

# XS-(IP67) Miniature Connectors

Industry signal Power supply

- Coupling: push-pull, Fast coupling and separation
- Degrees of protection IP65/IP67



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### CERTIFICATE



ISO9001



ISO14001



ISO45001



High-tech Enterprise Certificate



Foreign Invested Advanced



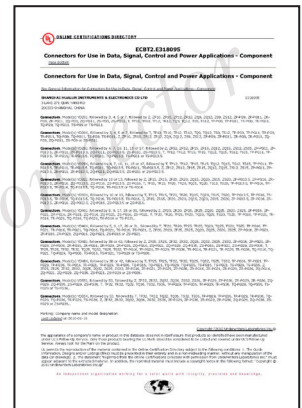
Enterprise Credit Rating AAA



Software Copyright



ISO9001, ISO14001, ISO45001



UL for YD series

## Design & Standard

- IEC/EN61984 《Connectors—Safety requirements and tests》
- IEC60664-1 Clearance, creepage distance & solid insulation
- IEC60529/GB4208 《Degrees of protection provided by enclosures ( IP Code ) 》
- GB/T2423.18-2012 《environmental-test 2》
- IEC60512 《Connectors for electronic equipment-Tests and measurements》
- NFF61030 ( Normes francaises ) 《Railway rolling stock-Electrical connectors》
- GB/T4797.2 《Natural environmental conditions for electrical and electronic products》

## Environmental

Overvoltage Category	II/ III	Frequency	50/60Hz
Relative Humidity	95% at 40°C ± 2°C		
Salty Spray Corrosion	>96hours, GB/T2423.18(3)		
Protection Degree	IP65/IP67		
Degree of Pollution	2/3		
Flame Resistance	UL94V-0		
Liquid Resistance	Oil, Mineral oil, Acid, Alkali		

## Mechanical Features

Vibration	SINE10~100Hz; 2g	NFF61030
Shock	Acceleration 30g,18ms	
Mechanical Life	≥500 Cycles	

## Material: RoHS

Shell	Copper Alloy (Chromium)
Contact	Brass (Gold, Silver)
Insert	Plastic UL Certificate
	Grade 1 <sup>b</sup> ; CTI≥600V
	Flame resistance UL94V-0; Insulation 10 <sup>16</sup>

## Electric Features

Operating Temperature	Lower limit-55°C ; Upper limit+125°C				
Insulation Resistance	Normal Temperature≥5000MΩ ; Damp Heat≥100MΩ				
Diameter of Contacts(mm)	0.8	1.0	1.5	1.6	2.5
Rated Current	3A	5A	10A	13A	20A
Rated Voltage(VAC)	<b>See Contacts Arrangement</b>				
Wire Gauge(mm <sup>2</sup> )	<0.3	0.5 ~ 0.75	1 ~ 1.5	1 ~ 2	1.5 ~ 2.5
Contact Resistance (mΩ)	<8	<5	<2.5	<2.25	<1
Withstand Voltage (V <sub>rms</sub> ) [50/60Hz]	<b>See Contacts Arrangement</b> <b>Remark:</b> For High Altitude Low Pressure Environment, Refer to GB/T4797.2-2005				
Screen	<b>According to customer requirements</b>				

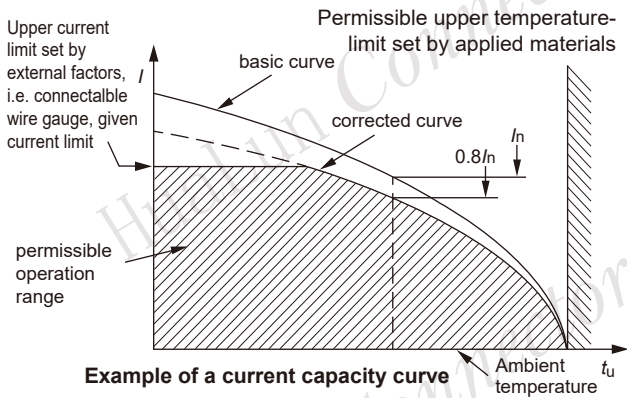
## Reference value of withstand Voltage drop in high altitude environment

Withstand Voltage (V <sub>rms</sub> )	altitude <2000m	840	1000	1380	1500	2000
	altitude 200~1000m	↓	↓	↓	↓	↓
	altitude 1000~3000m	750	900	1240	1350	1800
	altitude 3000~4000m	↓	↓	↓	↓	↓
		650	780	1080	1170	1560

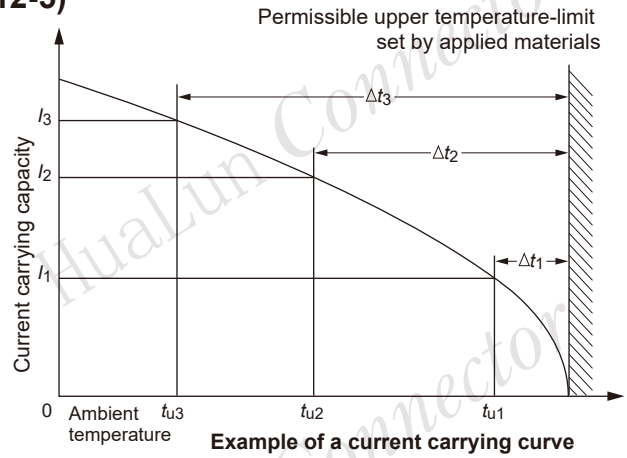
★ Please contact sales for customization!

## Current-Carrying Capacity

### Current-Carrying Capacity Curve (IEC/EN 60512-5)

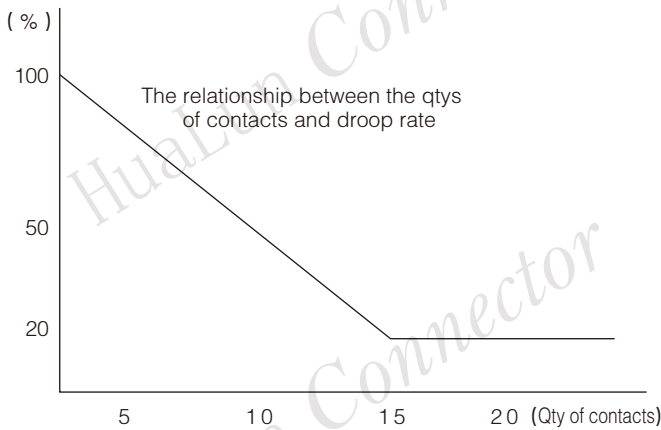


- ◆ The rated current is the continuous, not interrupted current a connector can take when simultaneous power on all contacts is given, without exceeding the maximum temperature.



- ◆ In practice it is not usual to load all terminals simultaneously with the maximum current. In such a case one contact can be loaded with a higher current as permitted by the current capacity curve, if less than 20% of the whole is loaded.
- ◆ It is recommended to proceed in accordance with the relevant rules of the DIN IEC 60512 part 3.

### Current-carrying capacity tends to decline with its contacts increasing



Remark: When the qty of contacts is more than 15, the droop rate is 20%

### Derated curve table

Qty of contacts	droop rate %	Qty of contacts	droop rate %	Qty of contacts	droop rate %
1	0	6	28.6	11	57.1
2	5.7	7	34.3	12	62.9
3	11.4	8	40	13	68.6
4	17.1	9	45.7	14	74.3
5	22.9	10	51.4	15 above	80

**Total capacity (A) = (single contact) rated current x Qty of contacts x (1-Droop rate%)**

**Sample 1:** XS12-4 Total capacity

$$\text{Total capacity} = 5A (\phi 1.0) \times 4 \times (1-17.1\%) = 16.6 \text{ A}$$

**Sample 2:** XS18-14 Total capacity

$$\text{Total capacity} = 5A (\phi 1.0) \times 14 \times (1-74.3\%) = 18 \text{ A}$$

**Remark:** The current of Single contact could be overall distribution for remands, but the total capacity not over the LIMITED value.



TUV SUD



ISO9001 ISO14001 ISO45001



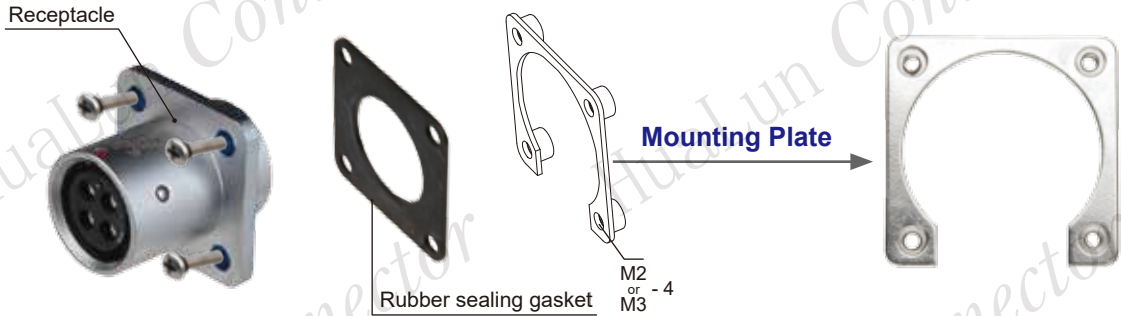
华伦连接器  
HuaLun Connector

## Mounting Plate

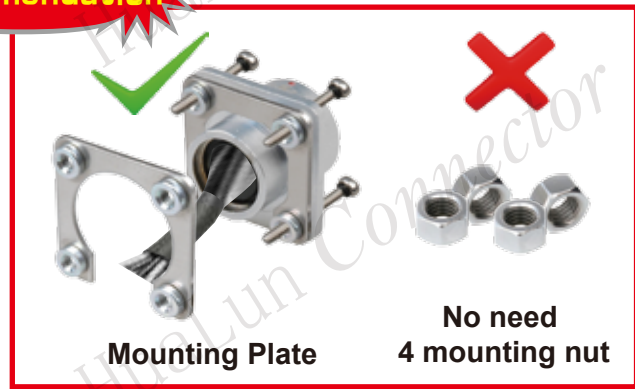
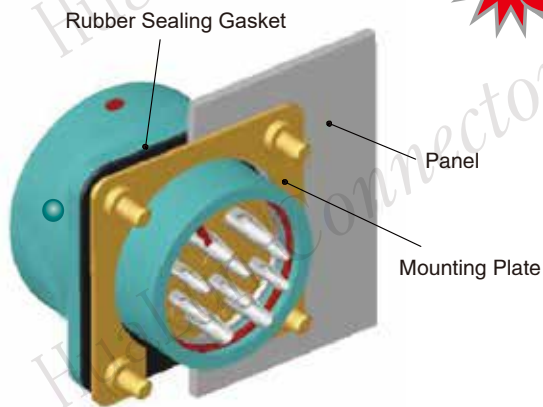
### The Feature of Mounting Plate

1. Convenient and Fast

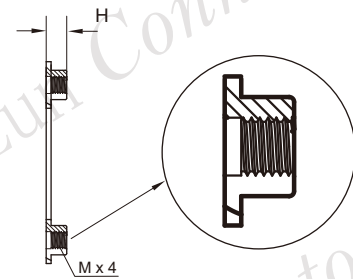
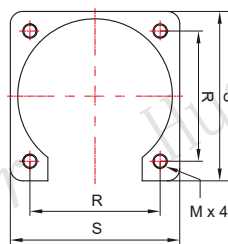
2. Firm



### ◆ Front Mounting



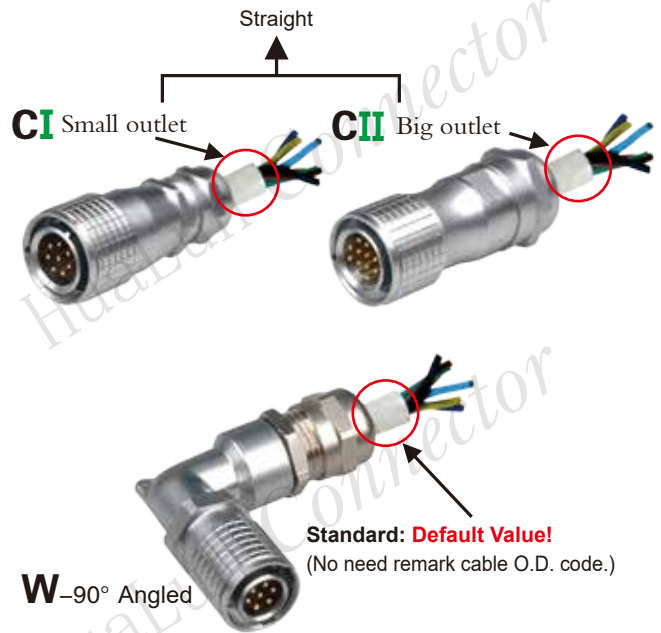
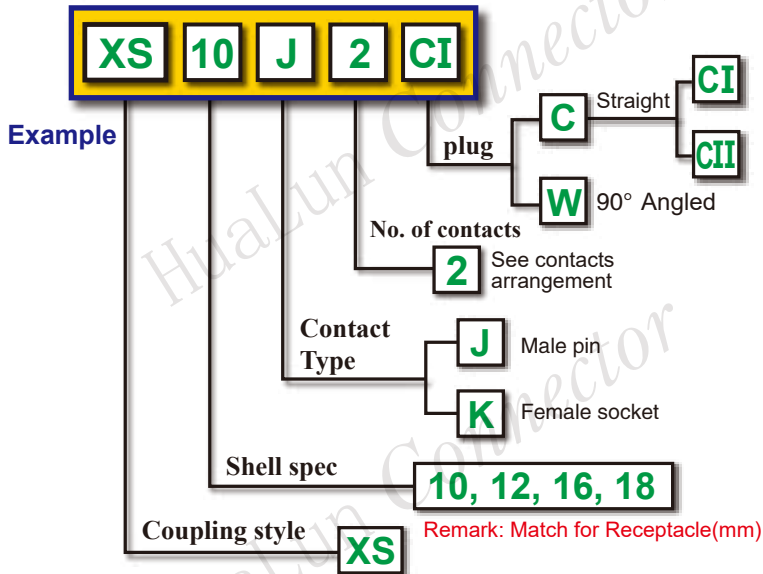
### The Size of Mounting Plate



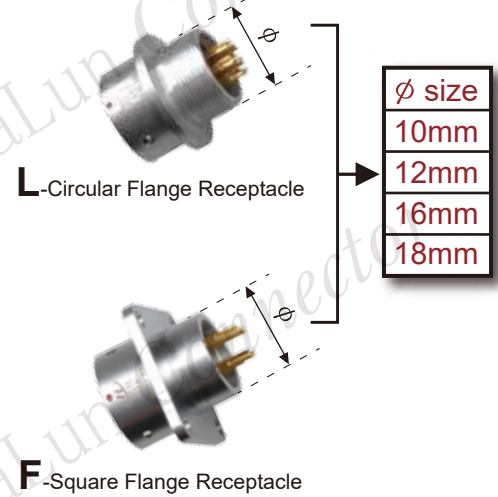
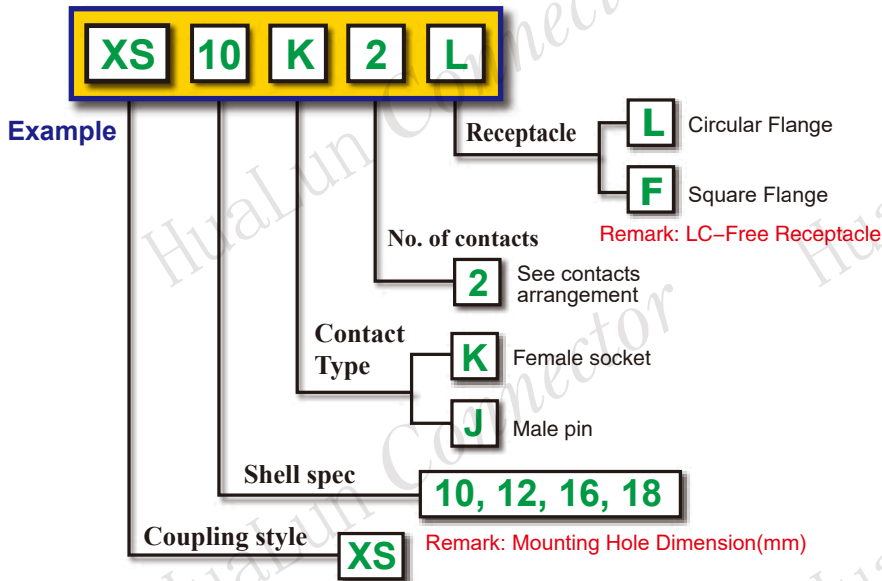
Order No.	Shell Spec	R	S	H	Thread M	Screw Spec
A10	10	11.00	16.00	2.60	M2	M2 x 10
A12	12	13.00	18.00			
A16	16	20.00	26.00		M3	M3 x 10
A18	18	22.00	28.00			

## Plug & Receptacle Order Code

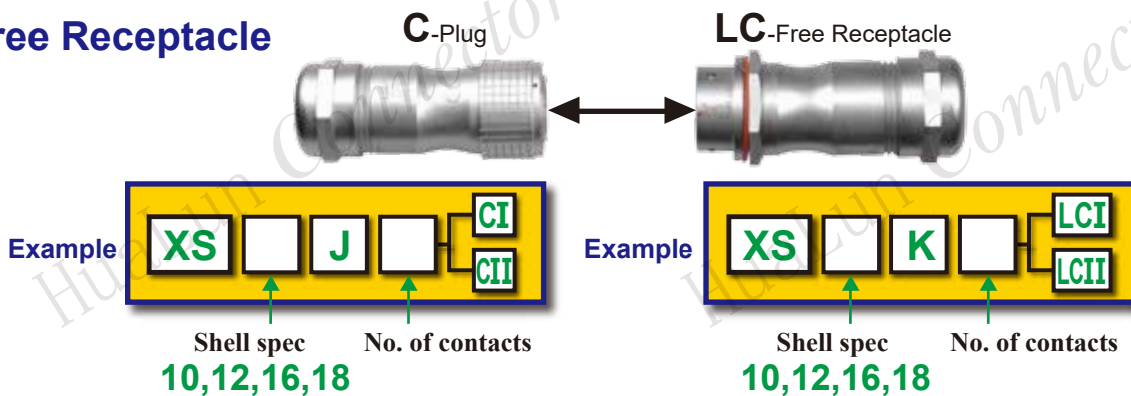
### ◆ Plug



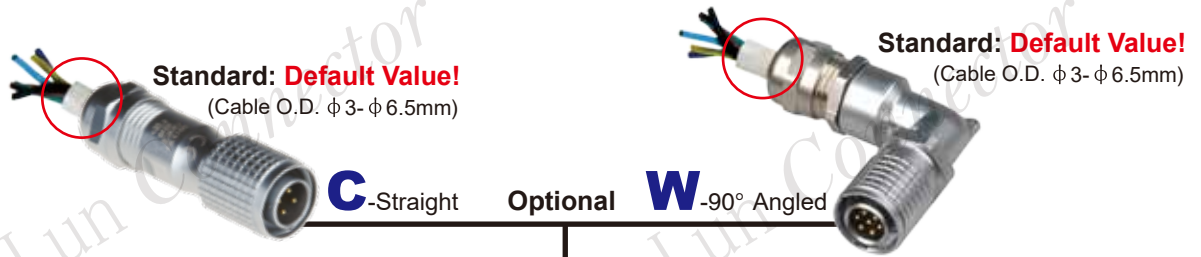
### ◆ Receptacle Panel Mounting



### ◆ Free Receptacle



## XS10 Male Plug Type



Order Code

**XS10J** Qty. of Contacts **C or W**

Remark: Plug Shell Size See Page 16

**J (Male)**



Optional **Contacts Arrangement**

φ: mm

Qty. of Contacts	2	3	4	5
Contacts Arrangement				
Diameter of contacts×Qty.	φ 1.0 × 2	φ 1.0 × 3	φ 0.8 × 4	φ 0.8 × 5
Rated Current	5A	5A	3A	3A
Rated Voltage	160VAC	125VAC	165VAC	125VAC
Withstand Voltage	1000Vrms (50/60Hz)	840Vrms (50/60Hz)	1000Vrms (50/60Hz)	840Vrms (50/60Hz)
Wire Gauge	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	<0.3mm <sup>2</sup>	<0.3mm <sup>2</sup>

## XS10 Female Receptacle Type



Order Code

**XS10K** Qty. of Contacts **L or F**

Remark: Receptacle Shell Size See Page 16

**K (Female)**



Optional **Contacts Arrangement**

φ: mm

Qty. of Contacts	2	3	4	5
Contacts Arrangement				
Diameter of contacts×Qty.	φ 1.0 × 2	φ 1.0 × 3	φ 0.8 × 4	φ 0.8 × 5
Rated Current	5A	5A	3A	3A
Rated Voltage	160VAC	125VAC	160VAC	125VAC
Withstand Voltage	1000Vrms (50/60Hz)	840Vrms (50/60Hz)	1000Vrms (50/60Hz)	840Vrms (50/60Hz)
Wire Gauge	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	<0.3mm <sup>2</sup>	<0.3mm <sup>2</sup>

## XS10 Female Plug Type



**Order Code**

**XS10K** Qty. of Contacts **C** or **W**

Remark: Plug Shell Size See Page 16

**K (Female)**

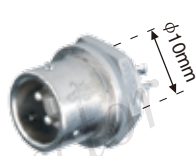
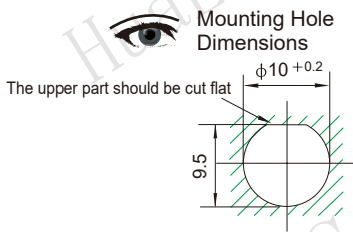
Optional

Contacts Arrangement

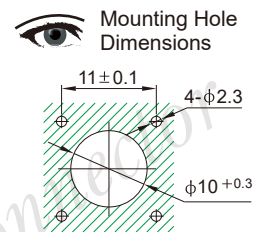
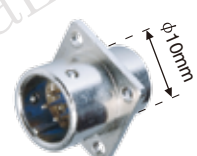
$\phi$ : mm

Qty. of Contacts	2	3	4	5
Contacts Arrangement				
Diameter of contacts×Qty.	$\phi$ 1.0 × 2	$\phi$ 1.0 × 3	$\phi$ 0.8 × 4	$\phi$ 0.8 × 5
Rated Current	5A	5A	3A	3A
Rated Voltage	160V	125V	160V	125V
Withstand Voltage	1000Vrms (50/60Hz)	840Vrms (50/60Hz)	1000Vrms (50/60Hz)	840Vrms (50/60Hz)
Wire Gauge	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	<0.3mm <sup>2</sup>	<0.3mm <sup>2</sup>

## XS10 Male Receptacle Type



Optional



**Order Code**

**XS10J** Qty. of Contacts **L** or **F**

Remark: Receptacle Shell Size See Page 16

**J (Male)**

Optional

Contacts Arrangement

$\phi$ : mm

Qty. of Contacts	2	3	4	5
Contacts Arrangement				
Diameter of contacts×Qty.	$\phi$ 1.0 × 2	$\phi$ 1.0 × 3	$\phi$ 0.8 × 4	$\phi$ 0.8 × 5
Rated Current	5A	5A	3A	3A
Rated Voltage	160V	125V	160V	125V
Withstand Voltage	1000Vrms (50/60Hz)	840Vrms (50/60Hz)	1000Vrms (50/60Hz)	840Vrms (50/60Hz)
Wire Gauge	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	<0.3mm <sup>2</sup>	<0.3mm <sup>2</sup>



## XS12 Male Plug Type

Cable O.D. \_\_\_\_\_

 Optional Configuration: **CI** or **CII**
**CI** :  $\phi 3$ -  $\phi 6.5$ mm

**CII** :  $\phi 4$ -  $\phi 8$ mm

**C**-Straight

 Optional **W**-90° Angled

**Standard: Default Value!**  
 (Cable O.D.  $\phi 4$ -  $\phi 8$ mm)

**Order Code**
**XS12J**

Qty. of Contacts

**CI** or **CII** or **W**


Remark: Plug Shell Size See Page 16

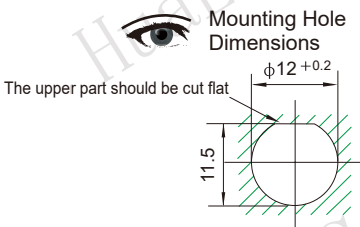
**J (Male)**


Optional

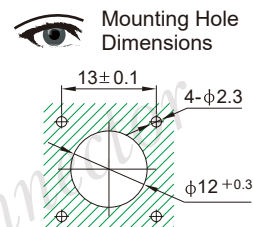
**Contacts Arrangement**
 $\phi$  : mm

Qty. of Contacts	2	3	4	5	6	7
<b>Contacts Arrangement</b>						
Diameter of contacts × Qty.	$\phi 1.6 \times 2$	$\phi 1.0 \times 3$	$\phi 1.0 \times 4$	$\phi 1.0 \times 5$	$\phi 1.0 \times 6$	$\phi 1.0 \times 7$
Rated Current	13A	5A	5A	5A	5A	5A
Rated Voltage	250V	250V	200V	200V	125V	125V
Withstand Voltage	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1000Vrms (50/60Hz)	1000Vrms (50/60Hz)	1000Vrms (50/60Hz)	840Vrms (50/60Hz)
Wire Gauge	1~2mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>

## XS12 Female Receptacle Type


**L**-Circular Flange

Optional


**F**-Square Flange

**Order Code**
**XS12K**

Qty. of Contacts

**L** or **F**


Remark: Receptacle Shell Size See Page 16

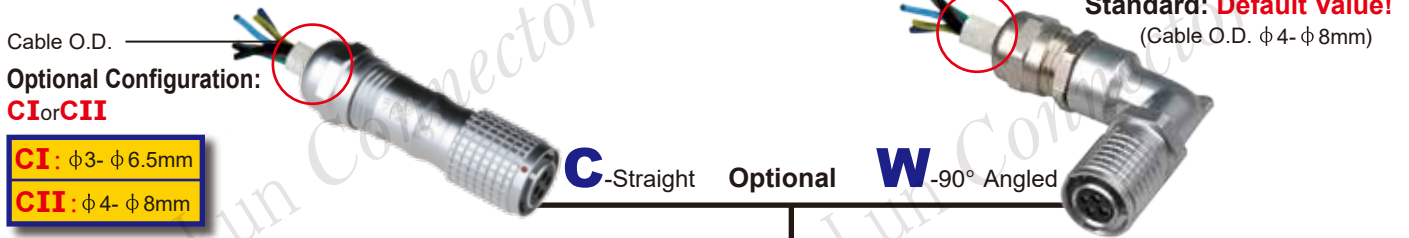
**K (Female)**


Optional

**Contacts Arrangement**
 $\phi$  : mm

Qty. of Contacts	2	3	4	5	6	7
<b>Contacts Arrangement</b>						
Diameter of contacts × Qty.	$\phi 1.6 \times 2$	$\phi 1.0 \times 3$	$\phi 1.0 \times 4$	$\phi 1.0 \times 5$	$\phi 1.0 \times 6$	$\phi 1.0 \times 7$
Rated Current	13A	5A	5A	5A	5A	5A
Rated Voltage	250V	250V	200V	200V	125V	125V
Withstand Voltage	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1000Vrms (50/60Hz)	1000Vrms (50/60Hz)	1000Vrms (50/60Hz)	840Vrms (50/60Hz)
Wire Gauge	1~2mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>

## XS12 Female Plug Type



### Order Code

**XS12K** Qty. of Contacts **CI or CII or W**

Remark: Plug Shell Size See Page 16

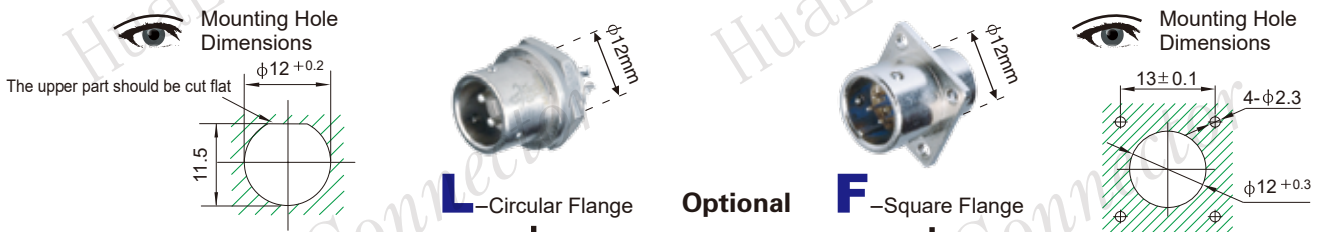
### K (Female)

### Optional Contacts Arrangement

$\phi$ : mm

Qty. of Contacts	2	3	4	5	6	7
Contacts Arrangement						
Diameter of contacts × Qty.	$\phi 1.6 \times 2$	$\phi 1.0 \times 3$	$\phi 1.0 \times 4$	$\phi 1.0 \times 5$	$\phi 1.0 \times 6$	$\phi 1.0 \times 7$
Rated Current	13A	5A	5A	5A	5A	5A
Rated Voltage	250VAC	250VAC	200VAC	200VAC	125VAC	125VAC
Withstand Voltage	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1000Vrms (50/60Hz)	1000Vrms (50/60Hz)	1000Vrms (50/60Hz)	840Vrms (50/60Hz)
Wire Gauge	1~2mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>

## XS12 Male Receptacle Type



### Order Code

**XS12J** Qty. of Contacts **L or F**

Remark: Receptacle Shell Size See Page 16

### J (Male)

### Optional Contacts Arrangement

$\phi$ : mm

Qty. of Contacts	2	3	4	5	6	7
Contacts Arrangement						
Diameter of contacts × Qty.	$\phi 1.6 \times 2$	$\phi 1.0 \times 3$	$\phi 1.0 \times 4$	$\phi 1.0 \times 5$	$\phi 1.0 \times 6$	$\phi 1.0 \times 7$
Rated Current	13A	5A	5A	5A	5A	5A
Rated Voltage	250VAC	250VAC	200VAC	200VAC	125VAC	125VAC
Withstand Voltage	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1000Vrms (50/60Hz)	1000Vrms (50/60Hz)	1000Vrms (50/60Hz)	840Vrms (50/60Hz)
Wire Gauge	1~2mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>

## XS16 Male Plug Type

Cable O.D.

**Optional Configuration:**  
**CI or CII**
**CI:**  $\phi 4 - \phi 8\text{mm}$ 
**CII:**  $\phi 7 - \phi 12\text{mm}$ 
**Standard: Default Value!**  
 (Cable O.D.  $\phi 5 - \phi 10\text{mm}$ )

**C**-Straight

Optional

**W**-90° Angled

**Order Code**
**XS16J**

Qty. of Contacts

**CI or CII or W**


Remark: Plug Shell Size See Page 16

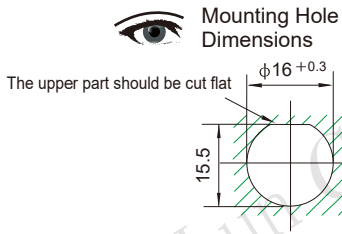
**J (Male)**


Optional

**Contacts Arrangement**
 $\phi$ : mm

Qty. of Contacts	2	2a	3	3a	3b
<b>Contacts Arrangement</b>					
Diameter of contacts×Qty.	$\phi 1.5 \times 2$	$\phi 2.5 \times 2$	$\phi 1.0 \times 3$	$\phi 1.5 \times 3$	$\phi 2.5 \times 3$
Rated Current	10A	20A	5A	10A	20A
Rated Voltage	250VAC	250VAC	250VAC	250VAC	250VAC
Withstand Voltage	2000Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)
Wire Gauge	1~1.5mm <sup>2</sup>	1.5~2.5mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	1~1.5mm <sup>2</sup>	1.5~2.5mm <sup>2</sup>
Qty. of Contacts	4	4a	5	7	8
<b>Contacts Arrangement</b>					
Diameter of contacts×Qty.	$\phi 1.0 \times 4$	$\phi 1.5 \times 4$	$\phi 1.0 \times 5$	$\phi 1.0 \times 7$	$\phi 1.0 \times 8$
Rated Current	5A	10A	5A	5A	5A
Rated Voltage	250VAC	250VAC	250VAC	250VAC	250VAC
Withstand Voltage	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1000Vrms (50/60Hz)
Wire Gauge	0.5~0.75mm <sup>2</sup>	1~1.5mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>
Qty. of Contacts	9		10		12
<b>Contacts Arrangement</b>					
Diameter of contacts×Qty.	$\phi 1.0 \times 9$		$\phi 1.0 \times 10$		$\phi 1.0 \times 12$
Rated Current	5A		5A		5A
Rated Voltage	160VAC		125VAC		125VAC
Withstand Voltage	1000Vrms (50/60Hz)		840Vrms (50/60Hz)		840Vrms (50/60Hz)
Wire Gauge	0.5~0.75mm <sup>2</sup>		0.5~0.75mm <sup>2</sup>		0.5~0.75mm <sup>2</sup>

## XS16 Female Receptacle Type

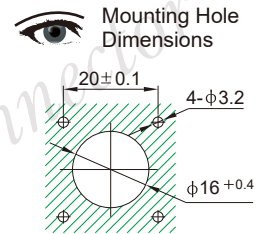


**L**—Circular Flange

Optional



**F**—Square Flange



**Order Code**

**XS16K** Qty. of Contacts **L or F**

Remark: Receptacle Shell Size See Page 16

**K (Female)**



Optional

**Contacts Arrangement**

φ: mm

Qty. of Contacts	2	2a	3	3a	3b
<b>Contacts Arrangement</b>					
Diameter of contacts×Qty.	φ1.5 × 2	φ2.5 × 2	φ1.0 × 3	φ1.5 × 3	φ2.5 × 3
Rated Current	10A	20A	5A	10A	20A
Rated Voltage	250VAC	250VAC	250VAC	250VAC	250VAC
Withstand Voltage	2000Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)
Wire Gauge	1~1.5mm <sup>2</sup>	1.5~2.5mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	1~1.5mm <sup>2</sup>	1.5~2.5mm <sup>2</sup>
Qty. of Contacts	4	4a	5	7	8
<b>Contacts Arrangement</b>					
Diameter of contacts×Qty.	φ1.0 × 4	φ1.5 × 4	φ1.0 × 5	φ1.0 × 7	φ1.0 × 8
Rated Current	5A	10A	5A	5A	5A
Rated Voltage	250VAC	250VAC	250VAC	250VAC	250VAC
Withstand Voltage	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1000Vrms (50/60Hz)
Wire Gauge	0.5~0.75mm <sup>2</sup>	1~1.5mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>
Qty. of Contacts	9		10		12
<b>Contacts Arrangement</b>					
Diameter of contacts×Qty.	φ1.0 × 9		φ1.0 × 10		φ1.0 × 12
Rated Current	5A		5A		5A
Rated Voltage	160VAC		125VAC		125VAC
Withstand Voltage	1000Vrms (50/60Hz)		840Vrms (50/60Hz)		840Vrms (50/60Hz)
Wire Gauge	0.5~0.75mm <sup>2</sup>		0.5~0.75mm <sup>2</sup>		0.5~0.75mm <sup>2</sup>

# XS16 Female Plug Type

Cable O.D.

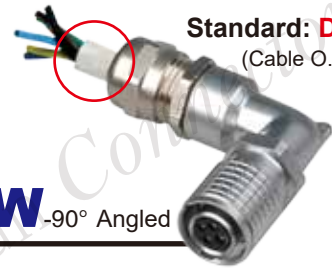
Optional Configuration:

**CI** or **CII**

- CI**:  $\phi 4$ -  $\phi 8$ mm
- CII**:  $\phi 7$ -  $\phi 12$ mm


**C**-Straight

Optional

**W**-90° Angled

**Standard: Default Value!**  
 (Cable O.D.  $\phi 5$ -  $\phi 10$ mm)

**Order Code**
**XS16K**

Qty. of Contacts

**CI** or **CII** or **W**


Remark: Plug Shell Size See Page 16

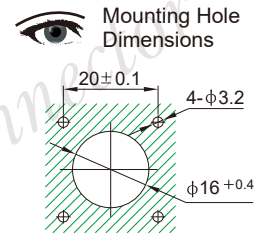
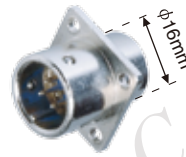
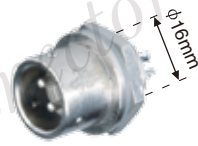
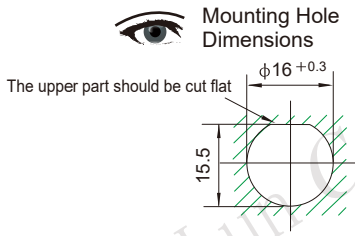
**K (Female)**


Optional

**Contacts Arrangement**
 $\phi$ : mm

Qty. of Contacts	2	2a	3	3a	3b
<b>Contacts Arrangement</b>					
Diameter of contacts×Qty.	$\phi 1.5 \times 2$	$\phi 2.5 \times 2$	$\phi 1.0 \times 3$	$\phi 1.5 \times 3$	$\phi 2.5 \times 3$
Rated Current	10A	20A	5A	10A	20A
Rated Voltage	250VAC	250VAC	250VAC	250VAC	250VAC
Withstand Voltage	2000Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)
Wire Gauge	1~1.5mm <sup>2</sup>	1.5~2.5mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	1~1.5mm <sup>2</sup>	1.5~2.5mm <sup>2</sup>
Qty. of Contacts	4	4a	5	7	8
<b>Contacts Arrangement</b>					
Diameter of contacts×Qty.	$\phi 1.0 \times 4$	$\phi 1.5 \times 4$	$\phi 1.0 \times 5$	$\phi 1.0 \times 7$	$\phi 1.0 \times 8$
Rated Current	5A	10A	5A	5A	5A
Rated Voltage	250VAC	250VAC	250VAC	250VAC	250VAC
Withstand Voltage	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1000Vrms (50/60Hz)
Wire Gauge	0.5~0.75mm <sup>2</sup>	1~1.5mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>
Qty. of Contacts	9		10		12
<b>Contacts Arrangement</b>					
Diameter of contacts×Qty.	$\phi 1.0 \times 9$		$\phi 1.0 \times 10$		$\phi 1.0 \times 12$
Rated Current	5A		5A		5A
Rated Voltage	160VAC		125VAC		125VAC
Withstand Voltage	1000Vrms (50/60Hz)		840Vrms (50/60Hz)		840Vrms (50/60Hz)
Wire Gauge	0.5~0.75mm <sup>2</sup>		0.5~0.75mm <sup>2</sup>		0.5~0.75mm <sup>2</sup>

## XS16 Male Receptacle Type



Optional

Order Code

**XS16J**

Qty. of Contacts

**L or F**



Remark: Receptacle Shell Size See Page 16

**J (Male)**



Optional

Contacts Arrangement

$\phi$ : mm

Qty. of Contacts	2	2a	3	3a	3b
Contacts Arrangement					
Diameter of contacts×Qty.	$\phi 1.5 \times 2$	$\phi 2.5 \times 2$	$\phi 1.0 \times 3$	$\phi 1.5 \times 3$	$\phi 2.5 \times 3$
Rated Current	10A	20A	5A	10A	20A
Rated Voltage	250VAC	250VAC	250VAC	250VAC	250VAC
Withstand Voltage	2000Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)
Wire Gauge	1~1.5mm <sup>2</sup>	1.5~2.5mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	1~1.5mm <sup>2</sup>	1.5~2.5mm <sup>2</sup>
Qty. of Contacts	4	4a	5	7	8
Contacts Arrangement					
Diameter of contacts×Qty.	$\phi 1.0 \times 4$	$\phi 1.5 \times 4$	$\phi 1.0 \times 5$	$\phi 1.0 \times 7$	$\phi 1.0 \times 8$
Rated Current	5A	10A	5A	5A	5A
Rated Voltage	250VAC	250VAC	250VAC	250VAC	250VAC
Withstand Voltage	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1380Vrms (50/60Hz)	1000Vrms (50/60Hz)
Wire Gauge	0.5~0.75mm <sup>2</sup>	1~1.5mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>
Qty. of Contacts	9		10		12
Contacts Arrangement					
Diameter of contacts×Qty.	$\phi 1.0 \times 9$		$\phi 1.0 \times 10$		$\phi 1.0 \times 12$
Rated Current	5A		5A		5A
Rated Voltage	160VAC		125VAC		125VAC
Withstand Voltage	1000Vrms (50/60Hz)		840Vrms (50/60Hz)		840Vrms (50/60Hz)
Wire Gauge	0.5~0.75mm <sup>2</sup>		0.5~0.75mm <sup>2</sup>		0.5~0.75mm <sup>2</sup>

## XS18 Male Plug Type

Cable O.D.

Optional Configuration:

**CI** or **CII**
**CI**:  $\phi 7 - \phi 12\text{mm}$ 
**CII**:  $\phi 10 - \phi 14\text{mm}$ 

 Standard: **Default Value!**

 (Cable O.D.  $\phi 7 - \phi 12\text{mm}$ )

**C**-Straight Optional **W**-90° Angled

**Order Code**
**XS18J**

Qty. of Contacts

**CI** or **CII** or **W**


Remark: Plug Shell Size See Page 16

**J (Male)**


Optional

**Contacts Arrangement**
 $\phi$ : mm

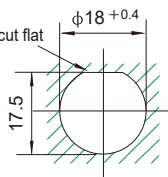
Qty. of Contacts	3	6	8	14
Contacts Arrangement				
Diameter of contacts × Qty.	$\phi 2.5 \times 3$	$\phi 1.6 \times 6$	$\phi 1.6 \times 3$   $\phi 1.0 \times 5$	$\phi 1.0 \times 14$
Rated Current	20A	13A	13A   5A	5A
Rated Voltage	250VAC	250VAC	200VAC	200VAC
Withstand Voltage	1500Vrms (50/60Hz)	1000Vrms (50/60Hz)	1000Vrms (50/60Hz)	840Vrms (50/60Hz)
Wire Gauge	1.5~2.5mm <sup>2</sup>	1~2mm <sup>2</sup>	1~2mm <sup>2</sup>   0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>

## XS18 Female Receptacle Type



Mounting Hole Dimensions

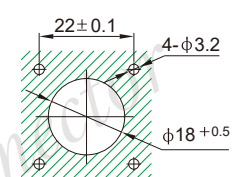
The upper part should be cut flat


**L**-Circular Flange

Optional


**F**-Square Flange


Mounting Hole Dimensions


**Order Code**
**XS18K**

Qty. of Contacts

**L** or **F**


Remark: Receptacle Shell Size See Page 16

**K (Female)**


Optional

**Contacts Arrangement**
 $\phi$ : mm

Qty. of Contacts	3	6	8	14
Contacts Arrangement				
Diameter of contacts × Qty.	$\phi 2.5 \times 3$	$\phi 1.6 \times 6$	$\phi 1.6 \times 3$   $\phi 1.0 \times 5$	$\phi 1.0 \times 14$
Rated Current	20A	13A	13A   5A	5A
Rated Voltage	250VAC	250VAC	200VAC	200VAC
Withstand Voltage	1500Vrms (50/60Hz)	1000Vrms (50/60Hz)	1000Vrms (50/60Hz)	840Vrms (50/60Hz)
Wire Gauge	1.5~2.5mm <sup>2</sup>	1~2mm <sup>2</sup>	1~2mm <sup>2</sup>   0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>

## XS18 Female Plug Type

Cable O.D.

Optional Configuration:  
**CI** or **CII**

**CI**:  $\phi 7 - \phi 12\text{mm}$

**CII**:  $\phi 10 - \phi 14\text{mm}$

Standard: **Default Value!**

(Cable O.D.  $\phi 7 - \phi 12\text{mm}$ )

**C**-Straight

Optional

**W**-90° Angled

Order Code

**XS18K**

Qty. of Contacts

**CI** or **CII** or **W**



Remark: Plug Shell Size See Page 16

**K** (Female)

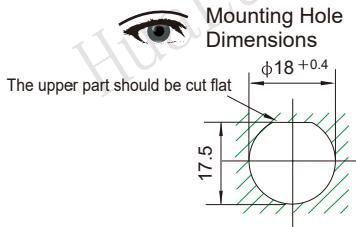
Optional

Contacts Arrangement

$\phi$ : mm

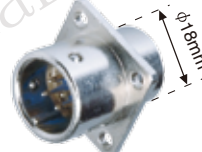
Qty. of Contacts	3	6	8	14
Contacts Arrangement				
Diameter of contacts×Qty.	$\phi 2.5 \times 3$	$\phi 1.6 \times 6$	$\phi 1.6 \times 3$   $\phi 1.0 \times 5$	$\phi 1.0 \times 14$
Rated Current	20A	13A	13A   5A	5A
Rated Voltage	250VAC	250VAC	200VAC	200VAC
Withstand Voltage	1500Vrms (50/60Hz)	1000Vrms (50/60Hz)	1000Vrms (50/60Hz)	840Vrms (50/60Hz)
Wire Gauge	1.5~2.5mm <sup>2</sup>	1~2mm <sup>2</sup>	1~2mm <sup>2</sup>   0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>

## XS18 Male Receptacle Type

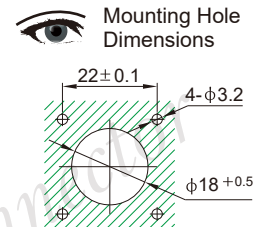


**L**-Circular Flange

Optional



**F**-Square Flange



Order Code

**XS18J**

Qty. of Contacts

**L** or **F**



Remark: Receptacle Shell Size See Page 16

**J** (Male)

Optional

Contacts Arrangement

$\phi$ : mm

Qty. of Contacts	3	6	8	14
Contacts Arrangement				
Diameter of contacts×Qty.	$\phi 2.5 \times 3$	$\phi 1.6 \times 6$	$\phi 1.6 \times 3$   $\phi 1.0 \times 5$	$\phi 1.0 \times 14$
Rated Current	20A	13A	13A   5A	5A
Rated Voltage	250VAC	250VAC	200VAC	200VAC
Withstand Voltage	1500Vrms (50/60Hz)	1000Vrms (50/60Hz)	1000Vrms (50/60Hz)	840Vrms (50/60Hz)
Wire Gauge	1.5~2.5mm <sup>2</sup>	1~2mm <sup>2</sup>	1~2mm <sup>2</sup>   0.5~0.75mm <sup>2</sup>	0.5~0.75mm <sup>2</sup>



## Plug Drawings & Dimensions

### C – Straight

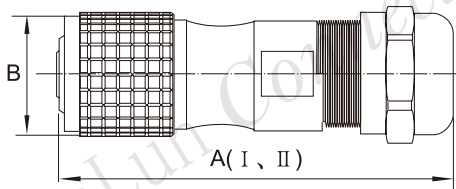


Table 1 Unit: mm

Spec.	AI (max)	AII (max)	B
10	-	50	φ14
12	50	56	φ17
16	56	62	φ22
18	62	64	φ24.5

### W – 90° Angled

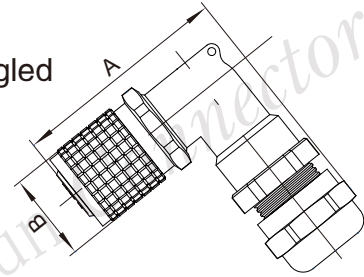


Table 2 Unit: mm

Spec.	A	B
10	41	φ14
12	45	φ17
16	50	φ22
18	52.5	φ24.5

## Receptacle Drawings & Dimensions

### L – Circular Flange

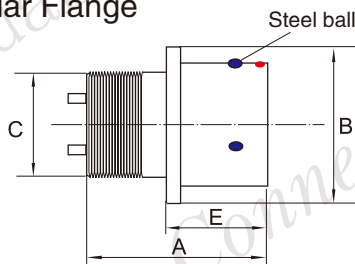


Table 3 Unit: mm

Spec.	A	B	C	E
10	20	φ15	M10×0.75	11
12	20	φ18	M12×0.75	10.5
16	20	φ23	M16×0.75	11
18	20	φ25	M18×1	11

### F – Square Flange

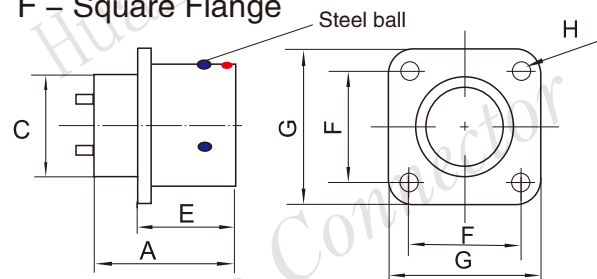


Table 4 Unit: mm

Spec.	A	C	E	F	G	H
10	20	φ10	11.5	11±0.1	16	4-φ2.3
12	20	φ12	11.5	13±0.1	18	4-φ2.3
16	20	φ16	12	20±0.1	26	4-φ3.2
18	20	φ18	12	22±0.1	28	4-φ3.2

## Receptacle Mounting Hole Dimensions

### Circular Flange Receptacle Mounting Hole Data

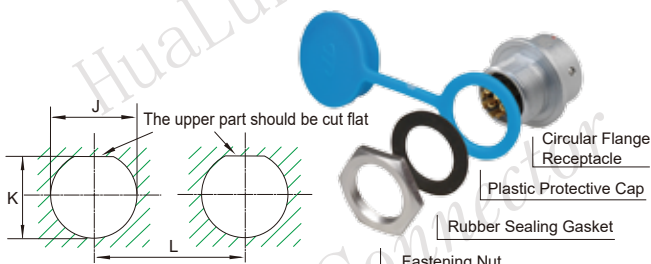


Table 5 Unit: mm

Spec.	J	K	L (min)
10	φ10.2	9.5	26
12	φ12.2	11.5	30
16	φ16.3	15.5	36
18	φ18.4	17.5	38

### Square Flange Receptacle Mounting Hole Data

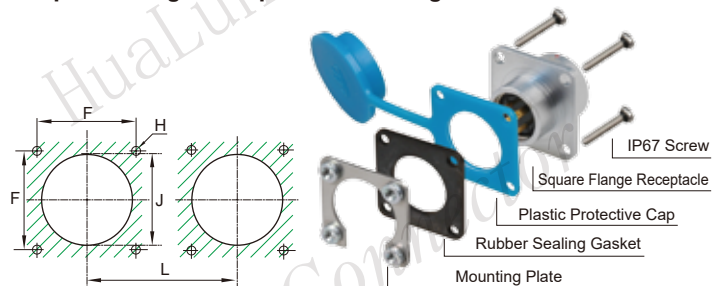


Table 6 Unit: mm

Spec.	F	J	H	L (min)
10	11±0.1	φ10.3	4-φ2.3	26
12	13±0.1	φ12.3	4-φ2.3	28
16	20±0.1	φ16.4	4-φ3.2	36
18	22±0.1	φ18.5	4-φ3.2	38

## IP67 Metal Protective Caps

### Circular Flange Receptacle Cap

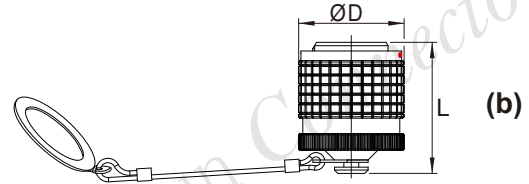


Table 7

Unit: mm

Circular Flange Receptacle Cap Order Code	D	L
<b>XS10-LG</b>	14	27.3
<b>XS12-LG</b>	17	27.3
<b>XS16-LG</b>	22	27.3
<b>XS18-LG</b>	24.5	27.3

### Square Flange Receptacle Cap

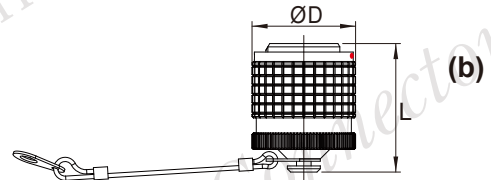
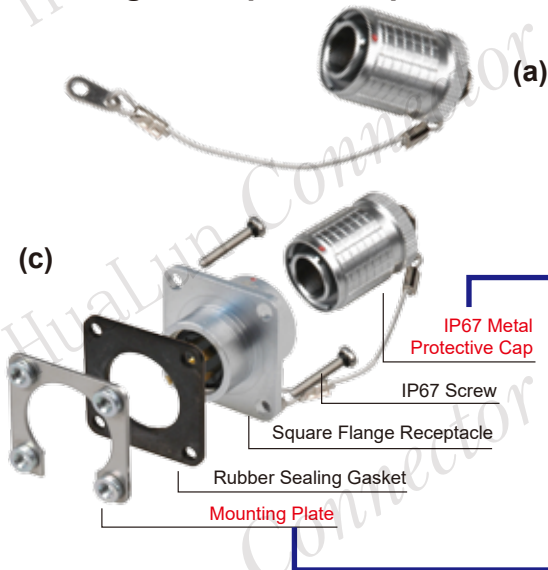


Table 8

Unit: mm

Square Flange Receptacle Cap Order Code	Mounting Plate Order Code	D	L
<b>XS10-FG</b>	<b>A10</b>	14	27.3
<b>XS12-FG</b>	<b>A12</b>	17	27.3
<b>XS16-FG</b>	<b>A16</b>	22	27.3
<b>XS18-FG</b>	<b>A18</b>	24.5	27.3

### Plug Cap

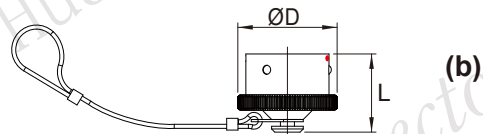


Table 9

Unit: mm

Plug Cap Order Code	D	L
<b>XS10-CG</b>	14	17.3
<b>XS12-CG</b>	17	17.3
<b>XS16-CG</b>	22	17.3
<b>XS18-CG</b>	24.5	17.3



TUV SUD

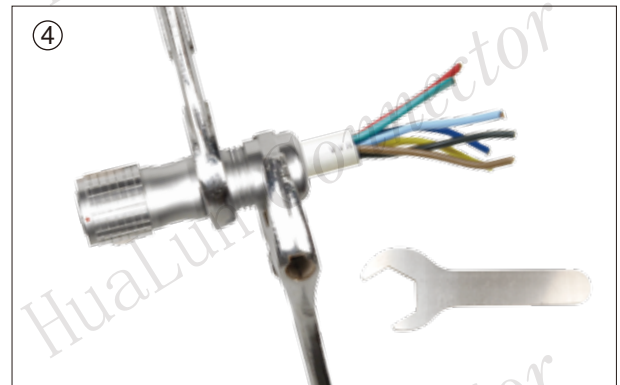


ISO9001 ISO14001 ISO45001



华伦连接器  
HuaLun Connector

## Plug Assembling





**SHANGHAI HUALUN INSTRUMENTS & ELECTRONICS CO., LTD.**

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