



# ***PC series circular connector***

**Sichuan Huafeng Technology Co., Ltd.**

**四川华丰科技股份有限公司**



## Sichuan Huafeng Technology Co., Ltd.

Huafeng, founded in 1958, is a global provider of optoelectronic connectors and interconnection solutions. In 1958, the company introduced connector production technology of Russia standard to open the way of connector made in China. Electromechanical Components, a research journal of connector technology founded in 1981, began to be published nationwide. In 1984, we imported MIL standard connector production line and technology from USA. Since 1987, the company has participated in the formulation of Chinese national standards for connectors. In 2016, the company developed the first IEC standard for power connectors in China. From technology introduction to independent innovation, and then to providing interconnection technology services for the whole world, Huafeng is moving forward, steady and far.

We have built a forward R & D platform for connectors, focusing on the development of high-speed connectors and optical modules for backplane bus, PCB mezzanine bus and I/O bus. We have continuously researched and developed for more than 20 years, providing high-speed interconnection solutions with transmission rates of 1.25Gbps to 224Gbps, meeting the rapid development and application needs of communication equipment.

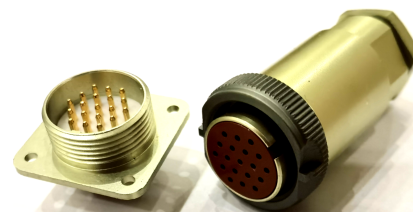
Huafeng has developed the "system interconnection" products for the overall interconnection solution of equipment, which can identify, process and integrate the high-speed, radio frequency, power, optical and other signals of the equipment information system, realize the fast connection between the equipment systems and the equipment in the system in the form of no cable, modularization, wireless, bus and intelligence, and solve the electromagnetic protection, miniaturization and rapid maintenance of the equipment maintenance and other issues.

The developed connectors, from low frequency to high frequency, from electric port to optical port, from standard type to special customization, can adapt to various special environments such as deep sea environment, high voltage environment, high vibration and impact environment, electromagnetic interference environment, high and low temperature environment, space and aerospace environment, and provide users with interconnection solutions one-stop service. Adhering to the "reliable" culture of "Reliable Connection Comes from Huafeng", the company has built an intelligent factory with the whole process of connector manufacturing and a perfect quality assurance system. It realizes automatic production, automatic detection and sorting from the whole process of connector contact manufacturing, insulator molding, shell processing, surface treatment, assembly and packaging, with controllable and traceable quality.

Striving for high reliability, safety and environmental protection of connectors, Huafeng is committed to providing more professional, reliable and intelligent interconnection technologies and products to global defense equipment, communication equipment, rail transit equipment and new energy vehicles.



The PC series ultra small circular electrical connector is used for circuit electrical connections on radio and electrical equipment. The cable plug is connected to the socket fixed on the device through a threaded connection nut. The connection between the two devices can also be achieved by directly inserting the plug socket installed on each device,



There are two types of ultra small circular electrical connectors: sealed and unsealed; The plug and socket can be equipped with tail accessories, socket pins, and plug holes respectively.

### Technical performance

- ⊙ working temperature : $-60^{\circ}\text{C}\sim+85^{\circ}\text{C}$
- ⊙ vibration:5~2500Hz,PC15g,PC18g
- ⊙ Impact:PC 50g  
PC1 100g
- ⊙ working voltage :200V
- ⊙ contact resistance: $\leq 5\text{m}\Omega$
- ⊙ insulation resistance : $\geq 1000\text{M}\Omega$
- ⊙ Voltage withstand:1000V
- ⊙ Mechanical lifespan:250 cycle
- ⊙ technical standard:3E0 204 062JT

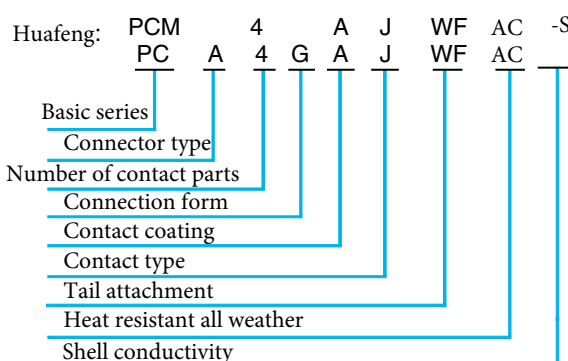
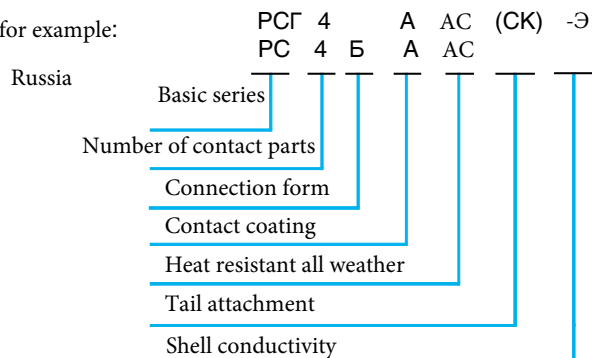
Current load:

| Contact diameter(mm)<br>Number of contacts | Overall current load(A) |
|--|-------------------------|
| 1/4  | 15                      |
| 1/7  | 22                      |
| 1/10                                       | 30                      |
| 1/19                                       | 40                      |
| 1/32                                       | 62                      |
| 1/50                                       | 75                      |

### How to order

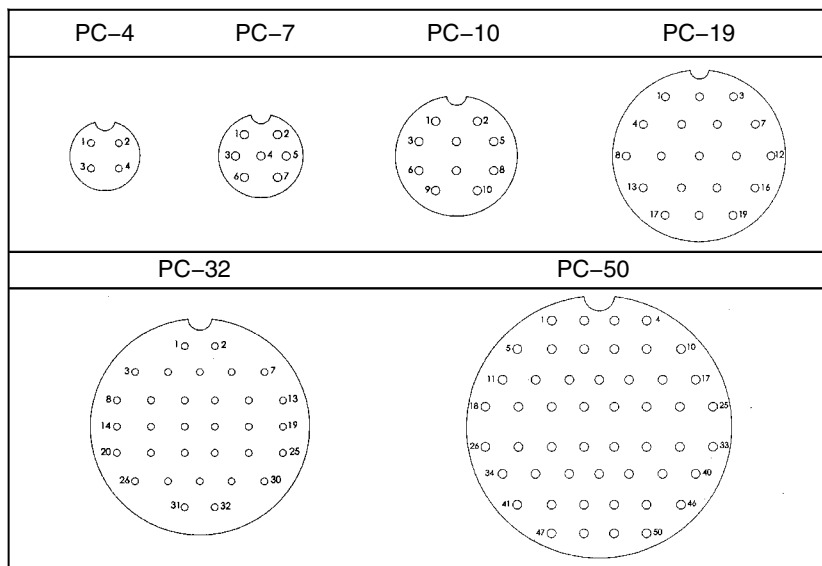
| No. |        | Meaning of code                              | Russia           | Huafeng                |
|-----|--------|--|------------------|------------------------|
| HF  | Russia |  |                  |                        |
| 1   | 1      | Basic series; Unsealed seal                  | PC<br>PC1        | PC<br>PCM              |
| 2   |        | Connector type                               |                  | Socket:A plug:Unmarked |
| 3   | 2      | Number of contact parts                      | 4,7,10,19,32,50  | 4,7,10,19,32,50        |
| 4   | 3      | Direct insertion type<br>Threaded connection | B<br>Unmarked    | G<br>Unmarked          |
| 5   | 4      | Gold plating<br>Silver plating               | A<br>Unmarked    | A<br>Unmarked          |
| 6   |        | Contact type                                 |                  | Pin:J,Socket:K         |
| 7   | 6      | Tail attached<br>Without tail attachment     | (CK)<br>Unmarked | WF<br>Unmarked         |
| 8   | 5      | Heat resistant all weather                   | TB               | AC                     |
| 9   | 7      | Shell conductivity                           | Э                | S                      |

for example:



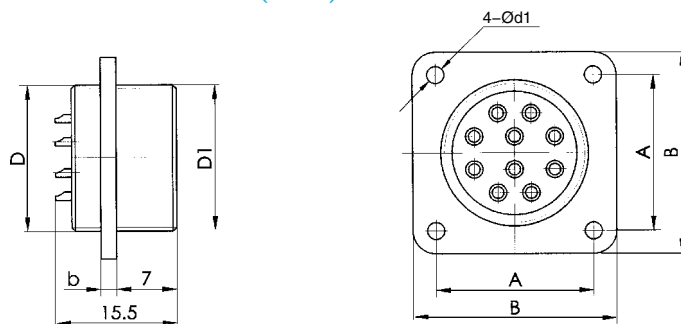
※Explanation: When ordering Russian made original products, it is necessary to declare the connection type (plug, socket), contact type (needle, hole), and whether there is a tail attachment

### Insulation arrangement (viewed from the front end of the socket)



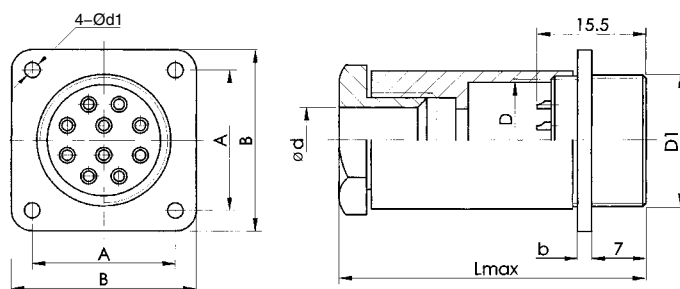
### Appearance and installation dimensions(mm)

⊙ Socket without tail



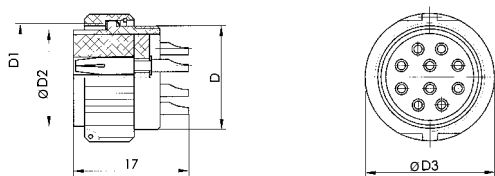
| Arrange codes | D        | D <sub>1</sub> | d1  | A        | B    | b   |
|---------------|----------|----------------|-----|----------|------|-----|
| PC-4          | M10×0.75 | M10×0.75       | 2.2 | 11.8±0.1 | 16.5 | 1.4 |
| PC-7          | M12×0.75 | M12×0.75       | 2.2 | 13.2±0.1 | 18   | 1.4 |
| PC-10         | M14×0.75 | M14×0.75       | 2.2 | 15±0.1   | 20   | 1.4 |
| PC-19         | M18×0.75 | M18×1          | 2.2 | 18±0.1   | 24   | 1.4 |
| PC-32         | M22×0.75 | M22×1          | 2.7 | 21.5±0.1 | 28   | 1.8 |
| PC-50         | M27×0.75 | M27×1          | 3.2 | 26±0.1   | 33   | 2.0 |

☉ Socket with tail



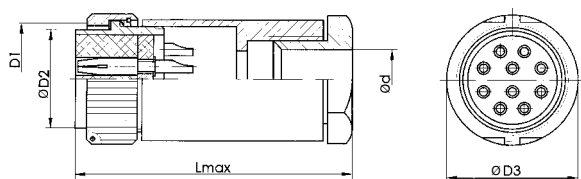
| Arrange codes | D        | D1       | d  | b   | A        | B    | d1  | Lmax |
|---------------|----------|----------|----|-----|----------|------|-----|------|
| PC-4          | M10×0.75 | M10×0.75 | 6  | 1.4 | 11.8±0.1 | 16.5 | 2.2 | 35.6 |
| PC-7          | M12×0.75 | M12×0.75 | 8  | 1.4 | 13.2±0.1 | 18   | 2.2 | 36   |
| PC-10         | M14×0.75 | M14×0.75 | 9  | 1.4 | 15±0.1   | 20   | 2.2 | 41   |
| PC-19         | M18×0.75 | M18×1    | 11 | 1.4 | 18±0.1   | 24   | 2.2 | 41   |
| PC-32         | M22×0.75 | M22×1    | 13 | 1.8 | 21.5±0.1 | 28   | 2.7 | 43.3 |
| PC-50         | M27×0.75 | M27×1    | 16 | 2.0 | 26±0.1   | 33   | 3.2 | 50   |

☉ Cable plug without tail attachment



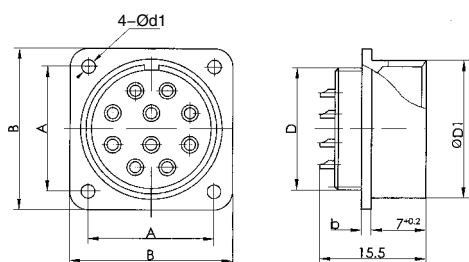
| D        | D1       | D2   | D3   |
|----------|----------|------|------|
| M10×0.75 | M10×0.75 | 8.2  | 13.8 |
| M12×0.75 | M12×0.75 | 10   | 16   |
| M14×0.75 | M14×0.75 | 12   | 17.7 |
| M18×0.75 | M18×1    | 15.5 | 22.3 |
| M22×0.75 | M22×1    | 19.5 | 26.3 |
| M27×0.75 | M27×1    | 24   | 31.1 |

☉ Cable plug with tail attachment



| D        | D1       | D2   | D3   | d    | Lmax |
|----------|----------|------|------|------|------|
| M10×0.75 | M10×0.75 | 8.2  | 13.8 | 6    | 36.5 |
| M12×0.75 | M12×0.75 | 10   | 16   | 8    | 38.3 |
| M14×0.75 | M14×0.75 | 12   | 17.7 | 9.2  | 41   |
| M18×0.75 | M18×1    | 15.5 | 22.3 | 11.2 | 41.5 |
| M22×0.75 | M22×1    | 19.5 | 26.3 | 13.2 | 42   |
| M27×0.75 | M27×1    | 24   | 31.1 | 16.2 | 50   |

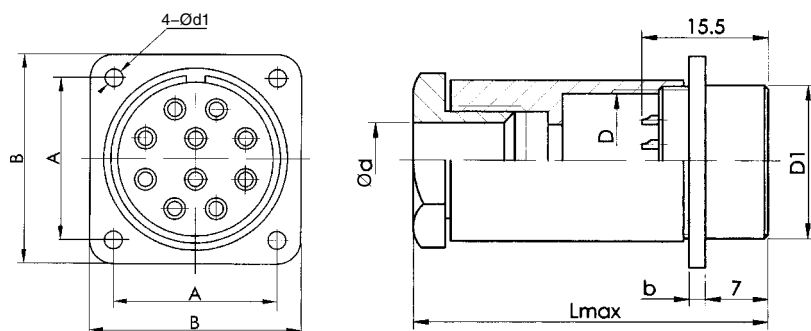
☉ Direct plug socket without tail attachment



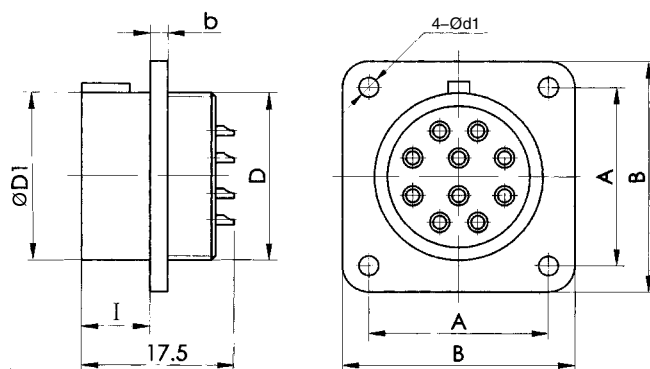
| D        | D <sub>1</sub> | d <sub>1</sub> | A        | B    | b   |
|----------|----------------|----------------|----------|------|-----|
| M10×0.75 | 11.5           | 2.2            | 11.8±0.1 | 16.5 | 1.4 |
| M12×0.75 | 14             | 2.2            | 13.2±0.1 | 18   | 1.4 |
| M14×0.75 | 16             | 2.2            | 15±0.1   | 20   | 1.4 |
| M18×0.75 | 20.5           | 2.2            | 18±0.1   | 24   | 1.4 |
| M22×0.75 | 24.5           | 2.7            | 21.5±0.1 | 28   | 1.8 |
| M27×0.75 | 30             | 3.2            | 26±0.1   | 33   | 2.0 |

☉ Direct socket with tail attachment

| 孔组排列  | D        | D1       | d  | b   | A        | B    | d1  | Lmax |
|-------|----------|----------|----|-----|----------|------|-----|------|
| PC-4  | M10×0.75 | M10×0.75 | 6  | 1.4 | 11.8±0.1 | 16.5 | 2.2 | 36   |
| PC-7  | M12×0.75 | M12×0.75 | 8  | 1.4 | 13.2±0.1 | 18   | 2.2 | 38   |
| PC-10 | M14×0.75 | M14×0.75 | 9  | 1.4 | 15±0.1   | 20   | 2.2 | 41   |
| PC-19 | M18×0.75 | M18×1    | 11 | 1.4 | 18±0.1   | 24   | 2.2 | 43   |
| PC-32 | M22×0.75 | M22×1    | 13 | 1.8 | 21.5±0.1 | 28   | 2.7 | 45   |
| PC-50 | M27×0.75 | M27×1    | 16 | 2.0 | 26±0.1   | 33   | 3.2 | 50   |

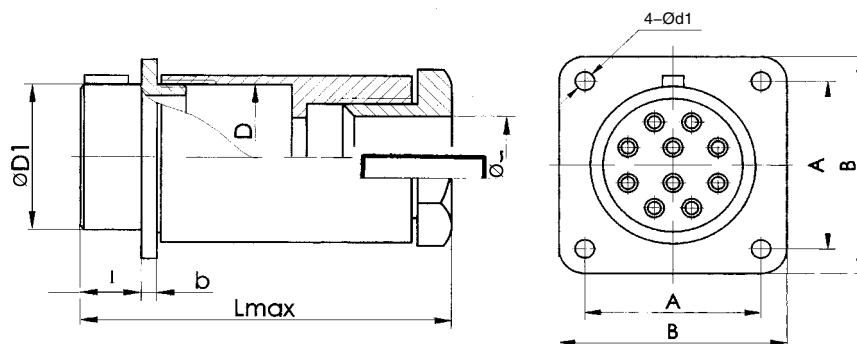


☉ Direct plug without tail attachment



| D        | D1   | d1  | A        | B    | b   | I   |
|----------|------|-----|----------|------|-----|-----|
| M10×0.75 | 8.8  | 2.2 | 11.8±0.1 | 16.5 | 1.4 | 5.6 |
| M12×0.75 | 10.7 | 2.2 | 13.2±0.1 | 18   | 1.4 | 5.6 |
| M14×0.75 | 12.6 | 2.2 | 15±0.1   | 20   | 1.4 | 5.6 |
| M18×0.75 | 16.2 | 2.2 | 18±0.1   | 24   | 1.4 | 5.6 |
| M22×0.75 | 20.3 | 2.7 | 21.5±0.1 | 28   | 1.8 | 5.2 |
| M27×0.75 | 24.8 | 3.2 | 26±0.1   | 33   | 2.0 | 5.7 |

☉ Direct plug with tail attachment



| D        | D <sub>1</sub> | d  | d <sub>1</sub> | A        | B    | b   | L <sub>max</sub> | l |
|----------|----------------|----|----------------|----------|------|-----|------------------|---|
| M10×0.75 | 8.8            | 6  | 2.2            | 11.8±0.1 | 16.5 | 1.4 | 36               | 7 |
| M12×0.75 | 10.7           | 8  | 2.2            | 13.2±0.1 | 18   | 1.4 | 38               | 7 |
| M14×0.75 | 12.6           | 9  | 2.2            | 15±0.1   | 20   | 1.4 | 40               | 7 |
| M18×0.75 | 16.2           | 11 | 2.2            | 18±0.1   | 24   | 1.4 | 42               | 7 |
| M22×0.75 | 20.3           | 13 | 2.7            | 21.5±0.1 | 28   | 1.8 | 44               | 7 |
| M27×0.75 | 24.8           | 16 | 3.2            | 26±0.1   | 33   | 2.0 | 48               | 7 |

Example of localized models for PC series threaded products

| PN         | Connector type | Tail attached | Contact type | Contact coating | No.of contact parts |
|------------|----------------|---------------|--------------|-----------------|---------------------|
| PC4AKWFAC  | plug           | yes           | socket       | gold            | 4                   |
| PC4KWFAC   | plug           | yes           | socket       | silver          | 4                   |
| PC4AKAC    | plug           | no            | socket       | gold            | 4                   |
| PC4KAC     | plug           | no            | socket       | silver          | 4                   |
| PCA4AJWFAC | socket         | yes           | pin          | gold            | 4                   |
| PCA4JWFAC  | socket         | yes           | pin          | silver          | 4                   |
| PCA4AJAC   | socket         | no            | pin          | gold            | 4                   |
| PCA4JAC    | socket         | no            | pin          | silver          | 4                   |

Example of Domestic Models for PC Series Direct Plug in Products

| PN          | Connector type | Tail attached | Contact type | Contact coating | No.of contact parts |
|-------------|----------------|---------------|--------------|-----------------|---------------------|
| PC4GAKWFAC  | plug           | yes           | socket       | gold            | 4                   |
| PC4GKWFAC   | plug           | yes           | socket       | silver          | 4                   |
| PC4GAKAC    | plug           | no            | socket       | gold            | 4                   |
| PC4GKAC     | plug           | no            | socket       | silver          | 4                   |
| PCA4GAJWFAC | socket         | yes           | pin          | gold            | 4                   |
| PCA4GJWFAC  | socket         | yes           | pin          | silver          | 4                   |
| PCA4GAJAC   | socket         | no            | pin          | gold            | 4                   |
| PCA4GJTB    | socket         | no            | pin          | silver          | 4                   |



## Sichuan Huafeng Technology Co., Ltd.

---

Add: No. 118, Sanjiang Avenue, Mianyang Economic & Technological  
Development Zone, Fucheng District Mianyang City, Sichuan, China

Contact phone number: Mr. Liu 17745463887

Contact email: liuqiang@huafeng796.com

Fax: +86-816-2335606

<http://www.huafeng796.com>