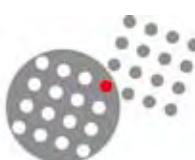




# UTS series IP68 / IP69K Plastic Connectors

- Rapid
- Secure
- High Performance

Part of the TRIM TRIO® interconnect system



**SOURIAU**  
Connection Technology

# Company Profile



## SOURIAU

The extreme environment interconnect specialist «from deep sea to deep space»

The company designs, manufactures and markets high performance interconnect solutions for severe environments from industrial broadline and universal ranges to complex system with integrated functions: filtering, high speed data transmission, hermetic seal, separation mechanism, remote handling, underwater mating, ...



Industrial



Aeronautical



Equipment & System

The dedicated end markets for SOURIAU's products are aeronautical, defense-space and industrial



Railway  
Geophysics  
Manufacturing environment  
Instrumentation  
Automation & process  
Motorsport



Civil & military aircraft  
Helicopter  
Weapon delivery system  
Avionics



Military marine  
Communications  
Satellites  
Launcher & missile

SOURIAU was established in 1917 and has been created by successive acquisitions of the industrial, aeronautical, defense and space activities of SOURIAU, JUPITER and BURNDY.

The Group's products are engineered and manufactured in the USA and Dominican Republic, Europe and Morocco, Japan and India, and sold by a worldwide sales and marketing organization, and in addition to SOURIAU's offices, a large network of licensed distributors and agents.

SOURIAU complies with most of national and international Quality Assurance Standards, production unit with ISO 14001

Quality Certificate  
Management System

ISO 9001

Environment Certificate  
Management System

ISO 14001

Quality Certificate  
Management System

Aeronautic Industry : EN 9100

# Content



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# Overview



| Description |   |
|-------------|---|
|             | <b>IP68 / IP69K plastic circular connector with rapid locking system</b>  |
|             | UTS is the latest addition to the well known TRIM TRIO® interconnect system.<br>UTS is a range of industrial circular multiway connectors.<br><br>The keywords for the new UTS are: Rapid - Secure - High performance   |
|             | Rapid refers to the locking system and the total installed cost starting with the wiring & cabling and ending with the installation to the customers equipment. Rapid also refers to the total service on price request, samples and production deliveries.                               |
|             | The secure locking system together with the secure and versatile TRIM TRIO® contacts are giving confidence to both the connection and the customer's equipment.<br>Moreover UTS is part of the well-known TRIM TRIO® interconnect system with its more than 40 years of field experience. |
|             | Extreme performance on water protection even in dynamic situations this in combination with a rapid and secure locking system makes UTS suitable for any high performance application.  |

## UTS

page 11-18



## UTS discrete wire sealing

page 19-24



## UTS Hi seal

page 55-62



## UTS screw termination contacts - page 63-66



## UTS RJ45

page 67-70



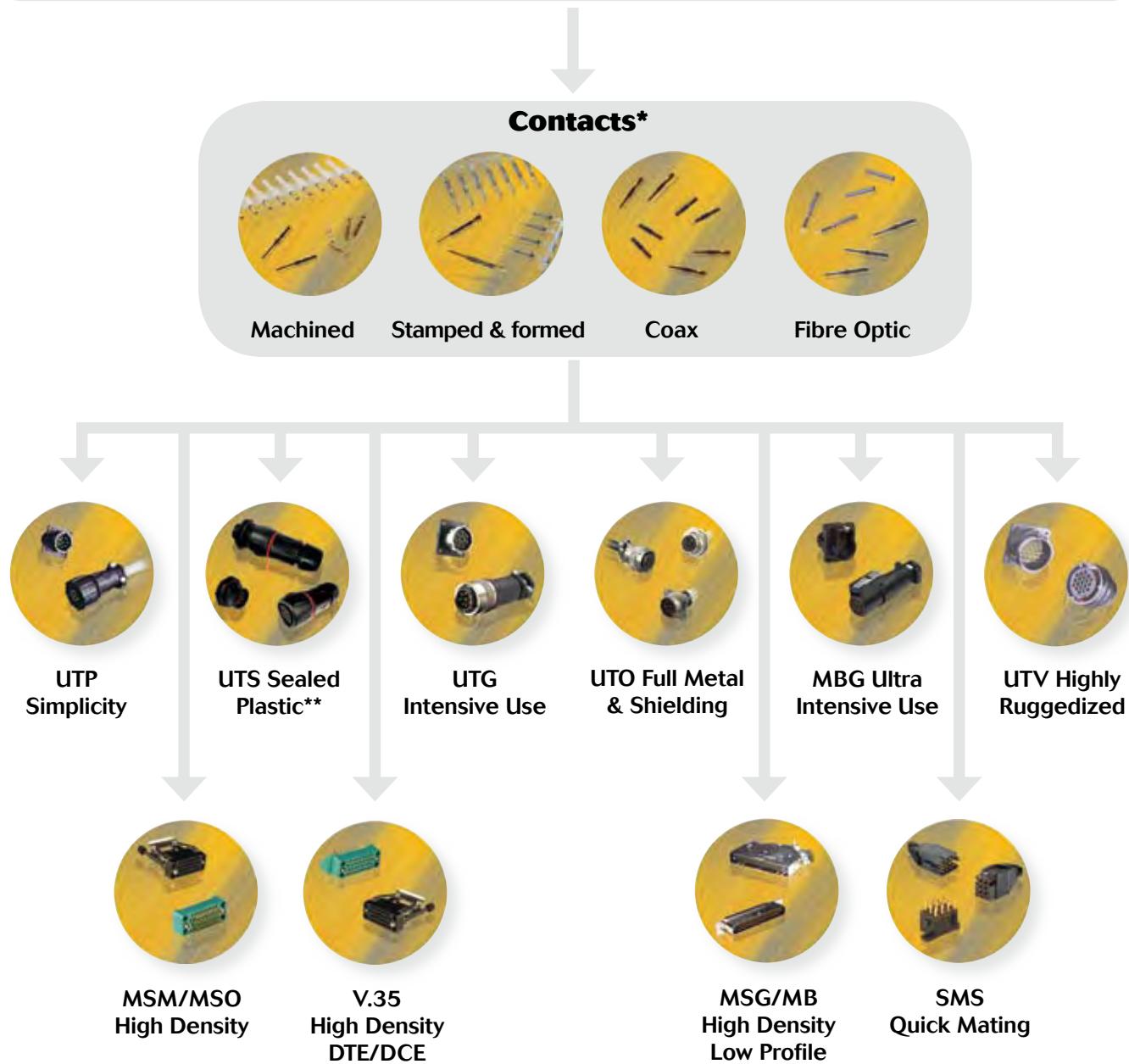
UTS provides a connection that performs faster, easier, safer and more reliable, it makes :

**UTS : Your first choice in waterproof connectors !**

# Overview



**UTS, part of the TRIM TRIO® interconnect system**  
Any TRIM TRIO® contact can be used in any combination in any connector style



\* Only valid for contact #16 / \*\*Except pre-equipped connectors

**UTS : Your first choice in waterproof connectors !**

# Overview



## UTS contact arrangements

| Size 8                                       |                              |  |  |   |                            |                            |
|--|------------------------------|--|--|---|----------------------------|----------------------------|
| 2  | 3                            | 3A/98  | 4  | 33  |                            |                            |
|  |                              |  |  |   |                            |                            |
| Contacts :<br>2 Ø 1 (#20)                    | Contacts :<br>3 Ø 1 (#20)    | Contacts :<br>3 Ø 1 (#20)                    | Contacts :<br>4 Ø 1 (#20)                  | Contacts :<br>3 Ø 1 (#20)                   |                            |                            |
| Size 10                                      |                              |  |  |   |                            |                            |
| 2W2  | 3 (2+PE)                     | 3W3  | 4  | 6   | 7                          | 98                         |
|  |                              |  |  |   |                            |                            |
| Contacts :<br>2 Ø 2.4 (#12)<br>2 Ø 1.0 (#20) | Contacts* :<br>3 Ø 1.6 (#16) | Contacts :<br>3 Ø 1.6 (#16)<br>3 Ø 1.0 (#20) | Contacts :<br>4 Ø 1.6 (#16)                | Contacts :<br>6 Ø 1 (#20)                   | Contacts :<br>7 Ø 1 (#20)  | Contacts :<br>6 Ø 1 (#20)  |
| Size 12                                      |                              |  |  |   |                            |                            |
| 2  | 3                            | 4 (3+PE)                                     | 8  | 8   | 10                         | 14                         |
|  |                              |  |  |   |                            |                            |
| Contacts :<br>2 Ø 1.6 (#16)                  | Contacts :<br>3 Ø 1.6 (#16)  | Contacts* :<br>4 Ø 1.6 (#16)                 | Contacts :<br>8 Ø 1.6 (#16)                | Contacts :<br>8 Ø 1 (#20)                   | Contacts :<br>10 Ø 1 (#20) | Contacts :<br>14 Ø 1 (#20) |
| Size 14                                      |                              |  |  |   |                            |                            |
| 5  | 7 (6+PE)                     | 12   | 12   | 15  | 18                         | 19                         |
|  |                              |  |  |   |                            |                            |
| Contacts :<br>5 Ø 1.6 (#16)                  | Contacts* :<br>7 Ø 1.6 (#16) | Contacts :<br>12 Ø 1.6 (#16)                 | Contacts :<br>8 Ø 1 (#20)<br>4 Ø 1.6 (#16) | Contacts :<br>14 Ø 1 (#20)<br>1 Ø 1.6 (#16) | Contacts :<br>18 Ø 1 (#20) | Contacts :<br>19 Ø 1 (#20) |

\* Arrangements with advanced grounding cavity (For other arrangements, First Mate, Last Break contacts are available - see from page 27)

**UTS : Your first choice in waterproof connectors !**

# Overview



| Size 18                      |                              |                            |   |      |
|------------------------------|------------------------------|----------------------------|---|------|
| 11                           | 23                           | 32                         | 30  | RJ45 |
|                              |                              |                            |   |      |
| Contacts :<br>11 Ø 1.6 (#16) | Contacts :<br>23 Ø 1.6 (#16) | Contacts :<br>32 Ø 1 (#20) | Contacts :<br>29 Ø 1 (#20)<br>1 Ø 1.6 (#16) |      |
|                              |                              |                            |   |      |

- UTS standard version
- UTS Hi seal version
- ▲ UTS discrete wire sealing version
- UTS with screw contact termination
- In-Line version

For specific arrangements, please consult us

| Working voltage according to VDE & UL standards |   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|---|---|------------|---------------------------|----|---------------------------|----|----|----|-----------------|----|---|----|---|----|----|----|-----------------|
|   |   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|   | VDE0110   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|   | Overvoltage class III, pollution degree 2 / IEC 60664-1 (equivalent)  |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
| #16 Ø 1.6 mm                                    | <table border="1"> <tr> <td>Shell size</td><td>Nb of contacts</td></tr> <tr> <td>10</td><td>3</td></tr> <tr> <td>12</td><td>4</td></tr> <tr> <td>14</td><td>7</td></tr> </table><br><table border="1"> <tr> <td>10</td><td>4</td></tr> <tr> <td>12</td><td>8</td></tr> <tr> <td>14</td><td>12</td></tr> <tr> <td>18</td><td>23<sup>1</sup></td></tr> </table> | Shell size | Nb of contacts            | 10 | 3                         | 12 | 4  | 14 | 7               | 10 | 4 | 12 | 8 | 14 | 12 | 18 | 23 <sup>1</sup> |
| Shell size                                      | Nb of contacts  |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
| 10  | 3   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
| 12  | 4   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
| 14  | 7   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
| 10  | 4   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
| 12  | 8   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
| 14  | 12  |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
| 18  | 23 <sup>1</sup>   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
| #20 Ø 1.0 mm                                    | <table border="1"> <tr> <td>10</td><td>6</td></tr> <tr> <td>12</td><td>10</td></tr> <tr> <td>14</td><td>19</td></tr> <tr> <td>18</td><td>32<sup>1</sup></td></tr> </table>  | 10         | 6                         | 12 | 10                        | 14 | 19 | 18 | 32 <sup>1</sup> |    |   |    |   |    |    |    |                 |
| 10  | 6   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
| 12  | 10  |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
| 14  | 19  |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
| 18  | 32 <sup>1</sup>   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
| Mixed <sup>1</sup>                              | <table border="1"> <tr> <td>10</td><td>2W2<br/>2 x #12<br/>2 x #20</td></tr> <tr> <td>10</td><td>3W3<br/>3 x #16<br/>3 x #20</td></tr> </table>   | 10         | 2W2<br>2 x #12<br>2 x #20 | 10 | 3W3<br>3 x #16<br>3 x #20 |    |    |    |                 |    |   |    |   |    |    |    |                 |
| 10  | 2W2<br>2 x #12<br>2 x #20   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
| 10  | 3W3<br>3 x #16<br>3 x #20   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|   | UL1977  |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|   | Type 2  |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|   | 320 V*  |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|   | 400 V*  |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|   | 125 V   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|   | 500 V**   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|   | 125 V   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|   | 500 V**   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|   | 200 V   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|   | 50 V  |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|   | 500 V   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |
|   | 250 V   |            |                           |    |                           |    |    |    |                 |    |   |    |   |    |    |    |                 |

<sup>1</sup> Not certified

Note : all the written working voltage are in Volts AC/DC

\* tested by the VDE organism

\*\* certified by the UL organism (only for shell size 10, 12 & 14)

**UTS : Your first choice in waterproof connectors !**

# UTS series



## Major features & benefits

 **Rapid & secure locking system**

- Confidence that the connector is properly mated
- Easy to connect in difficult places
- Minimalised operator fatigue
- Labor saving



 **Rapid and secure panel mounting**

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

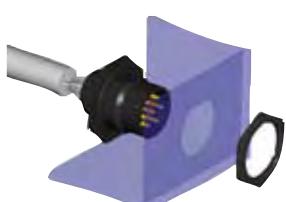
**Captive panel seal**

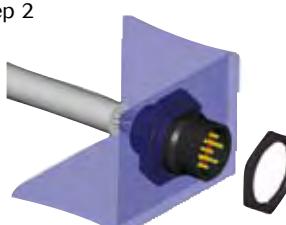
**Robust jam nut** to guarantee a rapid, secure and vibration proof panel mounting

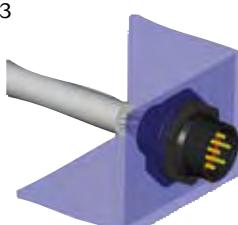
**O-ring seal** to guarantee sealing between receptacle and plug

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

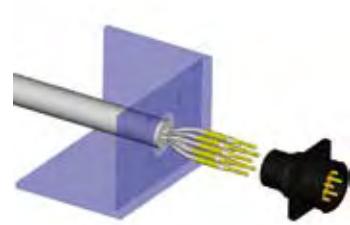
**Assembly procedure of jam nut receptacle**

Step 1 

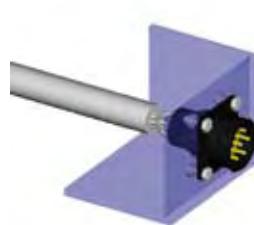
Step 2 

Step 3 

**Assembly procedure of square flange receptacle**

Step 1 

Step 2 

Step 3 

**UTS : Your first choice in waterproof connectors !**

# UTS series



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

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

«Easy grip» bayonet coupling ring to allow quick and secure mating

Colored rings available for visual identification (see accessories page 72)

**Backshells ... accepting a wide range of cables**

|         |                |
|---------|----------------|
| Size 8  | 1.5 to 6.5 mm  |
| Size 10 | 1.5 to 8.0 mm  |
| Size 12 | 3.0 to 12.0 mm |
| Size 14 | 5.0 to 14.0 mm |
| Size 18 | 7.0 to 18.0 mm |

Low installed cost with reduced number of components

**Sealing caps ... easy to install ... at any time**

**Receptacle sealing cap**

**Plug sealing cap**

Sealing cap  
(other sealing caps see page 71)

- easy attachment to connector at any time

- easy attachment to connector at any time

**UTS : Your first choice in waterproof connectors !**



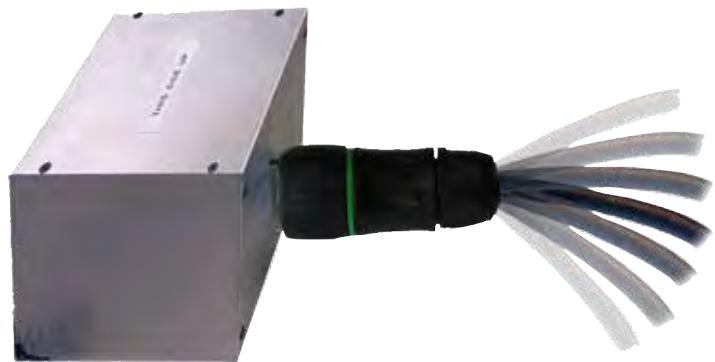
## Extreme environmental sealing performance

### IP68 / IP69K sealing ... even in dynamic situations

#### Dynamic IP68

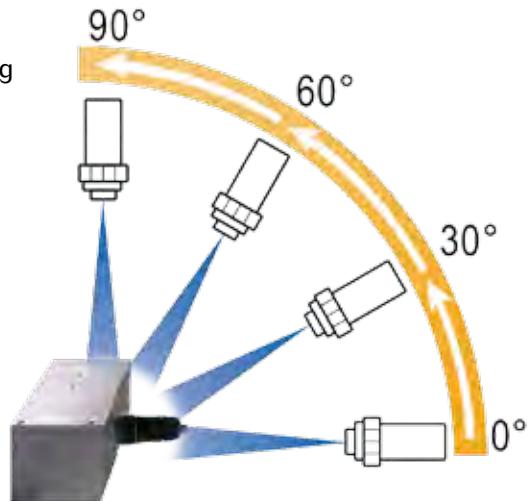
Connector will remain IP68 even when:

- Pulling on the cable
- Bending the cable



#### Dynamic IP69K

Connector withstands high pressure water cleaning



**UTS : Your first choice in waterproof connectors !**



|  <b>Description</b>   |
|--|
| <p><b>IP68/IP69K - Plastic connector</b></p> <p>□ UTS series is a range of industrial plastic circular connectors offering <b>IP68/IP69K water protection</b>.</p> <p>4 shell sizes - up to 32 contact positions - are available with different contact styles in size 16 &amp; size 20:</p> <ul style="list-style-type: none"><li>▪ Machined contacts</li><li>▪ Stamped &amp; formed contacts</li><li>▪ Coax contacts</li><li>▪ Fibre optic contacts</li></ul> <p>□ Other typical UTS features are:</p> <ul style="list-style-type: none"><li>▪ Rapid &amp; secure locking system</li><li>▪ Extreme environmental sealing performances</li><li>▪ Easy visual identification</li><li>▪ Rapid wiring, cabling &amp; installation</li><li>▪ Suitable for a wide range of industrial applications</li></ul> |

**UTS : Your first choice in waterproof connectors !**



## Technical characteristics

### Mechanical

- Durability: 250 matings & unmatings
- Vibration resistance: Sinusoidal vibrations per CEI 60512-4 - from 10 to 2000 Hz
- Thermal shock: 5 cycles 30 min. from -40°C to 105°C per MIL-STD 1344 method 1003

### Electrical

- Current per contact max.:
  - Size 16: 13A
  - Size 20: 7.5A - machined contact
  - 5A - stamped & formed contact
- Insulation resistance:  $\geq 5000 \text{ M}\Omega$
- Test potential: 2000 VAC - #16 contact  
1500 VAC - #20 contact
- Working voltage: up to 400 V class III, PD 2 as per VDE  
up to 500 V as per UL1977  
see page 7 for more details

### Environmental

- Operating temperature: -40°C to + 105°C
- Flammability rating: UL94-V0
- Salt spray: 500 hours
- Sealing (mated):
  - Dynamic IP68 - 10 m under water for 1 week per IEC60529
  - Dynamic IP69K per DIN40050
- UV resistant:
  - No mechanical degradation or important variation of color after 5 years of exposure in natural environment (equivalence exposure to sun and moisture as per ISO4892)

### Material

- Connectors + Backshell: Thermoplastic

### Contact accomodation

- UTS connectors accept TRIM TRIO® size 16 or size 20 (depending on arrangement) removable snap-lock contacts
- Contacts to be ordered separately (except PCB versions) - see from page 25 to 54

In accordance with UL requirements (UL ECBT2.E169916 and CSA ECBT8.E169916)



## Ordering information

| Type                                 | UTS | 6 | JC | 12 | 10 | S |
|--------------------------------------|-----|---|----|----|----|---|
| Connector type                       | UTS | 7 | -  | 12 | 10 | P |
| Rear of the connector                | UTS | 1 | JC | 12 | 10 | S |
| 0 Square flange receptacle           |     |   |    |    |    |   |
| 6 Cable plug                         |     |   |    |    |    |   |
| 7 Jam nut receptacle                 |     |   |    |    |    |   |
| 1 In-line receptacle                 |     |   |    |    |    |   |
| Shell size 10 - 12 - 14 - 18         |     |   |    |    |    |   |
| Number of contacts - see next page   |     |   |    |    |    |   |
| Contact Gender                       |     |   |    |    |    |   |
| P: Pin contacts / S: Socket contacts |     |   |    |    |    |   |

**UTS : Your first choice in waterproof connectors !**



## UTS contact arrangements

| Size 10                                    |                              |  |                             |                           |
|--|------------------------------|--|-----------------------------|---------------------------|
| 2W2  | 3<br>(2+PE)                  | 3W3  | 4                           | 6                         |
|  |                              |  |                             |                           |
| Contacts :<br>2 Ø2.4 (#12)<br>2 Ø1.0 (#20) | Contacts* :<br>3 Ø 1.6 (#16) | Contacts :<br>3 Ø 1.6 (#16)<br>3 Ø 1.0 (#20) | Contacts :<br>4 Ø 1.6 (#16) | Contacts :<br>6 Ø 1 (#20) |

| Size 12                      |                             |                            | Size 14                      |                              |                            |
|------------------------------|-----------------------------|----------------------------|------------------------------|------------------------------|----------------------------|
| 4<br>(3+PE)                  | 8                           | 10                         | 7<br>(6+PE)                  | 12                           | 19                         |
|                              |                             |                            |                              |                              |                            |
| Contacts* :<br>4 Ø 1.6 (#16) | Contacts :<br>8 Ø 1.6 (#16) | Contacts :<br>10 Ø 1 (#20) | Contacts* :<br>7 Ø 1.6 (#16) | Contacts :<br>12 Ø 1.6 (#16) | Contacts :<br>19 Ø 1 (#20) |

| Size 18** |    |
|-----------|----|
| 23        | 32 |
|           |    |

Contacts :  
23 Ø 1.6 (#16)      Contacts :  
32 Ø 1 (#20)

\* Arrangements with advanced grounding cavity

\*\* For In-line version shell size 18, please consult us

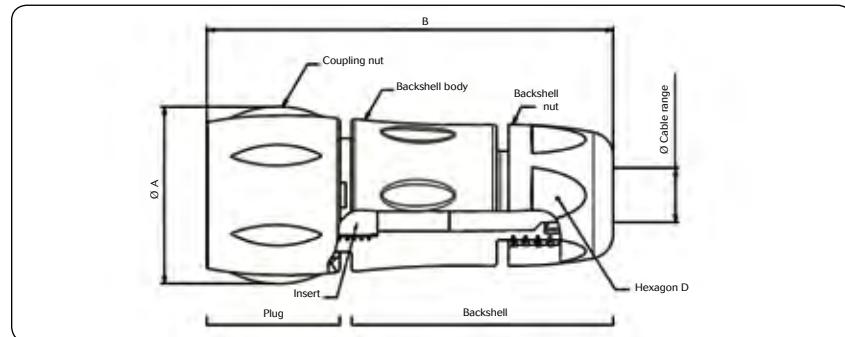
All arrangements are available in plug and jam nut versions.

Arrangements marked with ♦ are available in square flange version as well.

**UTS : Your first choice in waterproof connectors !**



## Cable plug with backshell for pin & socket contacts



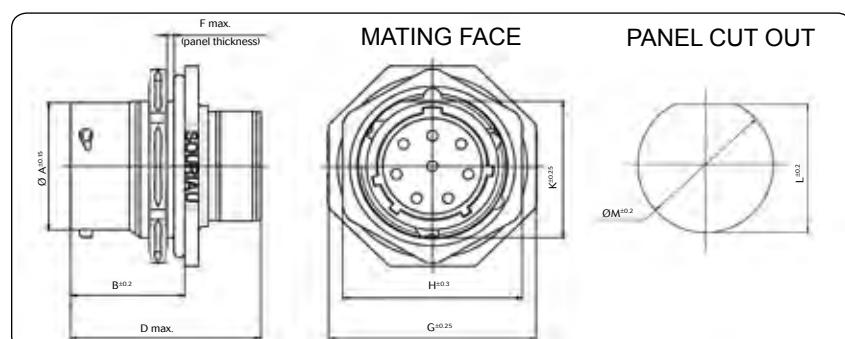
| Shell size | Part numbers   |                | $\varnothing$ A | B    | $\varnothing$ Cable range Standard seal | $\varnothing$ Cable range Reducing seal | Hexagon D |
|------------|----------------|----------------|-----------------|------|---|---|-----------|
|            | Male contact   | Female contact |                 |      |   |   |           |
| 10         | UTS6JC10 --- P | UTS6JC10 --- S | 26.7            | 63.2 | 2.5 / 8.0                               | 1.5 / 5.0                               | 18.5      |
| 12         | UTS6JC12 -- P  | UTS6JC12 -- S  | 30.15           | 66.7 | 5.0 / 12.0                              | 3.0 / 9.0                               | 24.0      |
| 14         | UTS6JC14 -- P  | UTS6JC14 -- S  | 35.1            | 71.5 | 7.0 / 14.0                              | 5.0 / 12.0                              | 26.0      |
| 18         | UTS6JC18 -- P  | UTS6JC18 -- S  | 42.0            | 81.3 | 9.0 / 18.0                              | 7.0 / 16.0                              | 33.0      |

Coloured ring supplied as optional extra (see page 72).

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

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

## Jam nut receptacle for pin & socket contacts



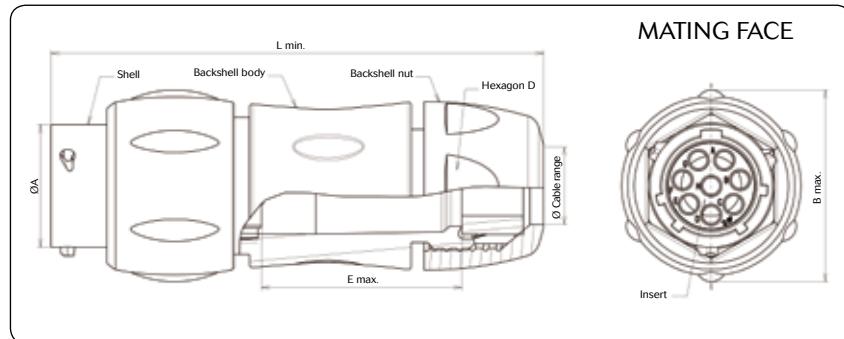
| Shell size | Part numbers |                | $\varnothing$ A | B    | D max | F max | G    | H    | L    | $\varnothing$ M | Tightening torque |
|------------|--------------|----------------|-----------------|------|-------|-------|------|------|------|-----------------|-------------------|
|            | Male contact | Female contact |                 |      |       |       |      |      |      |                 |                   |
| 10         | UTS710 --- P | UTS710 --- S   | 14.9            | 19.3 | 33.9  | 3.2   | 27.0 | 22.2 | 16.5 | 17.7            | 3 N.m             |
| 12         | UTS712 -- P  | UTS712 -- S    | 19.0            | 19.3 | 33.9  | 3.2   | 31.8 | 27.0 | 21.2 | 22.5            | 4 N.m             |
| 14         | UTS714 -- P  | UTS714 -- S    | 22.2            | 19.3 | 33.9  | 3.2   | 34.9 | 30.2 | 24.3 | 25.7            | 5 N.m             |
| 18         | UTS718 -- P  | UTS718 -- S    | 28.5            | 19.3 | 33.9  | 3.2   | 41.3 | 36.6 | 30.6 | 32.0            | 5 N.m             |

Coloured ring supplied as optional extra (see page 72).

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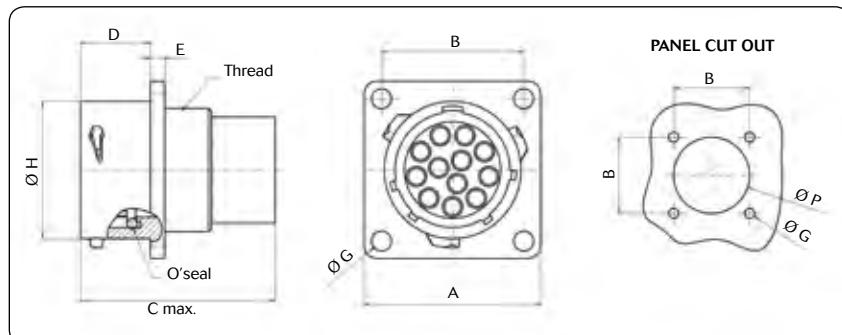
## In-line receptacle for pin & socket contacts



| Shell size | Part numbers   |                | Ø A  | L min. | B max | Ø Cable range Standard seal | Ø Cable range Reducing seal | Hexagon D | E max |        |
|------------|----------------|----------------|------|--------|-------|-----------------------------|-----------------------------|-----------|-------|--------|
|            | Male contact   | Female contact |      |        |       |                             |                             |           | Male  | Female |
| 10         | UTS1JC10 --- P | UTS1JC10 --- S | 14.9 | 70.0   | 26.7  | 2.5/8.0                     | 1.5/5.0                     | 18.5      | 31.0  | 38.0   |
| 12         | UTS1JC12 -- P  | UTS1JC12 -- S  | 19.0 | 74.0   | 30.1  | 5.0/12.0                    | 3.0/9.0                     | 24.0      | 34.0  | 41.5   |
| 14         | UTS1JC14 -- P  | UTS1JC14 -- S  | 22.2 | 78.5   | 35.1  | 7.0/14.0                    | 5.0/12.0                    | 26.0      | 38.0  | 45.5   |
| 18*        | UTS1JC18 -- P  | UTS1JC18 -- S  | 28.5 | 89.0   | 42.0  | 9.0/18.0                    | 7.0/16.0                    | 33.0      | 46.5  | 54.0   |

For shell size 18, please consult us  
Coloured ring supplied as optional extra (see page 72).

## Square flange receptacle



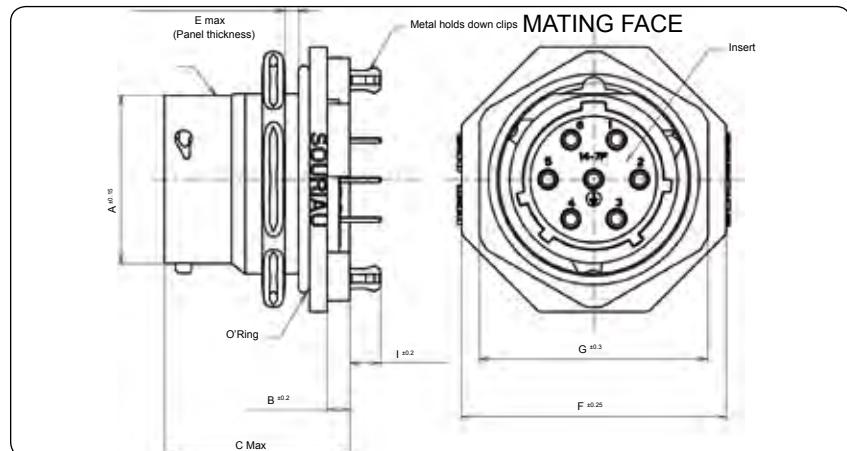
| Shell size | Part numbers |                | $A^{\pm 0.25}$ | C max. |        | $D^{\pm 0.2}$ | $E^{\pm 0.15}$ | $\emptyset H^{\pm 0.15}$ | Thread                  | PANEL CUT OUT  |                         |                         |
|------------|--------------|----------------|----------------|--------|--------|---------------|----------------|--------------------------|-------------------------|----------------|-------------------------|-------------------------|
|            | Male contact | Female contact |                | Pin    | Socket |               |                |                          |                         | $B^{\pm 0.25}$ | $\emptyset G^{\pm 0.1}$ | $\emptyset P^{\pm 0.1}$ |
|            | UTS0104P     | UTS0104S       | 23.8           | 31.7   | 24.3   | 11.35         | 2.3            | 15.0                     | 9/16 24 UNEF Class 2A   | 18.3           | 3.2                     | 15.1                    |
| 12         | UTS0128P     | UTS0128S       | 26.2           |        |        |               |                | 19.0                     | 11/16 24 UNEF Class 2A  | 20.6           |                         | 18.2                    |
| 14         | UTS01412P    | UTS01412S      | 28.6           |        |        |               |                | 22.2                     | 13/16 20 UNEF Class 2A  | 23.0           |                         | 21.4                    |
| 18         | UTS01823P    | UTS01823S      | 33.3           |        |        |               | 2.5            | 28.5                     | 1"1/16 18 UNEF Class 2A | 27.0           |                         | 27.8                    |

Coloured ring supplied as optional extra (see page 72).

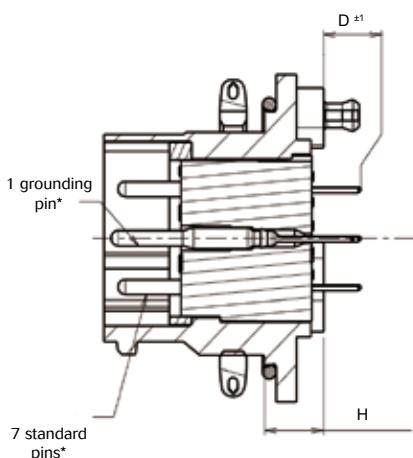
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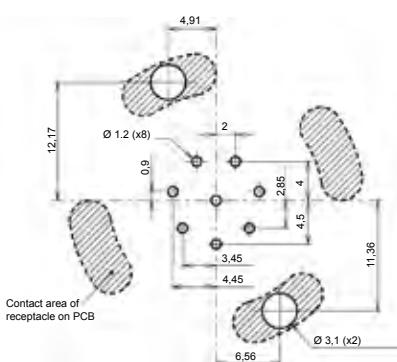
## PCB jam nut receptacle for male contacts



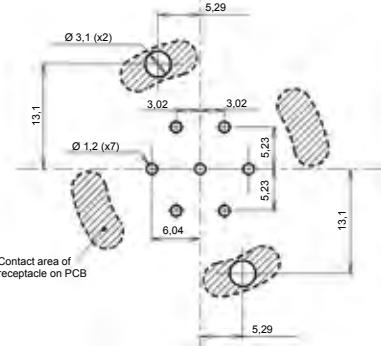
MALE CONNECTOR



DRILLING PATTERNS



UTS7128PSEK9



UTS7147PSEK9

| Shell size | Part number  | Nb of contacts | Ø A   | B   | C    | D   | E   | F    | G    | H       | I   | J    | Ø K  |
|------------|--------------|----------------|-------|-----|------|-----|-----|------|------|---------|-----|------|------|
| 12         | UTS7128PSEK9 | 8              | 19.0  | 3.0 | 25.0 | 3.6 | 3.2 | 31.8 | 27.0 | 6.5/6.8 | 4.0 | 21.2 | 22.5 |
| 14         | UTS7147PSEK9 | 7              | 22.14 | 3.0 | 25.0 | 3.6 | 3.2 | 34.9 | 30.2 | 7.0     | 4.0 | 24.3 | 25.7 |

\* Only for the UTS7147PSEK9 version

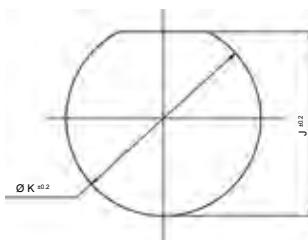
### PANEL CUT OUT

Other arrangements upon request.

#### Plating

- Plating for machined contacts min 0.4 µm gold all over
- Plating for stamped contacts min 0.4 µm gold in contact area / 3 – 5 µm tin on solder tail

Other platings upon request



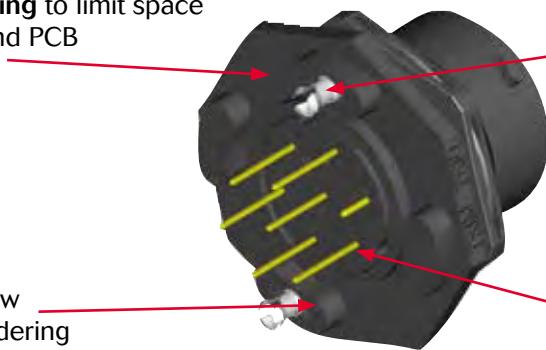
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## PCB receptacle ... low profile with rapid installation features

**Rapid**  
 **High Performance**

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



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

### Metal hold down clips

- to lock the connector easily on the PCB and to release stress on solder joints
- Suitable for soldering in a metalised hole

### Pre-assembled PCB contacts

- machined or stamped versions available
- different solder tails lengths possible
- different plating options

**UTS : Your first choice in waterproof connectors !**



# UTS discrete wire sealing



| Rapid  | Low Cost | High Performance |
|--|----------|------------------|
| <h3>Description</h3>   |          |                  |
| Using proven grommet technology from SOURIAU's extensive knowledge of harsh environments, the UTS connector with grommet guarantees a discrete wire sealing rated to IP67 (up to IP68 / IP69k for the easy handling version - with ergonomic backshell).   |          |                  |
| <ul style="list-style-type: none"><li>□ UTS version with grommet is a range of connectors offering <b>IP67/69K water protection</b> thanks to the three sealing barriers where membranes are pierced when a termination wire is loaded. Sealing level can reach IP68 / IP69K with a backshell.</li></ul> |          |                  |
| <ul style="list-style-type: none"><li>□ UTS with grommet is available :<ul style="list-style-type: none"><li>▪ In 3 shell sizes up to 12 contact positions</li><li>▪ With female plug &amp; male receptacle</li></ul></li></ul>  |          |                  |
| <ul style="list-style-type: none"><li>□ Major benefits for the UTS version with grommet are :<ul style="list-style-type: none"><li>▪ A discrete sealing solution</li><li>▪ Easy to assemble</li><li>▪ Ideal for Outdoor / Indoor applications</li></ul></li></ul>  |          |                  |
| <p><b>No filler plug needed !</b></p>  |          |                  |

**UTS : Your first choice in waterproof connectors !**

# UTS discrete wire sealing



| Technical characteristics   |  |
|---|--|
| <b>Mechanical</b>   |  |
| • Durability:   | 250 matings & unmatings  |
| • Vibration resistance:   | Sinusoidal vibrations per CEI 60512-4 - from 10 to 2000 Hz 5 cycles 30 min. from -40°C to 105°C per MIL-STD 1344 method 1003   |
| • Thermal shock:  | Ø from 1.7 to 3.0 mm   |
| • Wire insulation:  |  |
| <b>Electrical</b>   |  |
| • Current per contact max.:   | 13A  |
| • Insulation resistance:  | ≥ 5000 MΩ  |
| • Test potential:   | 2000 VAC   |
| • Working voltage:  | up to 400V class III, PD 2 as per VDE up to 500V as per UL1977 see page 7 for more details   |
| <b>Environmental</b>  |  |
| • Operating temperature:  | -40°C to + 105°C   |
| • Flammability rating:  | UL94-V0  |
| • Salt spray:   | 500 hours  |
| • Sealing (mated):  | IP67/69K (up to IP68/69K with the easy handling backshell)   |
| • UV resistant:   | No mechanical degradation or important variation of color after 5 years of exposure in natural environment (equivalence exposure to sun and moisture as per ISO4892) |
| <b>Material</b>   |  |
| • Connectors + Backshell:   | Thermoplastic  |
| <b>Contact accomodation</b>   |  |
| • UTS connectors accept TRIM TRIO® size 16 or size 20 (depending on arrangement) removable snap-lock contacts |  |
| • Contacts to be ordered separately - see from page 25 to 54  |  |
| In accordance with UL requirements (UL ECBT2.E169916 and CSA ECBT8.E169916)                                   |  |
|                            |    |
|                           |  |

## Ordering information

| Type                                    | UTS | 6  | G      | JC | 14 | 12 | S |
|---|-----|----|--------|----|----|----|---|
| Connector type                          | UTS | 7  | G      | N  | 14 | 12 | P |
| 1 In-line receptacle                    |     |    |        |    |    |    |   |
| 6 Cable plug                            |     |    |        |    |    |    |   |
| 7 Jam nut receptacle                    |     |    |        |    |    |    |   |
| Grommet                                 | UTS | 1  | G      | N  | 14 | 12 | P |
| Rear of the connector                   |     |    |        |    |    |    |   |
| JC Backshell                            |     |    |        |    |    |    |   |
| N Nut                                   |     |    |        |    |    |    |   |
| Insert arrangements                     | 10  | 12 | 14     |    |    |    |   |
| Number of contacts                      | 4   | 8  | 7 - 12 |    |    |    |   |
| Contact Gender                          |     |    |        |    |    |    |   |
| P Pin contacts - only for receptacle    |     |    |        |    |    |    |   |
| S Socket contacts - only for cable plug |     |    |        |    |    |    |   |

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# UTS discrete wire sealing

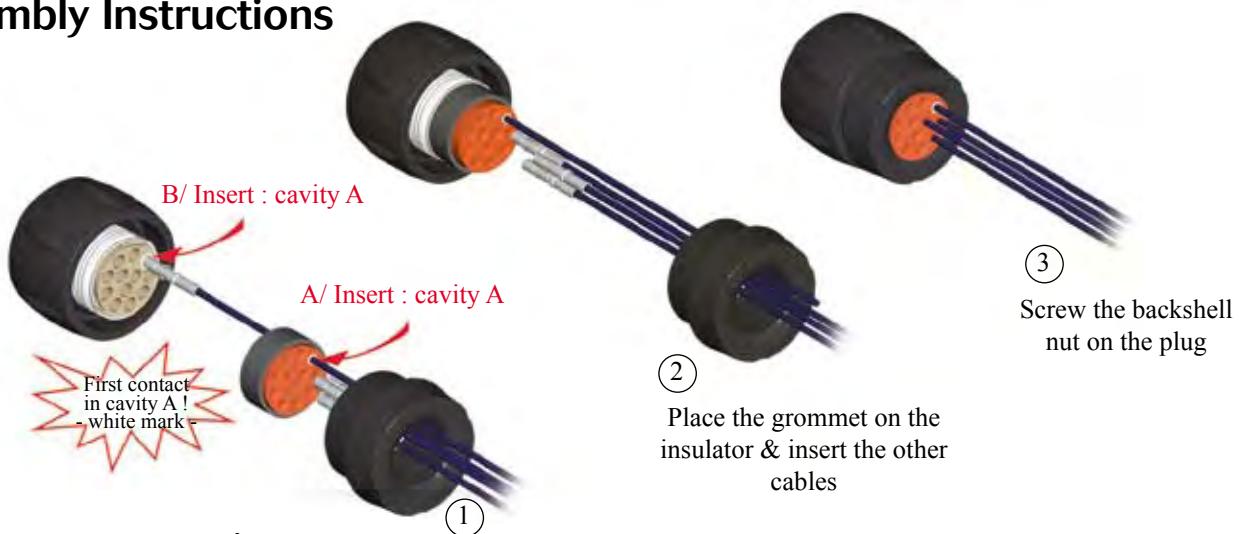


## UTS discrete wire sealing contacts arrangements

| Size 10                     | Size 12                     | Size 14  |
|-----------------------------|-----------------------------|--|
| 4<br>                       | 8<br>                       | 7<br>12<br>  |
| Contacts :<br>4 Ø 1.6 (#16) | Contacts :<br>8 Ø 1.6 (#16) | Contacts* :<br>7 Ø 1.6 (#16)      Contacts :<br>12 Ø 1.6 (#16) |

All arrangements are available in plug and jam nut versions.

## Assembly Instructions



## Range presentation

| Female plug + Grommet + Backshell |   |
|-----------------------------------|---|
|                                   |   |
|                                   |   |
| Shell size                        | Layout  |
| 10                                | 10-4  |
| 12                                | 12-8  |
| 14                                | 14-7<br>14-12   |
| Part numbers                      |   |
| Female contact                    | UTS6GJC104S<br>UTS6GJC128S<br>UTS6GJC147S<br>UTS6GJC1412S |
| A                                 | 26.2<br>29.7<br>34.6                                      |
| B min.                            | 61.5<br>64.5<br>70.0                                      |
| Ø Cable range Standard seal       | 2.5/8.0<br>5.0/12.0<br>7.0/14.0                           |
| Ø Cable range Reducing seal       | 1.5/5.0<br>3.0/9.0<br>5.0/12.0                            |
| Hexagon D                         | 18.5<br>24.0<br>26.0                                      |

**UTS : Your first choice in waterproof connectors !**

# UTS discrete wire sealing



**Female plug + Grommet + Backshell nut**

+ Rigid + High Performance

| Shell size | Layout        | Part numbers<br>Female contact | A    | B min. |
|------------|---------------|--------------------------------|------|--------|
| 10         | 10-4          | UTS6GN104S                     | 26.2 | .5     |
| 12         | 12-8          | UTS6GN128S                     | 29.7 | 32.3   |
| 14         | 14-7<br>14-12 | UTS6GN147S<br>UTS6GN1412S      | 34.6 | 32.0   |

Coloured ring supplied as optional extra (see page 72).

**Male jam nut receptacle + Grommet + Backshell**

+ Rigid + High Performance

| Shell size | Layout        | Part numbers<br>Male contact | Ø A  | B    | C    | D   | E <sup>±0.25</sup> | F    | G    | Ø H  | Ø Cable range Standard seal | Ø Cable range Reducing seal | E    |
|------------|---------------|------------------------------|------|------|------|-----|--------------------|------|------|------|-----------------------------|-----------------------------|------|
| 10         | 10-4          | UTS7GJC104P                  | 14.9 | 19.3 | 70.5 | 3.2 | 27.0               | 22.2 | 16.5 | 17.7 | 2.5 / 8                     | 1.5 / 5                     | 29.2 |
| 12         | 12-8          | UTS7GJC128P                  | 19.0 | 19.3 | 74.0 | 3.2 | 31.8               | 27.0 | 21.2 | 22.5 | 5 / 12                      | 3 / 9                       | 32.7 |
| 14         | 14-7<br>14-12 | UTS7GJC147P<br>UTS7GJC1412P  | 22.2 | 19.3 | 80.5 | 3.2 | 34.9               | 30.2 | 24.3 | 25.7 | 7 / 14                      | 5 / 12                      | 36.7 |

**UTS : Your first choice in waterproof connectors !**

# UTS discrete wire sealing



**Male jam nut receptacle + Grommet + Backshell nut**

• Rigid  
• High Performance

| Shell size | Layout        | Part numbers Male contact | Ø A  | B    | C    | D   | E    | F    | G    | Ø H  | Ø J  |
|------------|---------------|---------------------------|------|------|------|-----|------|------|------|------|------|
| 10         | 10-4          | UTS7GN104P                | 14.9 | 19.3 | 41.0 | 3.2 | 27.0 | 22.2 | 16.5 | 17.7 | 22.0 |
| 12         | 12-8          | UTS7GN128P                | 19.0 | 19.3 | 40.7 | 3.2 | 31.8 | 27.0 | 21.2 | 22.5 | 25.4 |
| 14         | 14-7<br>14-12 | UTS7GN147P<br>UTS7GN1412P | 22.2 | 19.3 | 43.0 | 3.2 | 34.9 | 30.2 | 24.3 | 25.7 | 29.8 |

**Male In-line + Grommet + Backshell**

• Rigid  
• High Performance

| Shell size | Layout        | Part numbers Male contact   | Ø A  | Ø B  | L    | Hexagon D | Ø Cable range Standard seal | Ø Cable range Reducing seal | E    |
|------------|---------------|-----------------------------|------|------|------|-----------|-----------------------------|-----------------------------|------|
| 10         | 10-4          | UTS1GJC104P                 | 14.9 | 26.2 | 70.7 | 27.0      | 2.5 / 8.0                   | 1.5 / 5.0                   | 30.0 |
| 12         | 12-8          | UTS1GJC128P                 | 19.0 | 29.7 | 74.5 | 31.8      | 5.0 / 12.0                  | 3.0 / 9.0                   | 33.5 |
| 14         | 14-7<br>14-12 | UTS1GJC147P<br>UTS1GJC1412P | 22.2 | 34.6 | 80.5 | 34.9      | 7.0 / 14.0                  | 5.0 / 12.0                  | 37.6 |

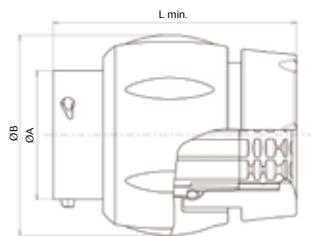
Coloured ring supplied as optional extra (see page 72).

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# UTS discrete wire sealing



## Male In-line + Grommet + Backshell nut

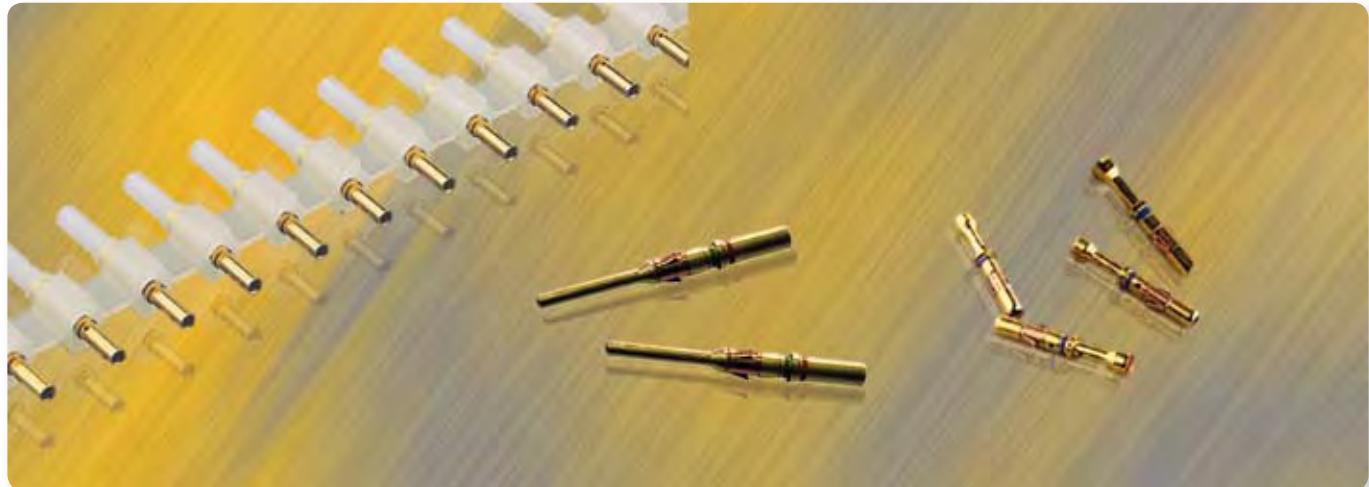
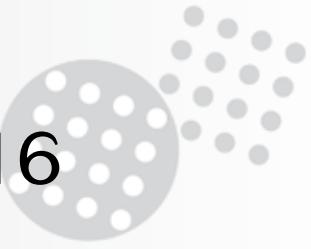


| Shell size | Layout        | Part numbers<br>Male contact | Ø A  | Ø B  | L    |
|------------|---------------|------------------------------|------|------|------|
| 10         | 10-4          | UTS1GN104P                   | 14.9 | 26.2 | 40.9 |
| 12         | 12-8          | UTS1GN128P                   | 19.0 | 29.7 | 40.9 |
| 14         | 14-7<br>14-12 | UTS1GN147P<br>UTS1GN1412P    | 22.2 | 34.6 | 43.0 |

Coloured ring supplied as optional extra (see page 72).

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# RC/RM machined contacts size 16



|  | Description   |
|--|---|
| <b>Size 16 machined contacts for TRIM TRIO® connectors</b> | <p>Size 16 RM/RC .0625" (1.6mm) diameter contacts are precision machined crimp snap-in pins and sockets for heavy duty top performance requirements. 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 wire stop and inspection hole.</p> <p>Typical benefits are :</p> <ul style="list-style-type: none"><li>▪ Easy mounting &amp; dismounting</li><li>▪ Excellent cable retention as well as contact retention in the cavity</li><li>▪ Easy wire identification with color coding</li></ul> |

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# RC/RM machined contacts size 16

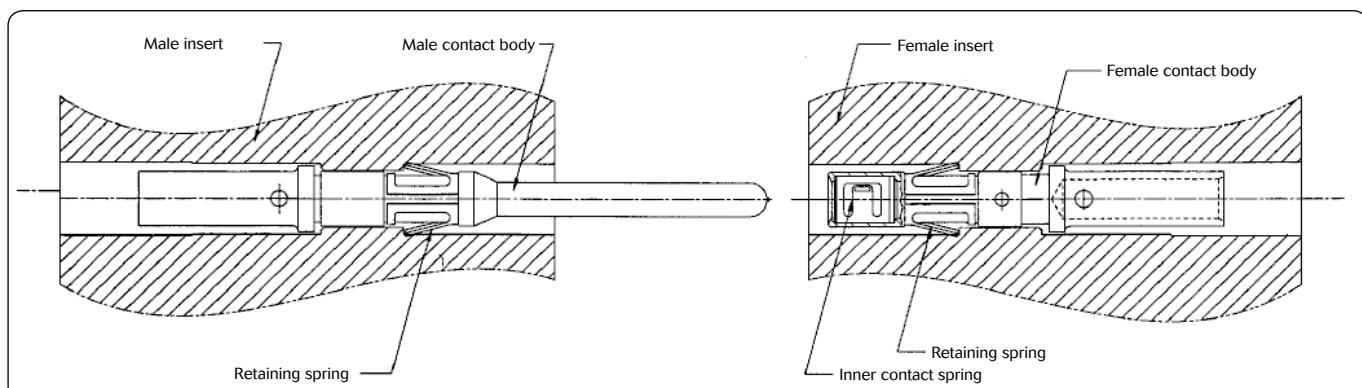


| Technical characteristics   |  |
|---|--|
| <b>Electrical</b>   |  |
| • Current per contact max.:   | 13 A according to SAE 39029            |
|   | 15 A according to NFF61030             |
| • Contact resistance:   | $\leq 3 \text{ M}\Omega$               |
| • Contact retention in body:  | 110 N min.                             |
| • Individual insertion force:   | 3.5 N max.                             |
| • Individual withdrawal force:  | 0.55 N min                             |
| <b>Construction</b>   |  |
| • Contact body:   | High conductive copper alloy           |
| <b>Plating indication</b>   |  |
| • K (std)   | Min. 0.4µm gold all over, over nickel  |
| • J   | Gold flash all over, over nickel       |
| • N   | Min. 0.75µm gold all over, over nickel |
| Other plating, on request   |  |
| <b>Connector accomodation</b>   |  |
| • TRIM TRIO® RC/RM machined contact size 16 can be used in any contact position in any connector from the TRIM TRIO® interconnection system - UTP, UTS, UTG, UTO, MBG, MS-M, MSG / MB, SMS, UTV - as well as in VGE1 and 838 connectors |  |

## Ordering information

| Type   | (KRM<br>(KRC                  | 16 | M | 23 | (GE1)<br>(GE7) | K | - |
|--|-------------------------------|----|---|----|----------------|---|---|
| RM Male contact bulk packing                       |                               |    |   |    |                |   |   |
| RC Female contact bulk packing                     |                               |    |   |    |                |   |   |
| KRM Male contact on plastic carrier strip          |                               |    |   |    |                |   |   |
| KRC Female contact on plastic carrier strip        |                               |    |   |    |                |   |   |
| Wire size : 14, 16, 20, 24, 28                     |                               |    |   |    |                |   |   |
| Contact size 16 : .0625" (1.6mm) diameter contacts |                               |    |   |    |                |   |   |
| Design variation : Crimp barrel                    |                               |    |   |    |                |   |   |
| <b>Types of contact</b>                            |                               |    |   |    |                |   |   |
| No digit Standard contact                          |                               |    |   |    |                |   |   |
| GE1 Longer contact                                 |                               |    |   |    |                |   |   |
| GE3 Shorter contact (only male contact)            |                               |    |   |    |                |   |   |
| GE7 Shorter contact (only female contact)          |                               |    |   |    |                |   |   |
| Plating : See plating indication                   |                               |    |   |    |                |   |   |
| <b>Packing quantity</b>                            |                               |    |   |    |                |   |   |
| No digit (std)                                     | 50 pcs bulk packing (RM/RC)   |    |   |    |                |   |   |
|  | 2000 pcs on reel (KRM/KRC)    |    |   |    |                |   |   |
| 1000   | 1000 pcs bulk packing (RM/RC) |    |   |    |                |   |   |

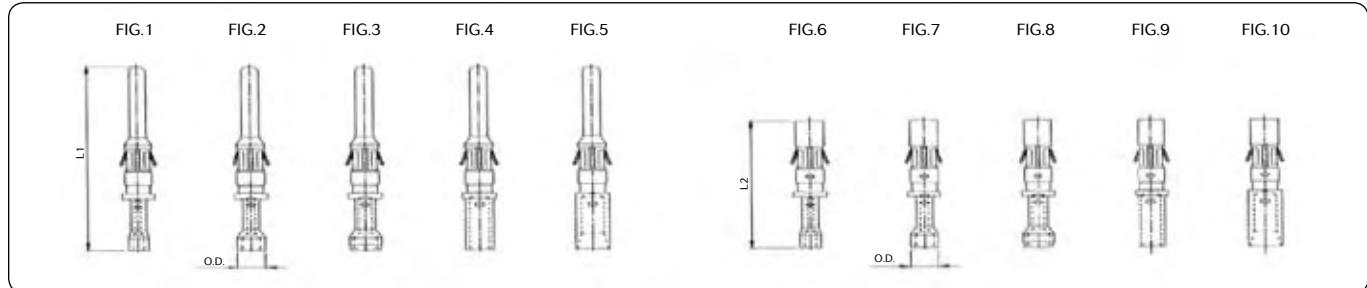
## The RM/RC contact principle



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# RC/RM machined contacts size 16

**Standard RM/RC crimp contacts: Contact size 16 - Pin Ø1.6mm (.063")**



## Dimensional table - Standard RM/RC contacts

| Part numbers |      |                |      | Wire size |           | Max. wire Ø | Max. insul. Ø | Wire strip length | O.D.** | L1   | L2   |
|--------------|------|----------------|------|-----------|-----------|-------------|---------------|-------------------|--------|------|------|
| Male contact | Fig. | Female contact | Fig. | AWG       | mm²       |             |               |                   |        |      |      |
| 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   |      |      |
| 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   |      |      |

\* Plating : See plating indication  
For machined contacts reeled on plastic carrier: put «K» in front of part number e.g. KRM16M13K

## Dimensional table - Crimp RM/RC contacts

Comparison with standard RM / RC contacts

|                             | GE1      | GE3   | GE7     |
|-----------------------------|----------|-------|---------|
| RM contact (male contact)   | + 1 mm   | -1 mm | -       |
| RC contact (female contact) | + 1.5 mm | -     | -0.6 mm |

### Contact selector guide

|                     | Standard RC contact    | RM*GE1 | RC*GE7                 |
|---------------------|------------------------|--------|------------------------|
| Standard RC contact | X                      |        |                        |
| Standard RM contact |                        |        | Last Mate, First Break |
| RM*GE1              | First Mate, Last Break | X      |                        |

 First Mate, Last Break contact can be used as grounding contact.

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# RC/RM machined contacts size 16

## Longer RM/RC contacts

| Part numbers  |      |                |      | Wire size |                 | Max. wire Ø | Max. insul. Ø | Wire strip length | O.D.** | L1   | L2   |  |  |
|---------------|------|----------------|------|-----------|-----------------|-------------|---------------|-------------------|--------|------|------|--|--|
| Male contact  | Fig. | Female contact | Fig. | AWG       | mm <sup>2</sup> |             |               |                   |        |      |      |  |  |
| RM28M1GE1(*)  | 1    | RC28M1GE1(*)   | 6    | 30-28     | 0.05-0.08       | 0.55        | 1.1           | 4.8               | 1.90   | 27.2 | 19.7 |  |  |
| RM24M9GE1(*)  | 2    | RC24M9GE1(*)   | 7    | 26-24     | 0.13-0.20       | 0.8         | 1.6           |                   | 2.55   |      |      |  |  |
| RM20M13GE1(*) | 3    | RC20M13GE1(*)  | 8    | 22-20     | 0.32-0.52       | 1.18        | 1.8           |                   | 2.92   |      |      |  |  |
|               |      | RC20M12GE1(*)  |      |           |                 |             | 2.2           |                   | 2.55   |      |      |  |  |
| RM16M23GE1(*) | 4    | RC16M23GE1(*)  | 9    | 20-16     | 0.52-1.50       | 1.80        | 3.2           | 7.1               | 2.05   |      |      |  |  |
| RM14M50GE1(*) | 5    | RC14M50GE1(*)  | 10   | 16-14     | 1.5-2.5         |             |               |                   | 2.28   |      |      |  |  |
| RM14M30GE1(*) | 5    | RC14M30GE1(*)  | 10   |           |                 |             |               |                   | 3.10   |      |      |  |  |

\* Plating : See plating indication

## Shorter RM/RC contacts

| Part numbers |      | Wire size |                 | Max. wire Ø | Max. insul. Ø | Wire strip length | O.D.** | L1   |  |  |
|--------------|------|-----------|-----------------|-------------|---------------|-------------------|--------|------|--|--|
| Male contact | Fig. | AWG       | mm <sup>2</sup> |             |               |                   |        |      |  |  |
| RM28M1GE3*   | 1    | 30-28     | 0.05-0.08       | 0.55        | 1.1           | 4.8               | 1.90   | 25.2 |  |  |
| RM24M9GE3*   | 2    | 26-24     | 0.13-0.20       | 0.8         | 1.6           |                   | 2.55   |      |  |  |
| RM20M13GE3*  | 3    | 22-20     | 0.32-0.52       | 1.18        | 1.8           |                   | 2.92   |      |  |  |
|              |      |           |                 |             | 2.2           |                   | 2.55   |      |  |  |
| RM16M23GE3*  | 4    | 20-16     | 0.52-1.50       | 1.80        | 3.2           | 7.1               | 2.05   |      |  |  |
| RM14M50GE3*  | 5    | 16-14     | 1.5-2.5         |             |               |                   | 2.28   |      |  |  |
| RM14M30GE3*  | 5    |           |                 |             |               |                   | 3.10   |      |  |  |

\* Plating : See plating indication

| Part numbers   |      | Wire size |                 | Max. wire Ø | Max. insul. Ø | Wire strip length | O.D.** | L2   |  |  |
|----------------|------|-----------|-----------------|-------------|---------------|-------------------|--------|------|--|--|
| Female contact | Fig. | AWG       | mm <sup>2</sup> |             |               |                   |        |      |  |  |
| RC28M1GE7*     | 6    | 30-28     | 0.05-0.08       | 0.55        | 1.1           | 4.8               | 1.90   | 17.6 |  |  |
| RC24M9GE7*     | 7    | 26-24     | 0.13-0.20       | 0.8         | 1.6           |                   | 2.55   |      |  |  |
| RC20M13GE7*    | 8    | 22-20     | 0.32-0.52       | 1.18        | 1.8           |                   | 2.92   |      |  |  |
|                |      |           |                 |             | 2.2           |                   | 2.55   |      |  |  |
| RC16M23GE7*    | 9    | 20-16     | 0.52-1.50       | 1.80        | 3.2           | 7.1               | 2.05   |      |  |  |
| RC14M50GE7*    | 10   | 16-14     | 1.5-2.5         |             |               |                   | 2.28   |      |  |  |
| RC14M30GE7*    | 10   |           |                 |             |               |                   | 3.10   |      |  |  |

\* Plating : See plating indication

## Dimensional table - Handsolder RM/RC contacts

| Part numbers |                | Wire size |                 |
|--------------|----------------|-----------|-----------------|
| Male contact | Female contact | AWG       | mm <sup>2</sup> |
| RM16SEO(*)   | RC16SE4(*)     | 16-20     | 1.50-0.52       |

\* Plating : See plating indication

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# RC/RM machined contacts size 16



## Crimptooling table

| Size       | Hand crimp tooling for loose contacts |                           |       | Automatic crimp tooling for contacts on strip                |                              | Extraction tools |  |
|------------|---------------------------------------|---------------------------|-------|--|------------------------------|------------------|--|
|            | Hand tools<br>die set<br>included     | Positioner<br>(not incl.) | MH860 | P107 Press<br>Left side applicator<br>KRM/KRC<br>(not incl.) | Stripper unit<br>(not incl.) |                  |  |
| R*28M1     | Y16RCM                                | MH86164G                  | 4/6   | -  | SC11                         | RX2025GE1        |  |
| R*24M9     |                                       |                           | 5/6   | MLSP2763   |                              |                  |  |
| R*20M12/13 |                                       |                           | 5/7   | MLSP2764   |                              |                  |  |
| R*16M23    |                                       |                           | 6/8   | MLSP2765   |                              |                  |  |
| R*14M50    | *                                     | -                         | -     | -  | -                            | RX2025GE1        |  |
| R*14M30    | *                                     | -                         | -     | -  | -                            |                  |  |
| R*28M1GE1  | Y16RCM                                | MH861686                  | 4/6   | -  | -                            |                  |  |
| R*24M1GE1  |                                       |                           | 5/6   | -  | -                            |                  |  |
| R*20*GE1   |                                       |                           | 5/7   | -  | -                            |                  |  |
| R*16M23GE1 |                                       |                           | 6/8   | -  | -                            |                  |  |
| R*14*GE1   | *                                     | -                         | -     | -  | -                            | SC11             |  |
| RM28M1GE3  | Y16RCM                                | *                         | 4/6   | -  | SC11                         |                  |  |
| RM24M1GE3  |                                       |                           | 5/6   | MLSP2763   |                              |                  |  |
| RM20*GE3   |                                       |                           | 5/7   | MLSP2764   |                              |                  |  |
| RM16M23GE3 |                                       |                           | 6/8   | MLSP2765   |                              |                  |  |
| RM14*GE3   | *                                     | -                         | -     | -  | -                            | SC11             |  |
| RC28M1GE7  | Y16RCM                                | *                         | 4/6   | -  | SC11                         |                  |  |
| RC24M1GE7  |                                       |                           | 5/6   | MLSP2763   |                              |                  |  |
| RC20*GE7   |                                       |                           | 5/7   | MLSP2764   |                              |                  |  |
| RC16M23GE7 |                                       |                           | 6/8   | MLSP2765   |                              |                  |  |
| RC14*GE7   | *                                     | -                         | -     | -  | -                            |                  |  |

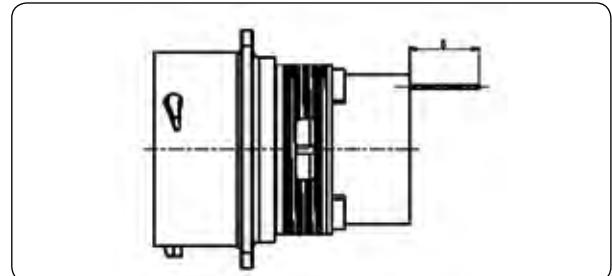
\* Consult factory

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# RC/RM machined contacts size 16



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



## UTS0 wall mounting receptacles

| Connector sizes | Male contacts |             | Female contacts |             |             |
|-----------------|---------------|-------------|-----------------|-------------|-------------|
|                 | RM20M12E8*    | RM20M12E83* | RC20M12E8*      | RC20M12E83* | RC20M12E84* |
| All sizes       | 5.2           | 10.3        | 5.2             | 10.4        | 13.9        |

\* Plating : See plating indication

## UTS7 jam nut receptacles

| Connector sizes | Male contacts |             | Female contacts |             |             |
|-----------------|---------------|-------------|-----------------|-------------|-------------|
|                 | RM20M12E8*    | RM20M12E83* | RC20M12E84*     | RC20M12E85* | RC20M12E86* |
| 10              | 4.1           | 9.2         | 4.65            | 7.15        | 7.95        |
| 12              | 4.1           | 9.2         | 4.65            | 7.15        | 7.95        |
| 14              | 4.1           | 9.2         | 5.35            | 7.85        | 8.65        |
| 16              | 4.1           | 9.2         | 4.65            | 7.15        | 7.95        |
| 18              | 4.1           | 9.2         | 4.65            | 7.15        | 7.95        |
| 20              |               | 4.85        |                 | 3.4         | 4.2         |
| 22              |               | 4.85        |                 | 2.7         | 3.5         |
| 24              |               | 3.35        |                 | 1.3         | 2.1         |

For recommended PC-Board hole layout, please consult factory

\* Plating : See plating indication

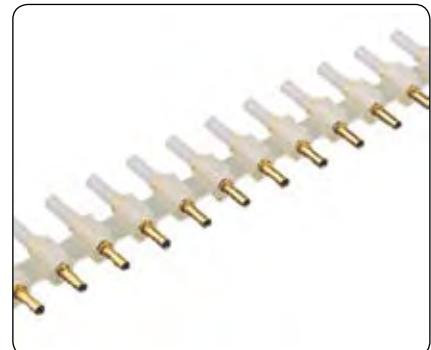
## The RM/RC contact packing



50 pcs bulk packing (standard)



1000 pcs bulk packing



Reeled contacts on plastic carrier (qty 2000 pcs)

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# SC/SM Stamped & formed contacts size 16



| Rigid   | High Performance | Description |
|---|------------------|-------------|
| <b>Size 16 stamped and formed contacts for TRIM TRIO® connectors</b>  |                  |             |
| <p>Size 16 SM/SC .0625" (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.</p> <p>The contact with 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.</p> |                  |             |
| <p>Typical features and benefits are :</p> <ul style="list-style-type: none"><li>▪ Made from high conductive copper alloy with gold or tin over nickel plate finish.</li><li>▪ Two piece construction with dual purpose spring which serves for contact retention and protects the body against damage.</li><li>▪ Contacts available on reel (standard) and in bulk packing (100 pcs).</li><li>▪ Suitable for automatic crimping thus lower installation cost.</li></ul>  |                  |             |

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# SC/SM Stamped & formed contacts size 16



## Technical characteristics

### Electrical

- Current per contact max.: 13A
- Contact resistance:  $\leq 6 \text{ M}\Omega$
- 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

### Plating indication

- S6 0.75  $\mu\text{m}$  gold min. in contact area, flash on crimp barrel over nickel
- D70 (std) Gold flash all over, over nickel (standard)
- TK6 Preplated tin all over

### Connector accomodation

- Any TRIM TRIO® size 16 contact can be used in any contact position in any connector in the TRIM TRIO® size 16 interconnection system : UTP, UTS, UTG, UTO, MBG, MS-M, MSG / MB, UTV

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

## Ordering information

### Type

SM Male contact  
SC Female contact

AWG size : 14, 16, 20, 24

|    |    |   |     |   |    |
|----|----|---|-----|---|----|
| SM | 16 | M | (L) | 1 | S6 |
| SC | 16 | M | (L) | 1 | S6 |

Type of crimp barrel : American crimp barrel

### Packing

No digit Contacts on strip (qty 3000 per reel)  
L Preformed loose piece contact

### Design variation

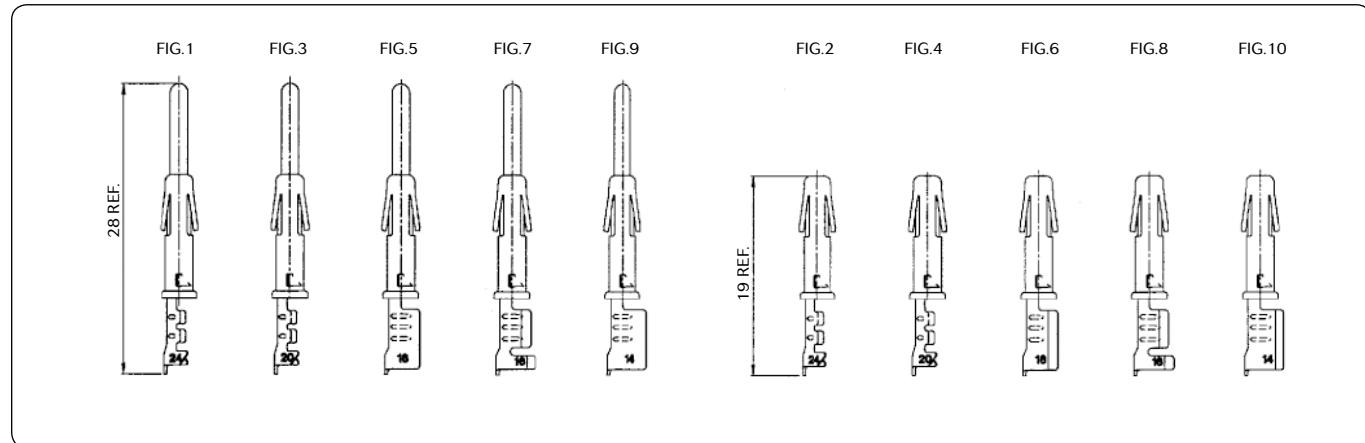
- 1 Only wire crimp for size 14 and 16
- 1 Wire + insulation crimp for sizes 20 and 24
- 11 Wire + insulation crimp for size 16

Plating : See plating indication

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# SC/SM Stamped & formed contacts size 16

**Standard SM/SC crimp contacts: Contact size 16 - Pin Ø1.6mm (.063")**



## Dimensional table

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

For other platings : See plating indication

## Crimptooling table

| Size     | Hand crimp tooling for loose contacts<br><br>Y14MTV / Y16SCM2<br>die set included | Automatic crimp tooling for contacts on strip |                      | Extraction tools |
|----------|---|---|----------------------|------------------|
|          |   | P107 Press<br>Mini applicator<br>(not incl.)  | (Stripper - crimper) |                  |
| 24       | Y14MTV<br>or<br>Y16SCM2   | MLS0318B                                      | SC11                 | RX2025GE1        |
| 20       |   | MLS055A                                       |                      |                  |
| 16M(L)11 |   | MLS0356A                                      |                      |                  |
| 16M(L)1  |   | MLS1579                                       |                      |                  |
| 14       |   | MLS1047                                       |                      |                  |

For detailed information on crimp tooling: See crimp tooling section

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# Multipiece coaxial contacts size 16



| Rapid<br>High Performance | Description   |
|---------------------------|---|
|                           | <p><b>Size 16 Multipiece COAXIAL contacts for TRIM TRIO® connectors</b></p> <p>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.</p> <p>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.</p> <p>The contact consists of an inner pin/socket and an outer male/female body.</p> <p>The thermoplastic insulating bushing in the outer body is designed to accept and permanently retain the inner contact.</p> <p>The outer ferrule hold the outer braid to the outer contact and act as an insulating support to ensure against bending and vibrating stresses.</p> <p>The inner and the outer conductors are crimped individually, thereby enabling inspection of both critical crimp points.</p> <p>Typical features and benefits are :</p> <ul style="list-style-type: none"><li>▪ The inner and outer conductors are crimped individually.</li><li>▪ The thermoplastic insulating bushing in the outer body is designed to accept and permanently retain the inner contact.</li><li>▪ Outer ferrule hold the outer braid to the outer contact and act as an insulating support to ensure against bending and vibration.</li></ul> |

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# Multipiece coaxial contacts size 16



## Technical characteristics

### Electrical

- Operating voltage between inner / outer contact: 230 VDC
- Test potential between inner / outer contact: 750 VAC 1 min.
- 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
- Insulating bushing: Thermoplastic

### Environmental

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

### Plating indication

- Retaining spring: Nickel spring
- Inner and outer contacts: D28: 0.75µm gold min. over nickel

### Connector accomodation

- Any TRIM TRIO® size 16 contact can be used in any contact position in any connector in the TRIM TRIO® size 16 interconnection system : UTP, UTS, UTG, UTO, MS-M, MSG / MB, SMS

## Ordering information

| Type                       | RMDX<br>RCDX             | K10<br>K1 | D28<br>D28 |
|----------------------------|--------------------------|-----------|------------|
| <b>Contact type</b>        |                          |           |            |
| RMDX                       | Male subminiature coax   |           |            |
| RCDX                       | Female subminiature coax |           |            |
| <b>Multipiece coax kit</b> |                          |           |            |
| K10                        | Kit male coax            |           |            |
| K1                         | Kit female coax          |           |            |
| <b>Plating</b>             | See plating indication   |           |            |

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# Multipiece coaxial contacts size 16

## MULTIPIECE Subminiature coax - Male contact for coaxial cable

| Type of coaxial cable | Contact for inner conductor |      |                  |                    | Contact for outer braid |            |                    |                  |         | Extraction 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       |                 |
| RG188/U               |                             |      | S26D2            |                    |                         |            |                    |                  |         |                 |
| RG174/U               |                             |      | S23D2            |                    |                         |            |                    |                  |         |                 |
| RG178A/U              |                             |      |                  |                    |                         |            | yOC074 + RMDXB0553 | 4                |         |                 |
| RG196U                |                             |      |                  |                    |                         |            |                    | 3                |         |                 |

Kit reference RMDXK10D28 includes RMDX602D28 + RFD26L1D28 + YOC074 + RMDXB0553 and are packed in plastic bag.

## MULTIPIECE Subminiature coax - Female contact for coaxial cable

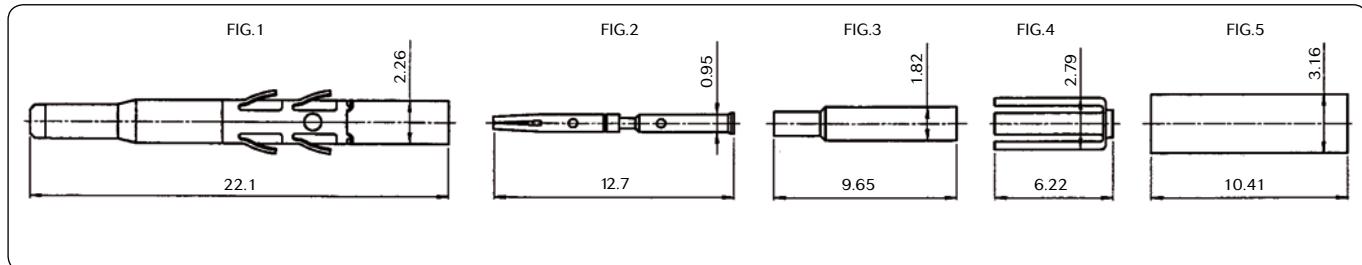
| Type of coaxial cable | Contact for inner conductor |      |                  |                      | Contact for outer braid |            |                    |                  |         | Extraction tool |
|-----------------------|-----------------------------|------|------------------|----------------------|-------------------------|------------|--------------------|------------------|---------|-----------------|
|                       | 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                |                             |      |                  |                      |                         |            |                    |                  |         |                 |
| RG174/U               | RMD26L1D28                  | 2    | S23D2            |                      | SL46D2                  | RCDX602D28 | 1                  | yOC074           | 4       |                 |
| RG188/U               |                             |      | S26D2            |                      |                         |            |                    |                  |         |                 |
| RG174/U               |                             |      | S23D2            |                      |                         |            | yOC074             | 4                |         |                 |
| RG178A/U              |                             |      |                  |                      |                         |            | yOC074 + RCDXB0551 | 4                |         |                 |
| RG196U                |                             |      |                  |                      |                         |            |                    | 3                |         |                 |

Kit reference RCDXK1D28 includes RCDX602D28 + RMD26L1D28 + YOC074 + RCDXB0551 and are packed in plastic bag.

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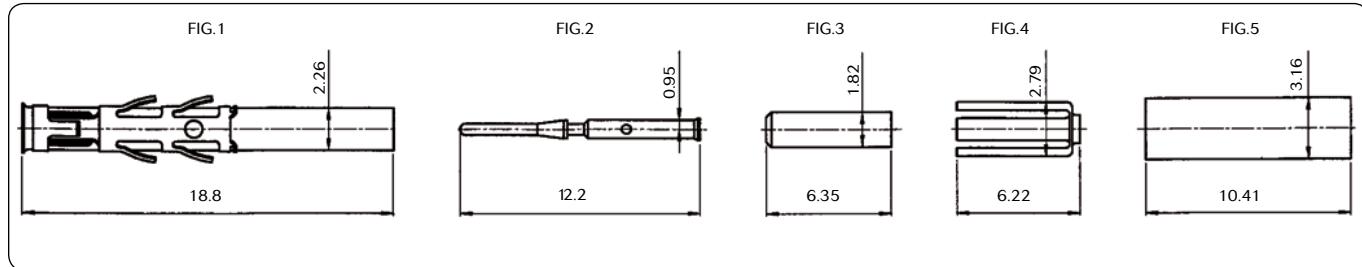
# Multipiece coaxial contacts size 16

## MULTIPIECE Subminiature coax - Male contact for coaxial cable



| Type of coaxial cable  | Contact for inner conductor |      |                  |              | Contact for outer braid |            |                                |                                |                  | Extraction 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 stranded<br>MIL-W-16878 Type B                               |                             |      |                  |              |                         |            | YOC074<br>RMDXB0554<br>YORX090 | 5<br>3<br>4                    |                  |                 |
| 2 #24 solid<br>MIL-W-76 Type LW                                    | RFD26L1D28                  | 2    | S26D2            |              | SL46D2                  | RMDX602D28 | 1                              | YOC074<br>RMDXB0553<br>YORX090 | 5<br>3<br>4      | S221            |
| 2 #26 stranded<br>MIL-W-76 Type LW<br>or MIL-W-16878 type<br>B & E |                             |      |                  | S46          |                         |            |                                |                                |                  | SL471           |
| 2 #28 solid<br>MIL-W-81822/3                                       |                             |      |                  |              |                         |            |                                |                                | S47              | RX2025GE1       |

## MULTIPIECE Subminiature coax - Female contact for coaxial cable



| Type of coaxial cable  | Contact for inner conductor |      |                  |              | Contact for outer braid |            |                                |                                |                  | Extraction 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 stranded<br>MIL-W-16878 Type B                               |                             |      |                  |              |                         |            | YOC074<br>RCDXB0552<br>YORX090 | 5<br>3<br>4                    |                  |                 |
| 2 #24 solid<br>MIL-W-76 Type LW                                    | RMD26L1D28                  | 2    | S26D2            |              | SL46D2                  | RCDX602D28 | 1                              | YOC074<br>RMDXB0551<br>YORX090 | 5<br>3<br>4      | S221            |
| 2 #26 stranded<br>MIL-W-76 Type LW<br>or MIL-W-16878 type<br>B & E |                             |      |                  | S46          |                         |            |                                |                                |                  | SL471           |
| 2 #28 solid<br>MIL-W-81822/3                                       |                             |      |                  |              |                         |            |                                |                                | S47              | RX2025GE1       |

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# Monocrimp coaxial contacts size 16



| Rapid<br>High Performance  | Description |
|--|-------------|
| <b>Size 16 Monocrimp COAXIAL contacts for TRIM TRIO® connectors</b>  |             |
| 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.   |             |
| Typical features and benefits are :  |             |
| <ul style="list-style-type: none"><li>The monocrimp one-piece coaxial contacts offer high reliability plus the economic advantage of a 95% reduction in installation time over conventional assembly methods.</li><li>This economy is achieved by simultaneously crimping of both the inner and outer conductor.</li></ul> |             |

**UTS : Your first choice in waterproof connectors !**

# Monocrimp coaxial contacts size 16



## Technical characteristics

### Electrical

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

### Construction

- Inner and outer contacts: High conductive copper alloy
- Insulating bushing: Thermoplastic

### Environmental

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

### Plating indication

- Retaining spring: Nickel
- Inner and outer contacts: D28: 0.75µm gold min. over nickel

### Connector accomodation

- Any TRIM TRIO® size 16 contact can be used in any contact position in any connector in the TRIM TRIO® size 16 interconnection system : UTP, UTS, UTG, UTO, MS-M, MSG / MB, SMS

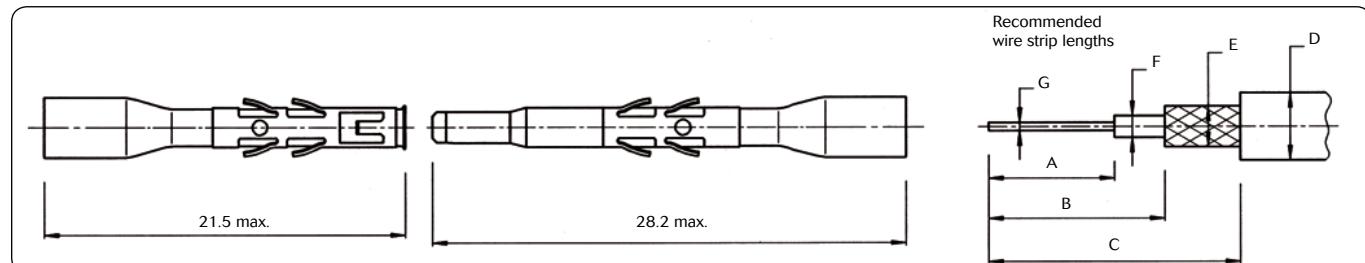
## Ordering information

|                               |                        |          |            |
|-------------------------------|------------------------|----------|------------|
| Type                          | RMDX60<br>RCDX60       | 36<br>36 | D28<br>D28 |
| Contact type                  |                        |          |            |
| RMDX Male subminiature coax   |                        |          |            |
| RCDX Female subminiature coax |                        |          |            |
| Monocrimp design variation    |                        |          |            |
| Plating                       | See plating indication |          |            |

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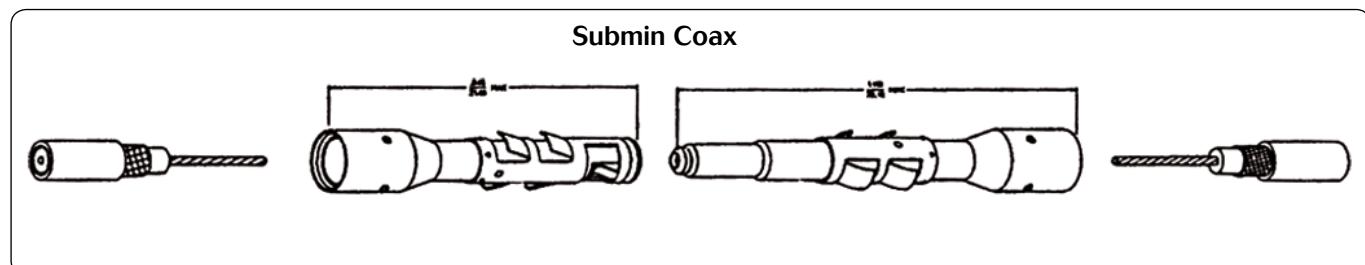
# Monocrimp coaxial contacts size 16

## MONOCRIMP Subminiature coax



| Part numbers       | 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. |                 |  |  |
| Male RMDX6050D28   | 30                 | -          | 2.64            | 2.11 | 1.70 | 0.30 | 5.1                | 6.35 | 8.9  | S80               | SL105                  | RX2025GE1       |  |  |
| Female RCDX6050D28 |                    | -          | 2.29            | 1.63 | 1.22 |      | 4.2                | 5.97 | 8.5  | S87               |                        |                 |  |  |
| Male RMDX6032D28   | 28                 | -          | 2.90            | 1.29 | 1.91 | 0.38 | 5.1                | 6.35 | 11.7 | S80               | SL105                  | RX2025GE1       |  |  |
| Female RCDX6032D28 | 28                 | -          | 1.78            | 1.37 | 0.96 | 0.48 |                    |      | 8.9  | S82               |                        |                 |  |  |
| Male RMDX6024D28   |                    | RG174/U    | 2.92            | 2.24 | 1.52 | 0.48 |                    |      | 11.7 | S80               |                        |                 |  |  |
| Female RCDX6024D28 | 26                 | -          | 3.05            | 2.44 | 1.96 | 0.41 |                    |      | 8.9  | S82               |                        |                 |  |  |
| Male RMDX6032D28   |                    | RG188A/U   | 2.79            | 1.98 | 1.52 | 0.51 |                    |      | 11.7 | S80               |                        |                 |  |  |
| Female RCDX6032D28 |                    | RG316/U    | 2.72            |      |      |      |                    |      | 8.9  | S82               |                        |                 |  |  |
| Male RMDX6036D28   | 26                 | RG316/U    | 2.72            |      |      |      |                    |      | 11.7 | S80               |                        |                 |  |  |
| Female RCDX6036D28 |                    |            | 2.72            |      |      |      |                    |      | 11.7 | S80               |                        |                 |  |  |

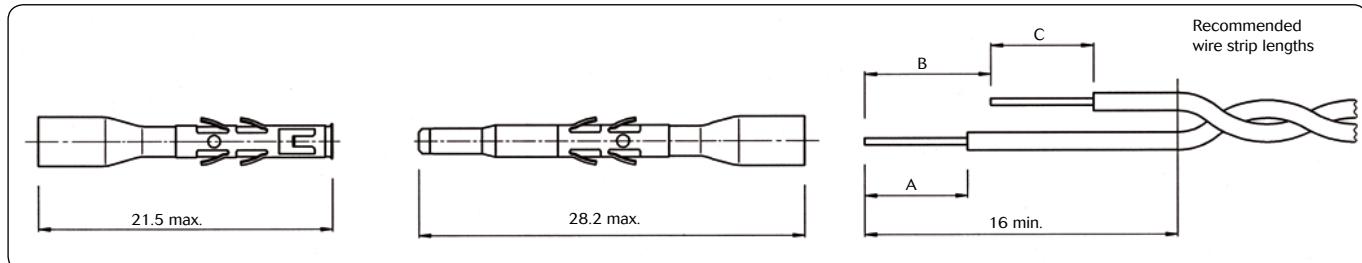
\* M10SG8 consists of die set, stop bushing and M10S1 tool



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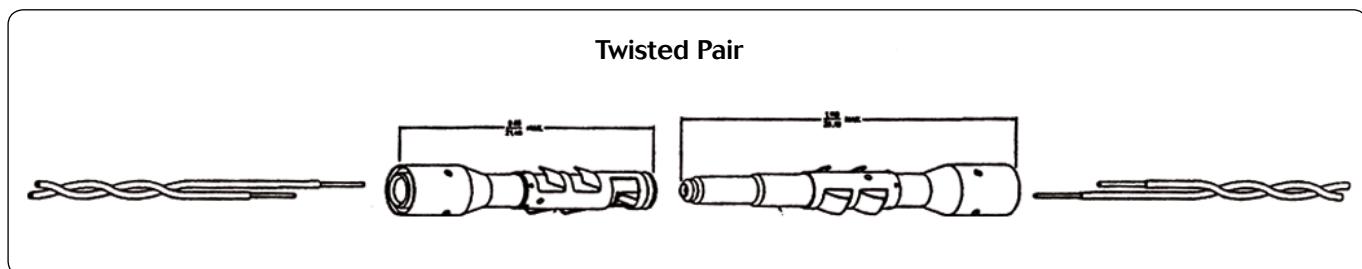
# Monocrimp coaxial contacts size 16

## MONOCRIMP Twisted pair



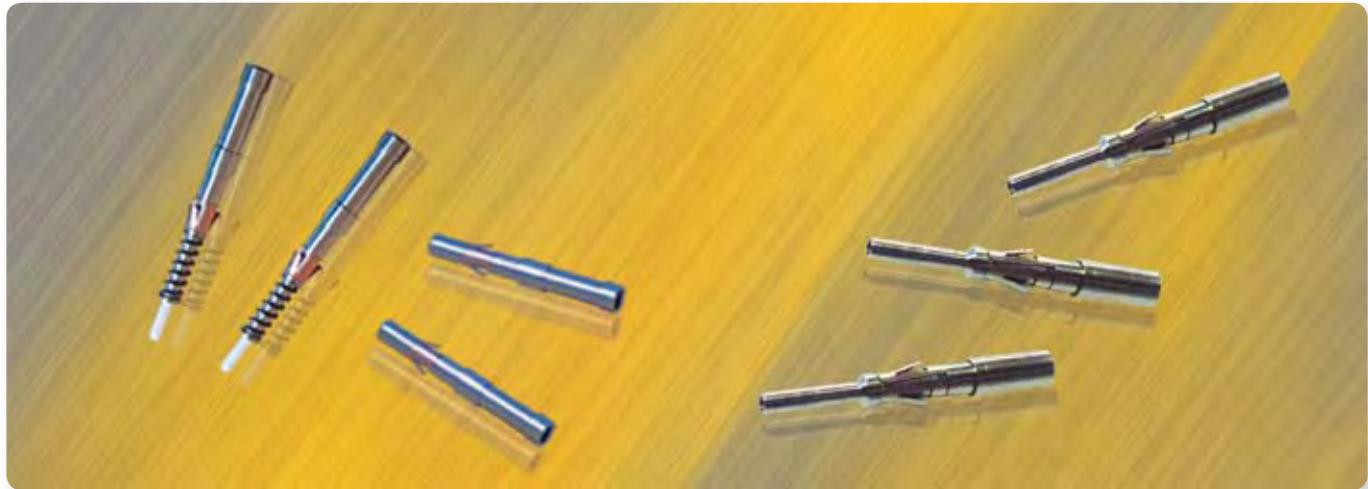
| Part number        | AWG inner conduct.                                | Dia. outer           | Cable strip lengths |     |     | Crimp tool M10S1        |                        | Extraction tool |
|--------------------|---|----------------------|---------------------|-----|-----|-------------------------|------------------------|-----------------|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

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



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# Fibre optic contacts size 16



| Rapid  | Description |
|--|-------------|
| <b>Size 16 Fibre optic contacts for TRIM TRIO® connectors</b>  |             |
| Size 16 Fibre optic contacts are optical contacts designed for the integration of optical links in all TRIM TRIO® cable connectors.  |             |
| The Fibre optic contacts are designed to accommodate:  |             |
| <ul style="list-style-type: none"><li>▪ Plastic Optical Fibre (POF)<br/>1 mm core and 2.2 mm jacket</li><li>▪ Plastic Clad Fibre (PCF)<br/>230µm core and 2.2 mm jacket</li><li>▪ Multimode Silica Fibre<br/>62.5/125µm type 2.0 mm max. jacket</li><li>▪ Singlemode Silica Fibre<br/>9/125µm type 2.0 mm jacket</li></ul>     |             |
| Typical features and benefits are :  |             |
| <ul style="list-style-type: none"><li>▪ Socket contact is spring loaded to avoid any air gap between the two optical faces.</li><li>▪ Low insertion loss is provided by high precision pieces.</li><li>▪ Single jumpers, multiway harness and active device housings can be supplied regarding customer requirement.</li></ul> |             |

**UTS : Your first choice in waterproof connectors !**

# Fibre optic contacts size 16



## Technical characteristics

### Performance

|                                   |                |
|-----------------------------------|----------------|
| • Fibre type:                     | POF/PCF        |
| • Wave length:                    | 650 nm         |
| • Optical insertion loss (typ.):  | 2 dB max.      |
| • Jacketed external diameter:     | 2.2mm          |
| • Temperature range:              | -25°C to +70°C |
| • Cable retention:                | 49N            |
| • Mating cycles without cleaning: | 50             |
| • Max. mating cycles:             | 500            |

|                |
|----------------|
| Multimode      |
| 62.5/125µm     |
| 1300 nm        |
| < 0.5 dB       |
| 2.0mm max.     |
| -25°C to +70°C |

|                |
|----------------|
| Singlemode     |
| 9/125µm        |
| 1310 nm        |
| < 0.35 dB      |
| 2.0mm max.     |
| -25°C to +70°C |

### Construction

|                 |              |
|-----------------|--------------|
| • Contact body: | Copper alloy |
|-----------------|--------------|

### 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 : UTP, UTS, UTG, LTO.

## Ordering information

### POF Contacts (Plastic Optical Fibre)

|                |            |
|----------------|------------|
| Male contact   | RMPOF1000  |
| Female contact | RCPOF1000B |

### PCF Contacts (Plastic Clad Fibre)

|                |           |
|----------------|-----------|
| Male contact   | RMPCF230  |
| Female contact | RCPOF230B |

### Silica Contacts - Multimode

|                |         |
|----------------|---------|
| Male contact   | RMMMOFA |
| Female contact | RCMMOFA |

### Silica Contacts - Monomode

|                |         |
|----------------|---------|
| Male contact   | RMSMOFA |
| Female contact | RCSMOFA |

## Tooling kit



### POF Contact (Plastic Optical Fibre)

#### STANDARD TOOLING KIT - P/N 80MS0004

The **standard tooling kit** is made of the part numbers below that can be ordered separately as well.

| Part numbers | Descriptions   |
|--------------|--|
| 80WD005      | Stripping tool   |
| 80WD0025     | Automatic stripping tool for Ø 0.5 mm, 0.6 mm, 0.7 mm & 3.8 mm |
| 80WM0006     | Ruler  |
| 80WP0005     | Polishing plate  |
| 80WP0013     | Non slip base (to hold the polishing plate)                    |
| 80WP0014     | Polishing disk (grain size 9µm)                                |
| 80WP0018     | Polishing tool   |
| 80WP0019     | Polishing disk (grain size 30µm)                               |
| 80WS0002     | Crimping plier   |

#### SPECIFIC TOOLING LIST - can be ordered only separately

| Part numbers | Descriptions    |
|--------------|-----------------|
| 80WG0010     | Needle          |
| 80WG0015     | Capsule         |
| 80WG0016     | Syringe         |
| 80WN0005     | Dry air spray   |
| 80WN0006     | Optical paper   |
| 80WN0012     | Dropping bottle |
| 80WN0008     | Wiping solvent  |

**UTS : Your first choice in waterproof connectors !**

# Fibre optic contacts size 16

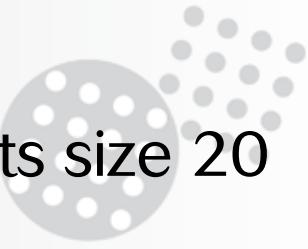
| PCF Contact (Plastic Clad Fibre)  |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
|---|--------------|-----------------------------|-----------------|------------------------------|---------------|----------------|----------------|------------|--|--------------|---------------------------------|-----------------------------------|-------------|-----------------|---|------|
|    |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| <b>STANDARD TOOLING KIT - P/N 80MG0039</b>  |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| <table border="1"> <thead> <tr> <th>Descriptions</th></tr> </thead> <tbody> <tr><td>Stripping tool for Ø 2.2 mm</td></tr> <tr><td>Kevlar scissors</td></tr> <tr><td>Stripping tool for Ø 0.25 mm</td></tr> <tr><td>Alumina blade</td></tr> <tr><td>Polishing tool</td></tr> <tr><td>Press fit tool</td></tr> <tr><td>Microscope</td></tr> </tbody> </table> | Descriptions | Stripping tool for Ø 2.2 mm | Kevlar scissors | Stripping tool for Ø 0.25 mm | Alumina blade | Polishing tool | Press fit tool | Microscope | <table border="1"> <thead> <tr> <th>Descriptions</th></tr> </thead> <tbody> <tr><td>Polishing disk (grain size 9µm)</td></tr> <tr><td>Polishing disk (grain size 0.3µm)</td></tr> <tr><td>Curing oven</td></tr> <tr><td>Polishing plate</td></tr> <tr><td>Non slip base (to hold the polishing plate)</td></tr> <tr><td>Glue</td></tr> </tbody> </table> | Descriptions | Polishing disk (grain size 9µm) | Polishing disk (grain size 0.3µm) | Curing oven | Polishing plate | Non slip base (to hold the polishing plate) | Glue |
| Descriptions  |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| Stripping tool for Ø 2.2 mm   |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| Kevlar scissors   |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| Stripping tool for Ø 0.25 mm  |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| Alumina blade   |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| Polishing tool  |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| Press fit tool  |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| Microscope  |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| Descriptions  |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| Polishing disk (grain size 9µm)   |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| Polishing disk (grain size 0.3µm)   |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| Curing oven   |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| Polishing plate   |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| Non slip base (to hold the polishing plate)   |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |
| Glue  |              |                             |                 |                              |               |                |                |            |  |              |                                 |                                   |             |                 |   |      |

| Multimode Contact - Silica  |  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
|---|--|--------------|--------------|----------------------|---------------------------------------|----------|--------------------------------------|---------------|-----------------|------------------------------|--------------------|------------------------------|----------------|------------------------------|---------------|--|------------------------------------|----------|----------|-----------------|----------|---|----------|-------------|----------|-----------------|---------------|----------|---------------|----------|-----------------|----------|---------------------------------|----------|-----------------------------------|
|    | <b>STANDARD TOOLING KIT - P/N 80MG0027</b>   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| <p>The <b>standard tooling kit</b> is made of the part numbers below that can be ordered separately as well.</p> <table border="1"> <thead> <tr> <th>Part numbers</th><th>Descriptions</th></tr> </thead> <tbody> <tr><td>80WC0001</td><td>Aramid yarn scissors</td></tr> <tr><td>80WC0003</td><td>Cutter</td></tr> <tr><td>80WC0004</td><td>Alumina blade</td></tr> <tr><td>80WD0008</td><td>Stripping tool for Ø 0.20 mm</td></tr> <tr><td>80WD0010</td><td>Stripping tool for Ø 0.25 mm</td></tr> <tr><td>80WD0014</td><td>Stripping tool for Ø 0.60 mm</td></tr> <tr><td>80WD0025</td><td>Automatic stripping tool for Ø 0.5 mm, 0.6 mm, 0.7 mm &amp; 3.8 mm</td></tr> <tr><td>80WM0006</td><td>Ruler</td></tr> <tr><td>80WP0005</td><td>Polishing plate</td></tr> <tr><td>80WP0013</td><td>Non slip base (to hold the polishing plate)</td></tr> <tr><td>80WT0008</td><td>Curing oven</td></tr> <tr><td>80WT0009</td><td>Protective tube</td></tr> </tbody> </table> | Part numbers   | Descriptions | 80WC0001     | Aramid yarn scissors | 80WC0003                              | Cutter   | 80WC0004                             | Alumina blade | 80WD0008        | Stripping tool for Ø 0.20 mm | 80WD0010           | Stripping tool for Ø 0.25 mm | 80WD0014       | Stripping tool for Ø 0.60 mm | 80WD0025      | Automatic stripping tool for Ø 0.5 mm, 0.6 mm, 0.7 mm & 3.8 mm | 80WM0006                           | Ruler    | 80WP0005 | Polishing plate | 80WP0013 | Non slip base (to hold the polishing plate) | 80WT0008 | Curing oven | 80WT0009 | Protective tube |               |          |               |          |                 |          |                                 |          |                                   |
| Part numbers  | Descriptions   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WC0001  | Aramid yarn scissors   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WC0003  | Cutter   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WC0004  | Alumina blade  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WD0008  | Stripping tool for Ø 0.20 mm   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WD0010  | Stripping tool for Ø 0.25 mm   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WD0014  | Stripping tool for Ø 0.60 mm   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WD0025  | Automatic stripping tool for Ø 0.5 mm, 0.6 mm, 0.7 mm & 3.8 mm   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WM0006  | Ruler  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WP0005  | Polishing plate  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WP0013  | Non slip base (to hold the polishing plate)  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WT0008  | Curing oven  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WT0009  | Protective tube  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
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| Part numbers  | Descriptions   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WD0036  | Stripping tool for Ø 0.9 mm & 0.25 mm  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WD0005  | Stripping tool for Ø 2.2 mm & 1.5 mm   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WL0001  | Microscope x400  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WL0008  | Microscope adaptor   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WP0025  | Polishing tool   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WS0002  | Crimping tool  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WT0005  | Contact support for polymerisation   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WG0010  | Needle   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WG0014  | Glue   |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WG0015  | Capsule  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WG0016  | Syringe  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WN0005  | Dry air spray  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WN0006  | Optical paper  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WN0012  | Dropping bottle  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WP0014  | Polishing disk (grain size 9µm)  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |
| 80WP0015  | Polishing disk (grain size 0.3µm)  |              |              |                      |                                       |          |                                      |               |                 |                              |                    |                              |                |                              |               |  |                                    |          |          |                 |          |   |          |             |          |                 |               |          |               |          |                 |          |                                 |          |                                   |

**UTS : Your first choice in waterproof connectors !**



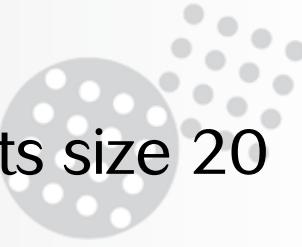
# Machined / Stamped & formed contacts size 20



| Rapid<br>High Performance   | Description |
|---|-------------|
| <b>Size 20 contacts for TRIM TRIO® connectors</b>   |             |
| Size 20 contacts with a .040" (1.0mm) pin diameter are two piece crimp snap-in contacts in pin and socket version available in:   |             |
| ▪ Machined version  |             |
| ▪ Stamped and formed version  |             |
| ▪ 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.  |             |
| Typical features and benefits are :   |             |
| ▪ 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.   |             |
| ▪ Machined crimp and dip solder contacts packaging: 50 pcs in plastic box.  |             |

**UTS : Your first choice in waterproof connectors !**

# Machined / Stamped & formed contacts size 20



## Technical characteristics

### Performance

|                                    | Machined                 | Stamped and formed        |
|------------------------------------|--------------------------|---------------------------|
| • Current per contact max.:        | 7.5 A                    | 5 A                       |
| • Contact resistance:              | $\leq 6 \text{ m}\Omega$ | $\leq 15 \text{ m}\Omega$ |
| • 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 indication:              | 0.40µm gold over nickel  | 0.75µm gold over nickel   |

### Construction

- Contact body: High conductive copper alloy

### Connector accommodation

Any size 20 contacts for UTO, UTS and UTG connectors can be used in any contact position.

## Ordering information

| Contact type             |  |                              | Part numbers | AWG     | Section mm <sup>2</sup> | Insulation diameter |
|--------------------------|--|------------------------------|--------------|---------|-------------------------|---------------------|
| Machined crimp           |  | Pin                          | RM24W3K      | 26 - 24 | 0.13 - 0.20             | 1.58 max.           |
|                          |  |                              | RM20W3K      | 22 - 20 | 0.32 - 0.52             | 1.58 max.           |
|                          |  |                              | RM18W3K      | 20 - 18 | 0.50 - 0.93             | 2.10 max.           |
|                          |  | Socket                       | RC24W3K      | 26 - 24 | 0.13 - 0.20             | 1.58 max.           |
|                          |  |                              | RC20W3K      | 22 - 20 | 0.32 - 0.52             | 1.58 max.           |
|                          |  |                              | RC18W3K      | 20 - 18 | 0.50 - 0.93             | 2.10 max            |
| Stamped and formed crimp |  | Pin<br>Reeled loose piece    | SM24W3S26    | 26 - 24 | 0.13 - 0.25             | 0.89 - 1.58         |
|                          |  |                              | SM24WL3S26   |         |                         |                     |
|                          |  | Socket<br>Reeled loose piece | SM20W3S26    | 22 - 20 | 0.35 - 0.50             | 1.17 - 2.08         |
|                          |  |                              | SM20WL3S26   |         |                         |                     |
|                          |  |                              | SC24W3S25    | 26 - 24 | 0.13 - 0.25             | 0.89 - 1.58         |
| Machined Dip solder      |  | Pin<br>50A7<br>5016          | SC24WL3S25   |         |                         |                     |
|                          |  |                              | SC20W3S25    | 22 - 20 | 0.35 - 0.50             | 1.17 - 2.08         |
|                          |  | Socket<br>50A7<br>5016       | SC20WL3S25   |         |                         |                     |
|                          |  |                              | RCW507AK     |         |                         |                     |
|                          |  |                              | RCW5016K     |         |                         |                     |

For solder tail details see next page

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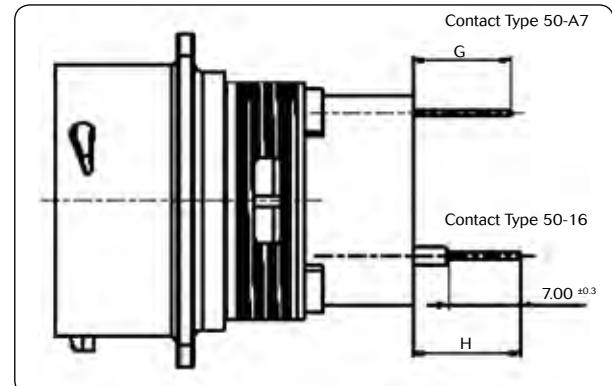
# Machined / Stamped & formed contacts size 20

## Crimptooling table

| Size                    | Hand crimp tooling for loose contacts |                                    |                 | Automatic crimp tooling for contacts on strip             |                              | Extraction tools |  |  |  |
|-------------------------|---------------------------------------|------------------------------------|-----------------|---|------------------------------|------------------|--|--|--|
|                         | y14MTV / Y16SCM2<br>die set included  | MH860<br>Positioner<br>(not incl.) | Locator setting | P107 Press<br>Left side applicator<br>KRM/KRC (not incl.) | Stripper unit<br>(not incl.) |                  |  |  |  |
| RM24W3K                 | y16RCM<br>or<br>AF8 + TP120           | MH86301                            | 5/6             | -   | -                            | RX20D44          |  |  |  |
| RM20W3K                 |                                       |                                    | 5/7             |   |                              |                  |  |  |  |
| RM18W3K                 |                                       |                                    | 6/8             |   |                              |                  |  |  |  |
| RC24W3K                 |                                       |                                    | 5/6             |   |                              |                  |  |  |  |
| RC20W3K                 |                                       |                                    | 4/7             |   |                              |                  |  |  |  |
| RC18W3K                 |                                       |                                    | 6/8             |   |                              |                  |  |  |  |
| SM24W3S26<br>SM24WL3S26 | y14MTV                                | -                                  | MLS0318B        | SC11  |                              |                  |  |  |  |
| SM20W3S26<br>SM20WL3S26 |                                       |                                    | MLS0555A        |   |                              |                  |  |  |  |
| SC24W3S25<br>SC24WL3S25 |                                       |                                    | MLS0318B        |   |                              |                  |  |  |  |
| SC20W3S25<br>SC20WL3S25 |                                       |                                    | MLS0555A        |   |                              |                  |  |  |  |
| RMW50A7K                | For solder tail details, see below    |                                    |                 |   |                              |                  |  |  |  |
| RMW5016K                |                                       |                                    |                 |   |                              |                  |  |  |  |
| RCW507AK                |                                       |                                    |                 |   |                              |                  |  |  |  |
| RCW5016K                |                                       |                                    |                 |   |                              |                  |  |  |  |

## Nominal length (dim G) of dipsolder contacts out of connector

(contacts to be ordered separately)



## UTS7 jam nut receptacle connectors

| Size | Male contact |          | Female contact |          |
|------|--------------|----------|----------------|----------|
|      | RMW50A7K     | RMW5016K | RCW50A7K       | RCW5016K |
| 10   |              |          |                |          |
| 12   |              |          |                |          |
| 14   |              |          |                |          |
| 16   |              |          |                |          |
| 18   |              |          |                |          |
| 20   | 9.51         | 10.41    | 2.4            | 3.04     |
| 22   | 5            | 6        | -              | -        |
| 24   | 3.6          | 4.6      |                |          |

\* Plating : see plating indication / Note : all dimensions are in mm

**UTS : Your first choice in waterproof connectors !**





# Power contacts



| Rapid                         | Description  |
|-------------------------------|--|
| ► Rapid<br>► High Performance | <p>TRIM TRIO® connectors also offer possibilities to use or combine power contacts with the standard size 16 signal contacts into the same housing.</p> <p>It offers customers to reduce the number of connectors when combining signal and high current applications into one connector.</p> <p>The signal cavities accept the full range of TRIM TRIO®:</p> <ul style="list-style-type: none"><li>▪ Size 16 contacts for applications up till 13 A</li><li>▪ Size 20 contacts for applications up till 7.5 A</li></ul> <p>Power cavities will either accept:</p> <ul style="list-style-type: none"><li>▪ <b>Size 12 contacts for applications up till 26A</b></li><li>▪ <b>Size 8 contacts for applications up till 44A</b></li></ul> <p>Pin and socket contacts are machined crimp snap-in and sockets for heavy duty top performance requirements.</p> |

For any specific power arrangement, please consult us.

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# Power contacts



## Technical characteristics

### Performance

- Current per contact max.: 26 A
- Contact resistance:  $\leq 5 \text{ m}\Omega$

Contacts #12 ( $\varnothing 2.4$ )

Contacts #8 ( $\varnothing 3.6$ )

44A

$\leq 5 \text{ m}\Omega$

### Construction

- Contact body: High conductive copper alloy

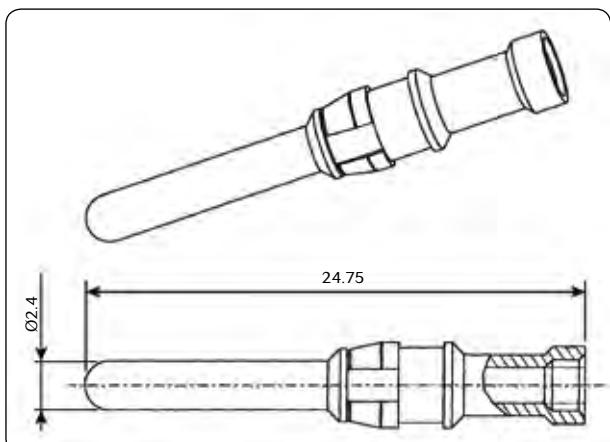
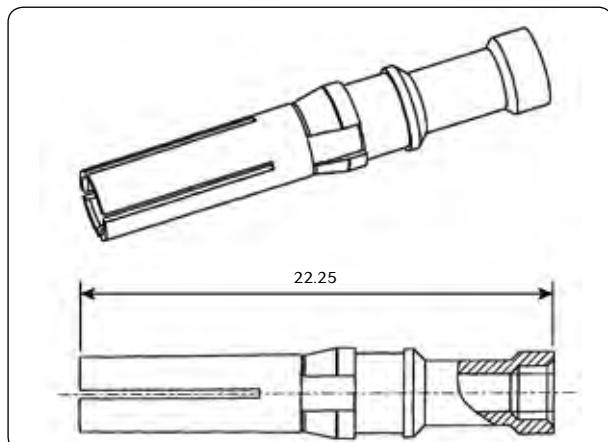
### Plating indication

- K      0.4 $\mu\text{m}$  gold min. all over, over nickel  
A      3 $\mu\text{m}$  silver all over

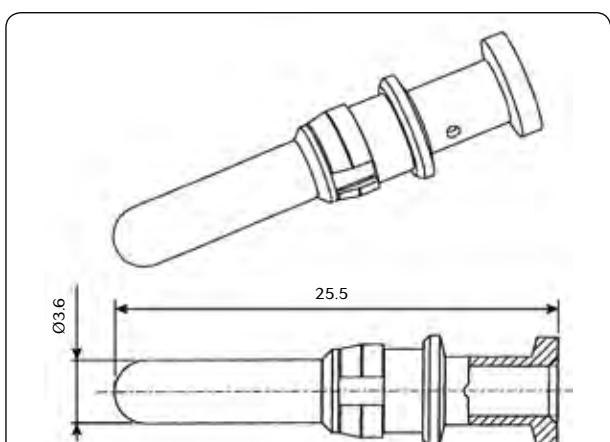
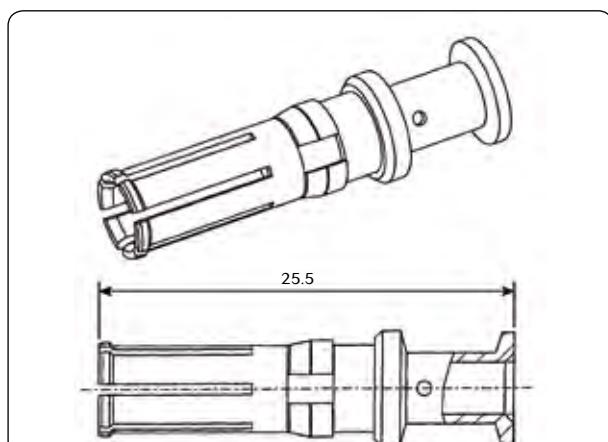
### Connector accommodation

Power contacts can be used in the existing power arrangements of the UTS - see catalog pages 6/7 - UTP, UTG, UTO, UTV and SMS connectors - see pages in the TRIM TRIO® catalog.

## Contacts #12 ( $\varnothing 2.4$ mm)



## Contacts #8 ( $\varnothing 3.6$ mm)



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# Power contacts

## Ordering information

| Part numbers |           | Contact size | Contact Ø | Cable    |                 |             | Crimp tooling | Locator setting | Locator | Extraction tooling | Plating     |    |
|--------------|-----------|--------------|-----------|----------|-----------------|-------------|---------------|-----------------|---------|--------------------|-------------|----|
| Pin          | Socket    |              |           | Section  |                 | Insulator Ø |               |                 |         |                    |             |    |
|              |           |              |           | mm       | mm <sup>2</sup> | AWG         |               |                 |         |                    |             |    |
| 82911459NA   | 82911458A | # 12         | 2.4       | 0.5      | 20              |             | 4.9           | M317            | 2       | VGE10077A          | 51060210924 | Ag |
| 82911461NA   | 82911460A |              |           | 0.75-1.0 | 18              |             |               |                 | 2       |                    |             |    |
| 82911463NA   | 82911462A |              |           | 1.5      | 16              |             |               |                 | 3       |                    |             |    |
| 82911465NA   | 82911464A |              |           | 2.5      | 14              |             |               |                 | 3       |                    |             |    |
| 82911467NA   | 82911466A |              |           | 4.0      | 12              |             |               |                 | 4       |                    |             |    |
| 82911459NK   | 82911458K | # 12         | 2.4       | 0.5      | 20              |             | 4.9           | M317            | 2       | VGE10077A          | 51060210924 | Au |
| 82911461NK   | 82911460K |              |           | 0.75-1.0 | 18              |             |               |                 | 2       |                    |             |    |
| 82911463NK   | 82911462K |              |           | 1.5      | 16              |             |               |                 | 3       |                    |             |    |
| 82911465NK   | 82911464K |              |           | 2.5      | 14              |             |               |                 | 3       |                    |             |    |
| 82911467NK   | 82911466K |              |           | 4.0      | 12              |             |               |                 | 4       |                    |             |    |
| 82913601A    | 82913600A | # 8          | 3.6       | 1.5      | 16              |             | 6.5           | M317            | 3       | VGE10078A          | 51060210936 | Ag |
| 82913603A    | 82913602A |              |           | 2.5      | 14              |             |               |                 | 3       |                    |             |    |
| 82913605A    | 82913604A |              |           | 4.0      | 12              |             |               |                 | 4       |                    |             |    |
| 82913607A    | 82913606A |              |           | 6.0      | 10              |             |               |                 | 5       |                    |             |    |
| 82913609A    | 82913608A |              |           | 10.0     | 8               |             |               |                 | 6-7     |                    |             |    |

**UTS : Your first choice in waterproof connectors !**



# UTS Hi seal

SEALED  
UNMATED



|  | Description   |
|---|---|
|   | <p><b>Dynamic IP68/IP69K - Waterproof connectors in mated and unmated condition</b></p> <p>□ UTS Hi seal connector is a range of lightweight industrial plastic circular connectors compatible with MIL-DTL-26482 connectors. It offers <b>Dynamic IP68/IP69K</b> water protection in both mated &amp; unmated conditions.</p> <p>□ Available :</p> <ul style="list-style-type: none"><li>▪ in 5 shell sizes,</li><li>▪ up to 21 contact positions</li><li>▪ with multiple polarization options.</li></ul> <p>□ Connectors are standard supplied with preassembled handsolder contacts.<br/>For dipsolder or crimp contacts,<br/>please consult factory.</p>  |

**UTS : Your first choice in waterproof connectors !**

# UTS Hi seal

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## Major features & benefits



Extreme sealing performance in **unmated** conditions

### In **unmated** conditions

#### ● Dynamic IP68

Connector will remain IP68 even when:

- Pulling on the cable
- Bending the cable

#### ● Dynamic IP69K

Connector withstands high pressure water cleaning



### In **mated** conditions

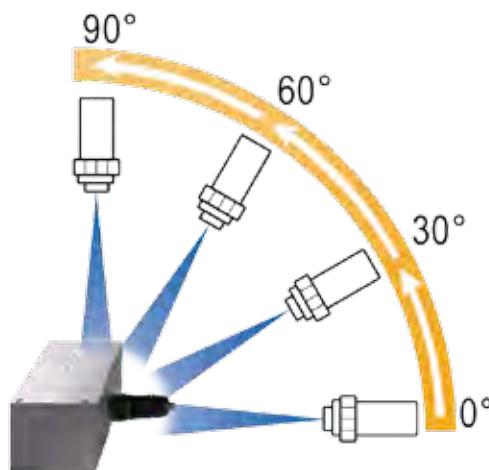
#### ● Dynamic IP68

Connector will remain IP68 even when:

- Pulling on the cable
- Bending the cable

#### ● Dynamic IP69K

Connector withstands high pressure water cleaning



**UTS : Your first choice in waterproof connectors !**

# UTS Hi seal

SEALED  
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## Intermateable with MIL-DTL-26482 or equivalents

- UTS Hi seal connectors are fully intermateable and interchangeable with MIL-DTL-26482 connectors or equivalents such as : BS 9522-F0017, NFC 93422, HE 301B, VG 95328.

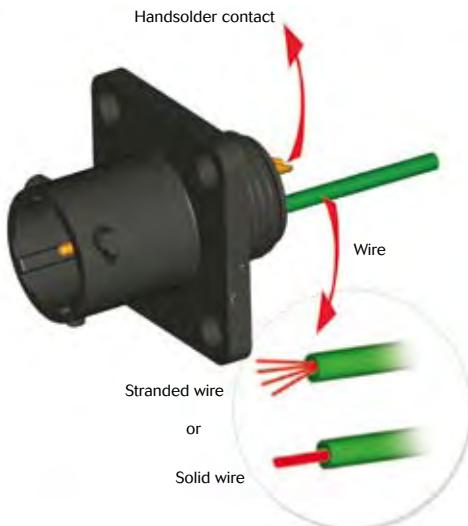


Intermateable with  
MIL-DTL-26482  
connectors (or equivalents)



## Handsolder contacts

- Handsolder contacts require no special skills or tooling. Only a standard soldering-bolt is needed to fit the wires to the contacts, making it incredibly user friendly and suitable for any field installation.



**UTS : Your first choice in waterproof connectors !**

# UTS Hi seal



## Technical characteristics

### Mechanical

- Durability: 250 matings & unmatings
- Vibration resistance: Sinusoidal vibrations per CEI 60512-4 - from 10 to 2000 Hz 5 cycles 30 min. from -40°C to 105°C per MIL-STD 1344 method 1003
- Thermal shock:

### Electrical

- Current per contact max.: Size 16: 13A  
Size 20: 7.5A
- Insulation resistance:  $\geq 5000 \text{ M}\Omega$  under 500Vcc at 25°C
- Test potential: 1500 Veff between contacts size 20  
2300 Veff between contacts size 16 according to MIL-DTL-26482
- Working voltage: 600 V - contacts size 20  
1000 V - contacts size 16 according to MIL-DTL-26482

### Environmental

- Operating temperature: -40°C to + 105°C
- Sealing (mated/unmated): Dynamic IP68 - under water for 1 week, 1 bar  
Dynamic IP69K per DIN 40050
- Salt spray: 500 hours
- RoHS compliant & conform to the Chinese standard SJ/T1166-2006 (Chinese RoHS equivalent)
- UV resistant: No mechanical degradation or important variation of color after 5 years of exposure in natural environment (equivalence exposure to sun and moisture as per ISO4892)

### Material

- Housing + Backshell: Thermoplastic UL94-V0
- Insert: Elastomer
- Contacts: Copper alloy - gold plated  
Other platings on request



## Ordering information

Connector family

|     |   |    |   |   |   |   |
|-----|---|----|---|---|---|---|
| UTS | 7 | -  | 8 | 2 | P | - |
| UTS | 6 | JC | 8 | E | S |   |

**Body variation**

- 6** Cable plug + backshell  
**7** Jam nut receptacle  
**0** Square flange receptacle

**Backshell : JC** = Backshell (only for plug) / **No digit** = No backshell (only for plug)

**Shell size** : 8, 10, 12, 14, 18

**Contact type**

**E** = Handsolder contacts / **R** = Crimp contacts\* / **D** = PC tail contacts\*

**Insert arrangement** - see next page

**Contact gender** : **P** = Pin contacts / **S** = Socket contacts

**Insert rotation** : **No digit** = Normal / **W, X, Y, Z** = Different orientations - see page 60

\* Please consult factory

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# UTS Hi seal

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## UTS Hi seal contacts arrangements

**Size 8**

**2**



**3**



**3A/98**



**4**



**33**



Contacts :  
2 Ø 1 (#20)

Contacts :  
3 Ø 1 (#20)

Contacts :  
3 Ø 1 (#20)

Contacts :  
4 Ø 1 (#20)

Contacts :  
3 Ø 1 (#20)

**Size 10**

**6**



**7**



**98**



Contacts :  
6 Ø 1 (#20)

Contacts :  
7 Ø 1 (#20)

Contacts :  
6 Ø 1 (#20)

**Size 12**

**2**



**3**



**8**



**10**



**14**



Contacts :  
2 Ø 1.6 (#16)

Contacts :  
3 Ø 1.6 (#16)

Contacts :  
8 Ø 1 (#20)

Contacts :  
10 Ø 1 (#20)

Contacts :  
14 Ø 1 (#20)

**Size 14**

**5**



**12**



**15**



**18**



**19**



Contacts :  
5 Ø 1.6 (#16)

Contacts :  
8 Ø 1 (#20)  
4 Ø 1.6 (#16)

Contacts :  
14 Ø 1 (#20)  
1 Ø 1.6 (#16)

Contacts :  
18 Ø 1 (#20)

Contacts :  
19 Ø 1 (#20)

**Size 18\***

**11**



**32**



**30**



\* Please consult factory

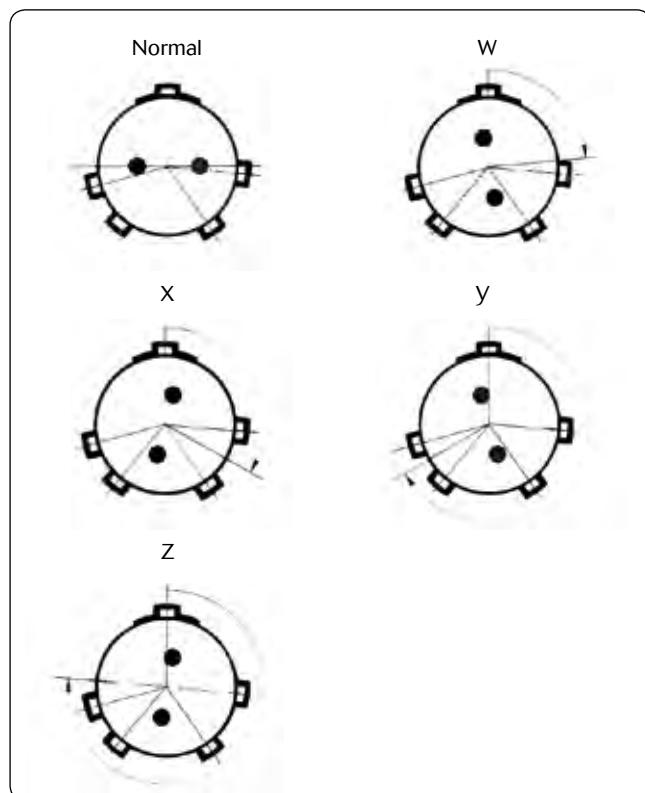
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# UTS Hi seal

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## Insert orientation\*



\* Insert rotated in body (viewed from front face of male insert)

| Shell sizes | layouts  | angle in degrees |     |     |     |
|-------------|----------|------------------|-----|-----|-----|
|             |          | W                | X   | y   | Z   |
| 8           | 2        | 58               | 122 | -   | -   |
|             | 3        | 60               | 210 | -   | -   |
|             | 3A (98)* | 60               | 210 | -   | -   |
|             | 4        | 45               | -   | -   | -   |
|             | 33       | 90               | -   | -   | -   |
| 10          | 6        | 90               | -   | -   | -   |
|             | 7*       | 90               | -   | -   | -   |
|             | 98       | 90               | 180 | 240 | 270 |
| 12          | 3        | -                | -   | 180 | -   |
|             | 8        | 90               | 112 | 203 | 292 |
|             | 10       | 60               | 155 | 270 | 295 |
|             | 2        | -                | -   | -   | -   |
|             | 14*      | 45               |     |     |     |
| 14          | 5        | 40               | 92  | 184 | 273 |
|             | 12       | 43               | 90  | -   | -   |
|             | 15       | 17               | 110 | 155 | 234 |
|             | 18       | 15               | 90  | 180 | 270 |
|             | 19       | 30               | 165 | 315 | -   |
| 18          | 11       | 62               | 119 | 241 | 340 |
|             | 32       | 85               | 138 | 222 | 265 |
|             | 30       | 180              | 193 | 285 | 350 |

\* 8-98 layout, W and X non standard orientations / 10-7 & 12-14 layouts, X non standard orientation

## Range presentation

**Square flange receptacle with handsolder contacts**

**Rapid**  
 **High Performance**

| Shell size | Part numbers      |                   | A    | B   | C    | $\varnothing$ D | E    | F    | G   | $\varnothing$ I | $\varnothing$ J |
|------------|-------------------|-------------------|------|-----|------|-----------------|------|------|-----|-----------------|-----------------|
|            | Male contact      | Female contact    |      |     |      |                 |      |      |     |                 |                 |
| 8          | UTS08E - - P -    | UTS08E - - S -    | 21.5 | 2.3 | 11.7 | 12.0            | 15.1 | 21.0 | 3.2 | 15.5            | 12.5            |
| 10         | UTS010E - - P -   | UTS010E - - S -   | 21.5 | 2.3 | 11.7 | 15.0            | 18.3 | 23.8 | 3.2 | 17.3            | 15.1            |
| 12         | UTS012E - - P -   | UTS012E - - S -   | 21.5 | 2.3 | 11.7 | 19.0            | 20.6 | 26.2 | 3.2 | 21.8            | 18.2            |
| 14         | UTS014E - - P -   | UTS014E - - S -   | 21.5 | 2.3 | 11.7 | 22.2            | 23.0 | 28.6 | 3.2 | 25.0            | 21.5            |
| 18         | UTS018E - - P - * | UTS018E - - S - * | 21.5 | 2.5 | 11.7 | 28.5            | 27.0 | 33.3 | 3.2 | 31.8            | 27.8            |

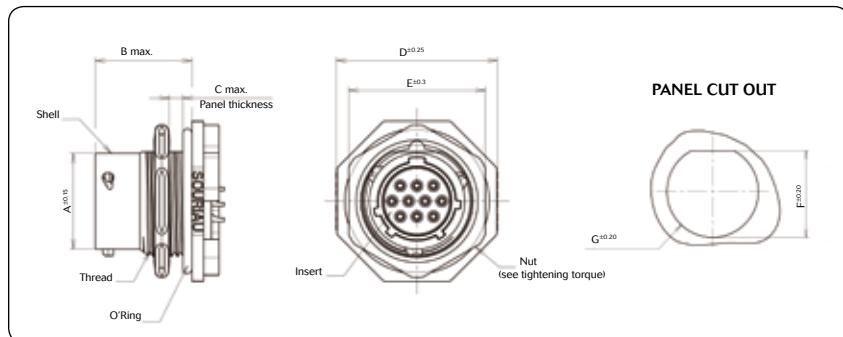
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# UTS Hi seal

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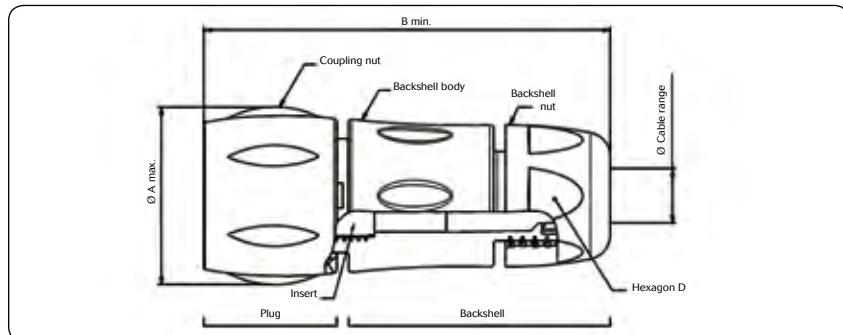


## Jam nut receptacle with handsolder contacts



| Shell size | Part numbers    |                 | Ø A  | B    | C   | D    | E    | F     | Ø G  | Tightening torque |
|------------|-----------------|-----------------|------|------|-----|------|------|-------|------|-------------------|
|            | Male contact    | Female contact  |      |      |     |      |      |       |      |                   |
| 8          | UTS78E -- P -   | UTS78E -- S -   | 12.0 | 19.3 | 3.2 | 24.0 | 19.3 | 13.75 | 14.6 | 2 Nm              |
| 10         | UTS710E -- P -  | UTS710E -- S -  | 14.9 | 19.3 | 3.2 | 27.0 | 22.2 | 16.5  | 17.7 | 3 Nm              |
| 12         | UTS712E -- P -  | UTS712E -- S -  | 19.0 | 19.3 | 3.2 | 31.8 | 27.0 | 21.2  | 22.5 | 4 Nm              |
| 14         | UTS714E -- P -  | UTS714E -- S -  | 22.2 | 19.3 | 3.2 | 34.9 | 30.2 | 24.3  | 25.7 | 5 Nm              |
| 18         | UTS718E -- P -* | UTS718E -- S -* | 28.5 | 19.3 | 3.2 | 41.3 | 36.6 | 30.6  | 32.0 | 5 Nm              |

## Cable plug with handsolder contacts



| Shell size | Part numbers      |                   | Ø A  | B    | Ø Cable range Standard seal | Ø Cable range Reducing seal | Hexagon D |
|------------|-------------------|-------------------|------|------|-----------------------------|-----------------------------|-----------|
|            | Male contact      | Female contact    |      |      |                             |                             |           |
| 8          | UTS6JC8E -- P -   | UTS6JC8E -- S -   | 22.5 | 54.0 | 2.5 / 6.5                   | 1.5 / 5.0                   | 16.0      |
| 10         | UTS6JC10E -- P -  | UTS6JC10E -- S -  | 26.7 | 63.2 | 2.5 / 8.0                   | 1.5 / 5.0                   | 18.5      |
| 12         | UTS6JC 2E -- P -  | UTS6JC12E -- S -  | 30.2 | 66.7 | 5.0 / 12.0                  | 3.0 / 9.0                   | 24.0      |
| 14         | UTS6JC14E -- P -  | UTS6JC14E -- S -  | 35.1 | 71.5 | 7.0 / 14.0                  | 5.0 / 12.0                  | 26.0      |
| 18         | UTS6JC18E -- P -* | UTS6JC18E -- S -* | 42.0 | 81.3 | 9.0 / 18.0                  | 7.0 / 16.0                  | 33.0      |

Coloured ring supplied as optional extra (see page 72).

**UTS : Your first choice in waterproof connectors !**

# UTS Hi seal

SEALED  
UNMATED



| Cable plug without backshell |                 |                 |                 |      |
|------------------------------|-----------------|-----------------|-----------------|------|
| Shell size*                  | Part numbers    |                 | $\varnothing A$ | B    |
|                              | Male contact    | Female contact  |                 |      |
| 8                            | UTS68E - - P -  | UTS68E - - S -  | 22.5            | 21.3 |
| 10                           | UTS610E - - P - | UTS610E - - S - | 26.7            | 23.6 |
| 12                           | UTS612E - - P - | UTS612E - - S - | 30.2            | 23.6 |
| 14                           | UTS614E - - P - | UTS614E - - S - | 35.1            | 23.6 |

\* For shell size 18, please consult factory

Note : all dimensions are in mm

**UTS : Your first choice in waterproof connectors !**

# UTS screw termination contacts



| Rigid | High Performance | Description   |
|-------|------------------|---|
|       |                  | <p>UTS series with screw termination contacts combines extreme sealing performance, rapid &amp; secure connector mating with the ease of wire termination.</p> <p>It requires no special skills or tools. Only a standard screwdriver is needed to fit the wires to the contacts, making it incredibly user-friendly and suitable for any field installation.</p> <p><b>Just fit the wires to the connector !</b></p> <p><b>No special tools required !</b></p> <p><b>Use a standard screwdriver !</b></p> <p>The diagram illustrates the ease of termination. A standard screwdriver with a blue and orange handle is shown being used to tighten a screw into a UTS connector. The connector's internal structure is visible, showing the contact points where wires are fitted. Below the main image, a callout box contains two options: 'Stranded wire' and 'Solid wire', each accompanied by a small diagram of a wire end being prepared for connection.</p> |

**UTS : Your first choice in waterproof connectors !**

# UTS screw termination contacts



## Technical characteristics

### Mechanical

- Durability: 250 matings & unmatings
- Thermal shock: 5 cycles 30 min. from -40°C to 105°C per MIL-STD 1344 method 1003
- Screw tightening torque: 40 Ncm

### Electrical

- Current per contact max.: 13A
- Insulation resistance:  $\geq 5000 \text{ M}\Omega$
- Test potential: 2000 VAC
- Working voltage: up to 400V class III, PD 2 as per VDE  
up to 500V as per UL1977  
see page 7 for more details
- Wire acceptance: 0.5mm<sup>2</sup> to 2.5mm<sup>2</sup>

### Environmental

- Operating temperature: -40°C to + 105°C
- Flammability rating: UL94-V0
- Sealing (mated): Dynamic IP68/IP69K
- UV resistant: No mechanical degradation or important variation of color after 5 years of exposure in natural environment (equivalence exposure to sun and moisture as per ISO4892)
- Salt spray: 500 hours

### Material

- Connectors + Backshells: Thermoplastic
- Contacts: High conductive copper alloy  
Min. 0.4μm gold plating
- RoHS compliant & conform to the Chinese standard SJ/T1166-2006 (Chinese RoHS equivalent)



## Ordering information

| Type                       | UTS   | 6 | JC | 12 | 4 | P | SCR |
|----------------------------|---|---|----|----|---|---|-----|
| <b>Connector type</b>      |   |   |    |    |   |   |     |
| 1 In-line receptacle       |   |   |    |    |   |   |     |
| 6 Cable plug               |   |   |    |    |   |   |     |
| 7 Jam nut receptacle       |   |   |    |    |   |   |     |
| <b>Backshell</b>           | JC: IP68/IP69K backshell (only plug + In-line connectors) |   |    |    |   |   |     |
| <b>Shell size</b>          | 12 or 14  |   |    |    |   |   |     |
| <b>Number of contacts</b>  | 4 or 7  |   |    |    |   |   |     |
| <b>Type of contacts</b>    | P: Pin contacts / S: Socket contacts                      |   |    |    |   |   |     |
| <b>Contact termination</b> | SCR: Screw termination                                    |   |    |    |   |   |     |

## UTS screw termination contact arrangements

### Size 12

4  
(3+PE)



Contacts :  
4 Ø 1.6 (#16)

### Size 14

7  
(6+PE)



Contacts :  
7 Ø 1.6 (#16)

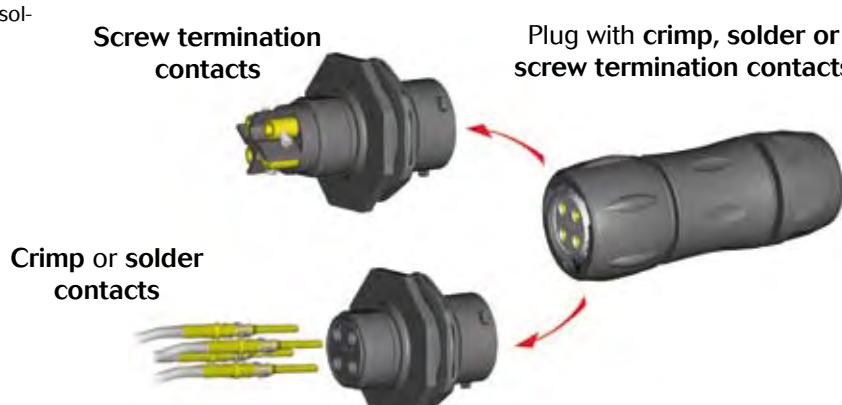
**UTS : Your first choice in waterproof connectors !**

# UTS screw termination contacts

## Connector accommodation

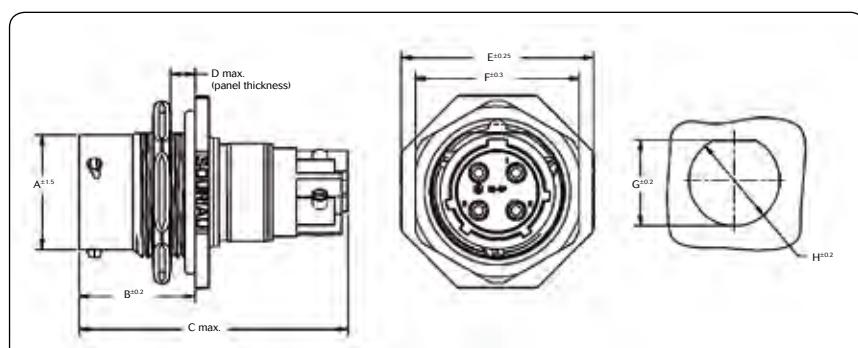
 **UTS screw termination contact**

UTS connector with screw termination contacts are fully intermateable and interchangeable with the UTS crimp and solder versions.



## Range presentation

 **Jam nut receptacle**



| Shell size | Layout | Part numbers male contact | Part numbers female contact | A    | B    | C male | C female | D   | E    | F    | G    | H    |
|------------|--------|---------------------------|-----------------------------|------|------|--------|----------|-----|------|------|------|------|
| 12         | 12-4   | UTS7124PSCR               | UTS7124SSCR                 | 19.0 | 19.3 | 46.5   | 38.3     | 3.2 | 31.8 | 27.0 | 21.2 | 22.5 |
| 14         | 14-7   | UTS7147PSCR               | UTS7147SSCR                 | 22.2 | 19.3 | 52.5   | 44.4     | 3.2 | 34.9 | 30.2 | 24.3 | 25.7 |

**UTS : Your first choice in waterproof connectors !**

# UTS screw termination contacts

**Cable plug**

The standard plug and In-line receptacle can be fitted with a flexible conduit - not delivered by SOURIAU

| Shell size | Layout | Part numbers male contacts | Part numbers female contacts | Ø A  | B    | Ø Cable range Standard seal | Ø Cable range Reducing seal | Hexagon D | E (male) | E (female) |
|------------|--------|----------------------------|------------------------------|------|------|-----------------------------|-----------------------------|-----------|----------|------------|
| 12         | 12-4   | UTS6JC124PSCR              | UTS6JC124SSCR                | 29.7 | 66.7 | 5.0 / 12.0                  | 3.0 / 9.0                   | 24.0      | 15.1     | 22.8       |
| 14         | 14-7   | UTS6JC147PSCR              | UTS6JC147SSCR                | 34.6 | 71.5 | 7.0 / 14.0                  | 5.0 / 12.0                  | 26.0      | 18.95    | 26.7       |

Coloured ring supplied as optional extra (see page 72).

**In-line receptacle**

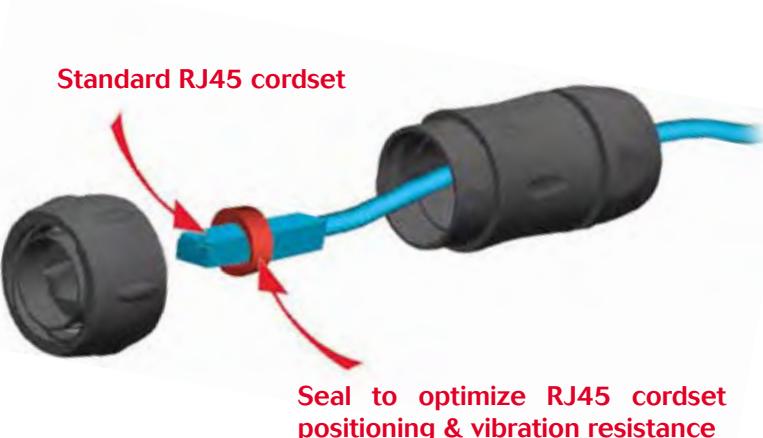
| Shell size | Layout | Part numbers male contacts | Ø A  | B    | L    | Ø Cable range Standard seal | Ø Cable range Reducing seal | Hexagon D | E    |
|------------|--------|----------------------------|------|------|------|-----------------------------|-----------------------------|-----------|------|
| 12         | 12-4   | UTS1JC24PSCR               | 19.0 | 29.7 | 74.0 | 5.0 / 12.0                  | 3.0 / 9.0                   | 24.0      | 21.5 |
| 14         | 14-7   | UTS1JC147PSCR              | 22.2 | 34.6 | 78.5 | 7.0 / 14.0                  | 5.0 / 12.0                  | 26.0      | 26.5 |

Coloured ring supplied as optional extra (see page 72).

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# UTS RJ45



|   | Description  |
|--|--|
| <input type="checkbox"/> Intended for high speed Ethernet connection in severe environments, the plastic UTS connector with RJ45 cordset is a <b>universal solution</b> . Using any standard RJ45 cable, it needs NO tools for assembly or disassembly, making it easy to assemble and perfect for field installation. |  |
| <input type="checkbox"/> The UTS RJ45 naturally benefits from the advantages of the UTS range:   | <ul style="list-style-type: none"><li>Dynamic IP68/69K sealing performances</li><li>Rapid &amp; secure locking system</li><li>High salt spray resistance</li><li>High vibration resistance</li></ul> |
| <input type="checkbox"/> Available in shell size 18 - male RJ45 cordset in plug and female RJ45 cordset in receptacle, the UTS RJ45 can be used for Ethernet 10 BaseT, 100 BaseTX and 1000 BaseT, TIA/EIA 568B Cat5e and ISO/IEC 11801 class D networks.   |  <p>Standard RJ45 cordset</p> <p>Seal to optimize RJ45 cordset positioning &amp; vibration resistance</p>        |

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# UTS RJ45



## Technical characteristics

### Mechanical

- Durability: 250 matings & unmatings

### Electrical

- Connection category: RJ45
- Cat5e per TIA/EIA 568C and class D per ISO/IEC 11801

### Environmental

- Operating temperature: -40°C to + 105°C
- Flammability rating: UL94-V0
- Sealing (mated): IP68/69K\*
- Salt spray: 500 hours

### Material

- Connectors + Backshells: Thermoplastic Metal
- RoHS compliant & conform to the Chinese standard SJ/T 1166-2006 (Chinese RoHS equivalent)

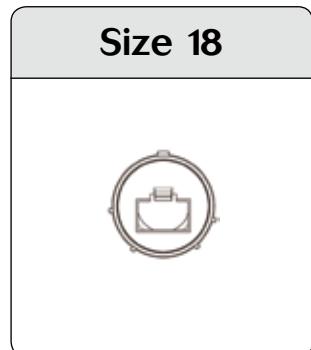


## Ordering information

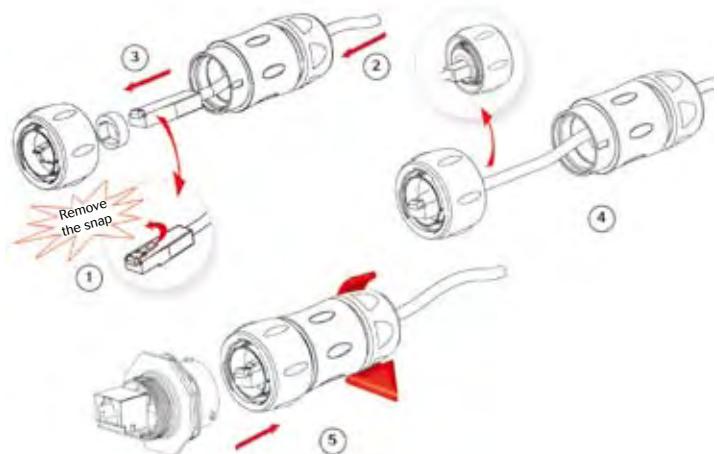
| Type             | UTS<br>UTS   | 7<br>6 | -<br>JC | 18<br>18 | RJF<br>RJ | N<br>N | -<br>25 |
|------------------|--|--------|---------|----------|-----------|--------|---------|
| Body variation   | 6 Cable plug<br>7 Jam nut receptacle   |        |         |          |           |        |         |
| Backshell        | JC = Easy handling plastic backshell (only for plug)                                 |        |         |          |           |        |         |
| Shell size       | 18   |        |         |          |           |        |         |
| Insert           | RJF: Feed Through (only receptacle) / RJ: Free insert to accept any RJ45 (only plug) |        |         |          |           |        |         |
| Polarisation     | N : Normal / A, B: Different orientations  |        |         |          |           |        |         |
| Mandatory suffix | 25 (only for plug)   |        |         |          |           |        |         |

\* Short backshell on request

## UTS RJ45 contact arrangement



## Assembly instructions



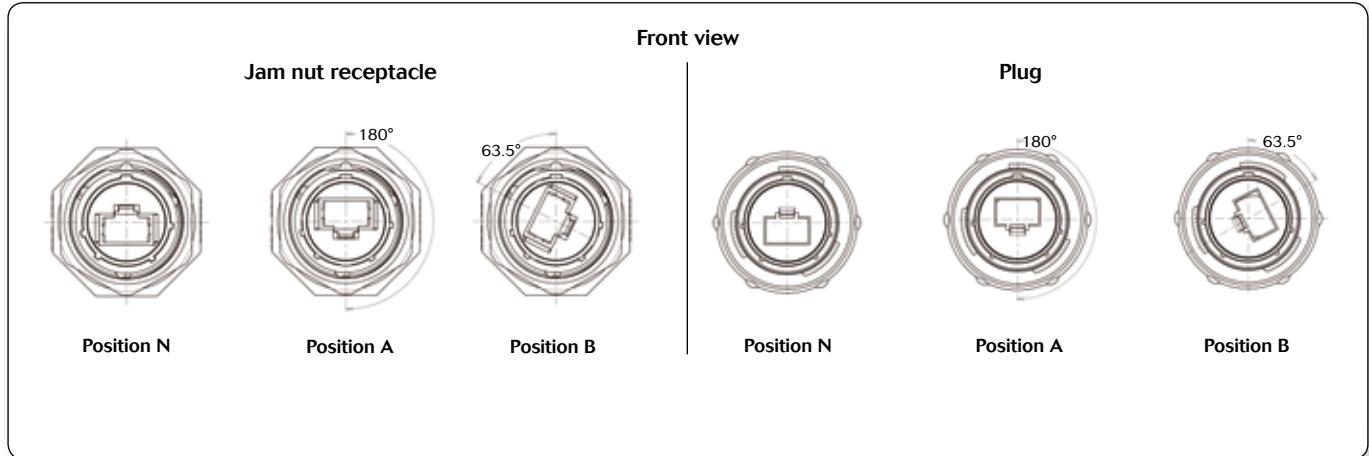
\* subject to a cylinder-shaped and non-convertible cordset

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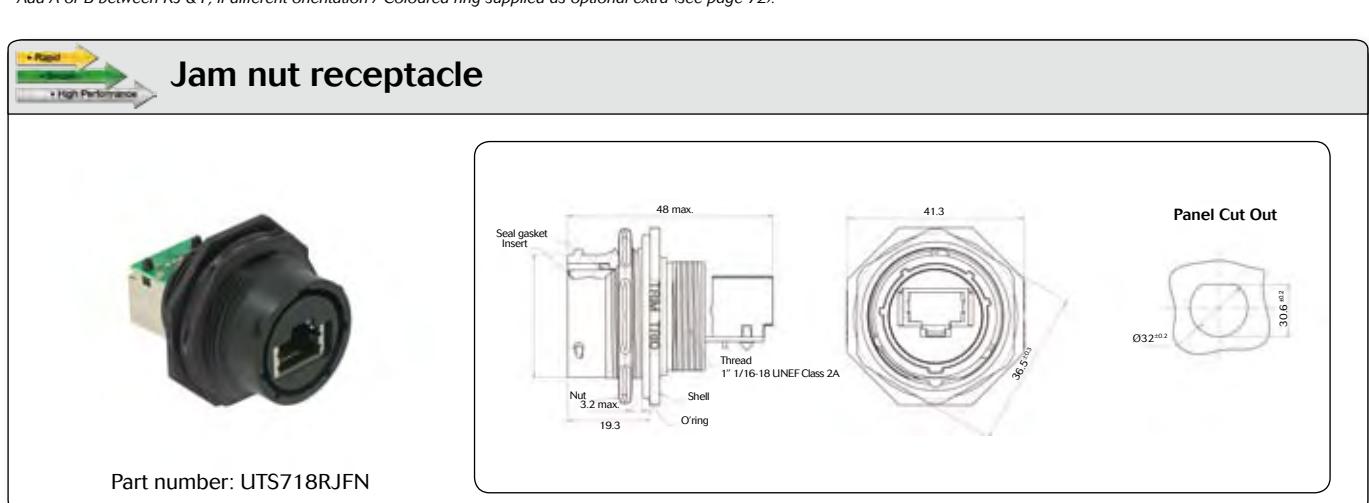
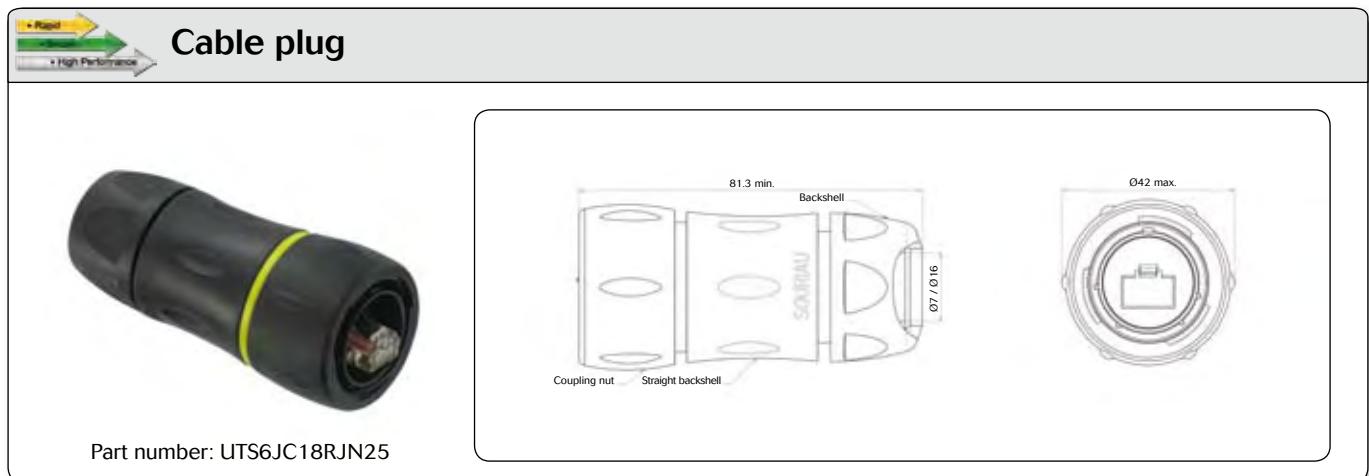
# UTS RJ45



## Insert rotation



## Range presentation



\* Change N to A or B, if different orientation

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# Accessories



| Description   |  |
|---|--|
| <b>Accessories for UTS series</b>   |  |
| UTS series offers a wide range of accessories: from the plastic protective cap to the dust caps, coloured rings for visual identification or discrimination pins. |  |

| Jam nut sealing caps  |   |              |            |          |   |           |    |           |    |           |    |           |    |
|---|---|--------------|------------|----------|---|-----------|----|-----------|----|-----------|----|-----------|----|
| A black cylindrical sealing cap with a metal loop attached to its side. | <table border="1"><thead><tr><th>Part numbers</th><th>Shell size</th></tr></thead><tbody><tr><td>UTS8DCG</td><td>8</td></tr><tr><td>UTS10DCG</td><td>10</td></tr><tr><td>UTS12DCG</td><td>12</td></tr><tr><td>UTS14DCG</td><td>14</td></tr><tr><td>UTS18DCG</td><td>18</td></tr></tbody></table>      | Part numbers | Shell size | UTS8DCG  | 8 | UTS10DCG  | 10 | UTS12DCG  | 12 | UTS14DCG  | 14 | UTS18DCG  | 18 |
| Part numbers  | Shell size  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS8DCG   | 8   |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS10DCG  | 10  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS12DCG  | 12  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS14DCG  | 14  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS18DCG  | 18  |              |            |          |   |           |    |           |    |           |    |           |    |
| A black cylindrical sealing cap without a metal loop.                   | <table border="1"><thead><tr><th>Part numbers</th><th>Shell size</th></tr></thead><tbody><tr><td>UTS8DCGR</td><td>8</td></tr><tr><td>UTS10DCGR</td><td>10</td></tr><tr><td>UTS12DCGR</td><td>12</td></tr><tr><td>UTS14DCGR</td><td>14</td></tr><tr><td>UTS18DCGR</td><td>18</td></tr></tbody></table> | Part numbers | Shell size | UTS8DCGR | 8 | UTS10DCGR | 10 | UTS12DCGR | 12 | UTS14DCGR | 14 | UTS18DCGR | 18 |
| Part numbers  | Shell size  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS8DCGR  | 8   |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS10DCGR   | 10  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS12DCGR   | 12  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS14DCGR   | 14  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS18DCGR   | 18  |              |            |          |   |           |    |           |    |           |    |           |    |

| Square flange sealing cap   |   |              |            |          |   |           |    |           |    |           |    |           |    |
|---|---|--------------|------------|----------|---|-----------|----|-----------|----|-----------|----|-----------|----|
| A black square flange sealing cap with a metal loop attached to its side. | <table border="1"><thead><tr><th>Part numbers</th><th>Shell size</th></tr></thead><tbody><tr><td>UTS8DCGE</td><td>8</td></tr><tr><td>UTS10DCGE</td><td>10</td></tr><tr><td>UTS12DCGE</td><td>12</td></tr><tr><td>UTS14DCGE</td><td>14</td></tr><tr><td>UTS18DCGE</td><td>18</td></tr></tbody></table> | Part numbers | Shell size | UTS8DCGE | 8 | UTS10DCGE | 10 | UTS12DCGE | 12 | UTS14DCGE | 14 | UTS18DCGE | 18 |
| Part numbers  | Shell size  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS8DCGE  | 8   |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS10DCGE   | 10  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS12DCGE   | 12  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS14DCGE   | 14  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS18DCGE   | 18  |              |            |          |   |           |    |           |    |           |    |           |    |
| <small>* Metal terminal*</small>  |   |              |            |          |   |           |    |           |    |           |    |           |    |
| Plug sealing cap**  |   |              |            |          |   |           |    |           |    |           |    |           |    |
| A black cylindrical sealing cap designed for a plug.                      | <table border="1"><thead><tr><th>Part numbers</th><th>Shell size</th></tr></thead><tbody><tr><td>UTS68DCG</td><td>8</td></tr><tr><td>UTS610DCG</td><td>10</td></tr><tr><td>UTS612DCG</td><td>12</td></tr><tr><td>UTS614DCG</td><td>14</td></tr><tr><td>UTS618DCG</td><td>18</td></tr></tbody></table> | Part numbers | Shell size | UTS68DCG | 8 | UTS610DCG | 10 | UTS612DCG | 12 | UTS614DCG | 14 | UTS618DCG | 18 |
| Part numbers  | Shell size  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS68DCG  | 8   |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS610DCG   | 10  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS612DCG   | 12  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS614DCG   | 14  |              |            |          |   |           |    |           |    |           |    |           |    |
| UTS618DCG   | 18  |              |            |          |   |           |    |           |    |           |    |           |    |
| <small>** Except for UTS RJ45 plug</small>                                |   |              |            |          |   |           |    |           |    |           |    |           |    |

\* Please consult factory

**UTS : Your first choice in waterproof connectors !**

# Accessories



**Colour coding rings**

+ Rapid + High Performance

| Part numbers |            | Shell size |
|--------------|------------|------------|
| Receptacles  | Plugs      |            |
| UTS710CCR*   | UTS610CCR* | 10         |
| UTS712CCR*   | UTS612CCR* | 12         |
| UTS714CCR*   | UTS614CCR* | 14         |

\* Add G for Green, Y for Yellow, R for Red  
For shell sizes 8 & 18, please consult factory

**Gasket**

+ Rapid + High Performance

| Part numbers / neoprene | Shell size |
|-------------------------|------------|
| UTFD11B                 | 8          |
| UTFD12B                 | 10         |
| UTFD13B                 | 12         |
| UTFD14B                 | 14         |
| UTFD16B                 | 18         |

**Plastic protective cap**

+ Rapid + High Performance

| Part numbers   |           | Shell size |
|----------------|-----------|------------|
| Receptacle cap | Plug cap  |            |
| 8500-5585A     | 8500-5594 | 8          |
| 8500-5586A     | 8500-5595 | 10         |
| 8500-5587A     | 8500-5596 | 12         |
| 8500-5588A     | 8500-5597 | 14         |
| 8500-5590A     | 8500-5599 | 18         |

**Bending protection spiral**

+ Rapid + High Performance

Please consult factory.

**Discrimination pin for size 16 cavities**

+ Rapid + High Performance

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 Thermoplastic.

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

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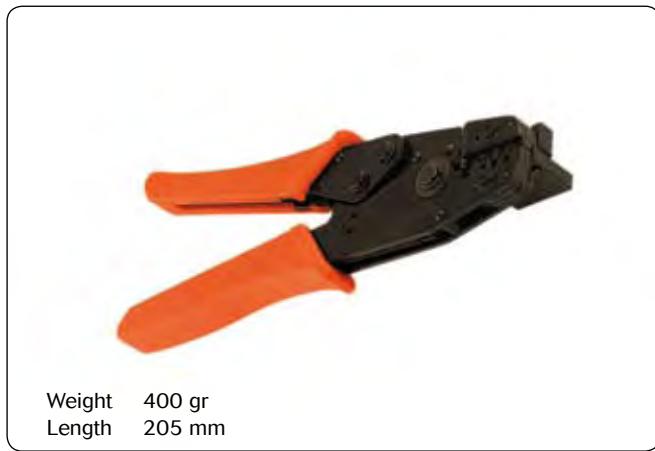
# Tooling



| Rapid | High Performance | Description   |
|-------|------------------|---|
|       |                  | <p><b>Crimptooling for TRIM TRIO® contacts</b></p> <p>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.</p> <p>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.</p> |

## Crimptooling for machined contacts

For an overview on crimptooling refer to «crimptooling tables» at the different contact sections.



Weight 400 gr  
Length 205 mm

### Y16RCM - for contacts #16

A lightweight, low cost crimptool with fixed, 3-groove die set to crimp **size 16 TRIM TRIO® RM/RC loose piece machined contacts**.

The tool is ratcheted controlled to guarantee a complete crimp cycle. Each crimptool is supplied with a locator to guarantee a perfect crimp indent positioning.



Weight 300 gr  
Length 170 mm

### MH860 - for contacts #16 & #20

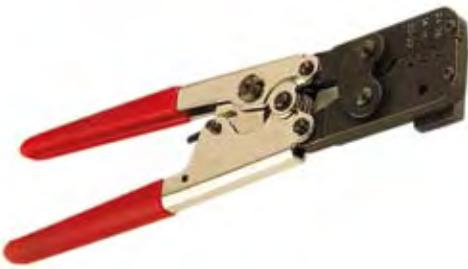
A crimptool qualified MIL-C-22520/7 that gives an 8 impression crimp with a precision cycle-controlled ratcheting mechanism. It features an 8 step crimp-depth selector knob and is designed to crimp **size 16 & size 20 TRIM TRIO® RM/RC machined contacts**. The tool can be provided with different locators heads to crimp different contacts types - locator to be ordered separately.

**UTS : Your first choice in waterproof connectors !**

# Tooling



## Crimptooling for stamped & formed contacts



Weight 400 gr  
Length 230 mm



Weight 400 gr  
Length 205 mm

### **Y14MTV - for contacts #16 & #20**

A lightweight crimptool with fixed 3-groove die set for AWG 26 to 14 for size 16 & size 20 TRIM TRIO® SM-M/SC-M stamped & formed contacts. Ratchet controlled to guarantee a complete crimp cycle.

### **Y16SCM2 - for contacts #16**

A lightweight crimptool with fixed 3-groove die set for AWG 26 to 16 for size 16 TRIM TRIO® SM-M/SC-M loose piece formed contacts. Ratchet controlled to guarantee a complete crimp cycle. Each crimptool is supplied with a locator to guarantee a perfect crimp indent positioning.

## Crimptooling for coaxial contacts



Weight 425 gr  
Length 250 mm



Weight 425 gr  
Length 250 mm

### **M10S1 - for contacts #16**

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 coaxial contacts.

This tool is suitable for application of RMDX/RCDX coaxial contacts from the TRIM TRIO® range.

### **AF8 - for coaxial contacts**

Qualified 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 coax contacts. The tool can be provided with different locators turret heads to crimp different contact types.

**UTS : Your first choice in waterproof connectors !**

# Tooling



**Crimptooling for power contacts**

**Size 12 ( $\varnothing$  2.4mm)**

**Size 8 ( $\varnothing$  3.6mm)**



**Crimp tooling M317**

Locator VGE1 0077A (#12) or VGE1 0078A (#8) - to be ordered separately

**UTS : Your first choice in waterproof connectors !**

# Tooling



## Automatic crimptooling for size 16 contacts ( $\varnothing$ 1.6mm) & size 20 ( $\varnothing$ 1.0mm) contacts

### P107 Press - P/N P107

The P107 Crimping Press is available either in semi-automatic (for bench-top use) configuration or in full automatic (integrated into a cut and strip machine) configuration. The P107 has a standard stroke of 40 mm, and upon request a variable stroke version is available.

The standard crimping height (measured from the applicator base plate to the press T-coupling when at Bottom Dead Center) is 135.8mm  $\pm$  0.02 mm, but different kits to adapt it to different-size applicators are available upon request. The JOG option allows the operator to manually step-by-step cycle the press. The semi-automatic configuration (for bench top use) always includes safety cover, reel arm, foot switch according to the international safety standard and CE regulation. Produced under a quality Management System certified to ISO 9001 (TÜV).

|        |         |                 |             |
|--------|---------|-----------------|-------------|
| Power  | 0.75 Kw | Weight          | 85 Kg       |
| Force  | 2000 Kg | Dimensions      | 310x770x310 |
| Stroke | 40 mm   | Crimping height | 135.8 mm    |

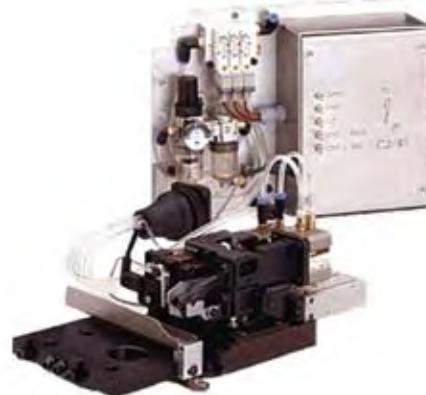


### MLS--- - left side miniapplicator

Miniapplicator to crimp machined or stamped and formed TRIM TRIO® contacts.

All the adjustments requested to make tool correctly functioning (crimp feeding pitch, crimp height ...) can be simply made. Resolution of 0.03 mm. Regulation range from 0 to 2.7 mm.

|            |                      |
|------------|----------------------|
| Ref        | See contact sections |
| Stroke     | 40 mm                |
| Weight     | 4.5 kg               |
| Dimensions | 145x107x150          |



### SC11 Stripper-crimper - P/N SC11

The SC11 Stripper-Crimper is a wire-stripping unit conceived to be integrated with a crimping station (press and applicator). In one smooth movement, the SC11 grabs the wire, strips it and moves it over to the applicator's anvil, where it will be crimped to the terminal. PLC controlled, the electro – pneumatic actuating system grants ease of installation, use and maintenance. It can be cycled either by pedal or by a sensor that detects the presence of the wire to be stripped. Either way, the stripped wire will be automatically moved over to the applicator and crimped to the terminal. The SC11 can be used with multiple-core wires. Produced under a quality Management System certified to ISO 9001 (TÜV).

|               |                         |                  |          |
|---------------|-------------------------|------------------|----------|
| Pressure      | 5 - 7 bars              | Stripping length | 2 - 12mm |
| Cable section | 0.2 - 3 mm <sup>2</sup> | Weight           | 5.1 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.

#### 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

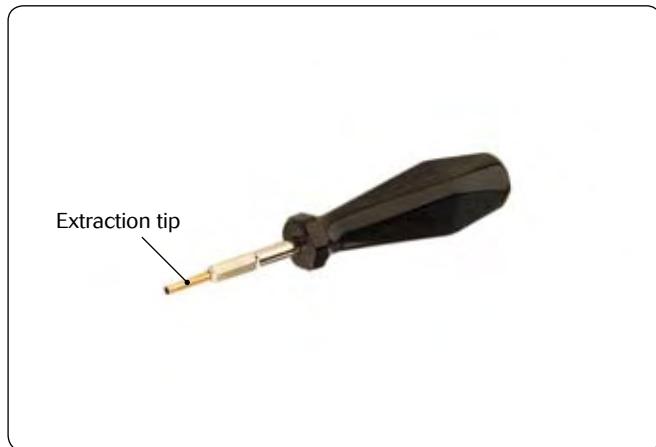
For ordering, consult factory.

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# Tooling



## Extraction tooling for size 16 contacts ( $\varnothing 1.6\text{mm}$ )



### 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

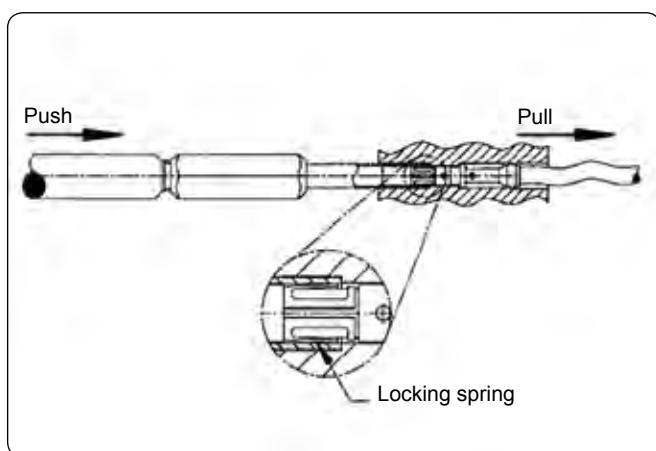
## Extraction tooling for size 20 contacts ( $\varnothing 1.0\text{ mm}$ )



### RX20D44

A spring loaded extraction tool. This tool ensures that the contact locking louvres are fully retracted before any pressure is applied to extract contact. It is especially suitable for applications where the integrity of the assemblies are of the utmost importance.

## Contact extraction for size 16 & size 20 contacts



### 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.

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# Tooling



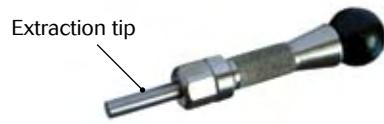
**Insertion tooling for  
Size 16 ( $\varnothing 1.6$  mm)  
Size 20 contacts ( $\varnothing 1.0$  mm)**



## 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.

**Extraction tooling for power  
contacts size 12 ( $\varnothing 2.4$  mm) &  
size 8 ( $\varnothing 3.6$  mm)**



## Extraction tooling 5106.021.09.24\* (#12)

Extraction tip: 5106.021.34.24 - if ordered separately

## Extraction tooling 5106.021.09.36\* (#8)

Extraction tip: 5106.021.34.36 - if ordered separately

\* Part number includes both extraction tool + extraction tip

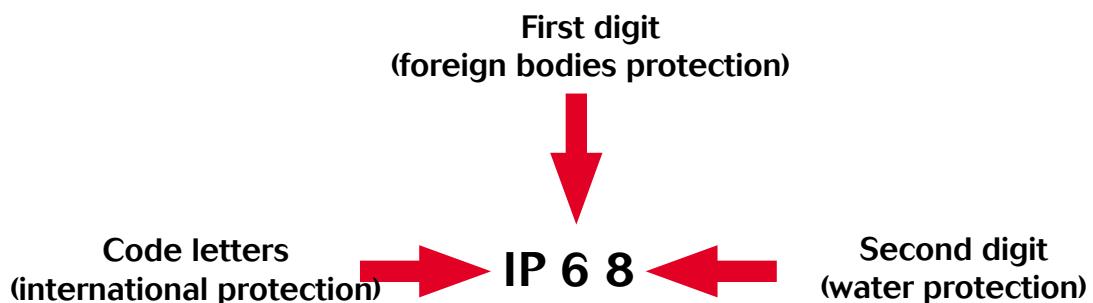
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# UTS series



## What is IP rating & 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 digit | Degree of protection  | Second digit | Degree of protection   |
|-------------|---|--------------|--|
| 0           | No protection against accidental contact.<br>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 50 mm.                                   | 1            | Drip-proof.<br>Protection against vertical water drips.  |
| 2           | Protection against contacts with the fingers.<br>Protection against solid foreign bodies with a diameter bigger than 12 mm.   | 2            | Drip-proof.<br>Protection against water drips up to a 15° angle.   |
| 3           | Protection against tools, wires or similar objects with a diameter bigger than 2.5 mm.<br>Protection against small solid bodies with a diameter bigger than 2.5 mm. | 3            | Spray-proof.<br>Protection against diagonal water drips up to a 60° angle.                                 |
| 4           | As 3 however diameter is bigger than 1 mm.  | 4            | Splash-proof.<br>Protection against splashed water from all directions.                                    |
| 5           | Full protection against contacts. Protection against interior injurious dust deposits.  | 5            | Hose-proof.<br>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.<br>Pressure to be specified by supplier.                                |
|             |   | 9K           | High pressure hose-proof.<br>Protection against high pressure water (out of a nozzle) from all directions. |

↓

UTS offers high sealing performance IP68 / 69K... Even in dynamic situations.

**UTS : Your first choice in waterproof connectors !**

# UTS series



## What is NEMA ?

- **NEMA definition**

The National Electrical Manufacturer Association or **NEMA** relates to standards for electrical enclosures. It defines the types of environments in which these enclosures can be used.

- **NEMA ratings vs IP ratings**

Whereas IP ratings only consider protection against ingress of foreign bodies - first digit - and ingress of water (second digit), **NEMA** ratings consider these but also verify protection from external ice, corrosive materials, oil immersion, etc.

The correlation between NEMA & IP being limited only to dust and water, we can state that a NEMA type is *equivalent to* an IP rating but it is not possible to say the contrary.

Below a list of some NEMA standards:

| Enclosure rating | IP20 | IP22 | IP55 | IP64 | IP65 | IP66 | IP67 |
|------------------|------|------|------|------|------|------|------|
| Type 1           | •    |      |      |      |      |      |      |
| Type 3           |      |      | •    |      |      |      |      |
| Type 3R          |      | •    |      |      |      |      |      |
| Type 3S          |      |      |      | •    |      |      |      |
| Type 4           |      |      |      |      | •    |      |      |
| Type 4X          |      |      |      |      |      | •    |      |
| Type 6           |      |      |      |      |      |      | •    |
| Type 12          |      | •    |      |      |      |      |      |
| Type 13          |      |      |      |      | •    |      |      |

- indicates compliance

Type 6 rating can be either Type 6 or Type 6P - please see below:

|    |      |  |
|----|------|--|
| 6  | IP67 | Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment, falling dirt, hose-directed water, the entry of water during occasional temporary submersion at a limited depth and damage from external ice formation. |
| 6P | IP67 | Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment, falling dirt, hose-directed water, the entry of water during prolonged submersion at a limited depth and damage from external ice formation.            |

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# UTS series



Suitable for a broad range of applications

Off Road



Robotics



Machinery Tools/Special Machines



Railway & Mass Transit



Its uses are endless!  
here are a few...

Instrumentation/  
Measurement



Medical



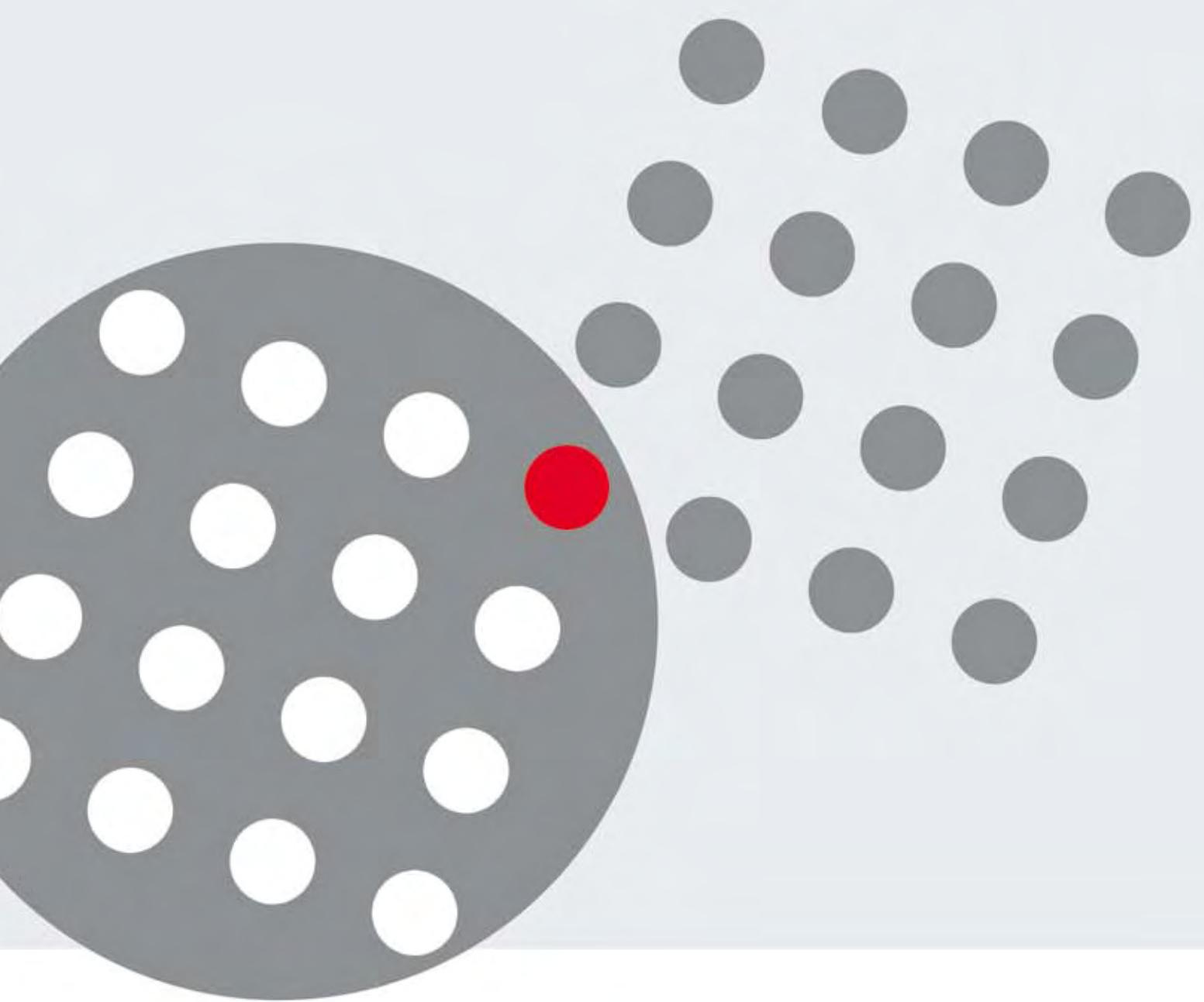
and there is more...:

Renewable Energy,  
Portable Energy,  
Factory Automation & Control,  
Building Automation & Control,  
Telecom/Datacom Infrastructure,  
Geophysics & Oceanography,  
Mining,  
etc...

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