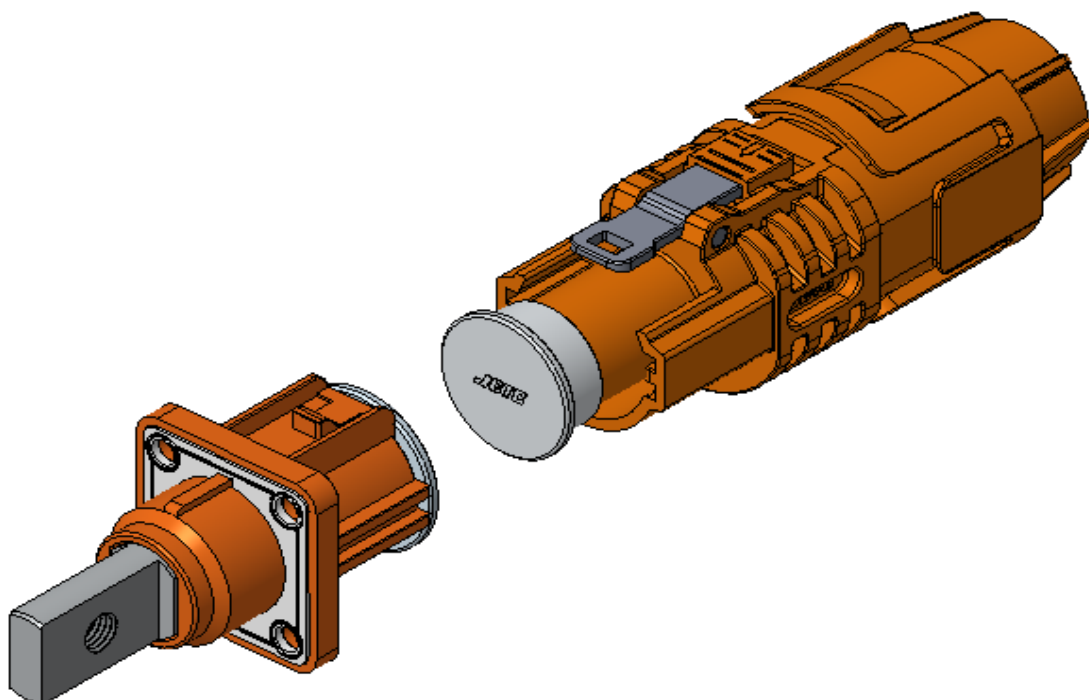




250A single core waterproof connector Product Specification



Edition	Revisions	Date of manufacture/repair
A0	New Issue	2020.6.11
A1	Increase terminal size	2020.12.03

Signature field		
Approved: Chen	Audit: Jack	Tabulation: Jone



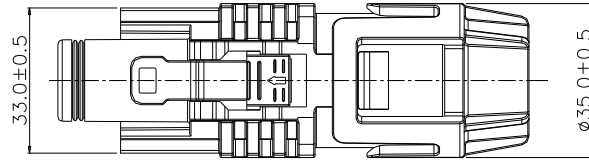
Product Specification

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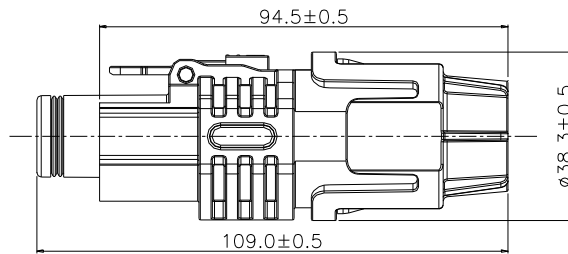
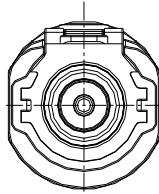
1. Product function definition

1.1 Plug

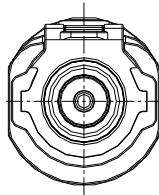
1.1.1 Description of the shape, size and key position of plug



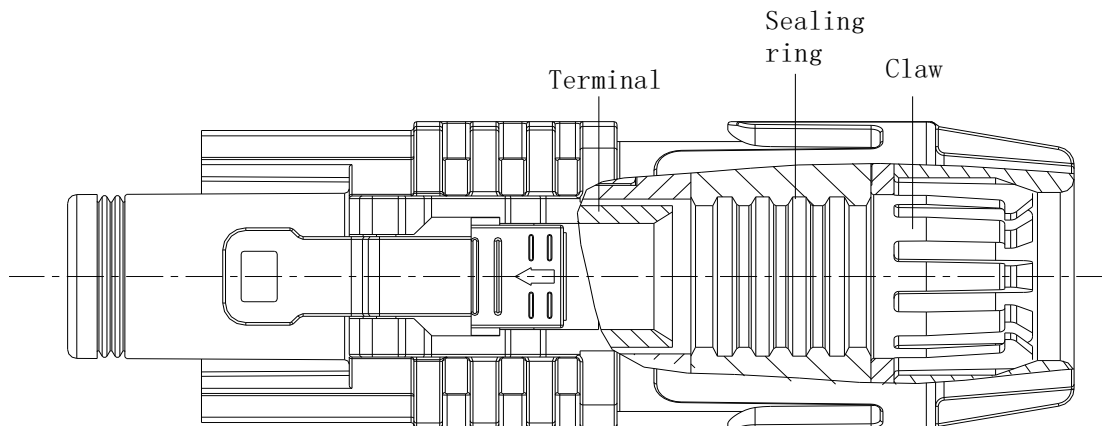
Positive plug key position
Colour of plastic shell: Orange



Negative plug key position
Colour of plastic shell: Black



1.1.2 Plug tail part view



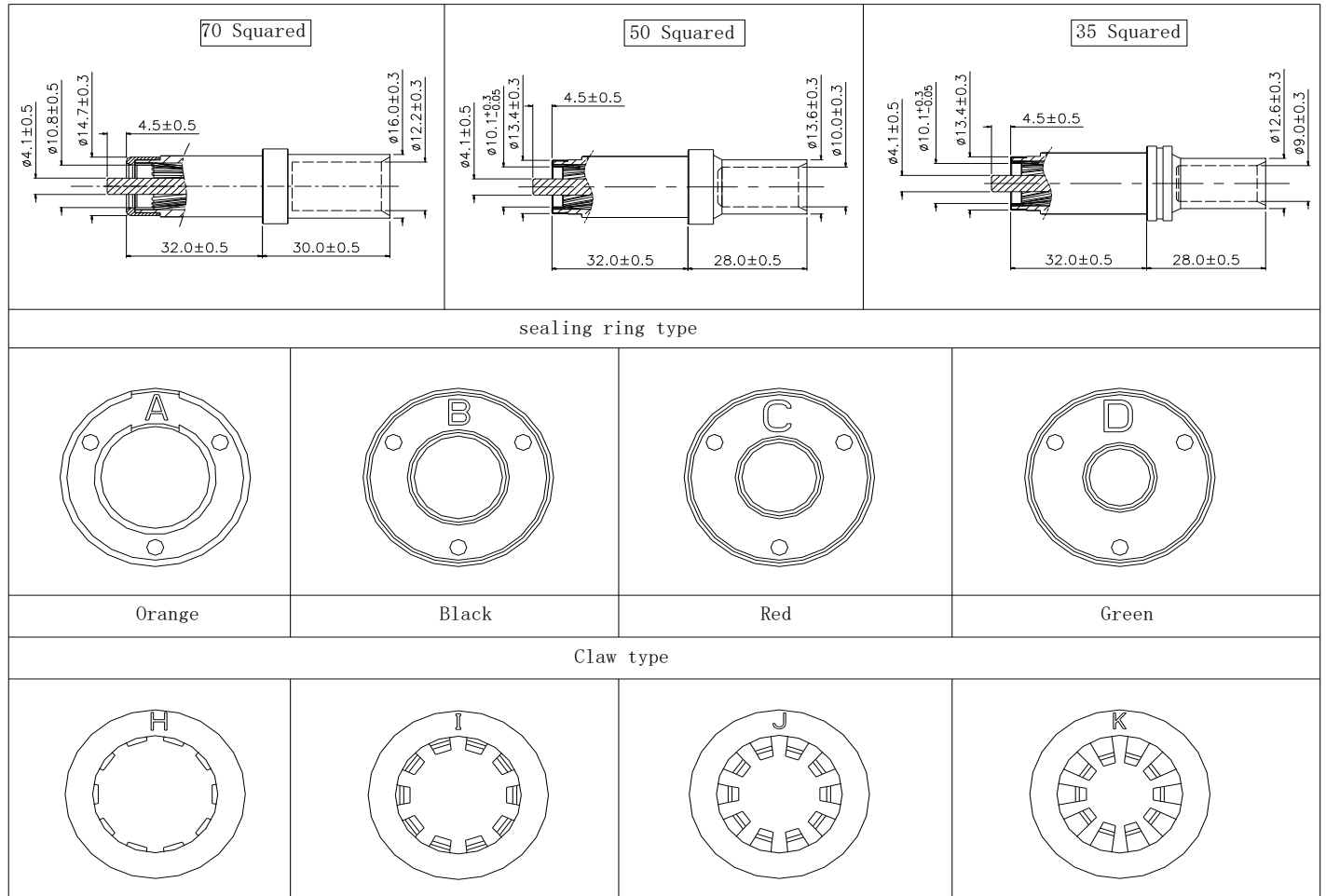


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1.1.3 Cable Specification and fitting selection table



1.1.4 Choice table of plug product material number

Conductor Area (mm ²)	Insulation type	Insulation OD (mm)	Polarity	Products NO.	key	Socket type	sealing ring type	Claw type
70	Single Layer	14.0±0.5	Positive Pole	HV1P-OAR-7019	Orange	70 Square terminal	B	I
			Negative Pole	HV1P-OBK-7023	Black		B	I
	Double Deck	17.0±0.5	Positive Pole	HV1P-OAR-7024	Orange		A	H
			Negative Pole	HV1P-OBK-7025	Black		A	H
50	Single Layer	11.9±0.4	Positive Pole	HV1P-OAR-5026	Orange	50 Square terminal	C	J
			Negative Pole	HV1P-OBK-5027	Black		C	J
	Double Deck	14.9±0.4	Positive Pole	HV1P-OAR-5028	Orange		B	I
			Negative Pole	HV1P-OBK-5029	Black		B	I
35	Single Layer	10.2±0.3	Positive Pole	HV1P-OAR-3530	Orange	35 Square terminal	D	K
			Negative Pole	HV1P-OBK-3531	Black		D	K
	Double Deck	13.1±0.3	Positive Pole	HV1P-OAR-3532	Orange		C	J
			Negative Pole	HV1P-OBK-3533	Black		C	J

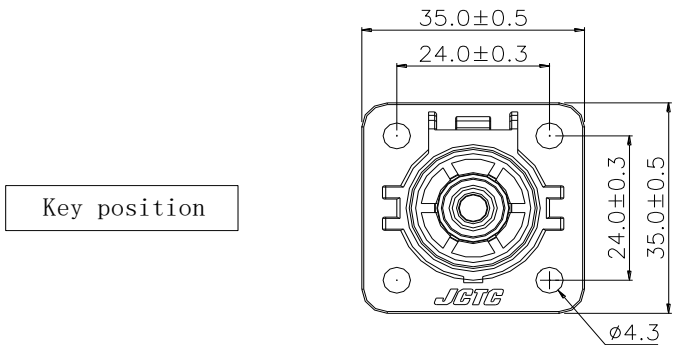


Product Specification

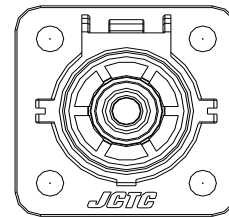
Product name: 250A single core waterproof connector	Date: 2020.06.11	Page: 3/5	
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1.2 Socket

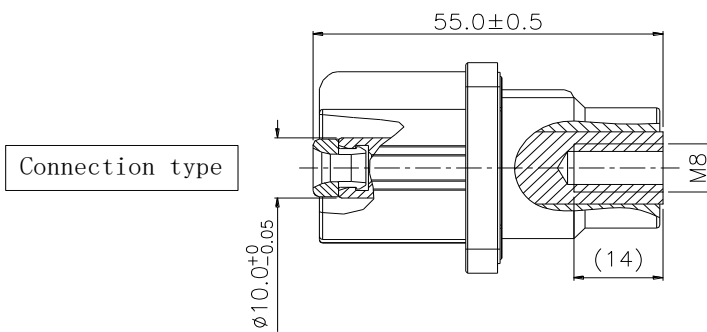
1.2.1 Specification of socket size and key position



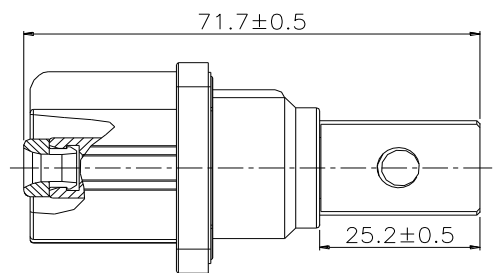
Positive socket key position
Colour of plastic: Orange



Negative socket key position
Colour of plastic: Black



OT Type



Copper Bar Type

1.2.2 Choice table of socket product material number

Polarity	Part NO.	Key Position	Connection type
Positive Pole	HV1R-0AR-7022	Orange	OT Type
Negative Pole	HV1R-0BK-7025	Black	
Positive Pole	HV1R-0AR-7021	Orange	Copper Bar Type
Negative Pole	HV1R-0BK-7024	Black	



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2、Material/Plating

Terminal: Copper Alloy/Silver plating

Plastic: Nylon/Orange ,Black, UL94 V-0

Sealing Oring: Rubber(White、 Orange、 Black、 Red、 Green), UL94 V-0

Torsion spring: SUS/Surface passivation ;

Lock catch: Zinc alloy/nickel plating

3、Safety instructions for use

Warning: The user must disconnect the power supply first when plugging or maintaining, forbid the live plugging operation!



4、Storage condition

4.1 Silver Kaifeng inspection, the qualified products should be immediately PE film packaging treatment (put desiccant inside) , Carton packaging after storage;

4.2 Storage protection conditions

Temperature: 25~35℃, Relative temperature: 50%~70%, Good ventilation

Air Quality: No CL, S, ions

Avoid sunlight exposure, avoid mixing with water, grease and other substances

4.3 Finished products placed in the warehouse cycle of 6 months, due to review.

5、Test requirements and methods

5.1 General test conditions

Unless otherwise required, all tests shall be carried out under the following environmental conditions:

- a) Ambient temperature: 23℃±5℃;
- b) Relative humidity: 15%~90%;
- c) Atmospheric pressure: 86kPa~86kPa;

5.2 Visual confirmation

Item	Test Description	Test Methods	Requirement
3.2.1	Visual inspection	Visible to the Naked Eye, light intensity (40W Incandescent lamp) , Visual range 30CM	1. Product appearance should not damage, deformation and other defects, metal surface without obvious scratch or coating exposed copper bad phenomenon, technology in line with technical requirements. 2. Products should be easy to reach the surface without Burr, flash and SIMILAR SHARP EDGE . 3. Insert and separate, can not have apparent block, cooperate not smooth etc. .



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5.3 Electrical characteristics

Item	Test Description	Test Methods	Requirement
5.3.1	Low power contact impedance	Only test pin and socket matching, no thread	0.35 Milliohms Max
5.3.2	Insulation impedance	Between the conductor and the housing, Test Voltage:DC 1000V/5Min	> 500MΩ
5.3.3	Withstand voltage	Test Voltage: 2500V AC Test Voltage: 1 minute	During the test, the trip current should not be more than 10mA, no breakdown or flying arc phenomenon.
5.3.4	Temperature rise test	GB/T 11918.1-2014 70mm ² : Overcurrent 250A 50mm ² : Overcurrent 200A 35mm ² : Overcurrent 150A	△Temperature rise ≤ 30°C

5.4 Mechanical characteristics

Item	Test Description	Test Methods	Requirement
5.4.1	Mating/Unmating force	Insertion speed: 25.4mm/Min	force less than 70N (No Lock catch)
5.4.2	Durability	Period:500 200 cycles per hour	After the test, the plug force meets the specifications, the conduction performance, the insulation resistance is not abnormal.
5.4.3	Lock pull test	LV214	>250N

5.5 Environmental Characteristics

Item	Test Description	Test Methods	Requirement
5.5.1	Salt spray test	The test method was carried out according to GB/t28046.4-20115.5.1,48 hours	After the test, the appearance of the product is normal
5.5.2	Hot and cold shock	The low temperature and high temperature storage test methods are according to GB/T 28046.4-20115.1.1.1 and 5.1.2.1 respectively	After the test, the appearance, conduction performance, insulation resistance is not abnormal
5.5.3	Protection level	Test method according to GB/T 30038 or GB/T 4208, Protection Grade IP67;	The tested products meet the relevant electrical performance requirements
5.5.4	Protection level of electric shock for personnel	Should meet the requirements of GB/T 18384.3-20156.2 normal connection, protection level in line with IPXXD non-connected state, protection level in line with IPXXB	Up to standard