

# UTS Hi seal

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## 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
- 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 | E | 2 | P | - |
|----------------------------------------------------------------------------------------------------|-----|---|----|---|---|---|---|---|
|                                                                                                    | UTS | 6 | JC | 8 | E | 2 | S | - |
| <b>Body variation</b>                                                                              |     |   |    |   |   |   |   |   |
| 6 Cable plug + backshell                                                                           |     |   |    |   |   |   |   |   |
| 7 Jam nut receptacle                                                                               |     |   |    |   |   |   |   |   |
| 0 Square flange receptacle                                                                         |     |   |    |   |   |   |   |   |
| <b>Backshell</b> : JC = Backshell (only for plug) / <b>No digit</b> = No backshell (only for plug) |     |   |    |   |   |   |   |   |
| <b>Shell size</b> : 8, 10, 12, 14, 18                                                              |     |   |    |   |   |   |   |   |
| <b>Contact type</b>                                                                                |     |   |    |   |   |   |   |   |
| E = Handsolder contacts / R = Crimp contacts* / D = PC tail contacts*                              |     |   |    |   |   |   |   |   |
| <b>Insert arrangement</b> - see next page                                                          |     |   |    |   |   |   |   |   |
| <b>Contact gender</b> : P = Pin contacts / S = Socket contacts                                     |     |   |    |   |   |   |   |   |
| <b>Insert rotation</b> : No digit = Normal / W, X, Y, Z = Different orientations - see page 60     |     |   |    |   |   |   |   |   |

\* Please consult factory

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## UTS Hi seal contacts arrangements

### Size 8

**2**



Contacts :  
2 Ø 1 (#20)

**3**



Contacts :  
3 Ø 1 (#20)

**3A/98**



Contacts :  
3 Ø 1 (#20)

**4**



Contacts :  
4 Ø 1 (#20)

**33**



Contacts :  
3 Ø 1 (#20)

### Size 10

**6**



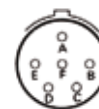
Contacts :  
6 Ø 1 (#20)

**7**



Contacts :  
7 Ø 1 (#20)

**98**



Contacts :  
6 Ø 1 (#20)

### Size 12

**2**



Contacts :  
2 Ø 1.6 (#16)

**3**



Contacts :  
3 Ø 1.6 (#16)

**8**



Contacts :  
8 Ø 1 (#20)

**10**



Contacts :  
10 Ø 1 (#20)

**14**



Contacts :  
14 Ø 1 (#20)

### Size 14

**5**



Contacts :  
5 Ø 1.6 (#16)

**12**



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

**15**



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

**18**



Contacts :  
18 Ø 1 (#20)

**19**



Contacts :  
19 Ø 1 (#20)

### Size 18\*

**11**



Contacts :  
11 Ø 1.6 (#16)

**32**



Contacts :  
32 Ø 1 (#20)

**30**



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

\* Please consult factory

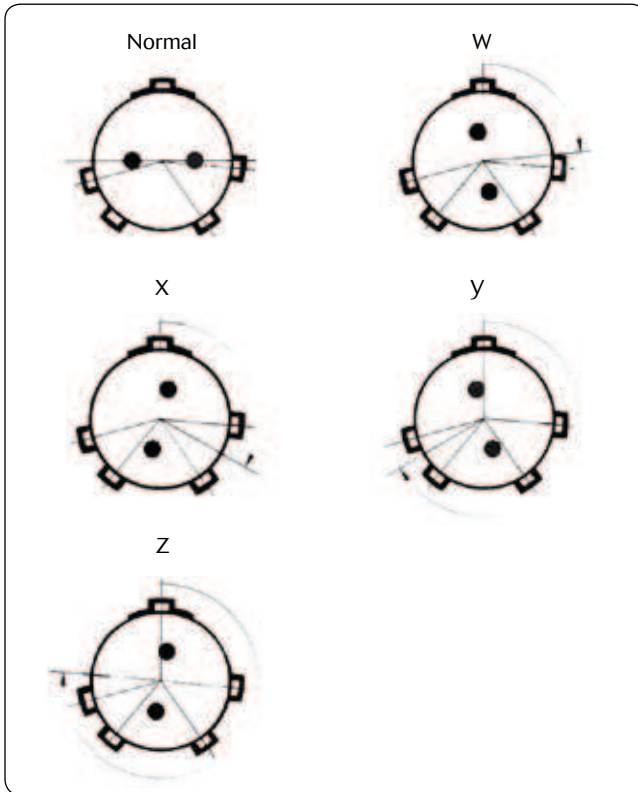
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## Insert orientation\*



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

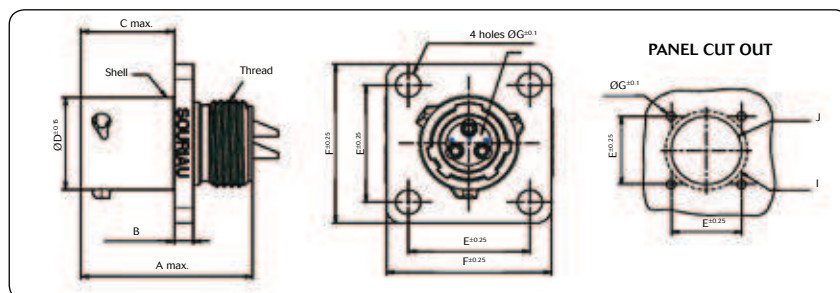
| Shell sizes | layouts  | angle in degrees |     |     |     |
|-------------|----------|------------------|-----|-----|-----|
|             |          | W                | X   | Y   | Z   |
| 8           | 2        | 58               | 122 | -   | -   |
|             | 3        | 60               | 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



| Shell size | Part numbers    |                 | A    | B   | C    | Ø D  | E    | F    | G   | Ø I  | Ø 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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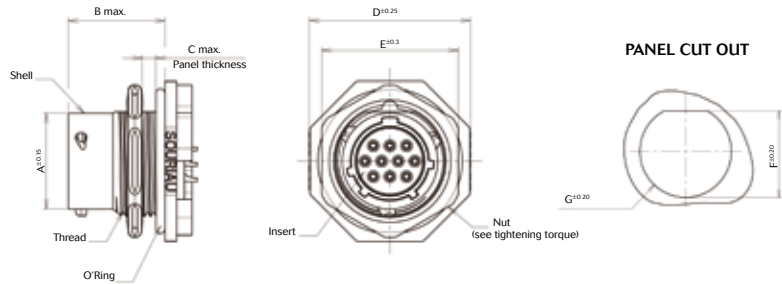
Note : all dimensions are in mm / \* Please consult factory

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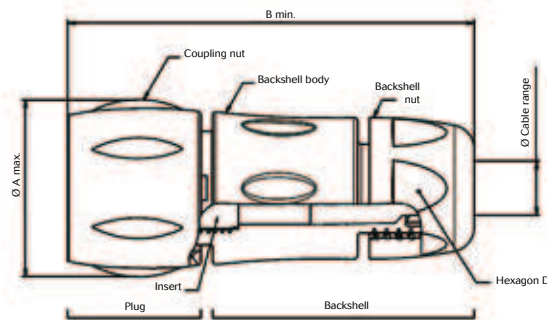
## Jam nut receptacle with handsolder contacts



| 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<br>Standard seal | Ø Cable range<br>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).

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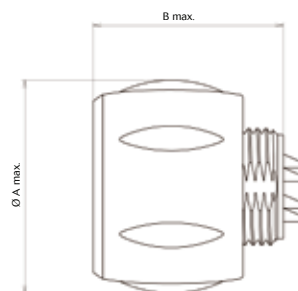
Note : all dimensions are in mm / \* Please consult factory

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## Cable plug without backshell



| Shell size* | Part numbers    |                 | Ø 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

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