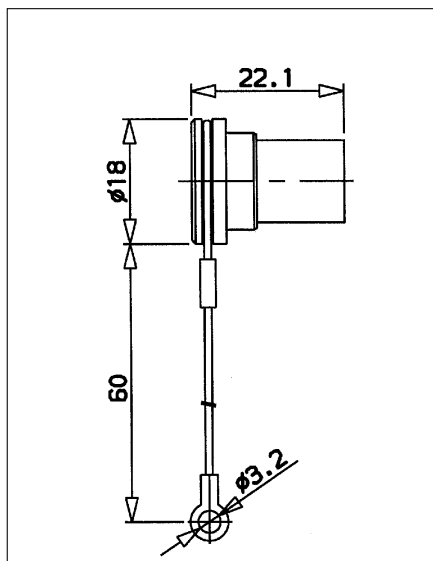
Component	Material	Color	Working temperature	
Seals	Nitrile & Silicon rubber	O'ring = black plug seal = black	- 40°C ; + 250°C	- 58°F ; + 482°F
Protective boot	Elastollan (PUR)	Black	- 40°C ; + 80°C	- 40°F ; + 176°F

### • Mechanical and climatics - Specific additional elements

Characteristics	Values	
Protection index	IP 67 (Splashproof - 1/2 hour under 1 m of water)	
Operating temperature	- 40°C ; + 80°C	- 40°F ; + 176°F

## Options

- **Cap: Part-number = JBX BR2 022** : an efficient protection against water



## Wiring and assembly instructions

### • Panel cutout

The panel cutout is the same as for the JBX size 2 shells except for the HC (or HCE) type for which it corresponds to the JBX size 3 shells.

- **Range of cable diameter:** from 6 to 9 mm
- **Operation to add during the plug assembly:**

Deposit of watertight thread glue between the backnut (② on the drawing p17) and the connection shell († on the drawing p17).  
Advised glue = Loctite 542.



# Sealed Breakaway Connector



## Souriau JDX Breakaway Connectors



### Key Features

**Breakaway design eliminates the need for a manually operated latching system**

**Mates and un-mates quickly and prevents injury to the user or equipment if the cable becomes entangled.**

**Sealed to IP68.  
Two shell sizes, 2 to 19 positions.  
Contact termination solder & PCB.  
Custom cable assemblies.**

## Part Numbering System

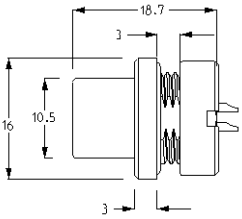
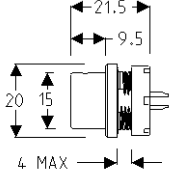
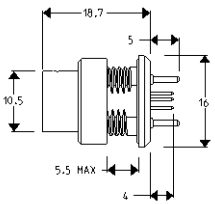
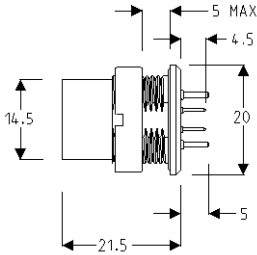
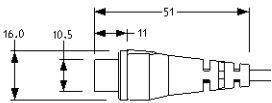
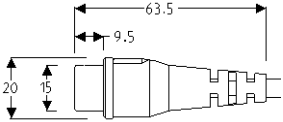
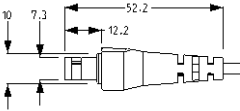
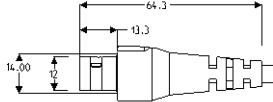
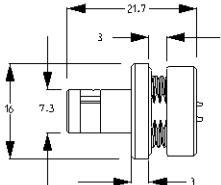
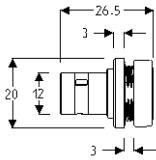
Basic Series	<b>JDX</b>	<b>FD</b>	<b>2</b>	<b>T</b>	<b>05</b>	<b>M</b>	<b>S</b>	<b>N</b>	<b>R</b>
Shell Type	<b>FD-EP-EZ-PC</b>								
Shell Size	<b>0 - 2</b>								
Keying	<b>T &amp; U</b>								
Contact Layout	<b>Size 0; 2, 3, 4, 5, 6, 7, 8</b> <b>Size 2; 2, 3, 4, 5, 6, 7, 8, 10, 12, 16, 18, 19</b>								
Contact Type	<b>M</b> : pin <b>F</b> : socket								
Contact Termination	<b>S</b> : solder ; <b>P</b> : PCB								
Surface Plating	<b>N</b> : Outer shell, brass alloy with black chrome over nickel <b>S</b> : Outer shell, brass alloy with chrome over nickel								
Orientation	Red dot								

FD & PC are only sold as part of a cable assembly.  
Contact Souriau for information on custom cable assemblies.

# Sealed Breakaway Connector



## JDX Shell Styles

Size 0	Size 2
<b>EP: Fixed receptacle front panel mounted, fixed flange</b>	<b>EP: Fixed receptacle front panel mounted, fixed flange</b>
	
<b>EZ: Straight PCB mounted receptacle</b>	<b>EZ: Straight PCB mounted receptacle</b>
	
<b>PC: Straight cable mounted receptacle</b>	<b>PC: Straight cable mounted receptacle</b>
	
<b>FD: Straight cable mounted plug</b>	<b>FD: Straight cable mounted plug</b>
	
<b>FA: Front panel mounted plug</b>	<b>FA: Front panel mounted plug</b>
	

# Sealed Breakaway Connector



## Contact Layouts

Shell Size	Male Insulator Viewed From Wire Side	Contact Layout	Solder	PCB	Contact Diameter mm	Solder Wire MAX	MAX Current Rating	Test Voltage (Vrms)	Working Voltage (Vrms)
0		02	S	P	0.9	24	10	1400	660/460
		03	S	P	0.9	24	8	1300	600/420
		04	S	P	0.7	26	7	1400	660/460
		05	S	P	0.7	26	6.5	800	400/260
		06	S	P	0.5	30	2.5	680	320/220
		07	S	P	0.5	30	2.5	680	320/220
		08	S	P	0.5	30	2.5	680	320/220
2		02	S		2	16	30	2100	1000/700
		03	S		1.6	18	17	1700	830/560
		04	S	P	1.3	20	15	2400	1000/800
		05	S	P	1.3	20	14	1900	900/630
		06	S	P	1.3	20	12	1900	900/630
		07	S	P	1.3	20	11	1500	730/500
		08	S	P	0.9	24	10	1700	830/560
		10	S	P	0.9	24	8	1700	830/560
		12	S	P	0.7	26	7	1700	830/561
		16	S	P	0.7	26	6	1500	730/500
		18	S	P	0.7	26	5.5	1400	660/460
		19	S	P	0.7	26	5	1400	660/460

Non-removable contacts

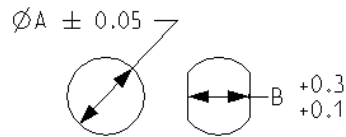
### • Voltage Test Procedure

- **The testing voltage** corresponds to the maximum voltage the connector is able to withstand in normal climatic conditions. The value is about 75% of the electrical breakdown voltage. The testing voltage level can be reached several times in connectors life, but never applied for a continuous duration.
- **The working voltage** corresponds to the maximum voltage the connector is able to withstand continuously during its life time, in real environmental conditions, even with high temperature. The value is around 1/3 of the testing voltage.

Keying Options	
Size 0	Size 2
T & U	T & U

Key	T	U
Plug & Receptacles		

# Sealed Breakaway Connector



Size	0	2
A	12.1	15
B	10.6	14.6

## Technical Characteristics

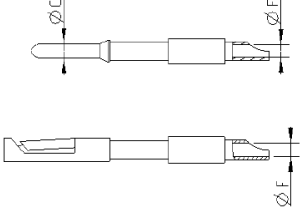
Component	Material	Standard	Surface Treatment (um)		
			Cr	Ni	Au
Shell	Brass	C38500/C3600	0.1 - 0.6	5 - 8	
Shell	Aluminum, Contact Souriau for Availability & Part Number	AISI 7075-T6	0.1 - 0.6	5 - 8	
Nut	Brass	C38500/C3600	0.1 - 0.6	5 - 8	
Nut	Aluminum, Contact Souriau for Availability & Part Number	AISI 7075-T6	0.1 - 0.6	5 - 8	
Pin Contact	Brass	C38500/C3600		3 - 5	0.5
Socket Contact	Copper Nickel	CAD C 19150		3 - 5	0.5
Clip	Beryllium Copper	17200			
Shielding Ring	Copper Alloy (Proprietary)	—		3 - 7	

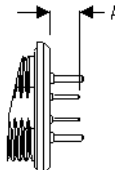
## Mechanical, Climatic & Electrical

Characteristics	Values	Standard	Method
Endurance	>2,500 cycles	Mil-Std-1344A	2016.1
Insulation resistance	>500M ohm	ANSI-EIA-364-D	21
EMI Shielding	(60dB min. up to 100MHz) (35dB min. up to 1GHz)	ANSI-EIA-364-D	66
Thermal Shock	- 40 C to + 125 c 5 cycles	ANSI-EIA-364-D	32
Mechanical Shock	300 g, 3ms	ANSI-EIA-364-D	27
Vibrations	10 to 2000 HZ y = 15 g	Mil-Std-1344A	2005.1
Random Vibrations		ANSI-EIA-364-D	28, test concision 4
Altitude Immersion	3 cycles (3*30min),		3
Humidity	240 hours @ 40 C 90%RH	ANSI-EIA-364-D	31
Resistance to Fluids	Kerosene JP8 (NATO code F34) Gasoline ASTM D 4814* Mineral oil NATO code H515	ANSI-EIA-364-D	10
Protection index	IP68 mated & un-mated	IEC 529	14.2.8
Operating temperature	- 40 C to + 125 c 5 cycles		

# Sealed Breakaway Connector



Solder Contacts2								
	Contact		Usable Cables Core Section (mm) AWG			Max Current Rating (A)	Contact Resistance (mΩ)	Endurance # of Cycles
	C	F	min	max	AWG			
	0.5	0.5	—	—	28	5	10	>1,000
	0.7	0.63	—	0.3	26	7	5	>1,000
	0.9	0.8	—	0.21	24	10	3.5	>1,000
	1.3	1.1	—	0.6	20	15	3	>1,000
	1.6	1.5	—	0.93	18	17	2.5	>1,000
	2	1.9	—	1.34	16	30	2.5	>1,000

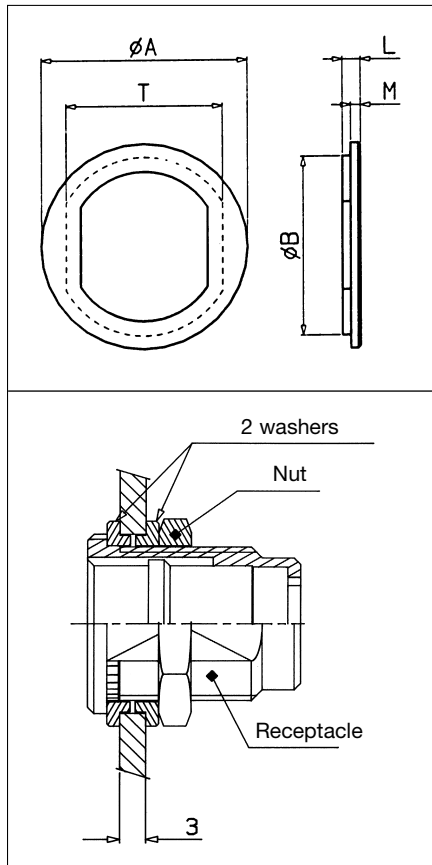
PCB Contacts		
	0.5 mm female PCB tail length size 0	Dimension "L" 4 mm
	0.7 mm female PCB tail length size 0	Dimension "L" 4 mm
	0.9 mm female PCB tail length size 0	Dimension "L" 4 mm
	0.7 mm female PCB tail length size 2	Dimension "L" 6.0 mm
	0.9 mm female PCB tail length size 2	Dimension "L" 6.0mm
	1.3 mm female PCB tail length size 2	Dimension "L" 6.0 mm

# Push-Pull connectors



## Accessories JBX

### • Insulating washer



Part number	Shell size	Ø A	B	L	M	N	T	E
JBX 00 RI <sup>*</sup>	00	10	8.8	1.8	1	0.8	8	4.4
JBX 0 RI <sup>*</sup>	0	12	10.8	1.8	1	0.8	9.9	6.4
JBX 1 RI <sup>*</sup>	1	16	13.8	1.8	1	0.8	12.2	8.4
JBX 2 RI <sup>*</sup>	2	21	17.8	2.2	1.2	0.8	16.2	8.2
JBX 3 RI <sup>*</sup>	3	25	21.8	2.2	1.2	0.8	20.2	10.1

\* Washer colors as protective boots.  
In size 00, available only in black.

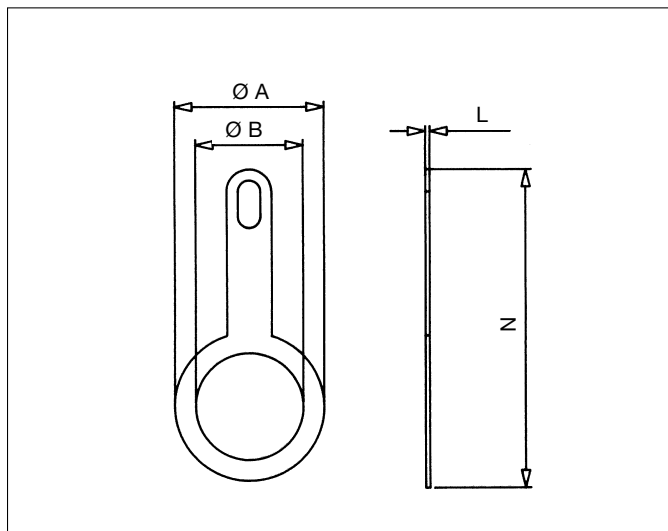
**Material :** PA 6/6

**Working temperature :** - 40°C ; + 125°C  
- 40°F ; + 257°F

Using 2 washers for receptacle / panel insulating

Be careful : usable for the JAX and JBX series but not for sealed connectors (JKX and sealed JBX size 2).

### • Grounding washer



Part number	Shell size	Dimensions			
		Ø A	Ø B	L	N
JAX RA 00 251	00	10	7.2	0.3	21.5
JAX RA 0 251	0	13	9.1	0.3	24
JAX RA 1 251	1	16	12.2	0.3	24
JAX RA 2 251	2	21	15.1	0.8	35
JAX RA 3 251	3	25	18.1	0.8	37

**Material :** - Brass  
- Nickel plated (3 µm)

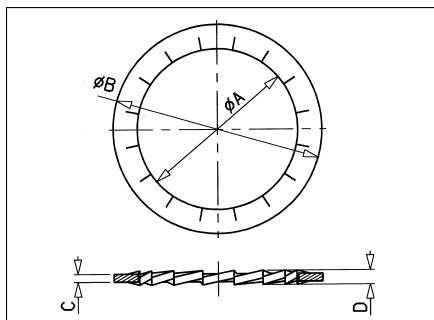
Be careful : usable for the JBX series but not for sealed connectors (JKX and sealed JBX size 2).



# Push-Pull connectors

## Accessories JBX

### • Locking washer



Part number	Shell size	Dimensions			
		$\phi A$	$\phi B$	C	D
JAX RE 00	00	7.3	10	0.5	1
JAX RE 0	0	9.2	12.5	0.6	1
JAX RE 1	1	12.2	16	0.6	1

## Piece parts JBX-JKX

### • Crimp contacts (if ordered separately)

Shell size	$\phi$ contact	Part Number	
		Crimp pin	Crimp socket
0	0.9	JBX 0 CT MC 09	JBX 0 CT FC 09
	0.7	JBX 0 CT MC 07	JBX 0 CT FC 07
1	1.3	JBX 1 CT MC 13	JBX 1 CT FC 13
	0.9	JBX 1 CT MC 09	JBX 1 CT FC 09
	0.7	JBX 1 CT MC 07	JBX 1 CT FC 07
2	2	JBX 2 CT MC 20	JBX 2 CT FC 20
	1.6	JBX 2 CT MC 16	JBX 2 CT FC 16
	1.3	JBX 2 CT MC 13	JBX 2 CT FC 13
	0.9	JBX 2 CT MC 09	JBX 2 CT FC 09
	0.7	JBX 2 CT MC 07	JBX 2 CT FC 07
3	2	JBX 3 CT MC 20	JBX 3 CT FC 20
	1.6	JBX 3 CT MC 16	JBX 3 CT FC 16
	1.3	JBX 3 CT MC 13	JBX 3 CT FC 13
	0.9	JBX 3 CT MC 09	JBX 3 CT FC 09
	0.7	JBX 3 CT MC 07	JBX 3 CT FC 07

### • Solder contacts (if ordered separately)

Shell size	$\phi$ contact	Part Number	
		Solder pin	Solder socket
0	0.9	JBX 0 CT MS 09	JBX 0 CT FS 09
1	1.3	JBX 1 CT MS 13	JBX 1 CT FS 13
	0.9	JBX 1 CT MS 09	JBX 1 CT FS 09
2	2	JBX 2 CT MS 20	JBX 2 CT FS 20
	1.6	JBX 2 CT MS 16	JBX 2 CT FS 16
	1.3	JBX 2 CT MS 13	JBX 2 CT FS 13
	0.9	JBX 2 CT MS 09	JBX 2 CT FS 09
3	2	JBX 3 CT MS 20	JBX 3 CT FS 20
	1.6	JBX 3 CT MS 16	JBX 3 CT FS 16
	1.3	JBX 3 CT MS 13	JBX 3 CT FS 13
	0.9	JBX 3 CT MS 09	JBX 3 CT FS 09

Solder contacts of 0.5 mm and 0.7 mm of diameter not available separately (always fixed into the insulator).



# Push-Pull connectors



## Piece parts JBX-JKX

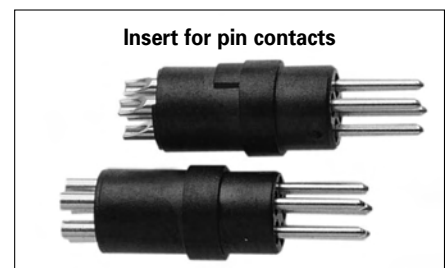
- Inserts for removable solder and crimp contacts (if ordered separately)

Shell size	Insert	Insert Part Number	
		Pin contacts	Socket contacts
0	02	JBX 0 BI 02 MS	JBX 0 BI 02 FS
	03	JBX 0 BI 03 MS	JBX 0 BI 03 FS
	04	JBX 0 BI 04 MS	JBX 0 BI 04 FS
	05	JBX 0 BI 05 MS	JBX 0 BI 05 FS
1	02	JBX 1 BI 02 MS	JBX 1 BI 02 FS
	03	JBX 1 BI 03 MS	JBX 1 BI 03 FS
	04	JBX 1 BI 04 MS	JBX 1 BI 04 FS
	05	JBX 1 BI 05 MS	JBX 1 BI 05 FS
	06	JBX 1 BI 06 MS	JBX 1 BI 06 FS
	07	JBX 1 BI 07 MS	JBX 1 BI 07 FS
2	02	JBX 2 BI 02 MS	JBX 2 BI 02 FS
	03	JBX 2 BI 03 MS	JBX 2 BI 03 FS
	04	JBX 2 BI 04 MS	JBX 2 BI 04 FS
	05	JBX 2 BI 05 MS	JBX 2 BI 05 FS
	06	JBX 2 BI 06 MS	JBX 2 BI 06 FS
	07	JBX 2 BI 07 MS	JBX 2 BI 07 FS
	08	JBX 2 BI 08 MS	JBX 2 BI 08 FS
	10	JBX 2 BI 10 MS	JBX 2 BI 10 FS
	12	JBX 2 BI 12 MS	JBX 2 BI 12 FS
	16	JBX 2 BI 16 MS	JBX 2 BI 16 FS
3	03	JBX 3 BI 03 MS	JBX 3 BI 03 FS
	04	JBX 3 BI 04 MS	JBX 3 BI 04 FS
	07	JBX 3 BI 07 MS	JBX 3 BI 07 FS
	10	JBX 3 BI 10 MS	JBX 3 BI 10 FS
	14	JBX 3 BI 14 MS	JBX 3 BI 14 FS
	18	JBX 3 BI 18 MS	JBX 3 BI 18 FS
	22	JBX 3 BI 22 MS	JBX 3 BI 22 FS
	30	JBX 3 BI 30 MS	JBX 3 BI 30 FS



- Inserts with fixed solder contacts (if ordered separately)

Shell size	Insert	Insert Part Number	
		Pin contacts	Socket contacts
00	04	JBX 00 BI 04 MPS	JBX 00 BI 04 FPS
0	04	JBX 0 BI 04 MSS	JBX 0 BI 04 FSS
	05	JBX 0 BI 05 MSS	JBX 0 BI 05 FSS
	06	JBX 0 BI 06 MPS	JBX 0 BI 06 FPS
1	07	JBX 0 BI 07 MPS	JBX 0 BI 07 FPS
	07	JBX 1 BI 07 MSS	JBX 1 BI 07 FSS
	08	JBX 1 BI 08 MSS	JBX 1 BI 08 FSS
2	10	JBX 1 BI 10 MPS	JBX 1 BI 10 FPS
	12	JBX 2 BI 12 MSS	JBX 2 BI 12 FSS
	16	JBX 2 BI 16 MSS	JBX 2 BI 16 FSS
	18	JBX 2 BI 18 MSS	JBX 2 BI 18 FSS
	19	JBX 2 BI 19 MSS	JBX 2 BI 19 FSS
3	22	JBX 3 BI 22 MSS	JBX 3 BI 22 FSS
	30	JBX 3 BI 30 MSS	JBX 3 BI 30 FSS



# Push-Pull connectors

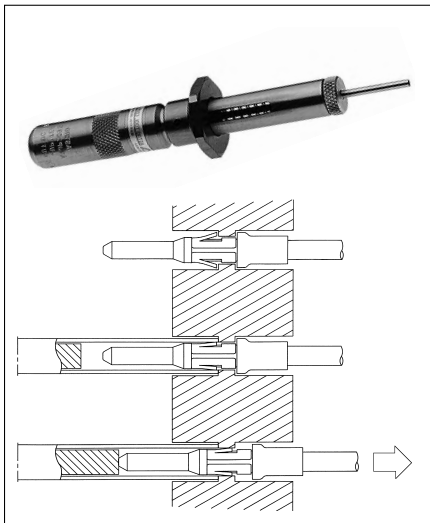


## Toolings JBX - JKX

### • Manual extraction tools

### Contacts automatically extracted

The extraction tool is similar for both male and female contacts.



Shell size	∅ Contacts	SOURIAU Part number	ASTRO Part number
0	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
1	0.7	JBX OUT DC 07	ATJP2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
2	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
	1.6	JBX OUT DC 16	ATJP 2095
	2.0	JBX OUT DC 20	ATJP 2115
3	0.7	JBX OUT DC 07	ATJP 2045
	0.9	JBX OUT DC 09	ATJP 2057
	1.3	JBX OUT DC 13	ATJP 2077
	1.6	JBX OUT DC 16	ATJP 2095
	2.0	JBX OUT DC 20	ATJP 2115

The contact is automatically extracted without the need of pulling onto the cable.

# Push-Pull connectors



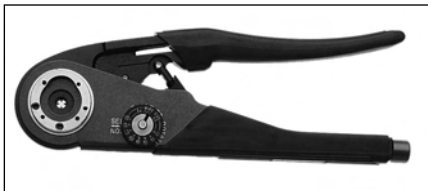
## Toolings JBX - JKX

### • Crimping tool



#### Specifications MIL-C-22520 / 7.01

Contacts 0.7 mm - 0.9 mm and 1.3 mm	MIL P/N - SOURIAU P/N	Supplier P/N
	MIL-22520/7-01	Daniels : MH860 Buchanan : 616 336



#### Specifications MIL-C-22520 / 1.01

Contacts 1.6 mm and 2 mm	MIL P/N - SOURIAU P/N	Supplier P/N
	MIL-22520/1-01	Daniels : AF8 Buchanan : 615 708

### • Locator for pin and socket 0.7 - 0.9 mm and 1.3 mm contacts



Shell size	Ø contacts	AWG	Male contact			Female contact		
			SOURIAU P/N	DANIELS P/N	ASTRO P/N	SOURIAU P/N	DANIELS P/N	ASTRO P/N
0	0.7	22 - 24 - 26	JBX 0 OUT LP07	86 - 223	/	JBX 0 OUT LS07	86 - 224	/
	0.9	20 - 22 - 24	JBX 0 OUT LP09	86 - 225	/	JBX 0 OUT LS09	86 - 226	/
1	0.7	22 - 24 - 26	JBX 1 OUT LP07	86 - 196	642 - 001	JBX 1 OUT LS07	86 - 197	642 - 004
	0.9	20 - 22 - 24	JBX 1 OUT LP09	86 - 198	642 - 002	JBX 1 OUT LS09	86 - 199	642 - 005
	1.3	18 - 20 - 22	JBX 1 OUT LP13	86 - 200	642 - 003	JBX 1 OUT LS13	86 - 201	642 - 006
2	0.7	22 - 24 - 26	JBX 2 OUT LP07	86 - 202	642 - 007	JBX 2 OUT LS07	86 - 203	642 - 010
	0.9	20 - 22 - 24	JBX 2 OUT LP09	86 - 204	642 - 008	JBX 2 OUT LS09	86 - 205	642 - 011
	1.3	18 - 20 - 22	JBX 2 OUT LP13	86 - 206	642 - 009	JBX 2 OUT LS13	86 - 207	642 - 012
3	0.7	22 - 24 - 26	JBX 3 OUT LP07	86 - 217	642 - 014	JBX 3 OUT LS07	86 - 214	642 - 017
	0.9	20 - 22 - 24	JBX 3 OUT LP09	86 - 218	642 - 015	JBX 3 OUT LS09	86 - 215	642 - 018
	1.3	18 - 20 - 22	JBX 3 OUT LP13	86 - 219	642 - 016	JBX 3 OUT LS13	86 - 216	642 - 019

### • Turret with locator for pin and socket 1.6 mm and 2 mm contacts



Shell size	Ø contacts	AWG	Male and female contacts		
			SOURIAU P/N	DANIELS P/N	ASTRO P/N
2	1.6	14 - 16 - 18	JBX 2 OUT LT16	TH 564	650 - 030
	2	12 - 14 - 16	JBX 2 OUT LT20	TH 565	650 - 031
3	1.6	14 - 16 - 18	JBX 3 OUT LT16	TH 566	650 - 038
	2	12 - 14 - 16	JBX 3 OUT LT20	TH 567	650 - 035

# Custom Connector and Cable Assemblies



## Examples of custom designs derivated from standard connectors lines

- **Watertight receptacles**



- **JBX series**, Custom Receptacle Design

- **Black conductive plating**



- **JKX series**, black chrome plating

# Push-Pull connectors



**Request form please fill in and fax to SOURIAU - Customer service**  
(see the address page for your local contact)

Name : ..... Tel number : ..... Fax number : .....  
Title : ..... E-mail : .....  
Company : .....  
Address : .....

**Applications :**

- Medical       Audio       Video       Instrumentation       Nuclear physics
- GPS       Transportation       Metrology       Other .....

Detailed description of end product, unit or application .....

**Connector description :**

- Series : .....  Shell configuration : .....
- Shell size : .....  Protective boot : .....  Color : .....
- Number of contacts : .....
- Type of contacts :  Solder       Crimp       Printed circuit       90° printed circuit
- Conductor AWG : .....  Coax type : .....  Other : .....

**Electrical :**

- Working voltage (AC/DC) : .....  Current rating : .....
- Impedance (Ohms) : .....  SWR : .....  Frequency .....
- Contact resistance : .....  Shielding : .....
- Fibre optics :  Multimode .....  Monomode .....

**Environment :**

- Temperature : .....  Protection index (IP - ) : .....
- Outside environment :
  - Clear .....  Splash proof .....  Sterilization .....
  - Dirt .....  Fluids .....  Radiation .....
  - Chemicals .....  Waterproof .....  Gases .....
  - Salt waterspray .....

**Projections :**

- Prototype quantity : .....  Delivery date : .....
- Preseries quantity : .....  Delivery date : .....
- Production quantity : .....  Delivery date : .....
- Production per year : .....  Number of years : .....
- Target pricing per connector : .....



# Push-Pull connectors

## Conversion Table

• Millimeters / Inches

(mm)	(inches)	(mm)	(inches)	(mm)	(inches)
0.1	0.00394	8.2	0.32308	38.0	1.49720
0.2	0.00788	8.4	0.33096	38.5	1.51690
0.3	0.01182	8.6	0.33884	39.0	1.53660
0.4	0.01576	8.8	0.34672	39.5	1.55630
0.5	0.01970	9.0	0.35460	40.0	1.57600
0.6	0.02364	9.2	0.36248	40.5	1.59570
0.7	0.02758	9.4	0.37036	41.0	1.61540
0.8	0.03152	9.6	0.37824	41.5	1.63510
0.9	0.03546	9.8	0.38612	42.0	1.65480
1.0	0.03940	10.0	0.39400	42.5	1.67450
1.1	0.04334	10.5	0.41370	43.0	1.69420
1.2	0.04728	11.0	0.43340	43.5	1.71390
1.3	0.05122	11.5	0.45310	44.0	1.73360
1.4	0.05516	12.0	0.47280	44.5	1.75330
1.5	0.05910	12.5	0.49250	45.0	1.77300
1.6	0.06304	13.0	0.51220	45.5	1.79270
1.7	0.06698	13.5	0.53190	46.0	1.81240
1.8	0.07092	14.0	0.55160	46.5	1.83210
1.9	0.07486	14.5	0.57130	47.0	1.85180
2.0	0.07880	15.0	0.59100	47.5	1.87150
2.1	0.08274	15.5	0.61070	48.0	1.89120
2.2	0.08668	16.0	0.63040	48.5	1.91090
2.3	0.09062	16.5	0.65010	49.0	1.93060
2.4	0.09456	17.0	0.66980	49.5	1.95030
2.5	0.09850	17.5	0.68950	50.0	1.97000
2.6	0.10244	18.0	0.70920	51.0	2.00940
2.7	0.10638	18.5	0.72890	52.0	2.04880
2.8	0.11032	19.0	0.74860	53.0	2.08820
2.9	0.11426	19.5	0.76830	54.0	2.12760
3.0	0.11820	20.0	0.78800	55.0	2.16700
3.1	0.12214	20.5	0.80770	56.0	2.20640
3.2	0.12608	21.0	0.82740	57.0	2.24580
3.3	0.13002	21.5	0.84710	58.0	2.28520
3.4	0.13396	22.0	0.86680	59.0	2.32460
3.5	0.13790	22.5	0.88650	60.0	2.36400
3.6	0.14184	23.0	0.90620	61.0	2.40340
3.7	0.14578	23.5	0.92590	62.0	2.44280
3.8	0.14972	24.0	0.94560	63.0	2.48220
3.9	0.15366	24.5	0.96530	64.0	2.52160
4.0	0.15760	25.0	0.98500	65.0	2.56100
4.1	0.16154	25.5	1.00470	66.0	2.60040
4.2	0.16548	26.0	1.02440	67.0	2.63980
4.3	0.16942	26.5	1.04410	68.0	2.67920
4.4	0.17336	27.0	1.06380	69.0	2.71860
4.5	0.17730	27.5	1.08350	70.0	2.75800
4.6	0.18124	28.0	1.10320	71.0	2.79740
4.7	0.18518	28.5	1.12290	72.0	2.83680
4.8	0.18912	29.0	1.14260	73.0	2.87620
4.9	0.19306	29.5	1.16230	74.0	2.91560
5.0	0.19700	30.0	1.18200	75.0	2.95500
5.2	0.20488	30.5	1.20170	80.0	3.15200
5.4	0.21276	31.0	1.22140	85.0	3.34900
5.6	0.22064	31.5	1.24110	90.0	3.54600
5.8	0.22852	32.0	1.26080	100.0	3.94000
6.0	0.23640	32.5	1.28050	200.0	7.88000
6.2	0.24428	33.0	1.30020	400.0	15.76000
6.4	0.25216	33.5	1.31990	600.0	23.64000
6.6	0.26004	34.0	1.33960	800.0	31.52000
6.8	0.26792	34.5	1.35930	1000.0	39.40000
7.0	0.27580	35.0	1.37900	1200.0	47.28000
7.2	0.28368	35.5	1.39870	1600.0	63.04000
7.4	0.29156	36.0	1.41840	2000.0	78.80000
7.6	0.29944	36.5	1.43810	3200.0	126.08000
7.8	0.30732	37.0	1.45780		
8.0	0.31520	37.5	1.47750		

• °C/°F

(°C)	(°F)
- 70	- 94
- 65	- 85
- 55	- 67
- 50	- 58
- 40	- 40
0	32
37	98.6
80	176
125	257
150	302
170	338
200	392
250	482

• Pressure conversion

bar	psi	mmHg (torr)
10	145.0	7600
5	72.5	3800
2	29.0	1520
1	14.5	760
0.5	7.2	380
0.1	1.4	76

mbar	psi	torr (mmHg)
100	1.4	76
50	0.72	38
10	0.14	7.6
1.32	0.019	1