

KY Prefabricated Connector

Industry signal Power supply

- Reverse Bayonet Coupling, Firm, Antivibration
- Degrees of protection IP65/IP67

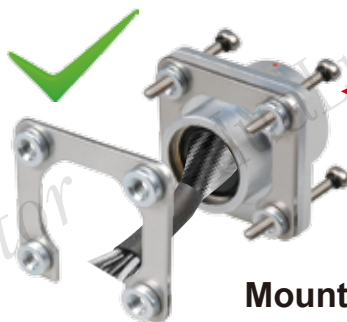


Bayonet

- ① Convenient and Fast ② Firm ③ Resistance to shock and vibration ④ Corrosion resistant



No need 4 mounting nut !



Mounting Plate



Stainless steel bolts

- www.hualun.sh.cn
- www.华伦连接器.com
- www.hualunconnectors.com

ISO9001



ISO14001



ISO45001





Index

Technical Data	2
Product Application Diagram	3-5
KY Free Plug Part Number	6
KY Free Receptacle Part Number	7
KY Figures of Shell Size	8
KY Panel Mounted Receptacle Part Number	9
KY Panel Mounted Receptacle Drawings & Dimensions	10
Contacts Arrangement	11-12
IP67 Metal Protective Caps	13
Mounting Plate	14

★ Please contact sales for customization !



High-tech Enterprise Certificate



Foreign Invested Advanced



Enterprise Credit Rating AAA

KY Snap Fit Prefabricated Wire Harness Connector

Environmental

Overvoltage Category	II / III	Frequency	50/60Hz
Relative Humidity	95% at 40°C ± 2°C		
Salty Spray Corrosion	≥96h	IEC60512-11-7	
Protection Degree	IP65/IP67	IEC60529	
Degree of Pollution	2/3		
Flame Resistance	UL94V-0		
Liquid Resistance	Oil, Mineral oil, Acid, Alkali		

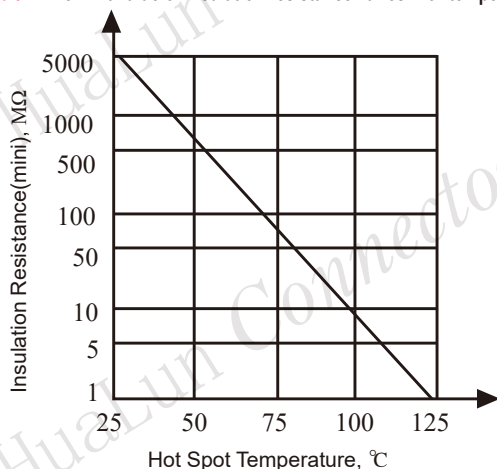
Mechanical Features

Shock Vibration	Class 1B		
Mechanical Life	≥ 500	IEC60512-9-1	

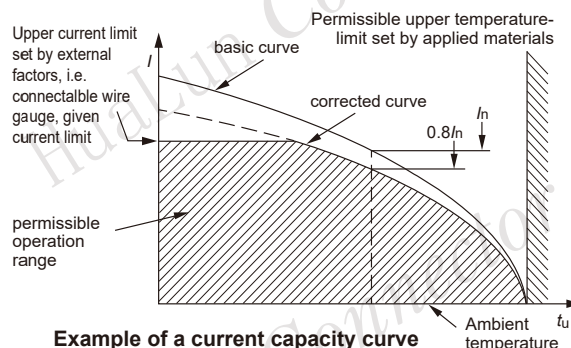
Electric Features

Operating Temperature	Lower limit-55°C; Upper limit+125°C				
Insulation Resistance	Normal ≥ 5000MΩ; Damp Heat ≥ 100MΩ, (Dynamic values see tableA)				
Diameter of Contacts (mm)	0.8	1.0	1.5	1.6	2.5
Rated Current (A)	3A	5A	10A	13A	20A
Rated Voltage (VAC)	See Contacts Arrangement ① ~ ⑫				
Wire Gauge (mm²)	< 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 (VAC) [50/60Hz]	See Contacts Arrangement ① ~ ⑫ Remark: For High Altitude Low Pressure Environment, Refer to GB/T4797.2-2005				
Screen	According to customer requirements				

TableA The limit value of insulation resistance varies with temperature



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



Example of a current capacity curve

- ◆ 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.
- ◆ For the rated current of multi-pin connectors, the derating should be shown according to the "derating curve" graph. For the derating rate, please refer to the table below

Contact current De-rating

Qty of contacts	1~10	11~20
Drop rate%	0	10

Material: RoHS

Shell	Copper alloy (Plating Ni-Cr)		
Contact	Brass (Silver)	Gold plating, customize	
Insert	Plastic UL Certificate		
	Flame Resistance UL94V-0		

Dielectric Strength Test Voltage

Rated Impulse Voltage (U _{imp}) kV	Test voltage-Pulse Withstand Voltage kV(1.2/50μs)		Withstand Voltage Test (r.m.s) kV(50/60Hz)
	Altitude 2000m	Sea Level	
0.5	0.5	0.55	0.37
0.8	0.8	0.91	0.50
1.5	1.5	1.75	0.84
2.5	2.5	2.95	1.39
4	4	4.8	2.21

Testing Condition

Temperature: 15°C~35°C	Relative Humidity: 20%~80%	Atmospheric Pressure: 73KPa~106KPa
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Product Application Diagram

W: Prefabricated 90° Angled Plug



T: Prefabricated Straight Plug

F: Panel Mounted Receptacle



ZT: Prefabricated Free Straight Plug



wire size, length customize

ZW: Prefabricated Free 90° Angled Plug

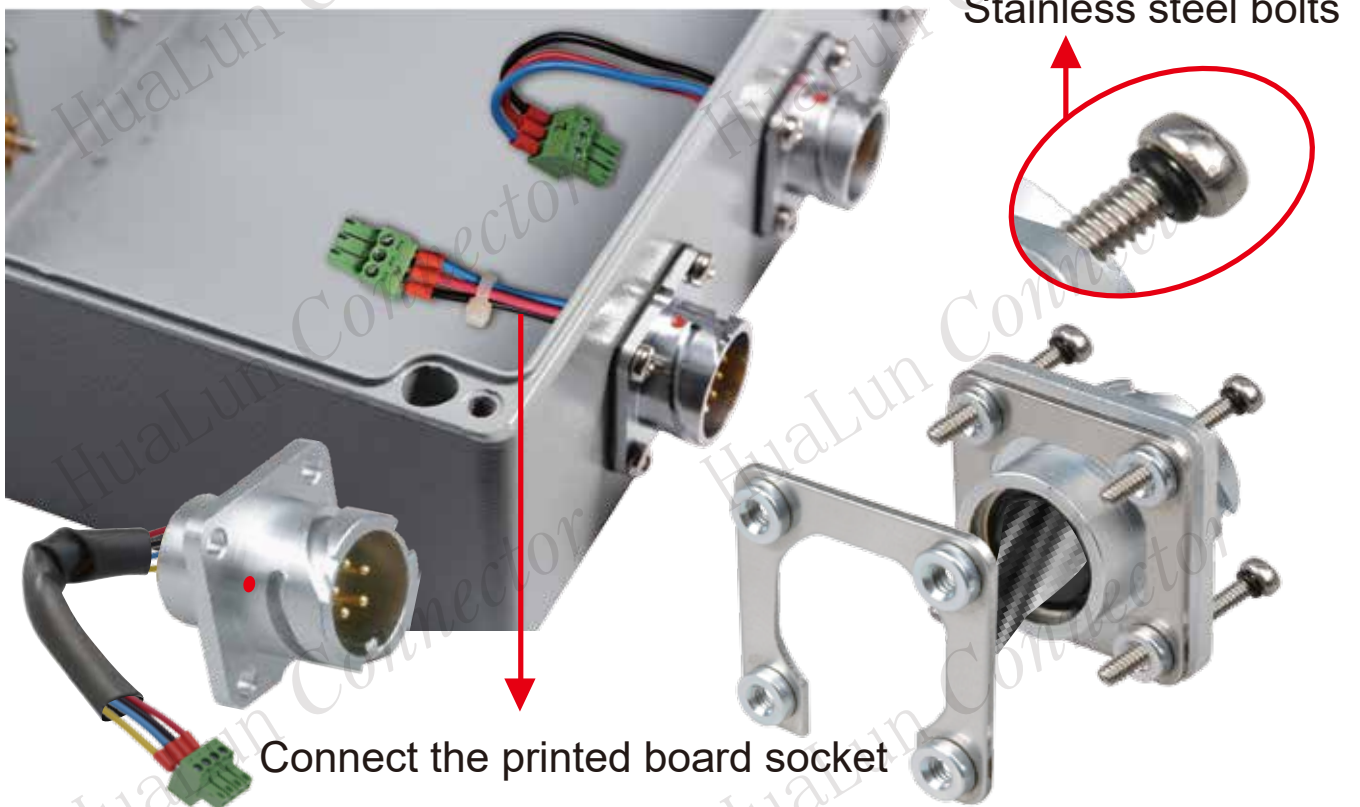


wire size, length customize

Product Application Diagram



Product Application Diagram



KY Free Plug — Part Number — (Explanation)

Single Free Plug

e.g. **KY** **12** **J4** **T** **P** **D****

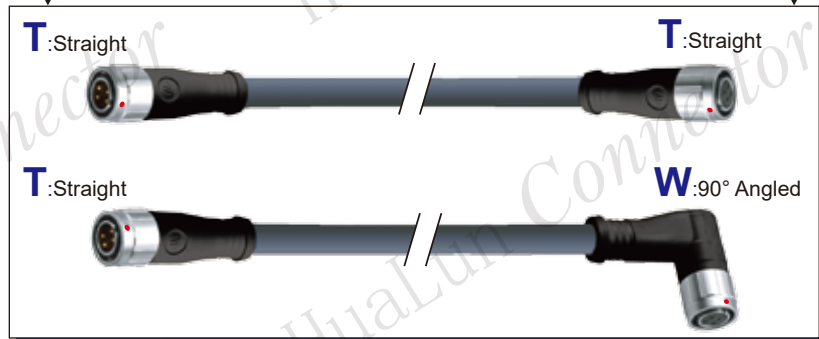
① ② ③ ④ ⑤ ⑥



Double Free Plug

e.g. **KY** **12** **J4** **T** **F** **S**** // **KY** **12** **K4** **W**

① ② ③ ④ ⑤ ⑥ // ⑦ ⑧ ⑨ ⑩



Explanation

① ⑦ **KY**
↓ ↓
Bayonet Prefabricated

② ⑧ **12,16,18** : Shell Spec. See Page 11-12

③ ⑨ Insert:
J or **K** **4**
↓ ↓
J: Pin K: Socket Contacts
Insert Spec. See Page 11-12

④ ⑩ **T** : Straight Free Plug
W : 90° Angled Free Plug

⑤ **P** : Shield
F : Unshielded

⑥ **D** or **S** ******
↓ ↓
D: Single twisted cable S: Twisted pair cable Cable length

KY Free Receptacle — Part Number — (Explanation)

Single Free Receptacle

e.g. **KY** **12** **J4** **ZT** **P** **D****

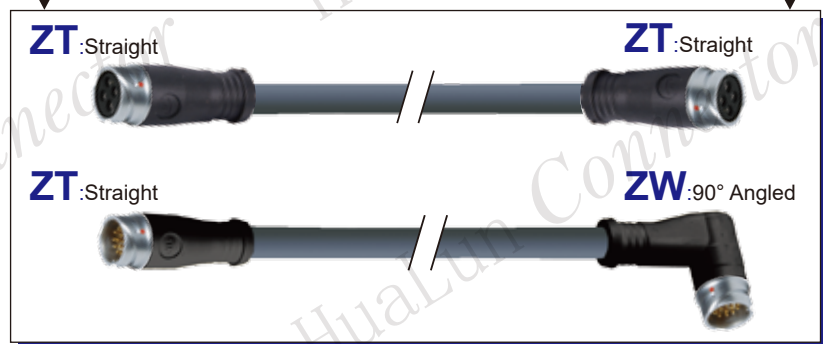
① ② ③ ④ ⑤ ⑥



Double Free Receptacle

e.g. **KY** **12** **J4** **ZT** **F** **S**** // **KY** **12** **K4** **ZW**

① ② ③ ④ ⑤ ⑥ // ⑦ ⑧ ⑨ ⑩



Explanation

① ⑦ **KY**
↓ ↓
Bayonet Prefabricated

② ⑧ **12,16,18** : Shell Spec. See Page 11-12

③ ⑨ Insert:
J **K** **4**
↓ ↓ ↓
J: Pin K: Socket Contacts

Insert Spec. See Page 11-12

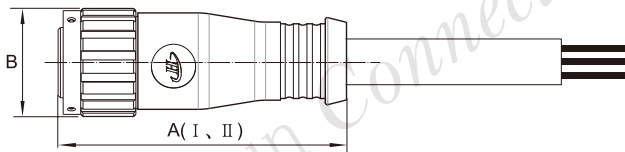
④ ⑩ **ZT** : Straight Free Receptacle
ZW : 90° Angled Free Receptacle

⑤ **P** : Shield
F : Unshielded

⑥ **D** **S** ******
↓ ↓ ↓
D: Single twisted cable S: Twisted pair cable Cable length

KY Figures of Shell Size

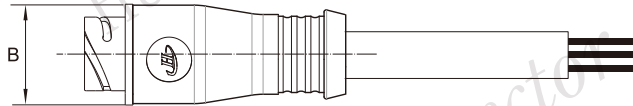
T Straight Free Plug



Free Plug-Straight



ZT Straight Free Receptacle



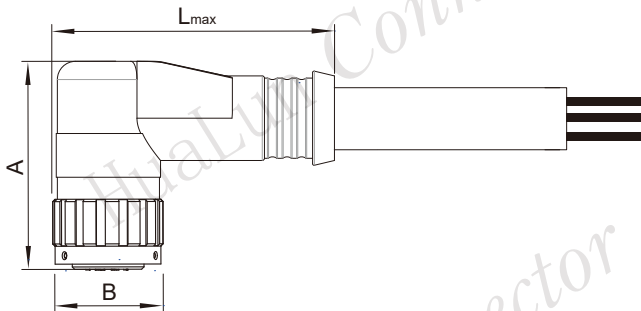
Free Receptacle-Straight



Unit: mm

Spec.	A I (max)	A II (max)	B
12	50	56	φ 17
16	56	62	φ 22
18	62	64	φ 24.5

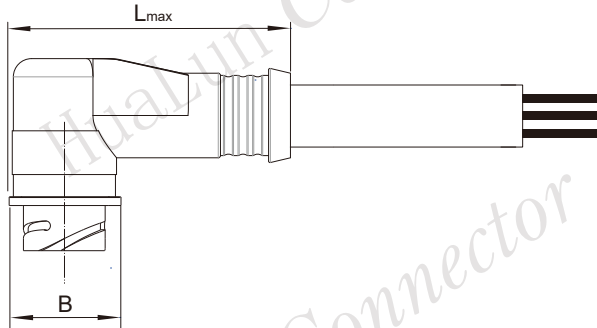
W 90° Angled Plug



Free Plug-90° Angled



ZW 90° Angled Receptacle



Free Receptacle-90° Angled



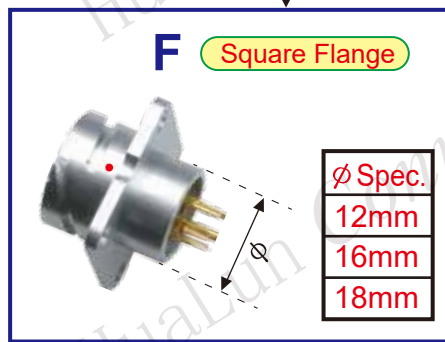
Unit: mm

Spec.	A	B	L max
12	45	φ 17	45
16	50	φ 22	50
18	52.5	φ 24.5	52.5

KY Panel Mounted Receptacle — Part Number — (Explanation)

e.g. **KY** **12** **K4** **F**

① ② ③ ④



Explanation

① **KY**

Bayonet Prefabricated

③ Insert:

J or K 4

J: Pin
K: Socket

Contacts

Insert Spec. See Page 11-12

② **12,16,18** : Shell Spec. See Page 11-12

④ **F** : Panel Mounted Receptacle



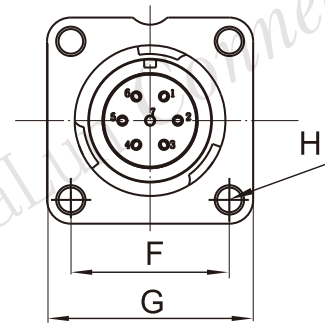
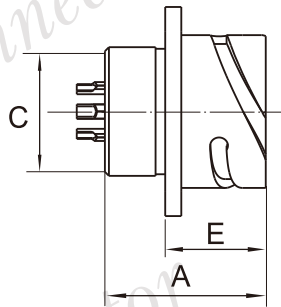
KY Order code for three-way adapter

Product Spec.	Order Code
KY12	KY12-3T
KY16	KY16-3T
KY18	KY18-3T

KY Panel Mounted Receptacle Drawings & Dimensions



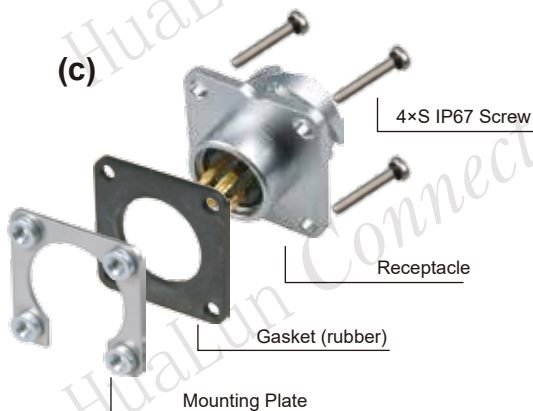
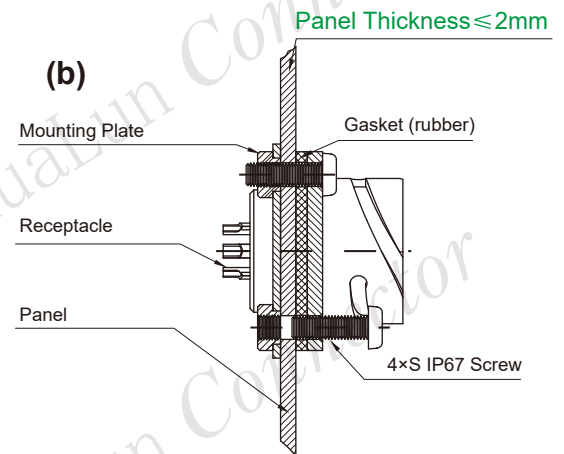
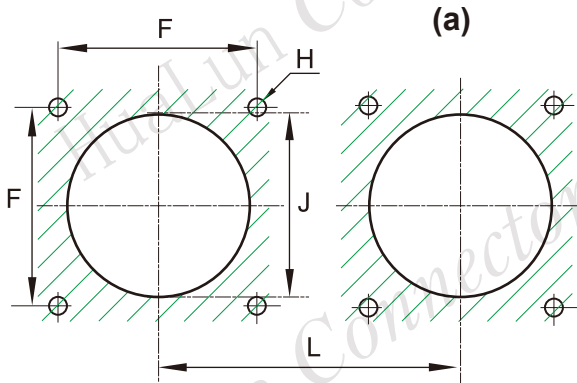
KY Bayonet



Unit: mm

Spec.	A	C	E	F	G	H
KY12-F	20	φ12	11.5	14±0.1	19	4-φ2.3
KY16-F	20	φ16	12	20±0.1	26	4-φ3.2
KY18-F	20	φ18	12	22±0.1	28	4-φ3.2

Mounting Hole Dimensions



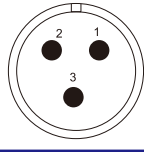
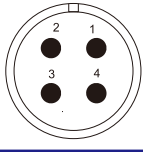
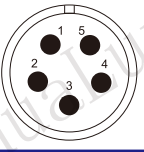
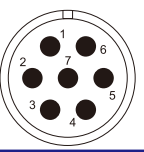
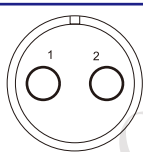
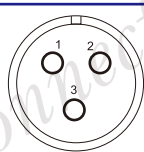
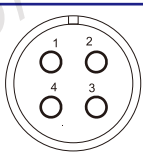
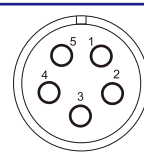
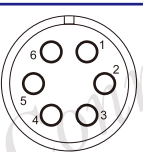
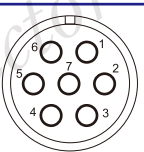
Receptacle Mounting Hole Data

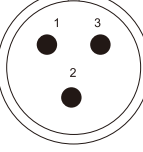
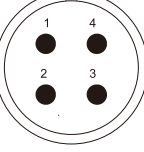
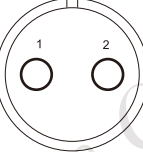
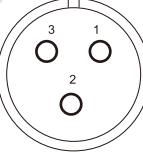
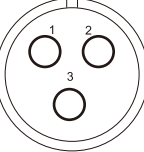
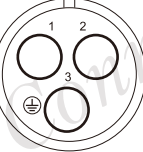
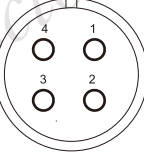
Unit: mm

Spec.	F	J	H	L (min)	4xS Screw
KY12-F	14±0.1	φ12.2	4-φ2.3	28	M2
KY16-F	20±0.1	φ16.3	4-φ3.2	36	M3
KY18-F	22±0.1	φ18.3	4-φ3.2	38	

Contacts Arrangement

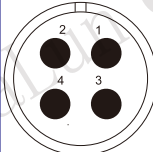
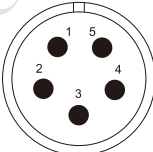
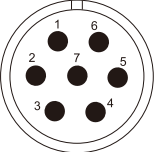
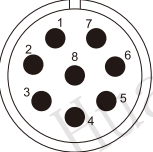
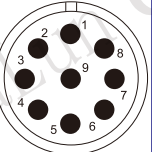
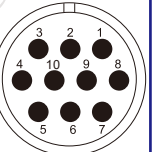
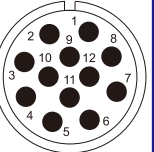
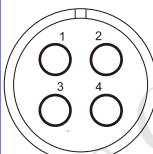
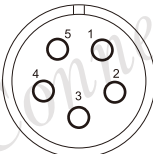
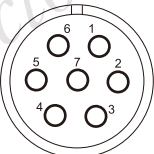
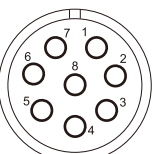
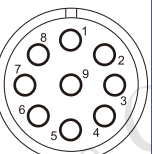
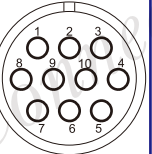
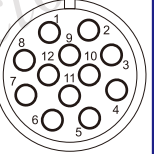
View from mating face

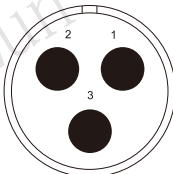
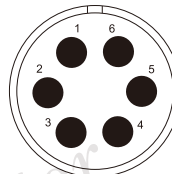
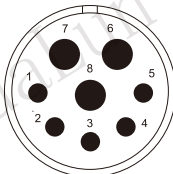
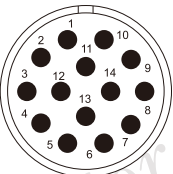
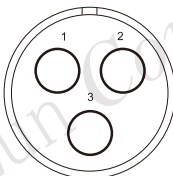
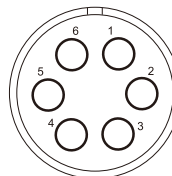
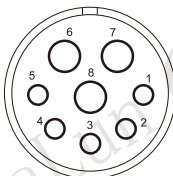
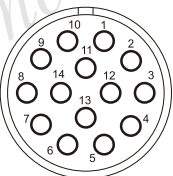
Shell Spec.	12					
J Contacts	J2	J3	J4	J5	J6	J7
J : Pin 						
K Contacts	K2	K3	K4	K5	K6	K7
K : Socket 						
Contact Diameter×Qty.	φ 1.6 × 2	φ 1.0 × 3	φ 1.0 × 4	φ 1.0 × 5	φ 1.0 × 6	φ 1.0 × 7
Rated Current	13A	5A	5A	5A	5A	5A
Rated Voltage	250V	160V	100V	63V	32V	32V
Withstand Voltage(50/60Hz)	1390V	1000V	840V	840V	500V	500V
Wire Gauge	1~2mm ²	0.5~0.75mm ²	0.5~0.75mm ²	0.5~0.75mm ²	0.5~0.75mm ²	0.5~0.75mm ²

Shell Spec.	16					
J Contacts	J2	J2a	J3	J3a	J3b	J4
J : Pin 						
K Contacts	K2	K2a	K3	K3a	K3b	K4
K : Socket 						
Contact Diameter×Qty.	φ 1.5 × 2	φ 2.5 × 2	φ 1.0 × 3	φ 1.5 × 3	φ 2.5 × 3	φ 1.0 × 4
Rated Current	10A	20A	5A	10A	20A	5A
Rated Voltage	250V	200V	250V	250V	200V	250V
Withstand Voltage(50/60Hz)	1500V	1000V	1000V	1500V	1500V	1000V
Wire Gauge	1~1.5mm ²	1.5~2.5mm ²	0.5~0.75mm ²	1~1.5mm ²	1.5~2.5mm ²	0.5~0.75mm ²

Contacts Arrangement

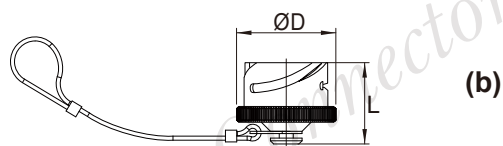
View from mating face

Shell Spec.		16						
J	Contacts	J4a	J5	J7	J8	J9	J10	J12
male	J: Pin							
K	Contacts	K4a	K5	K7	K8	K9	K10	K12
female	K: Socket							
Contact Diameter×Qty.		φ1.5×4	φ1.0×5	φ1.0×7	φ1.0×8	φ1.0×9	φ1.0×10	φ1.0×12
Rated Current		10A	5A	5A	5A	5A	5A	5A
Rated Voltage		200V	125V	80V	80V	50V	50V	32V
Withstand Voltage(50/60Hz)		1000V	1000V	840V	500V	840V	840V	370V
Wire Gauge		1~1.5mm ²	0.5~0.75mm ²	0.5~0.75mm ²	0.5~0.75mm ²	0.5~0.75mm ²	0.5~0.75mm ²	0.5~0.75mm ²

Shell Spec.		18				
J	Contacts	J3	J6	J8	J14	
male	J: Pin					
K	Contacts	K3	K6	K8	K14	
female	K: Socket					
Contact Diameter×Qty.		φ2.5×3	φ1.6×6	φ1.6×3	φ1.0×5	φ1.0×14
Rated Current		20A	13A	13A	5A	5A
Rated Voltage		250V	160V	160V		100V
Withstand Voltage(50/60Hz)		1500V	840V	840V		840V
Wire Gauge		1.5~2.5mm ²	1~2mm ²	1~2mm ²	0.5~0.75mm ²	0.5~0.75mm ²

IP67 Metal Protective Caps

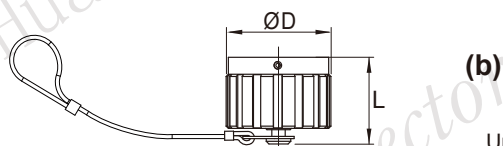
Free Plug Cap



Unit: mm

Free Plug Cap Order Code	D	L
KY12-CG	17	17.3
KY16-CG	22	17.3
KY18-CG	24.5	17.3

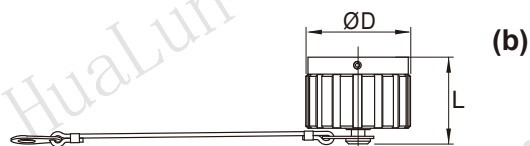
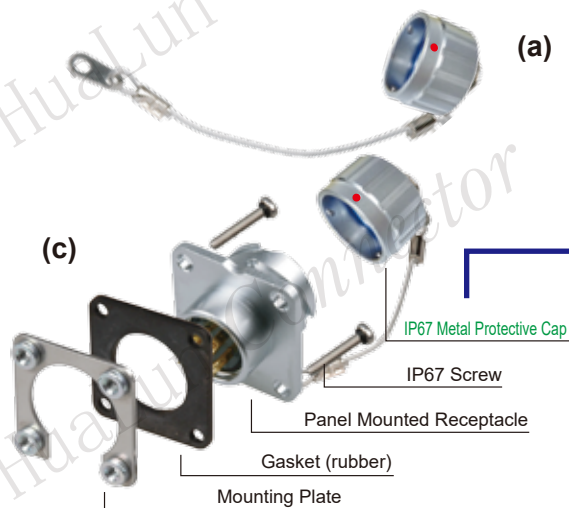
Free Receptacle Cap



Unit: mm

Free Receptacle Cap Order Code	D	L
KY12-LG	18.3	14.8
KY16-LG	23.5	16.3
KY18-LG	25.4	16.3

Panel Mounted Receptacle Cap

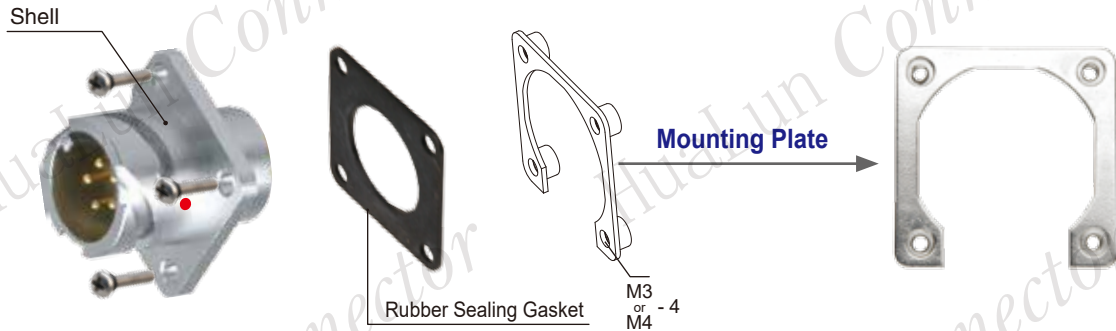


Unit: mm

Receptacle Cap Order Code	D	L
KY12-FG	18.3	14.8
KY16-FG	23.5	16.3
KY18-FG	25.4	16.3

Mounting Plate

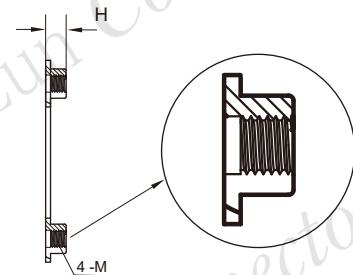
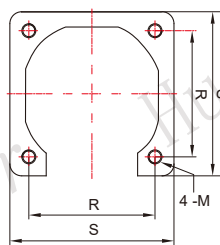
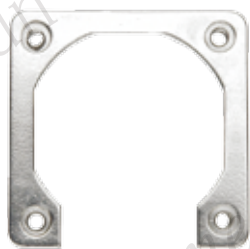
Technical advantages: (1) Convenient and Fast (2) Firm, Resistance to shock and vibration



◆ Front Mounting



Mounting Plate Order Code, Size



Unit: mm

Order Code	Shell Size	R	S	H	Thread M	Screw Spec
12D	12	14.00	19.00	2.60	M2	M2 x 10
16D	16	20.00	26.00		M3	M3 x 10
18D	18	22.00	28.00			



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