FZ Series Push-pull self-locking waterproof

connector

INTRODUCTION TO THE SERIES

Product introduction

FZ series products adopt push-pull self-locking structure, waterproof class IP67,FZ series products can effectively resist vibration and impact, and can prevent the occurrence of disconnection caused by pulling the cable; It is absolutely safe and reliable to use, which is advantageous to realize plugging and pulling in very limited space.

It is widely used in electrical signal connection of electronic, instrument, video processing, medical and other equipment. Especially suitable for frequent connection separation, shielding instruments and equipment electrical signal connection.

Product features:

The connection styles of FZ series are straight type and 90 degree Angle type;

Needle core types are welded and PCB printed board two;

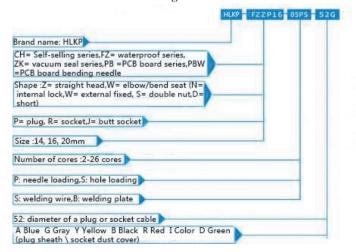
The shell surface is designed with a diamond-shaped appearance to prevent skid; FZ series adopts push-pull self-locking structure, easy and fast connection separation, ingenious self-locking device to ensure solid and reliable connection.

All metal structure can effectively shield the function; All-round shielding effect, anti-electromagnetic interference:

The reasonable key design has the function of preventing blind insertion and staying. The FZ series has a variety of key options

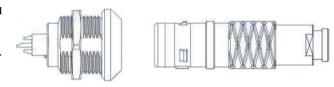
FZ series connector core number of 2-26, compact compact purchase, high-density installation can effectively save equipment space, to achieve the micro design of equipment; Waterproof class is IP67;

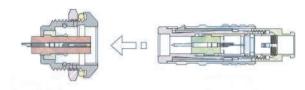
FZ series connectors Naming rules



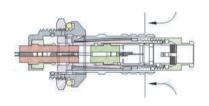
For example, HL-FZZP16-05PS-52G=FZ series straight pin welding plug with 16mm hole size, 52 clip and jacket color gray

FZ series product structure principle

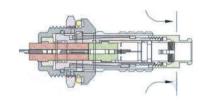




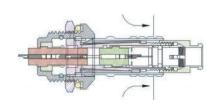
Insert the plug and socket to the opposite socket as indicated by the arrow



When the plug is inserted, the socket will push the lock sleeve shrapnel down to allow the plug to fit



After being inserted in place, the lock sleeve shrapnel will spring open to the hook slot in the seat and get stuck. (Lock sleeve shrapnel will make the plug and socket lock to achieve self-locking purpose)



When the plug is pulled out, press the plug shell to pull back, so that the window of the plug shell extrude the lock sleeve cartridge. When the lock sleeve cartridge is protruded and extruded to less than the aperture inside the socket, the unlocking effect can be achieved, and the plug and socket will be unlocked

FZ series connector material and technical parameters table

Shell material

Copper plating

Salt spray

72 hours

corrosion test

Contact material

Copper gold plated, PPS

insulator

Temperature

-55° C~+250° C

Range

vibration

10-2000HZ15G

Plug mode

Number of insertions

Insert and remove

> 4000 times

self-locking

Mechanical

100g 6ms

Protection

class

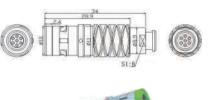
impact

IP67

Dimensions of FZ14 series connectors









HLKP-FZZP14-07PS-52B (Tape sheath)



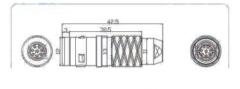
Pin core arrangement and electrical parameters of FZ14 series connectors

Plug pin assembly welding surface diagram

View direction	0	6		6			
Number of cores	2	3	4	5	6	7	9
Contact diameter (mm)	0.9	0.9	0.7	0.7	0.5	0.5	0.5
Rated current (A)	10	8	7	6. 5	2.5	2.5	2
Operating voltage (D	c) 430	400	280	280	280	260	200
Withstand voltage (AC	1300	1200	850	1000	850	800	600
Contact resistance normal m	Ω 4.1	4.1	5. 6	5.6	7. 5	7. 5	7.5
Normal insulation resistance $(M\Omega)$	≥ 3000	≥ 3000	≥3000	≥3000	≥3000	≥3000	≥ 3000
Adapter cable OD(mm) ≤5.2	≤ 5. 2	\leq 5.2	≤ 5. 2	≤ 5.2	≤ 5. 2	≤5. 2

welding surface diagram	③	8					
Number of cores	2	3	4	5	6	7	9
Contact diameter (mm)	0.9	0.9	0. 7	0. 7	0. 5	0.5	0.5
Rated current (A)	10	8	7	6. 5	2. 5	2.5	2
Operating voltage (DC)	430	400	280	280	280	260	200
Withstand voltage (AC)	1300	1200	850	1000	850	800	600
Contact resistance normal mΩ	4. 1	4. 1	5. 6	5. 6	7. 5	7. 5	7. 5
Normal insulation resistance (M Ω)	≥3000	≥3000	≥3000	≥3000	≥3000	≥3000	≥3000
Adapter cable OD(mm)	≤5.2	≤ 5. 2	≤5. 2	≤5.2	≤5.2	≤5.2	≤ 5. 2

Dimensions of FZ16 series connectors





HLKP-FZZP16-08PS-72(No sheathing)











Pin core arrangement and electrical parameters of FC14 series connectors

Pin arra	ngement	and te	echnical	l chara	cterist	ics of l	FZ16 se	ries pl	ug pin	assembl	у
welding surface dia	gram	8	6	63							
Number of cores	2	3	4	5	6	7	8	10	12	14	16
Contact diameter (mm)	1. 3	1. 3	0. 9	0.9	0. 7	0. 7	0.7	0.5	0.5	0. 5	0.5
Rated current	15	12	10	9	9	9	5	2.5	2	2	1. 5
Operating voltage (DC)	500	500	430	415	350	315	315	300	300	280	260
Withstand voltage (AC/V)	1500	1300	1350	1250	1050	950	950	900	800	800	800
Contact resistance normal mΩ	2. 8	2.8	4. 1	4. 1	5. 6	5. 6	5. 6	7.5	7. 5	7. 5	7. 5
Normal insulation resistance (MΩ)	≥ 3000	≥ 3000	≥ 3000	≥ 3000	≥ 3000	≥ 3000	≥ 3000	≥ 3000	≥ 3000	≥ 3000	≥3000
Adapter cable OD(mm)	≤7.2	≤ 7. 2	≤7.2	≤7.2	≤7.2	≤7.2	≤7.2	≤ 7. 2	≤7.2	≤7.2	≤7.2

Pin arrangement and technical characteristics of FZ16 series socket hole assembly Plug hole assemb welding surface 3 8 12 4 5 6 10 14 16 Number of cores Contact diameter 1.3 0.9 0.9 0.7 0.7 0.7 0.5 0.5 0.5 0.5 (mm) 0.5 Rated current 12 10 9 5 2.5 9 (A) Operating voltage (DC) 500 500 430 415 350 315 300 300 280 260 350 Withstand voltage 1500 1300 1350 1250 1050 950 950 900 800 800 800 (AC/V) ontact resistance 5.6 2.8 4.1 4.1 5. 6 5.6 7.57.5 7.5 7.5 ormal mΩ ormal insulation ≥3000 ≥3000 ≥3000|≥3000 ≥3000 ≥3000 ≥3000|≥3000| ≥3000 ≥ 3000 resistance (MΩ 3000 Adapter cable ≤ 7.2 ≤7. 2 ≤ 7.2 ≤ 7.2 ≤ 7.2 $\leq 7.2 \leq 7.2$ **≤**7. 2 ≤ 7.2 ≤7.2 ≤ 7.2 OD (mm)

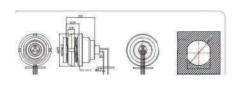
Beijing Hongli Kunpeng International Trade Co.,Ltd.





HLKP-FZZP20-19PS-92B(Tape sheath)







HLKP-FZPBW20-03SB(Long bent needle)

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plug pin assembly welding surface diagram															
=======================================	8		00	60											
View direction															
Number of cores	2	3	4	5	6	7	8	10	12	16	18	19	20	21	26
Contact diameter (mm)	2	1.6	1.3	1.3	1.3	1.3	0.9	0.9	0.7	0.7	0.7	0.7	0.5	0.5	0.5
Rated current (A)	30	17	15	14	12	11	10	8	7	6.5	6	5.5	5	5	2
Operating voltage (DC)	700	800	610	580	450	500	500	500	480	315	280	280	280	280	315
Withstand voltage (AC/V)	2100	2400	1850	1750	1350	1350	1500	1450	1250	950	850	850	850	800	800
Contact resistance normal m Ω	3	4	2.8	2.8	2.8	2.8	4.1	4.1	5.6	5.6	5.6	7.5	7.5	7.5	7.5
Normal insulation resistance (M Ω)	≥ 3000	3000	3000	≥ 3000											
Adapter cable OD(mm)	≤9.2	≤ 9.2	≤ 9.2	≤ 9.2	≤9.2	≤9.2	≤9.2	≤9.2	≤9.2	≤9.2	≤9.2	≤9.	2 ≤9.2	2 ≤9.2	≤9.2

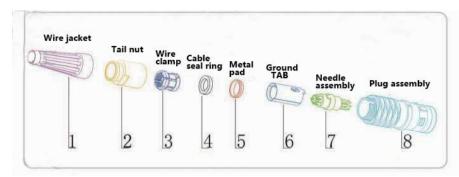
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plug pin assembly welding surface diagram View direction		0	60	600	000	000	600	000		0000			0000	00000	00000
Number of cores	2	3	4	5	6	7	8	10	12	16	18	19	20	21	26
Contact diameter (mm)	2	1.6	1.3	1.3	1.3	1.3	0.9	0.9	0.7	0.7	0.7	0.7	0.5	0.5	0.5
Rated current (A)	30	17	15	14	12	11	10	8	7	6.5	6	5.5	5	5	2
Operating voltage (DC)		800	610	580	450	500	500	500	480	315	280	280	280	280	315
Withstand voltage (AC/V)	2100	2400	1850	1750	1350	1350	1500	1450	1250	950	850	850	850	800	800
Contact resistance normal mΩ	3	4	2.8	2.8	2.8	2.8	4.1	4.1	5.6	5.6	5.6	7.5	7.5	7.5	7.5
Normal insulation resistance (MΩ)	≥3000	≥3000	≥3000	≥3000	≥3000	≥3000	≥3000	≥3000	≥3000	≥3000	≥3000	≥3000	≥3000	≥3000	≥30
Adapter cable OD(mm)	≤9.2	≤9.2	≤9.2	≤9.2	≤9.2	≤9.2	≤9.2	≤9.2	≤9.2	≤9.2	≤9.2	≤9.2	≤9.2	≤9.2	≪9

FZ14/16/20 Series connectors Standard wiring harness

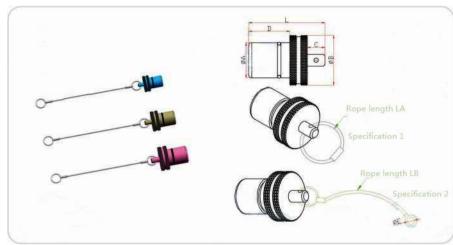




FZ series connector assembly drawing



- 1. Pass the cable through the sheath 1, the tail nut 2, the wire clamp 3, the cable sealing ring 4, the metal pad 5, and weld it to the corresponding pin of the insulator assembly 7 according to the line sequence;
- 2. Install the grounding lug 6 on the insulator assembly 7. Note that the notch of the grounding lug 6 corresponds to the bump of the insulator assembly 7. Push the metal gasket 5, cable sealing ring 4 and wire clamp 3 to the appropriate position to ensure that the entire cable is inserted into the metal gasket 5;
- **3.** Install the installed insulator 7 into the plug assembly 8. Note that the gap on the insulator clasp 6 corresponds to the bump of the plug assembly 8;
- 4. Tighten the tail nut 2 to the plug assembly 8;
- 5, the sheath 1 installed on the tail nut 2, the overall assembly is completed;

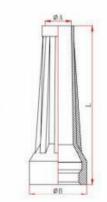


Model number				di	imensi	on		
Model Humber	A	В	С	D	L	LA	LB	Е
LT-FZNR14	10	15	6	11	21	Customer customization	Customer customization	Customer customization
LT-FZNR16	12	17	6	14	26	Customer customization	Customer customization	Customer customization
LT-FZNR20	15	20.5	6	16	30	Customer customization	Customer customization	Customer customization

FZ Series Connector Plastic fittings







Model	specifi-	di	mensi	on
number	cation	A	В	L
1 T. P2701 4	4.2	4.2	8.8	24
LT-FZZP14	5. 2	5. 2	8.8	24
LT-FZZP16	4.2	4.2	10.9	30
	5. 2	3.2	10.9	30
	6.2	8. 2	10.9	30
	7.0	7.1	10.9	30
	5. 2	5. 2	14.4	35. 5
	6.2	6.2	14.4	35, 5
LT-FZZP20	7.2	7.2	14.4	35. 5
	8.2	8, 2	14.4	35. 5
	9.2	9.2	14.4	35, 5