



Product Service

CERTIFICATE

No. B 081994 0013 Rev. 01

Holder of Certificate: **Shanghai Hualun Instruments & Electronics Co., Ltd**

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200070 Shanghai
PEOPLE'S REPUBLIC OF CHINA

Certification Mark:



Product: **Connector**

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 7041011107903-02

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Date, 2022-09-27

(Jie Zhu)



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Model(s): YD abcde, YDK abcde (see Appendix A)

Parameters:

Rated voltage:	See Appendix B
Rated current:	See Appendix B
Impulse voltage:	See Appendix B
Over voltage category:	II
Pollution degree:	2
Range of temperature:	-55°C to 125°C
Degree of protection:	See Appendix B
With or without breaking capacity:	COC
Operating cycles:	500

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Appendix A

<u>YD(K)</u>	<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>	<u>e</u>
①	②	③	④	⑤	⑥

①. Series Prefix (coupling style) :

YD : Thread coupling

YDK : Bayonet lock coupling

②. Variant 'a' stands for the mounting hole size

'a'=20; 28; 32; 40; 48; 55

20 : 20mm

28 : 28mm

32 : 32mm

40 : 40mm

48 : 48mm

55 : 55mm

③. Variant 'b' stands for the contact type

'b'=P; J; S; K

P : Pin

J : Pin (code for chinese market, same as 'P')

S : Socket

K : Socket (code for chinese market, same as 'S')

④. Variant 'c' stands for the number of contacts, 1 or 2 digits, may be followed by a letter "a"

'c'= 2, 3, 4, 4a, 5, 5a, 7, 9, 10, 10a, 11, 13, 15, 16, 17, 19, 22, 24, 26, 27, 31, 38, 42, 53, 61,86

⑤. Variant 'd' stands for plug or receptacle type:

'd'= TP(xx); TR(xx); TQ(xx); TS(xx); ZP(xx); ZR(xx); ZQ(xx); ZS(xx); Z

TP(xx) : Plug - Straight plug with metal hose accessory

TR(xx) : Plug - 90° angled plug with metal hose accessory

TQ(xx) : Plug - Straight plug with cable clamp accessory

TS(xx) : Plug - 90° angled plug with cable clamp accessory

ZP(xx) : Receptacle - Straight receptacle with metal hose accessory

ZR(xx) : Receptacle - 90° angled receptacle with metal hose accessory

ZQ(xx) : Receptacle - Straight receptacle with cable clamp accessory

ZS(xx) : Receptacle - 90° angled receptacle with cable clamp accessory

Z : Receptacle – Fixed

(xx) stands for inner diameter of metal hose accessory or external diameter of cable,
maybe blank or numbers of 9, 10, 12, 15, 20, 25, 32, 36, 38

Matching table for shell size, plug or receptacle type and inner diameter of metal hose accessory
or external diameter of cable

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Shell size	Plug or receptacle type	(xx)	inner diameter of metal hose accessory	external diameter of cable
20	TP, TR, ZP, ZR	10	Φ10 mm	-
		12	Φ12 mm	-
		blank	Φ12 mm	-
	TQ, TS, ZQ, ZS	9	-	Φ6- Φ9 mm
		12	-	Φ9- Φ12 mm
		blank	-	Φ9- Φ12 mm
28	TP, TR, ZP, ZR	12	Φ12 mm	-
		15	Φ15 mm	-
		blank	Φ15 mm	-
	TQ, TS, ZQ, ZS	12	-	Φ9- Φ12 mm
		15	-	Φ12- Φ15 mm
		blank	-	Φ12- Φ15 mm
32	TP, TR, ZP, ZR	15	Φ15 mm	-
		20	Φ20 mm	-
		blank	Φ20 mm	-
	TQ, TS, ZQ, ZS	15	-	Φ12- Φ15 mm
		20	-	Φ15- Φ20 mm
		blank	-	Φ15- Φ20 mm
40	TP, TR, ZP, ZR	20	Φ20 mm	-
		25	Φ25 mm	-
		blank	Φ25 mm	-
	TQ, TS, ZQ, ZS	20	-	Φ15- Φ20 mm
		25	-	Φ20- Φ25 mm
		blank	-	Φ20- Φ25 mm
48	TP, TR, ZP, ZR	25	Φ25 mm	-
		32	Φ32 mm	-
		blank	Φ32 mm	-
	TQ, TS, ZQ, ZS	25	-	Φ20- Φ25 mm
		32	-	Φ25- Φ32 mm
		blank	-	Φ25- Φ32 mm
55	TP, TR, ZP, ZR	32	Φ32 mm	-
		38	Φ38 mm	-
		blank	Φ38 mm	-
	TQ, TS, ZQ, ZS	32	-	Φ25- Φ32 mm
		36	-	Φ32- Φ36 mm
		blank	-	Φ32- Φ36 mm

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⑥. Variant 'e' stands for outlet type

'e' = - PG(yy) or blank

- PG(yy) : plug / receptacle with plastic hose gland or cable gland

Blank : without glands

(yy) stands for inner/outer diameter of hose accessory or outer diameter of cable gland,
maybe numbers of 9, 11, 13.5, 16, 21, 29, 36

Matching table for shell size, plug or receptacle type and inner/outer diameter of hose accessory
or outer diameter of cable gland

Shell size	Plug or receptacle type	-PG(yy)	inner/outer diameter of hose accessory	outer diameter of cable gland
20	TP, TR, ZP, ZR	-PG9	Φ10 / Φ13 mm	-
		-PG11	Φ12 / Φ15.8 mm	-
	TQ, TS, ZQ, ZS	-PG9	-	Φ4- Φ8 mm
		-PG11	-	Φ5- Φ10 mm
28	TP, TR, ZP, ZR	-PG11	Φ12 / Φ15.8 mm	-
		-PG13.5	Φ14.3 / Φ18.5 mm	-
		-PG16	Φ16.5 / Φ21.2 mm	-
	TQ, TS, ZQ, ZS	-PG11	-	Φ5- Φ10 mm
		-PG13.5	-	Φ6- Φ12 mm
		-PG16	-	Φ10- Φ14 mm
32	TP, TR, ZP, ZR	-PG13.5	Φ14.3 / Φ18.5 mm	-
		-PG16	Φ16.5 / Φ21.2 mm	-
		-PG21	Φ23 / Φ28.5 mm	-
	TQ, TS, ZQ, ZS	-PG13.5	-	Φ6- Φ12 mm
		-PG16	-	Φ10- Φ14 mm
		-PG21	-	Φ13- Φ18 mm
40	TP, TR, ZP, ZR	-PG16	Φ16.5 / Φ21.2 mm	-
		-PG21	Φ23 / Φ28.5 mm	-
		-PG29	Φ29 / Φ34.5 mm	-
	TQ, TS, ZQ, ZS	-PG16	-	Φ10- Φ14 mm
		-PG21	-	Φ13- Φ18 mm
		-PG29	-	Φ18- Φ25 mm
48	TP, TR, ZP, ZR	-PG16	Φ16.5 / Φ21.2 mm	-
		-PG21	Φ23 / Φ28.5 mm	-
		-PG29	Φ29 / Φ34.5 mm	-
		-PG36	Φ36 / Φ42.5 mm	-
	TQ, TS, ZQ, ZS	-PG16	-	Φ10- Φ14 mm
		-PG21	-	Φ13- Φ18 mm
		-PG29	-	Φ18- Φ25 mm
		-PG36	-	Φ22- Φ32 mm
55	TP, TR, ZP, ZR	-PG29	Φ29 / Φ34.5 mm	-
		-PG36	Φ36 / Φ42.5 mm	-
	TQ, TS, ZQ, ZS	-PG29	-	Φ18- Φ25 mm
		-PG36	-	Φ22- Φ32 mm

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Model description

①	②	③	④	⑤	⑥
YD, YDK	20	P, J, S, K	2, 3, 4, 5, 5a, 7	TP10, TP12, TR10, TR12, ZP10, ZP12, ZR10, ZR12, TQ9, TQ12, TS9, TS12, ZQ9, ZQ12, ZS9, ZS12, Z	Blank
				TP, TR, ZP, ZR, TQ, TS, ZQ, ZS	-PG9, -PG11
	28		4, 4a, 5, 7, 10, 11, 15, 17	TP12, TP15, TR12, TR15, ZP12, ZP15, ZR12, ZR15, TQ12, TQ15, TS12, TS15, ZQ12, ZQ15, ZS12, ZS15, Z	Blank
				TP, TR, ZP, ZR, TQ, TS, ZQ, ZS	-PG11, -PG13.5
	32		4, 10, 10a, 13, 19	TP15, TP20, TR15, TR20, ZP15, ZP20, ZR15, ZR20, TQ15, TQ20, TS15, TS20, ZQ15, ZQ20, ZS15, ZS20, Z	Blank
				TP, TR, ZP, ZR, TQ, TS, ZQ, ZS	-PG13.5, -PG16
	40		5, 9, 16, 17, 22, 24, 26, 31	TP25, TP20, TR25, TR20, ZP25, ZP20, ZR25, ZR20, TQ25, TQ20, TS25, TS20, ZQ25, ZQ20, ZS25, ZS20, Z	Blank
				TP, TR, ZP, ZR, TQ, TS, ZQ, ZS	-PG16, -PG21
	48		5, 7, 27, 38, 42	TP25, TP32, TR25, TR32, ZP25, ZP32, ZR25, ZR32, TQ25, TQ32, TS25, TS32, ZQ25, ZQ32, ZS25, ZS32, Z	Blank
				TP, TR, ZP, ZR, TQ, TS, ZQ, ZS	-PG16, -PG21, -PG29, -PG36
	55		7, 53, 61, 86	TP38, TP32, TR38, TR32, ZP38, ZP32, ZR38, ZR32, TQ36, TQ32, TS36, TS32, ZQ36, ZQ32, ZS36, ZS32, Z	Blank
				TP, TR, ZP, ZR, TQ, TS, ZQ, ZS	-PG29, -PG36

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Appendix B Parameter List

Models			Diameter of contacts x Qty.	Rated Voltage	Rated Current	Rated Impulse Voltage	Pollution degree	Range of temperature
①	②	④						
YD, YDK	20	2	Φ2.5 x 2	400VAC	25A	4000V	2	-55°C ~125°C
		3	Φ2.5 x 2 Φ2.5 x 1 PE	400VAC	25A	4000V		
		4	Φ2.5 x 3 Φ2.5 x 1 PE	400VAC	25A	4000V		
		5	Φ1.5 x 4 Φ1.5 x 1 PE	250VAC	10A	2500V		
		5a	Φ2.5 x 2 Φ1.5 x 2 Φ2.5 x 1 PE	400VAC 250VAC	25A 10A	4000V 2500V		
		7	Φ1.5 x 6 Φ1.5 x 1 PE	250VAC	10A	2500V		
	28	4	Φ2.5 x 3 Φ2.5 x 1 PE	400VAC	25A	4000V		
		4a	Φ3.5 x 3 Φ2.5 x 1 PE	400VAC	50A	4000V		
		5	Φ3.5 x 2 Φ2.5 x 2 Φ3.5 x 1 PE	400VAC 250VAC	50A 25A	4000V 2500V		
		7	Φ2.5 x 6 Φ2.5 x 1 PE	400VAC	25A	4000V		

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		10	Φ1.5 x 9 Φ1.5 x 1 PE	250VAC	10A	2500V		
		11	Φ2.5 x 2 Φ1.5 x 8 Φ2.5 x 1 PE	250VAC	25A 10A	2500V		
		15	Φ1.5 x 14 Φ1.5 x 1 PE	250VAC	10A	2500V		
		17	Φ1.5 x 16 Φ1.5 x 1 PE	250VAC	10A	2500V		
	32	4	Φ3.5 x 3 Φ3.5 x 1 PE	500VAC	50A	4000V		
		10	Φ2.5 x 3 Φ1.5 x 6 Φ2.5 x 1 PE	250VAC	25A 10A	2500V		
		10a	Φ2.5 x 4 Φ1.5 x 5 Φ2.5 x 1 PE	400VAC	25A 10A	4000V		
		13	Φ2.5 x 3 Φ1.5 x 9 Φ2.5 x 1 PE	250VAC	25A 10A	2500V		
		19	Φ1.5 x 18 Φ1.5 x 1 PE	250VAC	10A	2500V		

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Parameter List

Models			Diameter of contacts x Qty.	Rated Voltage	Rated Current	Rated Impulse Voltage	Pollution degree	Range of temperature
①	②	④						
YD, YDK	40	5	Φ3.5 x 4 Φ3.5 x 1 PE	500VAC	50A	4000V	2	-55°C ~125°C
		9	Φ3.5 x 4 Φ2.5 x 4 Φ2.5 x 1 PE	400VAC	50A 25A	4000V		
		16	Φ2.5 x 15 Φ2.5 x 1 PE	250VAC	25A	2500V		
		17	Φ1.5 x 16 Φ1.5 x 1 PE	250VAC	10A	2500V		
		22	Φ2.5 x 3 Φ1.5 x 18 Φ2.5 x 1 PE	250VAC	25A 10A	2500V		
		24	Φ2.5 x 8 Φ1.5 x 15 Φ2.5 x 1 PE	250VAC	25A 10A	2500V		
		26	Φ2.5 x 3 Φ1.5 x 22 Φ2.5 x 1 PE	250VAC	25A 10A	2500V		

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		31	Φ1.5 x 30 Φ1.5 x 1 PE	250VAC	10A	2500V		
	48	5	Φ5.5 x 4 Φ5.5 x 1 PE	500VAC	100A	4000V		
		7	Φ3.5 x 6 Φ3.5 x 1 PE	500VAC	50A	4000V		
		27	Φ1.5 x 26 Φ2.5 x 1 PE	250VAC	10A	2500V		
		38	Φ2.5 x 4 Φ1.5 x 33 Φ2.5 x 1 PE	250VAC	25A 10A	2500V		
		42	Φ1.5 x 41 Φ2.5 x 1 PE	250VAC	10A	2500V		
	55	7	Φ5.5 x 6 Φ5.5 x 1 PE	500VAC	100A	4000V		
		53	Φ2.5 x 4 Φ1.5 x 48 Φ2.5 x 1 PE	250VAC	25A 10A	2500V		
		61	Φ1.5 x 60 Φ2.5 x 1 PE	250VAC	10A	2000V		
		86	Φ1.5 x 85 Φ2.5 x 1 PE	250VAC	10A	2000V		

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Degree of protection

Models			Degree of Protection
Series Prefix	Plug or receptacle type	Outlet type	
YD, YDK	TP(xx), TR(xx), ZP(xx), ZR(xx), TQ(xx), TS(xx), ZQ(xx), ZS(xx)	Blank	IP20 (when mated and wired according DS)
	Z	Blank	IP67 (when mated, wired and mounted according to DS)
	TP, TR, ZP, ZR, TQ, TS, ZQ, ZS	-PG(yy)	IP67(when mated and wired according DS)

Tested according to:

EN 61984:2009