



***P,ZP,PR series
circular connector***

Sichuan Huafeng Technology Co., Ltd.

四川华丰科技股份有限公司



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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.



P、ZP、PR-B circular electrical connector is a standard type of electrical connector, available in sealed and unsealed types. The connector generally consists of a fixed part (socket) on the instrument and a fixed part (plug) on the cable, connected by connecting nuts;



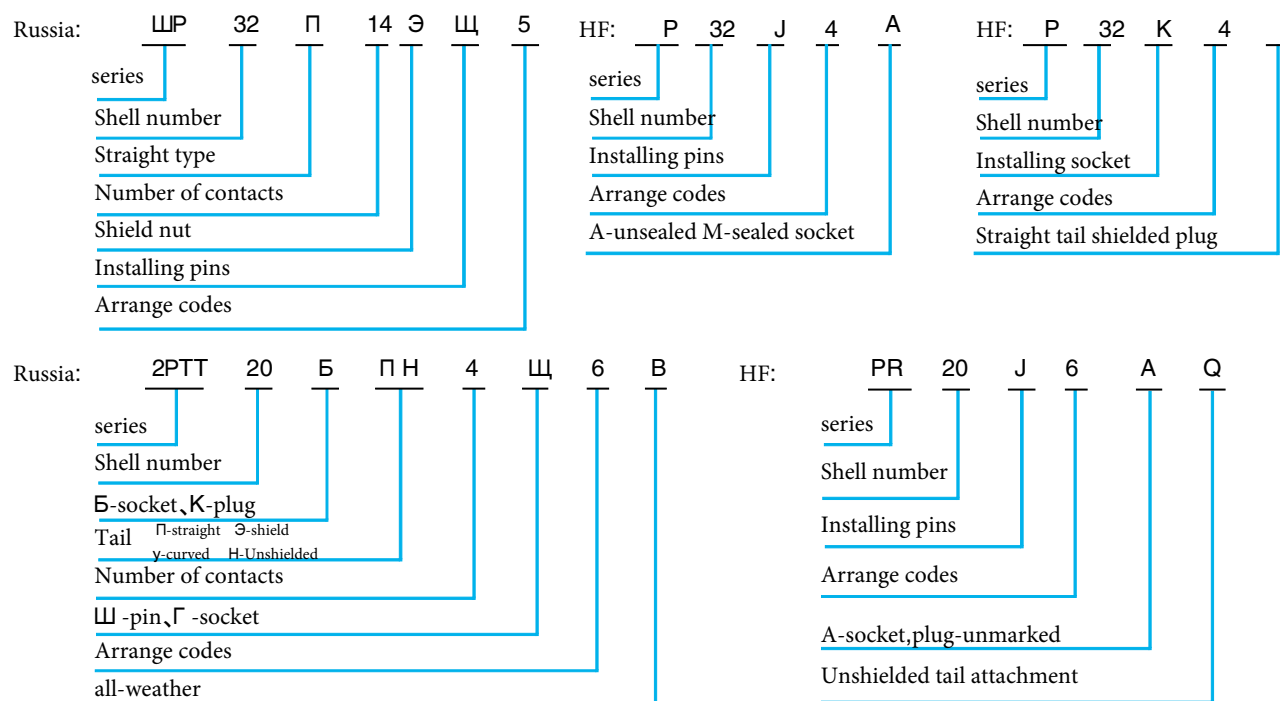
Technical performance

- ◎ working temperature : -60°C~+50°C(ЩП, ЩПВ)
-60°C~+150°C(2PT-A-T)
- ◎ Vibration: 10g(ЩП, ЩПВ, 5~2000Hz)
10g(2PTA, 10~200Hz; 2PTT, 10~1000Hz;)
- ◎ Impact: Once 500g, many times 35g(ЩП)
- ◎ working voltage : ≤850V(ЩП, ЩПВ); ≤700V(2PT)
- ◎ Rated current:

Ø1.5	Ø2.5	Ø3.5	Ø5.5	Ø9
10A	25A	50A	100A	200A
- ◎ contact resistance:

Ø1.5	Ø2.5	Ø3.5	Ø5.5	Ø9
≤2.5mΩ	≤1mΩ	≤0.5mΩ	≤0.3mΩ	≤0.15mΩ
- ◎ working life : 500 cycle
- ◎ technical standard: ЩП ЩПВ—ГEO.364.107TY
ЩПГ ЩПВГ—ГEO.364.108TY
2PTT—ГEO.364.120TY

Mark Description



No.	The meaning of the Russian code name	code	The meaning of the HF code name	code
1	Unsealed seal Moisture and heat resistance	ШР(СШР) ШРГ(СШРГ) 2PT(T)	Conventional type seal Moisture and heat resistance Wall sealing	P(ZP) P-M(ZP-M) PR(Plug PR.....B) P-C
2	Shell diameter(mm)	12、16、20、28 32、36、40、48 55、60	Shell diameter(mm)	16、20、28、32 36、40、48、55 60、63
3	straight Curved Straight tail socket Curved tail socket Straight tail plug Curved tail plug	П У ПК УК П У	pin socket	J K
			Arrange codes	Code as shown in the table
			Unsealed socket Sealed socket Sealing through walls plug(except PR)	A M C unmarked
4	Number of contact parts	1-48	Straight tail shielding Unshielded Curved tail shield Unshielded	P Q R S
5	shield Unshielded	Э Н		
6	Socket Instal pins (socket) plug Instal socket(pin)	Ш(Г) Г(Ш)		
7	Arrange codes	1-42		
8	Left plug	Л	Left plug	U
9	PR(2PTT only)		Plug connector	B

Insulator arrangement (from the interface of the socket insulator)

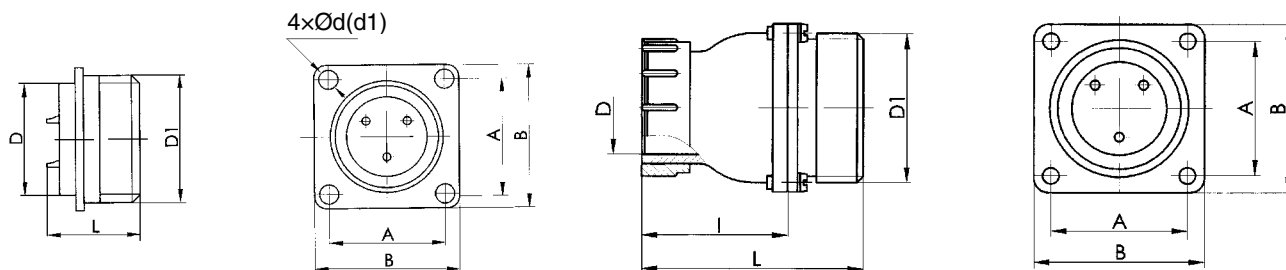
Shell size		Shell size	1-1	2-4	P	Contact code				
	1-2		1-3	2-5	ШР					
	1-1		1-2	2-3	2РТТ					
12		16		PR 	P 	Ø1.5 	Ø2.5 	Ø3.5 	Ø5.5 	Ø9
20	2-2	3-3	3-4	4-6	4-7	5-9	5-10			
	2-6	3-7	3-6	4-8	4-4	5-10	5-7			
	2-4	3-5	3-38	4-6	4-39	5-40	5-7			
28	1-1	2-5	4-2	7-4	6-3					
	1-4	2-7	4-5	7-9	7-7	6-4				
	1-8	2-9	4-10	7-11	7-41					
32	1-1	8-2		8-7						
	1-5	4-14	8-3	8-2						
	1-12	4-13	8-14	8-42						
	10-11	12-12	12-3	14-4	7-6					
	10-1	12-3	12-1	14-5						
	10-15	12-16								
36	4-1	5-2	7-3	15-6	10-4	15-7				
	4-13	5-11	7-1	15-14	10-1	15-12				
	4-17	5-18	7-19	15-20						
40	3-1	9-2	14-3	16-8	15-6					
	3-9	9-9	14-2	16-2	15-2					
	3-21	14-22		16-23						

Shell size	2-1		7-2		P	Contact code									
	2-9		7-2		山P										
	2-24		7-25		2PTT										
48										Ø1.5 	Ø2.5 	Ø3.5 	Ø5.5 	Ø9 	
	9-4		9-3		20-5		26-6								
	9-7		9-1		20-1		26-2								
	9-27		9-26		20-28		26-29								
55	6-1		23-2		30-3										
	6-6		23-1		30-1										
	6-30		23-31		30-32										
	31-6		35-8		壳体号	48-1									
	31-3		35-3												
	31-33		35-34												
									63						
60	31-1		45-3		47-5										
	31-1		45-2		47-2										
	31-35		45-36		47-37										

Appearance and installation dimensions (mm)

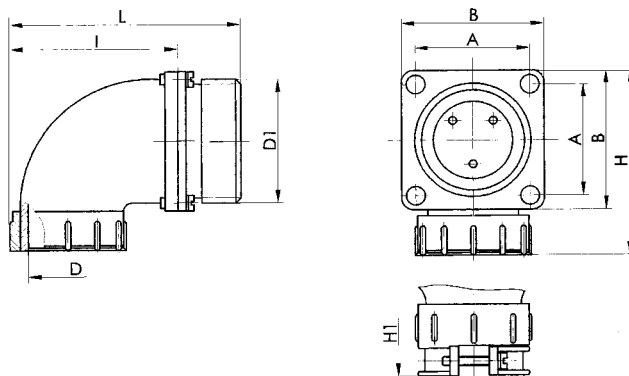
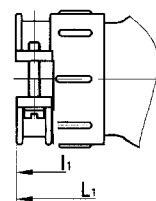
⊙ Receptacle

ЩP、CЩP、2PT receptacle without tail



ЩP、CЩP、2PT receptacle with straight tail

note: d is the non sealed installation dimension
d1 is the sealing installation dimension

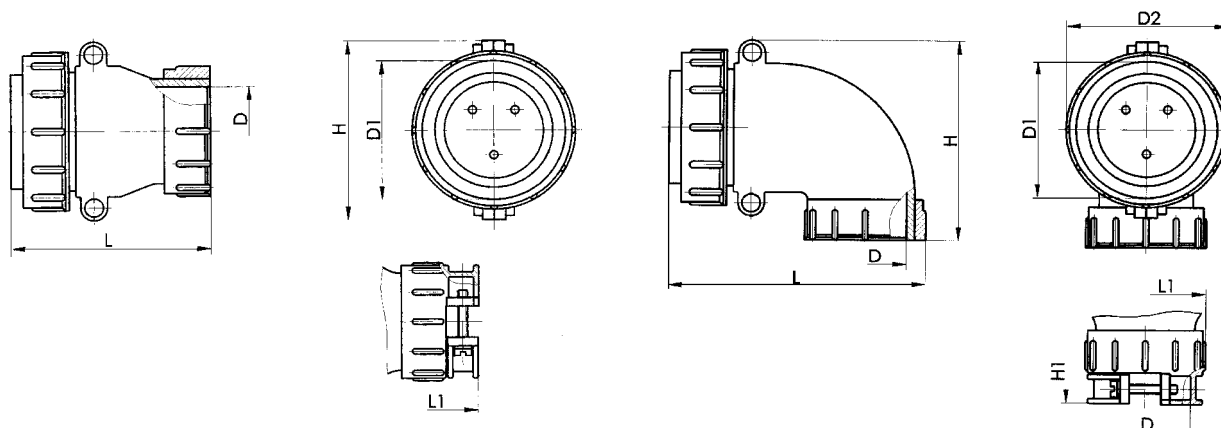


ЩP、CЩP、2PT receptacle with curved tail

⊙ Plug

Plug with valued tail

Plug with curved tail



④ Size of receptacle without tail

PN	Size						
	D	D1	A	B	L	d	d1
WJP 2PT-A 2PTT	12	M16×1.5	16±0.1	22	39	3.2	3.2
WJP 2PT-A 2PTT	16	M20×1.5	19±0.1	25	40	3.2	3.2
WJP WJPG CWP CWPG 2PT-A 2PTT	20	M24×1.5	22±0.1	30	38	3.2	4.5
				32	41		
				30	38		
WJP WJPG CWP CWPG 2PT-A 2PTT	28	M33×1.5	30±0.2	38	42	3.5	4.5
				40	43 68		
				38	42		
WJP WJPG CWP CWPG 2PT-A 2PTT	32	M36×1.5	32±0.2	40	42	3.5	4.5
				44	42		
				40	42		
WJP WJPG CWP CWPG 2PT-A 2PTT	36	M39×1.5	34±0.2	42	42	3.5	4.5
				46	43		
				42	42		
WJP WJPG 2PT-A 2PTT	40	M45×1.5	40±0.2	48	42	3.5	4.5
				52	43		
				48	42		
WJP WJPG CWP、CWPG 2PT-A 2PTT	48	M52×1.5	48±0.2	58	42	4.5	4.5
				60	43		
				58	42		
WJP WJPG CWP 2PT-A 2PTT	55	M60×1.5	52±0.2	64	42	4.5	4.5
				68	43		
				64	42		
WJP WJPG CWP 2PT-A 2PTT	60	M64×1.5	54±0.2	68	42	4.5	4.5
				72	41		
				68	42		
P	63	M68×1.5	58±0.2	70	40	4.5	4.5

④ Size of receptacle with straight tail

型 号		D	D1	A	B	L	L1	I	I1
ШР	12	8	M16×1.5	16	22	52	64	28	40
2PT-A 2PTT						51	63		
ШР	16	11	M20×1.5	19	25	52	62	28	38
2PT-A 2PTT						51	61		
ШРГ					26	55	65		
ШР	20	25	M24×1.5	22	30	54	65	32	43
2PT-A ШРГ 2PTT					32	58	69		
ШР					38	59	73		
2PT-A 2PTT ШРГ						63	77		
ШР	32	25	M36×1.5	32	40	64	78	40	54
2PT-A 2PTT ШРГ					40	67	81		
ШР					42	66	80		
2PT-A 2PTT						65	79		
ШР	36	29	M39×1.5	34	42	66	80	42	56
2PT-A 2PTT					42	65	79		
ШР					46	69	83		
ШР	40	32	M45×1.5	40	48	65	79	42	56
2PT-A 2PTT ШРГ					52	69	83		
ШР	48	36	M52×1.5	48	58	67	81	44	58
2PT-A 2PTT ШРГ					60	71	85		
ШР	55	46	M60×1.5	52	64	67	81	44	58
2PT-A 2PTT					68	71	85		
ШРГ						71	85		
ШР	60	50	M64×1.5	54	68	65	79	42	56
2PT-A 2PTT					72	69	83		
ШРГ						69	83		
P	63	50	M68×1.5	58	70	70	84	47	61



PN		D	D1	A	B	H	H1	L	I
WJP 2PT-A 2PTT	20	18	M24×1.5	22	30	43	54	61	38.5
WJP 2PT-A 2PTT	32	25	M36×1.5	32	40	50	70	75	52
WJP 2PT-A	60	50	M64×1.5	54	68	84	98	106	83

 Plug size with straight tail

PN		D	D1	H	L	L1
WJP 2PT-A 2PTT	12	8	M16×1.5	24.5	50	62
WJP 2PT-A 2PTT	16	11	M20×1.5	28.5	50	60
WJP CWP 2PT-A 2PTT	20	18	M24×1.5	36	53	64
WJP CWP 2PT-A 2PTT	28	25	M33×1.5	48	56	70
WJP 2PT-A 2PTT	32	25	M36×1.5	52	58	72
WJP 2PT-A 2PTT	36	29	M39×1.5	54	62	76
WJP CWP 2PT-A 2PTT	40	32	M45×1.5	60	64	78
WJP CWP 2PT-A 2PTT	48	36	M52×1.5	68	66	80
WJP CWP 2PT-A 2PTT	55	46	M60×1.5	74	66	80
WJP CWP 2PT-A 2PTT	60	50	M64×1.5	80	65 64	79 78
P	63	50	M68×1.5	83	64	78

⊙ Plug size with curved tail

型 号		D	D1	D2	H	L1	L	D3
WJP 2PT-A 2PTT	12	8	M16×1.5	21.5	39	47	51	5
WJP 2PT-A 2PTT	16	11	M20×1.5	26	40	50	56	7
WJP CWP 2PT-A 2PTT	20	18	M24×1.5	30	48	59	64	14
WJP CWP 2PT-A 2PTT	28	25	M33×1.5	39	62	76	73	21
WJP CWP 2PT-A 2PTT	32	25	M36×1.5	42	66	80	73	21
WJP CWP 2PT-A 2PTT	36	29	M39×1.5	45	67	81	76	23
WJP 2PT-A 2PTT	40	32	M45×1.5	51	72	86	80	24
WJP CWP 2PT-A 2PTT	48	36	M52×1.5	59	81	95	90	32
WJP CWP 2PT-A 2PTT	55	46	M60×1.5	67	88	102	98	40
WJP CWP 2PT-A 2PTT	60	50	M64×1.5	72	94	108	103	48
P	63	50	M68×1.5	76	96	110	105	48



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