



***MP1 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 MP1 miniature circular electrical connector is a sealed type, while the MP1H miniature circular non sealed electrical connector can be used in AC circuits with a current intensity of 5A and a working voltage of 140V, up to 3MH. MP1 and MP1H have the same size and performance.



## Technical performance

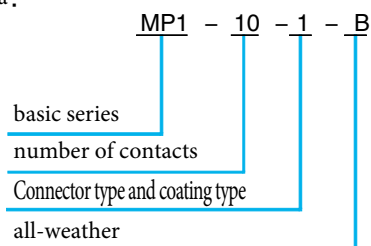
- ⊙ temperature:  $-60^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- ⊙ vibration:  $1 \sim 2500\text{Hz}$  15g
- ⊙ impact: 150g
- ⊙ working voltage: 140V
- ⊙ Working current: 0.5A
- ⊙ insulation resistance:  $\geq 1000\text{M}\Omega$
- ⊙ contact resistance:  $\leq 10\text{m}\Omega$
- ⊙ Mechanical lifespan: 250 cycle
- ⊙ Storage period : 15 years

number of contacts	Total current load(A)	number of contacts	Total current load(A)
10	5	50	25
19	9.5	76	38
30	15	102	51

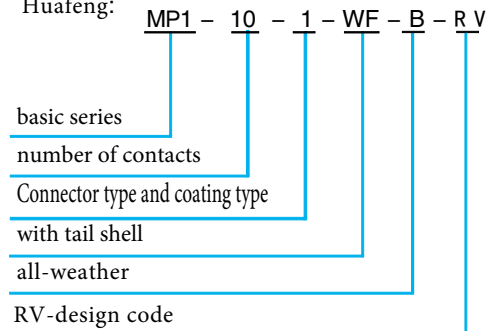
## How to order

No.	meaning	Russia meaning	Huafeng meaning
1	basic series	MP1	MP1
2	number of contacts	10、19、30、50、76、102	10、19、30、50、76、102
3	Threaded receptacle- contact coating	1–Silver 2–Gold	1–Silver 2–Gold
	Receptacle with direct insertion - contact coating	3–Silver 4–Gold	3–Silver 4–Gold
	Threaded plug- contact coating	5–Silver 6–Gold	5–Silver 6–Gold
	Plug with direct insertion - contact coating	7–Silver 8–Gold	7–Silver 8–Gold
4	Equipped with tail shell		WF
5	All weather	B	
6	Design code		RV

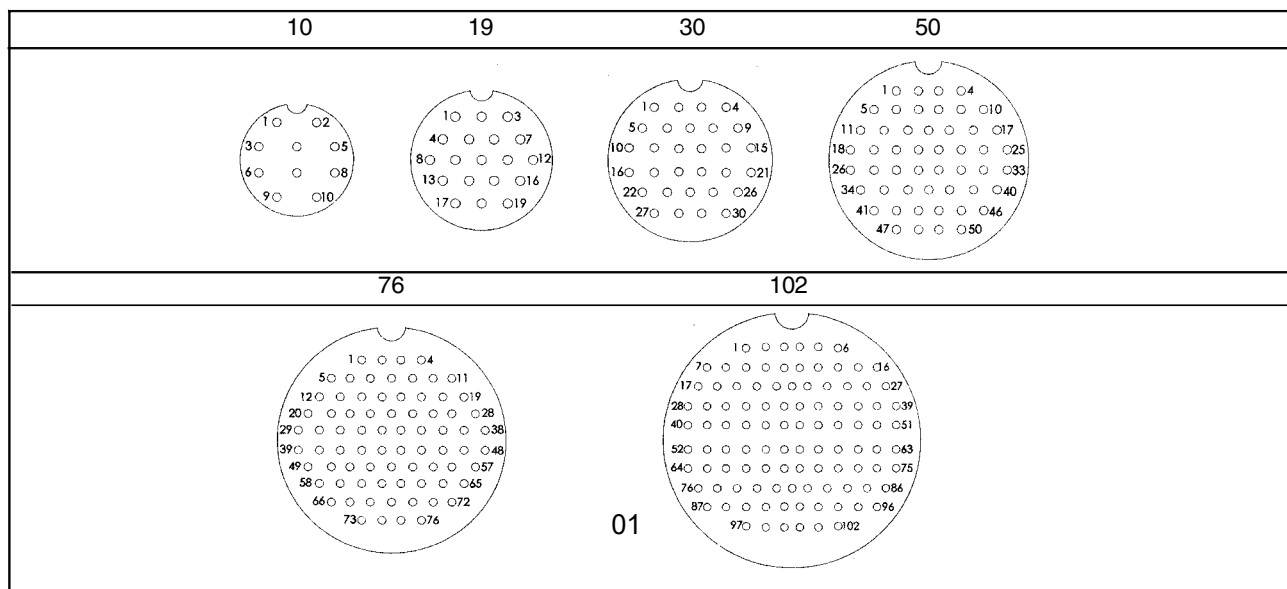
Russia :



Huafeng:

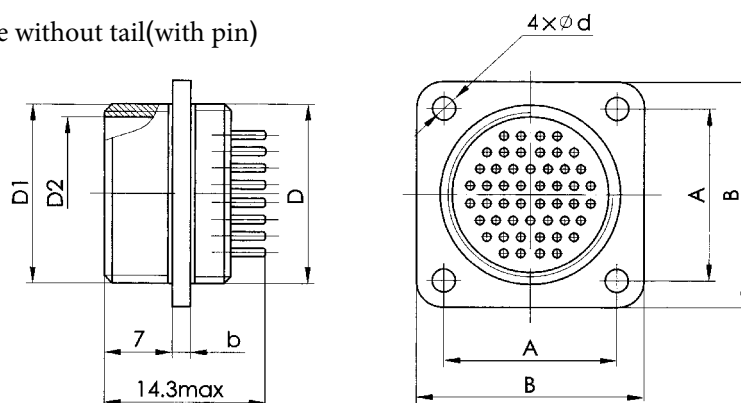


### Arrangement of insulator holes (viewed from the socket contact)



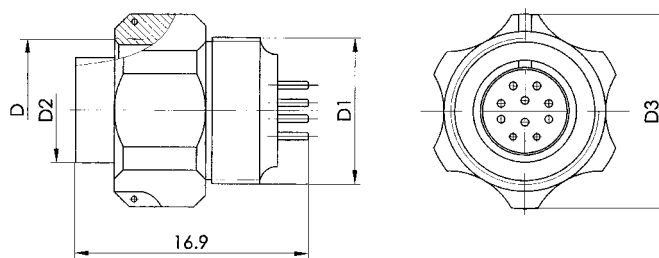
### Appearance and installation dimensions

- ① Threaded receptacle without tail(with pin)



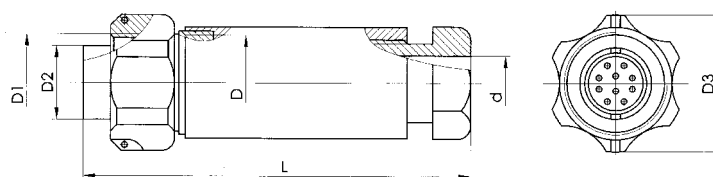
No.	PN	Size(mm)						
		A	B	D	D1	D2	d	b
1	MP1-10-1-B-RV	11.8	16.5	M10×0.75	M10×0.75	8.3	2.2	1.4
	MP1-10-2-B-RV							
2	MP1-19-1-B-RV	13.2	18.0	M12×0.75	M12×0.75	10.0	2.2	1.4
	MP1-19-2-B-RV							
3	MP1-30-1-B-RV	15.0	20.0	M14×0.75	M14×0.75	12.0	2.2	1.4
	MP1-30-2-B-RV							
4	MP1-50-1-B-RV	18.0	24.0	M18×0.75	M18×1	15.5	2.2	1.4
	MP1-50-2-B-RV							
5	MP1-76-1-B-RV	21.5	28.0	M22×0.75	M22×1	19.5	2.7	1.8
	MP1-76-2-B-RV							
6	MP1-102-1-B-RV	26.0	33.0	M27×0.75	M27×1	24.0	3.2	2.0
	MP1-102-2-B-RV							

④ Threaded plug without tail (with socket)



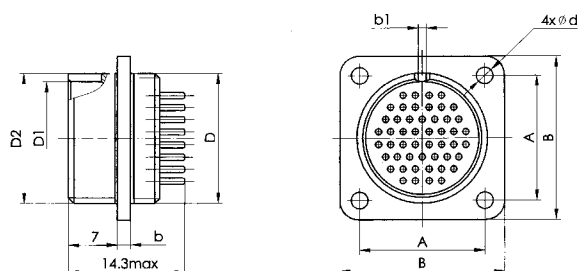
No.	PN	Size(mm)			
		D	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>
1	MP1-10-5-B-RV	M10×0.75	M10×0.75	8.2	13.8
	MP1-10-6-B-RV				
2	MP1-19-5-B-RV	M12×0.75	M12×0.75	10.0	16.0
	MP1-19-6-B-RV				
3	MP1-30-5-B-RV	M14×0.75	M14×0.75	12.0	18.5
	MP1-30-6-B-RV				
4	MP1-50-5-B-RV	M18×1	M18×0.75	15.5	23.0
	MP1-50-6-B-RV				
5	MP1-76-5-B-RV	M22×1	M22×0.75	19.5	26.3
	MP1-76-6-B-RV				
6	MP1-102-5-B-RV	M27×1	M27×0.75	24.0	28.7
	MP1-102-6-B-RV				

④ Threaded plug with tail (with socket)



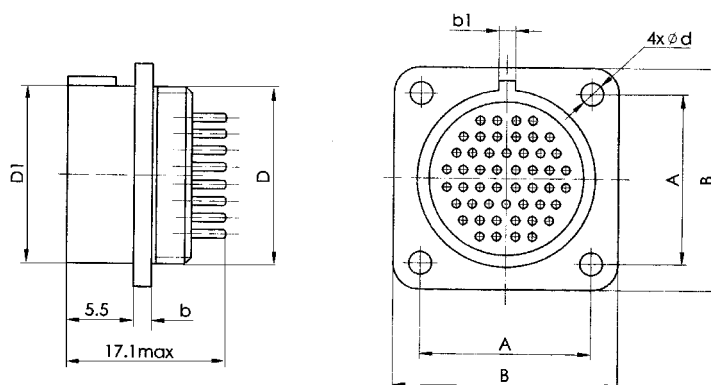
No.	PN	Size(mm)					
		D	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	d	L
1	MP1-10-5-WF-B-RV	M10×0.75	M10×0.75	8.2	13.8	6	36
	MP1-10-6-WF-B-RV						
2	MP1-19-5-WF-B-RV	M12×0.75	M12×0.75	10.0	16.0	8	38
	MP1-19-6-WF-B-RV						
3	MP1-30-5-WF-B-RV	M14×0.75	M14×0.75	12.0	18.5	9	41
	MP1-30-6-WF-B-RV						
4	MP1-50-5-WF-B-RV	M18×0.75	M18×1	15.5	23.0	11	41.5
	MP1-50-6-WF-B-RV						
5	MP1-76-5-WF-B-RV	M22×0.75	M22×1	19.5	26.3	13	42
	MP1-76-6-WF-B-RV						
6	MP1-102-5-WF-B-RV	M27×0.75	M27×1	24.0	28.7	16	50
	MP1-102-6-WF-B-RV						

⊙ Direct insertion (with flange) receptacle(with pin)



No.	PN	Size(mm)							
		A	B	D	D1	D2	d	b	b <sub>1</sub>
1	MP1-10-3-B-RV MP1-10-4-B-RV	11.8	16.5	M10×0.75	9.0	11.5	2.2	1.4	2.0
2	MP1-19-3-B-RV MP1-19-4-B-RV	13.2	18.0	M12×0.75	11.0	14.0			2.5
3	MP1-30-3-B-RV MP1-30-4-B-RV	15.0	20.0	M14×0.75	13.0	16.0			
4	MP1-50-3-B-RV MP1-50-4-B-RV	18.0	24.0	M18×0.75	16.5	20.5	2.2	1.4	2.5
5	MP1-76-3-B-RV MP1-76-4-B-RV	21.5	28.0	M22×0.75	20.5	24.5	2.7	1.8	3
6	MP1-102-3-B-RV MP1-102-4-B-RV	26.0	33.0	M27×0.75	25.0	30.0	3.2	2.0	3.5

5、Direct insertion (with flange) receptacle(with socket)



No.	PN	Size (mm)						
		A	B	D	D1	d	b	b1
1	MP1-10-7-B-RV MP1-10-8-B-RV	11.8	16.8	M10×0.15	8.8	2.2	1.4	1.4
2	MP1-19-7-B-RV MP1-19-8-B-RV	13.2	18.0	M12×0.15	10.7	2.2	1.4	1.4
3	MP1-30-7-B-RV MP1-30-8-B-RV	15.0	20.0	M14×0.15	12.6	2.2	1.4	1.4
4	MP1-50-7-B-RV MP1-50-8-B-RV	18.0	24.0	M18×0.75	16.2	2.2	1.5	1.5
5	MP1-76-7-B-RV MP1-76-8-B-RV	21.5	28.0	M22×0.75	20.3	2.7	1.8	1.8
6	MP1-102-7-B-RV MP1-102-8-B-RV	26.0	33.0	M27×0.75 all-weather	24.8	3.2	2.0	2.0

## Recommended matching part number

threaded connect	
receptacle	plug
MP1-(10、19、30、50、76、102)-1-B	MP1-(10、19、30、50、76、102)-5-B
MP1-(10、19、30、50、76、102)-2-B	MP1-(10、19、30、50、76、102)-6-B

Direct insertion connect	
receptacle	plug
MP1-(10、19、30、50、76、102)-3-B	MP1-(10、19、30、50、76、102)-7-B
MP1-(10、19、30、50、76、102)-4-B	MP1-(10、19、30、50、76、102)-8-B



## Sichuan Huafeng Technology Co., Ltd.

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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>