

# Connector for electric power equipment





Many products have obtained certifications





TUV SUD



ISO9001 ISO14001 ISO45001

## Connector for electric power equipment



YD25-4 Contact

YDK30-6 Contact

YD30-10 Contact

YD30-14 Contact

YD30-19 Contact

### Temperature Features

|                                 |   |  |
|---------------------------------|---|--|
| Environment Ratings Temperature | -40 C ~ +105 C  | Operating Temperature Upper limit +125 C |
| Relative humidity               | 90%~95% (40 C ± 2 C)                                  |  |
| Salt spray corrosion            | > 96h   |  |
| Protection Degree               | IP67 (Shell coupling)                                 |  |
| Vibration                       | 10~2000Hz, 147m/s <sup>2</sup> Instantaneous: ≤ 1μs   |  |
| Shock                           | Acceleration 490m/s <sup>2</sup> Instantaneous: ≤ 1μs |  |

### TUV Certificate



### CE Certificate



### Mechanical Features

|                 |       |
|-----------------|-------|
| Mechanical life | ≥ 500 |
|-----------------|-------|

### Insulating Materials: UL (E255317)

|                  |                    |                 |
|------------------|--------------------|-----------------|
| Flame resistance | UL94V-0            |                 |
| CTI index        | 0 (≥ 600V)         |                 |
| Shell materials  | G: Stainless steel | passivation     |
|                  | T: Copper alloys   | Nickel-chromium |
|                  | X: Zinc alloy      | Nickel          |
|                  | L: Aluminum alloy  | Nickel          |

### Electric Features

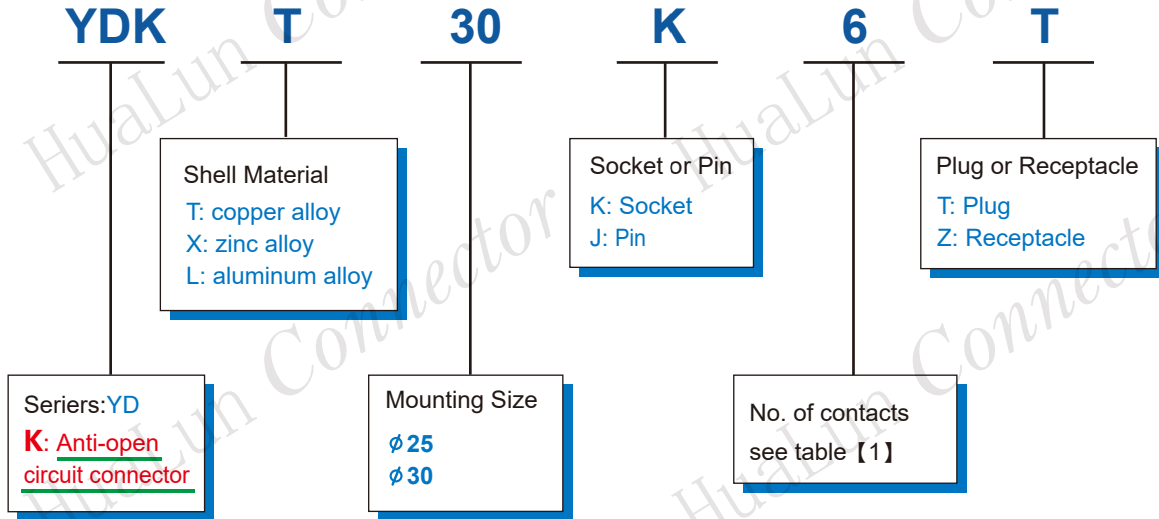
#### Rated Current See Contacts Arrangement

|                       |                                      |                          |                      |                      |                    |                     |                     |
|-----------------------|--------------------------------------|--------------------------|----------------------|----------------------|--------------------|---------------------|---------------------|
| Rated Voltage         | 250V.AC                              | Overvoltage Category III |                      |                      |                    |                     |                     |
| Withstand Voltage     | impulse 5000V.AC(1.2/50μs); 2500V.AC |                          |                      |                      |                    |                     |                     |
| Insulation Resistance | Normal > 2000MΩ                      |                          |                      |                      |                    |                     |                     |
| Contact Diameter      | φ1.5                                 | φ1.6                     | φ2                   | φ2.5                 | φ3                 | φ3.5                | φ4                  |
| Rated Current         | 10A                                  | 13A                      | 20A                  | 20A                  | 40A                | 40A                 | 75A                 |
| Contact Resistance    | ≤ 2.5mΩ                              | ≤ 2mΩ                    | ≤ 1.25mΩ             | ≤ 1mΩ                | ≤ 0.75mΩ           | ≤ 0.5mΩ             | ≤ 0.4mΩ             |
| Wire Gauge            | < 1.5mm <sup>2</sup>                 | < 1.5mm <sup>2</sup>     | < 2.5mm <sup>2</sup> | < 3.5mm <sup>2</sup> | < 6mm <sup>2</sup> | < 10mm <sup>2</sup> | < 16mm <sup>2</sup> |

## — Order Number Explanation —

**Anti-open circuit connector**

**YDK25、YDK30**

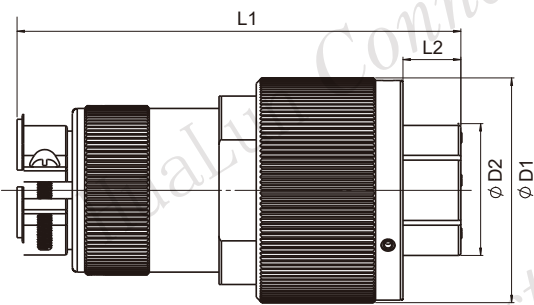


YDK25-4 Contact

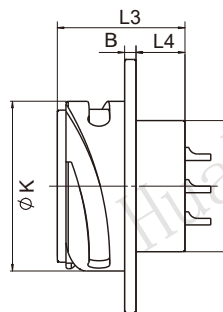


YDK30-6 Contact

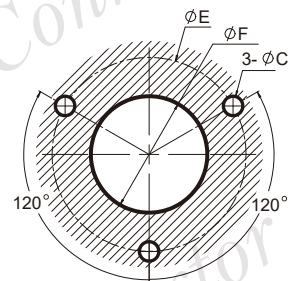
Shell Size of plug



Shell Size of receptacle



Mounting hole dimension



Shell Size of plug

Unit: mm

| Spec.   | φ D1 | φ D2 | L1 | L2 |
|---------|------|------|----|----|
| YDK25-4 | 34   | 21.5 | 78 | 19 |
| YDK30-6 | 45   | 26.5 | 86 | 20 |

Shell Size of receptacle

Unit: mm

| Spec.   | φ D3 | φ K  | L3   | L4   | B   |
|---------|------|------|------|------|-----|
| YDK25-4 | 25   | 29   | 28.2 | 11.2 | 2.6 |
| YDK30-6 | 30   | 38.8 | 29.2 |      |     |

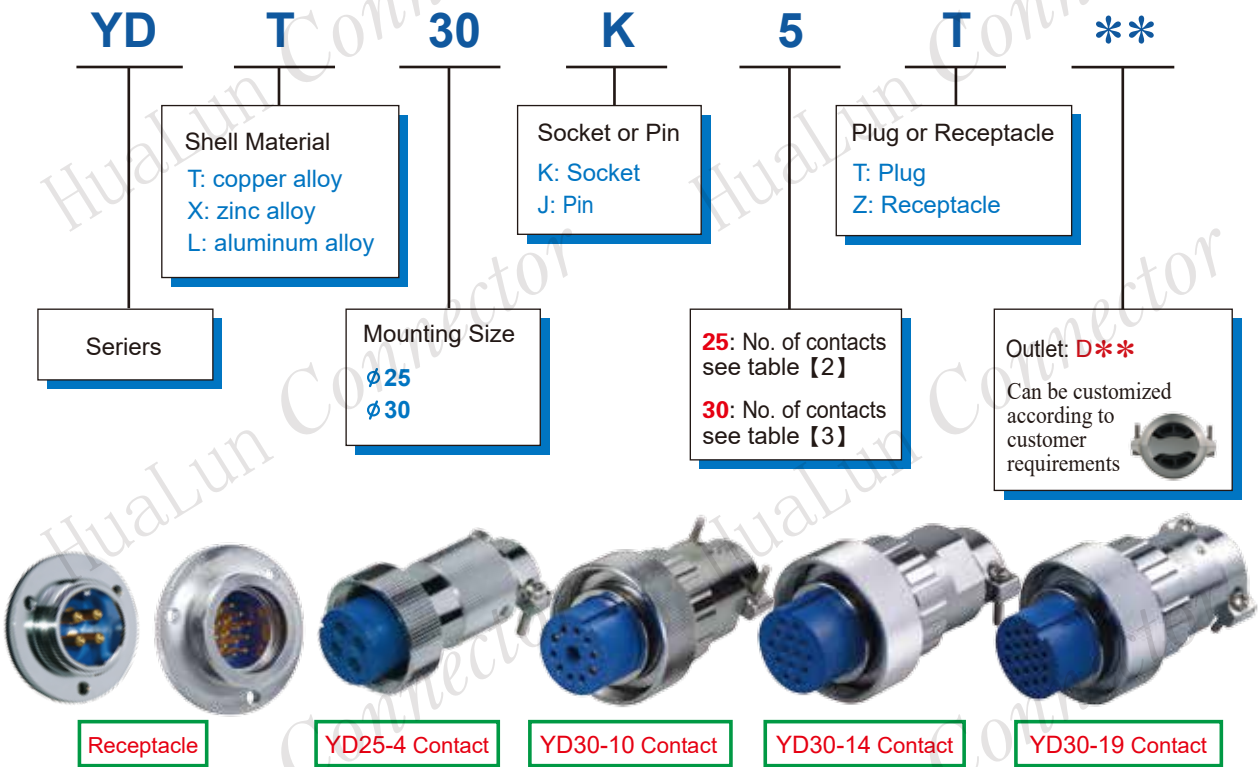
Mounting hole dimension

Unit: mm

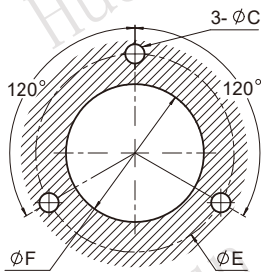
| Spec.   | φ C | φ E  | φ F  |
|---------|-----|------|------|
| YDK25-4 | 3.5 | 35.5 | 25.5 |
| YDK30-6 | 5   | 50   | 30.5 |

## Order Number Explanation

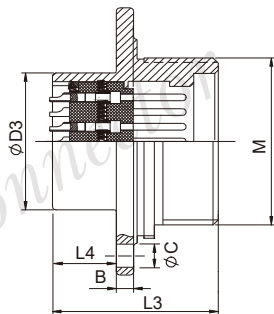
### YD25、YD30



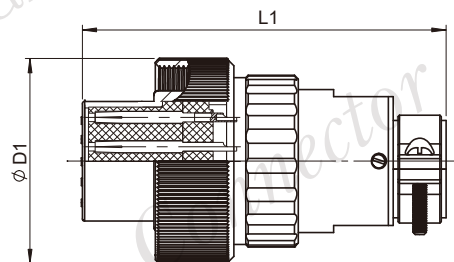
Mounting hole dimension



Shell Size of receptacle



Shell Size of plug



Mounting hole dimension, Shell Size of receptacle

Unit: mm

| Spec.   | φ C | φ E | φ F  | φ D3 | L3   | L4   | B   | M       |
|---------|-----|-----|------|------|------|------|-----|---------|
| YD25-3  | 3.5 | 36  | 25.5 | 25   | 21   | 10.5 | 2.5 | M29 x 1 |
| YD25-4  |     |     |      |      |      |      |     |         |
| YD25-5  |     |     |      |      |      |      |     |         |
| YD25-10 |     |     |      |      |      |      |     |         |
| YD30-3  | 5   | 50  | 30.5 | 30   | 21   | 8.5  | 4.5 | M29 x 1 |
| YD30-4  |     |     |      |      |      |      |     |         |
| YD30-5a |     |     |      |      |      |      |     |         |
| YD30-5  |     |     |      |      |      |      |     |         |
| YD30-6  |     |     |      |      | 32.8 | 17.7 | 4.5 | M40 x 1 |
| YD30-10 |     |     |      |      |      |      |     |         |
| YD30-14 |     |     |      |      |      |      |     |         |
| YD30-19 |     |     |      |      |      |      |     |         |

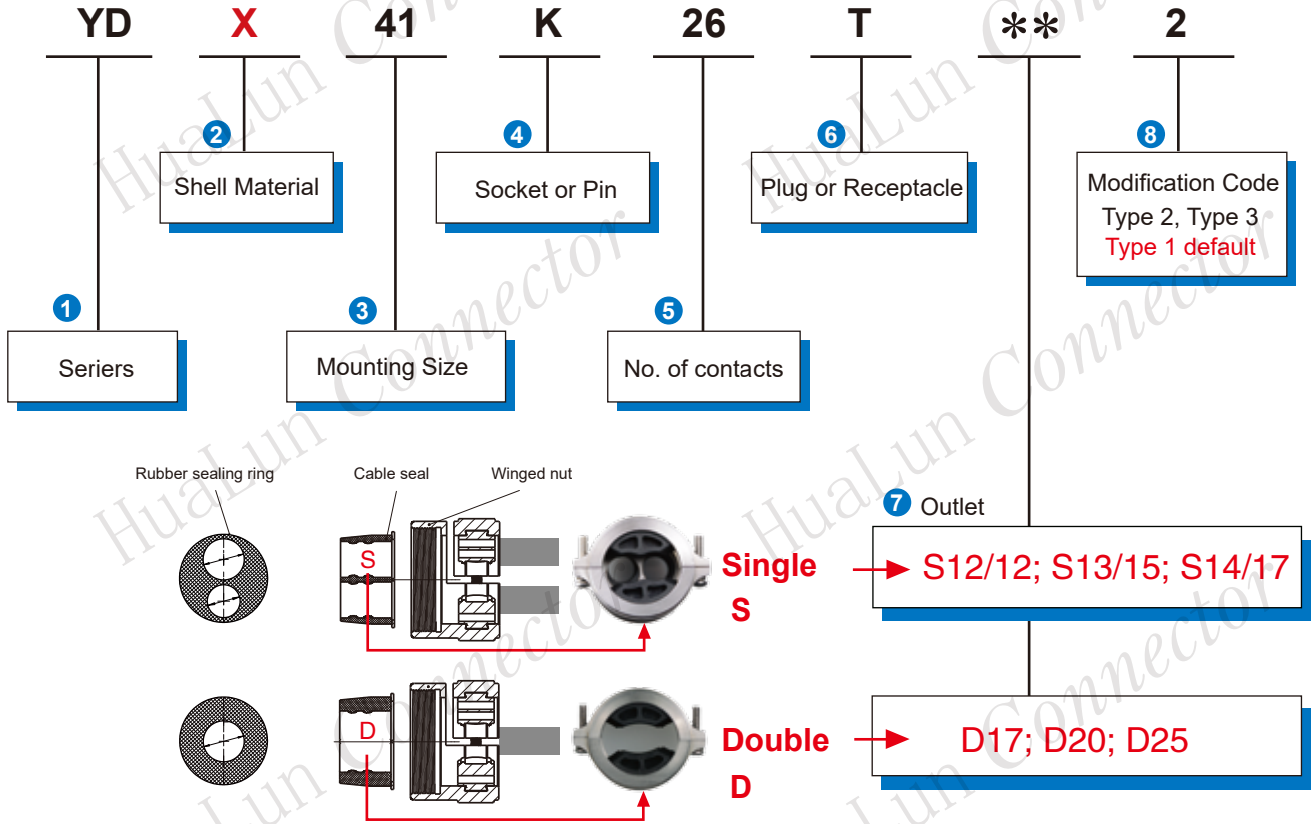
Shell Size of plug

Unit: mm

| Spec.   | φ D1 | L1   |
|---------|------|------|
| YD25-3  | 32.6 | 63   |
| YD25-4  |      |      |
| YD25-5  |      |      |
| YD25-10 |      |      |
| YD30-3  | 32.6 | 51.2 |
| YD30-4  |      |      |
| YD30-5a | 43.2 | 76.4 |
| YD30-5  |      |      |
| YD30-6  |      |      |
| YD30-10 |      |      |
| YD30-14 |      |      |
| YD30-19 |      |      |

## Order Number Explanation

**YD\_41**



### Details:

|                            |  |                    |                |                 |                    |               |           |                   |           |
|----------------------------|--|--------------------|----------------|-----------------|--------------------|---------------|-----------|-------------------|-----------|
| <b>1</b><br>Series         | YD: Normal   |                    |                |                 |                    |               |           |                   |           |
| <b>2</b><br>Shell Material | <table border="1"> <tr> <td>G: Stainless steel</td> <td>G: passivation</td> </tr> <tr> <td>T: Copper alloy</td> <td>T: Nickel-chromium</td> </tr> <tr> <td>X: Zinc alloy</td> <td>X: Nickel</td> </tr> <tr> <td>L: Aluminum alloy</td> <td>L: Nickel</td> </tr> </table> | G: Stainless steel | G: passivation | T: Copper alloy | T: Nickel-chromium | X: Zinc alloy | X: Nickel | L: Aluminum alloy | L: Nickel |
| G: Stainless steel         | G: passivation   |                    |                |                 |                    |               |           |                   |           |
| T: Copper alloy            | T: Nickel-chromium   |                    |                |                 |                    |               |           |                   |           |
| X: Zinc alloy              | X: Nickel  |                    |                |                 |                    |               |           |                   |           |
| L: Aluminum alloy          | L: Nickel  |                    |                |                 |                    |               |           |                   |           |
| <b>3</b><br>Mounting Size  | ( $\phi$ )41   |                    |                |                 |                    |               |           |                   |           |
| <b>4</b><br>Socket or Pin  | K: Socket<br>J: Pin  |                    |                |                 |                    |               |           |                   |           |

|                                |   |
|--------------------------------|---|
| <b>5</b><br>No. of contacts    | see table [ 4 ]   |
| <b>6</b><br>Plug or Receptacle | T: straight plug<br>W: 90° angled plug<br>Z: receptacle                     |
| <b>7</b><br>Outlet             | Single outlet:<br>S12/12; S13/15; S14/17<br>Double outlet:<br>D17; D20; D25 |
| <b>8</b><br>Modification Code  | type 1, type 2, type 3<br>see page 5, 6                                     |



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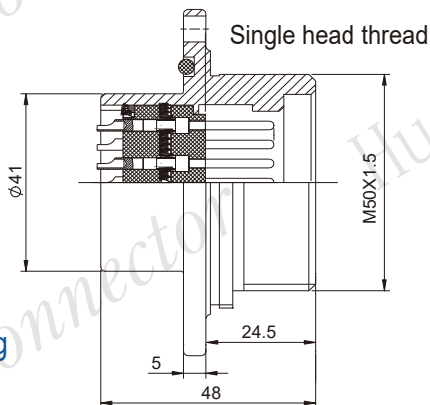
## Receptacle: YD41 Type 1: Default! Not labeled

No. of contacts can be found in Table [ 4 ] on page 8

Shell Size of receptacle



Chromium nickel coating



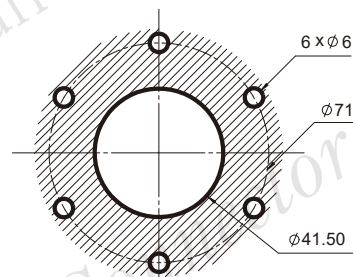
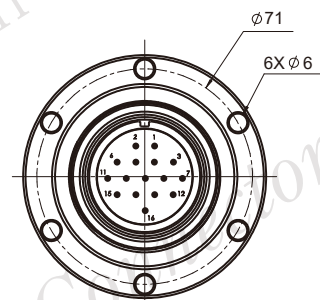
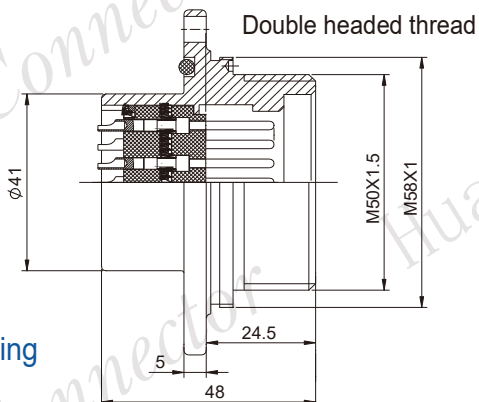
Mounting hole dimension  
1, 2 and 3 types are the same

## Receptacle: YD41-2 Please mark 2

Shell Size of receptacle



Chromium nickel coating

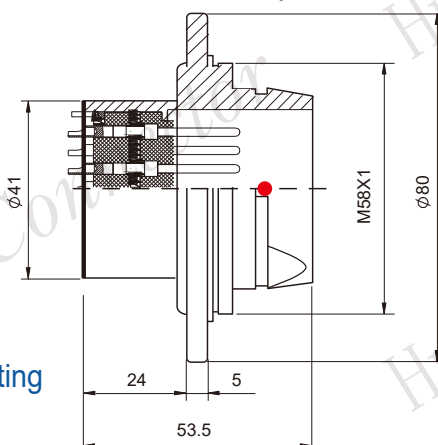


## Receptacle: YD41-3 Please mark 3

Shell Size of receptacle



Chromium nickel coating



Order YD41-2 type  
YD41-3 type  
Just add 2 or 3  
after the YD41 order code

## Plug: YD41

Type 1: Default! Not labeled

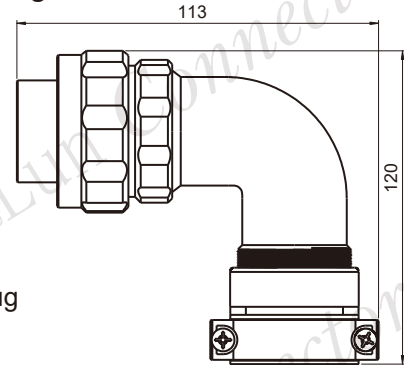
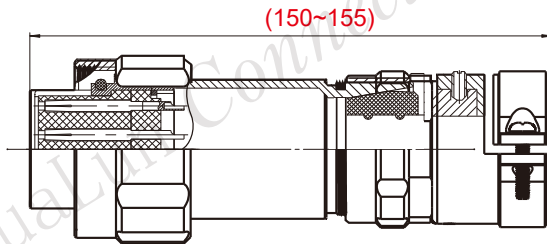


↑  
Straight

Nickel-chromium plating



↑  
90° angled



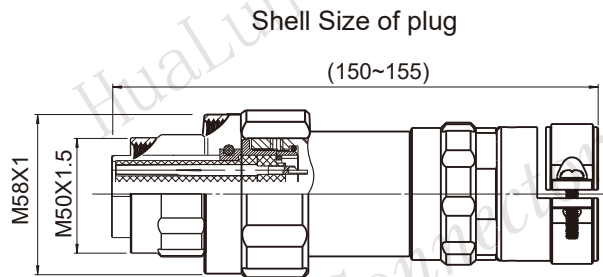
Shell Size of plug

## Plug: YD41-2

Please mark 2



Nickel-chromium plating



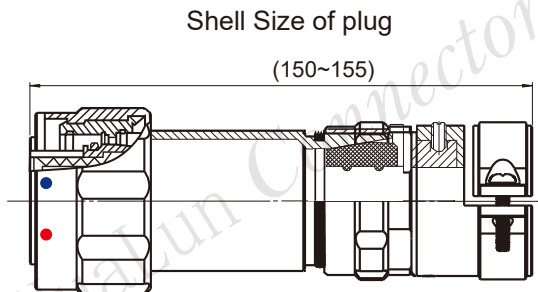
Shell Size of plug

## Plug: YD41-3

Please mark 3



Nickel-chromium plating



Shell Size of plug



# Contacts Arrangement

## YDK25 YDK30 Anti-open circuit connector

**TABLE [ 1 ]** Anti-open circuit connector, View from mating face of pin contacts


  
 $\phi 3$ 

| Shell Spec.                 | YDK 25                                       | YDK 30            |
|-----------------------------|--|-------------------|
| No. of Contacts             | <b>4</b>                                     | <b>6</b>          |
| Contact Arrangement         |  |                   |
| Diameter of contacts × Qty. | $\phi 3 \times 4$                            | $\phi 3 \times 6$ |
| Rated Current               | 40A  |                   |
| Rated Voltage               | 250V.AC                                      |                   |
| Withstand Voltage           | Impulse 5000V.AC (1.2/50 $\mu$ s) ; 2500V.AC |                   |
| Insulation Resistance       | Normal $\geq 2000M\Omega$                    |                   |
| Contact Resistance          | $\leq 0.75M\Omega$                           |                   |

## YD25

**TABLE [ 2 ]**, View from mating face of pin contacts


  
 $\phi 2$   $\phi 3.5$ 

| Shell Spec.                 | YD 25  |                     |                   |                    |
|-----------------------------|--|---------------------|-------------------|--------------------|
| No. of Contacts             | <b>3</b>                                     | <b>4</b>            | <b>5</b>          | <b>10</b>          |
| Contact Arrangement         |  |                     |                   |                    |
| Diameter of contacts × Qty. | $\phi 3.5 \times 3$                          | $\phi 3.5 \times 4$ | $\phi 2 \times 5$ | $\phi 2 \times 10$ |
| Rated Current               | 40A  | 40A                 | 20A               | 20A                |
| Rated Voltage               | 250V.AC                                      |                     |                   |                    |
| Withstand Voltage           | Impulse 5000V.AC (1.2/50 $\mu$ s) ; 2500V.AC |                     |                   |                    |
| Insulation Resistance       | Normal $\geq 2000M\Omega$                    |                     |                   |                    |

# YD30

**TABLE [ 3 ]**, View from mating face of pin contacts

⊕   ●   ⊕   ●  
φ 1.6   φ 2   φ 2.5   φ 3.5

| Shell Spec.                 | YD 30                            |                     |            |            |
|-----------------------------|----------------------------------|---------------------|------------|------------|
| No. of Contacts             | <b>3</b>                         | <b>4</b>            | <b>5a</b>  | <b>5</b>   |
| Contact Arrangement         |                                  |                     |            |            |
| Diameter of contacts × Qty. | φ 3.5 × 3                        | φ 3.5 × 4           | φ 2 × 5    | φ 3.5 × 5  |
| Rated Current               | 40A                              | 40A                 | 20A        | 40A        |
| No. of Contacts             | <b>6</b> Socket coupling surface | <b>10</b>           | <b>14</b>  | <b>19</b>  |
| Contact Arrangement         |                                  |                     |            |            |
| Diameter of contacts × Qty. | φ 2.5 × 6                        | φ 1.6 × 6   φ 2 × 4 | φ 1.6 × 14 | φ 1.6 × 19 |
| Rated Current               | 20A                              | ⊕ 13A   ● 20A       | 13A        | 13A        |

# YD41

**TABLE [ 4 ]**, View from mating face of pin contacts

At the request of the customer, the socket can meet an airtight pressure difference of 0.03MPa

●   ●   ●  
φ 1.5   φ 2   φ 4

| Shell Spec.                 | YD 41                  |            |           |            |
|-----------------------------|------------------------|------------|-----------|------------|
| No. of Contacts             | <b>10</b>              | <b>16</b>  | <b>26</b> | <b>37</b>  |
| Contact Arrangement         |                        |            |           |            |
| Diameter of contacts × Qty. | φ 2 × 7   φ 4 × 3      | φ 2 × 16   | φ 2 × 26  | φ 1.5 × 37 |
| Rated Current               | ● 20A   ● 75A          | 20A        | 20A       | 10A        |
| Contact Resistance          | ● < 1.25mΩ   ● < 0.4mΩ | ● < 1.25mΩ |           | ⊕ < 2.5mΩ  |



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## RJ45 Ethernet port aviation plug

The YD25 has a built-in RJ45 network port connector, mainly used for electrical connection and signal transmission of intelligent control equipment in the distribution grid. The signal transmission rate of RJ45 is 100Mbps. Mainly used on power distribution intelligent control FTU equipment.

### Temperature Features

|                                 |                                |
|---------------------------------|--------------------------------|
| Environment Ratings Temperature | -40℃~85℃                       |
| Relative humidity               | 90%~95% (40℃ ± 2℃)             |
| Salt spray corrosion            | >96h                           |
| Protection Degree               | IP65/67 (Shell coupling)       |
| Vibration                       | 10~2000Hz, 147m/s <sup>2</sup> |
| Shock                           | 490m/s <sup>2</sup>            |

### Mechanical Features

|                 |      |
|-----------------|------|
| Mechanical life | ≥500 |
|-----------------|------|

### Material

|           |  |
|-----------|--|
| Contacts  | Copper alloys, Surface gold plating                  |
| Insulator | High temperature resistance, Flame retardant plastic |
| Seals     | Weather resistant rubber                             |
| Shell     | Copper alloys  |

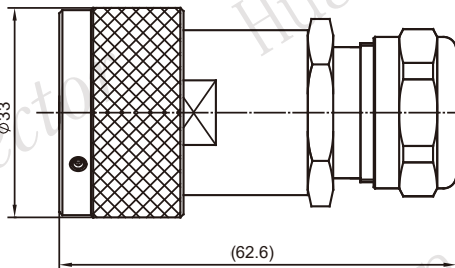


### Electric Features

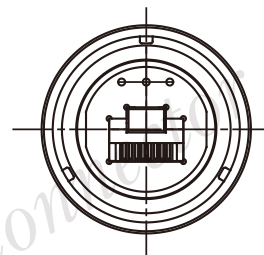
|                       |  |
|-----------------------|--|
| Rated Voltage         | 150VAC                                   |
| Rated Current         | (A、B、C) 5A; (RJ45) 1.5A                  |
| Withstand Voltage     | (A、B、C) 1000VAC<br>RJ45: 700VAC; 1000VDC |
| Insulation Resistance | ≥1000MΩ                                  |
| Contact Resistance    | (A、B、C) ≤7.5MΩ<br>(RJ45) ≤20MΩ           |
| Transmission Speed    | ≥100Mbps                                 |

### ◆ Plug

Part Number: **YD25RJ45J3T**

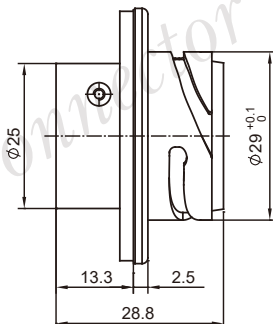


Shell Size of plug

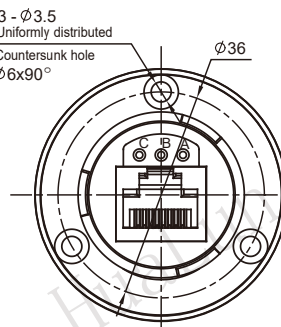


### ◆ Receptacle

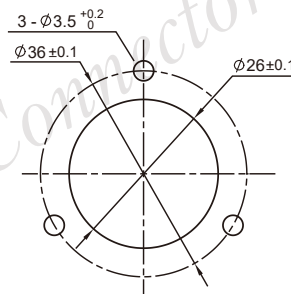
Part Number: **YD25RJ45K3Z**



Shell Size of receptacle



Mounting hole dimension



1

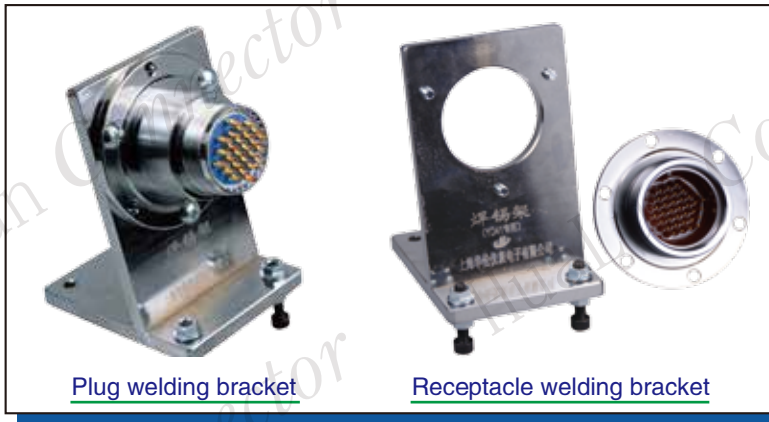
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Welding frame tools



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