

深圳市迅通航电子科技有限公司

Shenzhen Xuntonghang Electronic Technology Co., Ltd.

ELECTRICAL CONNECTOR PRODUCT MANUAL >>>



**INNOVATE
COOPERATION
WIN-WIN**



Shenzhen Xuntonghang Electronic Technology Co., Ltd.

Shenzhen Xuntonghang Electronic Technology Co., Ltd. is an innovative enterprise specializing in the research and production of micro - rectangular connectors. Different from other manufacturers in the industry, our company has achieved independent research and development of the entire production chain, from production equipment to core products. It is currently the only micro - rectangular connector manufacturer in the market with the ability to independently develop and produce equipment.

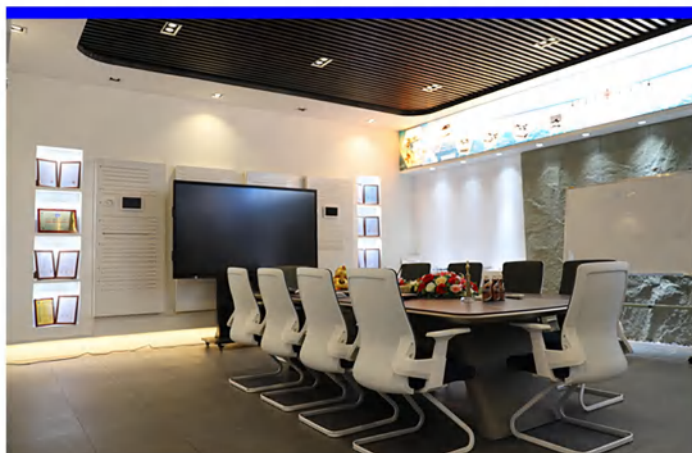
Relying on profound technological accumulation, the company has established a complete industry covering the manufacturing of power electronic components, supporting production of integrated circuits, and research and development of intelligent equipment. The independently developed production equipment not only ensures the high precision and stability of products but also, through customized technological iterations, meets the stringent requirements of high - reliability, miniaturization, and compounding of micro - rectangular connectors in high - end fields such as aerospace, intelligent equipment, and new energy.

As an enterprise with technological innovation as its core driving force, Xuntonghang continues to delve deep into mechanical automation, precision processing technology, etc., and is committed to providing customers with a one - stop solution from equipment research and development to product manufacturing. In the future, the company will continue to give full play to its advantage of independent equipment research and development, accelerate the breakthrough of industry - wide technical barriers, and promote the localization process of micro - rectangular connectors to a new height.

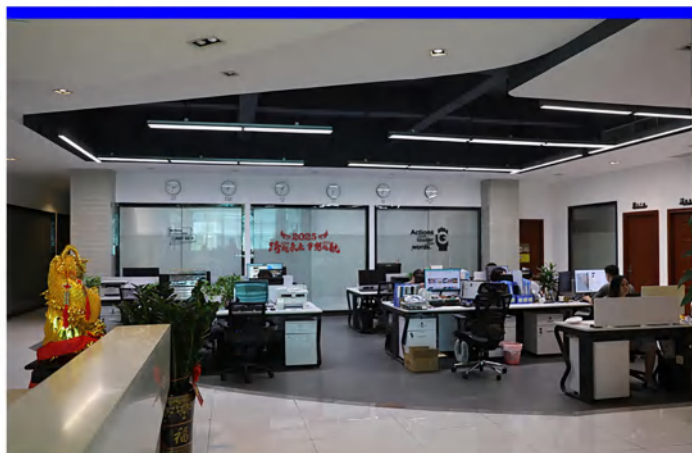




▲ the front desk of the company



▲ conference room



▲ Office area



▲ Twisted Pin Workshop



▲ Processing Workshop



▲ Assembly workshop

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GJB 598 Series I Circular Electrical Connectors

This series of electrical connectors complies with the requirements of GJB 598 (MIL-C-26482) - 1996 Series I. Featuring a bayonet-type quick-connect mechanism, it offers compact size, high density, and excellent environmental resistance. With a soldering termination method, the connectors are widely used in various military and civilian equipment.

Product Marking Code

$\frac{XTH}{1}$ $\frac{JY}{2}$ $\frac{3110}{3}$ $\frac{E}{4}$ $\frac{18}{5} - \frac{32}{6}$ $\frac{P}{7}$ $\frac{N}{8}$ $\frac{L}{9}$ $\frac{59}{10}$

1—Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Main Designation Code for Circular Electrical Connectors

3—Type:

3110-Wall-Mounted Square Panel Mount Socket (Available in R, E, F, P, J Types)

3111-Cable-Mounted Socket (Available in R, E, F, P, J Types))

3112-Box-Type Square Panel Mount Socket (Available in E, B Types)

3114-Nut-Fastened Mount Socket (Available in R, E, F, P, B, G Types)

3116-Straight Plug (Available in E, F, P, J, M Types)

3117-Wall-Mounted Square Panel Through-Wall Socket (Available in P Type)

4—Category:

R-No Rear Accessory ; E-Cable Gland Sealing, Conductive Shell

F-Cable Gland Sealing with Cable Clamp, Conductive Shell P-Potting Sealing, Conductive Shell

J-Sealing for Armored Cables, Conductive Shell B-Printed Circuit Board (PCB) Type M-Waterproof Sealing

Accessory

5—Shell Size: 08、10、12、14、16、18、20、22、24

6—Contact Arrangement

7—Contact Type: S-Socket Contact P-Pin Contact C-Through-Wall Contact

8—Anti-Misinsertion Key Position: N、W、X、Y、Z

9—Shell Plating: Unmarked — Cadmium Plating (Olive Drab, Conductive Shell)

L-Electroless Nickel Plating (Conductive Shell) L1 -Sandblasted Nickel Plating

A-Black Anodization (Non-Conductive Shell) S-Stainless Steel Passivation (Stainless Steel Shell)

A1 Olive Drab Oxidation B-Cadmium Plating (Olive Drab, Conductive Shell)

C-Electroless Nickel Plating (Naval Brass Shell) A3-Zinc-Nickel Alloy Plating (Black Chrome Finish)

10—Rear Accessory Abbreviation: 59-Angled Shielded Tensile Rainproof Rear Accessory

43-Straight Shielded Tensile Rainproof Rear Accessory

21-Straight Shielded Cable Sealed Rear Accessory

Note:Except for the difference in main designation codes, the model naming conventions for National Military Standard (GJB) 598, U.S. Military Standard (MIL-C-26482), and the domestic "YB" series products are identical. The main designation codes are as follows:GJB 598: "JY",MIL-C-26482: "MS",Domestic "YB" Series: "YB",Products conforming to these three standards are fully interchangeable and compatible.

Product Technical Characteristics

一、 Operating Environmental Conditions

Operating Temperature: -55°C ~ +125°C

Relative Humidity: Up to 95%±4% at 40°C

alt Spray Resistance: Cadmium Plating: 500 hours;
Nickel Plating: 48 hours

Sealing Performance: Leakage Rate < 4.6×10² Pa·cm³/s

Random Vibration: Frequency 10Hz ~ 2000Hz,

Acceleration: 147m/s²

Shock: Acceleration 490m/s²

Mechanical Life: ≥ 500 Mating Cycles

二、 Electrical Characteristics

Contact Resistance and Rated Current of Contacts

Key Specification	Working Diameter mm	Contact Resistance mΩ	Rated Current A
20#	Φ1.0	≤ 5	7.5
16#	Φ1.59	≤2.5	13
12#	Φ2.39	≤1.5	23

Insulation Resistance: ≥ 5000MΩ at 25°C, ≥ 3MΩ at 125°C

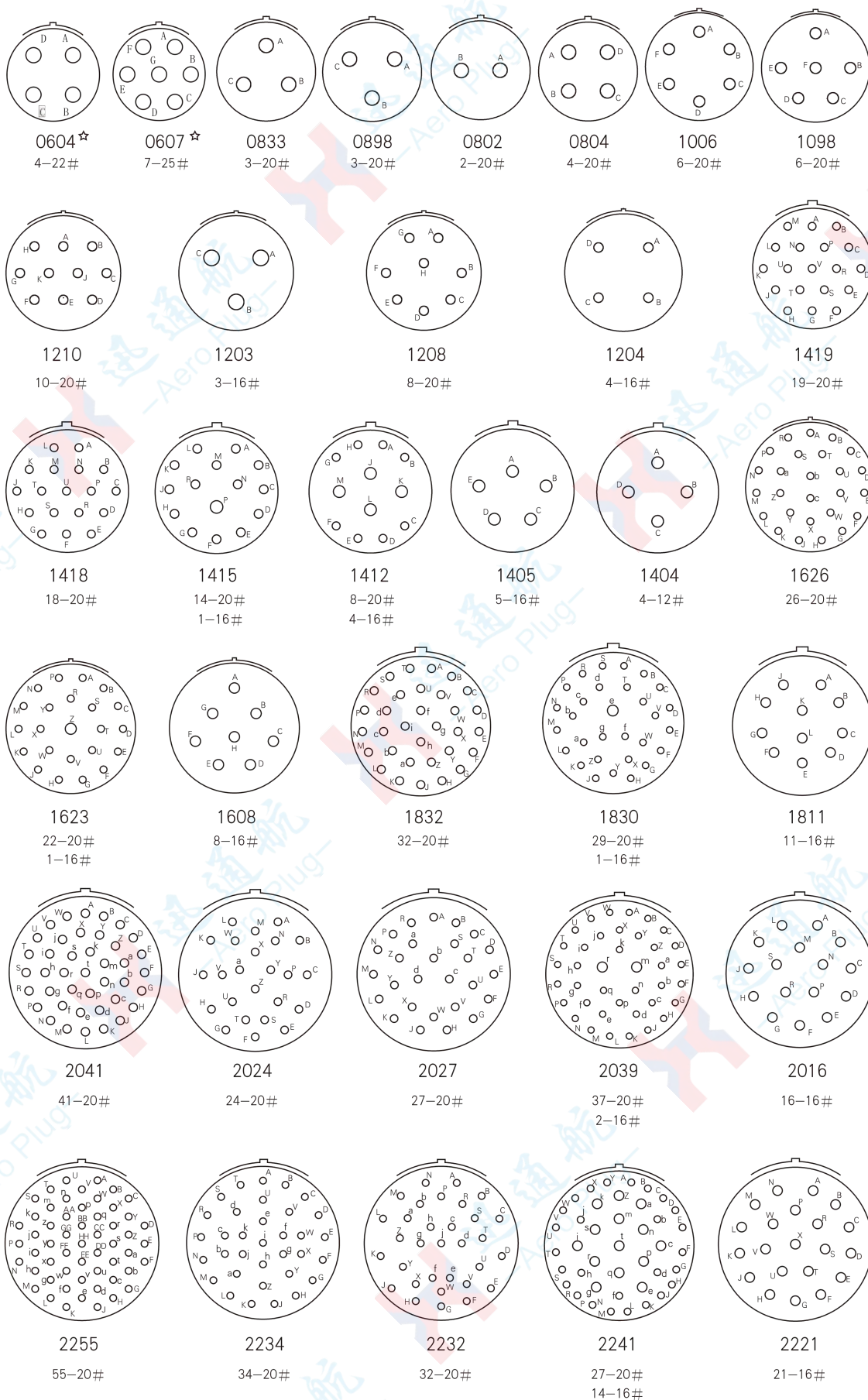
Operating Voltage and Withstand Voltage (V)

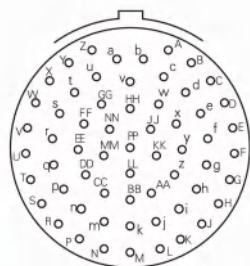
Operating Classes	Operating Voltage		Withstand Voltage	
	I	II	I	II
Sea Level	600	1000	1500	2300
21336m	300	450	375	500

Note: Different contact arrangements correspond to different operating classes. For details, refer to the "Key Positions" for anti-misinsertion.



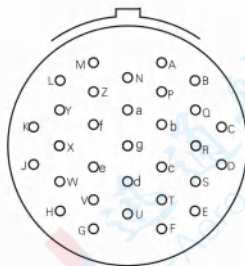
III. Contact Arrangement (View of Pin Insulator Mating Face)





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61-20#

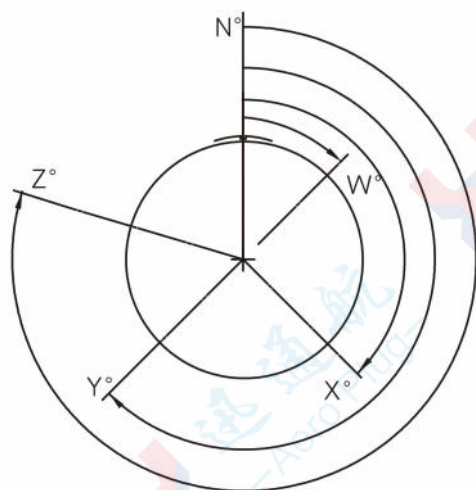


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31-16#

Note: "☆" indicates non-standard parts

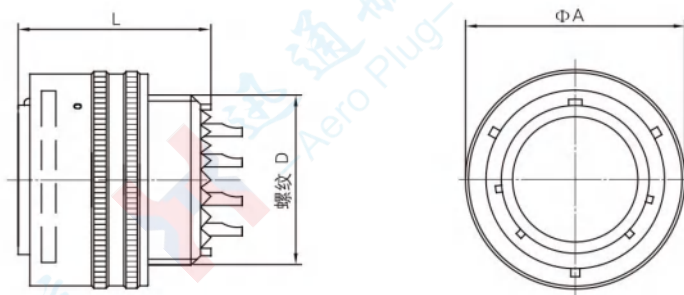
IV、Anti-Misinsertion Key Positions



Shell Size	Arrangement Code	Service Class I	Service Class II	Angle				
				N	W	X	Y	Z
08	08-2	✓		0	60	210	---	---
	08-33	✓		0	90	---	---	---
	08-98	✓		0	---	---	---	---
	08-4	✓		0	45	---	---	---
10	10-6	✓		0	90	---	---	---
	10-98	✓		0	90	180	240	270
12	12-10	✓		0	60	155	270	295
	12-8	✓		0	90	112	203	292
	12-3		✓	0	---	---	180	---
14	14-19	✓		0	30	165	315	---
	14-18	✓		0	15	90	180	270
	14-15	✓		0	17	110	155	234
	14-12	✓		0	43	90	---	---
	14-5		✓	0	40	92	184	273
	14-4		✓	0	45	150	---	---
16	16-26	✓		0	60	---	275	338
	16-23	✓		0	158	270	---	---
	16-8		✓	0	54	152	180	331
18	18-32	✓		0	85	138	222	265
	18-11	✓	✓	0	62	119	241	340
	18-30	✓		0	180	193	285	350
20	20-41	✓		0	45	126	225	---
	20-39	✓		0	63	144	252	333
	20-16		✓	0	238	318	333	347
	20-24	✓		0	70	145	215	290
	20-32	✓		0	72	144	216	288
22	22-55	✓		0	30	142	226	314
	22-41	✓		0	39	135	264	---
	22-21	✓	✓	0	16	135	175	249
	22-34	✓		0	62	142	218	298
	22-32	✓		0	72	145	215	288
24	24-61	✓		0	90	180	270	324
	24-31	✓		0	90	225	255	---

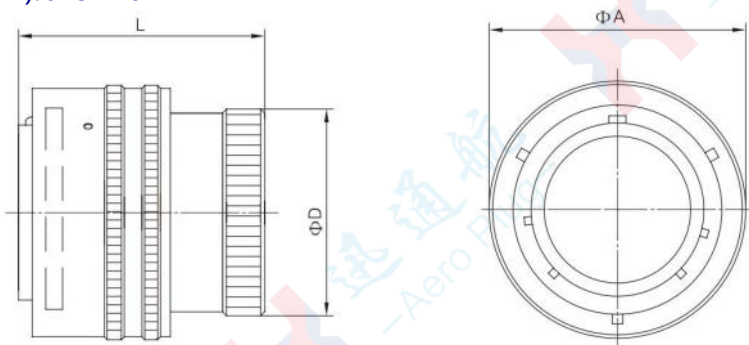
V. Overall Dimensions

Straight Plug (Type R): JY3116R



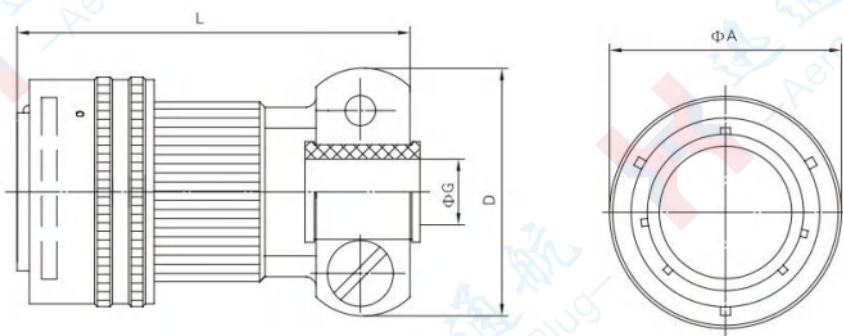
Shell Size	8	10	12	14	16	18	20	22	24
L(Max)	21	21	21	21	21	21	23	23	23
A	19	21	26	28.5	31	35	39	42	45
Thread D UNEF-2A	0.4375-28	0.5625-24	0.6875-24	0.8125-20	0.9375-20	1.0625-18	1.1875-18	1.3125-18	1.4375-1

Straight Plug (Type E): JY3116E



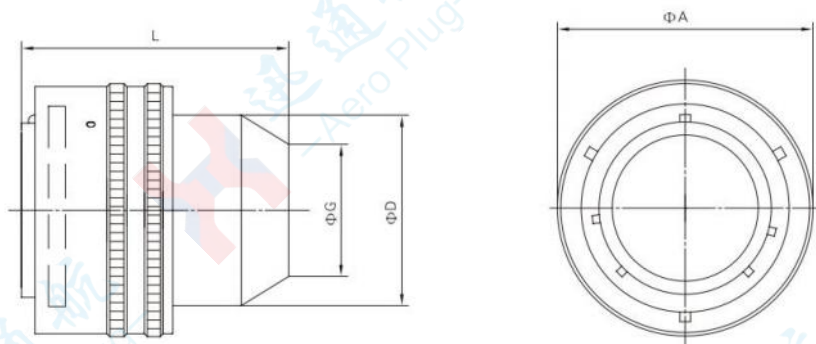
Shell Size	8	10	12	14	16	18	20	22	24
L(Max)	32.5	32.5	32.5	32.5	32.5	32.5	33.3	33.3	33.3
A(Max)	19	21	26	28.5	31	35	39	42	45
D(Max)	13.5	16.7	19.9	23.4	26.6	29.5	32.7	36	39.1

Straight Plug (Type F): JY3116F



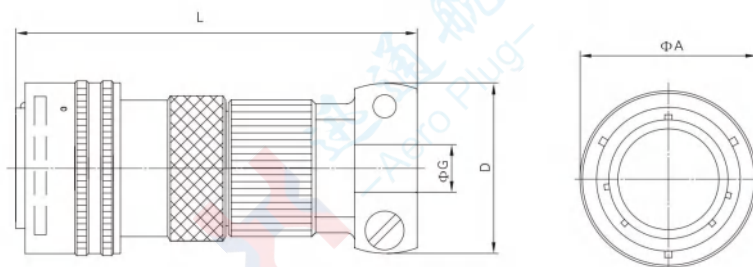
Shell Size	8	10	12	14	16	18	20	22	24
L(Max)	48.0	48.0	48.0	48.0	51.0	51.0	52.0	52.0	52.0
A(Max)	19	21	26	28.5	31	35	39	42	45
D(Max)	19.9	21.5	24.0	27.8	29.4	35.3	35.3	41.1	42.4
G(Max)	3.5	5.0	8.2	10.0	13.0	16.0	16.0	19.3	20.6

Straight Plug (Type P): JY3116P



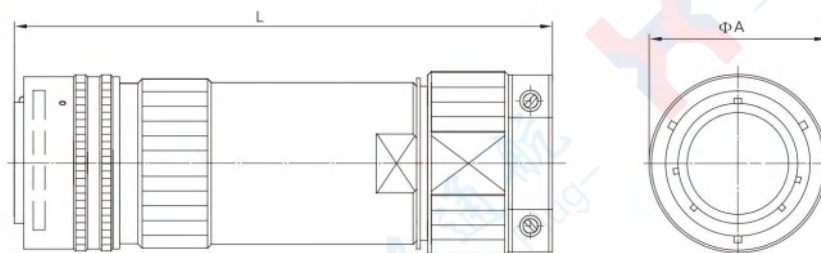
Shell Size	8	10	12	14	16	18	20	22	24
L(Max)	36.2	36.2	36.2	36.2	36.2	37.7	42.4	42.4	42.8
A(Max)	19	21	26	28.5	31	35	39	42	45
D(Max)	15.34	17.7	21.69	23.9	27	30.50	33.65	37.10	40.00
G(Max)	10.46	13.55	13.96	17.42	20.56	23.66	23.92	25.52	32.00

Straight Plug (Type J): JY3116J



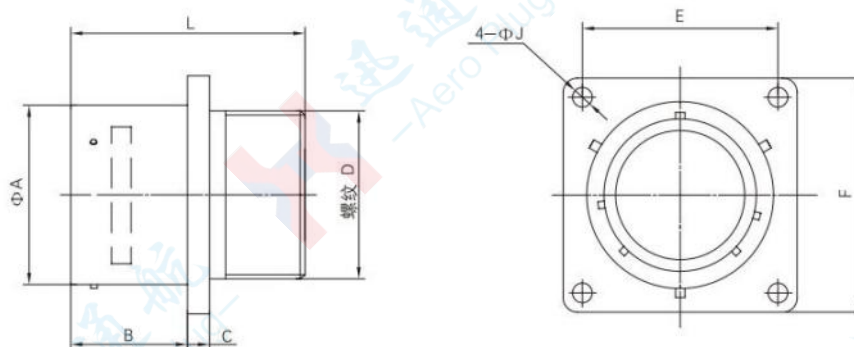
Shell Size	8	10	12	14	16	18	20	22	24
L(Max)	57.6	57.6	61.2	66.0	74.7	80.5	91.6	95.6	101.2
A(Max)	19	21	26	28.5	31	35	39	42	45
D(Max)	19.9	21.5	24.0	27.8	29.4	35.3	35.3	41.1	42.4
G(Max)	5.4	6.4	9.8	11.7	15.1	16.4	17.3	18.2	20.0

Straight Plug (Type M): JY3116M



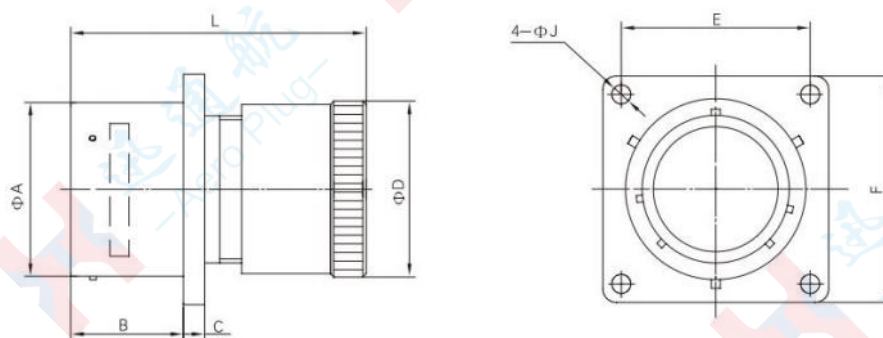
Shell Size	8	10	12	14	16	18	20	22	24
L	75	75	75	75	75	75	78	78	78
A	19	21	26	28.5	31	35	39	42	45

Wall-Mounted Square Panel Mount Receptacle (Type R): JY3110R



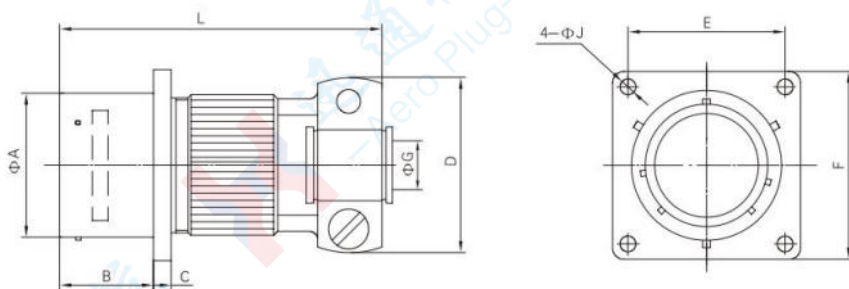
Shell Size	L(Max)	A	B(Max)	C(Max)	E	F(Max)	J	螺纹D UNEF—2A
8	21	12.04	11.7	1.7	15.09	20.99	3.2	0.4375-28
10	21	15.0	11.7	1.7	18.26	24.19	3.2	0.5625-24
12	21	19.07	11.7	1.7	20.62	26.54	3.2	0.6875-24
14	21	22.25	11.7	1.7	23.0	28.89	3.2	0.8125-20
16	21	25.43	11.7	1.7	24.61	31.29	3.2	0.9375-20
18	21	28.6	11.7	1.7	26.97	33.69	3.2	1.0625-18
20	23	31.78	14.3	2.5	29.36	36.89	3.2	1.1875-1
22	23	34.95	14.3	2.5	31.75	39.99	3.2	1.3125-18
24	23	38.13	15.2	2.5	34.92	43.15	3.8	1.4375-1

JY3110E Wall-Mounted Square Panel Mount Receptacle (Type E): JY3110E



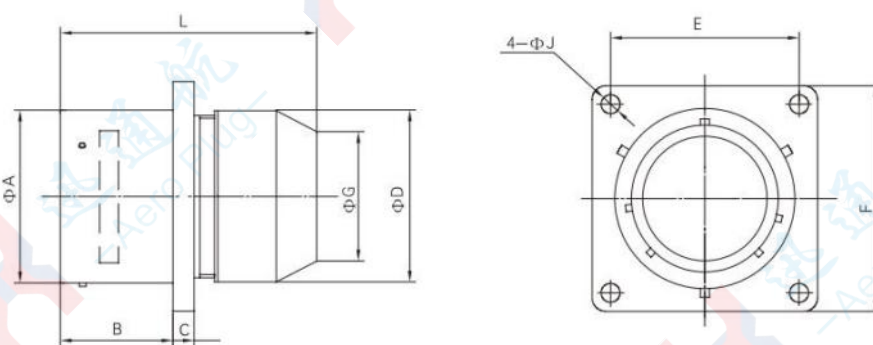
Shell Size	L(Max)	A	B(Max)	C(Max)	D(Max)	E	F(Max)	J
8	32.7	12.04	11.7	1.7	13.5	15.09	20.99	3.2
10	32.7	15.0	11.7	1.7	16.7	18.26	24.19	3.2
12	32.7	19.07	11.7	1.7	19.9	20.62	26.54	3.2
14	32.7	22.25	11.7	1.7	23.4	23.0	28.89	3.2
16	32.7	25.43	11.7	1.7	26.6	24.61	31.29	3.2
18	32.7	28.6	11.7	1.7	29.5	26.97	33.69	3.2
20	34.5	31.78	14.3	2.5	32.7	29.36	36.89	3.2
22	34.5	34.95	14.3	2.5	36.0	31.75	39.99	3.2
24	34.5	38.13	15.2	2.5	39.1	34.92	43.15	3.8

Wall-Mounted Square Panel Mount Receptacle (Type F): JY3110F



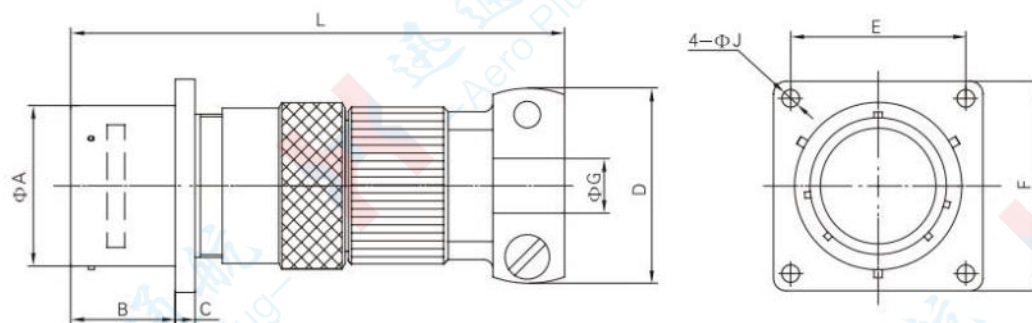
Shell Size	L(Max)	A	B(Max)	C(Max)	D(Max)	E	F(Max)	G	J
8	48.0	12.04	11.7	1.7	19.9	15.09	20.99	3.5	3.2
10	48.0	15.00	11.7	1.7	21.5	18.26	24.19	5.0	3.2
12	48.0	19.07	11.7	1.7	24.0	20.62	26.54	8.2	3.2
14	48.0	22.25	11.7	1.7	27.8	23.00	28.89	10.0	3.2
16	51.0	25.43	11.7	1.7	29.4	24.61	31.29	13.0	3.2
18	51.0	28.6	11.7	1.7	35.3	26.97	33.69	16.0	3.2
20	53.0	31.78	14.35	2.5	35.3	29.36	36.89	16.0	3.2
22	53.0	34.95	14.35	2.5	41.1	31.75	39.99	19.3	3.2
24	53.0	38.13	15.2	2.5	42.4	34.92	43.15	20.6	3.8

Wall-Mounted Square Panel Mount Receptacle (Type P): JY3110P



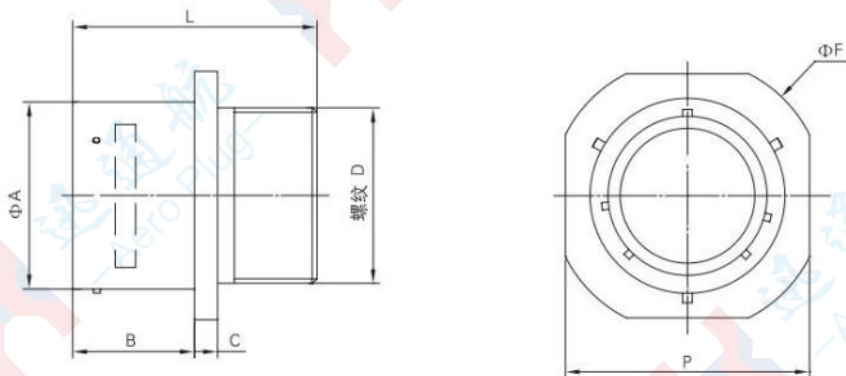
Shell Size	L(Max)	A	B(Max)	C(Max)	D(Max)	E	F(Max)	G	J
8	36.2	12.04	11.7	1.7	15.34	15.09	20.99	10.46	3.2
10	36.2	15.00	11.7	1.7	17.7	18.26	24.19	13.55	3.2
12	36.2	19.07	11.7	1.7	21.69	20.62	26.54	13.96	3.2
14	36.2	22.25	11.7	1.7	23.9	23.00	28.89	17.42	3.2
16	36.2	25.43	11.7	1.7	27.00	24.61	31.29	20.56	3.2
18	36.2	28.6	11.7	1.7	30.50	26.97	33.69	23.66	3.2
20	43.8	31.78	14.35	2.5	33.65	29.36	36.89	23.92	3.2
22	43.8	34.95	14.35	2.5	37.10	31.75	39.99	25.52	3.2
24	43.8	38.13	15.2	2.5	40.00	34.92	43.15	32.00	3.8

Wall-Mounted Square Panel Mount Receptacle (Type J): JY3110J



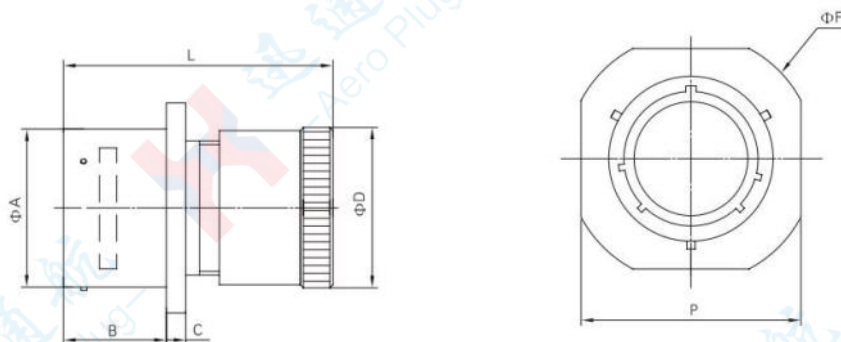
Shell Size	L(Max)	A	B(Max)	C(Max)	D(Max)	E	F(Max)	G±0.4	J
8	57.6	12.04	11.7	1.7	19.9	15.09	20.99	5.4	3.2
10	57.6	15.00	11.7	1.7	21.5	18.26	24.19	6.4	3.2
12	61.2	19.07	11.7	1.7	24.0	20.62	26.54	9.8	3.2
14	66.0	22.25	11.7	1.7	27.8	23.00	28.89	11.7	3.2
16	74.7	25.43	11.7	1.7	29.4	24.61	31.29	15.1	3.2
18	80.5	28.6	11.7	1.7	35.3	26.97	33.69	16.4	3.2
20	91.6	31.78	14.35	2.5	35.3	29.36	36.89	17.3	3.2
22	95.6	34.95	14.35	2.5	41.1	31.75	39.99	18.2	3.2
24	101.2	38.13	15.2	2.5	42.4	34.92	43.15	20.0	3.8

Cable-Connected Receptacle (Type R): JY3111R



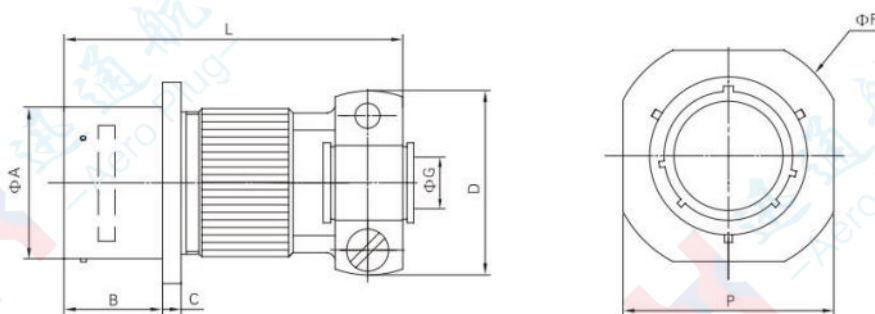
Shell Size	L(Max)	A	B(Max)	C(Max)	F(Max)	P	螺纹D UNEF—2A
8	21	12.04	10.6	2.4	24.24	20.99	0.4375-28
10	21	15.0	10.6	2.4	27.44	24.19	0.5625-24
12	21	19.07	10.6	2.4	29.79	26.54	0.6875-24
14	21	22.25	10.6	2.4	32.10	28.89	0.8125-20
16	21	25.43	10.6	2.4	34.59	31.29	0.9375-20
18	21	28.6	10.6	2.4	36.94	33.69	1.0625-18
20	23	31.78	13.8	2.4	40.14	36.89	1.1875-1
22	23	34.95	13.8	2.9	43.24	40.0	1.3125-18
24	23	38.13	14.7	2.9	46.44	43.29	1.4375-1

Cable-Connected Receptacle (Type E): JY3111E



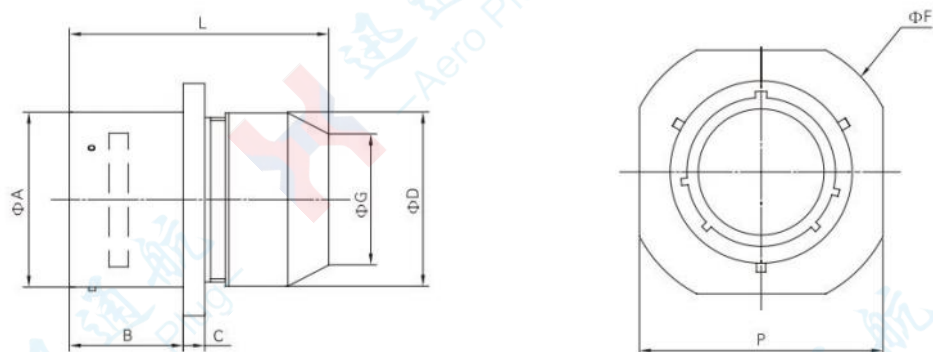
Shell Size	L(Max)	A	B(Max)	C(Max)	D(Max)	F(Max)	P(Max)
8	32.7	12.04	10.6	2.4	13.5	24.24	20.99
10	32.7	15.00	10.6	2.4	16.7	27.44	24.19
12	32.7	19.07	10.6	2.4	19.9	29.79	26.54
14	32.7	22.25	10.6	2.4	23.4	32.10	28.89
16	32.7	25.43	10.6	2.4	26.6	34.59	31.29
18	32.7	28.6	10.6	2.4	29.5	36.94	33.69
20	34.5	31.78	13.8	2.9	32.7	40.14	36.89
22	34.5	34.95	13.8	2.9	36.0	43.24	40.00
24	34.5	38.13	14.7	2.9	39.1	46.44	43.29

Cable-Connected Receptacle (Type F): JY3111F



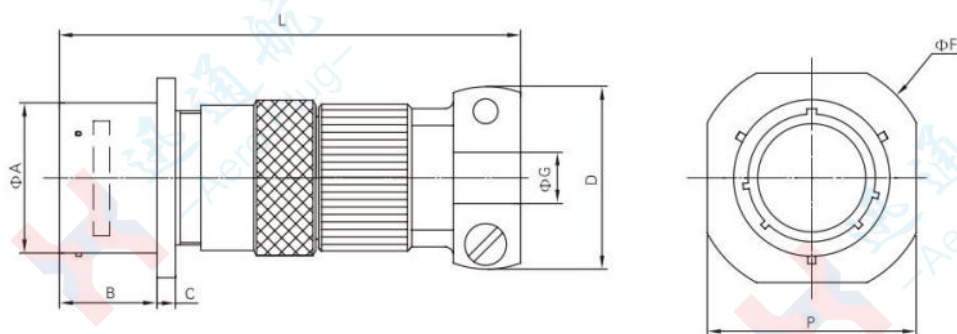
Shell Size	L(Max)	A	B(Max)	C(Max)	D(Max)	G(Max)	F(Max)	P(Max)
8	48.0	12.04	10.6	2.4	19.9	3.5	24.24	20.99
10	48.0	15.00	10.6	2.4	21.5	5.0	27.44	24.19
12	48.0	19.07	10.6	2.4	24.0	8.2	29.79	26.54
14	48.0	22.25	10.6	2.4	27.8	10.0	32.10	28.89
16	51.0	25.43	10.6	2.4	29.4	13.0	34.59	31.29
18	51.0	28.6	10.6	2.4	35.3	16.0	36.94	33.69
20	53.0	31.78	13.8	2.9	35.3	16.0	40.14	36.89
22	53.0	34.95	13.8	2.9	41.4	19.3	43.24	40.00
24	53.0	38.13	14.7	2.9	42.4	20.6	46.44	43.29

Cable-Connected Receptacle (Type P): JY3111P



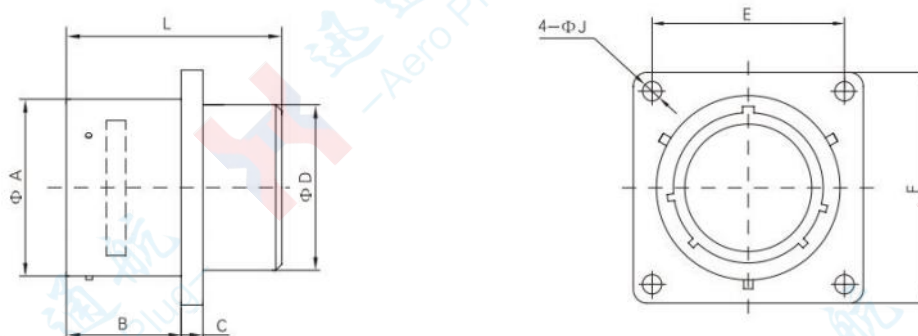
Shell Size	L(Max)	A	B(Max)	C(Max)	D(Max)	G(Max)	F(Max)	P(Max)
8	36.2	12.04	10.6	2.4	15.34	10.46	24.24	20.99
10	36.2	15.00	10.6	2.4	14.7	13.55	27.44	24.19
12	36.2	19.07	10.6	2.4	21.69	13.96	29.79	26.54
14	36.2	22.25	10.6	2.4	23.90	17.42	32.10	28.89
16	36.2	25.43	10.6	2.4	27.00	20.56	34.59	31.29
18	36.2	28.6	10.6	2.4	30.50	23.66	36.94	33.69
20	43.8	31.78	13.8	2.9	33.65	23.92	40.14	36.89
22	43.8	34.95	13.8	2.9	37.10	25.52	43.24	40.00
24	43.8	38.13	14.7	2.9	40.00	32.00	46.44	43.29

Cable-Connected Receptacle (Type J): JY3111J



Shell Size	L(Max)	A	B(Max)	C(Max)	D(Max)	G(Max)	F(Max)	P(Max)
8	57.6	12.04	10.6	2.4	19.9	5.4	24.24	20.99
10	57.6	15.00	10.6	2.4	21.5	6.4	27.44	24.19
12	61.2	19.07	10.6	2.4	24.0	9.8	29.79	26.54
14	66.0	22.25	10.6	2.4	27.8	11.7	32.10	28.89
16	74.7	25.43	10.6	2.4	29.4	15.1	34.59	31.29
18	80.5	28.6	10.6	2.4	35.3	16.4	36.94	33.69
20	91.6	31.78	13.8	2.9	35.3	17.3	40.14	36.89
22	95.6	34.95	13.8	2.9	41.1	28.2	43.24	40.00
24	101.2	38.13	14.7	2.9	42.4	20.0	46.44	43.29

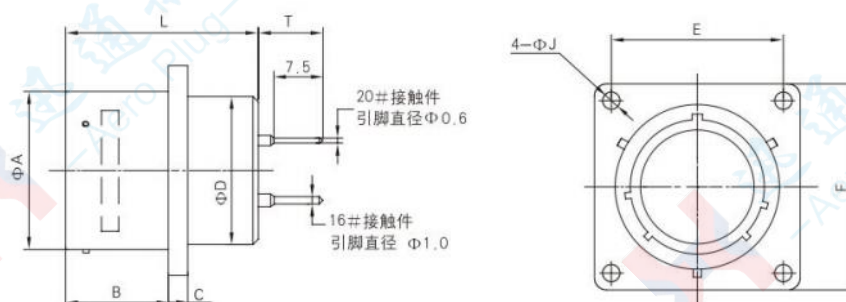
Box-Type Square Panel Mount Receptacle (Type E): JY3112E



Shell Size	L(Max)	A	B(Max)	C(Max)	D(Max)	E(Max)	F(Max)	J(Max)
8	21	12.04	11.7	1.7	10.84	15.09	20.99	3.2
10	21	15.00	11.7	1.7	13.99	18.26	24.19	3.2
12	21	19.07	11.7	1.7	17.37	20.62	26.54	3.2
14	21	22.25	11.7	1.7	20.57	23.00	28.89	3.2
16	21	25.43	11.7	1.7	23.72	24.61	31.29	3.2
18	21	28.60	11.7	1.7	26.69	26.97	33.69	3.2
20	23	31.78	14.35	2.5	29.89	29.36	36.89	3.2
22	23	34.95	14.35	2.5	33.04	31.75	39.99	3.2
24	23	38.13	15.20	2.5	36.24	34.92	42.15	3.8

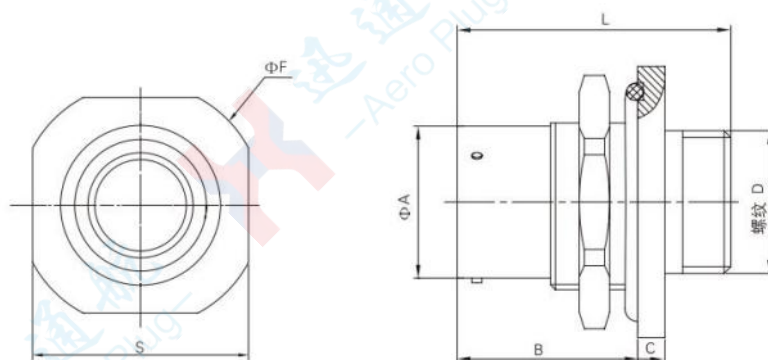
Note: If the purchase contract does not specify otherwise, the supplied products will not include a cable gland.

Box-Type Square Panel Mount Receptacle (Type B): JY3112B



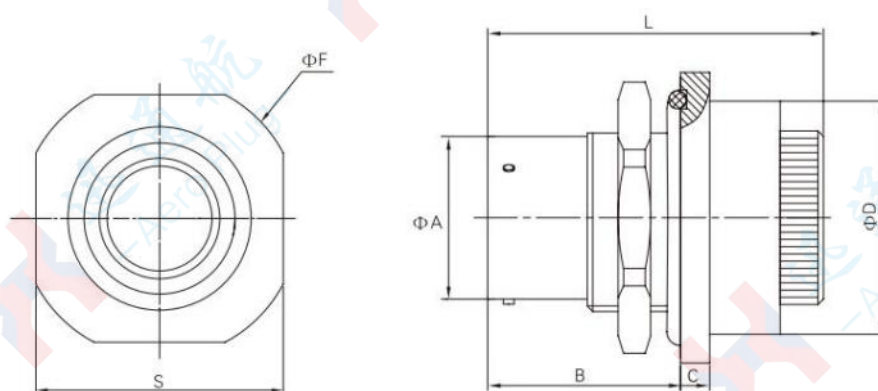
Shell Size	L(Max)	A	B(Max)	C(Max)	D(Max)	T(Max)	E(Max)	F(Max)	J(Max)
8	21	12.04	11.7	1.7	10.84	9.46	15.09	20.99	3.2
10	21	15.00	11.7	1.7	13.99	9.46	18.26	24.19	3.2
12	21	19.07	11.7	1.7	17.37	9.46	20.62	26.54	3.2
14	21	22.25	11.7	1.7	20.57	9.46	23.00	28.89	3.2
16	21	25.43	11.7	1.7	23.72	9.46	24.61	31.29	3.2
18	21	28.60	11.7	1.7	26.69	9.46	26.97	33.69	3.2
20	23	31.78	14.35	2.5	29.89	7.76	29.36	36.89	3.2
22	23	34.95	14.35	2.5	33.04	7.76	31.75	39.99	3.2
24	23	38.13	15.20	2.5	36.24	7.76	34.92	42.15	3.8

Nut-Secured Mounting Receptacle (Type R): JY3114R



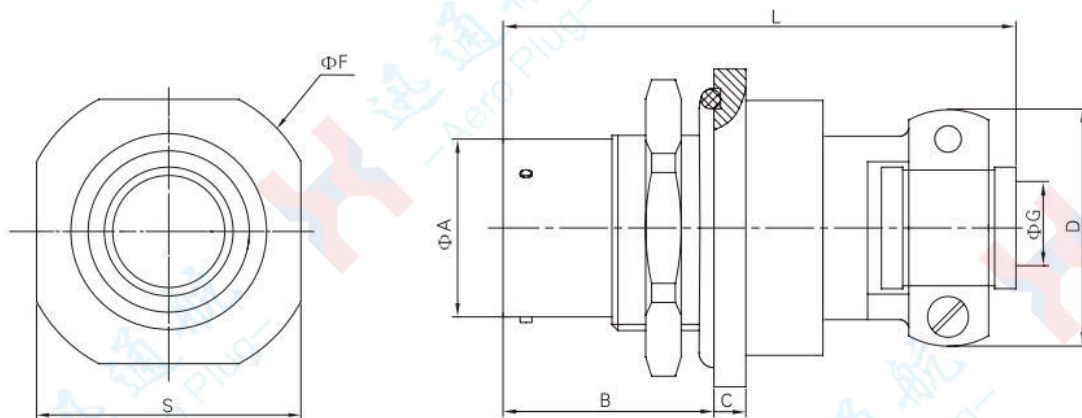
Shell Size	L(Max)	A	B(Max)	C(Max)	F(Max)	S(Max)	Thread D UNEF—2A
8	27.5	12.04	17.9	3.0	26.94	23.80	0.4375-28
10	27.5	15.0	17.9	3.0	30.10	27.00	0.5625-24
12	27.5	19.07	17.9	3.0	34.94	31.74	0.6875-24
14	27.5	22.25	17.9	3.0	38.40	34.94	0.8125-20
16	27.5	25.43	17.9	3.0	41.50	38.10	0.9375-20
18	27.5	28.6	17.9	3.0	44.44	43.34	1.0625-18
20	32.8	31.78	22.4	3.8	49.40	46.06	1.1875-1
22	32.8	34.95	22.4	3.8	52.24	49.24	1.3125-18
24	32.8	38.13	23.3	3.8	55.54	52.74	1.4375-18

Nut-Secured Mounting Receptacle (Type E) : JY3114E



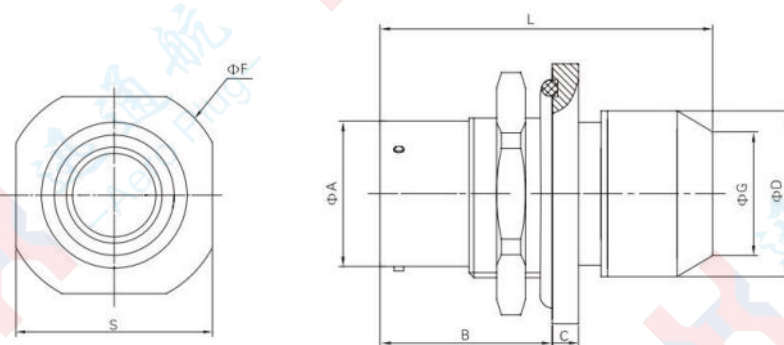
Shell Size	L(Max)	A	B(Max)	C(Max)	D(Max)	F(Max)	S(Max)
8	34.1	12.04	17.9	3.0	18.0	26.94	23.80
10	34.1	15.0	17.9	3.0	21.7	30.40	27.00
12	34.1	19.07	17.9	3.0	24.5	34.94	31.74
14	34.1	22.25	17.9	3.0	27.5	38.40	34.94
16	34.1	25.43	17.9	3.0	31.2	41.50	38.10
18	34.1	28.6	17.9	3.0	34.4	44.44	41.34
20	39.3	31.78	22.45	3.8	38.0	49.40	46.04
22	39.3	34.95	22.45	3.8	41.5	52.24	49.24
24	39.3	38.13	22.45	3.8	44.7	55.54	52.74

Nut-Secured Mounting Receptacle (Type F): JY3114F



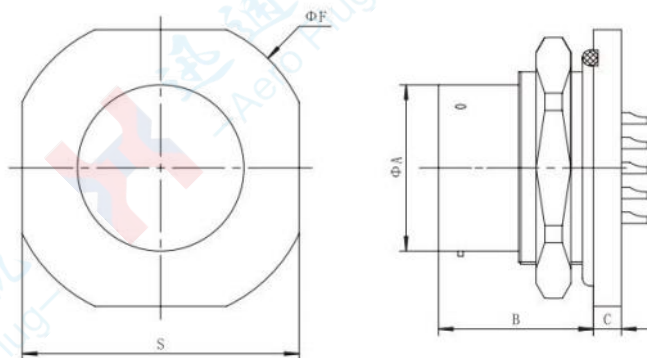
Shell Size	L(Max)	A	B(Max)	C(Max)	D(Max)	G(Max)	F(Max)	S(Max)
8	49.31	12.04	17.9	3.0	19.9	3.5	26.94	23.80
10	49.31	15.0	17.9	3.0	21.5	5.0	30.40	27.00
12	49.17	19.07	17.9	3.0	24.0	8.2	34.94	31.74
14	49.17	22.25	17.9	3.0	27.8	10.0	38.40	34.94
16	52.34	25.43	17.9	3.0	29.4	13.0	41.50	38.10
18	53.22	28.6	17.9	3.0	35.3	16.0	44.44	41.34
20	58.10	31.78	22.45	3.8	35.3	16.0	49.40	46.04
22	58.10	34.95	22.45	3.8	41.1	19.3	52.24	49.24
24	58.10	38.13	22.45	3.8	42.4	20.6	55.54	52.74

Nut-Secured Mounting Receptacle (Type P): JY3114P



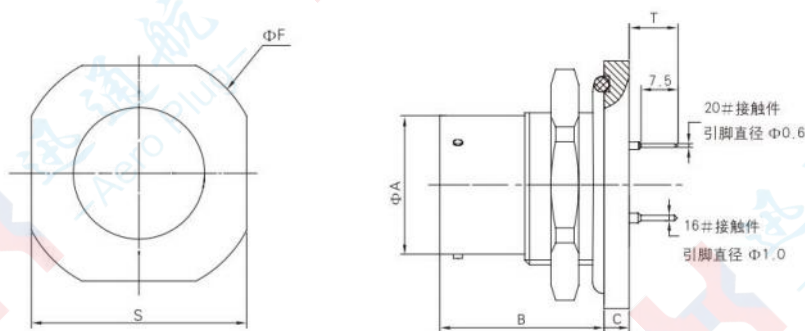
Shell Size	L(Max)	A	B(Max)	C(Max)	D(Max)	G(Max)	F(Max)	S(Max)
8	34.3	12.04	17.9	3.0	15.34	10.46	26.94	23.80
10	34.3	15.0	17.9	3.0	17.70	13.55	30.40	27.00
12	34.3	19.07	17.9	3.0	21.69	13.96	34.94	31.74
14	34.3	22.25	17.9	3.0	23.90	17.42	38.40	34.94
16	34.3	25.43	17.9	3.0	27.00	20.56	41.50	38.10
18	34.3	28.6	17.9	3.0	30.50	23.66	44.44	41.34
20	42.25	31.78	22.45	3.8	33.65	23.92	49.40	46.04
22	42.25	34.95	22.45	3.8	37.10	25.52	52.24	49.24
24	43.26	38.13	22.45	3.8	40.00	32.00	55.54	52.74

Nut-Secured Mounting Receptacle (Type G): JY3114G



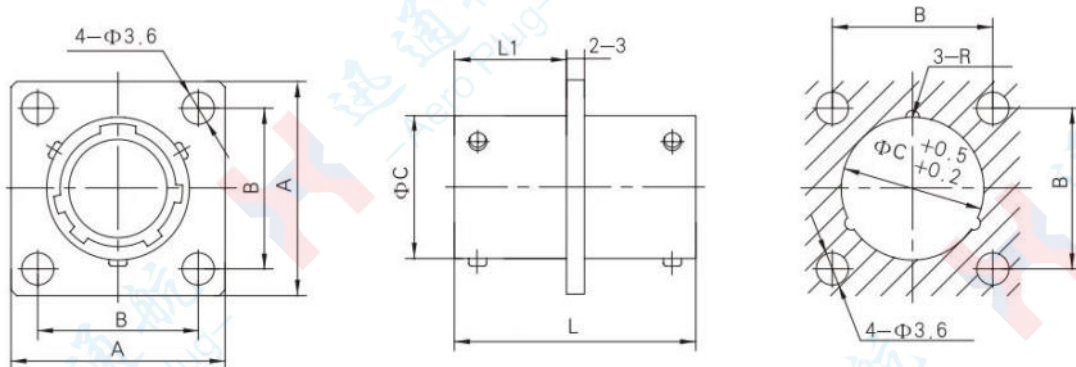
Shell Size	A	B(Max)	C(Max)	F(Max)	S(Max)
8	12.04	17.9	3.0	26.94	23.80
10	15.0	17.9	3.0	30.40	27.00
12	19.07	17.9	3.0	34.94	31.74
14	22.25	17.9	3.0	38.40	34.94
16	25.43	17.9	3.0	41.50	38.10
18	28.6	17.9	3.0	44.44	41.34
20	31.78	22.45	3.8	49.40	46.04
22	34.95	22.45	3.8	52.24	49.24
24	38.13	22.45	3.8	55.54	52.74

Nut-Secured Mounting Receptacle (Type B): JY3114B



Shell Size	A	B(Max)	C(Max)	T(Max)	F(Max)	S(Max)
8	12.04	17.9	3.0	9.46	26.94	23.80
10	15.0	17.9	3.0	9.46	30.40	27.00
12	19.07	17.9	3.0	9.46	34.94	31.74
14	22.25	17.9	3.0	9.46	38.40	34.94
16	25.43	17.9	3.0	9.46	41.50	38.10
18	28.6	17.9	3.0	9.46	44.44	41.34
20	31.78	22.45	3.8	8.49	49.40	46.04
22	34.95	22.45	3.8	8.49	52.24	49.24
24	38.13	23.30	3.8	7.79	55.54	52.74

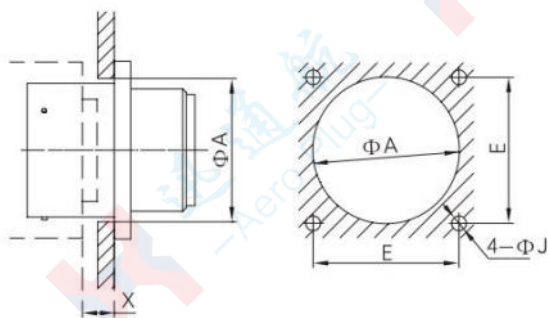
Outline Installation Dimensions of Through-Wall Receptacle (Square Flange Type) (Type P) JY3117P



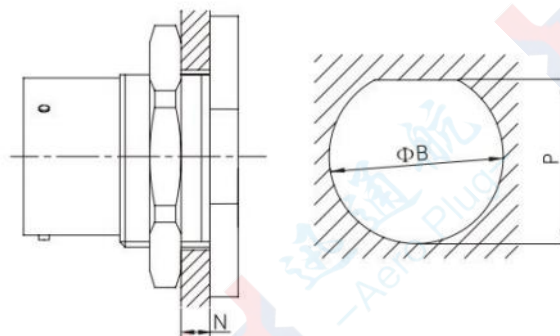
Shell Size	A	B	ΦC	L	L1	R
8	20.60	15.09	12.00	33.5	14.5	1.5
10	23.80	18.30	15.00	33.5	14.5	1.5
12	26.20	20.60	19.10	33.5	14.5	1.5
14	30.00	23.00	22.20	33.5	14.5	1.5
16	31.00	24.60	25.40	33.5	14.5	1.5
18	33.30	27.00	28.60	33.5	14.5	1.5
20	36.50	29.36	31.78	36.0	16.5	1.5
22	40.00	32.00	34.95	36.0	16.5	1.5
24	42.90	34.93	38.10	36.0	16.5	2.0

Recommended Panel Cutout Dimensions for Receptacle

Square Panel Mount Receptacle



Nut-Secured Mounting Receptacle



Shell Size	A	E	J	X(Min)	B	P	N	
							(Min)	(Max)
8	15.55	15.09	3.2	2.9	14.60	13.75	1.8	5.7
10	18.80	18.26	3.2	2.9	17.75	16.95	1.8	5.7
12	22.15	20.62	3.2	2.9	22.50	21.50	1.8	5.7
14	25.30	23.00	3.2	2.9	25.70	24.20	1.8	5.7
16	28.45	24.61	3.2	2.9	28.85	27.35	1.8	5.7
18	31.65	26.97	3.2	2.9	32.05	30.55	1.8	5.7
20	34.80	29.36	3.2	5.5	35.20	33.70	1.8	8.6
22	38.00	31.75	3.2	5.5	38.40	36.90	1.8	9.6
24	41.20	34.92	3.8	5.5	41.55	40.05	1.8	9.5

GJB598 Series II Circular Electrical Connector

This series of electrical connectors complies with the requirements of Series III in GJB598A-1996, references the U.S. military standard MIL-C-26482, is equivalent to the YB and MS series, and is interchangeable with the corresponding plugs and receptacles of the same model in Series I (Y50EX).

Featuring a bayonet-type quick-connect/disconnect mechanism and crimp-type removable contacts, this product offers the advantages of compact size, high density, excellent environmental resistance, and high reliability. It is widely used for circuit connection in electrical and electronic equipment across aerospace, marine, field communications, military vehicles, public transportation power systems, postal and telecommunications, railway command systems, and other fields.

Product Designation Code

$\frac{XTH}{1}$ $\frac{JY}{2}$ $\frac{3470}{3}$ $\frac{L}{4}$ $\frac{10}{5}$ - $\frac{06}{6}$ $\frac{P}{7}$ $\frac{N}{8}$ $\frac{I}{9}$

1— Enterprise Designation of Shenzhen Xuntonghang Electronic Technology Co., Ltd.

2— Main Designation of Circular Crimp Connector, equivalent to U.S. Standard MS

3— Typ: 3470-Narrow Flange Mount Receptacle 3474-Rear Nut Mount Receptacle

3475-RF Interference Shielded Plug 3476-Plug 3479-Hermetically Sealed Rear Nut Mount Receptacle

4— Category Code : A-Non-Conductive Housing (Anodized black housing)

L-Conductive Housing (Liquid- & Corrosion-Resistant; Electroless nickel-plated, silver-gray housing)

W-Conductive Housing (Corrosion-Resistant; Chrome-plated, olive-brown housing)

S-Stainless Steel Passivation

5— Shell Size: 08、10、12、14、16、18、20、22、24

6—Number of Contacts: 3 to 61 contacts, represented by a two-digit number

7— Contact Type: P-Pin, PL-Printed Circuit Board (PCB) Pin, S-Socket, SL-Printed Circuit Board (PCB) Socket,

8— Keying Code (Anti-Misconnection): N, W, X, Y, Z (N may be omitted)

9— Rear Termination Style: I—Nut Cable Clamp; II—Straight Cable Clamp; III—Angled Cable Clamp; IV—Heat-Shrink Cable Clamp; V—Shielded Heat-Shrink Cable Clamp



Product Technical Characteristics

一、Operating Environment

Operating Temperature: -55°C to +175°C (Grade W)

-55°C to +200°C (Grades L, A, S)

Relative Humidity : 94±4% at 65°C

Operating Pressure : 0.8 kPa to 101.33 kPa

Shock Resistance : Half-sine wave with 3ms duration, peak acceleration of 300g

Vibration Resistance : 10 Hz to 2000 Hz, acceleration of 196 m/s²

Ozone Resistance : Exposure to ozone concentration of 100–150 ppm for 2 hours

RF Interference Attenuation : 65 dB to 45 dB in the frequency range of 100 MHz to 1000 MHz (JY3475)

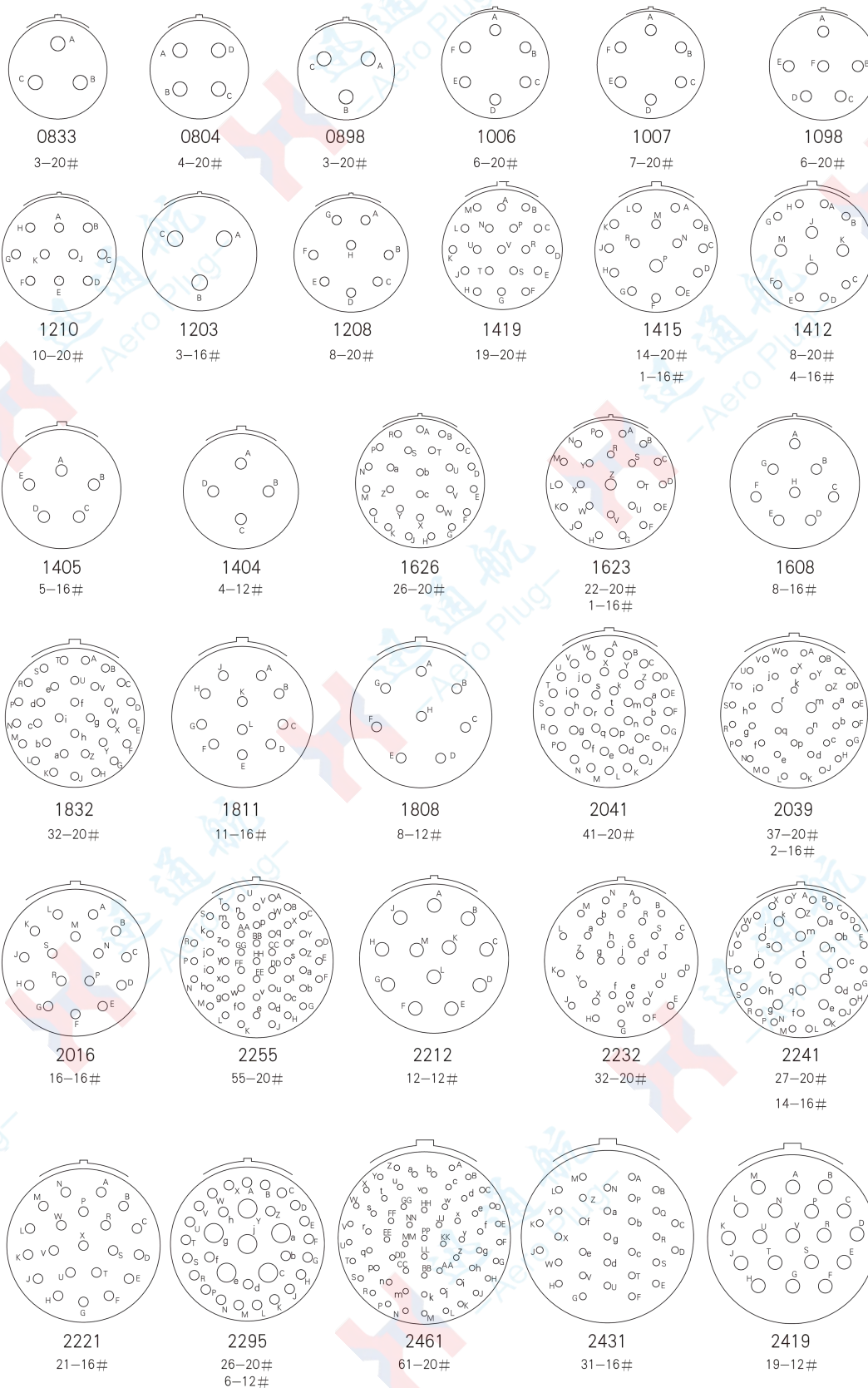
Salt Spray Resistance : 48 hours (Grade A); 500 hours (Grade W); 6 hours (Grade L); 1000 hours (Grade S)

Mechanical Life : ≥500 mating cycles (250 cycles for JY3475)

二、Electrical Characteristics

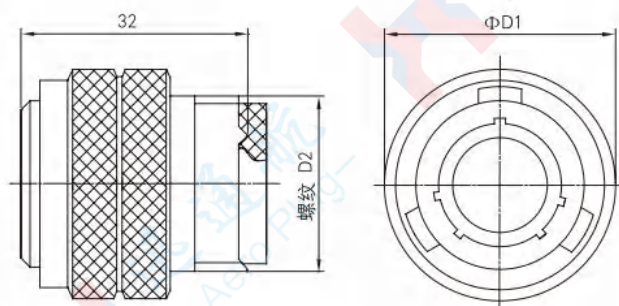
Contact Component Code	Pin Diameter (mm)	Wire Cross-Sectional Area (mm ²)	Contact Resistance (mΩ)	Wire Outer Diameter (mm)		Operating Current (A)	Operating Voltage (AC RMS)			Withstand Voltage (AC RMS)			Insulation Resistance (MΩ)	
				min	max							Minimum Test Voltage		
20	φ1.00	0.20	≤5	1.02	2.11	3	Height	Grade I	Grade II	Sea level	≥1500V	≥2300V	Normal Temperature	≥5000
		0.30				5								
		0.50				7.5								
16	φ1.59	0.50	≤2.5	1.35	2.62	7.5	Sea level	600V	1000V	21336m	≥375V	≥500V	Damp	≥20
		0.80				10								
		1.25				13				Finished Cable	Signal	≥500V	High temperature	≥500
12	φ2.39	2.00	≤1.5	2.46	4.01	17	7,000 feet 4.39kpa	300V	450V		Power supply	≥1500V	Cable	≥100
		3.15				23								

III. Contact Arrangement (View of Pin-Equipped Insulator Mating Face)



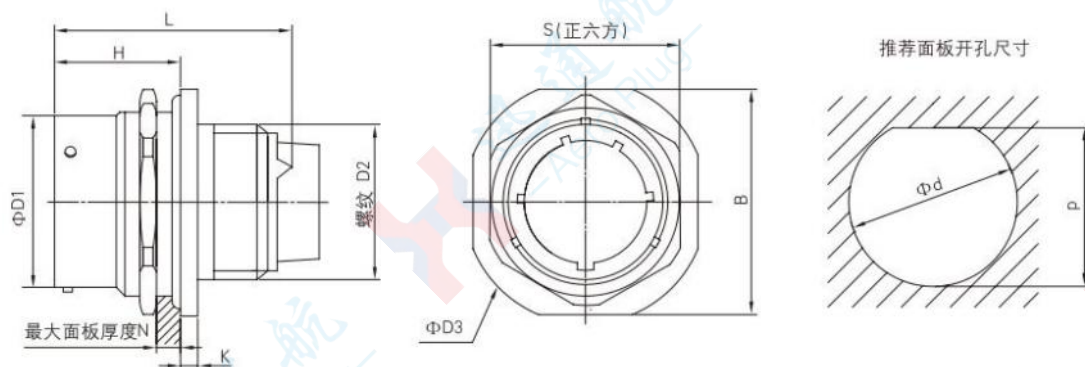
IV. Outline Dimensions

PlugJY3475/JY3476



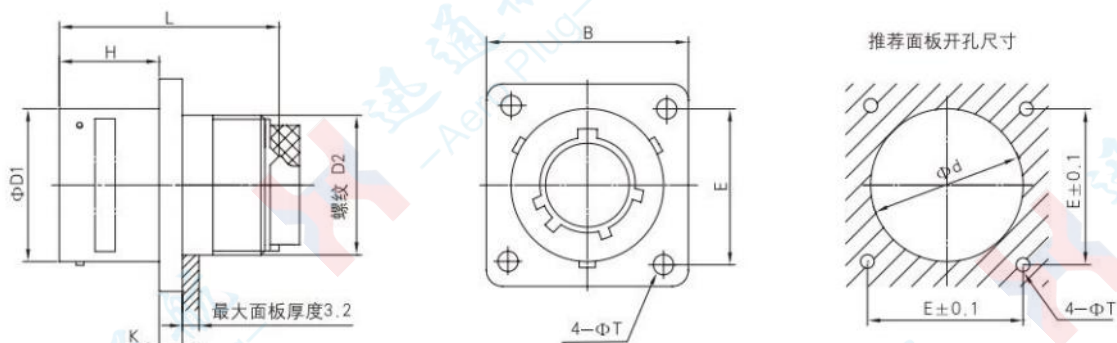
shell size	D1	Thread D2 Class 2A
8	19.7	0.5000-20UNEF
10	23.5	0.6250-24UNEF
12	27.0	0.7500-20UNEF
14	30.5	0.8750-20UNEF
16	34.0	1.0000-20UNEF
18	35.3	1.0625-18UNEF
20	39.3	1.1875-18UNEF
22	43.3	1.3125-18UNEF
24	46.0	1.4375-18UNEF

Rear Nut Mount Receptacle JY3474/3479



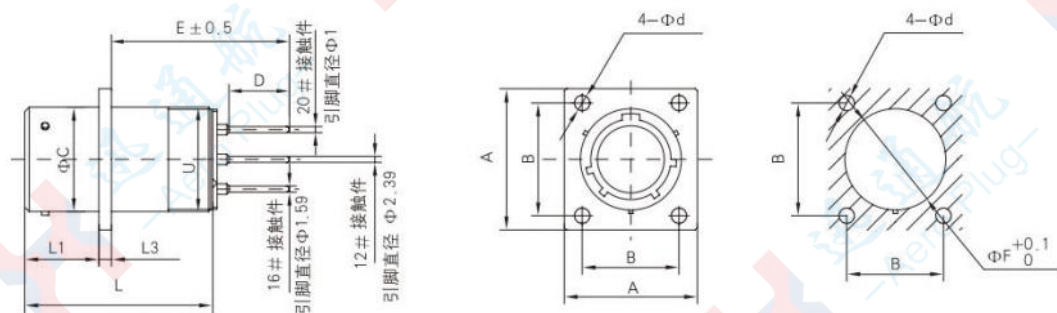
Shell Size	D1	Thread D2, Class 2A	D3	L	H	K	B	S	N	d	P
8	12.0	0.5000-20UNEF	27.2	31.5	17.5	2.5	24.0	19.4	4.8	14.6	13.7
10	15.0	0.6250-24UNEF	30.4	31.5	17.5	2.5	27.0	22.6	4.8	17.8	16.9
12	19.1	0.7500-20UNEF	35.2	31.5	17.5	2.5	32.0	27.4	4.8	22.8	21.0
14	22.2	0.8750-20UNEF	38.3	31.5	17.5	2.5	35.0	30.2	4.8	25.7	24.1
16	25.4	1.0000-20UNEF	41.5	31.5	17.5	2.5	38.2	33.7	4.8	28.4	27.3
18	28.6	1.0625-18UNEF	44.7	31.5	17.5	2.5	41.5	36.9	4.8	32.1	30.5
20	31.8	1.1875-18UNEF	49.4	33.1	19.0	3.3	46.2	40.1	6.4	35.2	33.7
22	34.9	1.3125-18UNEF	52.6	33.1	19.0	3.3	49.4	43.3	6.4	38.4	36.8
24	38.1	1.4375-18UNEF	55.8	33.1	19.0	3.3	52.6	46.4	6.4	41.6	40.1

Narrow Flange Mount Receptacle JY3470



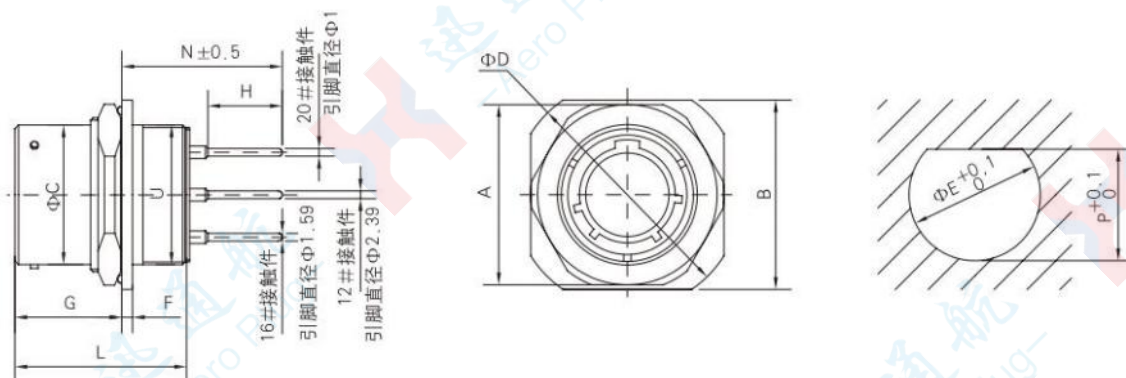
Shell Size	D1	Thread D2, Class 2A	L	H	K	B	E	T	d
8	12.0	0.5000-20UNEF	32	11.7	1.8	21.0	15.1	3.2	14.4
10	15.0	0.6250-24UNEF	32	11.7	1.8	24.2	18.3	3.2	17.3
12	19.1	0.7500-20UNEF	32	11.7	1.8	26.5	20.6	3.2	21.9
14	22.2	0.8750-20UNEF	32	11.7	1.8	28.7	23.0	3.2	25.1
16	25.4	1.0000-20UNEF	32	11.7	1.8	31.2	24.6	3.2	28.2
18	28.6	1.0625-18UNEF	32	11.7	1.8	33.7	27.0	3.2	31.4
20	31.8	1.1875-18UNEF	33.5	14.3	2.7	36.9	29.4	3.2	34.6
22	34.9	1.3125-18UNEF	33.5	14.3	2.7	40.0	31.8	3.2	37.7
24	38.1	1.4375-18UNEF	33.5	15.2	2.7	43.3	34.9	3.7	41.0

PCB Square Panel Receptacle



Shell Size	A	B	d	F	C	D	E	L1	L3	L	U(UNEF-2A)
8	21.0	15.1	3.2	14.4	12.0	7.5	28	11.7	1.9	30.85	0.500-20
10	24.2	18.3	3.2	17.3	15.0	7.5	28	11.7	1.9	30.85	0.625-24
12	26.5	20.6	3.2	21.9	19.1	7.5	28	11.7	1.9	30.85	0.750-20
14	28.9	23.0	3.2	25.1	22.2	7.5	28	11.7	1.9	30.85	0.875-20
16	31.3	24.6	3.2	28.2	25.4	7.5	28	11.7	1.9	30.85	1.000-20
18	33.7	27.1	3.2	31.4	28.6	7.5	28	11.7	1.9	30.85	1.0625-18
20	36.9	29.4	3.2	34.6	31.8	9.5	28	14.3	2.7	32.40	1.1875-18
22	40.0	31.8	3.2	37.7	34.9	9.5	28	14.3	2.7	32.40	1.3125-18
24	43.3	34.9	3.7	41.0	38.1	11.6	28	15.2	2.7	32.40	1.4375-18

PCB Nut-Secured Receptacle



Shell Size	A	B	C	D	E	F	G	H	N	L	P	U(UNEF-2A)
8	19.4	24.0	12.0	27.2	14.4	2.87	17.8	7.5	23.5	30.6	13.3	0.500-20
10	22.6	27.0	15.0	30.4	17.3	2.87	17.8	7.5	23.5	30.6	13.3	0.625-24
12	27.4	32.0	19.1	35.2	21.9	2.87	17.8	7.5	23.5	30.6	13.3	0.750-20
14	30.6	35.0	22.2	38.3	25.1	2.87	17.8	7.5	23.5	30.6	13.3	0.875-20
16	33.7	38.2	25.4	41.4	28.2	2.87	17.8	7.5	23.5	30.6	13.3	1.000-20
18	36.9	41.5	28.6	44.6	31.4	2.87	17.8	7.5	23.5	30.6	13.3	1.0625-18
20	40.1	46.2	31.8	49.4	34.6	3.76	19.5	7.8	23.5	32.0	33.8	1.1875-18
22	43.3	49.2	34.9	52.6	37.7	3.76	19.5	7.8	23.5	32.0	36.7	1.3125-18
24	46.4	52.5	38.	55.7	41.0	3.76	19.5	7.8	23.5	32.0	40.3	1.4375-18

Accessories

Rear Accessories

Rear accessories complying with GJB1784A (equivalent to MIL-C-85049)

Product Designation Code

XTH	J1784A/	31	-	08	N	A
1	2	3	4	5	6	

1—Enterprise Designation: Shenzhen Xuntonghang Electronic Technology Co., Ltd.

2— Basic Component Number: Indicates rear accessories

3 Detailed Specification Number:

31—Type I - Rear Nut 52—Type II - Straight Cable Clamp 51—Type III - Angled Cable Clamp

4—Shell Size : 08、10、12、14、16、18、20、22、24

5— Shell Plating: W-Cadmium-Plated (Olive-Brown) N-Electroless Nickel-Plated A- Black Anodized
 W2-Chrome-Plated (Military Green) S-Stainless Steel Passivated

6 — Modification Code: A, B

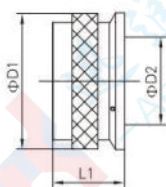
Notes:

1.Except for the basic component number, the model naming of national military standard GJB1784A is identical to that of U.S. military standard MIL-C-85049. The basic component number for GJB1784A is "J1784A", while that for MIL-C-85049 is "M85049", and the two are interchangeable.

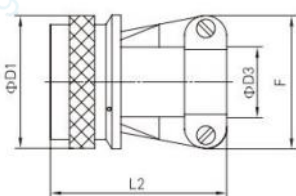
2.Accessories shall be ordered separately. If the order quantity is the same as that of the matching plugs/receptacles, the abbreviated codes of rear accessories (I, II, or III) can be directly added after the model of the matching plugs/receptacles. For modified accessories, add the modification code (A, B...) after the abbreviated code. The full model of the accessory is marked directly on the product, and the abbreviated code is only used for production management and customer ordering.

Outline Dimensions

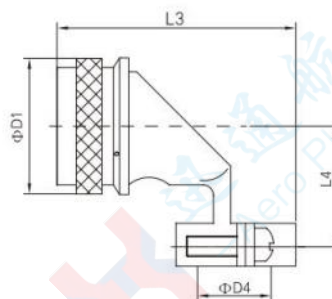
Type I Rear Nut



Type I Straight Cable Clamp

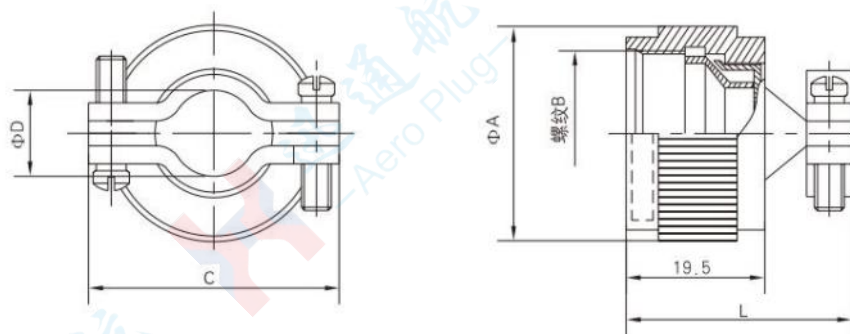


Type III Angled Cable Clamp



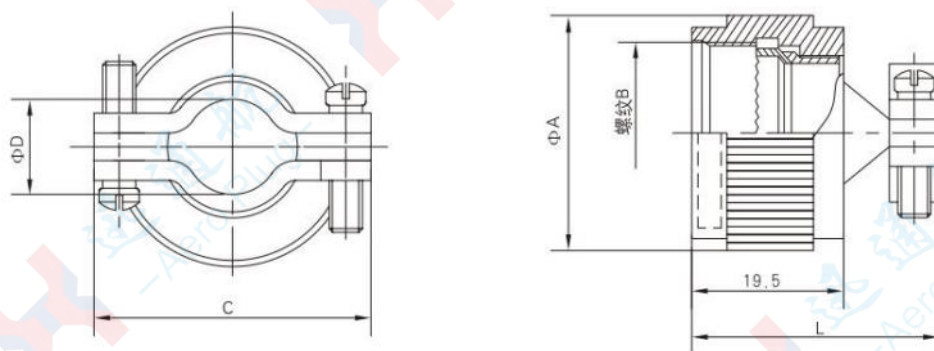
Shell Size		08	10	12	14	16	18	20	22	24
D1	Max	15.1	18.3	21.5	24.7	27.9	30.1	33.2	36.4	39.6
D2	Max	6.7	9.5	13.0	14.8	18.0	20.0	23.1	26.2	29.5
D3	Min	3.5	5.0	7.4	9.0	12.8	13.2	14.8	16.4	18.0
	Max	5.7	7.9	11.4	12.9	16.5	18.3	21.0	23.4	26.5
D4	Min	3.0	4.0	7.0	9.0	12.0	13.0	14.0	16.0	17.0
	Max	5.2	7.3	10.6	12.1	16.0	18.0	21.2	24.3	27.5
F	Max	18.6	20.6	24.5	26.0	33.0	36.3	39.0	41.4	44.5
L1	Max	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
L2	Max	21.6	24.4	27.6	30.4	32.0	32.0	32.0	32.0	32.0
L3	Max	27.8	29.8	32.8	35.1	39.1	42.	45.1	49.1	52.1
L4	Max	18.9	20.4	22.0	23.6	25.2	29.7	31.3	32.9	34.5

J1784A/52-xxNA



Accessory Model Number	A	Thread B	C	D (Min)	D (Max)	L
J1784A/52-8NA	16.4	0.500-20UNF	18.6	3.5	5.7	29.2
J1784A/52-10NA	19.2	0.6250-24UNEF	20.6	5.0	7.9	29.2
J1784A/52-12NA	23.0	0.7500-20UNEF	24.5	7.4	11.4	29.2
J1784A/52-14NA	25.7	0.8750-20UNEF	26.0	9.0	12.9	29.8
J1784A/52-16NA	29.0	1.0000-20UNEF	33.0	12.8	17.0	30.5
J1784A/52-18NA	30.6	1.0625-18UNEF	36.3	13.2	17.9	32.0
J1784A/52-20NA	34.0	1.1875-18UNEF	39.0	14.8	21.1	32.0
J1784A/52-22NA	37.2	1.3125-18UNEF	41.4	16.4	24.3	33.0
J1784A/52-24NA	40.3	1.4375-18UNEF	44.5	18.0	27.5	33.0

J1784A/52-xxNB



Accessory Model Number	A	Thread B	C	D (Min)	D (Max)	L
J1784A/52-8NB	16.4	0.500-20UNF	18.6	3.5	5.7	29.2
J1784A/52-10NB	19.2	0.6250-24UNEF	20.6	5.0	7.9	29.2
J1784A/52-12NB	23.0	0.7500-20UNEF	24.5	7.4	11.4	29.2
J1784A/52-14NB	25.7	0.8750-20UNEF	26.0	9.0	12.9	29.8
J1784A/52-16NB	29.0	1.0000-20UNEF	33.0	12.8	17.0	30.5
J1784A/52-18NB	30.6	1.0625-18UNEF	36.3	13.2	17.9	32.0
J1784A/52-20NB	34.0	1.1875-18UNEF	39.0	14.8	21.1	32.0
J1784A/52-22NB	37.2	1.3125-18UNEF	41.4	16.4	24.3	33.0
J1784A/52-24NB	40.3	1.4375-18UNEF	44.5	18.0	27.5	33.0

Special Rear Accessories

Product Designation Code

XTH TJ1784A/ 60 - 08 N A
 1 2 3 4 5 6

1— Enterprise Designation: Shenzhen Xuntonghang Electronic Technology Co., Ltd.

2— Basic Component Number: Indicates rear accessories

3— Detailed Specification Number: 60-Type IV - Heat-Shrink Cable Clamp 26-Type V - Shielded Heat-Shrink Rear Accessory

4— Shell Size: 08、10、12、14、16、18、20、22、24

5— Shell Plating: W-Cadmium-Plated (Olive-Brown) N- Electroless Nickel-Plated

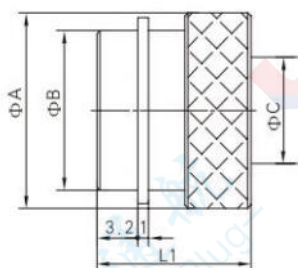
A-Black Anodized W₂-Cadmium-Plated (Military Green) S-Stainless Steel Passivated

6—Modification Code: A、 B...

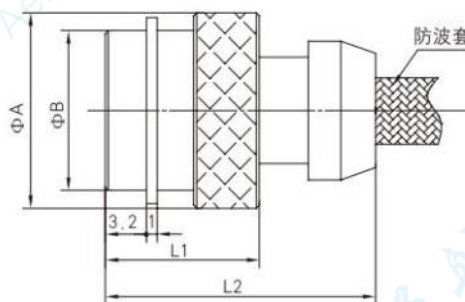
Note:Accessories shall be ordered separately. If the order quantity matches that of the compatible plugs/receptacles, the abbreviated codes of rear accessories (IV or V) can be directly added after the model of the matching plugs/receptacles. For modified accessories, add the modification code (A, B...) after the abbreviated code.

Outline Dimensions

Type IV Heat-Shrink Cable Clamp



Type V Shielded Heat-Shrink Rear Accessory



注：防波套不随附件供货

Shell Size	A Max	B Max	C±0.5	L1 Max	L2±0.5	Shield Braid Specification (Braid Wire Diameter)
08	15.4	14.1	6.7	18.5	32.7	3×6 (0.15)
10	18.2	17.3	9.5	18.5	32.7	6×10 (0.15)
12	23.5	20.5	13.0	18.5	32.7	6×10 (0.15)
14	24.3	23.7	14.8	18.5	32.7	10×16 (0.20)
16	29.2	26.5	18.0	18.5	32.7	16×24 (0.30)
18	32.0	29.5	20.0	18.5	32.7	16×24 (0.30)
20	36.0	32.7	23.1	19.5	33.7	24×30 (0.30)
22	38.2	35.8	26.2	19.5	33.7	24×30 (0.30)
24	41.4	39.0	29.5	19.5	33.7	24×30 (0.30)

Shielded, Tensile-Resistant, and Rain-Proof Accessory

Product Designation Code

<u>XTH</u>	<u>08</u>	<u>FF</u>	<u>1</u>	<u>BI</u>	<u>Z</u>	<u>-d</u>
1	2	3	4	5	6	7

1—Enterprise Designation: Shenzhen Xuntonghang Electronic Technology Co., Ltd.

2— Shell Size: 08、10、12、14、16、18、20、22、24

3— Basic Component Number:

F: Shielded, Tensile-Resistant, Rain-Proof Type

2M: Sealed Cable Boot Type

4— Shell Plating: 1-Electroless Nickel-Plated 8-Cadmium-Plated (Military Green)

13-Sandblasted Nickel-Plated A3:Black Conductive Coating

F-Black Anodized

S-Stainless Steel Passivated

L- Military Green Oxidized

Numerical codes are marked as subscripts; English letters are marked in regular font.

5— Mating Type: BI, BIW: Matches JY598 I BII, BIIW: Matches JY598 II

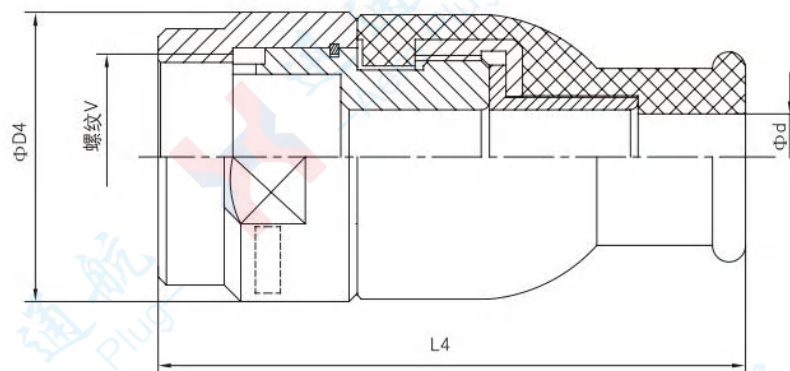
CI, CIW: Matches JY599 I (BIW, BIIW, and CIW indicate 90° elbow (right angle))

6— Z: Indicates with anti-retraction screw; unmarked means without anti-retraction screw

7— Cable Outlet Diameter: 5.7 mm, 6.9 mm, 7.1 mm (Customizable per customer requirements)

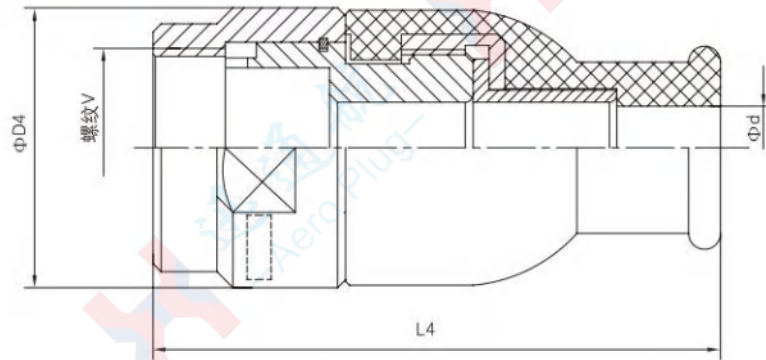
Outline Dimensions

FFB I Accessory 、 FFC I Accessory



Shell Size	Thread V, Class 2B	D4	L4	Cable Outlet Diameter d
08	0.4375-28UNEF	18	40	4、 6.4
10	0.5625-24UNEF	21.7	42	5.7、 6.9、 8.1 、 8.9、 10
12	0.6875-24UNEF	25	58	5.7、 7.1 、 8.1 、 9.6、 11.1
14	0.8125-20UNEF	29	58	7.7、 8.5、 9.6、 11
16	0.9375-20UNEF	31	60.5	8.5、 12.7
18	1.0625-18UNEF	35	65	10.9、 11.3
20	1.1875-18UNEF	38	63	11、 12.7
22	1.3125-18UNEF	41	63	11.8、 13.4、 15.7
24	1.4375-18UNEF	45	63	11.5、 13.5、 14

FFB II Accessory

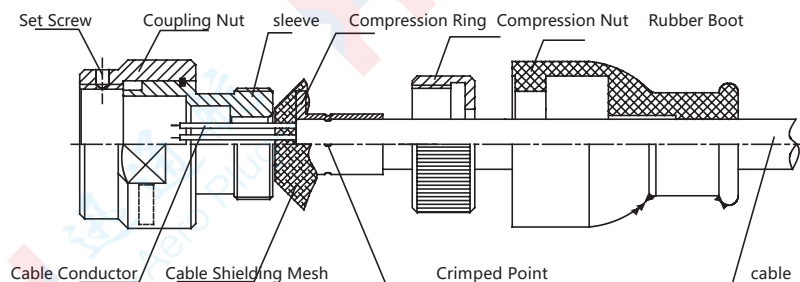


Shell Size	Thread V Class 2B	D4	L4	Cable Outlet Diameter d
08	0.4375-28UNEF	18	40	4、6.6
10	0.5625-24UNEF	21.7	42	5.7、6.9、8.1、8.9、10
12	0.6875-24UNEF	25	58	5.7、7.1、8.1、9.6、11.1
14	0.8125-20UNEF	29	58	7.7、8.5、9.6、11
16	0.9375-20UNEF	31	60.5	8.5、12.7
18	1.0625-18UNEF	35	65	10.9、11.3
20	1.1875-18UNEF	38	63	11、12.7
22	1.3125-18UNEF	41	63	11.8、13.4、15.7
24	1.4375-18UNEF	45	63	11.5、13.5、14

Method for Selecting the Diameter of the Accessory Cable Outlet:

- 1、"d" actually indicates the applicable cable diameter range. When the cable diameter falls between two consecutive cable outlet diameter values, select the larger one. For example: if the cable diameter is $\Phi 11.5$ and the selected accessory model is 20FFBII, the cable outlet diameter shall be $\Phi 12.7$.
- 2、The cable diameter range directly compatible with the smallest cable outlet is $(d-2.2)$.

Cable Assembly Method



The wave-proof and tensile accessory features an attractive appearance, as well as shielding and rainproof functions. Meanwhile, proper installation enables this accessory to effectively protect the cable.

- 1、Pass the cable through the rubber boot, compression nut, compression ring, and sleeve in sequence. Fold the cable shielding mesh over the disk of the compression ring, strip an appropriate length of the cable sheath, and insert it into the straight tube of the compression ring.
- 2、Terminate the cable core wires to the connector contacts. After wiring, screw the accessory's coupling nut onto the connector and tighten the set screw to prevent the accessory from loosening.
- 3、Push the compression ring to fit the shielding mesh against the sleeve. Adjust the cable so that the cable sheath is ideally flush with the circular end of the compression ring. Then use a crimping tool to crimp the straight tube of the compression ring onto the cable, ensuring the cable does not loosen.
- 4、Tighten the compression nut to push the compression ring and clamp the sleeve's shielding mesh, achieving electrical continuity between the accessory and the cable. If necessary, apply adhesive to the threads of the sleeve and compression nut for a more secure connection.
- 5、After securing the compression nut, apply an appropriate amount of silicone rubber to it and cover it with the rubber boot to ensure a reliable connection.

Plug and Socket Dust Caps (Suitable for GJB598 Series I and Series II Electrical Connectors)

Product Identification Code

XTH	JY3180	X	08	C	N
1	2	3	4	5	6

1— Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Basic Part Number:

JY3180 -Plug Dust Cap (Equivalent to U.S. Military Standard Part Number MS3180)

JY3181*—Socket Dust Cap (Equivalent to U.S. Military Standard Part Number MS3181)

3— "X" Metal Dust Cap with Rubber Boot (Omitted if not required)

4— Shell Size: 08、10、12、14、16、18、20、22、24

5— Lanyard Type: C- Metal Chain R-Nylon Cord S-Stainless Steel Wire Rope
N-Metal Chain with Loop (Suitable for JY3474 Sockets)

6— Shell Plating: W-Cadmium Plated (Olive Drab) N- Electroless Nickel Plated

A-Black Anodized (For JY3180 Only) S-Stainless Steel Passivated W₂—Cadmium Plated (Military Green)

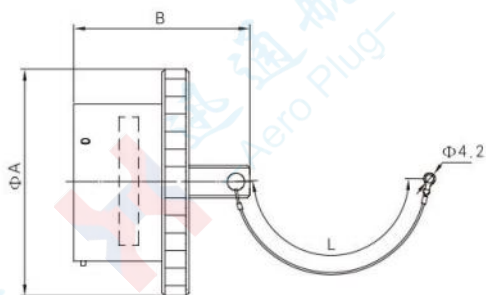
Lanyard Length: Unmarked: Standard Length L-Lanyard Length 127mm

Notes:

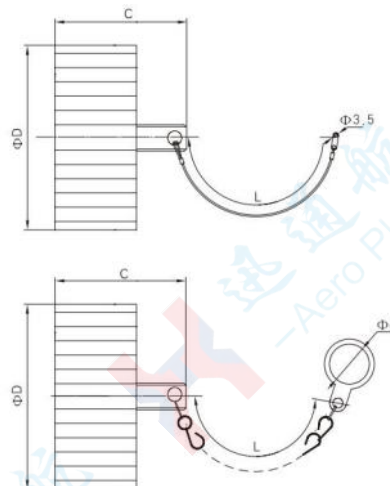
- 1、JY3181 is a composite material dust cap. For metal shell dust caps, add "(J)" at the end of the part number.
- 2、Dust caps shall be ordered separately and are not supplied with the connector.

Overall Dimensions

Plug Dust Cap JY3180-(MS3180-)

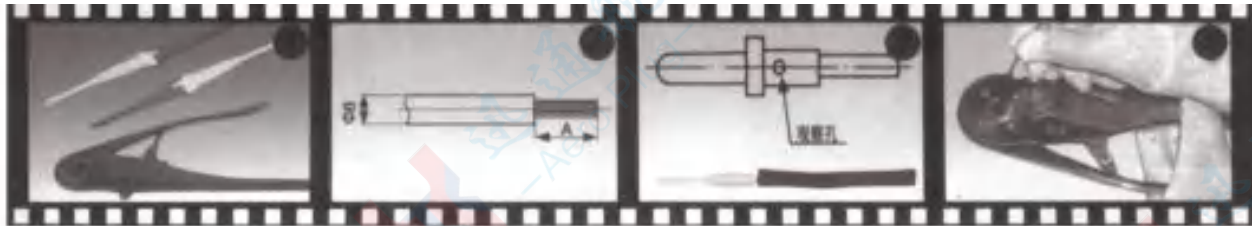


Socket Dust Cap JY3181-(MS3181-)



Shell Size		08	10	12	14	16	18	20	22	24
A	Max	16	22	26	29	31	35	38	42	45
B	Max	19	19	19	19	19	19	19	69	19
C	Max	20	20	20	20	20	20	20	20	20
D	Max	16.4	22	26	29	31	35	38	42	45
d	Max	14.7	17.9	22.7	25.9	29.0	32.2	35.4	38.6	41.7
L	Max	76.2	76.2	88.9	88.9	88.9	88.9	101.6	101.6	101.6

Assembly Process Method



Crimping Tool: Any crimping tool complying with GB9022 requirements can be used as the termination tool for 20#, 16#, 12# contacts and wires.

Strip the Wire

Contact	A	B
20#	4.1	1.02-2.10
16#	5.5	1.35-2.62
12#	5.5	2.46-4.01

Crimping: Insert the stripped wire into the crimping hole of the contact. Check if the wire is properly seated through the inspection window.

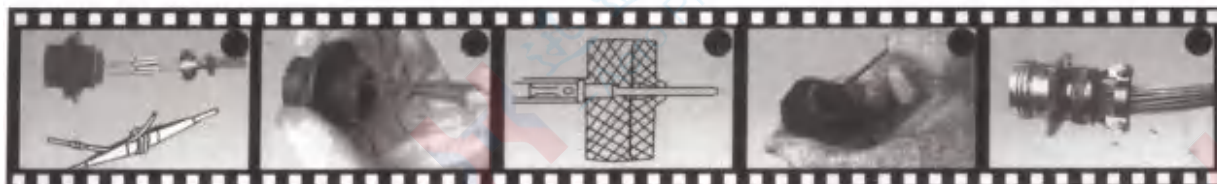
Test Crimping: Place the contact (with wire installed) into the crimping tool for test crimping. The contact used for test crimping shall be tested for contact resistance and tensile strength in accordance with GB9022.

Disassembly Tool

See the table below

Contact Part Number	U.S. Military Standard Part Number	Insertion End Color	Removal End Color
20#	MS81 969/142	Red	White
16#	MS81969/142 .6	Blue	White
12#	MS81969/143 .84	Yellow	White

※ This tool can insert or remove contacts from the connector. The colored end is the insertion tool, and the white end is the removal tool.



Assembly A

Install the contact(s) as shown in the diagram above. Insert the crimped wire into the colored end of the insertion/extraction tool, ensuring the top of the tool is supported on the large step of the contact(s).

Assembly B Insert the tool (with the end against the contact step) vertically into the hole of the wire seal body, then push it into the connector.

Assembly C When a clear click is heard, it indicates that the contact(s) is/are fully seated—meaning the toothed sleeve inside the insulator has locked the step of the contact(s) in place.

Assembly D Remove the tool and gently pull the wire outward by hand—if the contact(s) does not dislodge, the installation is successful. Insertion should start from the central hole of the connector and proceed outward.

Assembly E After all contact(s) are fully seated, unused cavities can be filled with sealing plugs, followed by tightening the rear accessory.



Removal A Remove the rear accessory and sealing plug along the wire bundle.

Removal B Using the removal tool (white end), place the wire into the tool and follow the wire seal body to push the removal tool forward.

Removal C Use the tip of the tool to spread open the tooth sleeve, resting it against the contact's step.

Removal D Grasp the wire and tool together, pull outward, and the contact can be removed from the connector.

GJB599 Series I (MIL-DTL-38999 Series I) Circular Electrical Connector

This series of circular electrical connectors complies with the requirements of GJB599A (MIL-DTL-38999K) Series I. Adopting bayonet-type quick connection, they feature compact size, light weight, high contact density, EMI/RFI shielding, and anti-misalignment insertion design. The contacts are available in crimp and solder types, with crimp contacts being removable via crimping. The sockets offer multiple mounting options including box-mounted, wall-mounted, front-mounted, rear-mounted, and nut-fastened configurations.

This product exhibits high-intensity vibration resistance and is compatible with GJB1784A-compliant rear accessories, including specialized tail accessories for shielded cable clamping (Ti-Ni alloy memory ring). It is available in 9 shell sizes, with sealed structures on the mating interface and tail section, delivering excellent tri-proof (moisture, dust, corrosion) performance and an IP65 protection rating. Equipped with a five-keyway alignment mechanism, it provides five anti-misinsertion key positions.

Widely used in military systems such as aerospace, ordnance, and other electronic equipment systems

Product Identification Code

XTH JY 27467 T 17 F 35 P N

1 2 3 4 5 6 7 8 9

1— Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— Main Designation for Circular Electrical Connectors

3— Type: Straight Plug (T Class Only) ;

227466: Wall-Mounted Square Flange Front-Mounted Socket (T Class Only) ;

27656-Wall-Mounted Square Flange Rear-Mounted Socket (T Class Only) ;

27496-Box-Mounted Square Flange Front-Mounted Socket (E Class Only) ;

27505-Box-Mounted Square Flange Rear-Mounted Socket (E Class Only) ;

27468-Nut-Mounted Socket (T Class Only)

4— Shell Category:

T-Threaded tail (rear accessories can be installed);

E-Non-threaded tail (rear accessories cannot be installed)

5— Shell Size:09、11、13、15、17、19、21、23、25

6— Shell Plating: B-Cadmium Plated (Military Green); C- Anodized Anodized;

E- Stainless Steel Passivated; F-Electroless Nickel Plated; F1- Sandblasted Nickel Plated;

S—Copper-Nickel Plated; C3-Zinc-Nickel Alloy (Black Chrome); C1-Anodized (Military Green);

C2-Anodized (Black);

7—Contact Arrangement: See "Contact Arrangement" diagram for details

8—P-Crimp Pin (500 mating cycles); PH-Solder Pin; PC-Short PCB Pin; PL- Long PCB Pin

H-Crimp Pin (1500 mating cycles); HH-Solder Pin; HC- Short PCB Pin; HL-Long PCB Pin

S-Crimp Socket (500 mating cycles); SH-Solder Socket; SC-Short PCB Socket; SL-Long PCB Socket

J-Crimp Socket (1500 mating cycles); JH-Solder Socket; JC-Short PCB Socket; JL- Long PCB Socket

CD-External Pin, Internal Socket (Flange outside the enclosure)

DC-External Socket, Internal Pin (Flange outside the enclosure)

9— N-Standard Key Position A、B、C、D、E—Alternate Key Positions



Note: For the part numbering of GJB599A (Chinese Military Standard) and MIL-DTL-38999K (U.S. Military Standard), all elements are identical except for the main designation: GJB599A uses "JY" as the main designation, while MIL-DTL-38999K uses "MS". The two are fully interchangeable.

Product Technical Characteristics

一、 Operating Environment Conditions

Operating Temperature:

Class B: -65°C+175°C

Classes C, E, F: -65°C-+200°C

Salt Spray Resistance:

Class B: 500h Class C: 96h

Class F: 48h Class E: 1000h

Relative Humidity: Up to 98% at 40°C

Operating Altitude:≤30480m

The electrical connector also features excellent resistance to moisture, salt spray, mold, rain, and dust.

二、Electrical Characteristics

Contact Resistance and Rated Current of Contacts

Contact Specification	Working Diameter mm	Contact Resistance MΩ	Rated Current A
22D#	φ0.76	≤12	5
20#	φ1.00	≤5	7.5
16#	φ1.60	≤2.5	13
12#	φ2.40	≤1.5	23
10#	φ3.15	≤1.0	40

Withstand Voltage(V)

Operating Class	M	N	I	II
Sea Level	1300	1000	1800	2300
21000m	800	600	1000	1000

*Different contact arrangements correspond to different operating classes. See "Contact Arrangement" for details.

Electromagnetic Interference (EMI) Shielding:

Minimum attenuation: 85 dB at 100 MHz to 1 GHz

Minimum attenuation: 50 dB at 1 GHz to 10 GHz

Insulation Resistance:

Normal conditions≥5000MΩ

Humid conditions≥100MΩ

Electrical Continuity Between Housings:

Class B≤2.5mΩ Class F≤1.0mΩ Class E≤5mΩ

三、Mechanical Characteristics

Housings: Aluminum alloy, stainless steel;

Platings: Class B: Cadmium plated (military green);

Class C: Anodized;

Class E: Stainless steel passivated;

Class F: Electroless nickel plated

Insulators: Thermoplastic

Wire Seals and Sealing Rings: Silicone rubber material

Contacts: Copper alloy with gold plating, available in crimp, solder, and PCB types

Mechanical Life: ≥500 mating cycles

Vibration:

Sinusoidal Vibration: Frequency 10–2000 Hz,

Acceleration 294 m/s²

Random Vibration: Frequency 100–1000 Hz,

Power Spectral Density 1 G²/Hz

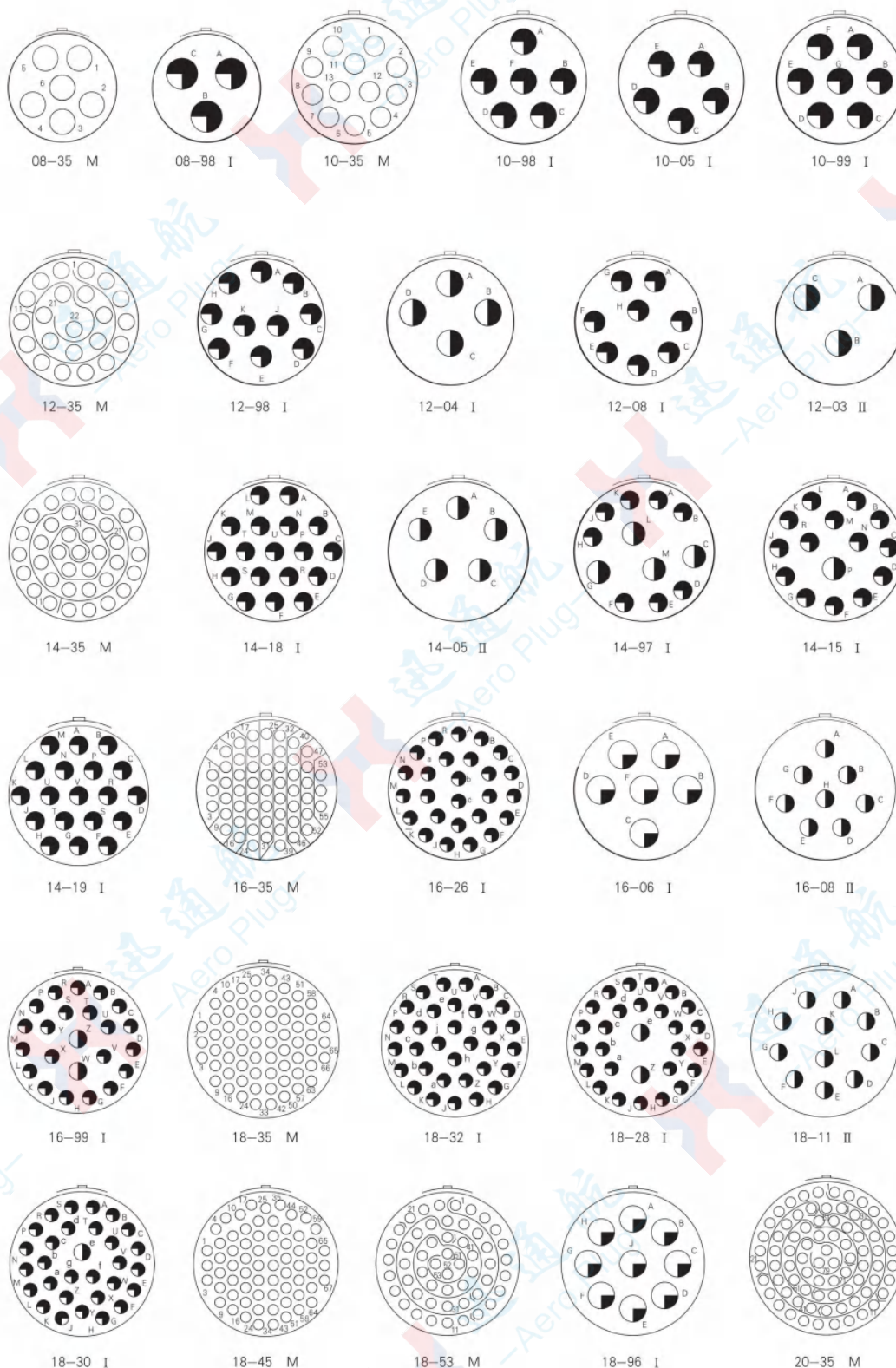
Shock: 2940 m/s², 3 ms

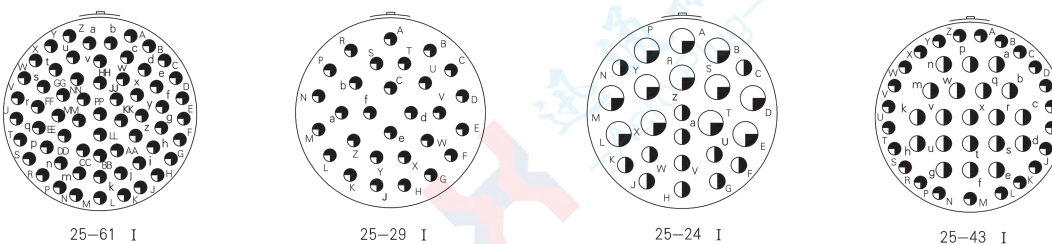
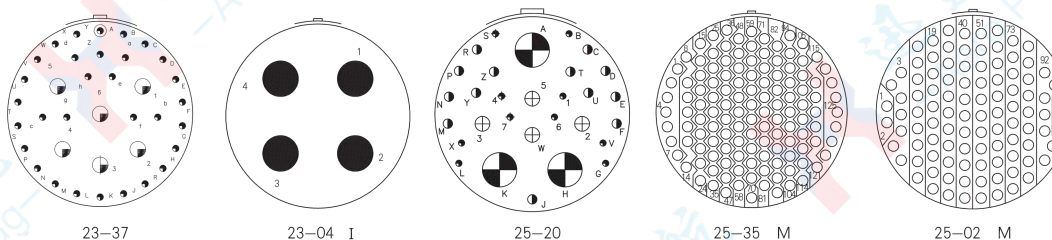
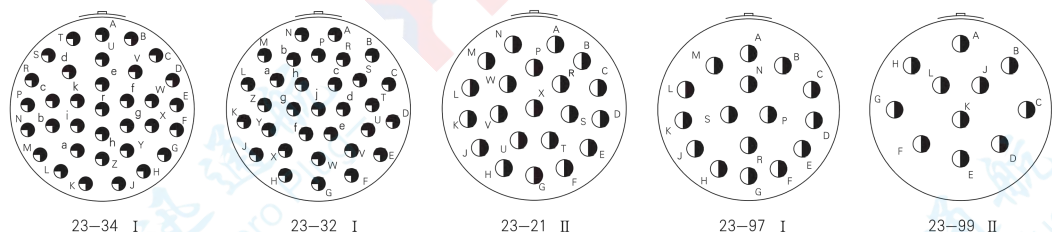
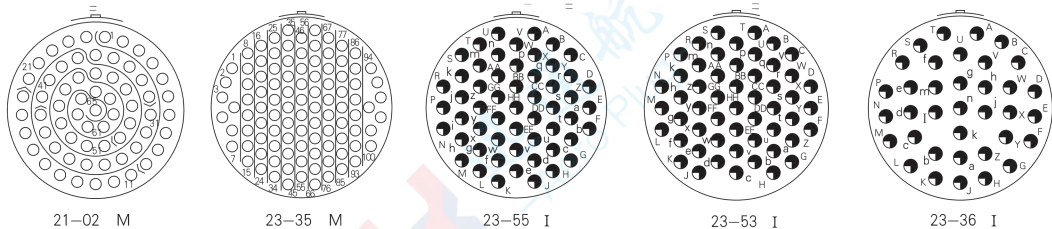
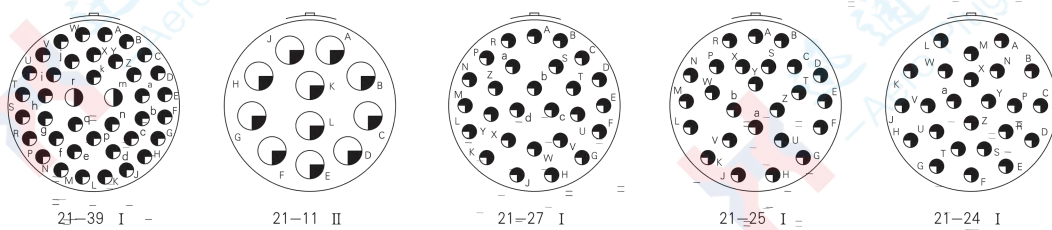
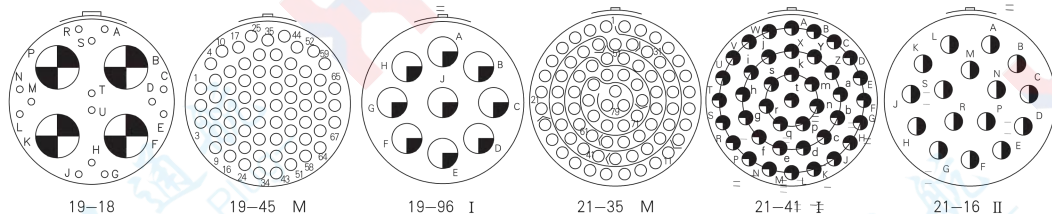
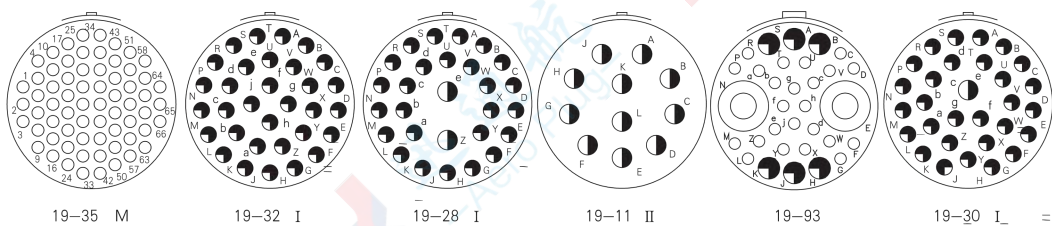
四、Identification of Crimp Contacts

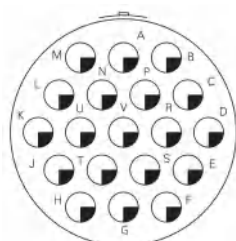
Contact Specification	Diameter	Pin Color Code	Socket Color Code	Crimp Sleeve Inner Diameter mm	Crimp Sleeve Outer Diametermm	Compatible Wire Cross-Sectionmm ²	Compatible with American Standard CablesAWG	Compatible Wire Insulation Outer Diameter mm	Removal Tool Code
22D#	0.76	Orange-Blue-Black	Orange-Yellow-Gray	0.85	1.20	0.08	28	0.76 ~ 1.37	M81969/14-01
						0.125	26		
						0.2	24		
						0.3	22		
20#	1.00	Orange-Blue-Orange	Orange-Green-Brown	1.17	1.78	0.2	24	1.02 ~ 2.11	M81969/14-10
						0.3	22		
						0.5	20		
16#	1.60	Orange-Blue-Yellow	Orange-Green-Red	1.68	2.62	0.5	20	1.65 ~ 2.77	M81969/14-03
						0.8			
						1.0	18		
						1.2	16		
12#	2.40	Orange-Blue-Green	Orange-Green-Orange	2.49	3.84	2.0	14	2.46 ~ 3.61	M81969/14-04
						3.0	12		
10#	3.15	Green-Red-Gray	Green-Orange-Purple	3.40	4.65	3.0	12	3.42 ~ 4.12	M81969/14-05
						4.8	10		

Note: The required crimping tools and operating instructions are provided in Appendix 1 (Page 103).

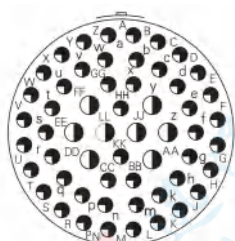
V. Contact Arrangement (View of Pin Insulator Mating Surface)







25-19 I

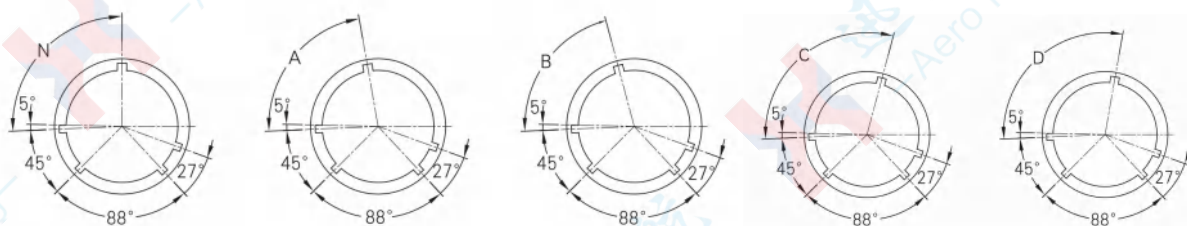


25-04 I

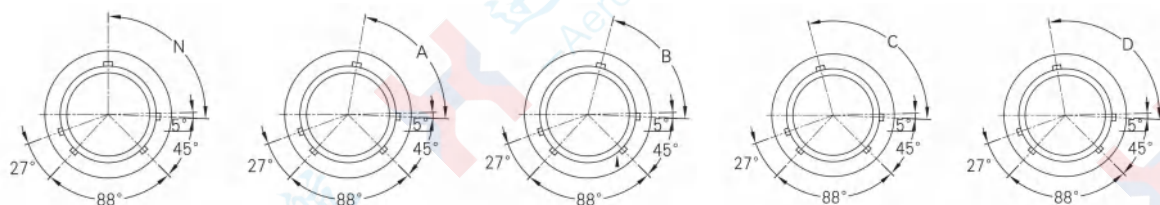
注：接触件直径标志 ○ 22D# ● 20# ○ 16# ○ 12# ○ 10# ● 8# ○ 8#双同轴

VI. Anti-Misinsertion Key Position

Socket Key Position Angle



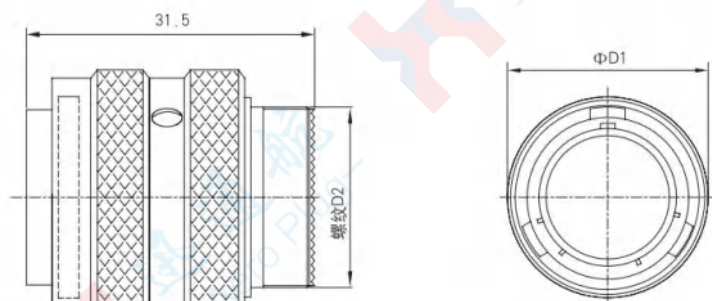
Plug Key Position Angle



Key Position Code	09	11	13	15	17	19	21	23	25
N	95°	95°	95°	95°	95°	95°	95°	95°	95°
A	77°	81°	75°	74°	77°	77°	77°	80°	80°
B	—	67°	63°	61°	65°	65°	65°	69°	69°
C	—	123°	127°	129°	125°	125°	125°	121°	121°
D	113°	109°	115°	116°	113°	113°	113°	110°	110°

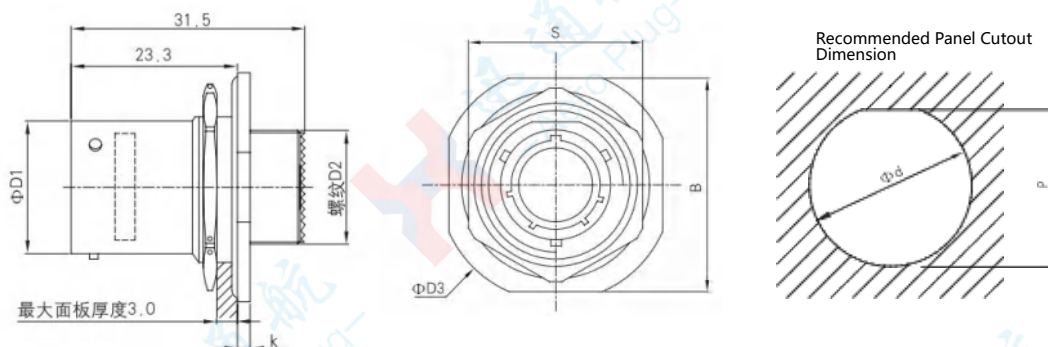
VII. Overall Dimensions

1、plug JY27467



Shell Size	D1	Thread D2 UNEF-2A
09	21.7	0.4375-28
11	25.0	0.5625-24
13	28.2	0.6875-24
15	31.3	0.8125-20
17	34.4	0.9375-20
19	37.4	1.0625-18
21	40.5	1.1875-18
23	44.0	1.3125-18
25	46.8	1.4375-18

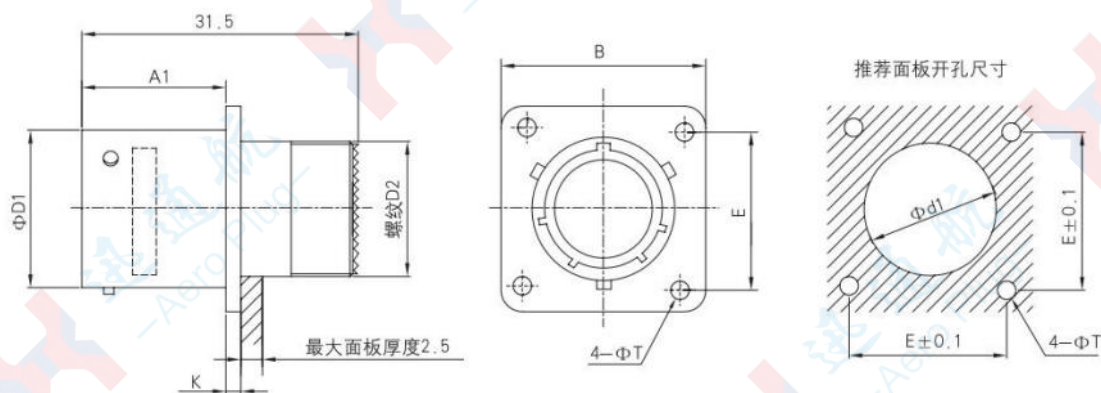
2、Nut-Mounted Socket JY27468



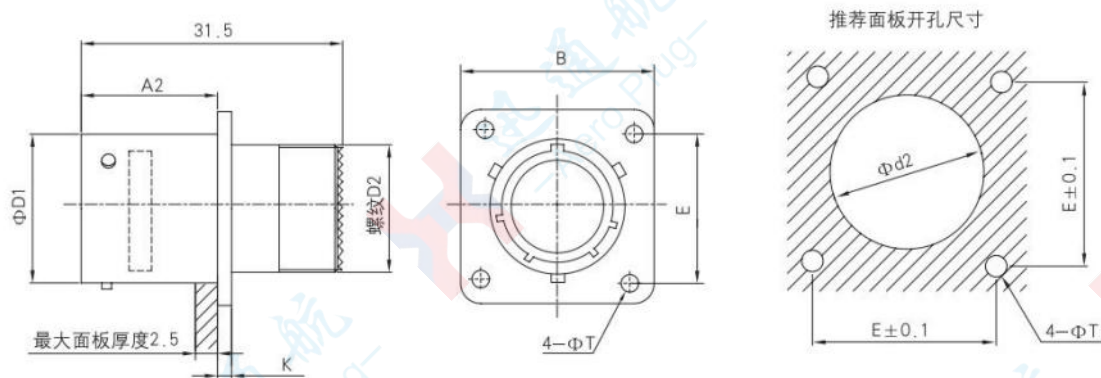
Shell Size	D1	Thread D2 UNEF-2A	D3	K	B	S	d	P
09	14.5	0.4375-28	30.2	2.4	27.0	22.3	7.7	17.0
11	17.8	0.5625-24	35.0	2.4	31.8	25.5	21.0	19.6
13	21.6	0.6875-24	38.1	2.8	35.0	30.2	25.6	24.3
15	24.8	0.8125-20	41.3	2.8	38.1	33.4	28.8	27.3
17	27.9	0.9375-20	44.5	2.8	41.3	36.6	32.0	30.7
19	30.7	1.0625-18	49.3	3.6	46.0	39.7	35.2	33.8
21	33.8	1.1875-18	52.4	3.6	49.2	42.9	38.3	37.1
23	37.0	1.3125-18	55.6	3.6	52.4	46.1	41.5	40.0
25	40.1	1.4375-18	58.8	3.6	55.6	50.8	44.7	43.4

3、Wall-Mounted Square Panel Socket JY27466 JY27656

Wall-Mounted Square Panel Front-Mounted Socket (JY27466)



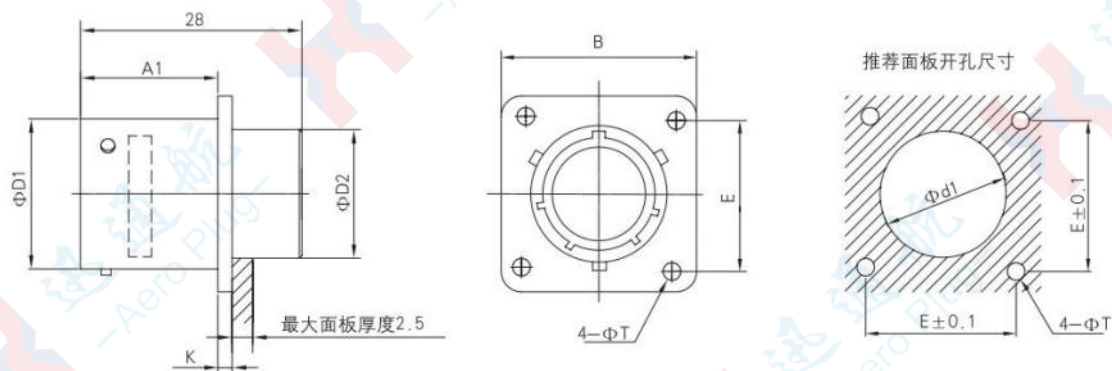
Wall-Mounted Square Panel Rear-Mounted Socket (JY27656)



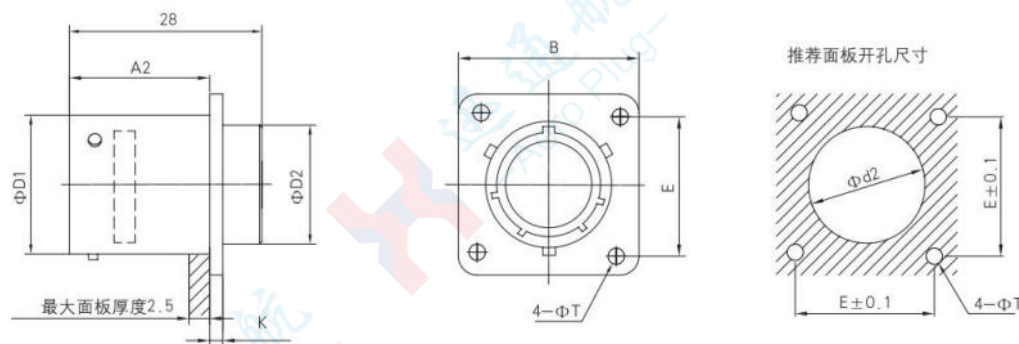
Shell Size	D1	Thread D2 UNE F-2A	A1	A2	K	B	E	T	d1	d2
09	14.6	0.4375-28	16.1	20.9	2.4	23.8	18.26	3.2	12.5	16.7
11	17.8	0.5625-24	16.1	20.9	2.4	26.2	20.62	3.2	15.5	20.2
13	21.6	0.6875-24	16.1	20.9	2.4	28.6	23.02	3.2	19.5	24.5
15	24.8	0.8125-20	16.1	20.9	2.4	31.0	24.62	3.2	21.5	27.7
17	28.0	0.9375-20	16.1	20.9	2.4	33.3	26.98	3.2	25.0	30.9
19	30.7	1.0625-18	16.1	20.9	2.4	36.5	29.36	3.2	28.0	32.9
21	33.8	1.1875-18	15.3	20.1	3.1	39.7	31.76	3.2	31.5	36.2
23	37.0	1.3125-18	15.3	20.1	3.1	42.9	34.92	3.7	34.5	39.3
25	40.2	1.4375-18	15.3	20.1	3.1	46.0	38.10	3.7	37.5	42.5

4、Box-Type Square Panel Socket JY27496 JY27505

Box-Type Square Panel Front-Mounted Socket (JY27496)



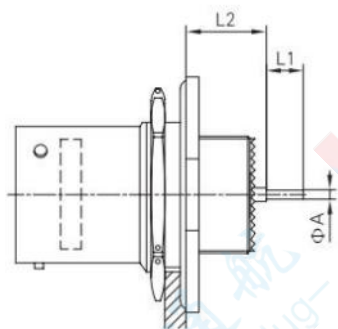
Box-Type Square Panel Rear-Mounted Socket (JY27505)



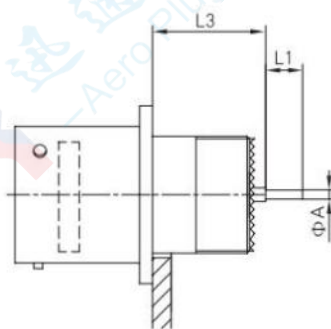
Shell Size	D1	D2	A1	A2	K	B	E	T	d1	d2
09	14.6	11.2	16.1	20.9	2.4	23.8	18.26	3.2	12.5	16.7
11	17.8	14.5	16.1	20.9	2.4	26.2	20.62	3.2	15.5	20.2
13	21.6	18.0	16.1	20.9	2.4	28.6	23.02	3.2	19.5	24.5
15	24.8	20.5	16.1	20.9	2.4	31.0	24.62	3.2	21.5	27.7
17	28.0	23.8	16.1	20.9	2.4	33.3	26.98	3.2	25.0	30.9
19	30.7	26.5	16.1	20.9	2.4	36.5	29.36	3.2	28.0	32.9
21	33.8	29.7	15.3	20.1	3.1	39.7	31.76	3.2	31.5	36.2
23	37.0	32.8	15.3	20.1	3.1	42.9	34.92	3.7	34.5	39.3
25	40.2	36.0	15.3	20.1	3.1	46.0	38.10	3.7	37.5	42.5

5、Socket with Printed Circuit Board (PCB) Contacts

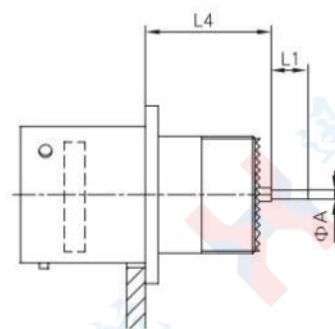
JY27468 socket



JY27466 socket



JY27656 socket

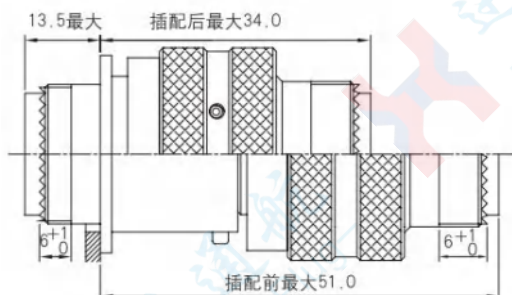


Printed Circuit Board (PCB) Contact Specifications		L1	A
22D#	Long-Type Printed Circuit Board (PCB) Contacts	8.5	0.7
	Short-Type Printed Circuit Board (PCB) Contacts	4.0	
20#	Long-Type Printed Circuit Board (PCB) Contacts	8.5	0.7
	Short-Type Printed Circuit Board (PCB) Contacts	5.0	
16#	Long-Type Printed Circuit Board (PCB) Contacts	8.5	1.15
	Short-Type Printed Circuit Board (PCB) Contacts	5.0	

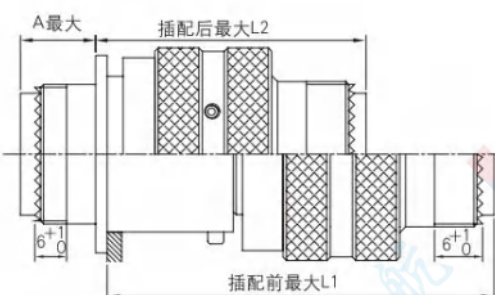
Dimensions for Mounting Contacts of Different Specifications			Shell Size 09-11-13-15-17-19	Shell Size 21-23-25
L2	When Mounting 22D# Pins	Max	10.06	10.06
		Min	9.06	9.06
	When Mounting 22D# Sockets	Max	10.06	10.06
		Min	8.74	8.74
	When Mounting 20# or 16# Pins or Sockets	Max	10.23	10.23
		Min	9.24	9.24
L3	When Mounting 22D# Pins	Max	15.08	15.08
		Min	13.91	13.91
	When Mounting 22D# Sockets	Max	15.08	15.08
		Min	13.58	13.58
	When Mounting 20# or 16# Pins or Sockets	Max	15.25	15.25
		Min	14.08	14.08
L4	When Mounting 22D# Pins	Max	12.47	13.22
		Min	11.60	12.35
	When Mounting 22D# Sockets	Max	12.47	13.22
		Min	11.27	12.02
	When Mounting 20# or 16# Pins or Sockets	Max	12.64	13.39
		Min	11.77	12.52

VIII. Mated Dimensions of Plug and Socket

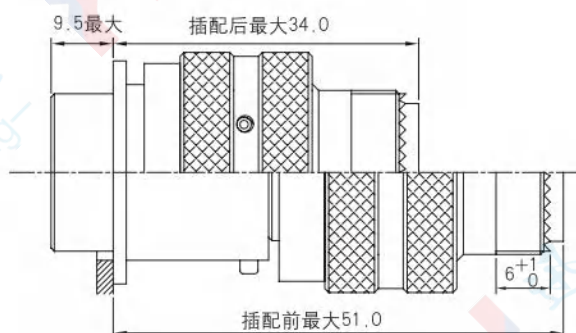
Wall-Mounted Square Panel Front-Mounted Socket (JY27466) / Plug (JY27467)



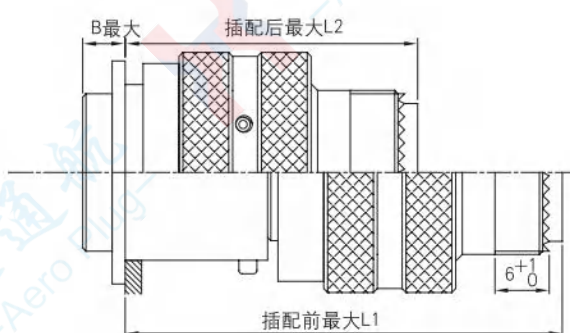
Wall-Mounted Square Panel Rear-Mounted Socket (JY27656) / Plug (JY27467)



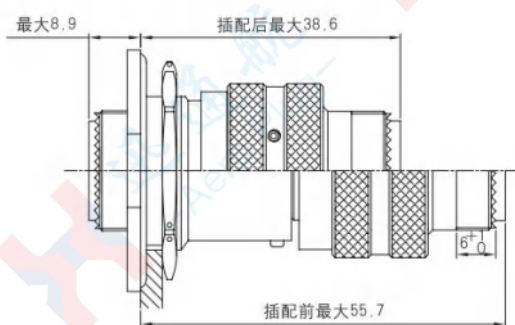
Box-Type Square Panel Front-Mounted Socket (JY27496) / Plug (JY27467)



Box-Type Square Panel Rear-Mounted Socket (JY27505) / Plug (JY27467)



Nut-Mounted Socket (JY27468) / Plug (JY27467)



Shell Size		09	11	13	15	17	19	21	23	25
L1	MAX	53.3	53.3	53.3	53.3	53.3	53.3	52.5	52.5	52.5
L2	MAX	36.4	36.4	36.4	36.4	36.4	36.4	35.6	35.6	35.6
A	MAX	11.1	11.1	11.1	11.1	11.1	11.1	11.9	11.9	11.9
B	MAX	7.1	7.1	7.1	7.1	7.1	7.1	7.9	7.9	7.9

IX. Product Identification Codes for Plug and Socket Sealing Caps

XTH JY 27501 F 11 C L
 1 2 3 4 5 6 7

1— Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— Main Designation Code for Circular Electrical Connectors

3— Basic Part Number:

JY27501 - Plug Sealing Cap (Corresponding to U.S. Military Standard Part Number MS27501)

JY27502 - Socket Sealing Cap (Corresponding to U.S. Military Standard Part Number MS27502)

4— Surface Plating: B-Cadmium Plating with Olive Drab Chromate Conversion Coating

F- Electroless Nickel Plating E-Stainless Steel Passivation

5— Shell Size: 09、11、13、15、17、19、21、23、25

6— Lanyard Type: A-Without Lanyard

N-Stainless Steel Twist Chain with Loop (For JY27468 Sockets Only)

C-Stainless Steel Twist Chain R-Nylon Cord S-Stainless Steel Wire Rope

7— Length Marking: No Mark - Standard Length

L-Lanyard Length: 127mm

M-Lanyard Length: 152.4mm (For JY27501 Only)

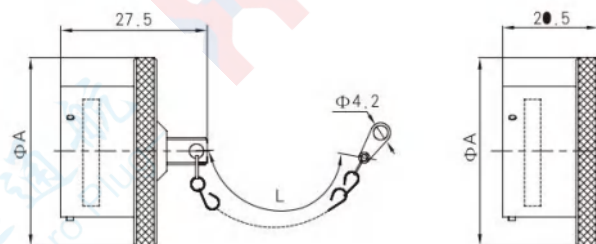
N- Lanyard Length: 177.8mm (For JY27501 Only)

Notes::1、 JY27502 is a composite material sealing cap. If there is no plating, use "-" in the part number.

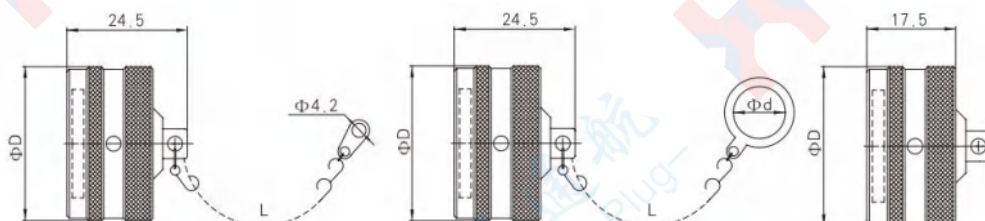
2、 Sealing caps shall be ordered separately and are not supplied with the connectors.

Overall Dimensions

Plug Sealing Cap JY27501 (MS27501)



Socket Sealing Cap JY27502 (MS27502)



Shell Size		09	11	13	15	17	19	21	23	25
A	MAX	20.5	23.7	26.9	30.1	33.2	36.4	39.6	42.8	45.9
D	MAX	21.7	23.5	29.0	31.6	34.8	38.0	41.1	44.2	46.0
d	MIN	18.0	21.1	26.0	29.0	32.4	35.5	38.6	42.0	44.7
L	MAX	148	148	148	169	169	200	200	200	200

Standard Rear Accessories (For GJB599 Series I and Series II Electrical Connectors)
 These accessories comply with GJB1784A (equivalent to U.S. Military Standard MIL-C-85049)

Product Identification Codes for GJB1784A

$\frac{XTH}{1} \quad \frac{J1784A/}{2} \quad \frac{27-}{3} \quad \frac{14}{4} \quad \frac{N}{5}$

- 1— Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.
 2— Basic Part Number*
 3— Detail Specification Number*
 27-Type A: Rear Nut
 49-Type B: Straight Cable Clamp
 47-Type C: Angled Cable Clamp
 62-Type D: Shield Termination Rear Accessory (Add "T" before the Basic Part Number)
 62-Heat Shrink Boot Rear Accessory
 O1-Ground Compression Type; O6-Spring Cable Protection Type
 4— Shell Serial Number

Shell Serial Number	08	10	12	14	16	18	20	22	24
Compatible with Shell Sizes of GJB599 Series I	09	11	13	15	17	19	21	23	25
Compatible with Shell Sizes of GJB599 Series II	08	10	12	14	16	18	20	22	24

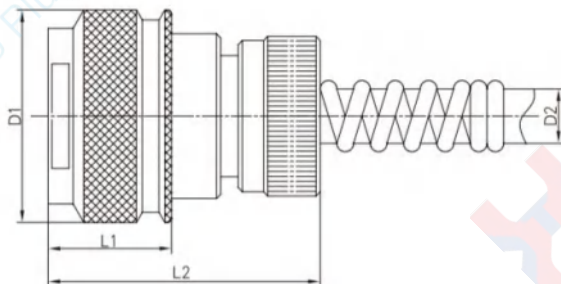
- 5— Shell Plating: W— Cadmium Plating with Olive Drab Chromate Conversion Coating
 N- Electroless Nickel Plating S- Stainless Steel Passivation C - Nickel-Plated Copper
 F1 —Sandblasted Nickel Plating
 C3— Zinc-Nickel Alloy (Black Chromate Conversion Coating)
 C1— Olive Drab Oxide Coating C2 — Black Oxide Coating

Notes: 1.Except for the difference in Basic Part Numbers, the part numbering systems of GJB1784A (National Military Standard) and MIL-C-85049 (U.S. Military Standard) are identical. The Basic Part Number for GJB1784A is "J1784A", and the Main Designation Code for MIL-C-85049 is "M85049". The two are interchangeable.

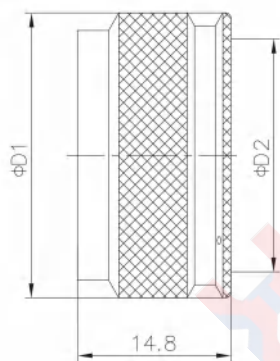
2ccessories shall be ordered separately. If the order quantity is the same as that of the matching plugs and sockets, the abbreviated codes (A, B, C, or D) of the rear accessories can be directly added after the part numbers of the matching plugs and sockets. These abbreviated codes are for ordering and production management purposes only.

Overall Dimensions

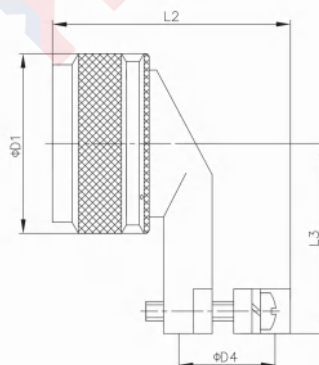
J1784A/O6 - Cable Protection Spring Rear Accessory



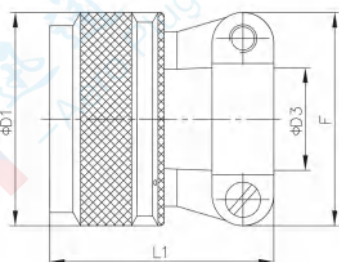
Part Number	D1	D2	L1	L1
J1784A/O6-08N	19.0	7.0	14.8	35
J1784A/O6-10N	21.5	10.0	14.8	35
J1784A/O6-12N	25.4	13.0	14.8	37
J1784A/O6-14N	27.5	15.0	14.8	37
J1784A/O6-16N	31.5	18.0	14.8	37
J1784A/O6-18N	35.5	20.0	14.8	40
J1784A/O6-20N	38.0	23.5	14.8	40
J1784A/O6-22N	42.0	26.5	14.8	45
J1784A/O6-24N	44.5	29	14.8	45



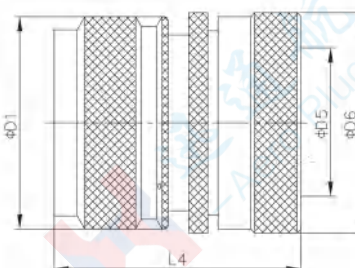
J1784A/27 - (Type HA) Rear Nut



J1784A/47 - (Type HC) Angled Cable Clamp



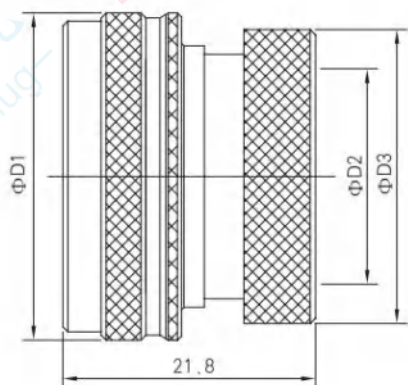
J1784A/49 - (Type HB) Straight Cable Clamp



J1784A/62 - (Type HD) Shield Termination Rear Accessory

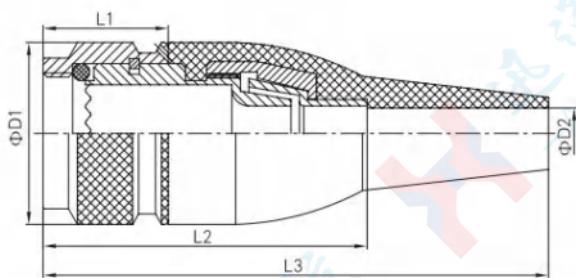
Serial Number		08	10	12	14	16	18	20	22	24
D1	MAX	19.0	21.5	25.4	27.5	31.5	35.5	38.0	42.0	44.5
D2	MAX	7.0	10.5	13.4	16.5	19.7	22.4	25.6	28.8	31.9
D3	MIN	2.49	3.87	4.83	6.6	7.19	8.26	8.71	9.68	10.62
	MAX	5.94	5.94	8.33	11.61	15.6	16.1	17.73	20.9	21.66
D4	MIN	3.2	4.0	4.8	5.5	6.4	7.9	9.5	10.3	14.3
	MAX	6.4	9.5	11.1	14.3	15.9	19.1	22.2	23.8	25.4
D5	MAX	7.0	9.7	12.8	14.9	18.0	20.0	23.2	26.3	28.9
D6	MAX	17.0	19.9	23.1	26.3	29.5	32.5	35.7	38.9	42.0
F	MAX	20.0	20.0	2.4	26.3	30.6	34.0	35.8	39.0	40.6
L1	MAX	23.4	23.4	23.4	27.8	27.8	27.8	27.8	29.9	29.9
L2	MAX	29.0	32.0	33.5	36.5	38.5	41.5	44.5	46.0	48.0
L3	MAX	25.0	26.0	27.5	31.0	32.5	34.0	34.5	36.5	43.5
L4	MAX	31.2	31.2	31.2	33.2	33.2	33.2	36.2	36.2	36.2

J1784A/62 - Heat Shrink Boot Rear Accessory



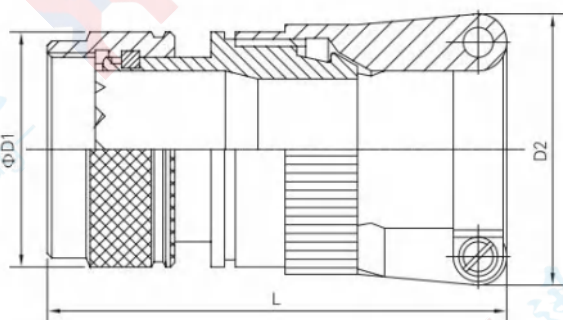
Part Number	D1	D2	D3
J1784A/62-08N	19.0	6.7	11.5
J1784A/62-10N	21.5	9.9	14.6
J1784A/62-12N	25.4	12.8	17.6
J1784A/62-14N	27.5	16.0	21.2
J1784A/62-16N	31.5	19.2	24.4
J1784A/62-18N	35.5	21.4	26.4
J1784A/62-20N	38.0	24.6	30.9
J1784A/62-22N	42.0	27.7	33.8
J1784A/62-24N	44.5	30.5	36.8

J1784A/01 - Ground Compression Rear Accessory



Part Number	D1	D2	L1	L2	L3
J1784A/01-08N	19.0	7.0	14.8	35.0	60
J1784A/01-10N	21.5	10.0	14.8	35.0	60
J1784A/01-12N	25.4	13.0	14.8	37.0	65
J1784A/01-14N	27.5	15.0	14.8	37.0	75
J1784A/01-16N	31.5	18.0	14.8	37.0	75
J1784A/01-18N	35.5	20.0	14.8	40.0	75
J1784A/01-20N	38.0	23.5	14.8	40.0	75
J1784A/01-22N	42.0	26.5	14.8	45.0	75
J1784A/01-24N	44.5	29.0	14.8	45.0	75

TJ1784A/62 - NB (Type HE) Straight Cable Clamp Shielded Rear Accessory



Part Number	D1	D2	L
J1784A/62-08N	19.0	19.4	39.0
J1784A/62-10N	21.5	22.5	39.0
J1784A/62-12N	25.4	25.7	39.0
J1784A/62-14N	27.5	28.9	45.0
J1784A/62-16N	31.5	32.1	45.0
J1784A/62-18N	35.5	35.3	46.5
J1784A/62-20N	38.0	38.4	51.3
J1784A/62-22N	42.0	41.6	56.6
J1784A/62-24N	44.5	44.8	57.3

J1784A/18A-XXN

$\frac{J1784A}{1} \frac{18A}{2} - \frac{25}{3} \frac{N}{4} \frac{09}{5} \frac{A}{6}$

- 1—Basic Part Number: J1784A
- 2—Detail Specification Number: 18A - Straight Shielded Cable Clamp (For JY599 Series I and Series II)
- 3—Shell Size: See Table 1
- 4—Shell Plating: N-Electroless Nickel Plating
W-Cadmium Plating with Olive Drab Chromate Conversion Coating
S-Stainless Steel Passivation
- 5—Cable Outlet Diameter Code: See Table 2
- 6—Length Code: See Table 3

Table 1

Shell Size	Optional Cable Outlet Diameter Code	A	Thread B
9	01 ~ 02	19.0	0.4375-28UNEF
11	01 ~ 03	21.5	0.5625-24UNEF
13	02 ~ 04	25.4	0.6875-24UNEF
15	02 ~ 05	27.5	0.8125-20UNEF
17	02 ~ 06	31.5	0.9375-20UNEF
19	03 ~ 07	35.5	1.0625-1 8UNEF
21	03 ~ 08	38.0	1.1875-1 8UNEF
23	03 ~ 09	42.0	1.3125-1 8UNEF
25	04 ~ 10	44.5	1.4375-1 8UNEF

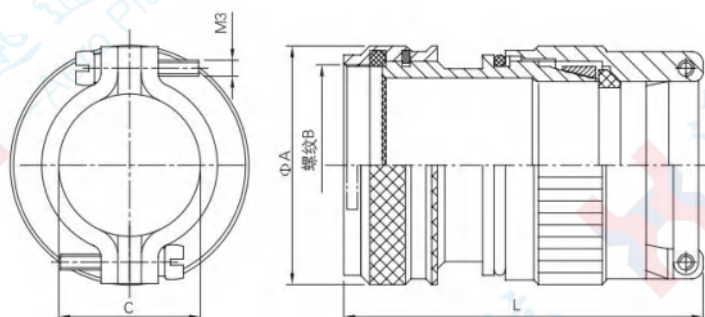


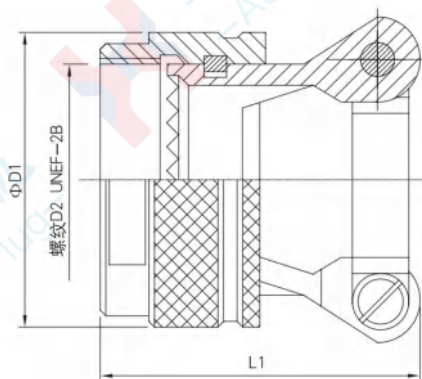
Table 2

Cable Outlet Diameter Code	Cable Outlet Size Range (C)
01	1.57-3.18
02	3.18-6.35
03	6.35-9.53
04	9.53-12.7
05	12.7-15.88
06	15.88-19.05
07	19.05-22.23
08	22.23-25.4
09	25.4-28.58
10	28.58-31.75

Table 3

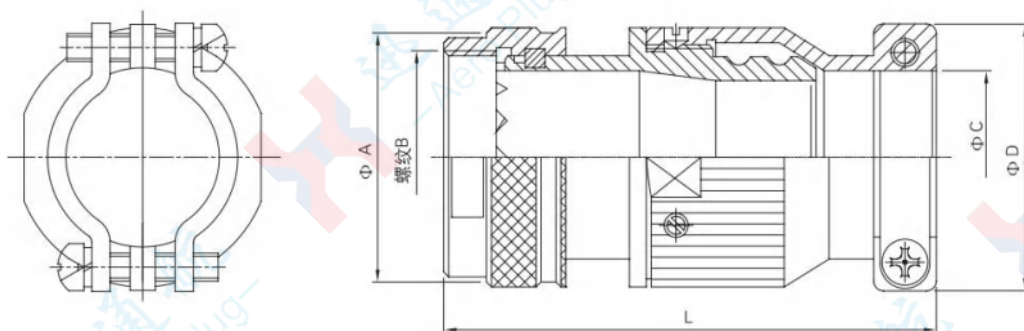
Shell Size	Length Code	L
9-25	Standard (Omitted from Marking)	62.7
9-25	A	88.1
15-25	B	113.5
21-25	C	138.9

J1784A/49-xxN(Short)



Accessory Part Number	D1	Thread D2	L1
J1784A/49-10N(Short)	21.5	0.5625-24	20.8
J1784A/49-12N(Short)	25.4	0.6875-24	19.0
J1784A/49-14N(Short)	27.5	0.8125-20	25.2
J1784A/49-16N(Short)	31.5	0.9375-20	25.3
J1784A/49-18N(Short)	35.5	1.0625-18	26.7
J1784A/49-20N(Short)	38.0	1.1875-18	26.8
J1784A/49-22N(Short)	42.0	1.3125-18	32

TJ1784A/62-xxNC-xx



Accessory Part Number	A	Thread B UNEF	C	D	I
TJ1784A/62-08NC-08	19.0	0.4375-28	8	20	39
TJ1784A/62-10NC-08	21.5	0.5625-24	8	20	39
TJ1784A/62-10NC-10			10	20	40
TJ1784A/62-12NC-10	25.4	0.6875-24	10	20	40
TJ1784A/62-12NC-12			12	25	46.5
TJ1784A/62-14NC-12	27.5	0.7125-20	12	25	46.5
TJ1784A/62-14NC-14			14	27	46.5
TJ1784A/62-14NC-16			16	27	46.5
TJ1784A/62-16NC-16	31.5	0.9375-20	16	27	46.5
TJ1784A/62-16NC-19			19	32	46.5
TJ1784A/62-18NC-19	35.5	1.0625-18	19	32	46.5
TJ1784A/62-18NC-22			22	33	46.5
TJ1784A/62-20NC-22	38.0	1.1875-18	22	33	46.5
TJ1784A/62-20NC-25			25	36.5	46.5
TJ1784A/62-22NC-25	42.0	1.3125-18	25	36.5	46.5
TJ1784A/62-22NC-28			28	40	46.5
TJ1784A/62-24NC-28	44.5	1.4375-18	28	40	46.5
TJ1784A/62-24NC-31			31	44	46.5

Special Tail Accessories (For GJB599 Series I and Series II Electrical Connectors)

This series of tail accessories is specifically designed for clamping shielded cables with braided shields, categorized into two main types: straight and angled. Optional Ti-Ni shape memory alloy rings are available. When heated, the rings shrink to tightly fasten the braided shield around the accessory tail, achieving true 360° electromagnetic shielding.

***Heating and Shrinking of Ti-Ni Shape Memory Alloy Rings:** Special resistance heaters (utilizing the ring's own resistance for electric heating) or hot air guns can be used. The shrinking process is complete when the temperature indicator on the ring changes from green to black, at which point the ring temperature is approximately 165°C. Stop heating immediately. Ensure uniform heating during the process. Electric heating takes about 4-5 seconds, while hot air gun heating requires approximately 45 seconds to 1 minute.

Product Identification Code

XTH JY599 I 15 FJA 00 F A -05
 1 2 3 4 5 6 7 8 9

1—Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Military Standard Code

3—I (Universal for GJB599 Series I and Series II)

4—Shell Serial Number

Shell Serial Number	09	11	13	15	17	19	21	23	25
Compatible with Series I Shell Sizes	09	11	13	15	17	19	21	23	25
Compatible with Series I Shell Sizes	08	10	12	14	16	18	20	22	24

5 — Accessory Type: FJA、FJC、FJE

6— Structural Form: 00-straight Tail Accessory

90-90° Angled Accessory

7— Shell Plating: B-Cadmium Plating with Olive Drab Chromate Conversion Coating E-Stainless Steel Passivation F-Electroless Nickel Plating

8— Ti-Ni Ring: No Marking - Without Ti-Ni Ring

A-Optional Ti-Ni Ring (For FJA and FJC Only)

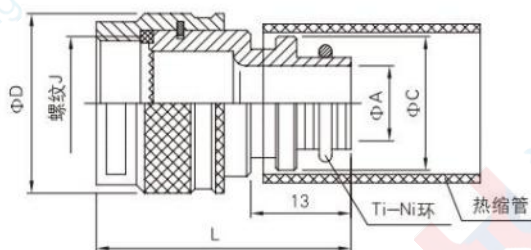
9— Cable Outlet Diameter or Ti-Ni Ring Specification

Mark cable outlet diameter for products with Ti-Ni Ring

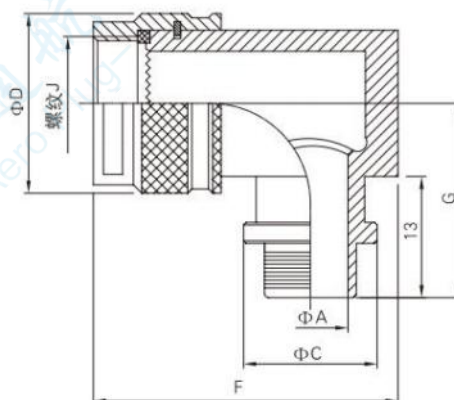
Mark Ti-Ni Ring specification for products with optional Ti-Ni Ring

Overall Dimensions

直式附件(JY599I-FJA00)

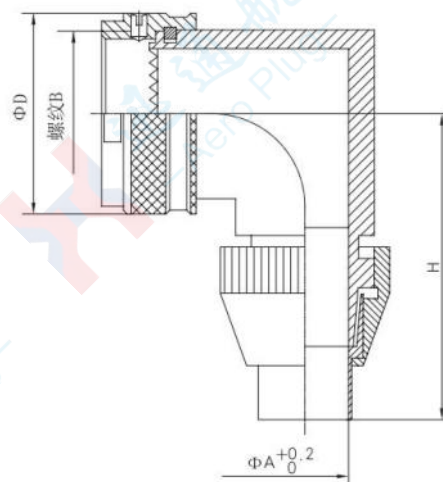


弯式附件(JY599I-FJA90)



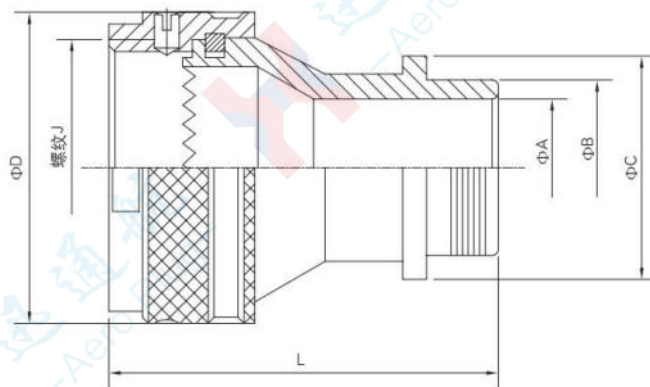
Serial Number	Shell Serial Number	Ti-Ni Ring Specification	Shield Mesh Specification (Nominal Diameter of Tinned Copper Wire)	A Cable Outlet Diameter		C		F	L	D	G	Thread J UNEF-2B
				Straig ht	Straig ht	Straig ht	Angle d					
1	09	TR-04	6x10(0.15 ~ 0.20)	6.3	6.3	14.0	14.0	36.3	31.7	19.0	26	0.4375-28
		TR-05	10x16(0.15 ~ 0.20)	7.9	7.9	15.5	15.0					
		TR-06	10x16(0.15 ~ 0.20)	9.5	9.5	17.1	15.0					
2	11	TR-04	6x10(0.15 ~ 0.20)	6.3	6.3	14.0	14.0	37.8	31.7	21.5	26	0.5625-24
		TR-05	10x16(0.15 ~ 0.20)	7.9	7.9	15.5	15.5					
		TR-06	10x16(0.15 ~ 0.20)	9.5	9.5	17.1	17.1					
		TR-07	10x16(0.12 ~ 0.20)	11.1	11.1	18.7	18.0					
		TR-08	16x24(0.12 ~ 0.25)	12.7	12.7	20.3	18.0					
3	13	TR-04	6x10(0.15 ~ 0.20)	6.3	6.3	14.0	14.0	43.3	31.7	25.4	29	0.6875-24
		TR-05	10x16(0.15 ~ 0.20)	7.9	7.9	15.5	15.5					
		TR-06	10x16(0.15 ~ 0.20)	9.5	9.5	17.1	17.1					
		TR-07	10x16(0.12 ~ 0.20)	11.1	11.1	18.7	18.7					
		TR-08	16x24(0.12 ~ 0.25)	12.7	12.7	20.3	20.3					
4	15	TR-05	10x16(0.15 ~ 0.20)	7.9	-	15.5	-	45.1	33.6	27.5	29	0.81 25-20
		TR-06	10x 16(0.15 ~ 0.20)	9.5	9.5	17.1	17.1					
		TR-07	10x 16(0.12-0.20)	11.1	11.1	18.7	18.7					
		TR-08	16 x24(0.12 ~ 0.25)	12.7	12.7	20.3	20.3					
		TR-10	16x24(0.10 ~ 0.30)	16.0	16.0	23.5	23.5					
		TR-1 2	16x24(0 10 ~ 0.30)	19.0	19.0	26.7	25.5					
5	17	TR-05	10x 16(0.15 ~ 0.20)	7.9	-	15.5	-	48.8	33.6	31.5	33	0.9375-20
		TR-06	10x 16(0.15 ~ 0.20)	9.5	10.5	17.1	17.1					
		TR-07	10x16(0 12 ~ 0.20)	11.1	11.1	18.7	18.7					
		TR-08	16x24(0.12 ~ 0.25)	12.7	12.7	20.3	20.3					
		TR-1 0	16x24(0.10 ~ 0.30)	16.0	16.0	23.5	23.5					
		TR-12	16x24(0.10 ~ 0.30)	19.0	19.0	26.7	26.7					
6	19	TR-14	24x30(0.10 ~ 0.30)	22.2	22.2	30.0	28.0	51.6	33.6	35.5	33	1.0625-18
		TR-08	16x24(0.12 ~ 0.25)	12.7	12.7	20.3	20.3					
		TR-10	16x24(0.10 ~ 0.30)	16.0	16.0	23.5	23.5					
		TR-12	16x24(0.10 ~ 0.30)	19.0	19.0	26.7	26.7					
		TR-14	24x30(0.10 ~ 0.30)	22.2	22.2	30.0	30.0					
7	21	TR-16	24x30(0.10 ~ 0.30)	25.4	25.4	33.0	33.0	53.8	33.6	38.0	39	1.1875-18
		TR-18	30x40(0.10 ~ 0.30)	28.5	-	36.2	-					
		TR-08	16x24(0.12 ~ 0.25)	12.7	12.7	20.3	20.3					
		TR-10	16x24(0.10 ~ 0.30)	16.0	26.0	23.5	23.5					
		TR-12	16x24(0.10 ~ 0.30)	19.0	19.0	26.7	26.7					
		TR-14	24x30(0.10 ~ 0.30)	22.2	22.2	30.0	30.0					
8	23	TR-16	24x30(0.10 ~ 0.30)	25.4	25.4	33.0	33.0	56.3	33.6	42.0	39	1.3125-1 8
		TR-18	30x40(0.10 ~ 0.30)	28.5	28.5	36.2	36.2					
		TR-20	30x40(0.10 ~ 0.30)	31.8	-	39.4	-					
		TR-10	16 x 24(0.10 ~ 0.30)	16.0	16.0	23.5	23.5					
		TR-12	16x24(0.10 ~ 0.30)	19.0	19.0	26.7	26.7					
		TR-14	24x30(0.10 ~ 0.30)	22.2	22.2	30.0	30.0					
9	25	TR-16	24x30(0.10 ~ 0.30)	25.4	25.4	33.0	33.0	61.8	31.8	44.5	44	1.4375-1 8
		TR-18	30x40(0.10 ~ 0.30)	28.5	28.5	36.2	36.2					
		TR-20	30x40(0.10 ~ 0.30)	31.8	31.8	39.4	39.4					
		TR-22	30x40(0.10 ~ 0.30)	35.0	35.0	42.5	42.0					
		TR-10	16x24(0.10 ~ 0.30)	-	16.0	-	23.5					
		TR-12	16x24(0.10 ~ 0.30)	19.0	19.0	26.7	26.7					

JY599 I xxFJA90F03



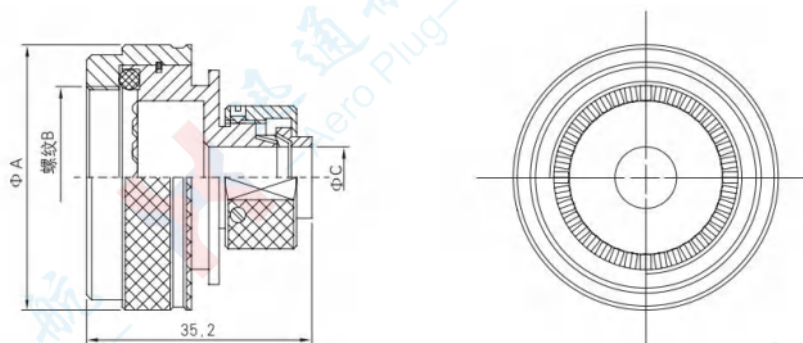
Shell Size	A Cable Outlet Diameter	Thread B UNE F-2B	D	H
11	10	0.5625-24	18.6	39
13	10	0.6875-24	21.8	39
15	10、16	0.8125-20	25	43
17	12.7、16、18	0.9375-20	28.2	43
23	19	1.3125-20	37.5	45

JY599 I xxFJC00



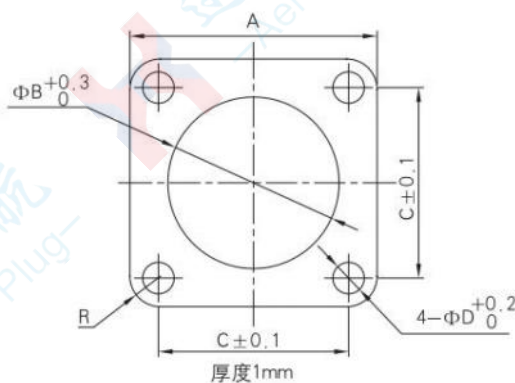
Shell Size	A	B	C	D	Thread J UNEF	L	Ti-Ni Ring Specification
11	8.3	11	15	21.5	0.5625-24	29	TR-05
13	10	12.7	16.6	25.4	0.6875-24	29	TR-06
15	11.1	14.3	18.5	27.5	0.8125-20	29	TR-07
17	13.1	15.9	19.8	31.5	0.9375-20	29	TR-08
19	16.2	19	23	35.5	1.0625-18	29	TR-10
21	16.2	19	23	38.0	1.1875-18	29	TR-10
23	19.5	22.2	26.2	42.0	1.3125-18	29	TR-12
25	19.5	22.2	26.2	44.5	1.4375-18	29	TR-12

JY599 I xxFJE00



Shell Size	A	Thread B UNEF	C Cable Outlet Diameter
09	22	0.4375-28	6.3、 7.9、 9.5
11	25	0.5625-24	6.3、 7.9、 9.5、 11.1 、 12.7
13	28	0.6875-24	6.3、 7.9、 9.5、 11.1 、 12.7、 16
15	32	0.81 25-20	7.9、 9.5、 11.1 、 12.7、 16、 19
17	35	0.9375-20	7.9、 9.5、 11.1 、 12.7、 16、 19、 22.2
23	44	1.31 25-18	16、 19、 22.2、 25.4、 28.5、 31.8
25	47	1.4375-18	19、 22.2、 25.4、 28.5、 31.8、 35

Square Plate Rubber Gasket



Compatible with Shell Sizes	Square Plate Rubber Gasket Code	Conductive Square Plate Rubber Gasket Code	A	B	C	D	R
09	21E8.701.849	21E8.701.850	23.9	14.8	18.26	3.3	3.2
11	221E8.701.851	21E8.701.852	26.3	18.0	20.62	3.3	3.2
13	21E8.701.853	21E8.701.854	28.7	21.8	23.01	3.3	3.2
15	21E8.701.855	21E8.701.856	31.1	25.0	24.61	3.3	3.2
17	21E8.701.857	21E8.701.858	33.4	28.2	26.97	3.3	3.2
19	21E8.701.859	21E8.701.860	36.6	30.9	29.36	3.3	3.2
21	21E8.701.861	21E8.701.862	39.8	34.0	31.75	3.3	3.2
23	21E8.701.863	21E8.701.864	43.0	37.2	34.93	3.8	3.7
25	21E8.701.865	21E8.701.866	46.1	40.4	38.10	3.8	3.7

GJB599 Series II (MIL-DTL-38999 Series II) Circular Electrical Connector

This series of circular electrical connectors complies with the requirements of GJB599A (MIL-DTL-38999K) Series I. It adopts bayonet-type quick connection and features small size, light weight, high contact density, EMI/RFI shielding, and anti-misalignment insertion design. The contacts are available in crimp and solder types, among which the crimp contacts are removable. The sockets offer multiple mounting options including box-mounted, wall-mounted, front-mounted, rear-mounted, and nut-fastened types.

This product exhibits high-intensity vibration resistance and is compatible with standard tail accessories per GJB1784A. It is equipped with special tail accessories (Ti-Ni alloy memory rings) dedicated to shielded cable clamping. With 9 shell sizes available, the product features sealed structures on the mating interface and tail, providing excellent tri-proof performance (moisture, dust, and salt fog resistance) with an IP65 protection rating. The five-keyway alignment mechanism offers five anti-misinsertion key positions, making it widely applicable in military systems such as aviation, aerospace, and ordnance, as well as other electronic equipment systems.

Product Identification Code

XTH	JY	27472	T	14	F	35	P	N
1	2	3	4	5	6	7	8	9

1—Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co.,

2—Main Designation for Circular Electrical Connector

3— Type: 27473 - Plug (T Class Only)

27484 - Shielded Plug (T Class Only)

27472 - Wall-Mounted Square Plate Front-Mounted Socket (T Class Only)

27513 - Box-Mounted Square Plate Front-Mounted Socket (E Class Only)

27497 - Wall-Mounted Square Plate Rear-Mounted Socket (T Class Only)

27508 - Box-Mounted Square Plate Rear-Mounted Socket (E Class Only)

27474 - Nut-Mounted Socket (T Class Available)

E Class: Threadless (Customized per Customer Requirements)

4—Shell Class:T-Tail with Threads and Rear Accessory Stop Teeth (Rear Accessories Installable)

E-Tail without Threads or Rear Accessory Stop Teeth (Rear Accessories Not Installable)

5—Shell Size: 08、10、12、14、16、18、20、22、24

6—Shell Plating:B-Aluminum Alloy Shell with Cadmium Plating (Olive Drab Chromate Conversion Coating)

F1-Aluminum Alloy Shell with Sandblasted Nickel Plating

C-Aluminum Alloy Shell with Anodization

C3-Aluminum Alloy Shell with Zinc-Nickel Alloy Plating (Black Chrome)

F-Aluminum Alloy Shell with Electroless Nickel Plating

C1- Aluminum Alloy Shell with

Anodization (Olive Drab)

E-Stainless Steel Shell with Passivation

C2—Aluminum Alloy Shell with

Anodization (Black)

7— Contact Arrangement: Refer to the "Contact Arrangement" Diagram

8— Contact Type:

P-Crimp Pin (500 Insertion/Extraction Cycles); PH-Soldered Pin; PC-Short Printed Circuit Board (PCB) Pin; PL-Long PCB Pin;

H-Crimp Pin (1500 Insertion/Extraction Cycles); HH-soldered Pin; HC-Short PCB Pin; HL-Long PCB Pin;

S- Crimp Socket (500 Insertion/Extraction Cycles); SH- Soldered Socket; SC-Short PCB Socket; SL-Long PCB Socket;

J-Crimp Socket (1500 Insertion/Extraction Cycles); JH-Soldered Socket; JC-Short PCB Socket; JL-Long PCB Socket;

CD-External Pin/Internal Socket, Flange Outside Cabin (Feedthrough Socket)

DC- External Socket/Internal Pin, Flange Outside Cabin (Feedthrough Socket)

9 N-Key Position A、B、C、D、E—Alternate Key Positions

Note: In the model naming of GJB599A (PRC Military Standard) and MIL-DTL-38999K (U.S. Military Standard), all elements are identical except for the main designation. The main designation for GJB599A is "JY", while that for MIL-DTL-38999K is "MS". The two series are interoperable and interchangeable.

Product Technical Characteristics

—、Operating Environmental Conditions

Operating Temperature:Class B: -65°C ~

+175°C

Classes C, E, F: -65°C ~ +200°C

Salt Spray Resistance:Class B: 500h Class E:

1000h

Class F: 48h

Class C: 96h

Relative Humidity: GJB1217 Test Procedure 1002, 24h per cycle, 10 cycles total

Operating Altitude: ≤30480m

The electrical connector also features excellent resistance to moisture, salt spray, mold, rain, and dust.



II. Electrical Characteristics

Contact Resistance and Rated Current of Contacts

Contact Specification	Working Diameter mm	Contact Resistance mΩ	Rated Current A
22D#	φ0.76	≤12	5
20#	φ1.00	≤5	7.5
16#	φ1.60	≤2.5	13
12#	φ2.40	≤1.5	23

EMI Shielding:

100 MHz~1 GHz: Minimum Attenuation 45 dB

Withstand Voltage (V)

Operating Class	M	I	II
Sea Level	1300	1800	2300
21000m	800	1000	1000

*Different contact arrangements correspond to different operating ratings. Refer to "Contact Arrangement" for details.

Insulation Resistance:

Normal Conditions≥5000MΩ

Damp Heat Conditions≥100MΩ

Electrical Continuity Between Housings:

Class B≤2.5mΩ

Class F≤1.0mΩ

Class E≤5.0mΩ

III. Mechanical Characteristics

Housing: Aluminum Alloy, Stainless Steel

Plating:

Class B: Cadmium Plating (Olive Drab Chromate Conversion Coating)

Class C: Anodization Class E: Stainless Steel Passivation

Class F: Electroless Nickel Plating

Insulator: Thermosetting Plastic
Cable Gland and Sealing Ring: Silicone Rubber Material

Contacts:

Copper Alloy with Gold Plating (Crimp, Solder, and PCB Types)

Mechanical Life:

≥500 Insertion/Extraction Cycles

Vibration:

Random Vibration, Frequency 100~1000 Hz, Power Spectral

Density 1 G²/Hz

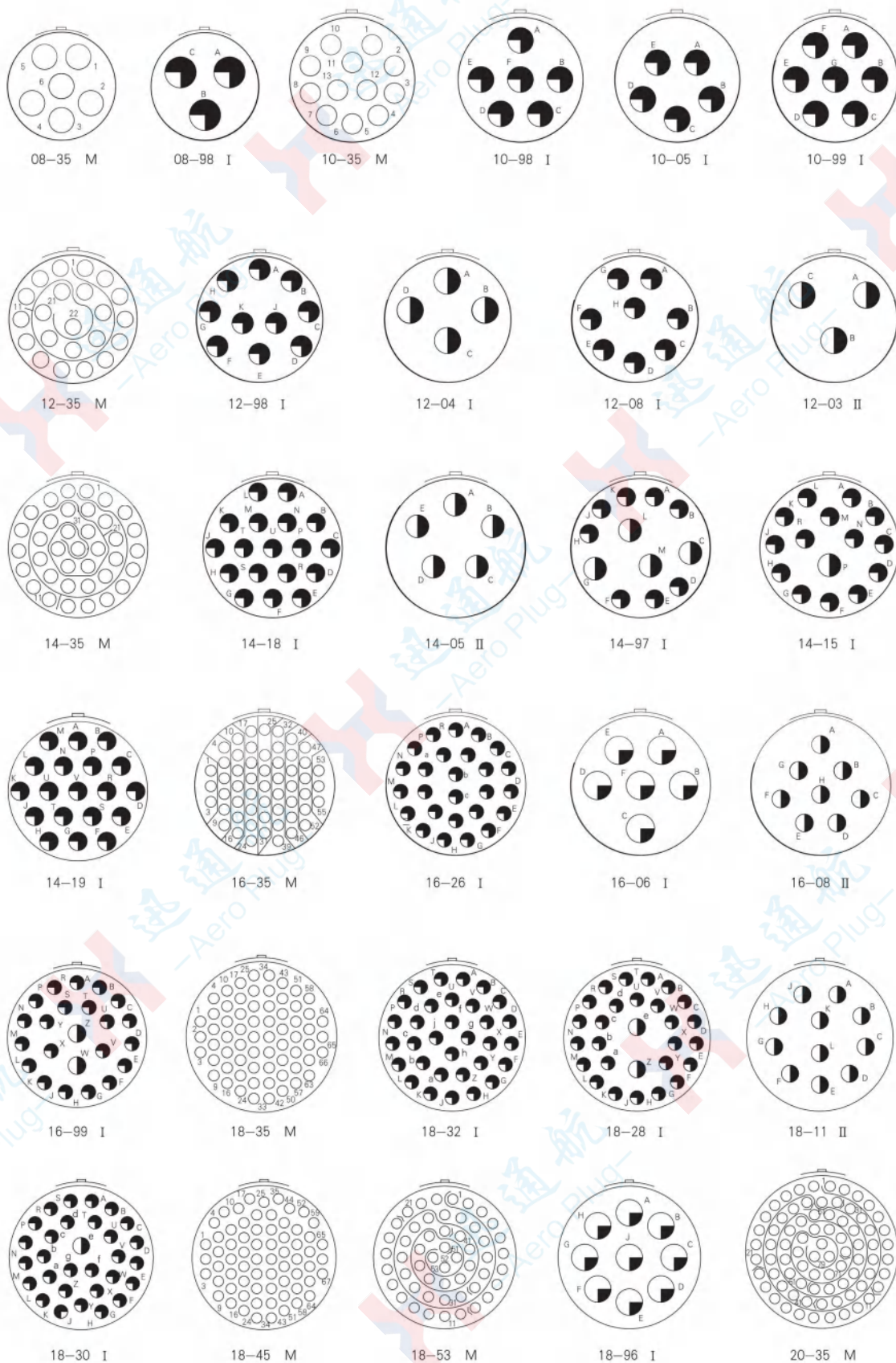
Shock: 2940 m/s², 3 ms

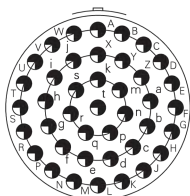
IV. Identification of Crimp Contacts

Contact Specifications	Diameter mm	Pin Color Code	Socket Color Code	Inner Diameter of Crimp Sleeve mm	Outer Diameter of Crimp Sleeve mm	Compatible Wire Gauge Range mm ²	Compatible with American Wire Gauge (AWG)	Compatible Wire - Insulation Outer Diameter (mm)	Removal Tool Code
22D#	Φ0.76	Orange-Blue-Black	Orange-Green-Yellow	0.85	1.20	0.08 0.125 0.2 0.3	28 26 24 22	0.76 ~ 1.37	M81969/14-01
20#	Φ1.00	Orange-Blue-Orange	Orange-Green-Purple	1.17	1.78	0.2 0.3 0.5	24 22 20	1.02 ~ 2.11	M81969/14-10
16#	Φ1.60	Orange-Blue-Yellow	Orange-Green-Gray	1.68	2.62	0.5 0.8 1.0 1.0	20 18 16	1.65 ~ 2.77	M81969/14-03
12#	Φ2.40	Orange-Blue-Green	Orange-Green-White	2.49	3.84	2.0 3.0	14 12	2.46 ~ 3.61	M81969/14-04

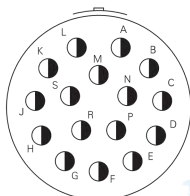
Note: Required crimp tools and operating instructions are provided in Appendix 1 (Page458-462)

V. Contact Arrangement (View of the Mating Face of the Pin-Insulator Assembly)

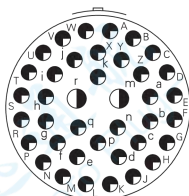




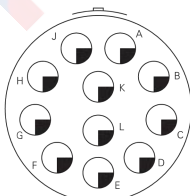
20-41 I



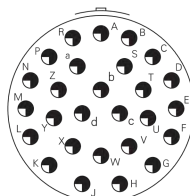
20-16 II



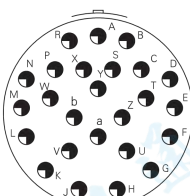
20-39 I



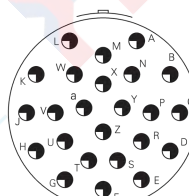
20-11 II



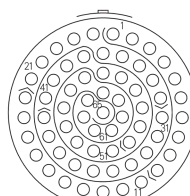
20-27 I



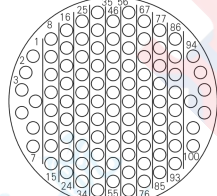
20-25 I



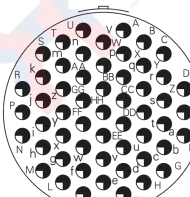
20-24 I



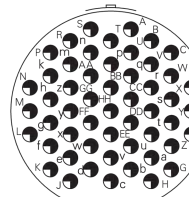
20-02 M



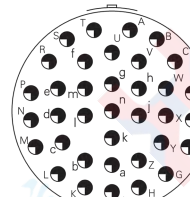
22-35 M



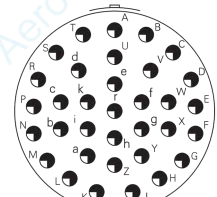
22-55 I



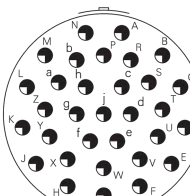
22-53 I



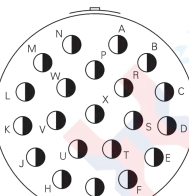
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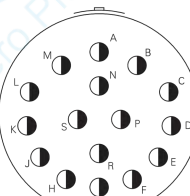
22-34 I



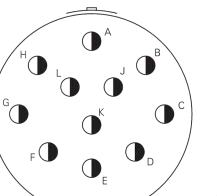
22-32 I



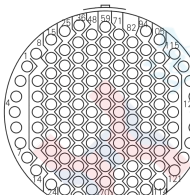
22-21 II



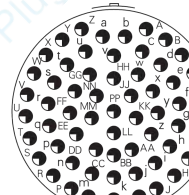
22-97 I



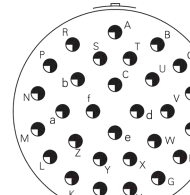
22-99 II



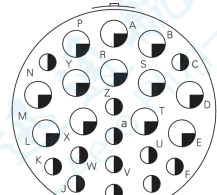
24-35 M



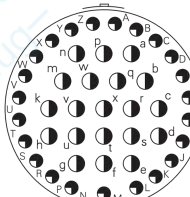
24-61 I



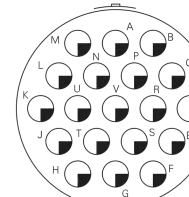
24-29 I



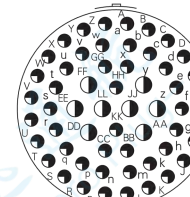
24-24 I



24-43 I



24-19 I

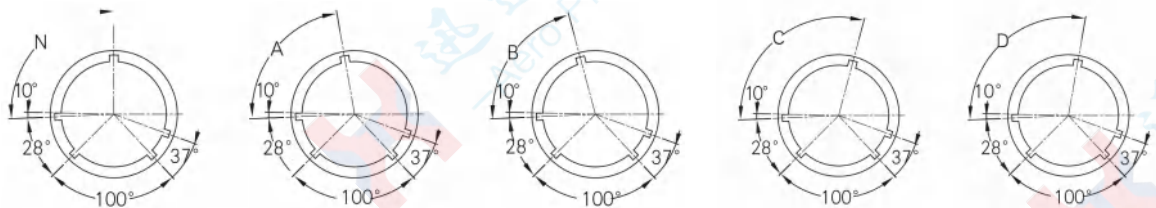


24-04 I

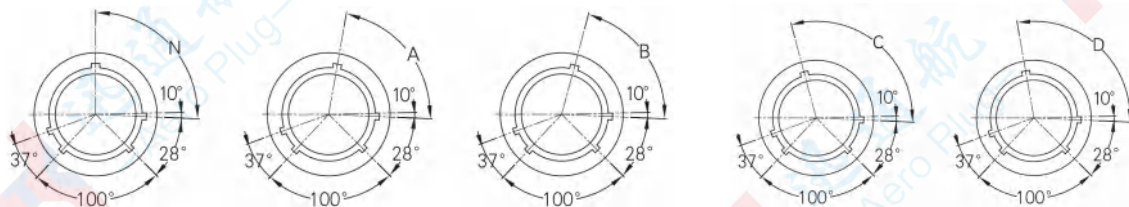
注：接触件直径标志 ○22D# ●20# ◐16# ◑12#

VI. Anti-Misinsertion Key Position

Socket Key Angle



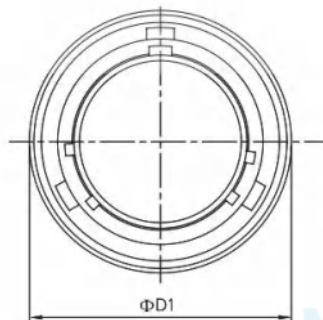
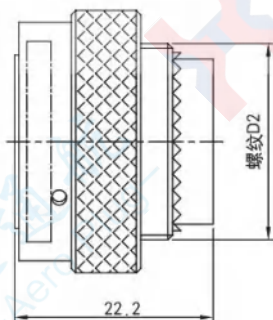
Plug Key Angle



Key Designation Code	08	10	12	14	16	18	20	22	24
N	100°	100°	100°	100°	100°	100°	100°	100°	100°
A	82°	86°	80°	79°	82°	82°	82°	85°	85°
B	-	72°	68°	66°	70°	70°	70°	74°	74°
C	-	128°	132°	134°	130°	130°	130°	126°	126°
D	118°	114°	120°	121°	118°	118°	118°	115°	115°

VII. Overall Dimensions

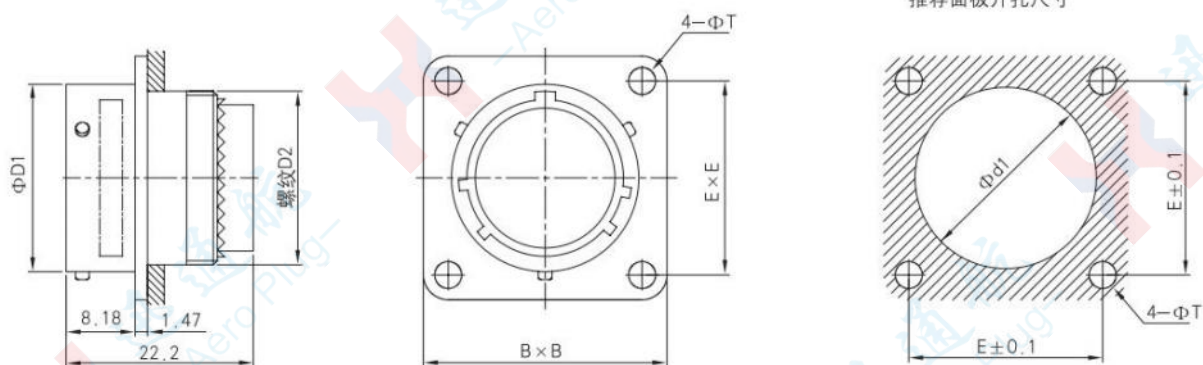
1、plug JY27473/JY27484



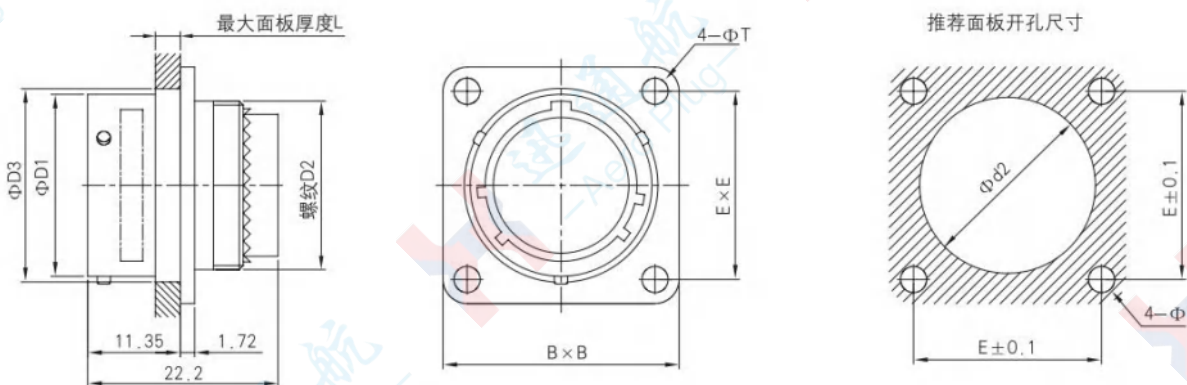
Shell Size	D1	Thread D2 UNEF-2A
08	19.00	0.4375-28
10	21.80	0.5625-24
12	26.20	0.6875-24
14	29.30	0.8125-20
16	32.50	0.9375-20
18	35.70	1.0625-18
20	38.80	1.1875-18
22	41.68	1.3125-18
24	44.86	1.4375-18

2. Wall-Mounted Square Panel Receptacle JY27472/JY27497

Wall-Mounted Square Panel Front-Mounted Receptacle (JY27472)



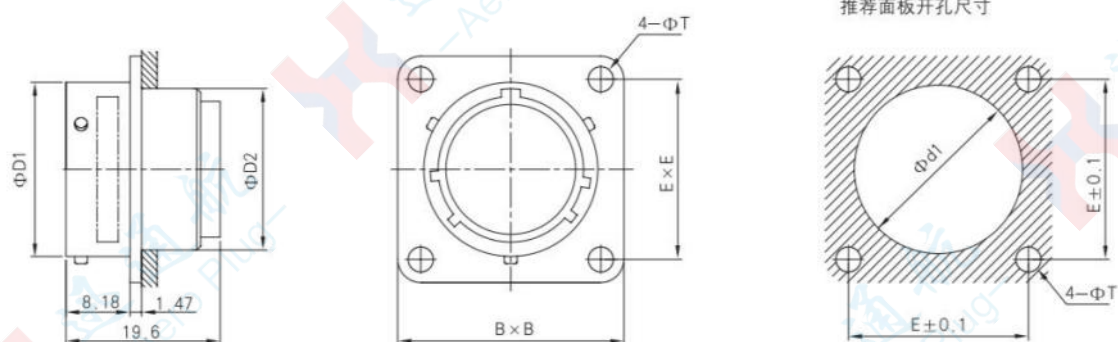
Wall-Mounted Square Panel Rear-Mounted Receptacle (JY27497)



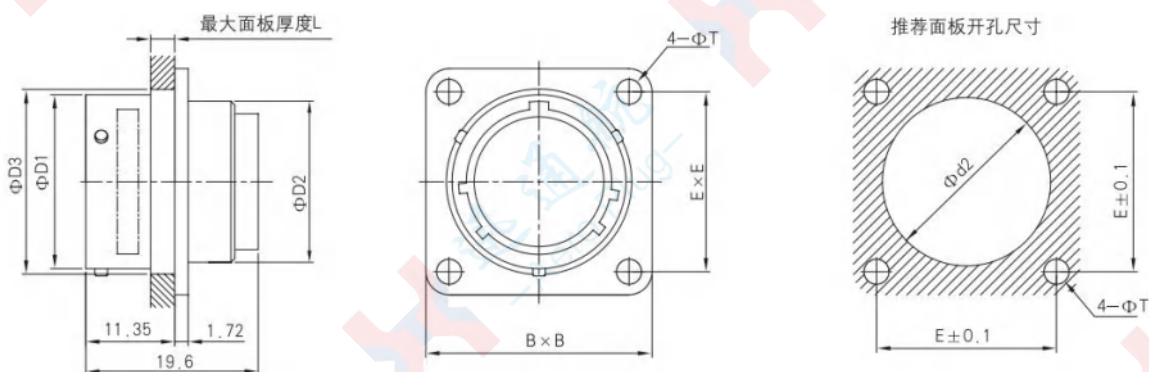
Shell Size	D1	Thread D2 UNEF-2A	D3	L (Max)	B	E	T	d1	d2
08	12.00	0.4375-28	13.20	3.71	21.00	15.09	3.2	12.5	14.2
10	15.00	0.5625-24	16.14	3.71	24.10	18.26	3.2	15.5	17.5
12	19.05	0.6875-24	20.50	3.71	26.50	20.62	3.2	19.5	21.3
14	22.23	0.8125-20	23.60	3.71	28.90	23.01	3.2	21.5	25.0
16	25.40	0.9375-20	26.80	3.71	31.21	24.61	3.2	25.0	27.3
18	28.58	1.0625-18	30.00	3.71	33.60	26.97	3.2	28.0	31.3
20	31.75	1.1875-18	33.20	4.27	36.80	29.36	3.2	31.5	34.5
22	34.93	1.3125-18	36.35	4.27	40.00	31.75	3.2	34.5	37.5
24	38.10	1.4375-18	39.50	4.27	43.10	34.93	3.9	37.5	40.6

3. Box-Type Square Panel Receptacle JY27513/JY27508

Box-Type Square Panel Front-Mounted Receptacle (JY27513)

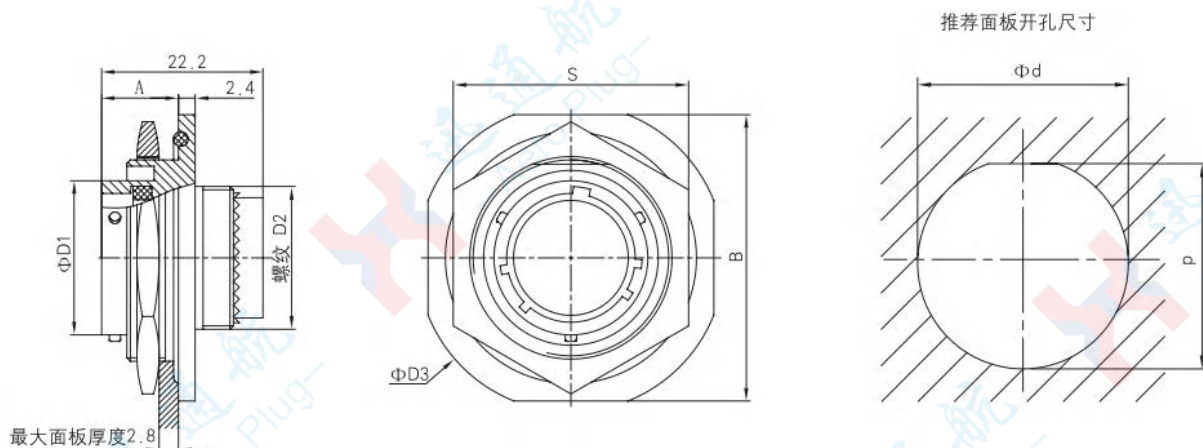


Box-Type Square Panel Rear-Mounted Receptacle (JY27508)



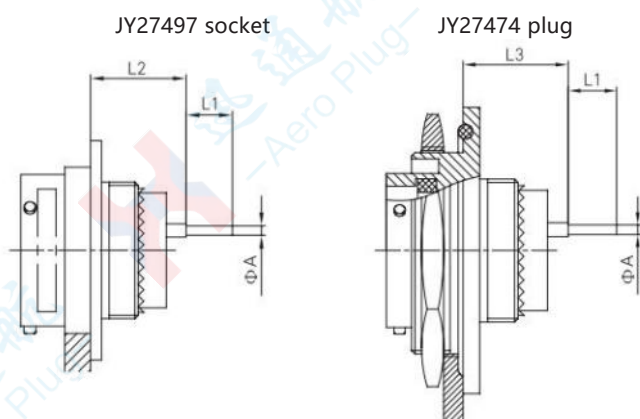
Shell Size	D1	D2	D3	L (Max)	B	E	T	d1	d2
08	12.00	11.51	13.20	3.71	21.00	15.09	3.2	12.5	14.2
10	15.00	14.68	16.14	3.71	24.10	18.26	3.2	15.5	17.5
12	19.05	17.86	20.50	3.71	26.50	20.62	3.2	19.5	21.3
14	22.23	21.03	23.60	3.71	28.90	23.01	3.2	21.5	25.0
16	25.40	24.21	26.80	3.71	31.21	24.61	3.2	25.0	27.3
18	28.58	26.97	30.00	3.71	33.60	26.97	3.2	28.0	31.3
20	31.75	30.18	33.20	4.27	36.80	29.36	3.2	31.5	34.5
22	34.93	33.32	36.35	4.27	40.00	31.75	3.2	34.5	37.5
24	38.10	36.53	39.50	4.27	43.10	34.93	3.9	37.5	40.6

4. Nut-Mounted Receptacle JY27474



Shell Size	D1	Thread D2 UNE F-2A	D3	A	B	S	d	P
08	12.00	0.4375-28	34.95	11.1	31.75	27.40	22.46	21.08
10	15.00	0.5625-24	38.10	11.1	34.95	30.61	25.58	24.26
12	19.05	0.6875-24	41.28	11.1	38.10	33.75	28.80	27.53
14	22.23	0.8125-20	44.45	11.1	41.28	36.96	31.98	30.68
16	25.40	0.9375-20	49.23	11.1	45.24	40.10	35.15	33.86
18	28.58	1.0625-18	51.21	11.1	48.00	43.30	38.28	37.06
20	31.75	1.1875-18	54.38	11.8	51.21	46.45	41.50	40.03
22	34.93	1.3125-18	57.53	11.8	54.36	51.23	44.68	43.21
24	38.10	1.4375-18	60.71	11.8	57.53	54.41	47.85	46.38

5. Receptacle with Printed Circuit Board (PCB) Contact

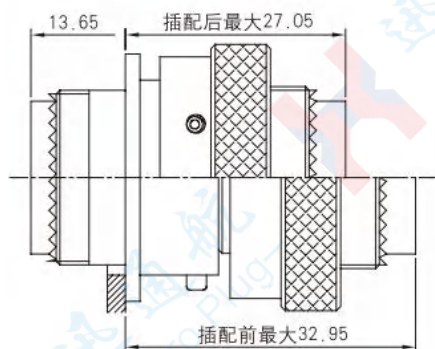


Specification of PCB Contacts		L1	A
22D#	Long-Type PCB Contacts	8.5	0.7
	Short-Type PCB Contacts	4.0	
20#	Long-Type PCB Contacts	8.5	0.7
	Short-Type PCB Contacts	5.1	
16#	Long-Type PCB Contacts	8.5	1.15
	Short-Type PCB Contacts	5.1	

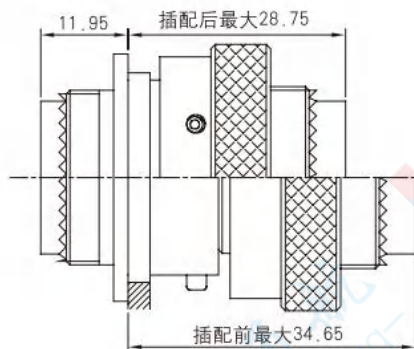
Dimensions for Mounting Contacts of Different Specifications		Shell Size 08-10-12-14-16-18	Shell Size 20-22-24
L2	When Installing 22D# Pins and Sockets	13.40	13.40
	When Installing 20# or 16# Pins and Sockets	13.57	13.57
L3	When Installing 22D# Pins and Sockets	13.61	12.95
	When Installing 20# or 16# Pins and Sockets	13.78	13.12

VIII. Mated Dimensions of Plug and Socket

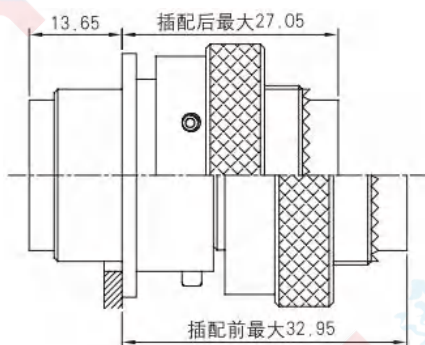
Wall-Mounted Square Panel Front-Mounted
Socket (JY27472) / Plug (JY27473)



Wall-Mounted Square Panel Rear-
Mounted Socket (JY27497) / Plug
(JY27473)



Box-Type Square Panel Front-Mounted Socket
(JY27513) / Plug (JY27473)



IX. Plug and Socket Dust Caps

Product Identification Code

XTH	JY27510	F	10	C	L
1	2	3	4	5	6

1— Company Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— Basic Part Number: JY27510: Plug Dust Cap (equivalent to MIL-SPEC part number MS27510)
JY27511: Socket Dust Cap (equivalent to MIL-SPEC part number MS27511)

3— Surface Plating: B-Cadmium Plating with Olive Drab Chromate Conversion E-Stainless Steel
Passivation F-Electroless Nickel Plating

4— Shell Size: 08、10、12、14、16、18、20、22、24

5— Lanyard Type: C-Stainless Steel Twist Link Lanyard N-Stainless Steel Twist Link Lanyard
with Loop

S-Stainless Steel Cable Lanyard R- Nylon Cable Lanyard A-Without Lanyard

6— Length Marking: Unmarked—Standard Length L-Lanyard Length 127mm

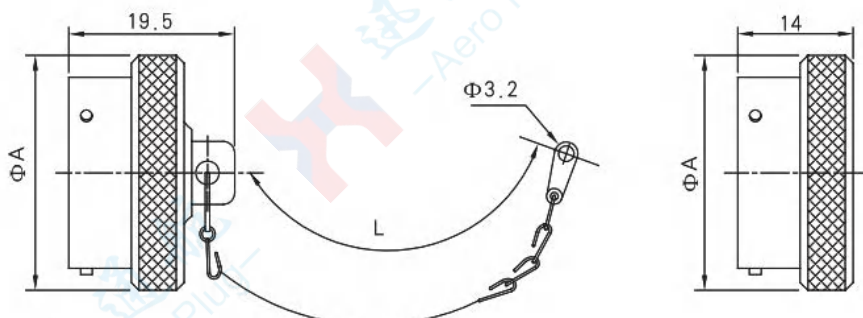
M-Lanyard Length 152.4mm (for JY27510 only) N-Lanyard Length 177.8mm (for JY27510 only)

Notes: 1、JY27511 is a composite material dust cap. If no plating is specified, use "-" in the part number.;

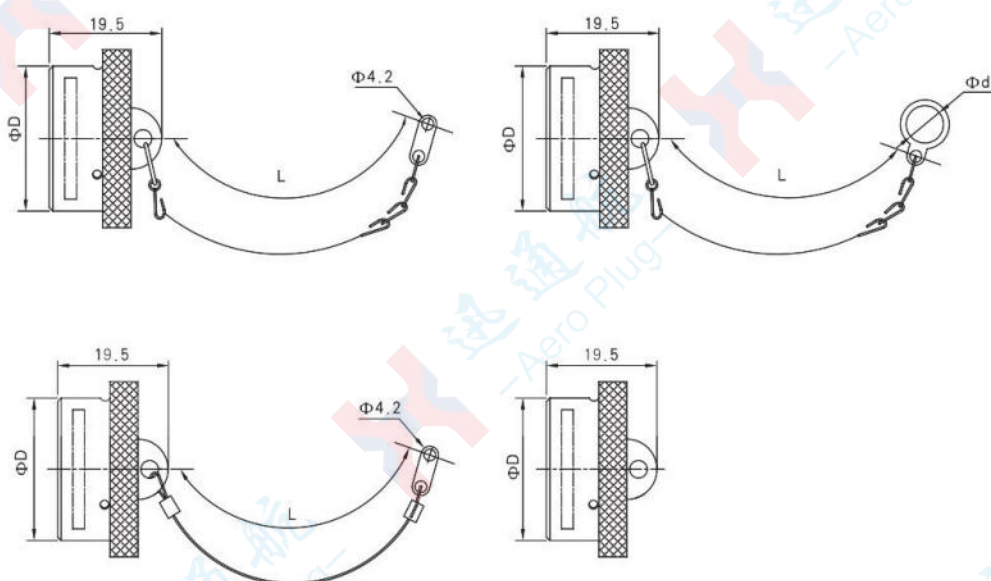
2、Dust caps must be ordered separately and are not supplied with the connector.

Overall Dimensions

Plug Dust Cap JY27510 (MS27510)



Socket Dust Cap JY27511 (MS27511)

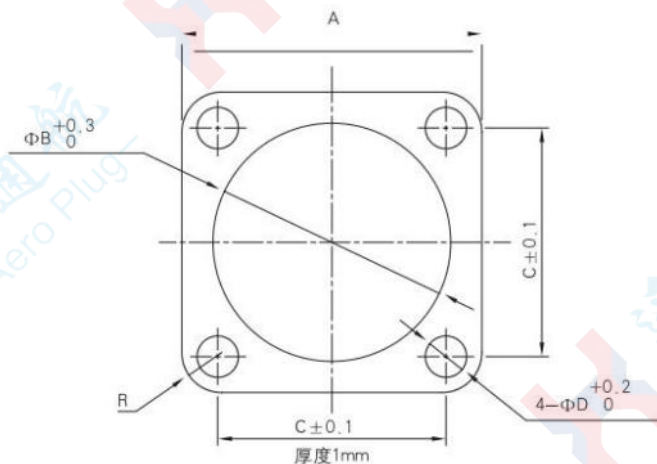


Shell Size		08	10	12	14	16	18	20	22	24
A	MAX	18.2	21.5	25.4	28.7	31.7	35.0	38.1	41.4	44.4
D	MAX	18.5	21.7	25.3	29.0	31.6	34.8	38.0	41.1	44.2
d	MIN	22.6	26.0	29.0	32.4	35.5	38.6	42.0	44.7	48.5
L	MAX	148	148	148	169	169	200	200	200	200

Rear Accessories

Optional cable clamps compatible with JGB599 Series I rear accessories

Square Plate Rubber Pad



Compatible Shell Size	Square Plate Rubber Pad Code	Conductive Square Plate	A	B	C	D	R
08	21E8.701.867	21E8.701.868	21.1	13.4	15.09	3.3	3.2
10	21E8.701.869	21E8.701.870	24.2	16.3	18.26	3.3	3.2
12	21E8.701.871	21E8.701.872	26.6	21.5	20.62	3.3	3.2
14	21E8.701.873	21E8.701.874	29.0	24.7	23.01	3.3	3.2
16	21E8.701.875	21E8.701.876	31.3	27.0	24.61	3.3	3.2
18	21E8.701.877	21E8.701.878	33.7	31.0	26.97	3.3	3.2
20	21E8.701.879	21E8.701.880	36.9	34.2	29.36	3.3	3.2
22	21E8.701.881	21E8.701.882	40.1	37.4	31.75	3.3	3.2
24	21E8.701.883	21E8.701.884	43.2	40.5	34.93	4.1	4.0

GJB599 Series III (MIL-DTL-38999 Series III) Circular Electrical Connector

This series of circular electrical connectors complies with the requirements of GJB599A (MIL-DTL-38999K) Series III. Featuring a triple-start thread for quick connection and an anti-loosening mechanism, they offer the advantages of compact size, light weight, high contact density, electromagnetic shielding, removable crimp contacts, and pin anti-misalignment protection. Available with fire-resistant shells, aluminum alloy shells, and multiple plating options, the products exhibit high mechanical strength and vibration resistance at elevated temperatures, making them suitable for use in harsh environments with sand, dust, and high humidity.

Product Identification Code

XTH	J599/	20	W	B	35	P	N	T
1	2	3	4	5	6	7	8	9



- 1—Company Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.
- 2—Basic Series Number
- 3—Shell Type: 11-Circular Socket 20-Square Panel Socket
24-Nut-Fastened Socket 26-Shielded Plug
- 4—Plating: W-Cadmium Plating with Olive Drab Chromate Conversion
F-Electroless Nickel Plating S-Copper-Nickel Plating K-Stainless Steel Passivation
- 5—Shell Size: A to J 09 11 13 15 17 19 21 23 25
Index Code: A B C D E F G H J
- 6—Contact Arrangement: Refer to "Contact Arrangement Diagram" for details
- 7 P-Crimp Pin, 500 Mating Cycles; PH-Soldered Pin; PC-Short PCB Pin; PL-Long PCB Pin;
H-Crimp Pin, 1500 Mating Cycles; HH-Soldered Pin; HC-Short PCB Pin; HL-Long PCB Pin;
S-Crimp Socket, 500 Mating Cycles; SH-Soldered Socket; SC-Short PCB Socket; SL-Long PCB Socket;
J-Crimp Socket, 1500 Mating Cycles; JH-Soldered Socket; JC-Short PCB Socket; JL-Long PCB Socket;
CD-External Pins/Internal Sockets, Flange Mounted Outside the Cabin (Feedthrough Connector)
DC-External Sockets/Internal Pins, Flange Mounted Outside the Cabin (Feedthrough Connector)
A-Special Pin Contact B-Special Socket Contact
- 8 N: Standard Keyway (A, B, C, D)E: Alternate Keyway
- 9 T: Socket with Double Flat Milling on Locknut (Not marked for standard models)

Notes:

- 1、In the part numbering systems of GJB599A (PRC Military Standard) and MIL-DTL-38999K (U.S. Military Standard), all elements are identical except for the base designation. The base designation for GJB599A is "J599", while that for MIL-DTL-38999K is "D38999", and the two are interchangeable.
- 2、Identification codes A and B indicate that the electrical connector uses non-standard contacts (e.g., shielded, coaxial, fiber optic contacts) that differ from GJB1611 specifications. Such contacts must be ordered separately; refer to "Special Contacts for GJB599 Series III" for specific part numbers and specifications.
- 3、For details on compatible dust caps, rear accessories, square plate rubber pads, and other supporting components for this series, see Pages 427-438.

Product Technical Characteristics

I. Operating Environmental Conditions

Temperature Range: Type W: -65°C ~ +175°C

Type F, Type K: -65°C ~ +200°C

Sealing: Mated connectors meet the low-pressure immersion requirements of MIL-DTL-38999K

Humidity Resistance: In accordance with MIL-DTL-38999K; 10 cycles, 24 hours per cycle

Salt Spray Resistance: Type W: 500 hours Type F: 48 hours Type K: 1000 hours

Fluid Resistance: Resistant to various fuels, coolants, and solvents

II. Electrical Characteristics

Withstand Voltage:(Vrms)

Operating Conditions	Sea Level	At an Altitude of 21000 Meters
M	1300	800
N	1000	600
I	1800	1000
II	2300	1000

Note: Different contact arrangements have different operating conditions; refer to "Contact Arrangements" for details.

Insulation Resistance: $\geq 5000 \text{ M}\Omega$ at 500 Vdc

hell Conductivity:Type W: 2.5 m Ω Type F: 1 m Ω

Type K: 5 m Ω

Shielding Performance:

65 dB at 10 GHz (Type F)

50 dB at 10 GHz (Type W)

85 dB at 1 GHz (Type F and Type W)

Contact Resistance and Rated Current of Contacts

Contact Specifications	Working Diameter (mm)	Contact Resistance (m Ω)	Rated Current (A)
22D [#]	$\phi 0.76$	≤ 12	5
20 [#]	$\phi 1.00$	≤ 5	7.5
16 [#]	$\phi 0.60$	≤ 2.5	13
12 [#]	$\phi 2.40$	≤ 1.5	23
10 [#]	$\phi 3.15$	≤ 1.0	40

III. Mechanical Characteristics

Shell Material: Aluminum Alloy, Stainless Steel

Plating: W-Cadmium Plating with Olive Drab Chromate Conversion

F-Electroless Nickel Plating

K-Stainless Steel Passivation

Insulator: Thermoplastic or Thermosetting Material

Cable Gland & Sealing Ring : Silicone Rubber

Contact Material:

Copper Alloy with Gold Plating

Mechanical Life: ≥ 500 Mating Cycles

Shock: 3 ms Half-Sine Wave, Peak Acceleration 300 g

Vibration:

Sinusoidal Vibration: 60 g, with temperature cycling and simulated accessories (36 hours)

Random Vibration:

44.1 g rms at elevated temperature

49.5 g rms at ambient temperature

Contact Retention Force:

(Minimum force in Newtons)

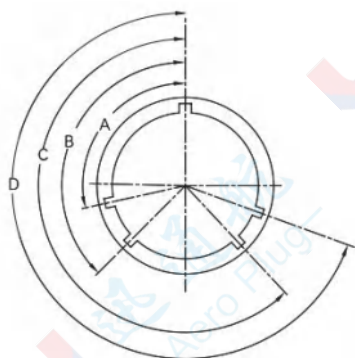
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16[#]: 111N 12[#]: 111N

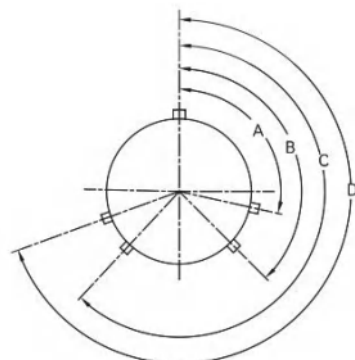
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IV. Anti-Misalignment Keyway

Socket Front View

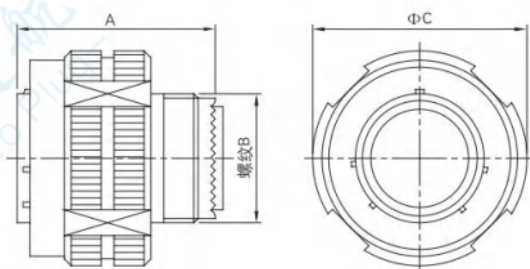


Socket Front View



V. Overall Dimensions

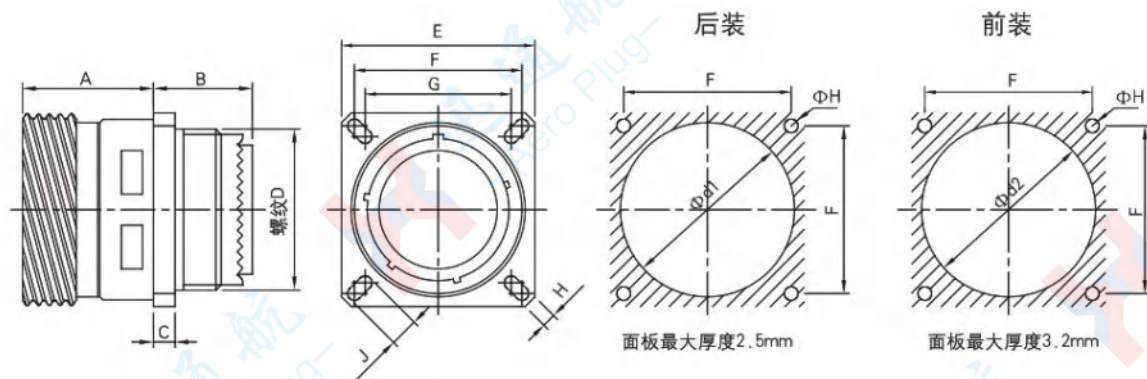
1.plug



Shell Size	MS Shell Size	Angle	N	A	B	C	D	E
9	A	A°	105	102	80	35	64	91
		B°	140	132	118	140	155	131
		C°	215	248	230	205	234	197
		D°	265	320	312	275	304	240
11	B	A°	95	113	90	53	119	51
		B°	141	156	145	156	146	141
		C°	208	182	195	220	176	184
		D°	236	292	252	255	298	242
13	C	A°	95	113	90	53	119	51
		B°	141	156	145	156	146	141
		C°	208	182	195	220	176	184
		D°	236	292	252	255	298	242
15	D	A°	95	113	90	53	119	79
		B°	141	156	145	156	146	153
		C°	208	182	195	220	176	197
		D°	236	292	252	255	298	272
17	E	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272
19	F	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272
21	G	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272
23	H	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272
25	J	A°	80	135	49	66	62	79
		B°	142	170	169	140	145	153
		C°	196	200	200	200	180	197
		D°	293	310	244	257	280	272

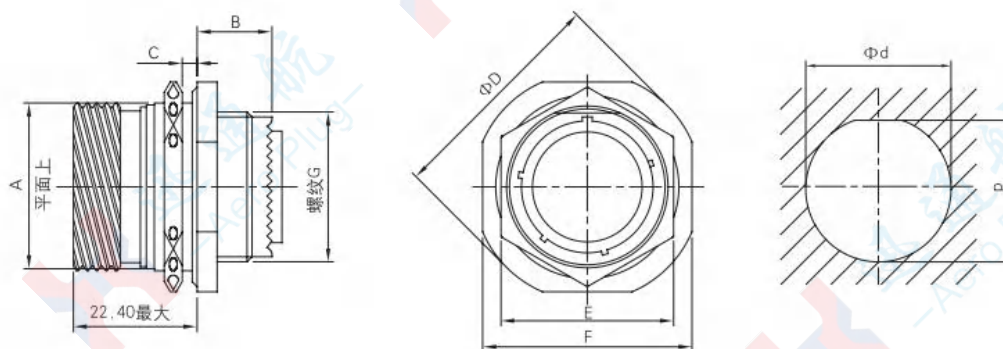
Shell Size	MS Shell Size	A Maximum	B Thread	C Maximum
9	A	31.00	M12×1-6g	21.80
11	B	31.00	M15×1-6g	25.00
13	C	31.00	M18×1-6g	29.40
15	D	31.00	M22×1-6g	32.40
17	E	31.00	M25×1-6g	35.60
19	F	31.00	M28×1-6g	38.50
21	G	31.00	M31×1-6g	41.70
23	H	31.00	M34×1-6g	44.90
25	I	31.00	M37×1-6g	48.00

2、Square Flange Socket



Shell Size	MS Shell Size	A Maximum	B Maximum	C Maximum	D Thread	E	F	G	H	J	d1 Minimum	d2 Minimum
9	A	20.90	10.60	2.50	M12×1-6g	23.80	18.26	15.09	3.25	5.49	16.66	13.11
11	B	20.90	10.60	2.50	M15×1-6g	26.20	20.62	18.26	3.25	4.93	20.22	15.88
13	C	20.90	10.60	2.50	M18×1-6g	28.60	23.01	20.62	3.25	4.93	23.42	19.05
15	D	20.90	10.60	2.50	M22×1-6g	31.00	24.61	23.01	3.25	4.93	26.59	23.01
17	E	20.90	10.60	2.50	M25×1-6g	33.30	26.97	24.61	3.25	4.93	30.96	25.81
19	F	20.90	10.60	2.50	M28×1-6g	36.50	29.36	26.97	3.25	4.93	32.94	28.98
21	G	20.10	11.40	3.20	M31×1-6g	39.70	31.75	29.36	3.25	4.93	36.12	32.16
23	H	20.10	11.40	3.20	M34×1-6g	42.90	34.93	31.75	3.91	6.15	39.29	34.93
25	J	20.10	11.40	3.20	M37×1-6g	46.00	38.10	34.93	3.91	6.15	42.47	37.69

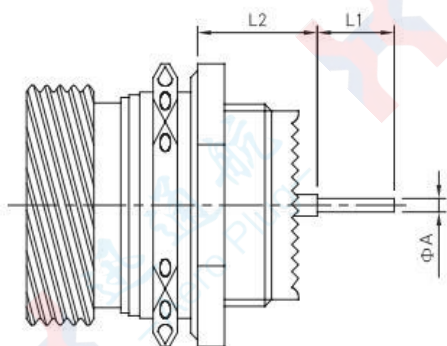
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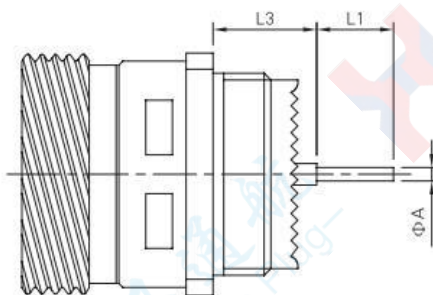
Shell Size	MS Shell Size	A	B Maximum	C Maximum	D Maximum	E Maximum	F	G Thread	d	P
9	A	16.50	9.90	3.20	30.50	24.00	27.00	M12×1-6g	17.70	16.99
11	B	19.30	9.90	3.20	35.20	27.00	31.80	M15×1-6g	20.88	19.53
13	C	24.00	9.90	3.20	38.40	32.00	34.90	M18×1-6g	25.58	24.26
15	D	27.20	9.90	3.20	41.60	36.00	38.10	M22×1-6g	28.80	27.53
17	E	30.40	9.90	3.20	44.80	37.00	41.30	M25×1-6g	31.98	30.68
19	F	33.40	9.90	3.20	49.30	41.00	46.00	M28×1-6g	35.15	33.86
21	G	36.50	9.90	3.20	52.70	46.00	49.20	M31×1-6g	38.28	37.06
23	H	39.70	9.90	3.20	55.90	50.00	52.40	M34×1-6g	41.50	40.24
25	J	42.80	9.90	3.20	59.00	51.23	55.60	M37×1-6g	44.68	43.41

4、Socket with Printed Circuit Board (PCB) Contacts

J599/24插座



J599/20插座



Specifications of Printed Circuit Board (PCB) Contacts		L1	A
22D#	Long-Type Printed Circuit Board (PCB) Contacts	8.5	0.7
	Short-Type Printed Circuit Board (PCB) Contacts	4.0	
20#	Long-Type Printed Circuit Board (PCB) Contacts	8.5	0.7
	Short-Type Printed Circuit Board (PCB) Contacts	5.1	
16#	Long-Type Printed Circuit Board (PCB) Contacts	8.5	1.15
	Short-Type Printed Circuit Board (PCB) Contacts	5.1	

Dimensions for Mounting Contacts of Different Specifications			Shell Size 09-11	Shell Size 13-15-17-19-21-23-25
L2	When Mounting 22D# Pins	Minimum	10.52	10.34
		Maximum	11.46	11.28
	When Mounting 22D# Sockets	Minimum	10.19	10.01
		Maximum	11.46	11.28
	When Mounting 20# or 16# Pins or Sockets	Minimum	10.69	10.51
		Maximum	11.63	11.45
L3	When Mounting 22# Pins	Minimum	9.48	9.48
		Maximum	10.58	10.58
	When Mounting 22D# Sockets	Minimum	9.15	9.15
		Maximum	10.58	10.58
	When Mounting 20# or 16# Pins or Sockets	Minimum	9.65	9.65
		Maximum	10.75	10.75

GJB599 Series III (MIL-DTL-38999 Series III) Composite Circular Electrical Connectors

This series of circular electrical connectors complies with the requirements of GJB599A (MIL-DTL-38999K) Series III. Featuring a three-start thread for quick connection and an anti-loosening mechanism, they offer the advantages of compact size, light weight, high contact density, electromagnetic shielding, removable crimp contacts, and pin anti-misalignment protection. Equipped with composite material housings with plating, the products exhibit high strength and vibration resistance at high temperatures, making them suitable for harsh environments such as sand, dust, and humidity. Compared with aluminum housing versions, they are 30% lighter.

Product Identification Code

XTH	J599/	20	W	B	35	P	N
1	2	3	4	5	6	7	8

1— Enterprise Designation: Shenzhen Xuntonghang
Electronics Technology Co., Ltd.

2— Basic Series Number

3— Shell Type : 20-Square Flange Socket
 24-Nut-Fastened Socket 26-RFI Shielded Plug

4— Plating: J-Cadmium Plated (Military Green)
 M-Electroless Nickel Plated

5— Shell Size: A to J 09 11 13 15 17 19 21 23 25
Shell Size Index A B C D E F G H J

6— Contact Arrangement: See "Contact Arrangement Diagram" for details

7— P-Crimp Pin (500 mating cycles); PH-Soldered Pin; PC-Short PCB Pin; PL-Long PCB Pin

H-Crimp Pin (1500 mating cycles); HH-Soldered Pin; HC-Short PCB; HL-Long PCB Pin

S-Crimp Socket (500 mating cycles); SH-Soldered Socket; SC-Short PCB Socket; SL-Long PCB Socket

J-Crimp Socket (1500 mating cycles); JH-Soldered Socket; JC-Short PCB Socket; JL-Long PCB Socket

CD-Male-Female Through-Wall Connector (External Pin/Internal Socket, Flange Outside Cabin)

DC-DC: Female-Male Through-Wall Connector (External Socket/Internal Pin, Flange Outside Cabin)

A-Special Pin Contact B-Special Socket Contact

8— Keyway Position: N: Normal Keyway; A、B、C、D、E-Alternative Keyway Positions

Notes:

1、 Except for the main designation code, the model naming of GJB599A (National Military Standard) is identical to that of MIL-DTL-38999K (US Military Standard). The main designation code for GJB599A is "J599", and for MIL-DTL-38999K it is "D38999", which are interchangeable.

2、 Identification codes A and B indicate that the electrical connector uses non-standard configured contacts different from GJB1611 (e.g., shielded, coaxial, fiber optic contacts, etc.). Such contacts require separate ordering; refer to "Special Contacts Selected for GJB599 Series II" for specific models and specifications.

3、 For information on compatible dust caps, rear accessories, and square flange gaskets for this series, see Pages 427-438.



Product Technical Characteristics

I. Operating Environmental Conditions

Salt Spray: 2000 hours

Temperature Range: Class J: -65°C ~ +175°C Class M: -65°C ~ +200°C

Sealing : Mated connectors meet the low-pressure immersion requirements of MIL-DTL-38999K

Humidity & Heat : In accordance with MIL-DTL-38999K, 24 hours per cycle, 10 cycles

Resistance : Resistant to various fuels, coolants, and solvents

II. Electrical Characteristics

Withstand Voltage:(Vrms))

Operating Conditions	Sea Level	At an Altitude of 21000 Meters
M	1300	800
N	1000	600
I	1800	1000
II	2300	1000

Insulation Resistance:
≥ 5000 MΩ at 500 Vdc

Shell Conductivity:
Class J: 3 mΩ; Class M: 3 mΩ:

Shielding Performance:
90 dB at 100 GHz;85 dB at 1 GHz

Note: Different contact arrangements have different operating conditions; see "Contact Arrangements" for details.

Contact Resistance and Rated Current of Contacts

Contact Size	Working Diameter (mm)	Contact Resistance (mΩ)	Rated Current (A)
22D#	Φ0.76	≤12	5
20#	Φ1.00	≤5	7.5
16#	Φ1.60	≤2.5	13
12#	Φ2.40	≤1.5	23
10#	Φ3.15	≤1.0	40

III. Mechanical Characteristics

Housing : Composite Material

Plating: J: Cadmium Plated (Military Green)

M - Electroless Nickel Plated

Insulator : Thermoplastic or Thermosetting Material

Cable Gland & Sealing Ring: Silicone Rubber

Contacts : Copper Alloy with Gold Plating

Mechanical Life : ≥ 1500 Mating Cycles

Shock : 3ms Half-Sine Wave, Peak Acceleration 300g

Vibration:

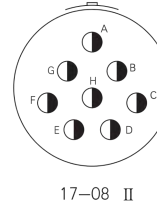
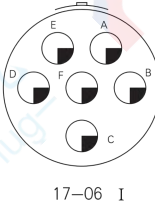
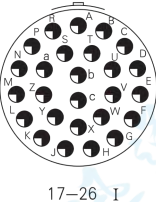
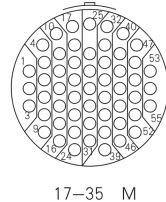
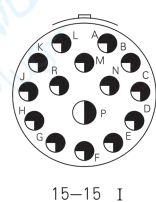
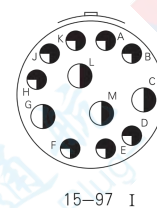
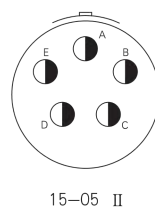
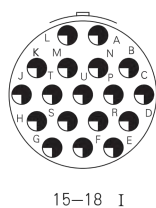
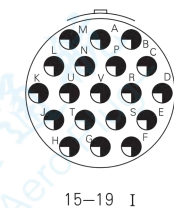
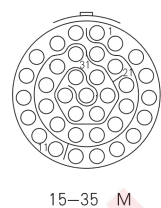
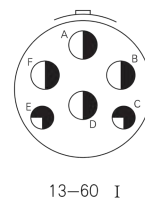
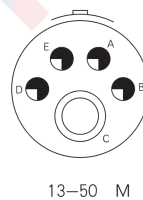
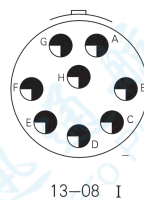
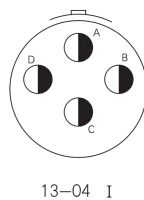
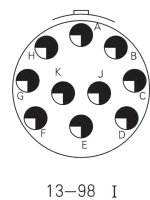
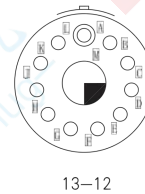
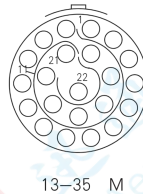
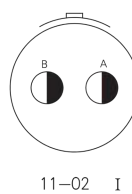
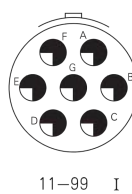
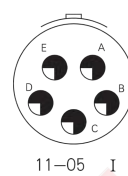
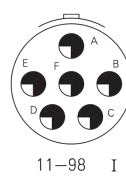
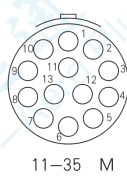
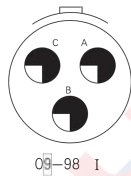
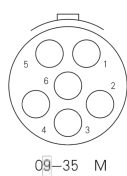
Sinusoidal Vibration: 60g, with temperature cycling and simulated accessories (36 hours)

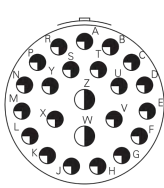
Random Vibration: 44.1 grms at high temperature, 49.5 grms at ambient temperature
at high temperature, 49.5 grms at ambient temperature

Contact Retention Force: (Minimum force in Newtons)

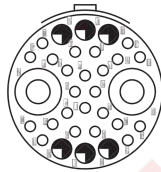
22D# : 45N	20# : 67N
16# : 111N	12# : 111N
10# : 111N	8# : 111N

IV. Contact Arrangements (Pin Insulator Mating Face Diagram))

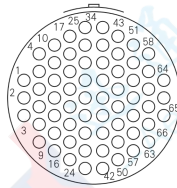




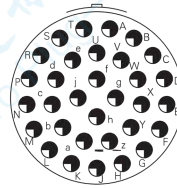
17-99 I



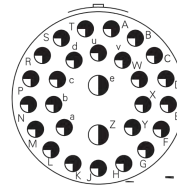
19-93 I



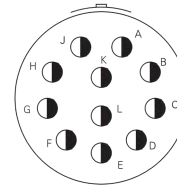
19-35 M



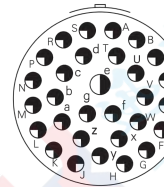
19-32 I



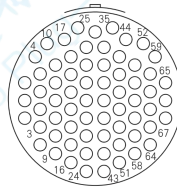
19-28 I



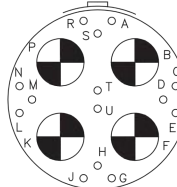
19-11 II



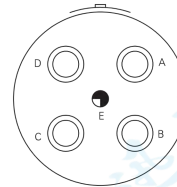
19-30 I



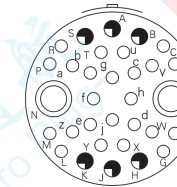
19-45 M



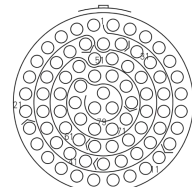
19-18 M



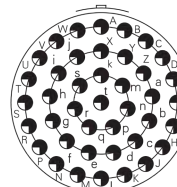
19-05



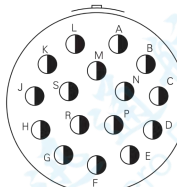
19-93 I



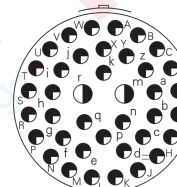
21-35 M



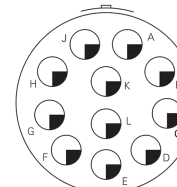
21-41 I



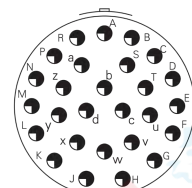
21-16 II



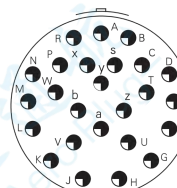
21-39 I



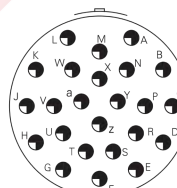
21-11 II



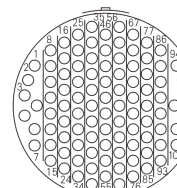
21-27 I



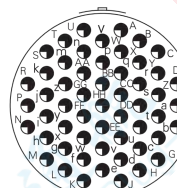
21-25 I



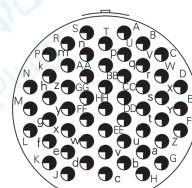
21-24 I



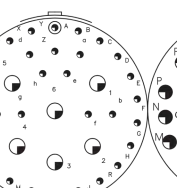
23-35 M



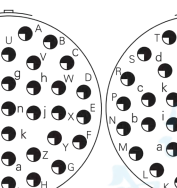
23-55 I



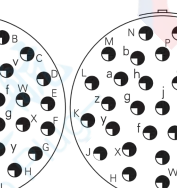
23-53 I



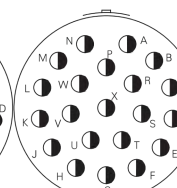
23-37



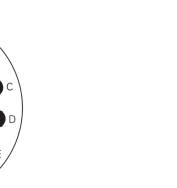
23-36 I



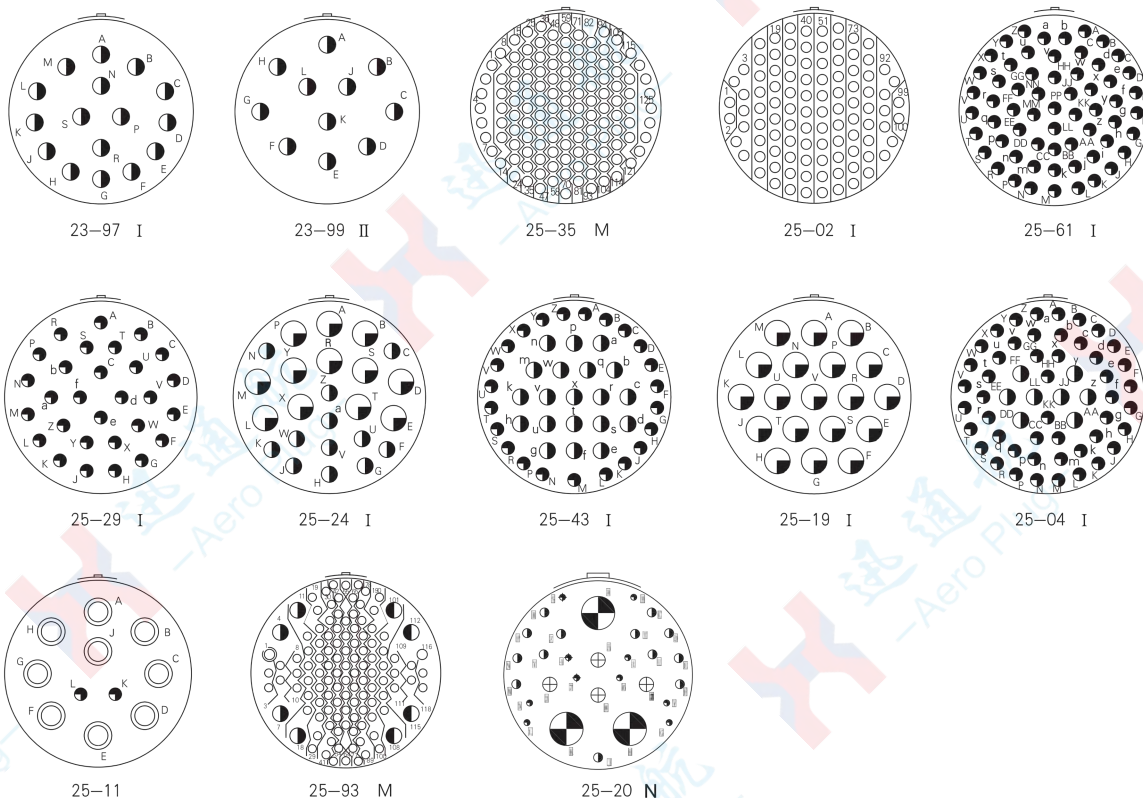
23-34 I



23-32 I



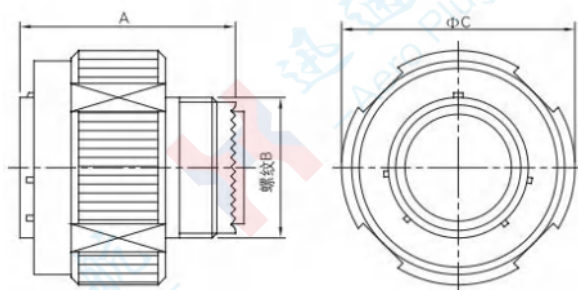
23-21 II



注：接触件直径标志 ○22D# ●20#同轴 ◐16# ◑12# ◎10# ◑8#双同轴

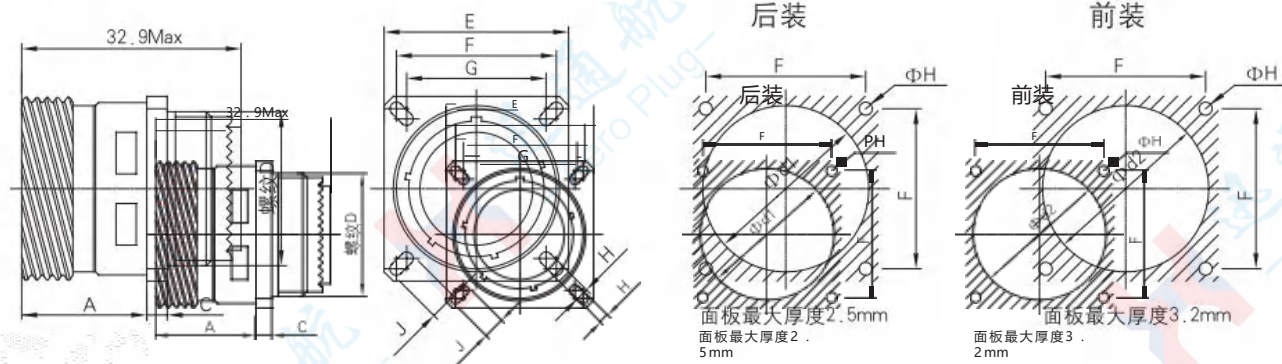
V. Overall Dimensions

1、Plug



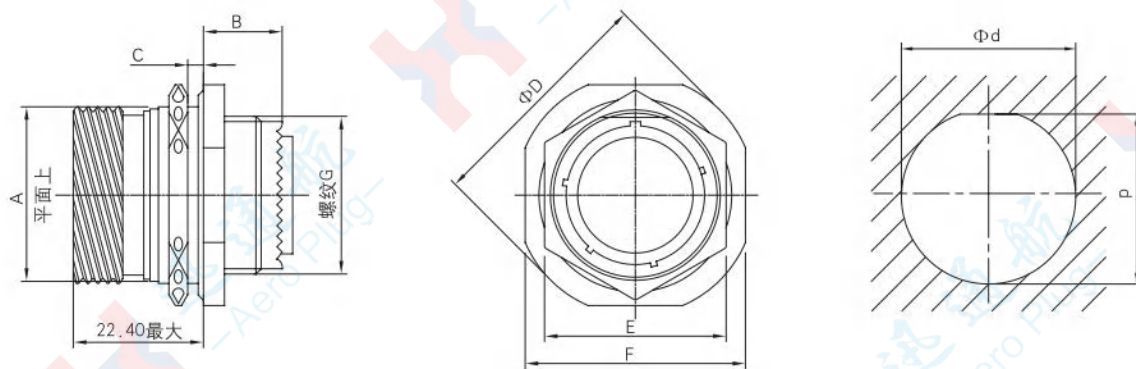
Shell Size	MS Shell Size	A Maximum	B Thread	C Maximum
9	A	31.00	M12x1—6g	21.80
11	B	31.00	M12x1—6g	25.00
13	C	31.00	M12x1—6g	29.40
15	D	31.00	M12x1—6g	32.40
17	E	31.00	M12x1—6g	35.60
19	F	31.00	M12x1—6g	38.50
21	G	31.00	M12x1—6g	41.70
23	H	31.00	M12x1—6g	44.90
25	J	31.00	M12x1—6g	48.00

2、Square Flange Socket



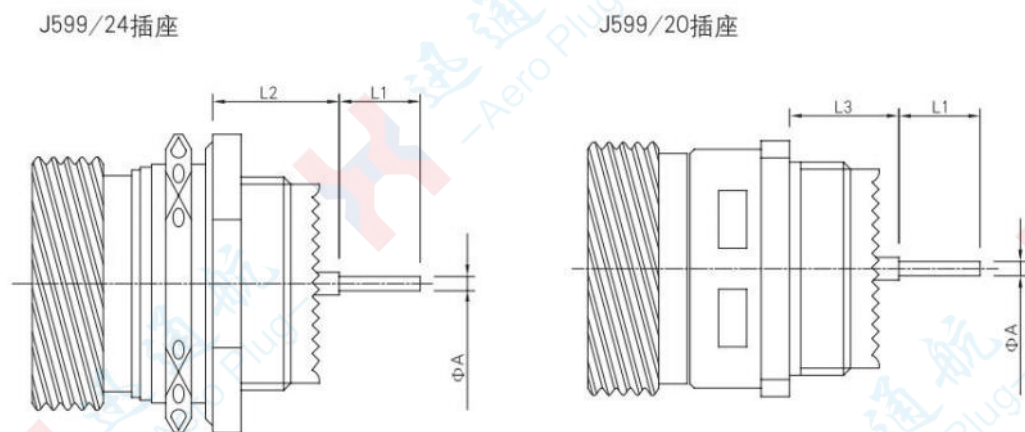
Shell Size	MS Shell Size	A Maximum	C Maximum	D Thread	E	F	G	H	J	d1 Minimum	d2 Minimum
9	A	19.8	3.65	M12×1-6g	23.80	18.26	15.09	3.25	5.49	16.66	13.11
11	B	19.8	3.65	M15×1-6g	26.20	20.62	18.26	3.25	4.93	20.22	15.88
13	C	19.8	3.65	M18×1-6g	28.60	23.01	20.62	3.25	4.93	23.42	19.05
15	D	19.8	3.65	M22×1-6g	31.00	24.61	23.01	3.25	4.93	26.59	23.01
17	E	19.8	3.65	M25×1-6g	33.30	26.97	24.61	3.25	4.93	30.96	25.81
19	F	19.8	3.65	M28×1-6g	36.50	29.36	26.97	3.25	4.93	32.94	28.98
21	G	19.0	4.35	M31×1-6g	39.70	31.75	29.36	3.25	4.93	36.12	32.16
23	H	19.0	4.35	M34×1-6g	42.90	34.93	31.75	3.91	6.15	39.29	34.93
25	J	19.0	4.35	M37×1-6g	46.00	38.10	34.93	3.91	6.15	42.47	37.69

3、Nut-Fastened Socket



Shell Size	MS Shell Size	A	B Maximum	C Maximum	D Maximum	E Maximum	F	G Thread	d	P
9	A	16.50	9.90	3.20	30.50	24.00	27.00	M12×1-6g	17.70	16.99
11	B	19.30	9.90	3.20	35.20	27.00	31.80	M15×1-6g	20.88	19.53
13	C	24.00	9.90	3.20	38.40	32.00	34.90	M18×1-6g	25.58	24.26
15	D	27.20	9.90	3.20	41.60	36.00	38.10	M22×1-6g	28.80	27.53
17	E	30.40	9.90	3.20	44.80	37.00	41.30	M25×1-6g	31.98	30.68
19	F	33.40	9.90	3.20	49.30	41.00	46.00	M28×1-6g	35.15	33.86
21	G	36.50	9.90	3.20	52.70	46.00	49.20	M31×1-6g	38.28	37.06
23	H	39.70	9.90	3.20	55.90	50.00	52.40	M34×1-6g	41.50	40.24
25	J	42.80	9.90	3.20	59.00	51.23	55.60	M37×1-6g	44.68	43.41

4、Socket with Printed Circuit Board (PCB) Contacts

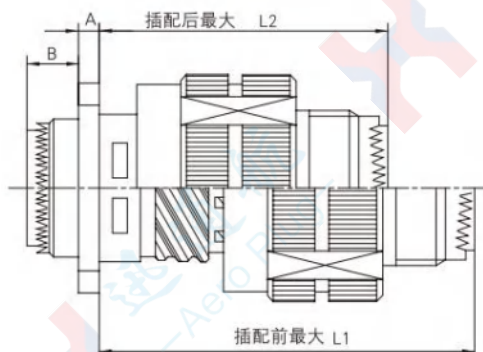


Specification of Printed Circuit Board (PCB) Contact		L1	A
22D#	Long-Type Printed Circuit Board (PCB) Contacts	8.5	0.7
	Short-Type Printed Circuit Board (PCB) Contacts	4.0	
20#	Long-Type Printed Circuit Board (PCB) Contacts	8.5	0.7
	Short-Type Printed Circuit Board (PCB) Contacts	5.1	
16#	Long-Type Printed Circuit Board (PCB) Contacts	8.5	1.15
	Short-Type Printed Circuit Board (PCB) Contacts	5.1	

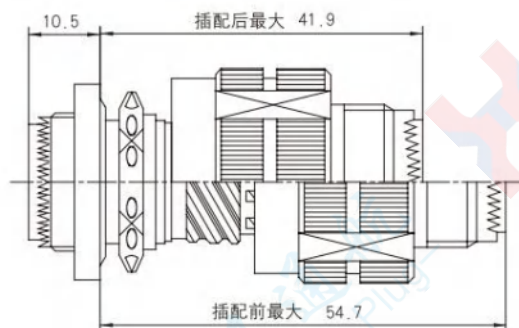
Dimensions for Mounting Contacts of Different Specifications			Shell Size 09-11	Shell Size 13-15-17-19-21-23-25
L2	When Mounting 22D# Pins	Minimum	10.52	10.34
		Maximum	11.46	11.28
	When Mounting 22D# Sockets	Minimum	10.19	10.01
		Maximum	11.46	11.28
	When Mounting 20# or 16# Pins or Sockets	Minimum	10.69	10.51
		Maximum	11.63	11.45
L3	When Mounting 22D# Pins	Minimum	9.48	9.48
		Maximum	10.58	10.58
	When Mounting 22D# Sockets	Minimum	9.15	9.15
		Maximum	10.58	10.58
	When Mounting 20# or 16# Pins or Sockets	Minimum	9.65	9.65
		Maximum	10.75	10.75

VI. Dimensions of Mated Plug and Socket

方盘插座 (J599/20)/插头 (J599/26)



螺母紧固插座 (J599/24)/插头 (J599/26)



Shell Size		09	11	13	15	17	19	21	23	25
L1	Maximum	53.2	53.2	53.2	53.2	53.2	53.2	52.4	52.4	52.4
L2	Maximum	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3
A	Maximum	2.5	2.5	2.5	2.5	2.5	2.5	3.2	3.2	3.2
B	Maximum	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6

VII. Plug and Socket Dust Caps

Product Designation Code

XTH J599/32 F 09 N
 1 2 3 4 5

1— Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— Basic Part Number::

J599/32 - Plug Dust Cap (Corresponding to MIL-SPEC Part Number: D38999/32)

J599/33 - Socket Dust Cap (Corresponding to MIL-SPEC Part Number: D38999/33)

3— Surface Plating: W-Cadmium Plating with Olive Drab Chromate Conversion

F-Electroless Nickel Plating

J-Cadmium Plating with Olive Drab Chromate Conversion (Composite Material)

K-Stainless Steel Passivation M-Electroless Nickel Plating (Composite Material)

4— Shell Size: 09、11、13、15、17、19、21、23、25

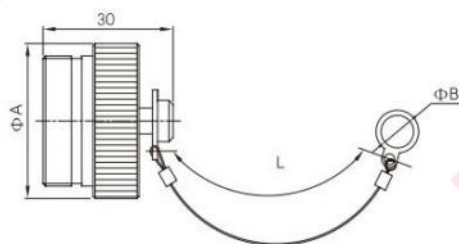
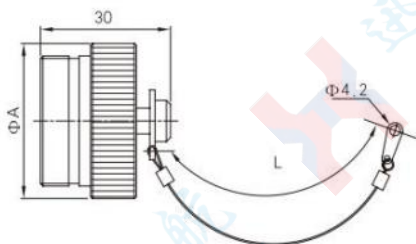
5— Lanyard Type: N-Stainless Steel Cable Tie Loop R-Stainless Steel Cable Tie Eye

Note: Dust caps shall be ordered separately and are not supplied with the connector.

Overall Dimensions

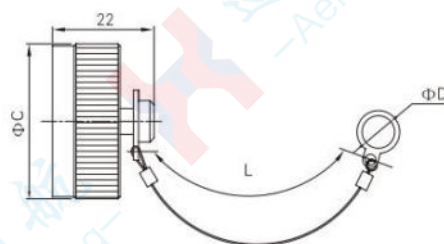
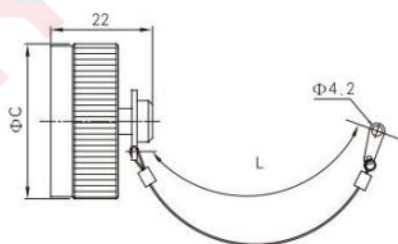
插头密封盖

J599/32 (D38999/32)



插座密封盖

J599/33 (D38999/33)



Shell Size		09	11	13	15	17	19	21	23	25
A	Maximum	22.86	25.40	30.48	33.02	36.83	39.37	43.18	44.45	48.26
B	Minimum	12.92	17.78	19.27	22.60	25.62	28.95	31.97	34.03	38.32
C	Maximum	22.86	27.86	30.48	31.75	36.83	38.10	41.91	44.45	48.26
D	Minimum	17.78	21.33	25.62	28.95	31.91	35.30	38.32	41.65	44.45
L	Maximum	148	148	148	169	169	200	200	200	200

Standard Rear Accessories

Product Designation Code

XTH J1784A/ 38- 15 N A
 1 2 3 4 5 6

1— Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— Basic Part Number

3—Detail Specification Number:

14-Rear Nut 16-Angled Cable Clamp 18-Straight Shielded Cable Clamp

20-Shielded Rear Accessory 38-Straight Cable Clamp 39-Angled Cable Clamp

69-Heat-Shrink Boot Type Rear Accessory 01-Ground Compression Type

06-Spring Cable Protection Type

4— Shell Size: 09、11、13、15、17、19、21、23、25

5— Shell Plating: W-Cadmium Plating with Olive Drab Chromate Conversion

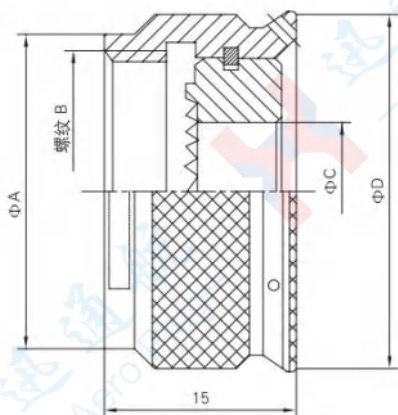
N-Electroless Nickel Plating

A-Black Anodization

S-Stainless Steel Passivation

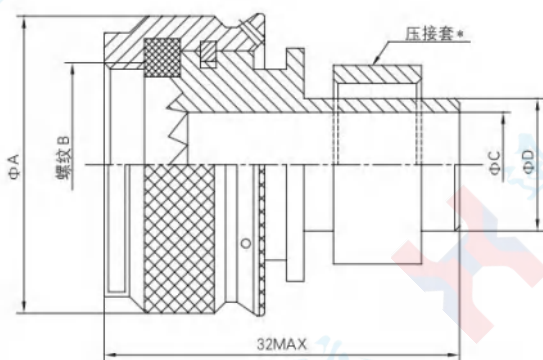
6—A— Indicates Non-Standard Length

J1784A/14 - Rear Nut



Shell Size	A	Thread B	C	D
09	15.2	M12 x 1	6.7	19.0
11	18.2	M15 x 1	6.9	21.6
13	21.2	M18 x 1	12.8	25.4
15	25.1	M22 x 1	16.0	28.0
17	28.1	M25 x 1	19.2	31.8
19	31.1	M28 x 1	21.4	35.6
21	34.0	M31 x 1	24.6	38.0
23	37.0	M34 x 1	27.7	40.0
25	40.0	M37 x 1	30.9	44.5

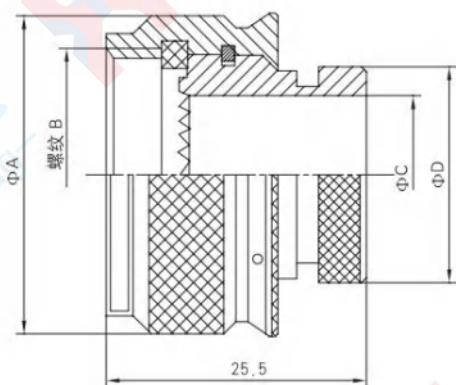
J1784A/20 - Shielded Rear Accessory



Shell Size	A	Thread B	C	D	选用压块标记
09	19.0	M12 x 1	6.55	8.81	08
11	21.6	M15 x 1	8.63	12.65	10
13	25.4	M18 x 1	10.90	12.95	12
15	28.0	M22 x 1	14.10	16.00	14
17	31.8	M25 x 1	17.25	19.30	16
19	35.6	M28 x 1	20.40	22.61	18
21	38.0	M31 x 1	23.60	25.65	20
23	40.0	M34 x 1	26.40	28.70	22
25	44.5	M37 x 1	28.40	30.53	24

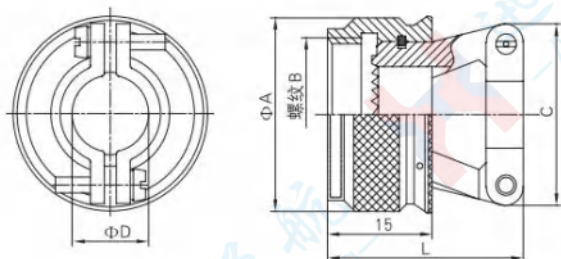
* A dedicated crimping tool - YT Q is required for crimping the crimp sleeve, which shall be purchased separately.

J1784A/69 - Heat-Shrink Boot Type Rear Accessory



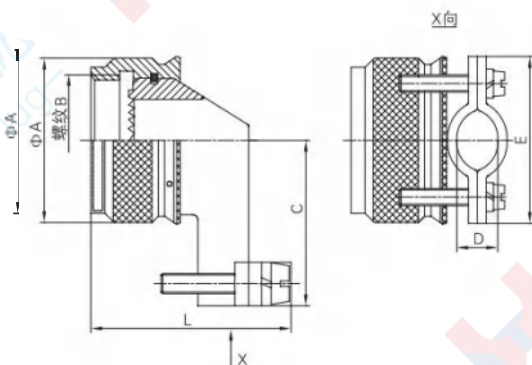
Shell Size	A	Thread B	C	D
09	19.0	M12 x 1	6.7	13.5
11	21.6	M15 x 1	6.9	15.3
13	25.4	M18 x 1	12.8	19.6
15	28.0	M22 x 1	16.0	21.2
17	31.8	M25 x 1	19.2	24.4
19	35.6	M28 x 1	21.4	26.4
21	38.0	M31 x 1	24.6	30.9
23	40.0	M34 x 1	27.7	34.4
25	44.5	M37 x 1	30.9	36.6

J1784A/38 - Straight Cable Clamp



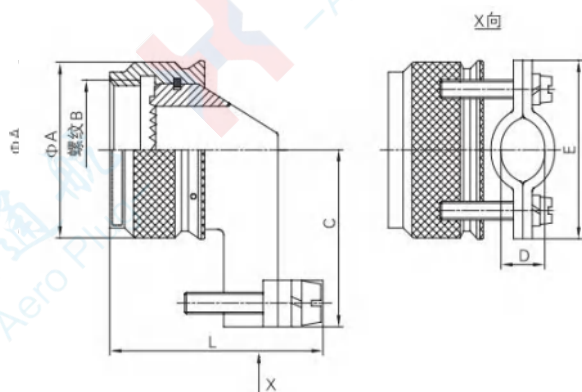
Shell Size	A Maxim um	Thread B	C Maxim um	D Minimu m	D Maximu m	E Maximu m
09	19.0	M12 x 1	20.0	2.49	5.94	27.0
11	21.6	M15 x 1	21.0	3.87	5.94	28.5
13	25.4	M18 x 1	23.4	4.83	8.33	30.0
15	28.0	M22 x 1	26.6	6.60	11.61	31.5
17	31.8	M25 x 1	30.6	7.19	15.60	33.5
19	35.6	M28 x 1	34.0	8.26	16.10	36.6
21	38.0	M31 x 1	35.8	8.71	17.73	39.8
23	40.0	M34 x 1	39.0	9.68	20.90	42.9
25	44.5	M37 x 1	40.6	10.62	21.66	45.0

J1784A/39 - Angled Cable Clamp

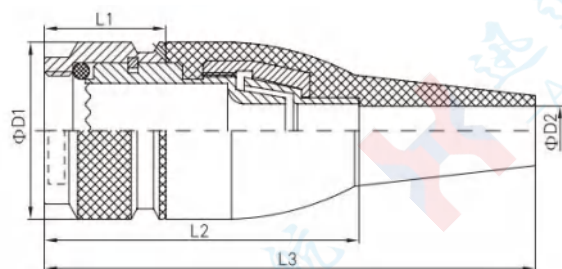


Shell Size	A Maxi mum	Thread B	C Maxi mum	D Minim um	D Maxim um	E Maxim um	L Maxim um
09	19.0	M12 x 1	20.60	2.49	5.94	21.6	29.5
11	21.6	M15 x 1	22.00	3.87	5.94	22.8	29.5
13	25.4	M18 x 1	23.60	4.83	8.33	26.0	31.9
15	28.0	M22 x 1	25.20	6.60	11.61	29.0	35.1
17	31.8	M25 x 1	26.80	7.19	15.60	30.6	39.1
19	35.6	M28 x 1	31.30	8.26	16.10	37.0	41.5
21	38.0	M31 x 1	32.90	8.71	17.73	39.0	43.3
23	40.0	M34 x 1	34.50	9.68	20.90	41.0	46.5
25	44.5	M37 x 1	36.10	10.62	21.66	42.0	47.1

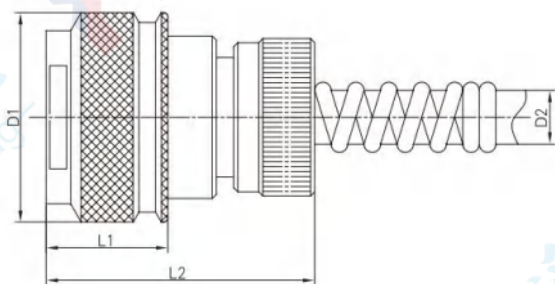
J1784A/16 - Angled Cable Clamp



Shell Size	A Maxim um	Thread B	C Maxi mum	D Minim um	D Maxim um	E Maxim um	L Maxim um
09	19.0	M12 x 1	20.0	2.85	6.71	21	25.9
11	21.6	M15 x 1	21.5	6	9.96	26.5	29.2
13	25.4	M18 x 1	23.0	8.45	12.85	31.5	32
15	28.0	M22 x 1	25.0	12	16.03	36.5	35.2
17	31.8	M25 x 1	27.0	11.1	19.2	31	36.4
19	35.6	M28 x 1	28.5	13.75	21.46	37	40.7
21	38.0	M31 x 1	29.5	19.3	24.64	35	43.8
23	40.0	M34 x 1	31.0	21.4	27.81	35	43
25	44.5	M37 x 1	33.0	23.5	30.99	37	44.2

J1784A/01 - Ground Compression Type Rear Accessory


Shell Size	D1	D2	L1	L2	L3
J1784A/O1-09N	19.0	7.0	14.8	37.0	53.0
J1784A/O1-11N	21.6	10.0	14.8	37.0	53.0
J1784A/O1-13N	25.4	13.0	14.8	37.0	53.0
J1784A/O1-15N	28.0	15.0	14.8	40.0	73.0
J1784A/O1-17N	31.8	18.0	14.8	40.0	73.0
J1784A/O1-19N	35.6	20.0	14.8	40.0	73.0
J1784A/O1-21N	38.0	23.5	14.8	40.0	73.0
J1784A/O1-23N	40.0	26.5	14.8	40.0	73.0
J1784A/O1-25N	44.5	29.0	14.8	40.0	73.0

J1784A/06 - Spring Cable Protection Type Rear Accessory


Shell Size	D1	D2	L1	L2	L3
J1784A/O6-09N	19.0	7.0	14.8	37.0	53.0
J1784A/O6-11N	21.6	10.0	14.8	37.0	53.0
J1784A/O6-13N	25.4	13.0	14.8	37.0	53.0
J1784A/O6-15N	28.0	15.0	14.8	40.0	73.0
J1784A/O6-17N	31.8	18.0	14.8	40.0	73.0
J1784A/O6-19N	35.6	20.0	14.8	40.0	73.0
J1784A/O6-21N	38.0	23.5	14.8	40.0	73.0
J1784A/O6-23N	40.0	26.5	14.8	40.0	73.0
J1784A/O6-25N	44.5	29.0	14.8	40.0	73.0

Product Designation Code

J1784A/18-XX N

XTH J1784A/ 18- 25 N 09 A
 1 2 3 4 5 6 7

1—Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd

2—Basic Part Numbe: J1784A

3—Detail Specification Number: 18 - Straight Shielded Cable Clamp

4—Shell Size: See Table 1

5—Shell Plating:N-Electroless Nickel Platin W-Cadmium Plating with Olive Drab Chromate Conversion S-Stainless Steel Passivation

6—Cable Exit Diameter Code: See Table 2

7— Length Code: See Table 3

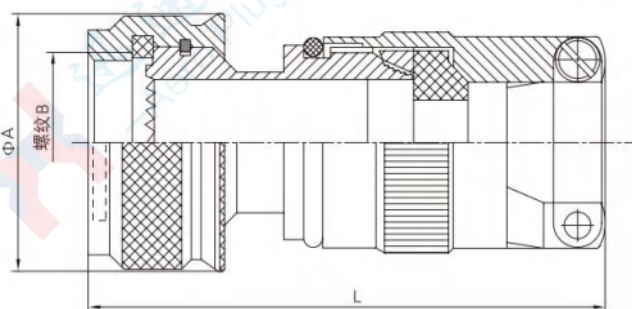
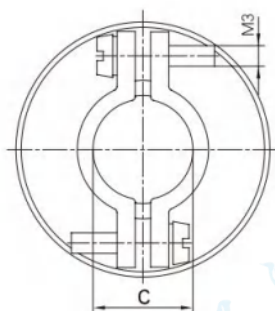


Table 1

Shell Size	Optional Cable Exit Diameter Code	A	Thread B
9	01-02	19.0	M12×1
11	01-03	21.6	M15×1
13	02-04	25.4	M18×1
15	02-05	28.0	M22×1
17	02-06	31.8	M25×1
19	03-07	35.6	M28×1
21	03-08	38.0	M31×1
23	03-09	40.0	M34×1
25	04-10	44.5	M37×1

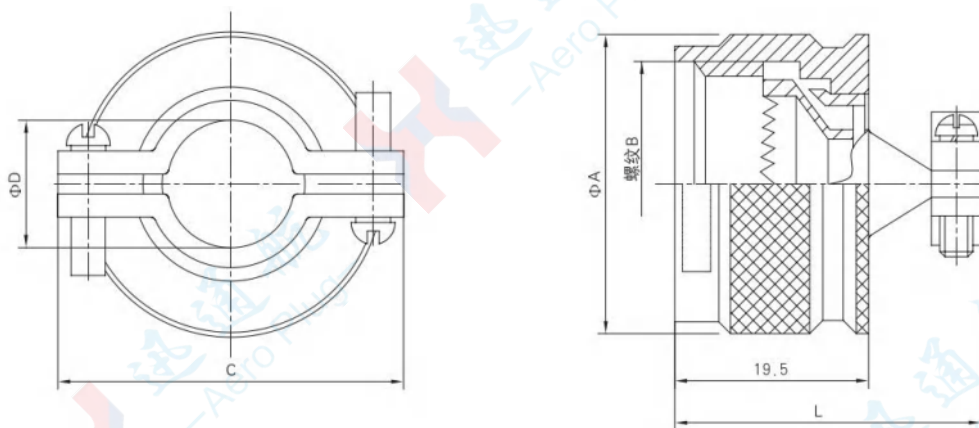
Table 2

Cable Exit Diameter Code	Cable Exit Dimension Range (C)
01	1.57 ~ 3.18
02	3.18 ~ 6.35
3	6.35 ~ 9.53
4	9.53 ~ 12.7
5	12.7 ~ 15.88
6	15.88 ~ 19.05
7	19.05 ~ 22.23
8	22.23 ~ 25.4
9	24.4 ~ 28.58
10	28.58 ~ 31.75

Table 3

Shell Size	Length Code	L
9 ~ 25	Standard (Omitted from Marking)	64.4
9 ~ 25	A	89.8
15 ~ 25	B	115.2
21 ~ 25	C	140.6

J1784A/38-xxNB



Accessory Model	A	Thread B	C	D Minimum	D Maximum	L
J1784A/38-9NB	19.0	M12 x 1	18.6	3.5	5.7	29.2
J1784A/38-11NB	21.6	M15 x 1	20.6	5.0	7.9	29.2
J1784A/38-13NB	25.4	M18 x 1	24.5	7.4	11.4	29.2
J1784A/38-15NB	28.0	M22 x 1	26.0	9.0	12.9	29.8
J1784A/38-17NB	31.8	M25 x 1	33.0	12.8	17.0	31.0
J1784A/38-19NB	35.6	M28 x 1	36.3	13.2	17.9	32.0
J1784A/38-21NB	38.0	M31 x 1	39.0	14.8	21.1	32.0
J1784A/38-23NB	40.0	M34 x 1	41.4	16.4	24.3	32.0
J1784A/38-25NB	44.5	M37 x 1	44.5	18.0	27.5	32.0

Composite Material Rear Attachment

Product Identification Code

XTH J1784A/ 91- 15 J
 1 2 3 4 5

1—Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Basic Part Number

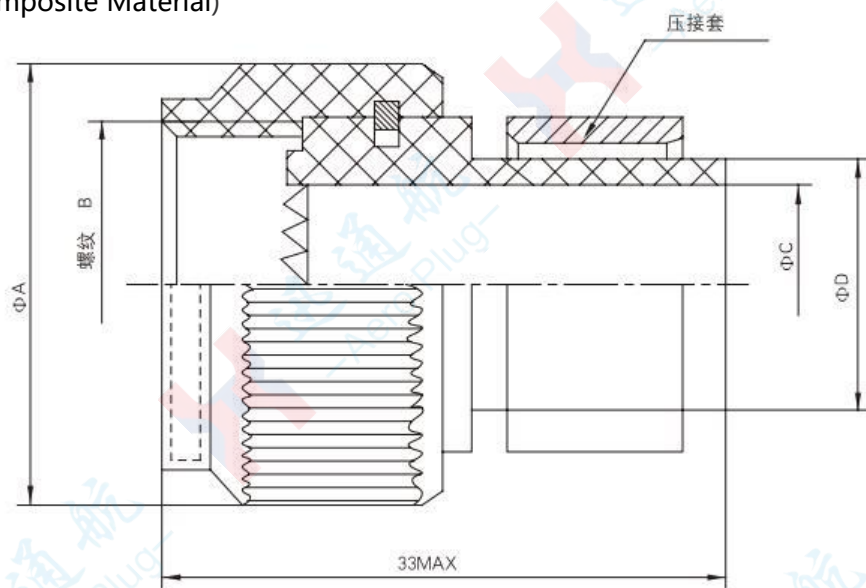
3—Detailed Specification Number:

20-Shielded Rear Attachment 91-Straight Cable Clamp 92-Angled Cable Clamp

4—Shell Size: 09、11、13、15、17、19、21、23、25

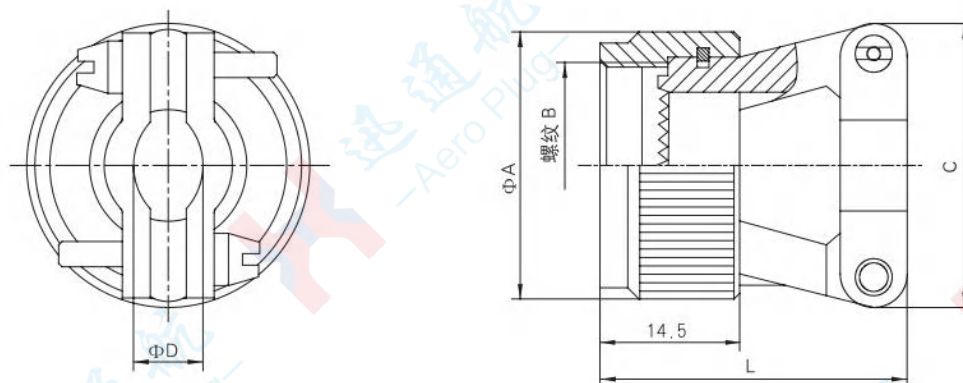
5—Shell Plating: J -Cadmium Plated Olive Drab M - Electroless Nickel

J1784A/20-XX J(Composite Material)



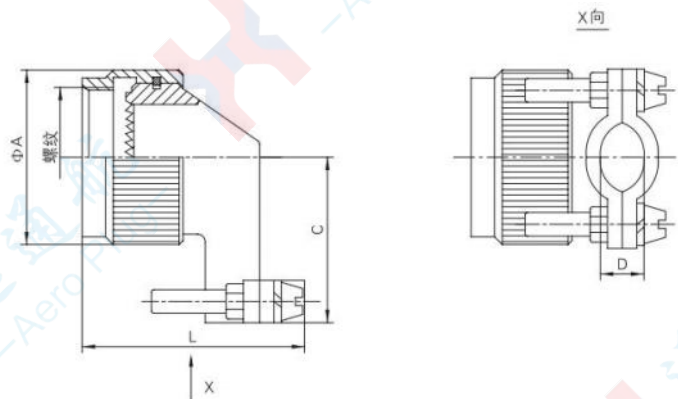
Accessory Model Number	A	Thread B	C	D
J1784A/20-9NB	21.8	M12 x 1	6.73	12.65
J1784A/20-11NB	25	M15 x 1	8.71	12.95
J1784A/20-13NB	29.5	M18 x 1	11.1	16
J1784A/20-15NB	32.5	M22 x 1	14.27	19.3
J1784A/20-17NB	35.5	M25 x 1	17.45	22.61
J1784A/20-19NB	38.5	M28 x 1	20.62	25.65
J1784A/20-21NB	41.5	M31 x 1	23.8	28.7
J1784A/20-23NB	45	M34 x 1	26.57	30.53
J1784A/20-25NB	48	M37 x 1	28.58	34.52

J1784A/91-XX J(Composite Material)



Shell Size	A Maximum	Thread B	C Maximum	D Minimum	D Maximum	L Maximum
09	21.8	M12 x 1	20.0	4.00	5.94	27.0
11	25	M15 x 1	20.0	4.00	5.94	28.5
13	29.5	M18 x 1	23.4	4.83	8.33	30.0
15	32.5	M22 x 1	26.6	6.60	11.61	31.5
17	35.5	M25 x 1	30.6	7.19	15.60	33.5
19	38.5	M28 x 1	34.0	8.26	16.10	36.6
21	41.5	M31 x 1	35.8	8.71	17.73	39.8
23	45	M34 x 1	39.0	9.68	20.90	42.9
25	48	M37 x 1	40.6	10.62	21.66	45.0

J1784A/92-XX J(Composite Material)



Shell Size	A Maximum	Thread B	C Maximum	D Minimum	D Maximum	L Maximum
09	21.8	M12 x 1	20.6	2.49	5.94	29.5
11	25	M15 x 1	22.0	3.87	5.94	29.5
13	29.5	M18 x 1	23.6	4.83	8.33	31.9
15	32.5	M22 x 1	25.2	6.60	11.61	35.1
17	35.5	M25 x 1	26.8	7.19	15.60	39.1
19	38.5	M28 x 1	31.3	8.26	16.10	41.5
21	41.5	M31 x 1	32.9	8.71	17.73	43.3
23	45	M34 x 1	34.5	9.68	20.90	46.5
25	48	M37 x 1	36.1	10.62	21.66	47.

Specialized Rear Attachment

This type of rear attachment is specifically designed for clamping shielded cables with braided shields, categorized into two main types: straight and angled. It can be optionally equipped with a Ti-Ni shape memory alloy ring. Through heating, the ring contracts to tightly fasten the braided shield around the rear of the attachment, achieving true 360° electromagnetic shielding.

* Heating and Contraction of Ti-Ni Shape Memory Alloy Ring: A dedicated resistance heater (utilizing the ring's own resistance for electric heating) or a hot air gun can be used. The contraction is complete when the temperature indicator on the ring changes from green to black, at which point the ring temperature reaches approximately 165°C—heating must be stopped immediately. Ensure uniform heating of the ring during the process. Electric heating takes about 4–5 seconds, while hot air gun heating requires approximately 45 seconds to 1 minute.

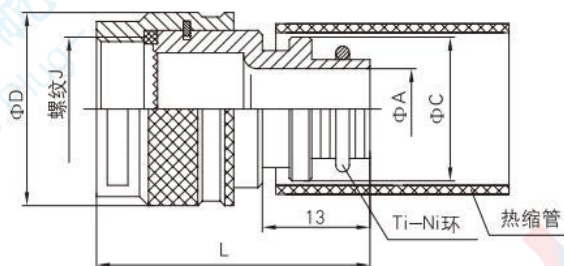
Product Identification Code

XTH JY599 III 15 FJA 00 F A -05
 1 2 3 4 5 6 7 8 9

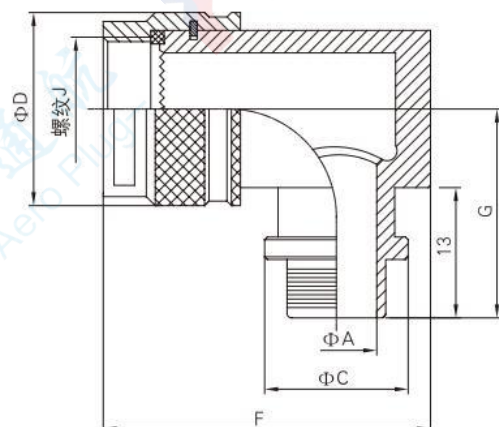
- 1— Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.
- 2— Basic Part Number
- 3— Series Code: III
- 4— Shell Size: 09、11、13、15、17、19、21、23、25
- 5— Attachment Type: FJA、FJB、FJC、FJE
- 6— Configuration: 00-Straight Rear Attachment; 90-90° Angled Attachment
- 7— Shell Plating: W-Cadmium Plated Olive Drab F-Electroless Nickel:
- 8— Ti-Ni Ring: No Marking-Without Ti-Ni Ring A-Ti-Ni Ring Optional (Applicable Only to FJA, FJC):
- 9— Cable Exit Diameter or Ti-Ni Ring Specification
 Cable Exit Diameter (when no Ti-Ni ring is installed)
 Ti-Ni Ring Specification (when Ti-Ni ring is optional)

Overall Dimensions

Straight Attachment (JY599 III -FJA00)

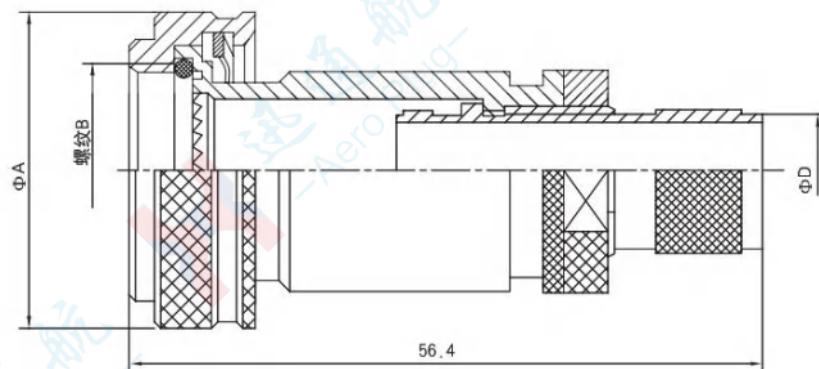


Angled Attachment (JY599 III -FJA90)



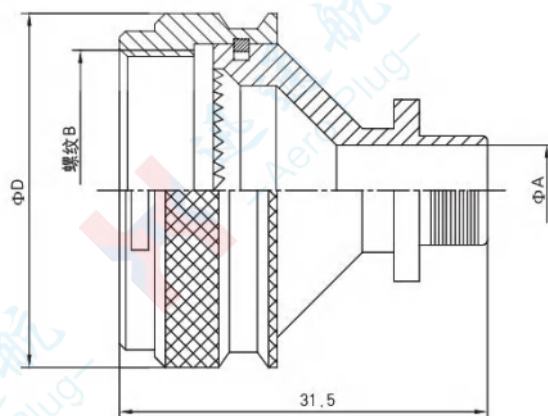
Serial Number	Shell Serial Number	Ti-Ni Ring Specification	Shielded Braided Specification (Nominal Diameter of Tinned Copper Wire)	A Cable Exit Diameter		C		F	D	G	Thread J
				Straight	Angled	Straight	Angled				
1	09	TR-04	6 x 10(0.15~0.20)	6.3	6.3	14.0	14.0	38.2	19	26	M12 X 1-6H
		TR-05	10 x 16(0.15~0.20)	7.9	7.8	15.5	15.0				
		TR-06	10 x 16(0.15~0.20)	9.5	-	17.1	-				
2	11	TR-04	6 x 10(0.15~0.20)	6.3	6.3	14.0	14.0	39.7	21.6	26	M15 X 1-6H
		TR-05	10 x 16(0.15~0.20)	7.9	7.9	15.5	15.5				
		TR-06	10 x 16(0.15~0.20)	9.5	9.5	17.1	17.1				
		TR-07	10 x 16(0.12~0.20)	11.1	11.1	18.7	18.0				
		TR-08	16 x 24(0.12~0.25)	12.7	-	20.3	-				
3	13	TR-04	6 x 10(0.15~0.20)	6.3	6.3	14.0	14.0	45.2	25.4	29	M18 X 1-6H
		TR-05	10 x 16(0.15~0.20)	7.9	7.9	15.5	15.5				
		TR-06	10 x 16(0.15~0.20)	9.5	9.5	17.1	17.1				
		TR-07	10 x 16(0.12~0.20)	11.1	11.1	18.7	18.7				
		TR-08	16 x 24(0.12~0.25)	12.7	12.7	20.3	20.3				
4	15	TR-05	10 x 16(0.15~0.20)	7.9	-	15.5	-	47.0	28	29	M22 X 1-6H
		TR-06	10 x 16(0.15~0.20)	9.5	9.5	17.1	17.1				
		TR-07	10 x 16(0.12~0.20)	11.1	11.1	18.7	18.7				
		TR-08	16 x 24(0.12~0.25)	12.7	12.7	20.3	20.3				
		TR-10	16 x 24(0.10~0.30)	16.0	16.0	23.5	23.5				
5	17	TR-12	16 x 24(0.10~0.30)	19.0	19.0	26.7	25.5	50.7	31.8	33	M25 X 1-6H
		TR-14	24 x 30(0.10~0.30)	22.2	-	30.0	-				
		TR-05	10 x 16(0.15~0.20)	7.9	-	15.5	-				
		TR-06	10 x 16(0.15~0.20)	9.5	-	17.1	-				
		TR-07	10 x 16(0.12~0.20)	11.1	11.1	18.7	18.7				
6	19	TR-08	16 x 24(0.12~0.25)	12.7	12.7	20.3	20.0	53.5	35.6	33	M28 X 1-6H
		TR-10	16 x 24(0.10~0.30)	16.0	16.0	23.5	23.5				
		TR-12	16 x 24(0.10~0.30)	19.0	19.0	26.7	26.7				
		TR-14	24 x 30(0.10~0.30)	22.2	22.2	30.0	30.0				
		TR-16	24 x 30(0.10~0.30)	25.4	25.4	33.0	32.0				
7	21	TR-08	16 x 24(0.12~0.25)	12.7	12.7	20.3	20.3	55.7	38	39	M31 x 1-6H
		TR-10	16 x 24(0.10~0.30)	16.0	16.0	23.5	23.5				
		TR-12	16 x 24(0.10~0.30)	19.0	19.0	26.7	36.7				
		TR-14	24 x 30(0.10~0.30)	22.2	22.2	30.0	30.0				
		TR-16	24 x 30(0.10~0.30)	25.4	25.4	33.0	33.0				
8	23	TR-18	30 x 40(0.10~0.30)	28.5	-	36.2	-	58.2	40	39	M34 X 1-6H
		TR-20	30 x 40(0.10~0.30)	31.0	-	39.4	-				
		TR-10	16 x 24(0.10~0.30)	16.0	16.0	23.5	23.5				
		TR-12	16 x 24(0.10~0.30)	19.0	19.0	26.7	26.7				
		TR-14	24 x 30(0.10~0.30)	22.2	22.2	30.0	30.0				
9	25	TR-16	24 x 30(0.10~0.30)	25.4	25.4	33.0	33.0	63.7	44.5	44	M37 X 1-6H
		TR-18	30 x 40(0.10~0.30)	28.5	28.5	36.2	36.2				
		TR-20	30 x 40(0.10~0.30)	31.8	31.8	39.4	39.4				
		TR-22	30 x 40(0.10~0.30)	35.0	35.0	42.5	42.0				
		TR-10	16 x 24(0.10~0.30)	-	16.0	-	23.5				
		TR-12	16 x 24(0.10~0.30)	19.0	19.0	26.7	26.7				
		TR-14	24 x 30(0.10~0.30)	22.2	22.2	30.0	30.0				

JY599III -XX FJ BOOF



Accessory Model Number	A	Thread B	D
JY599III-11FJBOOF	21.6	M1 5 x 1	6.5
JY599III-1 5FJBOOF	28	M22 x 1	12.5
JY599III-17FJBOOF	31.6	M25 x 1	19.5
JY599III-21FJBOOF	38	M31 x 1	25 .5

JY599III-XXFJC00

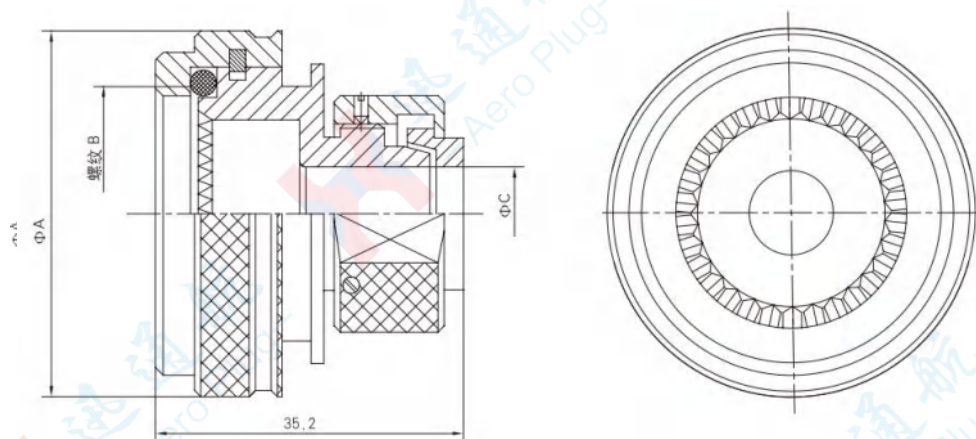


Shell Size	A Cable Exit Diameter	Thread B	D	Compatible Ti-Ni Ring Model
11	7.9	M15 x 1	21.6	TR-05
13	9.5	M18 x 1	25.4	TR-06
15	12.7	M22 x 1	28	TR-08
17	16.0	M25 x 1	31.8	TR-10
19	19.0	M28 x 1	35.6	TR-12
21	22.2	M31 x 1	38	TR-14
23	25.4	M34 x 1	40	TR-16

Model Examples

JY599III11FJC00F-7.9 is the model without a Ti-Ni ring;
when a Ti-Ni ring is required as an accessory, the model is JY599III11FJC00FA-05.

JY599ⅢXXFJE00



壳体号	A	螺纹B UNEF	C 出线口直径
09	19.0	M12 x 1	6.3、7.9、9.5
11	21.6	M15 x 1	6.3、7.9、9.5、11.1、12.7
13	25.4	M18 x 1	6.3、7.9、9.5、11.1、12.7、16
15	28.0	M22 x 1	7.9、9.5、11.1、12.7、16、19
17	31.8	M25 x 1	7.9、9.5、11.1、12.7、16、19、22.2
19	35.6	M28 x 1	12.7、16、19、22.2、25.4
21	38.0	M31 x 1	12.7、16、19、22.2、25.4、28.5
23	40.0	M34 x 1	16、19、22.2、25.4、28.5、31.8
25	44.5	M37 x 1	19、22.2、25.4、28.5、31.8、35

This type of rear attachment is capable of crimping the shielded braid and providing waterproof functionality (customization available upon request).

Product Identification Code

XTH J599 III 23 YGD25 F - 14
 1 2 3 4 5 6 7

1—Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Basic Part Number

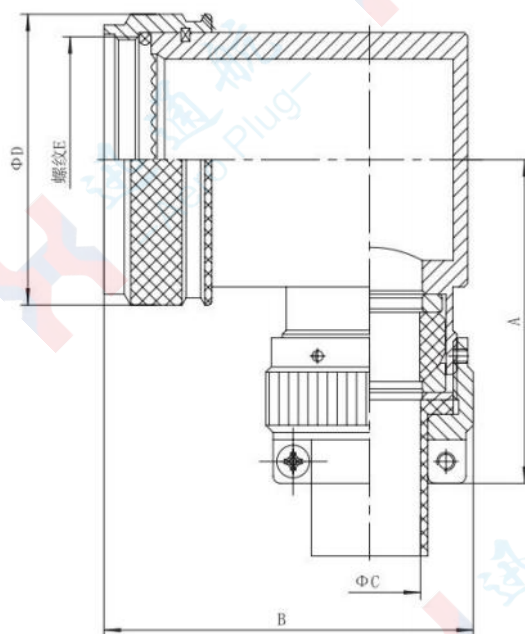
3—Series Code III

4—Shell Size: 09、11、13、15、17、19、21、23、25

5—Configuration: YGD Angled Rear Attachment Type

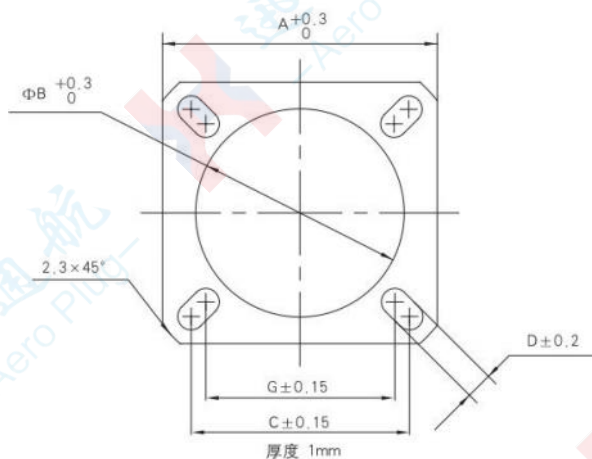
6—Shell Plating: W-Cadmium Plated Olive Drab F-Electroless Nickel

7— Cable Exit Diameter



Shell Size	A	B	C	D	Thread E
23	44.5	50.5	14	40	M34 X 1-6H
25	46	51.5	15	44.5	M37 X 1-6H

Square Disk Gasket



Compatible Shell Size	Square Disk Foot Pad Code	Conductive Square Disk Gasket Code	A	B	C	G	D
A	21E8.701.885	21E8.701.886	23.9	16.1	18.26	15.09	3.3
B	21E8.701.887	21E8.701.888	26.3	19.2	20.62	18.26	3.3
C	21E8.701.889	21E8.701.890	28.7	22.4	23.01	20.62	3.3
D	21E8.701.891	21E8.701.892	31.1	25.6	24.61	23.01	3.3
E	21E8.701.893	21 E8.701.894	33.4	30.4	26.97	24.61	3.3
F	21E8.701.895	21E8.701.896	36.6	32.0	29.36	26.97	3.3
G	21E8.701.897	21E8.701.898	39.8	34.9	31.75	29.36	3.3
H	21E8.701.899	21E8.701.900	43.0	38.3	34.93	31.75	4.0
J	21E8.701.901	21E8.701.902	46.1	41.4	38.10	34.93	4.0

Special Contact for GJB 599 Series II

Contact Specification	American Standard Model	GJB Model	Remarks
12#Contact Pin	M39029/58-365	J1216/58-365	
12#Socket Contact	M39029/56-353	J1216/56-353	
12#Contact Pin	M39029/107-623	J1216/107-623	Service Life: 1500 Cycles
12#Socket Contact	M39029/106-617	J1216/106-617	Service Life: 1500 Cycles
12#Shielded Contact Pin	M39029/28-211	J1216/28-211	
12#Shielded Socket Contact	M39029/75-416	J1216/75-416	
12#Coaxial Contact Pin	M39029/102-558	J1216/102-558	
12#Coaxial Socket Contact	M39029/103-559	J1216/103-559	
8#Twinaxial Contact Pin	M39029/90-529	J1216/90-529	
8#Twinaxial Socket Contact	M39029/91-530	J1216/91-530	
8#Analog Contact		J1784A/80-8	
12#Analog Contact		J1784A/80-12	
8#Sealing Plug	MS27488-8(red)	JY27488-8(red)	
10#Sealing Plug	MS27488-10(white)	JY27488-10(white)	
12#Sealing Plug	MS27488-12(Yellow)	JY27488-12(Yellow)	

GJB599 Series IV Circular Electrical Connector (equivalent to MIL-DTL-38999 Series IV)

This series of circular electrical connectors complies with the requirements of GJB 599 (MIL-DTL-38999K) Series IV. As high-density connectors, they feature a maximum of 128 contacts, adopt a bayonet coupling structure, and provide 100% anti-misalignment protection. Equipped with a grounding spring to enhance EMI/RFI shielding performance, they are suitable for high-intensity vibration environments such as aerospace and military applications.

Product Identification Code

XTH J599/ 40 W B 35 P N
 1 2 3 4 5 6 7 8

1—Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Basic Series Number

3—Shell Type: 40-Wall-Mounted Square Disk Receptacle

42-Box-Mounted Square Disk Receptacle

44-Nut-Fastened Receptacle 46-Shielded Plug

4—shell Plating: W-Cadmium Plated Olive Drab F-Electroless Nickel K-Stainless Steel Passivation

5-Shell Size: B to J 11 13 15 17 19 21 23 25

Index Number: B C D E F G H J

6—Contact Arrangement: See "Contact Arrangement Diagram" for details.

7 P-Crimp Pin (500 Insertion/Extraction Cycles) PH-Soldered Pin PC-Short Printed Circuit (PCB) Pin
 PL-Long Printed Circuit (PCB) Pin;

H-Crimp Pin (1500 Insertion/Extraction Cycles) HH-Soldered Pin HC-Short Printed Circuit (PCB) Pin
 HL-Long Printed Circuit (PCB) Pin;

S-Crimp Socket (500 Insertion/Extraction Cycles) SH-Soldered Socket

SC-Short Printed Circuit (PCB) Socket SL-Long Printed Circuit (PCB) Socket;

J-Crimp Socket (1500 Insertion/Extraction Cycles) JH-Soldered Socket

JC-Short Printed Circuit (PCB) Socket; JL-Long Printed Circuit (PCB) Socket;

CD-External Pin/Internal Socket, Flange Mounted Outside the Cabin (Feedthrough Receptacle)

DC—External Socket/Internal Pin, Flange Mounted Outside the Cabin (Feedthrough Receptacle)

8 N-Normal Key Position (A, B, C, D, E)—Variable Key Position

Note: Except for the main designation code, the model naming conventions of GJB 599 (National Military Standard) and MIL-DTL-38999K (U.S. Military Standard) are identical. The main designation code for GJB 599 is "J599", while that for MIL-DTL-38999K is "D3899K", and the two are interchangeable.



Product Technical Characteristics

I. Operating Environmental Conditions

Operating Temperature:

Type W: -65°C ~ +175°C

Type F, Type K: -65°C+200°C

Sealing: Mated connectors comply with the low-pressure immersion requirements of MIL-DTL-38999K

Salt Spray Resistance::

Type W: 500h Type F: 48h Type K: 1000h

Humidity Resistance: In accordance with MIL-DTL-38999K

24 hours per cycle; 10 cycles total

Fluid Resistance: Resistant to multiple fuels, coolants, and solvents

II. Electrical Characteristics

Contact Resistance and Rated Current of Contacts

Contact Specification	Working Diameter mm	Contact Resistance mΩ	Rated Current A
22D#	Φ0.76	≤12	5
20#	Φ1.00	≤5	7.5
16#	Φ1.60	≤2.5	13
12#	Φ2.40	≤1.5	23

EMI Shielding Performance

65 dB (Type F) at 10 GHz; 50 dB (Type W) at 10 GHz;

85 dB (Type F & Type W) at 1 GHz Insulation Resistance

5000 MΩ at 500 Vdc

Withstand Voltage (V)

Operating Class	M	N	I	II
Sea Level	1300	1000	1800	2300
21336m	800	600	1000	1000

*Different contact arrangements correspond to different operating classes. See "Contact Arrangement" for details.
 Electrical Continuity Between Housings:

Type W: 2.5mΩ

Type F: 1mΩ Type K: 5mΩ

III. Mechanical Characteristics

Housing : Aluminum Alloy, Stainless Steel

Shell Plating: W-Cadmium Plated Olive Drab F-

Electroless Nickel K-Stainless Steel Passivation

Insulator : Thermoplastic Material and/or

Thermosetting Material

Cable Grommet and Sealing Ring : Silicone

Rubber Gasket

Contacts : Gold-Plated Copper Alloy, Removable

Mechanical Life : ≥ 500 Insertion/Extraction

Cycles

Vibration: Sinusoidal

Vibration: Frequency 10–2000 Hz, Acceleration
294 m/s²

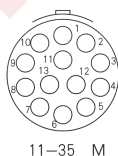
Random Vibration: Frequency 100–1000 Hz,
Power Spectral Density 1 G²/Hz

Shock: 2940m/s² 3ms

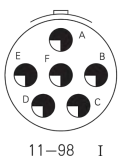
Contact Retention Force: (Minimum Force in
Newtons)

Specific ation	22D #	20#	16#	12#	10#	8#
Minimum Force N	44	67	111	111	111	111

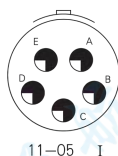
IV. Contact Arrangement (Pin Insulator Mating Face Diagram)



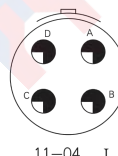
11-35 M



11-98 I



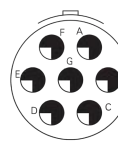
11-05 I



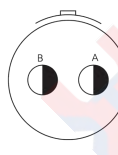
11-04 I



11-01 I



11-99 I



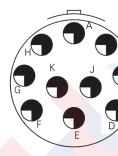
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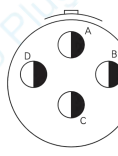
13-35 M



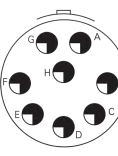
13-12



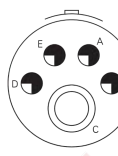
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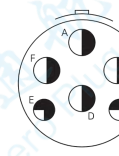
13-04 I



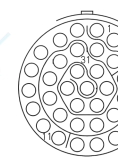
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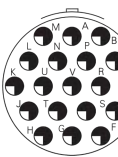
13-50 M



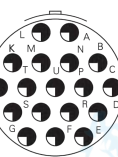
13-60 I



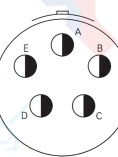
15-35 M



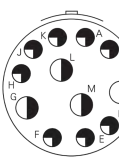
15-19 I



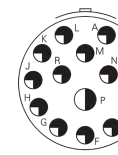
15-18 I



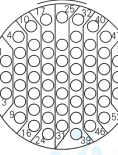
15-05 II



15-97 I



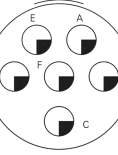
15-15 I



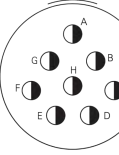
17-35 M



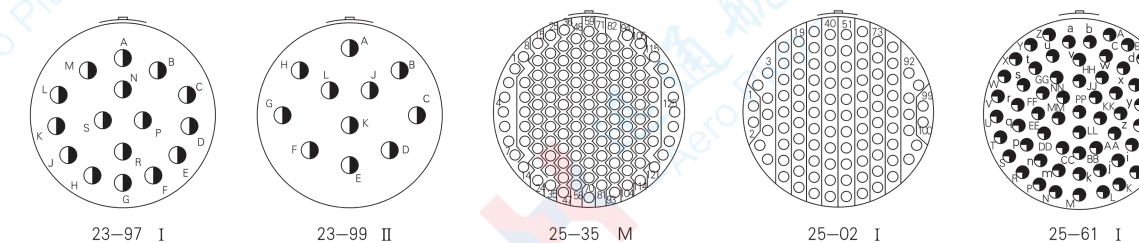
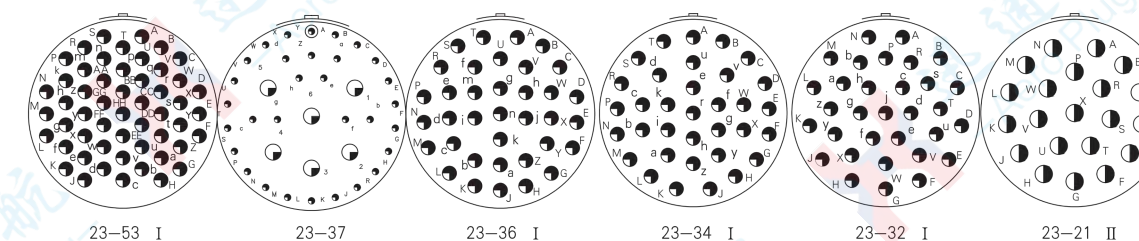
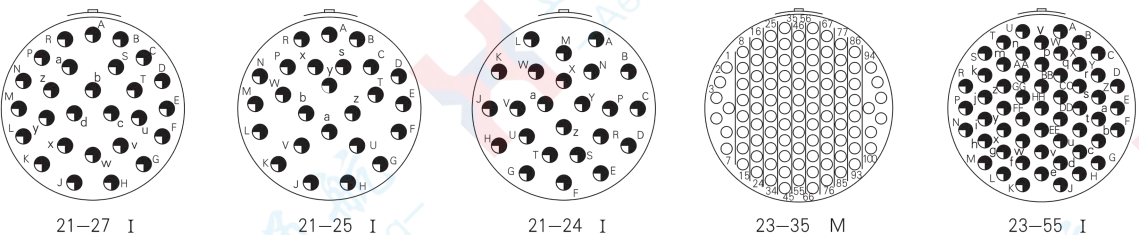
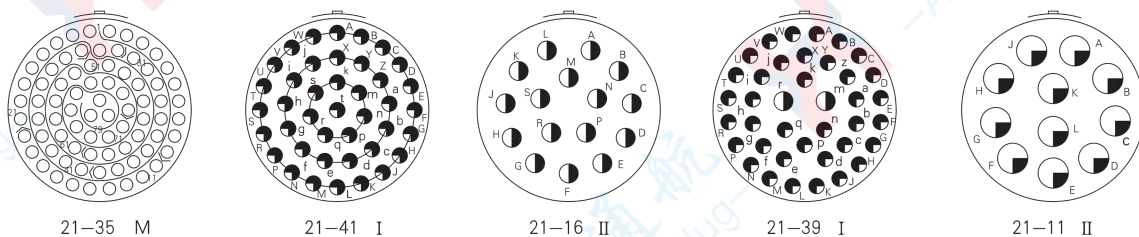
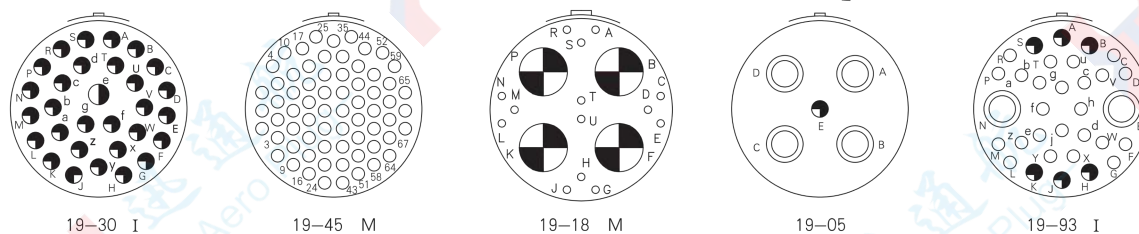
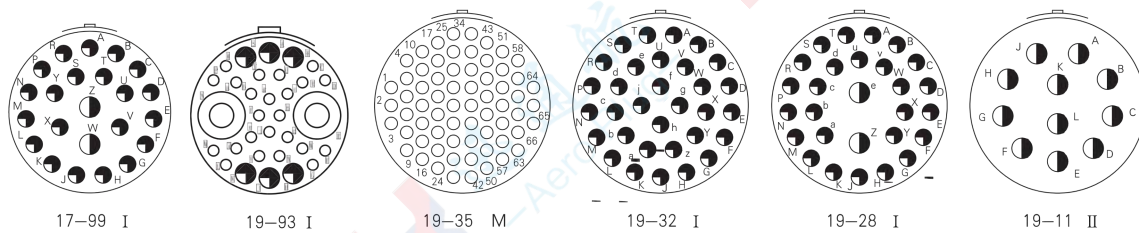
17-26 I

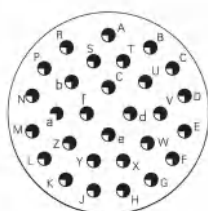


17-06 I

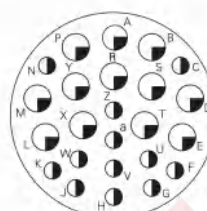


17-08 II

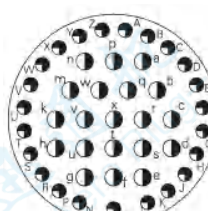




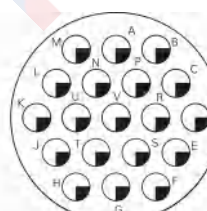
25-29 I



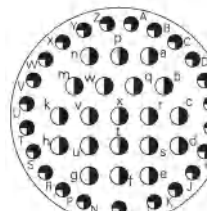
25-24 I



25-43 I



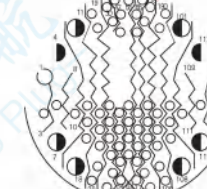
25-19 I



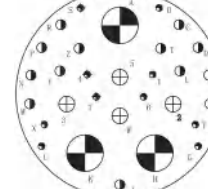
25-04 I



25-11



25-93 M

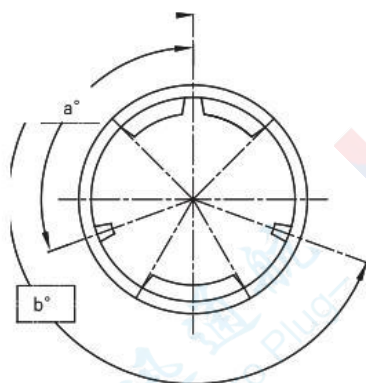


25-20 N

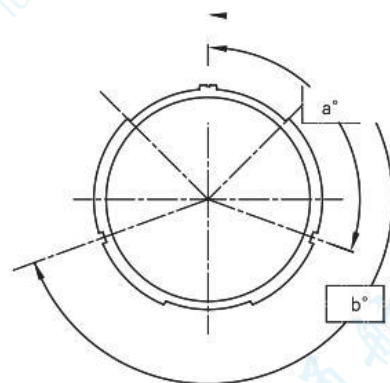
注：接触件直径标志 ○22D# ● 20#同轴 ◐ 16# ◑ 12# ◎ 10# ⊗ 8#双同轴

V. Anti-Misinsertion Key Position

连接螺帽键位角



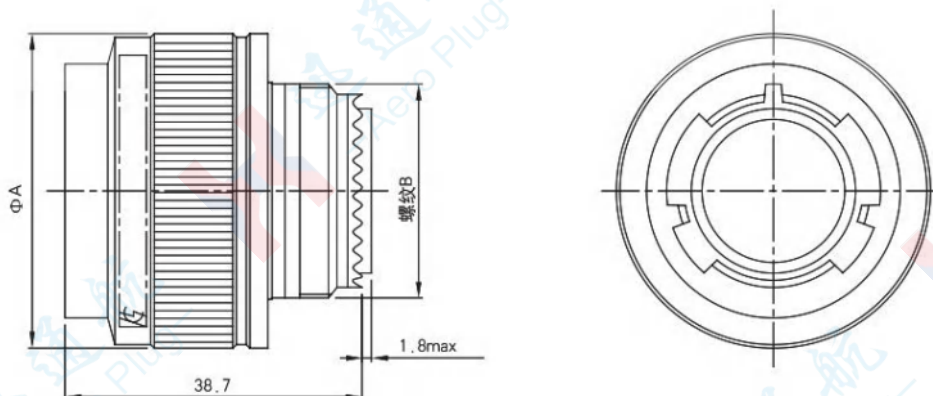
插座壳体键位角



Key Position Angle	a	b
N	110	250
A	100	260
B	90	270
C	80	280
D	70	290
K	120	255

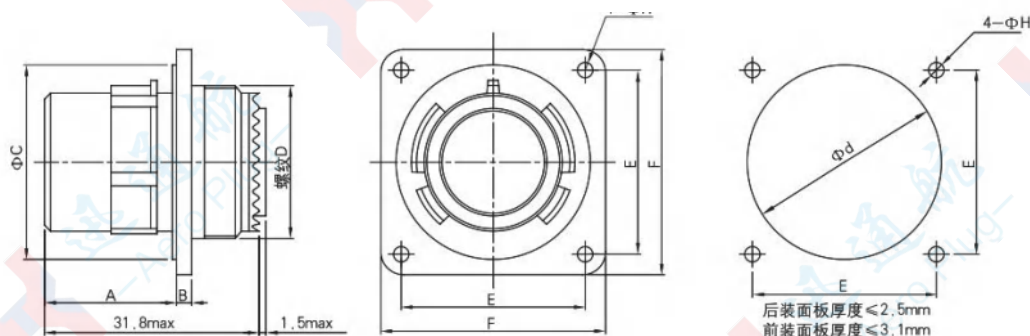
VI. Overall Dimensions

J599/46 Plug



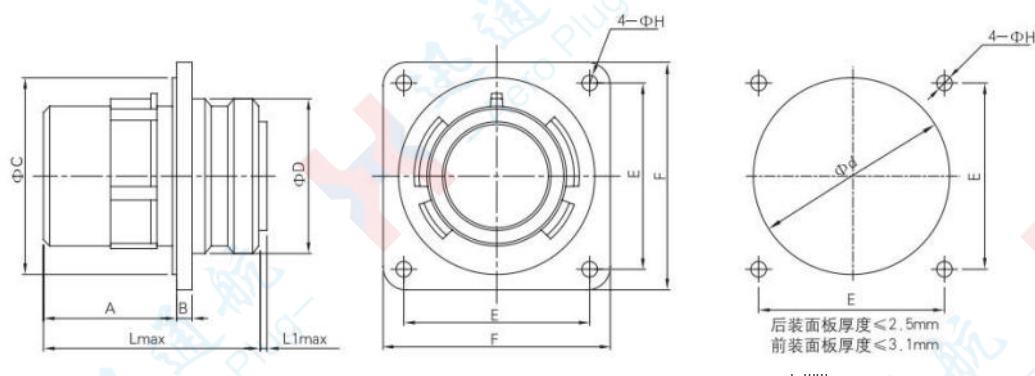
Shell Size	MS Shell Size	A Maximum	Thread B(-6g)
11	B	26.6	M15 x 1
13	C	30.8	M18 x 1
15	D	34.0	M22 x 1
17	E	37.4	M25 x 1
19	F	40.0	M28 x 1
21	G	43.2	M31 x 1
23	H	46.5	M34 x 1
25	J	49.7	M37 x 1

J599/40 Wall-Mounted Square Flange Receptacle



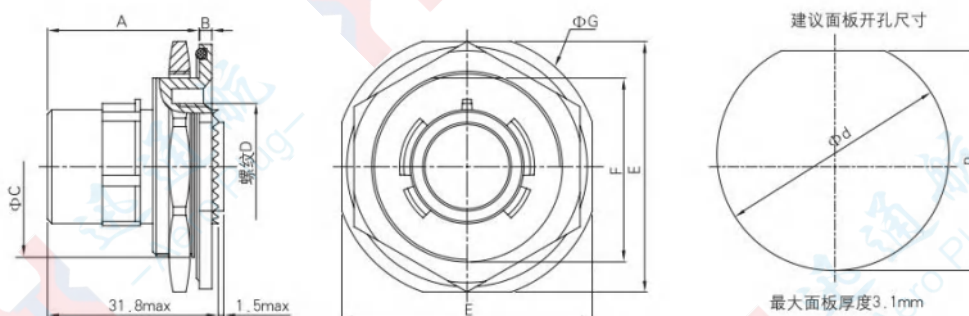
Shell Size	MS Shell Size	A Maximum	B Maximum	C Maximum	Thread D(-6g)	E	F	H	d Front-Mounted	d Rear-Mounted
11	B	20.13	2.6	20.1	M15 x 1	20.62	26.2	3.2	15.36	20.5
13	C	20.13	2.6	23.3	M18 x 1	23.02	28.6	3.2	19.2	23.7
15	D	20.13	2.6	26.5	M22 x 1	24.62	31.0	3.2	23.3	26.9
17	E	20.13	2.6	29.66	M25 x 1	26.98	33.3	3.2	25.9	31.0
19	F	20.13	2.6	32.8	M28 x 1	29.36	36.5	3.2	29.0	33.0
21	G	20.13	3.2	36.0	M31 x 1	31.76	39.7	3.2	32.2	36.2
23	H	20.13	3.2	39.2	M34 x 1	34.92	42.9	3.7	35.0	39.4
25	J	20.13	3.2	42.4	M37 x 1	38.10	46.0	3.7	37.8	42.6

J599/42 Box-Type Square Flange Receptacle



Shell Size	MS Shell Size	A Maximum	B Maximum	L	L1	C Maximum	D Maximum	E	F	H	d Front-Mounted	d Rear-Mounted
11	B	20.13	2.6	31.2	2.1	20.1	14.6	20.62	26.2	3.2	15.3	20.5
13	C	20.13	2.6	31.2	2.1	23.3	17.5	23.02	28.6	3.2	19.2	23.7
15	D	20.13	2.6	31.2	2.1	26.5	20.7	24.62	31.0	3.2	23.3	26.9
17	E	20.13	2.6	31.2	2.1	29.66	23.9	26.98	33.3	3.2	25.9	31.0
19	F	20.13	2.6	31.2	2.1	32.8	26.6	29.36	36.5	3.2	29.0	33.0
21	G	20.13	3.2	31.8	1.5	36.0	29.6	31.76	39.7	3.2	32.2	36.2
23	H	20.13	3.2	31.8	1.5	39.2	32.9	34.92	42.9	3.7	35.0	39.4
25	J	20.13	3.2	31.8	1.5	42.4	36.1	38.10	46.0	3.7	37.8	42.6

J599/44 Nut-Secured Receptacle



Shell Size	MS Shell Size	A Maximum	B Maximum	C Maximum	thread D (-6g)	E Maximum	F Maximum	G Maximum	d	P
11	B	28.3	2.6	25.4	M15×1	34.9	23.93	38.1	25.6	24.3
13	C	28.3	2.6	28.58	M18×1	38.1	27.08	41.2	28.8	27.3
15	D	28.3	2.6	31.75	M22×1	41.3	30.26	44.5	32.2	30.7
17	E	28.3	2.6	34.92	M25×1	45.2	33.56	49.2	35.2	33.8
19	F	28.3	2.6	38.10	M28×1	48.0	36.61	51.2	38.4	37.0
21	G	28.3	2.6	41.28	M31×1	51.2	39.78	54.3	41.6	40.1
23	H	28.3	2.6	44.45	M34×1	54.3	42.96	57.5	44.7	43.
25	J	28.3	2.6	47.63	M37×1	57.5	46.13	60.7	48.0	46.3

Precautions for Use

When using the product, first insert the plug straight into place (ensure the end face of the coupling nut is fully seated against the receptacle), then rotate the coupling nut 90° clockwise. A clear "click" sound and distinct tactile feedback will be felt, and the red band on the plug will be completely covered—indicating a secure connection. To disconnect, rotate the coupling nut 90° counterclockwise; a "click" sound and tactile feedback will again be sensed, and the red band will be exposed, allowing the connector to separate smoothly.

Rear Accessories

Compatible rear accessories are the same as those for the GJB599 Series III.

Plug and Receptacle Dust Caps

[Model Nomenclature]

XTH J599/51 F 15 N
 1 2 3 4 5

1- Manufacturer Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2-Base Part Number:J599/51: Plug Dust Cap (corresponding to U.S. Military Standard Part Number D38999/51)

J599/52: Receptacle Dust Cap (corresponding to U.S. Military Standard Part Number D38999/52)

3-Surface Plating: W-Aluminum Housing with Cadmium Plated Olive Drab F-Aluminum Housing with Electroless Nickel Plating K- Stainless Steel Passivation

4-Shell Size: 11、13、15、17、19、21、23、25

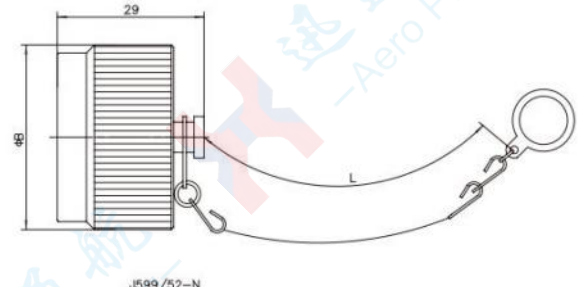
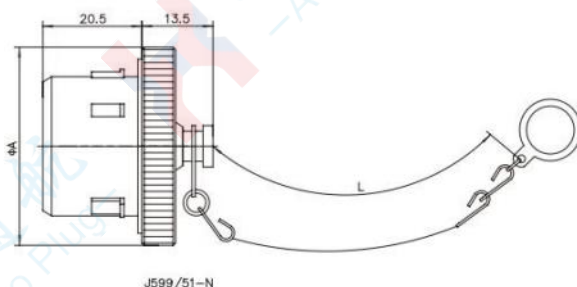
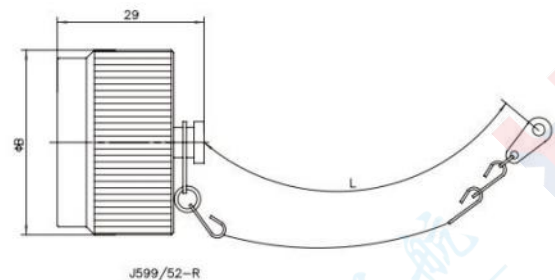
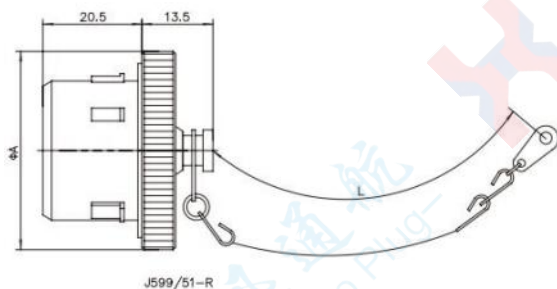
5-Lanyard Type: R—Stainless Steel Chain with Connecting Plate (for Square Flange Receptacles)

N—Stainless Steel Chain with Loop (for Nut-Secured Receptacles)

Note: Dust caps shall be ordered separately and are not supplied with the connector.

[Plug Dust Cap]

[Receptacle Dust Cap]



Shell Size	11	13	15	17	19	21	23	25
Shell Size Code	B	C	D	E	F	G	H	J
A	26	30	32	35	38	38	44	47.5
B	23	31	24	32	35	38	41	44
L	148	148	169	169	200	200	200	200

GJB59Ⅲ Series High-and-Low-Frequency Integrated Connector

This series of connectors fully complies with GJB 599A (equivalent to U.S. Military Standard MIL-DTL-38999) Series II. It enables mixed installation of power, high-speed, high-frequency, and optical contacts, as well as replacement and installation of different types of contacts with the same specification code, realizing integrated connection of microwave signals, high-speed data, optical fibers, and power control signals. Featuring triple-start thread for quick mating with an anti-loosening mechanism, 100% anti-misalignment protection, and excellent EMI/RFI shielding performance, it is suitable for connections in aerospace vehicles and other electronic/electrical equipment..

Product Designation Code

XTH J599/ 20 W B 10 P N
 1 2 3 4 5 6 7 8

1—Manufacturer Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Base Part Number

3—Shell Type: 20—Square Flange Receptacle 24—Nut-Secured Receptacle
 26—RFI Shielded Plug

4—Plating: W—Cadmium Plated Olive Drab J—Composite Material with Cadmium Plated Olive Drab
 F—Electroless Nickel Plating M—Composite Material with Electroless Nickel Plating
 K—Stainless Steel Passivation

5—Shell Size: A to J 09 11 13 15 17 19 21 23 25

Index Codes: A B C D E F G H J

6—Contact Arrangement: See "Contact Arrangement Diagram" for details

7—Contact Type*: P—Pin A: Specified Matching Pin S—Socket B: Specified Matching Socket
 PF—8#Differential Pin SF—8#Differential Socket

8—Key Position: N—Normal Key Position; A, B, C, D, E: Alternate Key Positions

Note: When contacts are configured in accordance with the sample specifications, the contact type shall be marked as P (or S); if contacts need to be specified with configurations different from the sample, replace P (or S) with A (or B), and note the specified contact model and quantity after the product model—this contact model and quantity shall not be indicated on the product marking:

Example 1: Square Flange Receptacle, Electroless Nickel Plating, Shell Size E, Contact Arrangement 06, Pins, Normal Key Position Model: J599/20FE06PN

Example 2: Modify 6 pcs of 12# Power Pins in the above receptacle to 6 pcs of 12# Coaxial Pins Order Model: J599/20FE06AN (6—J1216/102—558)

Mechanical Characteristics

Shell: Aluminum Alloy, Stainless Steel, Composite Material

Plating: W—Aluminum Alloy with Cadmium Plated Olive Drab

F—Aluminum Alloy with Electroless Nickel Plating

K—Stainless Steel Passivation J—Composite Material with Cadmium Plated Olive Drab

M—Composite Material with Electroless Nickel Plating

Insulator: Thermoplastic or Thermosetting Material

Cable Grommet and Sealing Ring: Silicone Rubber

Contacts: Copper Alloy with Gold Plating

Service Life*: 500 Mating Cycles

Shock*: 3ms Half-Sine Wave, Peak Acceleration 300g

Vibration*: Sinusoidal: 60g, with Temperature Cycling and Simulated Accessories (36 hours)

Random: 44.1grms at High Temperature; 49.5grms at Ambient Temperature

Contact Retention Force*: (Minimum Force in Newtons)

Size 22D: 45N - Size 20: 67N - Size 8: 111N - Size 12: 111N - Size 16: 111N

Note: Items marked with "*" are determined based on the minimum performance of the matched contact type.

Environmental Requirements

Temperature Range: Types W, J: 65°C ~ 175°C Types F, K, M: 65°C ~ 200°C

Sealing: Mated connectors comply with the low-pressure immersion requirements of MIL-C-38999

Salt Spray: In accordance with Method 1001 of GJB 1217

Type F: 48 hours Types W, K: 500 hours Types J, M: 2000 hours

Humidity Resistance: In accordance with MIL-C-38999: 24 hours per cycle, 10 cycles

Fluid Resistance: Resistant to various fuels, coolants, and solvents

Electrical Characteristics

Shell Conductivity: Type W: 2.5mΩ Type F: 1mΩ

Shielding Performance: 1 65dB at 10GHz (Type F) 50dB at 10GHz (Type W) 85dB at 1GHz (Types F and W)

Withstand Voltage* (Vrms)

Operating Conditions	Sea Level	At an Altitude of 21,000 Meters
M	1300	800
N	1000	600
I	1800	1000
II	2300	1000

Insulation Resistance: ≥5000MΩ (at 500Vdc)

Main Characteristics of Contacts

Power Contacts:

Contact Resistance: Size 22D: 14.6mΩ Size 20: 7.3mΩ Size 16: 3.8mΩ Size 12: 1.7mΩ

Rated Current of Contacts: Size 22D: 5A Size 20: 7.5A Size 16: 13A Size 12: 23A Size 10: 40A

#16 Shielded Contacts

—Low-Level Contact Resistance (for Inner Contacts Only)

Maximum Contact Resistance (mΩ)	
Initial Value	After Test
170	204

—Test Current and Voltage Drop:

Contact	Test Current (A)	Voltage Drop (mV) max		
		25°C		175°C
		Initial	After Test	After Test
Inner Contact	1	170	204	290
Outer Contact	12	150	180	255

Rated Operating Voltage (Between Inner and Outer Contacts)

Sea Level: 750 Vrms; 15,240 Vrms; 250 Vrms;

12#Shielded Contacts

—Low-Level Contact Resistance (for Inner Contacts Only): Initial Value 55mΩ; After Test 66mΩ.

—Contact Resistance (Test Current and Voltage Drop):

Contact	Test Current (A)	Voltage Drop(mv)max		
		25°C		200 ⁺³ °C
		Normal Conditions	After Test	
Inner Contact	1	170	204	290
Outer Contact	12	150	180	255

— Withstand Voltage: Sea Level: 750V
15,240m (11.59kPa): 250Vrms

12# Coaxial Contact

- Nominal Impedance: 50Ω
- Low-Level Contact Resistance (Applicable Only to Inner Contacts)

Maximum Contact Resistance (mΩ) max	
Initial Value	After Test
55	66

- Withstand Voltage: Sea Level: 1000 V; 15240 m (11.59 kPa): 250 Vrms
- Contact Resistance (Voltage Drop and Test Current)

Contact	Test Current (A)	Voltage Drop (mv) max		
		25+3°C		200+3°C
		Normal Conditions	After Test	
Inner Contact	1	55	60	94
Outer Contact	12	75	90	128

- Voltage Standing Wave Ratio (VSWR):

Within the frequency range of 500 MHz to 3 GHz, the VSWR shall not exceed $1.20 + 0.04F$ (where F is in GHz) under the following three conditions

- (1) Full mating of pin and socket contacts:
- (2) Full separation of pin and socket contacts, with full insertion of 1.27 ± 0.13 mm
- (3) Full separation of pin and socket contacts, with full insertion of 2.54 ± 0.13 mm

—Insertion Loss: $ddB_{max} = 0.11\sqrt{f}$ (where f is in GHz). When measured in accordance with MIL-C-39012 at 3 GHz, the insertion loss shall not exceed 0.20 dB.

8# Twinaxial Contact

- Low-Level Contact Resistance (Applicable Only to Center Contacts and Intermediate Contacts)

Maximum Contact Resistance(mΩ) max	
Initial Value	After Test
55	66

- Contact Resistance (Test Current and Voltage Drop) :

Contact	Test Current (A)	Maximum Voltage Drop (mv) max		
		25°C		175°C
		Initial	After Test	After Test
Center Contact	1.0	55	66	94
Intermediate Contact	1.0	55	66	94
Outer Contact	12	75	90	128

- Operating Frequency Range: 0 ~ 20 MHz
- Rated Operating Voltage: Sea Level: 500 Vrms; 21336 m: 125 Vrms
- Withstand Voltage:

Contact	Altitude	Test Voltage (v) rms
Center to Intermediate	Sea Level	1000
Intermediate to Outer		500

TD B4 Contact

- Impedance:50Ω
- Operating Frequency: 0 ~ 10GHZ
- Voltage Standing Wave Ratio (VSWR): ≤ 1.3
- Withstand Voltage (Between Center Conductor and Outer Conductor): 750 Vrms
- Insulation Resistance: ≥ 1000 MΩ (at 500 Vdc)

8# Differential Contact

The 8# Differential Contact is available in two types: 2-core and 4-core.

- Withstand Voltage (Vrms)

Normal Conditions:: Center Conductor to Outer Conductor: 500 V AC

Between Center Conductors: 1000 V AC

- Contact Resistance: ≤ 15 mΩ (Center Conductors Only)

- Insulation Resistance (Between Center Contacts): ≥ 1000 MΩ (at 500 Vdc)

- Rated Current of Contact: 1 A (Center Conductors)

- Transmission Rate: Up to 1.65 Gbps

Main Types of High-Frequency Contacts

Contact Specifications	GJB Model	Foreign Model	Compatible Conductors	
			Domestic Conductors	Foreign Conductors
16#Shielded Pin	J1216/76—424	M39029/76—424	SYV—50—2—51S FF—50—2—51 SFF—75—1.6—51	M17/113—RG316
16#Shielded Socket	J1216/77—428	M39029/77—428		
12#Shielded Pin	J1216/28—21 1	M39029/28—211	SYV—50—2—51 SFF—50—2—51	M17/113—RG316
12#Shielded Socket	J1216/75—41 6	M39029/75—416		
12#Coaxial Pin	J1216/102—558	M39029/102—558	SFF—50—2—51 SFF—75—1.6—51	M17/113—RG316
12#Coaxial Socket	J1216/103—559	M39029/103—559		
8#Twinaxial Shielded Pin	J1216/90—529	M39029/90—529	SEFF—78—1—51	M17/176—00002
8#Twinaxial Shielded Socket	J1216/91—530	M39029/91—530		
TDB4 High-Frequency Pin	TDB4—ka	-	670—141	
TDB4 High-Frequency Socket	TDB4—Ja	-	670—141	
#8 Differential 2-Conductor Pin, 100Ω	CF81/21 1—01	-		HD P700001070 (Habo)
#8 Differential 2-Conductor Socket, 100Ω	CF82/21 1—01	-		
#8 Differential 4-Conductor Pin, 100Ω	CF81/41 1—01	-		ET2PC236 (Nexans)
#8 Differential 4-Conductor Socket, 100Ω	CF82/41 1—01	-		

Assembly Instructions for High-Frequency Contacts

Assembly instructions for high-frequency contacts are provided in Appendix 2 (Pages 463-474).

Key Positions and Outline Dimensions

Consistent with the GJB 59911 series electrical connectors.

2.1 Contact Matching Tools

The handling tools comply with the requirements of MIL-C-81969, and the crimping tools comply with the requirements of MIL-C-22520.

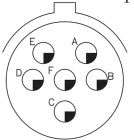
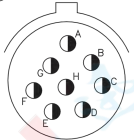
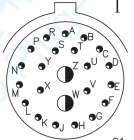
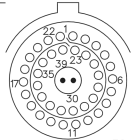
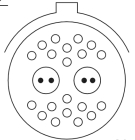
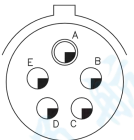
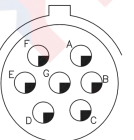
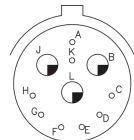
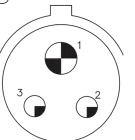
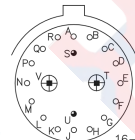
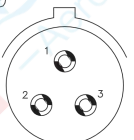
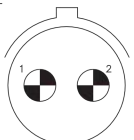
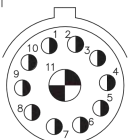
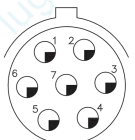
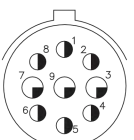
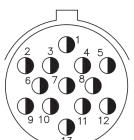
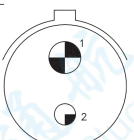
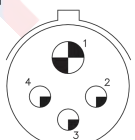
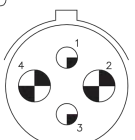
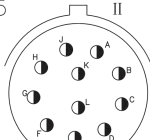
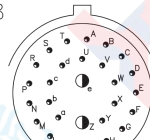
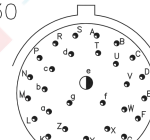
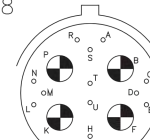
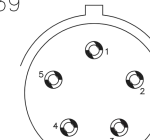
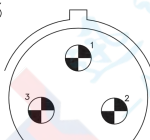
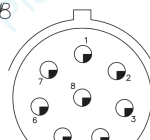
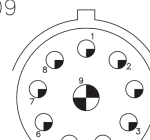
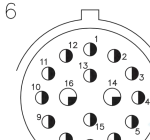
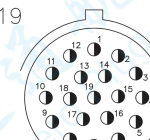
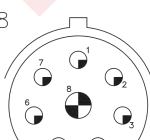
Contact Arrangement

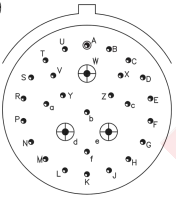
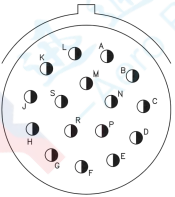
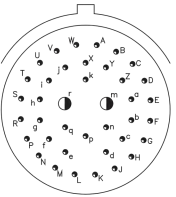
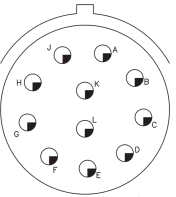
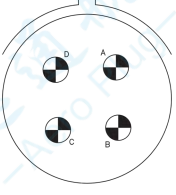
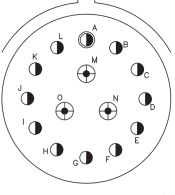
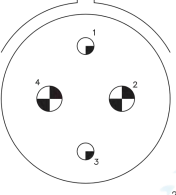
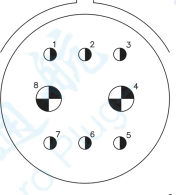
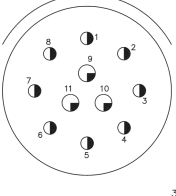
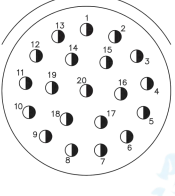
Note: 12# positions can accommodate 12# power, 12# shielded, and 12# coaxial contacts.

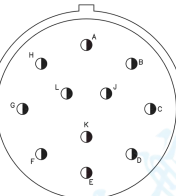
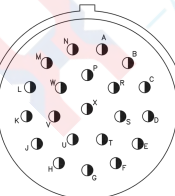
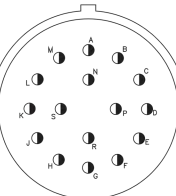
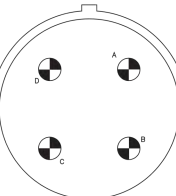
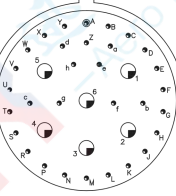
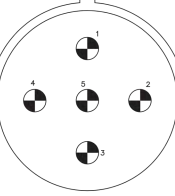
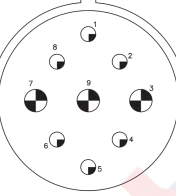
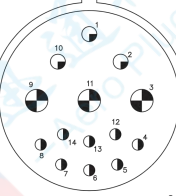
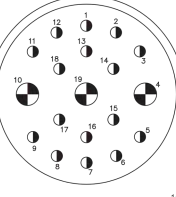
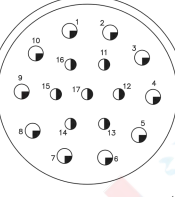
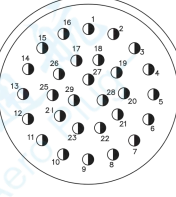
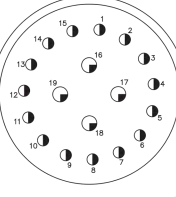
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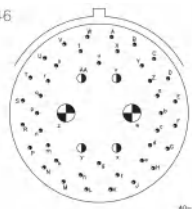
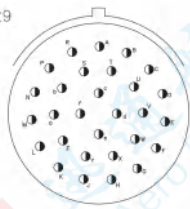
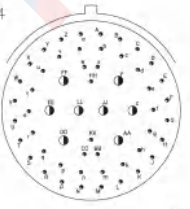
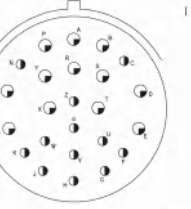
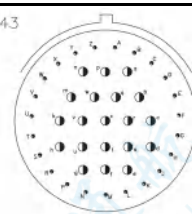
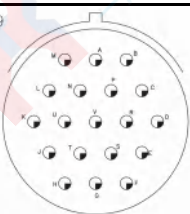
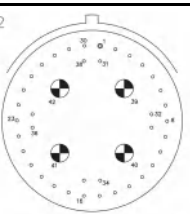
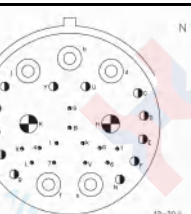
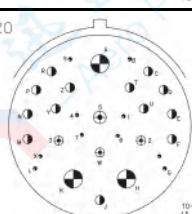
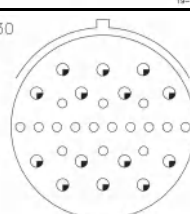
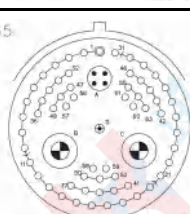
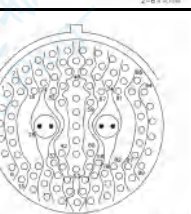
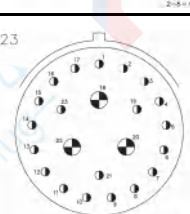
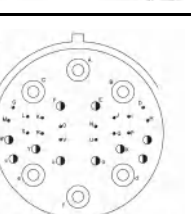
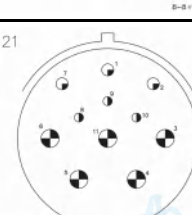
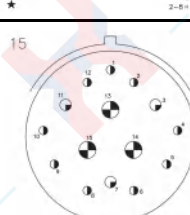
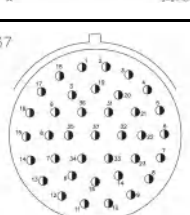
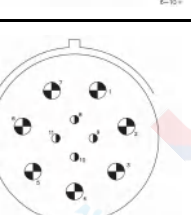
8# positions can accommodate 8# power, 8# twinaxial, and 8# differential contacts.

壳体号 09 (A)	10  1-12 #	11  1-16 #			
11 (B)	01  1-12 #	02  2-16 #	81  1-8 # 双同轴	43  ★ 3-16 #	
13 (C)	12  1-12 # 11-22D #	60  4-16 # 2-20 #	04  4-16 #	01  1-8 # 双向轴	24  1-12 #
	02  2-12 #	43  ★ 3-16 #	45  ★ 5-16 #		
壳体号 15 (D)	05  5-16 #	97  8-20 # 4-16 #	15  14-20 # 1-16 #	02  2-12 #	14  8-22 # 6-16 #
	12  8-22 # 2-20 # 2-12 # 屏蔽	60  4-12 #	39  13-22D # 2-TDB4 #	48  ★ 8-16 #	58  ★ 7-16 # 1-12 #

17 (E)	11  6-12 #	08  8-16 #	99  21-20 # 2-16 #	02  38-22 # 1-18 # 差分2芯	32  20-22 # 2-8 # 差分2芯
	05  5-12 #	07  7-12 #	11  3-12 # 8-20 # ★	23  1-8 # 双同轴 2-12 # ★	20  16-22 # 2-20 # 2-12 # 屏蔽
	39  3-TDB4	22  2-8 # 双同轴	51  10-16 # 1-8 # 双同轴 ★	24  1-16 # 2-12 # 1-8 # 双同轴 ★	27  7-12 #
	29  6-16 # 3-12 # ★	53  13-16 # ★	52  1-12 # 1-8 # 双同轴 ★	54  3-12 # 1-8 # 双同轴 ★	29  2-12 # 2-8 # 双同轴 ★
壳体号 19 (F)	05  11-16 #	28  26-20 # 2-16 #	30  29-20 # 1-16 #	18  4-8 # 14-220 #	39  5-TDB4
	03  3-8 # 双同轴 ★	08  8-12 #	09  1-8 # 双同轴 9-12 # ★	16  2-12 # 14-16 # ★	19  19-16 #
	38  1-8 # 双同轴 7-12 # ★				

壳体号 21 (G)	29  26-20 # 3-12 # 同轴	16 II  16-16 #	39 I  37-20 # 2-16 #	11  11-12 #
	75  4-8 # 双同轴	80  12-16 # 3-12 # 同轴	74  2-12 # 2-8 # 双同轴	78  6-16 # 2-8 # 双同轴
	71  3-12 # 8-16 #	70  20-16 #		

壳体号 23 (H)	99 II  11-16 #	21  21-16 #	97  16-16 #	04  4-8 # 双同轴
	37  31-20 # 6-12 # 同轴	05  5-8 # 双同轴	09  6-12 # 3-8 # 双同轴	14 I  8-16 # 3-12 # 3-8 # 同轴
	15  16-16 # 3-8 # 双同轴	17  10-12 7-16 #	29  29-16 #	19  4-12 # 15-16 #

Shell Size 25 (J)	46  40-20 # 4-16 # 2-8 # (1/16)	29  20-16 #	04  40-20 # 8-16 #	24  12-16 # 10-12 #
	43  23-20 # 20-16 #	19  19-12 #	42  38-220 # 4-16 # (1/16)	31  12-20 # 12-16 # 2-8 # (1/16)
	20  19-20 # 12-16 # 1-12 # (1/16) 2-8 # (1/16)	30  14-12 # 19-220 #	65  81-220 # 1-12 # 1-8 # (1/16) 2-8 # (1/16)	07  41-220 # 2-8 # (1/16)
	08  8-16 # (1/16) 10-12 #	90  4-16 # 40-20 # 2-8 # (1/16)	23  20-16 # 2-8 # (1/16)	32  19-20 # 10-16 # 8-12 #
	21  3-12 # 3-16 # 5-8 # (1/16)	15  3-12 # 3-16 # 3-8 # (1/16)	37  37-16 #	51  4-16 # 10-16 # 7-8 #
	44  24-220 # 12-16 # 1-12 # (1/16) 1-8 # (1/16) 2-8 # (1/16)			

Definition of Hole Position Marking	Contact Specifications				
Specification of Power Contacts	22D # 	20 # 	16 # 	12 # 	10 #
High-Frequency Contacts	16 # 屏蔽 	12 # 屏蔽 	12 # 同轴 	TDB4接触件 	
1553 Data Bus Contact Elements	8 # 双端射 				
High-Speed Transmission Contacts	8 # 差分2芯 	8 # 差分4芯 			

The outline dimensions of this series of circular electrical connectors comply with the requirements of GJB599A (MIL-C-38999) Series III. Designed for power supply applications, the rated operating current ranges from 7.5A to 225A. The connectors adopt threaded quick-connect with an anti-loosening mechanism, and feature crimp termination at the rear. Both plugs and sockets are capable of accommodating either pins or sockets (contacts).

Product Marking Code

XTH J599/ 20 W G 05 P N
 — 1 2 3 4 5 6 7 8

1—Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Basic Series Number

3—Shell Type: 20-Square Flange Receptacle 24-Nut - Secured Receptacle
26-Shielded Plug

4—Plating: W-Cadmium Plated (Military Green) F-Electroless Nickel Plated
K-Stainless Steel Passivated

5—Shell Size: A to J 09 11 13 15 17 19 21 23 25

Index Codes: A B C D E F G H J

6—Contact Arrangement: Refer to the "Contact Arrangement Diagram"

7—Contact Type: P-Crimp Pin, PH-Soldered Pin
S-Crimp Socket, SH-Soldered Socket

8—Key Position: N - Normal Key Position; A, B, C, D, E - Alternative Key Positions

Product Technical Characteristics

1. Operating Environmental Conditions

Temperature Range :

Class W: -65°C ~ 175°C; Classes F & K: -65°C ~ 200°C

Sealing: Mated connectors comply with the low-pressure immersion requirements of MIL-C-38999K

Salt Spray: In accordance with Method 1001 of GJB1217

Class W: 500 hours Class F: 48 hours

Class K: 1000 hours

Damp Heat: In accordance with MIL-C-38999K:

10 cycles of 24 hours each

Fluid Resistance: Resistant to multiple fuels, coolants, and solvents

2. Electrical Performance

Rated Voltage, Withstand Voltage, and Insulation Resistance

Operating Environment	Rated Voltage V	Withstand Voltage V	Insulation Resistance MΩ
Normal Temperature Condition	500	1500	≥5000
Damp Heat Condition	500	750	≥1000

Shell Conductivity:

Class W: 2.5mΩ

Class F: 1mΩ

Class K: 5mΩ

Shielding Performance:

65 dB at 10 GHz (Class F)

50 dB at 10 GHz (Class W)

85 dB at 1 GHz (Classes F & W)

Contact Resistance and Rated Current of Contacts

Contact Specifications	Contact Resistance mΩ	Rated Current A
20#	≤8.5	7.5
16#	≤4.5	13
12#	≤2.2	23
10#	≤1.2	33
8#	≤0.7	46
6#	≤0.5	50
4#	≤0.35	80
0#	≤0.17	150
2/0#	≤0.124	185
4/0#	≤0.116	225

3. Mechanical Characteristics

Shell : Aluminum Alloy, Stainless Steel

Plating: W-Cadmium Plated (Military Green)

F-Electroless Nickel Plated

K-Stainless Steel Passivated

Insulator: Thermoplastic Material or Thermosetting Material

Cable Gland & Sealing Ring: Silicone Rubber

Contacts: Copper Alloy with Gold Plating

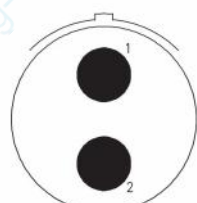
Mechanical Life: ≥ 500 Mating/Unmating Cycles

Shock: 3ms Half - Sine Wave, Peak Acceleration 300g

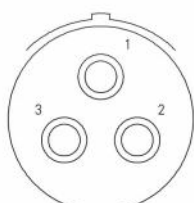
Vibration: Sinusoidal: 60g, with Temperature Cycling and Simulated Accessories (36 hours)

Random: 44.1 grms at High Temperature; 49.5 grms at Ambient Temperature

4. Contact Arrangement (View of Mating Face of Pin - Mounted Insulator)



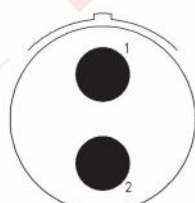
2-8#
17-62



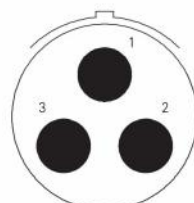
3-10#
19-13



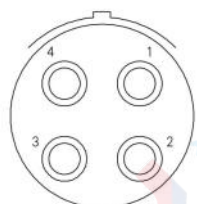
1-2/0#
19-01



2-8#
19-02



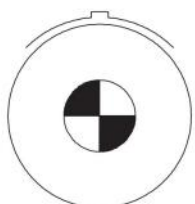
3-8#
21-03



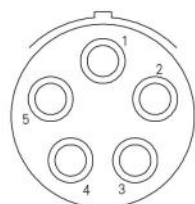
4-10#
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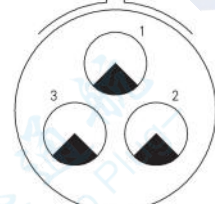
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21-48



1-0#
21-31



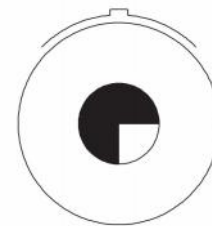
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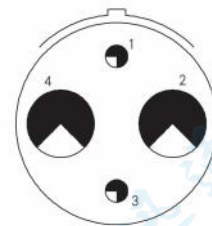
3-6#
23-03



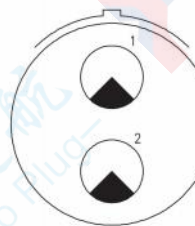
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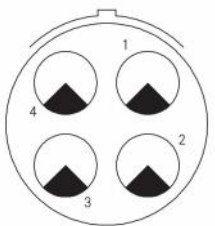
1-2/0#
23-01



2-4#
2-20#
23-24



2-6#
23-12



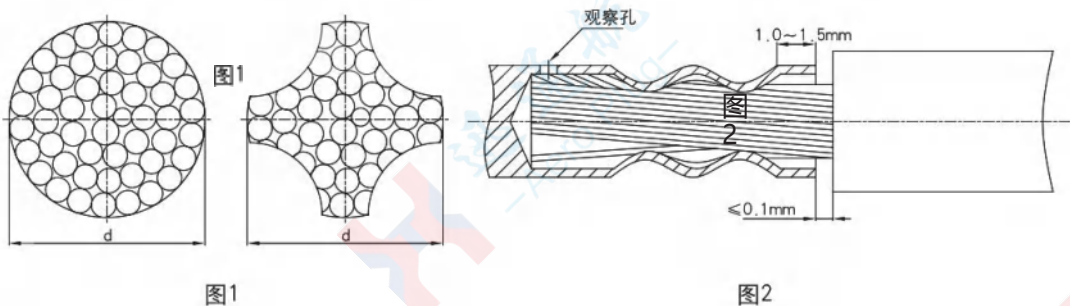
4-6#
23-44

Appendix 1: Operation Instructions for Crimping Tools Matching GJB599 Series Products

Crimping Principle

Crimping is a permanent connection method. Specifically, the metal wire barrel of the terminal wraps around the bare conductor, and the connection is achieved by mechanically compressing the wire barrel using specialized manual or automatic crimping tools. It is a technology that causes metal to deform within specified limits to connect the conductor to the contact. A high-quality crimp connection involves metal interdiffusion and flow, resulting in symmetrical deformation of the stranded conductor and contact material. This connection is similar to a cold welding joint, thereby achieving excellent mechanical strength and electrical continuity.

Since the conductor is composed of multiple stranded round cores, gaps exist between each individual core. When the stranded round conductor deforms and the deformation is not allowed to exceed its original diameter d (as shown in Figure 1), the original stranding pattern of the individual cores is inevitably disrupted to fill these gaps. Once the gaps are fully filled and deformation continues, plastic deformation occurs between each core of the conductor and between the conductor and the inner wall of the crimp barrel, generating a certain static friction force. Metal molecules between them interpenetrate, resulting in the aforementioned "cold welding" phenomenon. Due to the large contact area formed between the contact and the conductor through crimping, this connection exhibits low contact resistance and high tensile strength.



Crimping Characteristics

Connectors utilizing crimp contacts typically allow for contact replacement—such as adjusting or modifying circuits, replacing defective contacts, or switching to alternative contact types on the production line. Crimping can be performed using manual tools, electric tools, or automatic crimping machines. Crimping tools must be calibrated regularly to ensure proper crimp strength. The inspection hole on each contact provides visibility of the stranded conductor end, verifying that the conductor is inserted to the correct position within the contact's crimp barrel.

Crimping Tools

Crimping tools are specialized instruments for transmitting crimping force and serve as the key to ensuring crimping reliability. Taking manual crimping tools as an example, they generally consist of four components: the crimp head assembly, self-locking mechanism, locator, and handle.

Crimp Head Assembly – Composed of a crimp die, return spring, and frame. The shape of the crimp die determines the crimp profile, and the strength and wear resistance of the crimp die are critical performance factors.

Self-Locking Mechanism – Includes a rack, adjusting cam, and spring. As a key component for ensuring crimping strength, the self-locking mechanism prevents the handle from releasing if crimping is incomplete. Different crimping strength requirements for various contact sizes are controlled by adjusting the cam.

Locator – A detachable axial positioning device used to ensure precise crimping position.

Handle – Designed for applying crimping force.

Based on the contact sizes of GJB599 series products and in compliance with the requirements of MIL-C-22520 crimping tool specifications, our company has developed two types of crimping pliers for GJB599 series products: XCCY-01 and YJQ. The XCCY-01 crimping pliers are mainly used for crimping larger contacts (sizes 20#, 16#, and 12#), while the YJQ is a compact crimping tool designed for smaller contacts (sizes 22D# and 20#).

Appendix 1: Operation Instructions for Crimping Tools Matching GJB599 Series Products

XCXY-01 Crimping Pliers

1、Axial Locator

The axial locator is used for the axial fixation of contacts to ensure a correct and reliable crimping position.

The XCXY-01 crimping pliers are equipped with 3 locators of different specifications (as shown in Figure 3) to adapt to various contact sizes. Details are provided in Table 1:

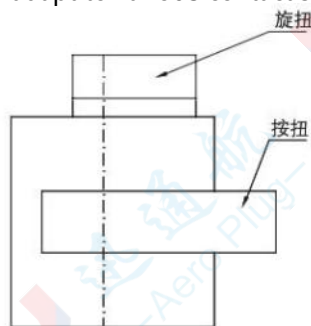


图3 XCXY-01压接钳所配定位器 (DWQ-10、13、14)

Table 1

Crimping Plier Model	Adaptable Locator	Adaptable Contact Sizes
XCXY-01	DWQ-10	Socket Contacts for GJB599 Series I and III, Sizes 20#, 16# and 12#
	DWQ-13	Pin Contacts of Sizes 20#, 16#, and 12# for GJB599 Series I, II, and III
	DWQ-14	Socket Contacts of Sizes 20#, 16#, and 12# for GJB599 Series II

2、Radial Locator

The radial locator is a rotating disk with eight gear positions. Each gear position controls the crimping strength for different crimp contacts. By adjusting the gear position, the required crimping strength for crimping various contact sizes with corresponding wire gauges can be achieved. Details are provided in Table 2:

Table 2

Pin and Socket Specifications	20#			16#			12#	
Outside Diameter of Crimp Barrel mm	1.78			2.62			3.84	
Inside Diameter of Crimp Barrel mm	1.17			1.68			2.49	
Radial Selector Gear Number	8			6			4	3
Compatible Wire (AWG)	24	22	20	20	18	16	14	12
Crimp Contact Resistance MΩ	1.0	0.8	0.7	0.7	0.5	0.4	0.3	0.2
Crimp Strength N	30	49	74	74	167	206	314	471

3、Crimping Procedure

3.1 Install the Axial Locator: Mount the axial locator on the crimping tool using a hex wrench.

3.2 Selection of the Axial Locator: The knob of the axial locator is equipped with locators suitable for different contact sizes. The knob is mounted eccentrically, and rotating it allows the locator corresponding to the required contact size to be positioned at the center.



Appendix 1: Operating Instructions for Crimp Tools Matching GJB 599 Series Products

- Rotate the knob (if the knob is not extended, press the button until a "click" is heard, and the knob will pop out), then turn the locator corresponding to the required contact size to the center position.
- Press the knob downward until a "click" is heard. At this point, the button is depressed, and the axial positioning is completed.



3.3 Radial Positioning Selection: Radial positioning selection is accomplished by adjusting the rotating disk, which is engraved with eight different scales suitable for crimping different contacts and compatible wires.

- Based on the specifications of the contact to be crimped, select the wire size and determine the radial selector number using Table 2.
- Remove the locking pin, pull up the rotating disk, and rotate it until the required number aligns with the arrow mark line.
- Lower the rotating disk, fasten the locking pin back into place, and the radial adjustment is complete.



3.4 Crimping Operation Steps

a. Prepare the components to be crimped: Select the compatible wire matching the contact size specified in Table 2, strip the insulation to a length of 6.5–7.0 mm, insert the stripped wire core into the crimp barrel of the contact, and ensure the wire core extends beyond the inspection hole on the crimp barrel (see Figure 4).

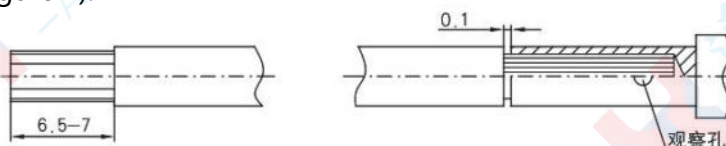


Figure 4

b. Crimping: Insert the components to be crimped into the hole of the tool jaw, ensure the end of the contact abuts the bottom of the locating hole, squeeze the handle until it reaches the fully closed position, release the handle, and remove the crimped components.



Appendix 1: Operating Instructions for Crimp Tools Matching GJB 599 Series Products

3.5 Inspect Crimp Quality

After crimping, the following aspects shall be mainly inspected:

- Whether the crimped points on the appearance are uniform and whether the crimped part is bent (see Figure 2).
- Crimp Strength: Verify that the crimp strength meets the specified requirements (see Table 2).
- Contact Resistance Value: Test that the contact resistance value complies with the specified requirements (see Table 2).

YJQ Crimp Tool

1、Axial Locator

The axial locator is used for the axial fixation of contacts to ensure a correct and reliable crimping position. The YJQ crimp tool is equipped with 4 sizes of locators (as shown in Figure 5) to adapt to different contact sizes. For details, refer to Table 3:

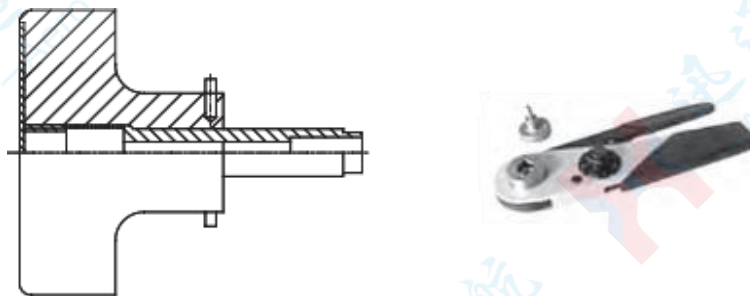


Figure 5: Locators Equipped with YJQ Crimp Tool (XDWQ-03Z, 03K, 06, 07)

Table 3

Crimp Tool Model	Compatible Locator	Applicable Contact Sizes
YJQ	XDWQ-03Z	Contact Pin Contacts of GJB599 Series I, II, and III (Size 22D)
	XDWQ-03K	Socket Contacts of GJB599 Series I and III (Size 22D)
	XDWQ-06	Socket Contacts of GJB599 Series I (Size 20D)
	XDWQ-07	Socket Contacts of GJB599 Series I, II, and III (Size 20) Socket Contacts of GJB599 Series II (Size 20)

2、Radial Locator

The radial locator is a rotating disk with eight gear positions. Each gear position controls the different crimp strength of the crimp contact angle. By adjusting the gear position, the crimp strength requirements for crimping different specifications of wires with various contacts can be met. For details, refer to Table 4:

Table 4

Pin and Socket Specifications	22D#				20#		
Outside Diameter of Crimp Barrel mm	1.22				1.78		
Inside Diameter of Crimp Barrel mm	0.85				1.17		
Gear Number of Radial Selector	1				2		3
Compatible Wire (AWG)	28	26	24	22	24	22	20
Crimp Contact Resistance MΩ	1.2	1.1	1.0	0.8	1.0	0.8	0.7
Crimp Strength N	13	22	30	49	30	49	74

3、Crimping Procedure

The crimping procedure is basically the same as that of the XCXY-01 crimp tool. The only difference is that the installation of the YJQ axial locator is relatively simple—just rotate the locator 90° and fasten it.

Appendix 1: Operating Instructions for Crimp Tools Matching GJB599 Series Products

Crimping Precautions

- 1、The selection of wire cross-section must match the corresponding contacts in accordance with the provisions of Table 2 and Table 4.
- 2、A wire stripper shall be used for stripping insulation. The wire must not be damaged, and wire breakage is strictly prohibited. After stripping, the wire shall undergo quality inspection; the stripping length shall comply with the requirements of Figure 4.
- 3、After adjusting the crimp tool, perform two dry crimps first to check for smooth operation without obstacles.
- 4、It is strictly prohibited to crimp large-diameter contacts at the crimping position designated for small-size contacts, as this may prevent the handle from reaching the fully closed position. Forcing the handle to the closed position under such circumstances will damage the crimp tool. In case of such an occurrence, contact the supplier for maintenance.
- 5、When crimping socket contacts, the crimping area must be clearly identified. It is strictly prohibited to use the contact end of the socket as the crimp barrel for crimping.
- 6、Compatible crimp tools must be used for crimping; incompatible crimp tools are not allowed.
- 7、To ensure the quality of mass production, it is recommended to perform trial crimps (quantity determined by the user) for each contact size with each crimp tool before mass crimping each batch of products. Conduct a pull-out force test, and proceed with mass crimping only after passing the test.
- 8、The crimping site must be kept clean. Wires shall be crimped one by one immediately after stripping. During the crimping process, the mating interface of the plug or socket must be covered with a protective cap to prevent foreign objects from entering.
- 9、Crimp tools shall be inspected regularly and can only be used if they pass the inspection.
- 10、It is strictly prohibited to solder wires to crimped contacts. This will hinder the installation of contacts, and even if installed, they cannot be removed.

Appendix 2: Assembly Instructions for GJB599 Series High-Frequency Contacts

1 Domestic and Foreign Model Comparison and Compatible Cables of High-Frequency Contact

Table 1: Model Comparison and Compatible Cables

Contact Specifications	GJB Model	Foreign Model	Compatible Wire	
			Domestic Wire	Foreign Wire
16# Shielded Contact Pin	J1216/76424	M39029/76—424	SYV-50-2-51 SFF-50-1.5-51 SFF-75-1.6-51	M17/113— RG316
16#Shielded Socket	J1216/77—428	M39029/77—428		
12#Shielded Contact Pin	J1216/28—211	M39029/28—21 1	SYV-50-2-51 SFF-50-1.5-51	M17/113— RG316
12#Shielded Socket	J1216/75—41 6	M39029/75—416		
12#Coaxial Contact Pin	J121 6/102—558	M39029/102—558	SFF-50-2-51 SFF-75-1.5-51	M17/113RG316
12#Coaxial Socket	J121 6/103—559	M39029/103—559		
8#Twin Coaxial Shielded Contact Pin	J1216/90—529	M39029/90—529	SEFF-78-1-51	M17/176—00002
8#Twin Coaxial Shielded Socket	J1216/91530	M39029/91—530		
8#Differential 2-Core Contact Pin (100Ω)	CF81/211—01			
8#Differential 2-Core Socket (100Ω)	CF82/211—01			
8#Differential 4-Core Contact Pin (100Ω)	CF81/411—01			
8#Differential 4-Core Socket (100Ω)	CF82/411—01			

Wire Designation	Maximum Tensile Strength (N)		
	Center Contact	Intermediate Contact	Outer Contact
SYV—50—2—51	66.72		66.72
SFF—50—1.5—51	44.48		66.72
SFF—75—1.5—51	15.57		66.72
M17/113—RG316	66.72		66.72
SEFF—78—1—51	35.59	35.59	111.21
M17/176—00002	35.59	35.59	111.21

Appendix 2: Assembly Instructions for GJB599 Series High-Frequency Contacts

Assembly of High-Frequency Contacts

Inserting the Contact

Use the "IN" end of the plastic insertion/extraction tool of the corresponding specification during contact assembly. The operation steps are as follows: First, feed the wire into the "IN" end of the plastic insertion/extraction tool, push the "IN" end of the tool to the tail of the contact, insert it along the hole until it stops, and then pull out the tool. Gently pull the wire outward by hand; the contact should not be pulled out.

Extracting the Contact

Use the "EX" end of the plastic insertion/extraction tool of the corresponding specification when removing the contact. The operation steps are as follows: First, feed the wire into the "EX" end of the plastic insertion/extraction tool, insert the tool into the tail of the contact along the hole until it is fixed, and then pull the wire to remove it.

Assembly of 16# Shielded Contacts

Assembly Instructions for 16# Shielded Contact Pin (RG316)

① Strip the cable as shown in Figure 1. The end face must be cut clean and perpendicular to the axial plane of the cable. The cable must not be deformed during cutting. Thermal stripping is recommended.

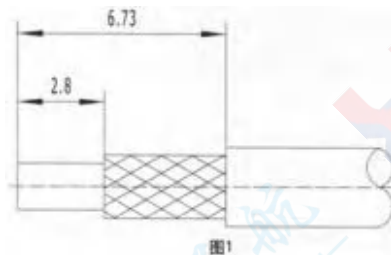


图1

② Slide the crimp sleeve backward onto the cable jacket as shown in Figure 2, spread the shield layer, and strip off the cable insulation dielectric.

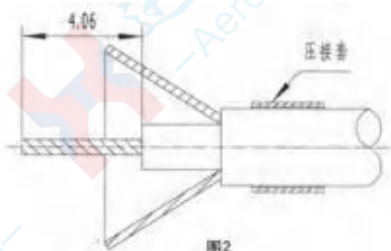


图2

③ Mount the rear insulator onto the cable's center conductor, with the tail of the rear insulator tightly pressed against the cable's insulation dielectric.

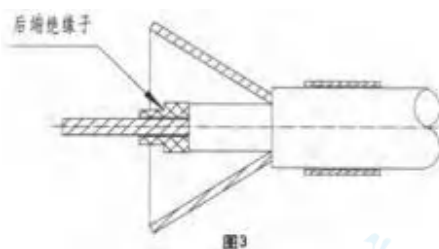


图3

④ Assemble the center socket onto the cable's center conductor as shown in Figure 4. The cable's center conductor should be visible through the inspection hole at the tail of the center socket. Perform crimping using crimping tool M22520/2-01 (set to Gear 5) and locator M22520/2-35.

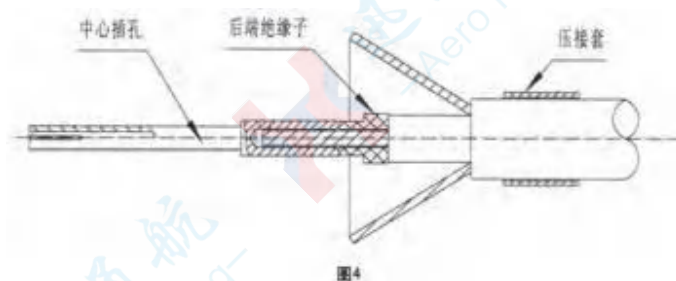


图4

Appendix 2: Assembly Instructions for GJB599 Series High-Frequency Contacts

Then mount the front insulator onto the center socket as shown in Figure 5, with the tail of the front insulator tightly abutting the stepped portion of the rear insulator.

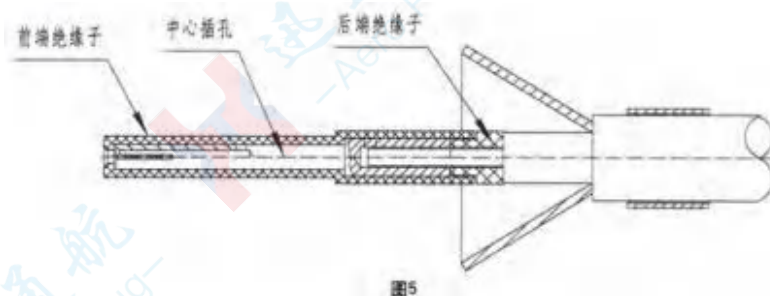


图5

Mount the outer contact pin onto the crimped center socket (with insulators installed) as shown in Figure 6 until the internal contact and insulators are fully seated against each other.

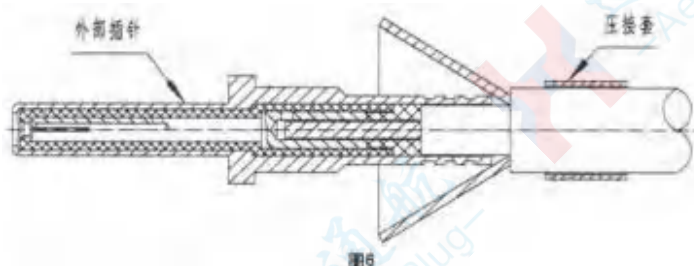


图6

Place the crimp sleeve forward onto the cable shield layer as shown in Figure 7, with the positional dimension ranging from 6.1 to 6.8 mm. Trim off the excess shield layer extending beyond the shield crimp sleeve. Perform crimping on the crimp sleeve using tool M22520/4-01 and locator M22520/4-02: make the first crimp, rotate the contact by 45 degrees, and then perform the second crimp. After the second crimp, the diameter of the shield crimp sleeve must not exceed 2.74 mm.

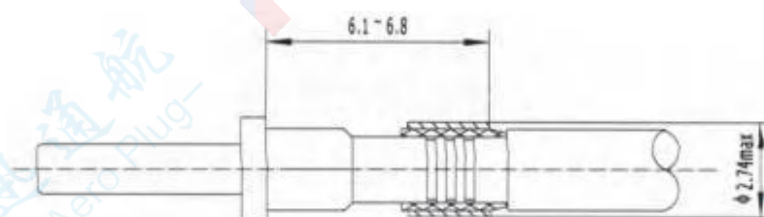


Figure 7

Assembly of 16# Shielded Socke

① Strip the cable as shown in Figure 8. The end face must be cut clean and perpendicular to the cable's axial plane. The cable must not be deformed during cutting. Thermal stripping is recommended.

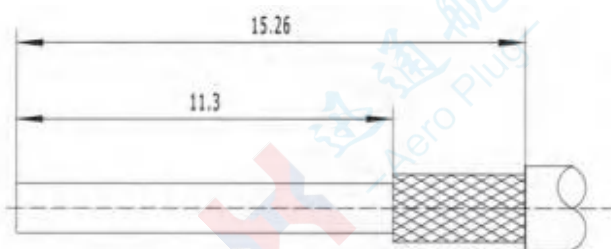


图8

Appendix 2: Assembly Instructions for GJB599 Series High-Frequency Contacts

② Slide the crimp sleeve backward onto the cable jacket as shown in Figure 9, spread the shield layer, and strip off the cable insulation dielectric.



图9

③ Slide the rear insulator onto the cable's center conductor as shown in Figure 10, with its tail tightly pressed against the cable's insulation dielectric.

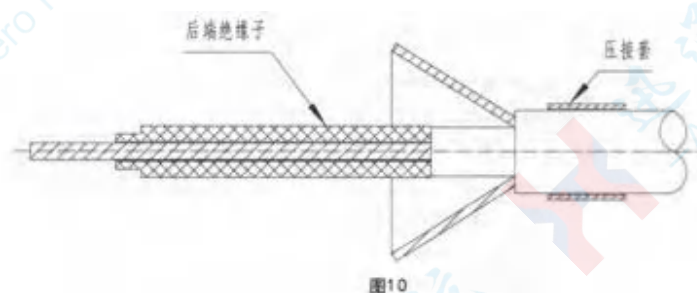


图10

④ Assemble the center socket onto the cable's center conductor as shown in Figure 11. The cable's center conductor should be visible through the inspection hole at the tail of the center socket. Perform crimping using crimping tool M22520/2-01 (set to Gear 5) and locator M22520/2-35.



图11

⑤ Mount the front insulator onto the center socket as shown in Figure 12, with the contact surfaces of the two insulators tightly abutted.

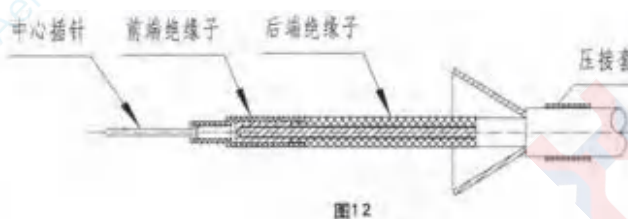


图12

⑥ Mount the outer contact onto the center contact and under the cable shield layer as shown in Figure 13 until the center contact and insulators are fully abutted.

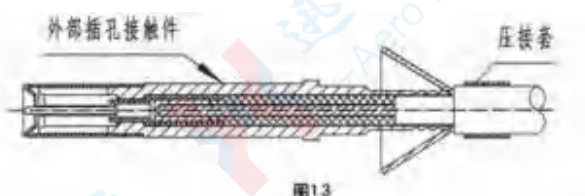


图13

Appendix 2: Assembly Instructions for GJB599 Series High-Frequency Contacts

⑦ Place the shield crimp sleeve forward onto the cable shield layer as shown in Figure 14, with the positional dimension ranging from 6.1 to 6.8 mm. Trim off the excess shield layer extending beyond the shield crimp sleeve. Perform crimping on the shield crimp sleeve using tool M22520/4-01 and locator M22520/4-02: make the first crimp, rotate the contact by 45 degrees, and then perform the second crimp. After the second crimp, the diameter of the shield crimp sleeve must not exceed 2.74 mm.

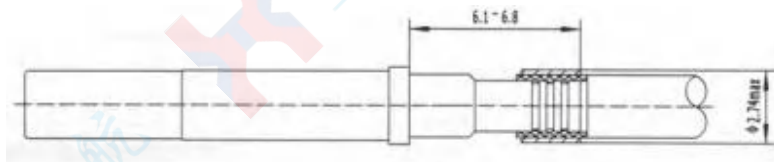


图14

Assembly of 12# Shielded Contacts

Assembly of 12# Shielded Contact Pin

① Strip the cable as shown in Figure 15. The end must be cut clean and perpendicular to the cable's axial plane. The cable must not be deformed during cutting.

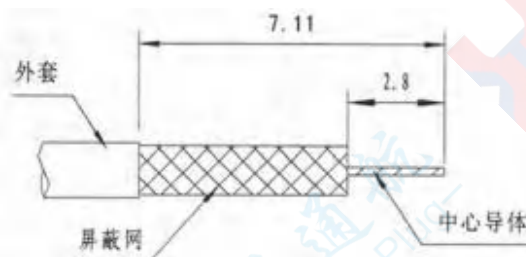


图15

② Pass the shield braid crimp ferrule over the cable jacket as shown in Figure 16.

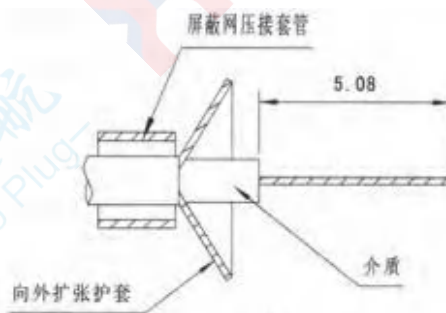


图16

③ Spread the shield layer outward and strip off the dielectric portion of the cable.

④ Pass the center conductor through the insulator as shown in Figure 17 until the bottom of the recess at the tail of the insulator abuts the dielectric and is positioned under the cable's shield braid.

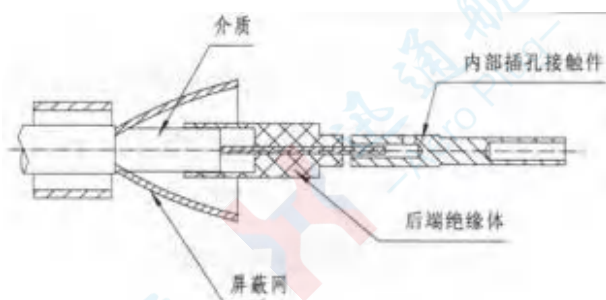
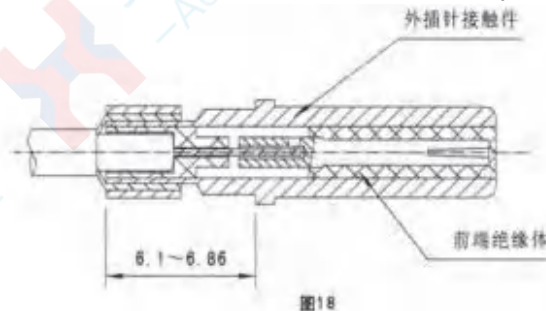


图17

Appendix 2: Assembly Instructions for GJB599 Series High-Frequency Contacts

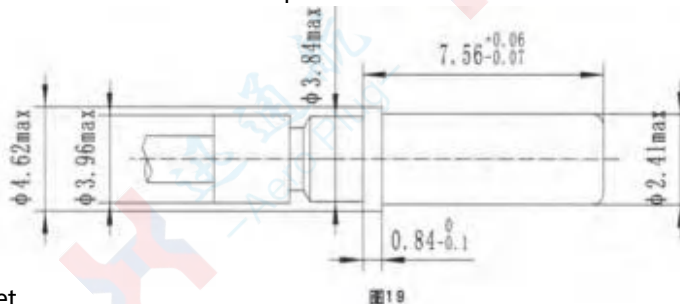
- ⑤ Insert the cable's center conductor into the socket contact. The cable's center conductor must be visible through the inspection hole on the center socket contact. The contact must abut the rear insulator tightly.
- ⑥ Crimp the inner socket contact using crimping tool M22520/2-01 and locator M22520/2-34.
- ⑦ As shown in Figure 18, install the internal assembly (from Figure 17) into the outer contact pin until it is positioned under the cable's shield braid and the inner socket contact is fully seated.



- ⑧ Slide the shield braid crimp ferrule forward to ensure a positional dimension of 6.1-6.8 mm. Trim off the excess shield braid extending beyond the front end of the shield braid crimp ferrule.

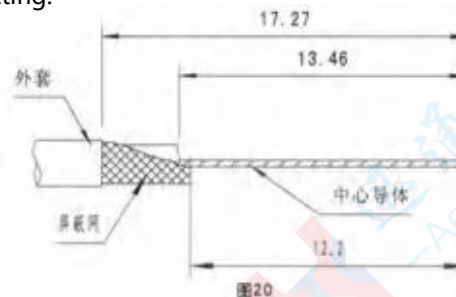
Crimp the shield braid crimp ferrule using the crimping tool M22520/31-01 and locator M22520/31-02 specified in Table 3: perform the first crimp, rotate the contact assembly by 45 degrees, and then perform the second crimp. After the second crimp, the outer diameter of the shield braid crimp ferrule must be less than 3.96 mm.

- ⑨ Figure 19 shows the fully crimped 12# shielded contact pin.



Assembly of 12# Shielded Socket

- ① Strip the cable as shown in Figure 20. The end must be cut clean and perpendicular to the cable's axial plane. The cable must not be deformed during cutting.



- ② As shown in Figure 21, proceed as follows:

- a. Slide the shield braid crimp ferrule onto the cable jacket.
- b. Gradually spread the shield layer outward as illustrated and strip off the cable's dielectric layer.
- c. Pass the center conductor through the insulator until the bottom of the dielectric abuts the rear end of the insulator.
- d. Insert the cable's center conductor into the inner contact pin. The inner conductor must be visible through the inspection hole on the inner contact pin, and the contact pin must abut the front end of the insulator.
- e. Crimp the inner contact pin using crimping tool M22520/2-01 and locator M22520/2-34 listed in Table 3.



Appendix 2: Assembly Instructions for GJB599 Series High-Frequency Contacts

③ As shown in Figure 22, proceed as follows:

a.. Install the internal assembly (from Figure 7) into the outer socket contact assembly until the inner contact pin is fully seated.

b. Slide the shield braid crimp ferrule forward to ensure a positional dimension of 6.1-6.8 mm. Trim off the excess shield braid extending beyond the front end of the shield braid crimp ferrule.

c. Crimp the shield braid crimp ferrule using the crimping tool and locator listed in Table 3: perform the first crimp, rotate the contact assembly by 45 degrees, and then perform the second crimp. After the second crimp, the outer diameter of the shield braid crimp ferrule must not exceed 3.96 mm.

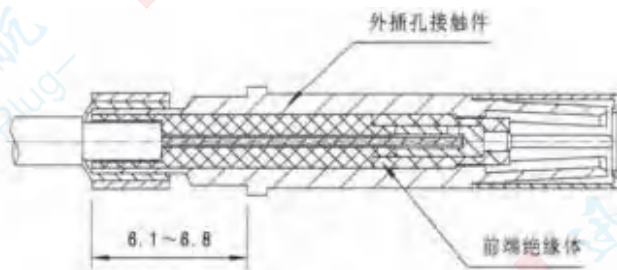


图22

④ Figure 23 shows the fully crimped 12# shielded socket.

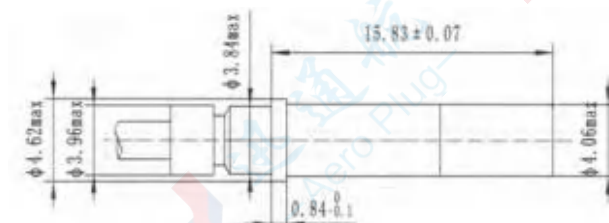


图23

Assembly of 12# Coaxial Contacts Assembly of 12# Coaxial Contact Pin

① Strip the cable as shown in Figure 24. The end must be cut clean and perpendicular to the cable's axial plane. The cable must not be deformed during cutting.

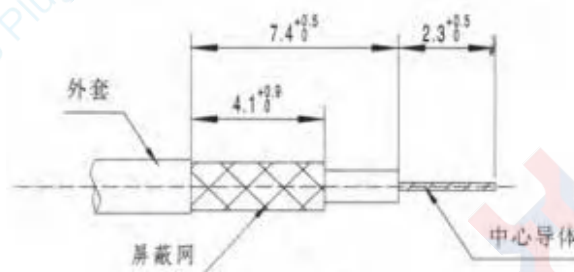


图24

② Pass the shield braid crimp ferrule over the cable jacket as shown in Figure 25.

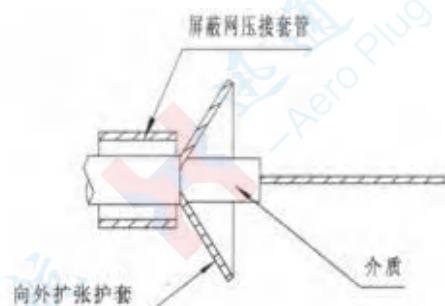


图25

Appendix 2: Assembly Instructions for GJB599 Series High-Frequency Contacts

③ Spread the shield layer outward and strip off the dielectric portion of the cable.

④ Pass the cable's center conductor through the socket contact as shown in Figure 26. The cable's center conductor must be visible through the inspection hole on the center socket contact, and the contact must firmly abut the insulator.

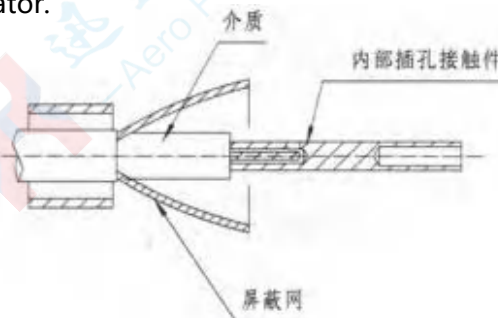


图26

⑤ Crimp the inner socket contact using crimping tool MH992 and locator K1303S.

⑥ As shown in Figure 27, install the internal assembly (from Figure 17) into the outer contact pin until it is positioned under the cable's shield braid and the inner socket contact is fully seated.

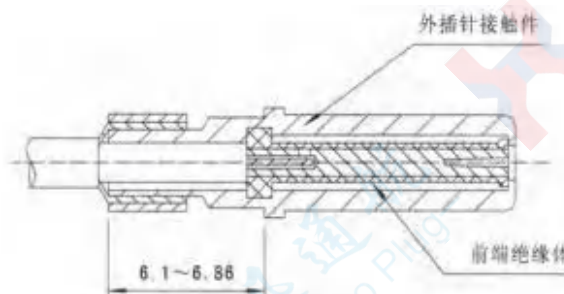


图27

① Slide the shield braid crimp ferrule forward to ensure a positional dimension of 6.1-6.8 mm. Trim off the excess shield braid extending beyond the front end of the shield braid crimp ferrule.

Crimp the shield braid crimp ferrule using the crimping tool M22520/31-01 and locator M22520/31-02 specified in Table 3: perform the first crimp, rotate the contact assembly by 45 degrees, and then perform the second crimp. After the second crimp, the outer diameter of the shield braid crimp ferrule must be less than 3.96 mm. Figure 28 shows the fully crimped 12# shielded contact pin.

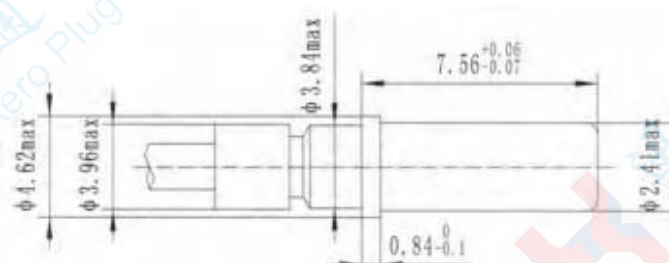


图28

Assembly of 12# Coaxial Socket

① Strip the cable as shown in Figure 29. The end must be cut clean and perpendicular to the cable's axial plane. The cable must not be deformed during cutting.

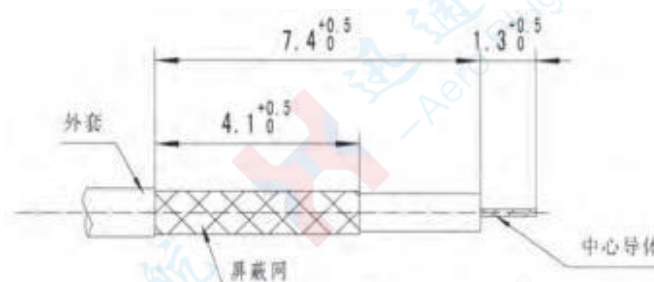
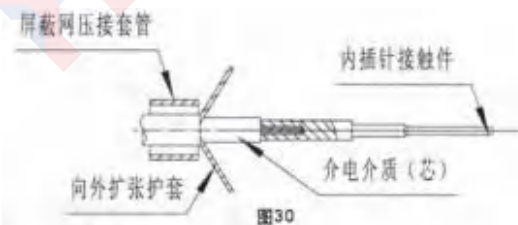


图29

Appendix 2: Assembly Instructions for GJB599 Series High-Frequency Contacts

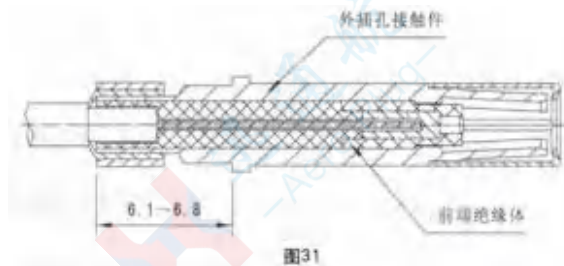
② As shown in Figure 30, proceed as follows:

- Slide the shield braid crimp ferrule onto the cable jacket.
- Gradually spread the shield layer outward as illustrated and strip off the cable's dielectric layer.
- Insert the cable's center conductor into the inner contact pin. The inner conductor must be visible through the inspection hole on the inner contact pin, and the contact pin must abut the front end of the insulator.
- Crimp the inner contact pin using crimping tool MH992 and locator K1304 listed in Table 3.

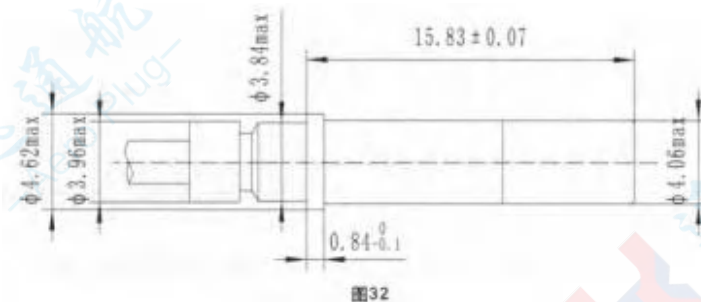


③ As shown in Figure 31, proceed as follows:

- Install the internal assembly (from Figure 30) into the outer socket contact assembly until the inner contact pin is fully seated.
- Slide the shield braid crimp ferrule forward to ensure a positional dimension of 6.1-6.8 mm. Trim off the excess shield braid extending beyond the front end of the shield braid crimp ferrule.
- Crimp the shield crimp ferrule using the crimping tool M22520/5-01 and locator M22520/5-03 listed in Table 3. After crimping, the outer diameter of the shield braid crimp ferrule must not exceed 3.96 mm.



④ Figure 32 shows the fully crimped 12# coaxial socket.

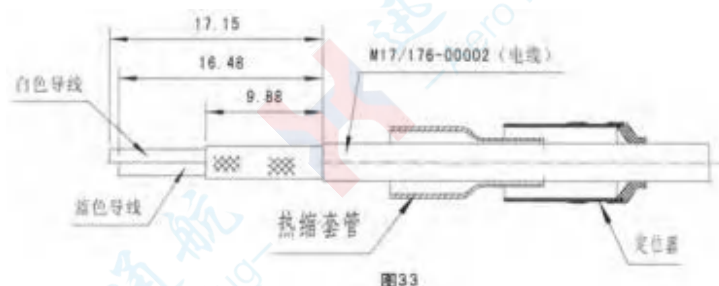


Assembly of 12# Twinaxial Shielded Contacts

Assembly of 12# Twinaxial Shielded Contact Pin

① As shown in Figure 33, proceed as follows:

- Slide the heat shrinkable tube onto the cable as illustrated.
- Strip the cable jacket to the position shown in the figure. The end must be cut clean and perpendicular to the cable's axial plane. During cutting, the cable must not be deformed or damaged.



Appendix 2: Assembly Instructions for GJB599 Series High-Frequency Contacts

② As shown in Figure 34, slide the shield crimp ferrule onto the cable jacket, fit the shield layer over the shield crimp ferrule, and strip the internal conductors as illustrated (fillers can be cut off near the shield layer).

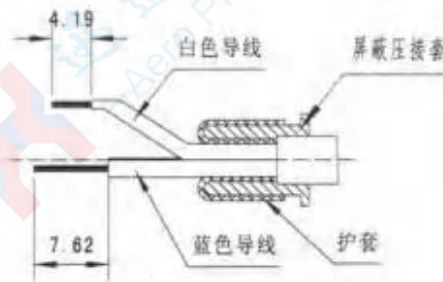


图34

③ As shown in Figure 35, bend the white conductor outward and place it into the slot of the insulator; pass the blue conductor through the insulator. The tail of the insulator must abut the shield layer.

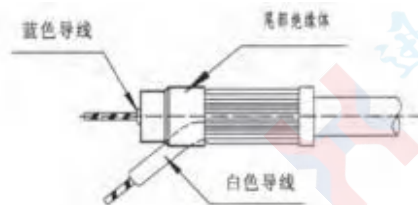


图35

④ As shown in Figure 36, proceed as follows:

- Install the inner conductor of the blue conductor into the center contact pin. The conductor must be visible through the inspection hole. The contact pin shall abut the tail of the insulator, and the tail of the insulator shall abut the technical collar.
- Crimp the center contact pin onto the blue conductor using the crimping tool M22520/2-01 and locator K709 specified in Table 3.

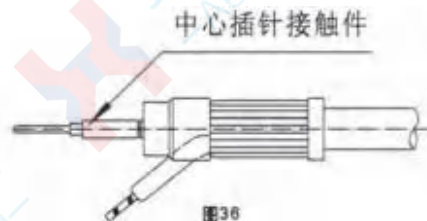


图36

⑤ As shown in Figure 37, proceed as follows:

- Fit the intermediate pin contact together with the insulator inside it over the center pin contact.
- Insert the inner conductor of the white conductor into the hole on the tail surface of the intermediate contact. The conductor must be visible through the conductor inspection hole, and the intermediate contact shall abut the insulator.
- Crimp the intermediate contact onto the white conductor using the crimping tool M22520/5 - 01 and crimping die Y631B specified in Table 3.

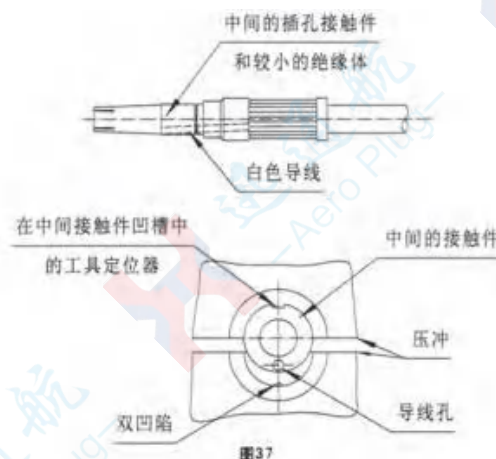


图37

Appendix 2: Assembly Instructions for GJB599 Series High-Frequency Contacts

⑥ As shown in Figure 38, proceed as follows::

- Fit the outer pin contact and insulator over the intermediate socket contact assembly until fully seated.
- When the assembly is completely seated, perform hexagonal crimping on the end portion of the outer shell using the crimping tool M22520/5-01 and crimping die Y631A specified in Table 3.
- Slide the heat shrinkable tube to the crimped portion of the contact, then heat the heat shrinkable tube over the contact and cable.

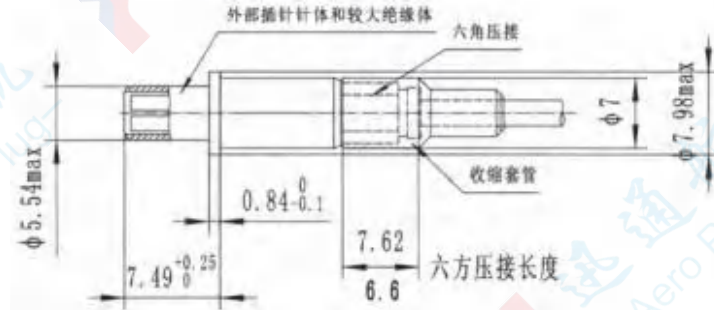


图38

Assembly of 8# Twinaxial Shielded Socket Contact

- As shown in Figure 39, slide the heat shrinkable tube and locator onto the cable jacket (starting from the end with the smaller diameter).
- Strip the cable jacket to the position illustrated. The end must be cut clean and perpendicular to the cable's axial surface. During cutting, the cable must not be deformed or damaged.

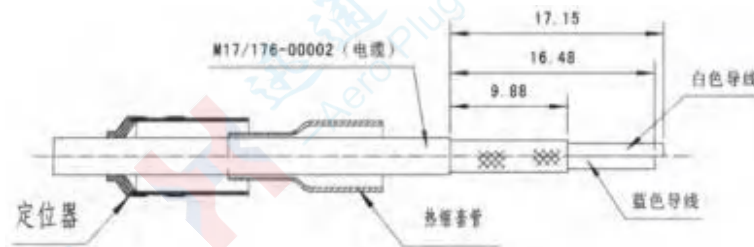


图39

- Slide the shield crimp ferrule onto the cable jacket, fit the shield layer over the shield crimp ferrule as shown in Figure 40, and avoid the internal conductors as illustrated (fillers can be cut off near the shield layer).

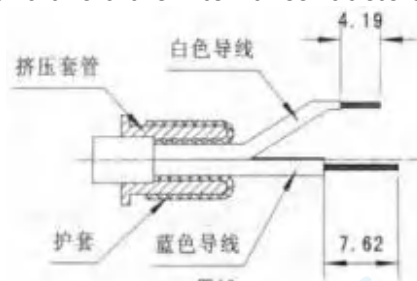


图40

- As shown in Figure 41, bend the white conductor outward and place it into the slot of the insulator; pass the blue conductor through the insulator. The tail of the insulator must abut the shield layer.

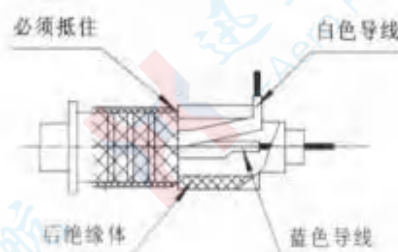
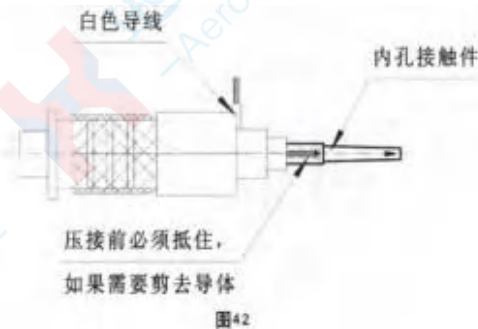


图41

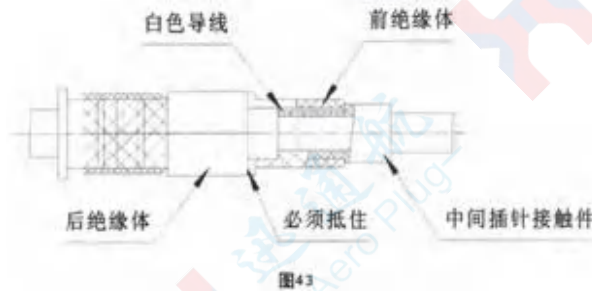
Appendix 2: Assembly Instructions for GJB599 Series High-Frequency Contacts

⑤ As shown in Figure 42, proceed as follows:

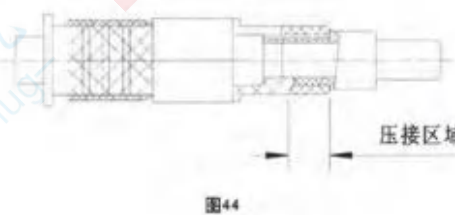
- Slide the socket contact onto the blue conductor. The conductor must be visible through the inspection hole on the inner socket contact.
- Crimp the socket contact using the tool M22520/2-01 and locator K709.



⑥ As shown in Figure 43, fit the intermediate pin contact and insulator assembly over the inner socket contact. The conductor must be visible through the inspection hole on the contact. The intermediate contact must abut the tail of the insulator.

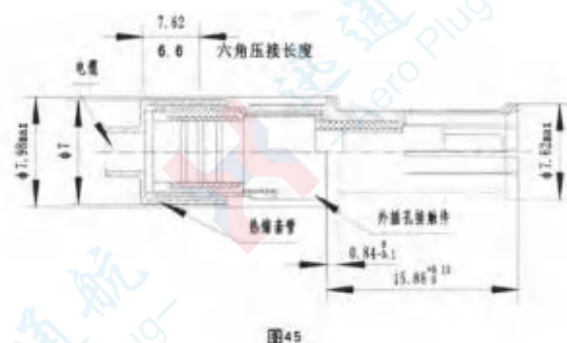


⑦ As shown in Figure 44, crimp the intermediate pin contact using the tool M22520/5-01 with the crimping die Y631B (to crimp the intermediate contact onto the white conductor).



⑧ As shown in Figure 45, slide the outer socket contact and front insulator sub-assembly onto the inner assembly until seated; a small gap will appear on the sleeve.

- Crimp the outer assembly (sleeve and outer contact) using the tool M22520/5-01 and crimping die Y631A.
- Slide the pre-formed heat shrinkable tube onto the contact, then shrink the heat shrinkable tube using a hot air device.



Appendix 3: Crimping Operation Instructions

Contact Tools

The tools for high-speed differential contacts shall comply with the requirements of MIL-C-22520 specification. The tools required for the installation and removal of high-speed differential contacts are listed in Table 1 below.

Table 1: Tools for Installation and Removal of High-Speed Differential Contacts

Contact Part Number	Installation and Removal Tools	Crimping Pliers		Crimp Block		Locator	
						Center Pin	Center Hole
8# High-Speed Differential Contact	M81969/14-12 JY81969/8-14 M81969/8-14A	Inner Contact	YJQ-02 or M22520/2-01			XDWQ-CF02 or K709	XDWQ-CF02 or K709
		Outer Contact	M22520/5-01	Y631A	Y143A and Y141B are compatible with RCN8989		

Crimping of the Center Contact

For crimping the center pin and center hole of high-speed differential contacts, use the YJQ-02 or M22520/2-01 crimp tool. The recommended crimping positions for different conductors are shown in Table 2 and Table 3 below (all position values are tested with the YJQ-02 crimp tool, and the maximum tensile strength values refer to GJB5020-2001 Technical Requirements for Crimped Connections)

Table 2: Crimping Positions for Different Conductors

Contact Part Number	Center Contact	Conductor Specification		Adjustable Crimping Position	Maximum Tensile Strength (N)	Tensile Performance of the Outer Contact (N)
		National Standard (mm ²)	ANS(AWG)			
8# Differential Contact	Center Pin Center Hole	0.08	28	3	14	66
		0.125	26	4	23	
		0.2	24	5	36	

Table 3: Recommended Crimping Positions for Conductors

Contact Part Number	Center Contact	Conductor Specification	Adjustable Crimping Position	Maximum Tensile Strength(N)	Tensile Performance of the Outer Contact (N)
8# Differential Contact	Center Pin Center Hole	HPD700001070Habia (2-core, Core Wire AWG 28)	3	14	66
		CEC-RWC-18664(4-core, Core Wire AWG 24)	5	36	
		RCN8989(4-core, Core Wire AWG 24)	5	36	

Assembly of 8# High-Speed Differential Contact (2-Core) (Taking HPD700001070 Habia Conductor as an Example)

Basic Product Structure

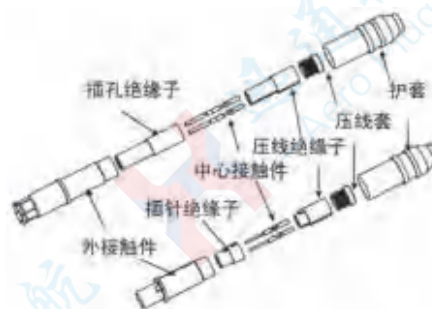


图1.1 8#差分接触件的基本结构

Appendix 3: Crimping Operation Instructions

Wire Stripping

- 1) Sequentially install the transparent heat shrink tube for stress relief, contact boot, and crimp sleeve (used for cable shield connection and inner core fixation) onto the cable, as shown in Figure 1.2;
- 2) Strip the cable jacket according to the dimensions marked in Figures 1.3 and 1.4 (stripping length for pins is 10mm, and 15mm for sockets). Carefully comb out the shield layer, fold it back onto the crimp sleeve, and cut off the internal filler of the cable near the shield layer;

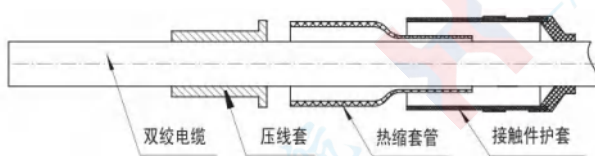


图1.2 将接触件护套和热缩套管套入电缆

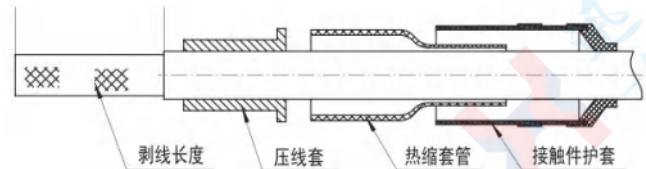


图 1.3 剥去电缆外套

- 3) Straighten the twisted pair as shown in Figure 1.5;



图1.4 梳理反折屏蔽层

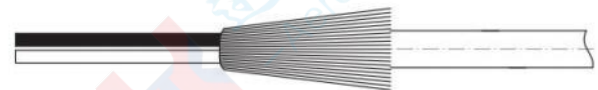


图1.5 双绞线理直

- 4) Strip the conductor insulation layer with a wire stripper according to the dimensions in Figure 1.6. Ensure the conductor strands are neat and the two twisted conductors are as equal in length as possible;



图1.6 剥去导线绝缘层

Core Wire Crimping

As shown in Figure 1.7, correctly insert the stripped cable into the center contact for crimping, following these steps:

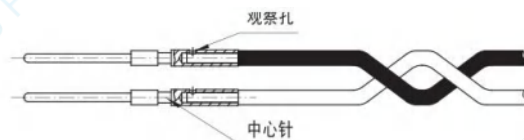


图1.7 压接中心接触件

- ① Check that the core wire extends beyond the inspection hole on the crimp sleeve of the center contact;
- ② Select a suitable crimp tool (YJQ-02 or M22520/2-01) and locator (XDWQ-CF02 or K709), and adjust the crimp tool to the appropriate position (Position 3) according to the conductor specification;
- ③ Place the center contact into the adjusted crimp tool and insert the conductor into the crimp sleeve of the center contact;
- ④ Squeeze the crimp tool handle until it reaches the full closure point, and the handle will spring back automatically. Then remove the crimped contact
- ⑤ Perform a visual inspection after crimping, which shall meet the following requirements
 - a. The crimped contact shall have a clean surface without contamination, corrosion, or other damages;
 - b. The crimp indentations shall be clear, and the contact shall only have indentations formed by the crimp tool's pressure points;
 - c. The crimped contact shall be free from deformations such as distortion that affect usability, and shall not have unintended sharp edges, metal peeling, burrs, cuts, or plating damage;
 - d. The conductor strands shall be fully and neatly enclosed by the crimp sleeve, with no exposed core wire

Appendix 3: Crimping Operation Instructions

Assembly of the Center Contact

Correctly insert the crimped center contact into the crimp insulator, then assemble the entire assembly into the outer contact. The specific steps are as follows:

1) Snap the thin neck of the crimped center pin into the slot of the crimp insulator. Install the conductor corresponding to contact definition No. 2 into the slot with the blackened edge of the crimp insulator, as shown in Figures 1.8 and 1.9.

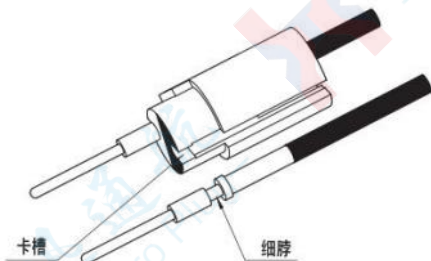


Figure 1.8: The thin neck of the center pin is snapped into the slot of the crimp insulator

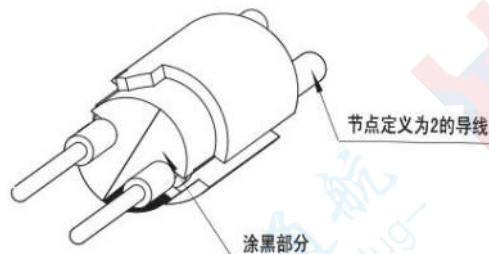


Figure 1.9: The conductor corresponding to contact definition No. 2 is installed into the slot with the blackened edge of the crimp

2) Align the locating key of the crimp insulator with the locating slot of the pin insulator, as shown in Figure 1.10.

3) Push the crimp sleeve forward to achieve tight engagement with the crimp insulator, and fold the shield layer outward as shown in Figure 1.11.

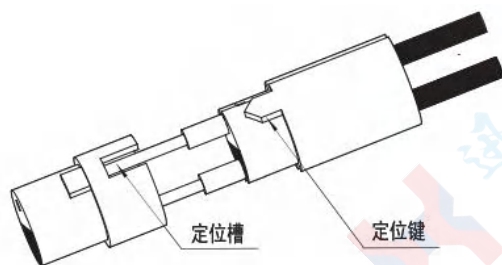


图1.10 压线绝缘子与插针绝缘子相配合

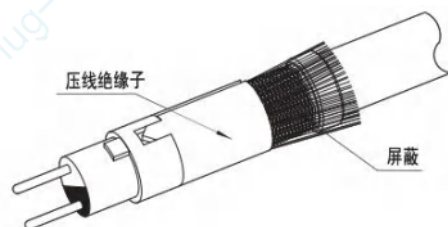


图1.11 压线套与压线绝缘子压紧

4) Align the locating key of the pin insulator with the index hole of the outer pin, push the entire assembly into the outer pin, and press the crimp sleeve tightly, as shown in Figures 1.12, 1.13, and 1.14.

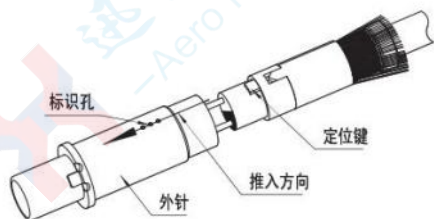


图1.12 插针绝缘子的定位键正对外针的标识孔

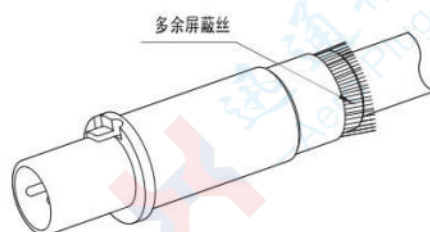


图1.13 压紧压线筒

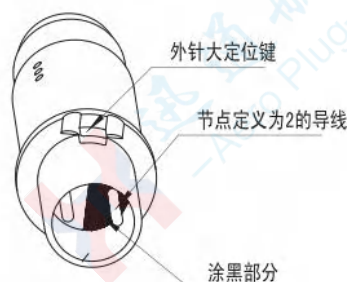


图1.14 装配正确的效果

Appendix 3: Crimping Operation Instructions

Crimping of the Outer Contact

Use the recommended crimp tool (M22520/5-01) and crimp die (Y631) as specified in Table 1 to perform hexagonal crimping on the rear crimp section of the outer contact. After completion, trim the excess exposed shield braid and shrink the heat shrink tube tightly. The finished assembly is shown in Figure 1.15, and the contact definition is illustrated in Figure 1.16.

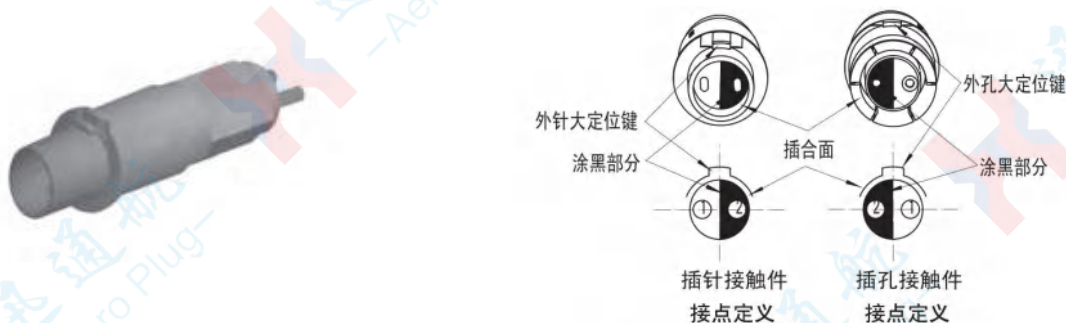


图1.16 压接完成后接触件推荐接点定义

Assembly of 8# High-Speed Differential Contact (4-Core) (Using RAYCHEN CED-RWC-18664 A-B Conductor)

Basic Product Structure

As shown in Figure 2



图2.1 8#差分接触件（四芯）的基本结构

Wire Stripping

The conductor used is RAYCHEN CED-RWC-18664 A-B (4-Core), where "A-B" indicates the conductor direction: Direction A is suitable for assembling socket contacts, and Direction B for pin contacts. The following takes the assembly of socket contacts as an example:

- 1) For assembling socket contacts, select Conductor Direction A as shown in Figure 2.2. Sequentially install the transparent heat shrink tube for stress relief, contact boot, and crimp sleeve (used for cable shield connection and inner core fixation) onto the cable, as illustrated in Figure 2.2;
- 2) Strip the cable jacket according to the dimensions marked in Figures 2.3 and 2.4 (stripping length for pins is 10mm, and 15mm for sockets). Carefully comb out the shield layer, fold it back onto the crimp sleeve, and cut off the internal filler of the conductor near the shield layer;

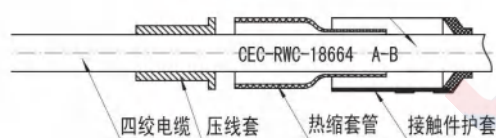


图2.2 将接触件护套和热缩套管套入电缆

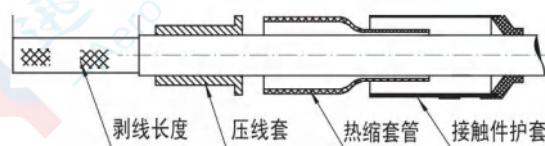


图2.3 剥去电缆外套

Appendix 3: Crimping Operation Instructions

3) Straighten the four color-coded core wires as shown in Figure 2.5;



图2.4 梳理反折屏蔽层

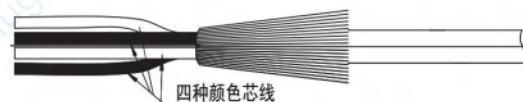


图2.5 四种颜色芯线理直

Strip the insulation layer of each of the four color-coded core wires one by one according to the dimensions shown in Figure 2.6. Ensure the conductor strands are neat and the four twisted conductors are as equal in length as possible;

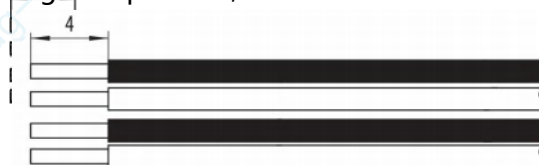


图2.6 剥去芯线绝缘层

Core Wire Crimping

As shown in Figure 2.7, correctly insert the stripped cable into the center contact for crimping, following these steps:



图2.7 压接中心接触件

- ①Check that the core wire extends beyond the inspection hole on the crimp sleeve of the center contact
- ②Select a suitable crimp tool (YJQ-02 or M22520/2-01) and locator (XDWQ-CF02 or K709) according to Table 1, and adjust the crimp tool to the appropriate position (Position 5) based on the conductor specification as specified in Table 2;
- ③Place the center contact into the adjusted crimp tool and insert the conductor into the crimp sleeve of the center contact;
- ④Squeeze the crimp tool handle until it reaches the full closure point, and the handle will spring back automatically. Then remove the crimped contact.
- ⑤Perform a visual inspection after crimping, which shall meet the following requirements:
 - a.The crimped contact shall have a clean surface without contamination, corrosion, or other damages;
 - b.The crimp indentations shall be clear, and the contact shall only have indentations formed by the pressure points of the crimp tool;
 - c.The crimped contact shall be free from deformations such as distortion that affect usability, and shall not have unintended sharp edges, metal peeling, burrs, cuts, or plating damage;
 - d.The conductor strands shall be fully and neatly enclosed by the crimp sleeve, with no exposed core wire

Assembly of the Center Contact

Correctly insert the crimped center contact into the crimp insulator, then assemble the entire assembly into the outer contact. The specific steps are as follows:

- 1)Snap the thin neck of the crimped center socket into the slot of the crimp insulator, as shown in Figure 2.8;
- 2)Install the center contact corresponding to contact definition No. 1 (red conductor) into the slot with the 1/4 circular blackened surface of the crimp insulator. Then sequentially install the center contacts for contact definition No. 2 (yellow conductor), No. 3 (blue conductor), and No. 4 (green conductor) along the direction of the black semicircle, as shown in Figure 2.9. (When the 8# contact socket is used with the left plug, the contact definition is the same as that of the corresponding pin.)

Appendix 3: Crimping Operation Instructions

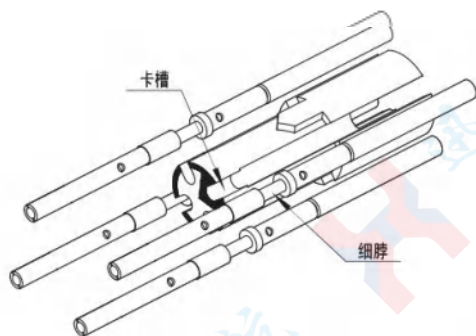


图2.8 中心孔的细脖卡入压线绝缘子的卡槽中

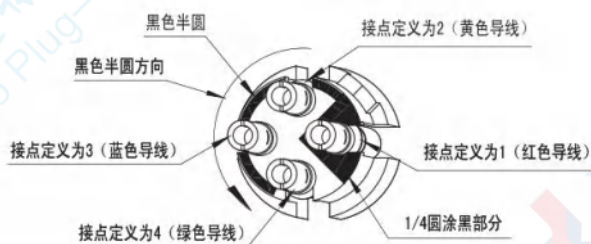


图2.9 接点定义为1的导线安装到压线绝缘子涂黑部分的卡槽中

- 3) Align the locating key of the crimp insulator with the locating slot of the pin insulator, as shown in Figure 2.10.
- 4) Push the crimp sleeve forward to achieve tight engagement with the crimp insulator, and fold the shield layer outward as shown in Figure 2.11.



图2.10 压线绝缘子与插孔绝缘子相配合

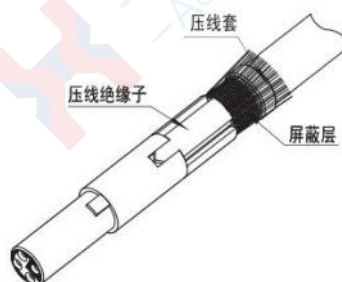


图2.11 压线套与压线绝缘子压紧

- 5) Align the locating key of the socket insulator with the index hole of the outer contact, push the entire assembly into the outer contact, and press the crimp sleeve tightly, as shown in Figures 2.12, 2.13, and 2.14.

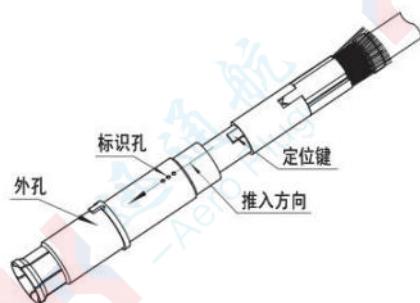


图2.12 插孔绝缘子的定位键正对外孔的标识孔

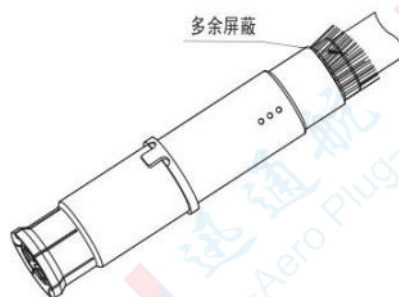


图2.13 压紧压线筒

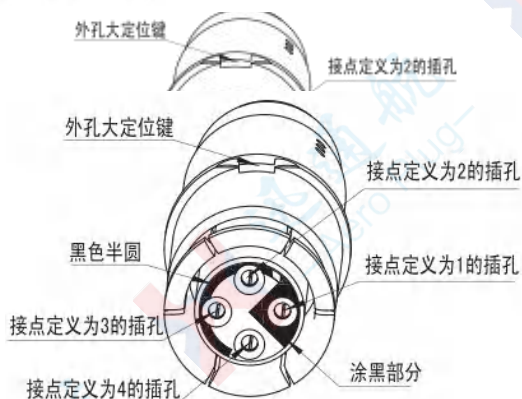


图2.14 装配正确的效果

Appendix 3: Crimping Operation Instructions

Crimping of the Outer Contact

Use the recommended crimp tool (M22520/5-01) and crimp die (Y631) as specified in Table 1 to perform hexagonal crimping on the rear crimp section of the outer contact. After completion, trim the excess exposed shield braid and shrink the heat shrink tube tightly. The finished assembly is shown in Figure 2.15, and the contact definition is illustrated in Figure 2.16.

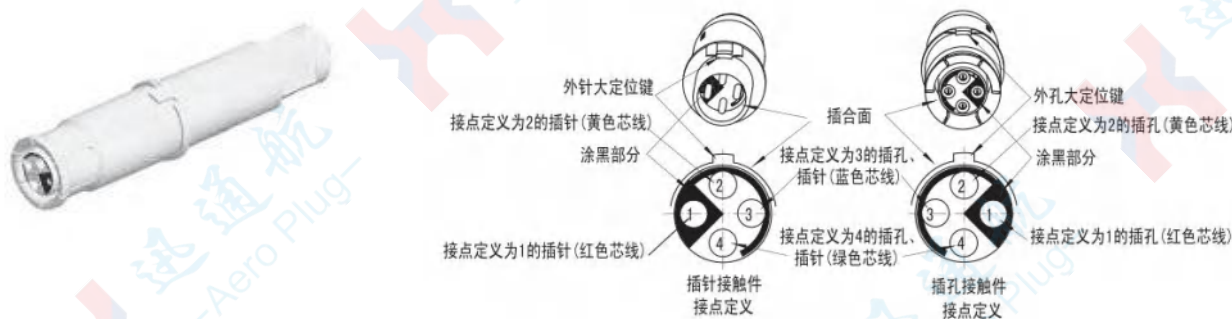


图2.16 压接完成后接触件推荐接点定义

Assembly of No. 8 High-Speed Differential Contact (Four-Core) (with GORE RCN8989 Conductors) Basic Structure of the Product

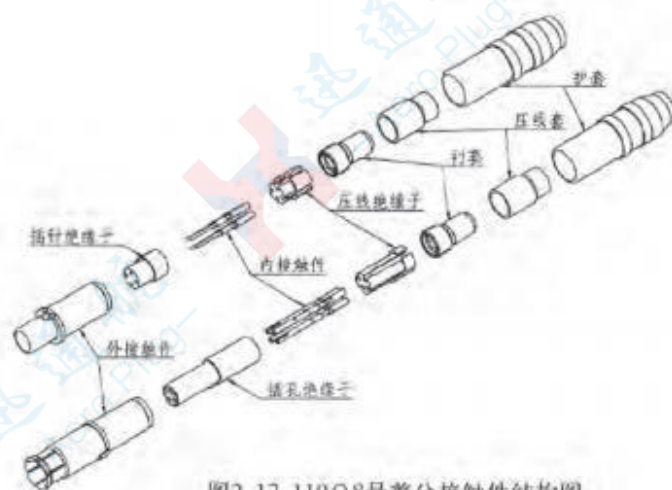
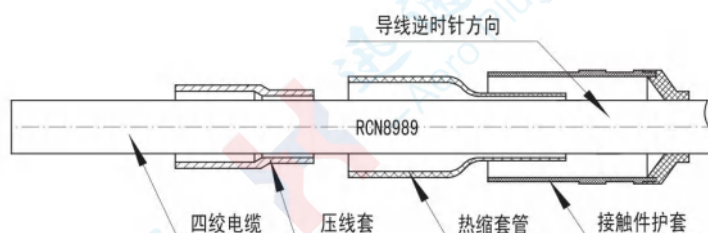


图2.17 110Ω8号差分接触件结构图

Wire Stripping

1) For assembling socket contacts, select the conductor with the counterclockwise direction as shown in the diagram. Sequentially install the contact locator for stress relief, transparent heat shrink tube, and crimp sleeve for cable shield connection onto the cable.



Appendix 3: Crimping Operation Instructions

Assembly of Accessories

1) Strip the cable jacket according to the dimensions marked in the diagram (stripping length for pins is 16mm, and 19.4mm for sockets). Carefully comb out the shield layer, fold it back onto the crimp sleeve, and cut off the internal filler of the conductor near the shield layer;

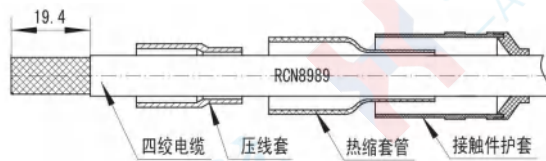


图2.18 剥外护套



图2.19 理屏蔽层

Straighten the four color-coded core wires as shown in the diagram;

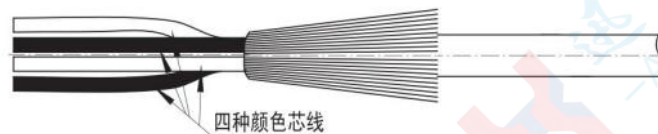


图2.20 理芯线

1) Strip the insulation layer of each of the four color-coded core wires according to the dimensions shown in the diagram. Ensure the conductor strands are neat and the four twisted conductors are as equal in length as possible;



图2.21 芯线剥线尺寸

Core Wire Crimping

As shown in the diagram, correctly insert the stripped cable into the center contact for crimping. The steps are as follows:

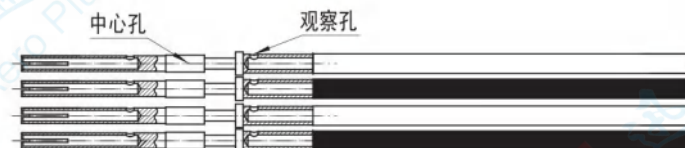


图2.22 压接接触件

- ① Check that the core wire extends beyond the inspection hole on the crimp sleeve of the center contact;
- ② Select a crimp tool (YJQ-02 or M22520/2-01) and a locator (XDWQ-CF02 or K709), and adjust the crimp tool to Position 5;
- ③ Place the center contact into the adjusted crimp tool and insert the conductor into the crimp sleeve of the center contact;
- ④ Squeeze the crimp tool handle until it reaches the full closure point. The handle will spring back automatically, then remove the crimped contact;
- ⑤ Perform a visual inspection after crimping, which shall meet the following requirements;
 - a. The crimped contact shall have a clean surface, free from contamination, corrosion, or other damages;
 - b. The crimp indentations shall be clear, and the contact shall only have indentations formed by the pressure points of the crimp tool;
 - c. The crimped contact shall be free from deformations such as distortion that affect usability, and shall not have unintended sharp edges, metal peeling, burrs, cuts, or plating damage;
 - d. The conductor strands shall be fully and neatly enclosed by the crimp sleeve, with no exposed core wire.

Appendix 3: Crimping Operation Instructions

3) Align the locating key of the crimp insulator with the locating slot of the pin insulator, as shown in the diagram.

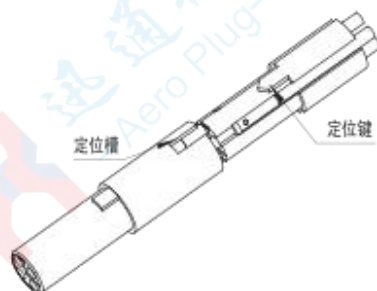


图2.26 绝缘体键与槽的配合

4) Push the bushing forward to achieve tight engagement with the crimp insulator, and fold the shield layer outward, as shown in the diagram.

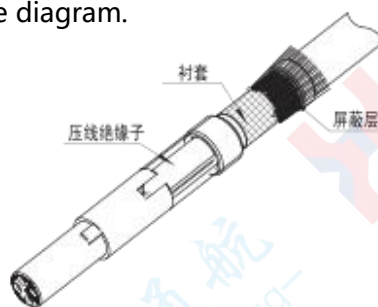


图2.27 推衬套

5) Align the locating key of the socket insulator with the index hole of the outer contact, push the entire assembly into the outer contact, and hand-tighten the bushing (do not use tools to avoid damaging the insulator) to compress the insulator, as shown in the diagram.



图2.28 装绝缘体部件

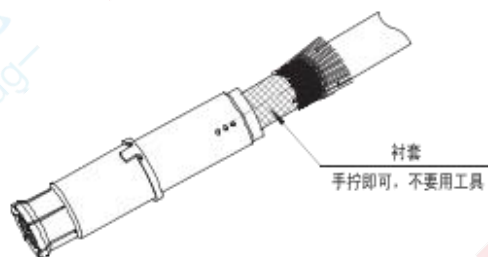


图2.29 旋合衬套

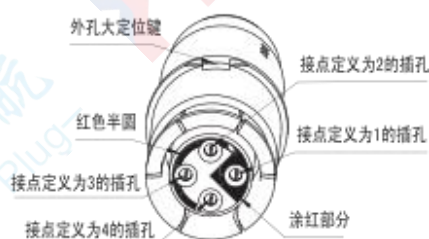


图2.30 针孔定义

Appendix 3: Crimping Operation Instructions

Bushing Sleeve

Pass the crimped contact through the bushing as shown in the diagram, ensuring the conductor strands remain in their twisted state and maintain the original twisting direction.

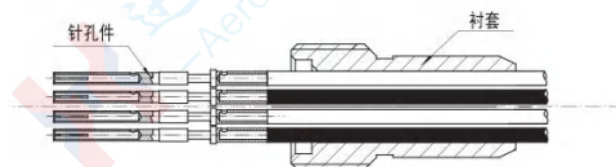


图2.23 套衬套

Assembly of the Center Contact

Correctly insert the crimped center contact into the crimp insulator, then assemble the entire assembly into the outer contact. The specific steps are as follows:

- 1) Snap the thin neck of the crimped center socket into the long slot of the crimp insulator, as shown in the diagram.

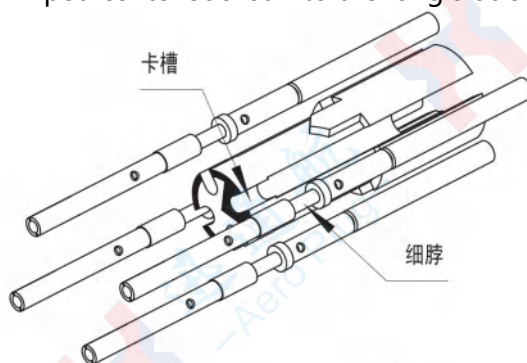


图2.24 卡中心接触件

- 2) Install the center contact corresponding to contact definition No. 1 (red conductor) into the slot of the crimp insulator with the 1/4 circular red-marked surface. Then sequentially install the center contacts for contact definition No. 2 (blue conductor), No. 3 (green conductor), and No. 4 (orange conductor) along the direction of the red semicircle, as shown in the diagram. (When the 8# contact socket is used with the left plug, the contact definition is the same as that of the corresponding pin.)

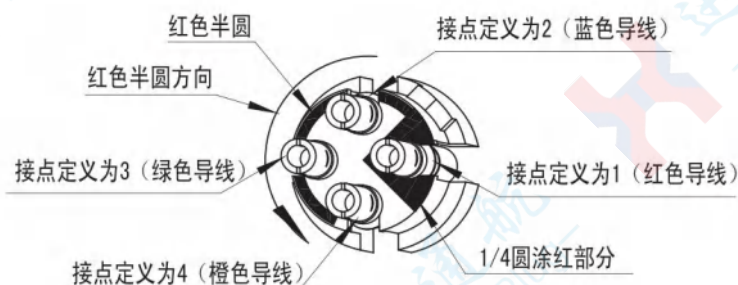
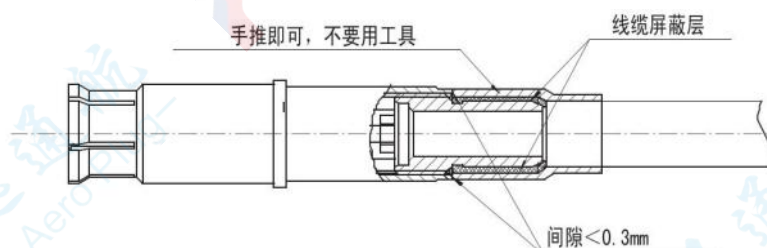


图2.25 绝缘体孔位定义

Appendix 3: Crimping Operation Instructions

Clip Assembly

Neatly arrange the shield layer and wrap it evenly around the bushing. Push the clip onto the bushing along the insertion direction of the insulator, then trim the excess shield layer—taking care not to damage the contacts. As shown in the diagram below:



Crimping of the Outer Contact

Use the crimp tool M22520/5-01 and crimp die Y143A to perform hexagonal crimping on the small step at the rear of the outer contact and the larger outer diameter of the clip. Then, use the same crimp tool M22520/5-01 with crimp die Y141B to compress and crimp the clip with the cable jacket into a hexagonal shape (ensuring the cable insulation is fully crimped). Finally, shrink the heat shrink tube tightly—the tube shall fully cover the two hexagonal crimped positions but shall not shrink onto the uncrimped outer diameter of the contact, so as not to affect the use of the extractor tool.

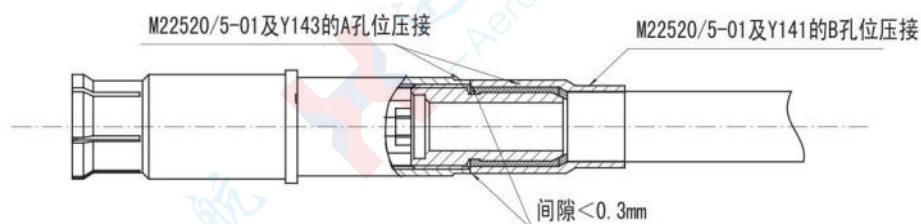


图2.32 压接线夹

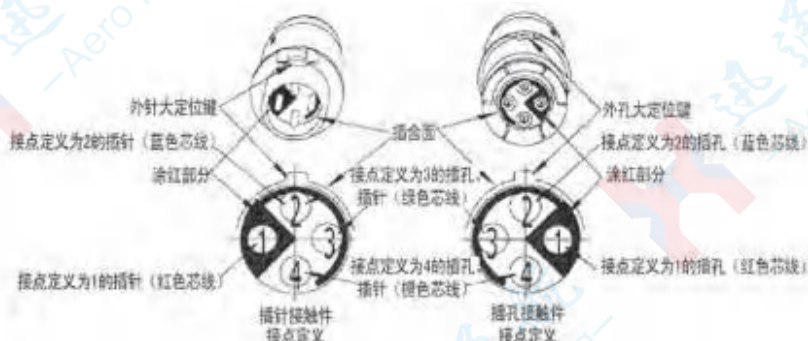


图2.33 压接完成后接触件推荐接点定义

Appendix 3: Crimping Operation Instructions

No. 8 Differential Products

Structure of GJB599 Series Products

The No. 8 differential contact is mainly used in GJB599 series products. The plug structure is shown in Figure 3.1: The plug directly adopts the high-reliability circular connector housing structure of the GJB3599Ⅲ series, with the shell parts and anti-loosening structure parts directly borrowed to ensure the reliability of the connection anti-loosening mechanism. Standard contacts feature a crimped structure, which is fixed in the insulator component via a positioning claw structure and is removable. The No. 8 differential contact is also fixed inside the insulator component using the same positioning claw fixing method.

The socket structure is shown in Figure 3.2: The socket adopts the high-reliability circular connector socket structure of the JY599Ⅲ series, with a flange mounting design.

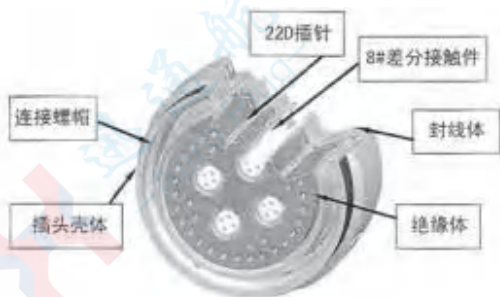


图3.1 GJB599Ⅲ系列 (J599Ⅲ-J-42) 连接器插头结构

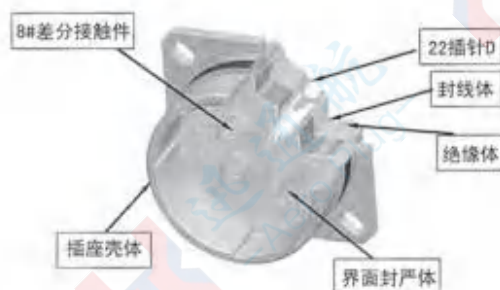


图3.2 GJB599Ⅲ系列 (J599Ⅲ-J-42) 连接器插座结构

Installation of No. 8 Differential Contacts into GJB599 Series Products

Taking the Installation of No. 8 Differential Contacts into J599Ⅲ-J-42-CF Connectors as an Example

- 1) With the assembled high-speed differential contact, align the direction of the outer contact's locating key with the white key mark line on the connector's cable gland, as shown in Figure 3.3;
- 2) Maintain the direction unchanged and press the contact into the connector until a distinct "click" sound is heard, indicating that the contact is fully seated, as shown in Figures 3.4 and 3.5.

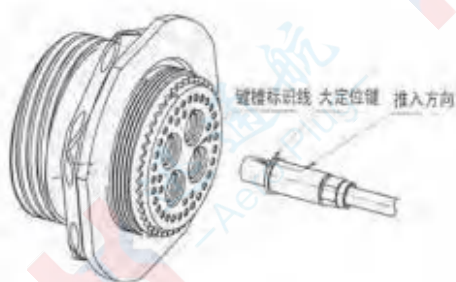


图3.3 定位键对准白色标识线

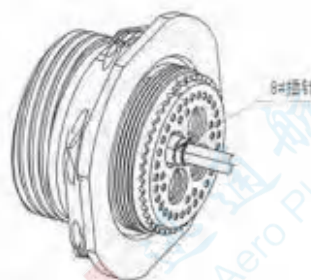


图3.4 接触件压入连接器内部

- 3) The mating face of the socket after assembly is shown in Figure 3.6.



图3.5 接触件压入连接器内部效果图



图3.6 接触件压入连接器内部后插合面效果图

Y11 Series Circular Electrical Connector

The Y11 series circular electrical connectors comply with GJB 101A-1997. They are suitable for electrical signal connection in strategic weapon systems, aerospace satellite systems, aviation and maritime transportation vehicles, ground launch and receiving systems, high-energy and high-temperature industrial systems, communication and test systems, industrial, transportation and power systems, etc.

This product is a bayonet-locked circular electrical connector with numerous advantages such as quick connection, quick disconnection, small size and light weight. The contacts adopt a soldered type, and the shell is available in shielded and unshielded versions, featuring sealing, dustproof and rainproof performance. The mounting methods include flange type, nut-tightened type, through-wall type, etc.

Product Identification Code

XTH	Y	11	X	III	20	41	Z	J	10	2
1	2	3	4	5	6	7	8	9	10	11

1— Enterprise Designation of Shenzhen

Xuntonghang Electronics Technology Co., Ltd.

2— Main Designation Code of Circular Electrical Connector

3— Military Standard Registered Design Serial Number

4— Category Code: X—Potting Type, P—Shielded Potting Type,

P1—Electroless Nickel Plated Shielded Potting Type

S—Electroless Nickel Plated Copper Shell Potting Type, B—Stainless Steel Shell Potting Type

5— Anti-Misinsertion Key Position Number: I, II, III, V (I is not marked)

6— Shell Size: 08、10、12、14、16、18、20、22、24

7— Number of Contact Pairs: 2~61 Contacts

8— Connector Category: T—Plug, Z—Socket

9— Contact Category: J—Pin, K—Socket, S—Through-Wall Pin/Socket

10— Socket Mounting Method: 10—Square Flange Type, 11—Circular Flange Type, 14—Nut-Tightened Type

11— Rear Encapsulation Type: 2—Cable Clip Type, 3b—Short Potting Type,

4—Angled Rear, 5—Heat Shrink Tube Type 1 5a—Heat Shrink Tube Type 2 6—Shielded Type

Note: The socket mounting method code (Item 10) applies only to sockets and is not marked on plugs.

Product Technical Characteristics

I. Operating Environmental Conditions

Operating Temperature: -55°C ~ 125°C

Relative Humidity: 90% ~ 95% at 40±2°C

Operating Pressure: 101.33kPa ~ 4.39kPa

Sinusoidal Vibration: 10 ~ 50Hz with double amplitude of 2mm;

50 ~ 2000Hz with acceleration of 196m/s²

Random Vibration: Power Spectral Density (PSD) of 40m²/s⁴·Hz;

Root Mean Square (RMS) value of 239.1m/s²

Shock: Acceleration of 980m/s²

Rainproof Performance: Rainfall intensity of 5mm/min

Electrical Continuity Between Shells: ≤ 0.2Ω

Electrical Continuity Between Shielded Shells: ≤

0.005Ω Electromagnetic Interference (EMI) Shielding:

Minimum attenuation of 45dB at 800MHz

Sealing Performance: 0.2MPa

Mechanical Life: ≥ 500 mating cycles

II. Main Technical Characteristics

Contact Characteristics

Pin Diameter (mm)	1	1.5
Operating Current(A)	5	10
Contact Resistance (mΩ)	≤ 5	≤ 3

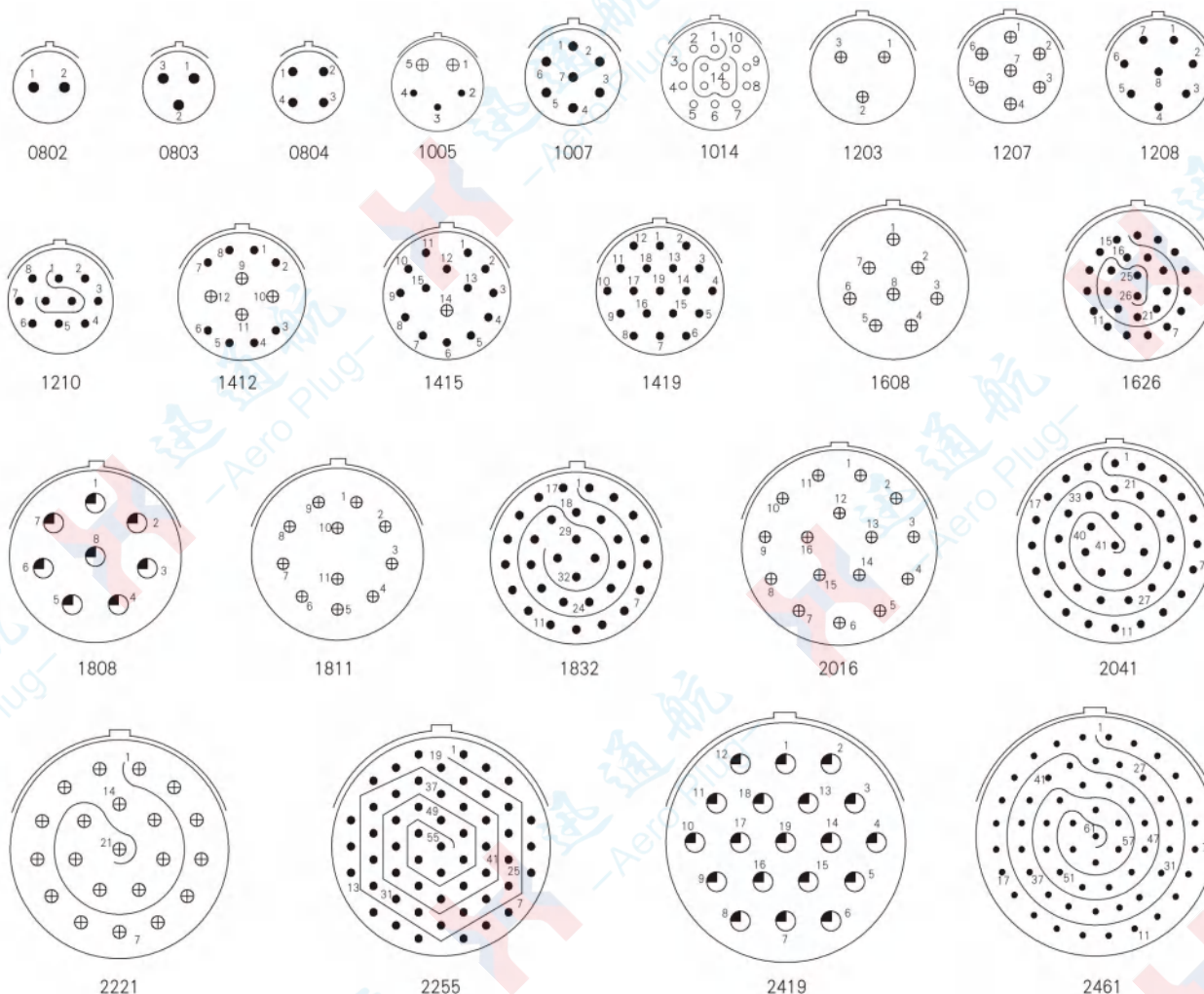
Insulation Resistance

Standard Atmospheric Pressure	Humid Conditions	Rain Test Conditions	High Temperature Conditions
≥ 3000MΩ	≥ 20MΩ	≥ 20MΩ	≥ 500MΩ

Withstand Voltage

Standard Atmospheric Pressure	Low Pressure Conditions	Humid Heat Conditions
AC 1500Vrms	AC 200Vrms	AC 500Vrms

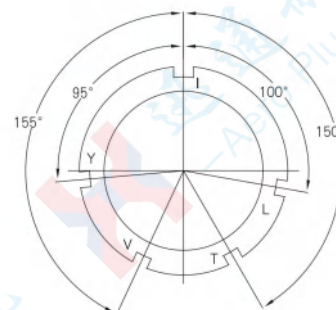
III. Contact Arrangement (Viewed from the Pin Side)



注：接触件直径标志 ○ $\Phi 0.8$ ● $\Phi 1$ ⊕ $\Phi 1.5$ ⊙ $\Phi 2.5$

IV. Anti-Misinsertion Key Positions

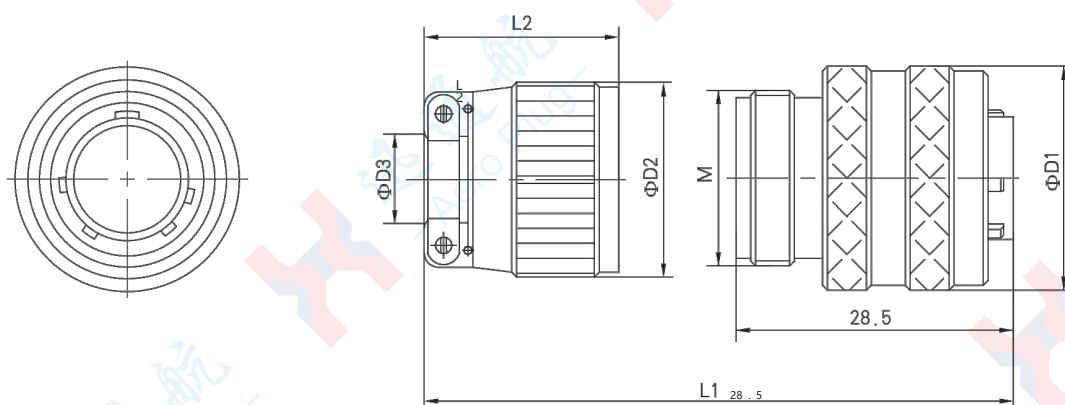
Keyways with different angles are milled on the outer circumference of the insulator. The manufacturer can assemble the keys at rotated positions according to the user's requirements to prevent misinsertion of plugs with the same specification. This ensures that plugs and sockets of the same model, specification, and matching key position number can be mated, while those with different key position numbers cannot be inserted. The rotation angles of the keys are shown in the table below, and their angular positions are illustrated in the figure.



Marking Code	I	II	III	IV	V
Five-Key Installation Letters	I	L	T	V	Y
Height Relative to the Primary Key	0°	100°	150°	155°	95°

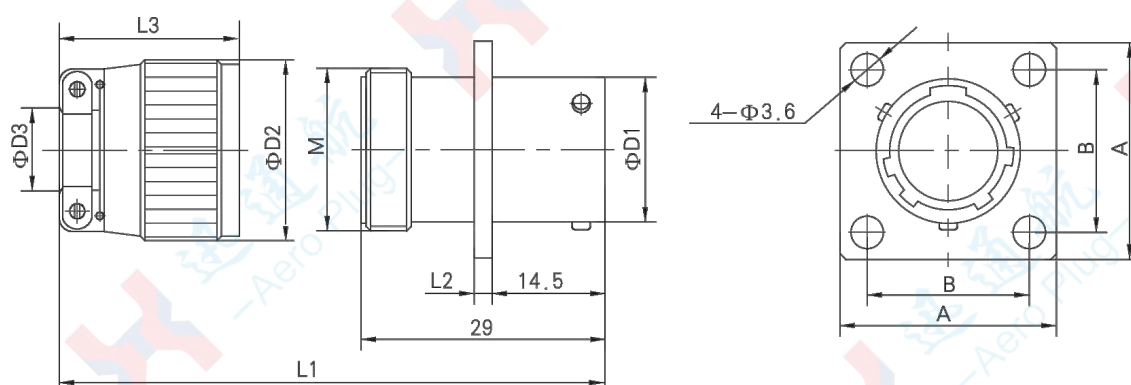
V. Overall Dimensions

Plug



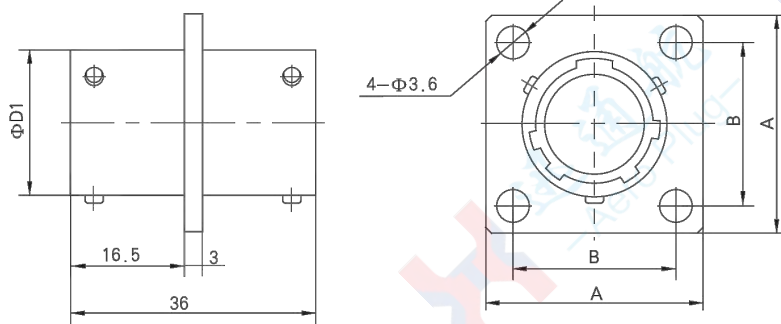
shell size	D1	M	D2	D3	L1±2	L2
08	20	M14 x 1	17	6	41	20
10	23	M18 x 1	20	8	41	20
12	26	M20 x 1	22.5	10	43	22
14	30	M24 x 1	26.5	12	49	28
16	33	M27 x 1	29.5	14	49	28
18	36	M30 x 1	32.5	17	49	28
20	39	M33 x 1.5	35.5	20	50.5	30
22	42	M36 x 1.5	38.5	24	50.5	30
24	45	M39 x 1.5	41.5	27	55	35

Square Flange Socket



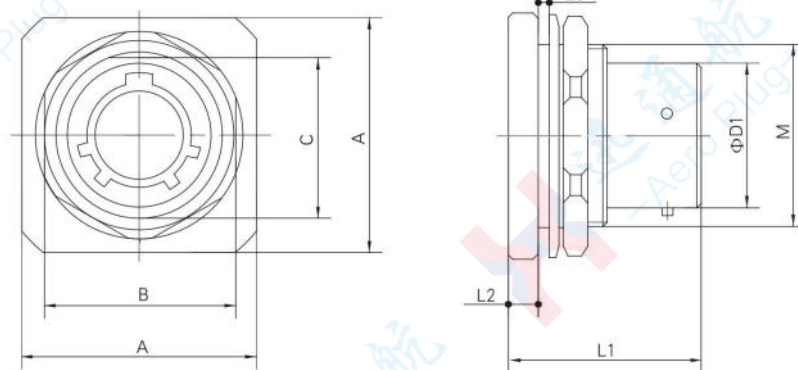
shell size	A	B±0.15	D1	D2	D3	M	L1±2	L2	L3
08	21	15	13	17	6	M14x1	41.5	1.5	20
10	24	18	16	20	8	M18x1	41.5	1.5	20
12	27	21	20	22.5	10	M20x1	43.5	1.5	22
14	30	23	23	26.5	12	M24x1	49.5	1.5	28
16	33	25	26	29.5	14	M27x1	49.5	1.5	28
18	36	27	29	32.5	17	M30x1	49.5	1.5	28
20	39	29	32	35.5	20	M33x1.5	51	2.2	30
22	42	32	35	38.5	24	M36x1.5	51	2.2	30
24	45	35	38	41.5	27	M39x1.5	55	2.2	35

Square Flange Through-Wall Socket



shell size	A	B±0.15	D1
08	21	15	13
10	24	18	16
12	27	21	20
14	30	23	23
16	33	25	26
18	36	27	29
20	39	29	32
22	42	32	35
24	45	35	38

Nut-Spliced & Tightened Socket



Shell Size	L1	L2	L3	D1	D2	M	A	B	C
08	21	2.5	1.6-3.2	13	27	M16x1	24	22	15
10	21	2.5	1.6-3.2	16	30	M20x1	27	24	19
12	21	2.5	1.6-3.2	20	35	M24x1	32	27	23
14	21	2.5	1.6-3.2	23	38	M27x1	36	30	25
16	21	2.5	1.6-3.2	26	42	M30x1	38	32	29
18	21	2.5	1.6-3.2	29	45	M33x1	41	36	32
20	25.5	3.0	1.6-6.4	32	49	M36x1	46	41	35
22	25.5	3.0	1.6-6.4	35	53	M39x1	50	43	38
24	25.5	3.0	1.6-6.4	38	56	M42x1	53	46	41

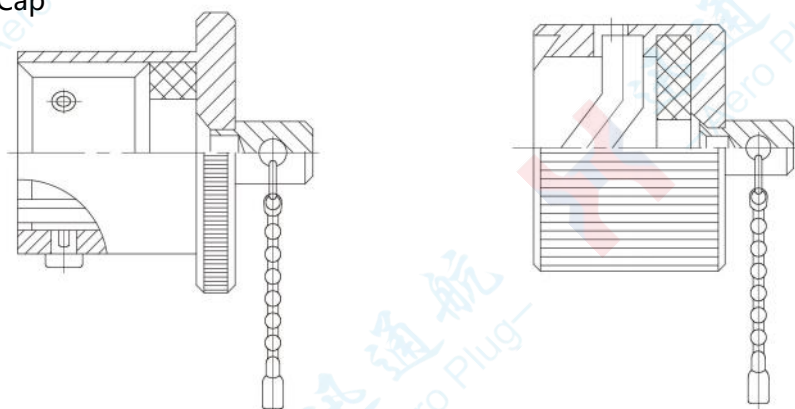
VI. Operation Method

1. The two mating parts of the connector adopt an internal bayonet connection. Rotate the connecting cap clockwise. When the plug and socket are fully mated and the connecting bayonet is in the locked position, the stainless steel bayonet pin can be seen through the observation holes on the circumference of the connecting cap. To separate, rotate the connecting cap counterclockwise until complete separation.
2. Welding of the connector must be performed according to the corresponding contact numbers. The welding time shall not exceed 3 seconds, and the soldering iron power shall not exceed 45W (for power series connectors, the soldering iron power can be increased according to the pin/socket diameter).
3. During welding, the connector must be operated in strict accordance with the workpiece interface procedure (refer to the Y50EX Series Cable Installation Diagram).
4. After separating the plug and socket of the connector, dust caps shall be installed on each part respectively.
5. Mating of pin-equipped plugs with pin-equipped sockets is strictly prohibited.
6. Before installing and using the connector, the operator shall familiarize themselves with its performance and operation method. Alternatively, contact the technical department of our factory for assistance.
7. Do not energize the connector before it is fully locked. Separation is prohibited under load conditions.
8. The connection principle is shown in the figure below.



Accessories

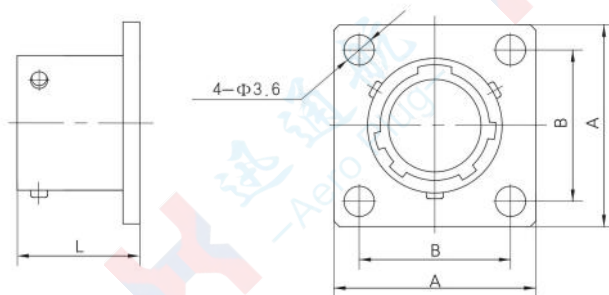
1、Metal Dust Cap



a) Plug Metal Dust Cap (Y11-XX00-80)

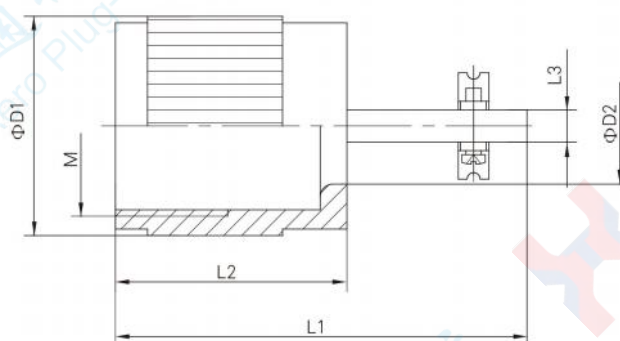
b) Socket Metal Dust Cap (Y11-XX00-81)

2、Empty Socket (Y11-XX00-83)



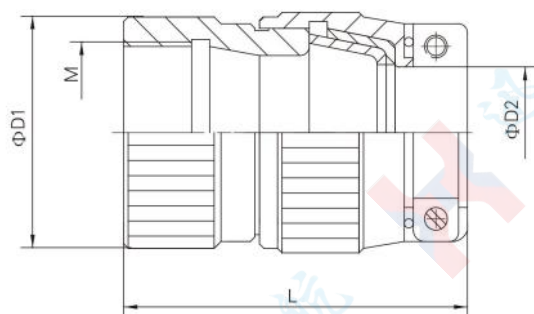
shell size	L	A	B ± 0.15
08	15	21	15
10	15	24	18
12	15	27	21
14	15	30	23
16	15	33	25
18	15	36	27
20	15	39	29
22	15	42	32
24	15	45	35

3、Open Cable Cover (Y11-XX00-85)



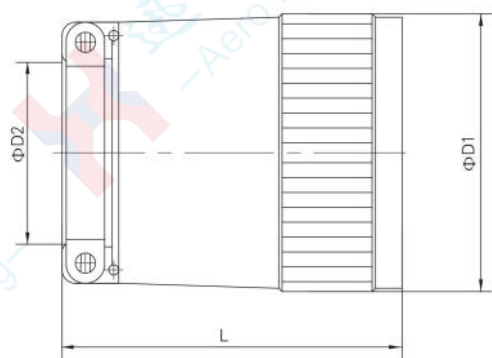
shell size	D1	D2	L1	L2	L3	M
08	17	10	29	15	2.5	M14 x 1
10	20	12	29	15	2.5	M18 x 1
12	24.5	14	31	15	2.5	M20 x 1
14	26.5	16	38	20	3	M24 x 1
16	32.5	18	39	20	3	M27 x 1
18	32.5	20	40	20	4	M30 x 1
20	35.5	20	42	22	4.5	M33 x 1.5
22	38.5	22	42	22	5	M36 x 1.5
24	41.5	24	47	27	5	M39 x 1.5

4、Shielded Cable Boot (Y1 1-XX00-86)



s	L	D2	D2	M
08	35	18	10	M14 x 1
10	35	21	10	M18 x 1
12	37	25.5	14.5	M20 x 1
14	40	31	16.5	M24 x 1
16	40	31	16.5	M27 x 1
18	50	34	20	M30 x 1
20	50	34	22.5	M33 x 1.5
22	50	38.5	22.5	M36 x 1.5
24	50	41.5	24	M39 x 1.5

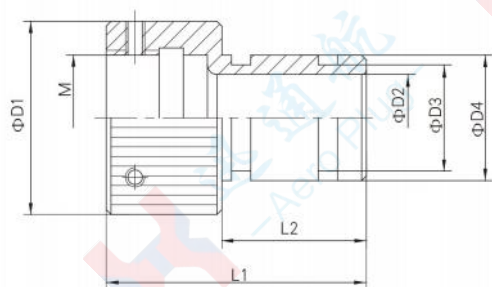
5、Extended Tail Boot (Y11-XX00-88)



shell size	D1	D2	L
08	17	6	35
10	20	8	35
12	22.5	10	37
14	26.5	12	43
16	29.5	14	43
18	32.5	17	43
20	35.5	20	45
22	38.5	24	45
24	41.5	27	50

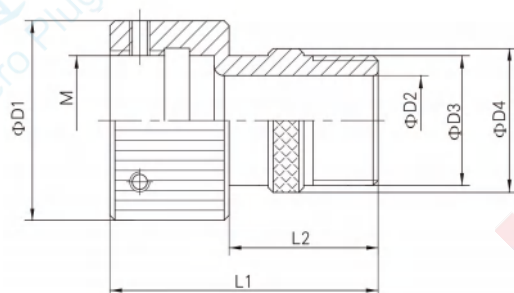
6、Heat-Shrink Tubing Type Cable Boot

a) Heat-Shrink Tubing Type 1 Cable Boot (Cable Boot Style: 5, Y11-XX00-84)



shell size	D1	D2	D3	D4	M	L1	L2
08	20	9	11	13	M14 x 1	27	15
10	24	10	12	14	M18 x 1	27	15
12	26.5	13	15	17	M20 x 1	30	15
14	30.2	17	19	21	M24 x 1	31	16
16	33	18	20	22	M27 x 1	31	18
18	36	23	25	27	M30 x 1	34	22
20	39.6	24	26	28	M33 x 1.5	35	20
22	42	27	29	31	M36 x 1.5	34	22
24	45	30	32	34	M39 x 1.5	36	24

b) Heat-Shrink Tubing Type 2 Cable Boot (Cable Boot Style: 5a, Y11-XX00-89)



shell size	D1	D2	D3	D4	M	L1	L2
08	20	8.7	12.8	14.8	M14 x 1	33	20
10	24	10	14.4	16.4	M18 x 1	33	20
12	26.5	15	19.1	21.1	M20 x 1	33	20
14	30.2	18.2	22.3	24.3	M24 x 1	33	20
16	33	18.2	22.3	25.3	M27 x 1	33	20
18	36	24.5	28.7	30.7	M30 x 1	33	20
20	39.6	24.5	28.7	30.7	M33 x 1.5	35	20
22	42	27.5	31.8	33.8	M36 x 1.5	35	20
24	45	30	31.8	34	M39 x 1.5	35	20

Note: Y11 Series Electrical Connectors Can Be Equipped with Y50X Series Rear Accessories (Optional)

Y17 Series Circular Electrical Connector

This product is widely used for circuit connections between various electrical equipment. It adopts a bayonet coupling method, featuring convenient operation and reliable locking, and is suitable for high-current power supply series connections.

Product Marking Code

<u>XTH</u>	<u>Y</u>	<u>17</u>	<u>P</u> - <u>20</u>	<u>04</u>	<u>T</u>	<u>J</u>	<u>2</u>	
1	2	3	4	5	6	7	8	9



- 1 — Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.
- 2 — Main Designation Code for Circular Electrical Connectors
- 3 — Military Standard Registered Design Serial Number
- 4 — Category Code: P Aluminum Alloy with Electroless Nickel Plating
S Copper Alloy with Electroless Nickel Plating
B Stainless Steel with Passivation
Unmarked: Aluminum Alloy with Anodized White Finish
- 5 — Shell Size: 10、12、16、20、28
- 6 — Number of Contact Pairs: 1, 3, 4, 7, 12, 19, 24 cores (expressed as two-digit numbers)
- 7 — Plug/Socket Category: T-Plug; Z-socket
- 8 — Contact Category: J-Plug; K-socket contact
- 9 — Cable Clamp Category Code: 2-Cable Clamp Type
2a-Large Cable Clamp Type (for Shell Size 20 only) 2b-Small Cable Clamp Type
2d-Cable Clamp & Potting Type 2c-Split Large Cable Clamp Type 3-Potting Type
3b-Short Potting Type
- 4- Angled Cable Boot (90°) 40-Angled Cable Clamp & Potting Type
- 5-Heat Shrink Tubing Type 1 5a-Heat Shrink Tubing Type 2 6-Shielded Cable Boot
- Socket Mounting Method: 10-Square Flange Type; 11-Circular Flange Type

Product Technical Characteristics

1. Service Environmental Conditions

Operating Temperature: -55°C ~ +125°C
 -55°C ~ +175°C (For Y17-1604 Specification Only)
 Relative Humidity: 90% to 95% at 40°C±2°C
 Operating Air Pressure: 4.4kPa ~ 101.33kPa

Vibration: 10Hz to 2000Hz, Acceleration 98m/s²
 Shock: 392m/s² (Collision)
 Impact: 490m/s²
 Mechanical Life: ≥500 Mating Cycles

1. Electrical Characteristics

Contact Characteristics

Pin Diameter (Φmm)	1.5	2.5	3.5		5	7	10
Operating Current(A)	10	25	50	30*	75	100	200
Contact Resistance(MΩ)	≤3	≤1	≤1	≤1	≤1	≤1	≤1

Note: *Applicable Only to Specification 1604

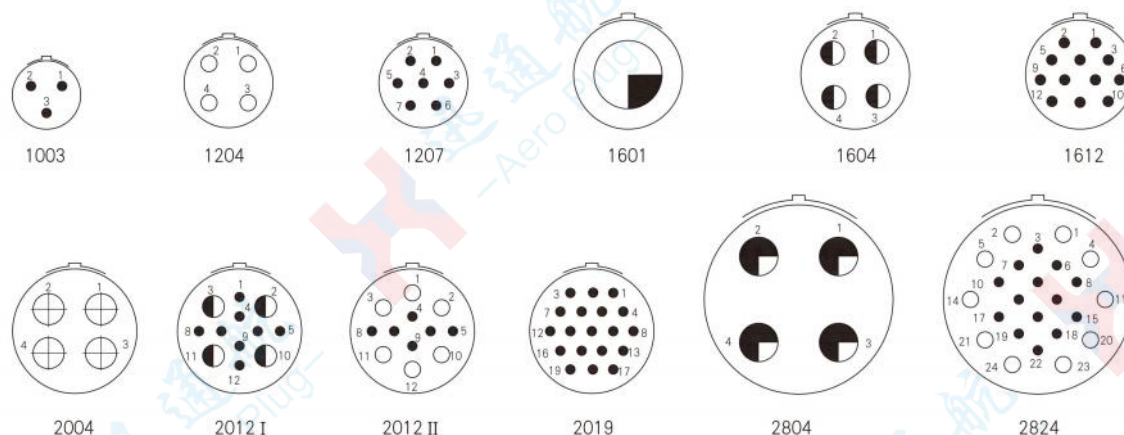
Insulation Resistance

Standard Atmospheric Pressure	High-Temperature Conditions	Humid Conditions
≥ 1000MΩ	≥ 500MΩ	≥ 20MΩ

Withstand Voltage

Standard Atmospheric Pressure	AC 1000V rms
Low Air Pressure	AC 250V rms

3. Contact Arrangement (Viewed from the Pin Side)

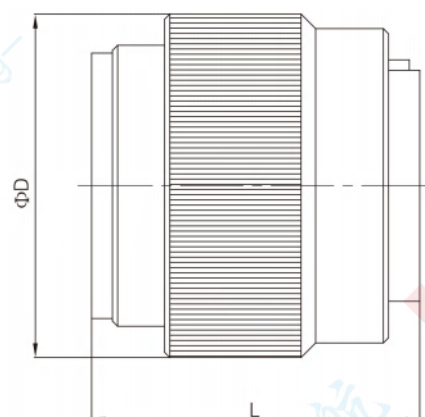


注：接触件直径标志 ● $\Phi 1.5$ ○ $\Phi 2.5$ ◐ $\Phi 3.5$ ⊕ $\Phi 5$ ◑ $\Phi 7$ ◒ $\Phi 10$

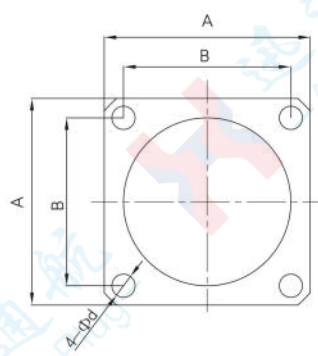
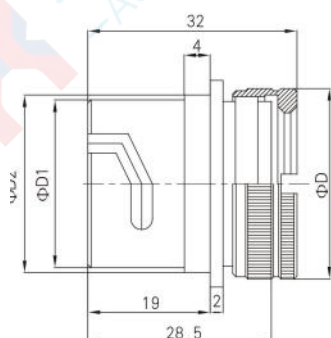
4. Overall Dimensions

1. Overall Dimensions of the Electrical Connector Plug

shell size		D	L
10		22.5	31.5
12		26.5	31.5
16		33.0	31.5
20		39.0	31.5
28	2804	52.0	34.0
	2824		31.5



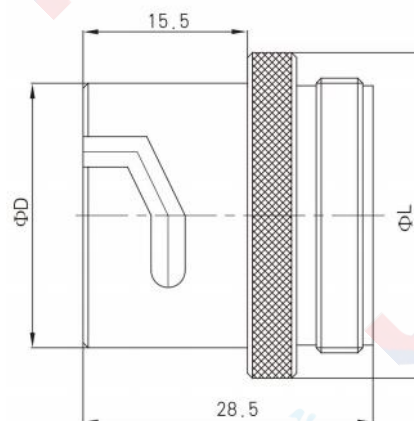
2. Overall and Mounting Dimensions of the Square Flange Socket



shell size	ΦD	$\Phi D2$	$\Phi D1$	Φd	A	B
10	18.5	17.5	16	3.5	24	18±0.2
12	22.5	21.5	20	3.5	27	21±0.2
16	29.5	27.5	26	3.5	32	26±0.2
20	35.5	33.4	32	5.5	42	33±0.2
28	50.0	45.5	44	5.5	53	42±0.2

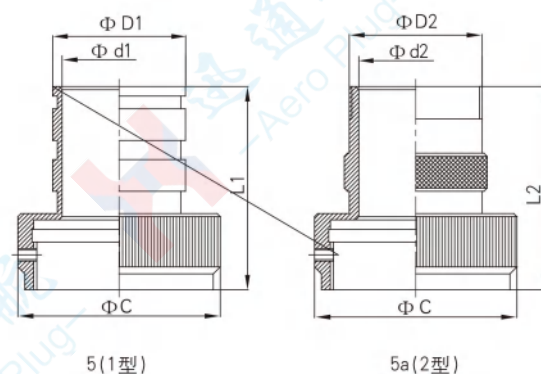
3. Overall Dimensions of the Circular Flange Socket

shell size	ΦL	ΦD
10	22.5	16
12	26.5	20
16	31.0	26
20	36.0	32
28	52.0	44



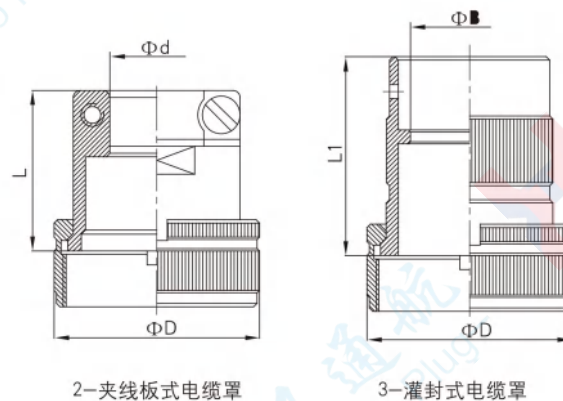
4. Overall Dimensions of the Rear Accessories Heat Shrink Tubing Type

shell size	$\Phi D1$	$\Phi d1$	p c	L1	$\Phi D2$	$\Phi d2$	L2
10	14	10	23	27	14x1	10.0	33
12	18	13	26	30	19x1	15.0	33
16	21	18	32	32	22x1	18.0	33
20	28	24	38	35	32x1	27.7	33



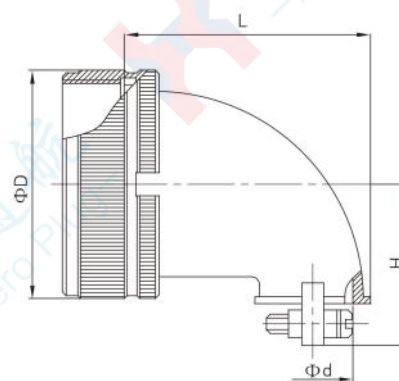
Cable Clamp Plate Type / Potting Type Cable Boot

shell size	ΦD	Φd	L	ΦB	L1
10	18.5	7.0	17	9	18.0
12	22.5	10.0	17	13	18.0
16	29.5	13.5	25	17	28.5
20	35.5	20.0	26.5	23	28.5
		15.5	23		28.5
28	50.0	29.0	36.5	35	38.5



Angled Cable Boot (90°)

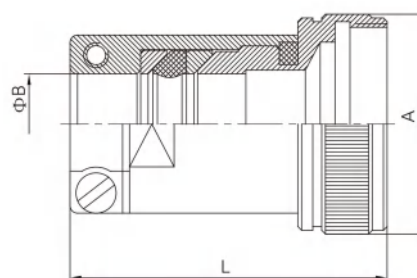
shell size	ΦD	Φd	L	ΦH
12	22.5	10	32	19.5
16	29.5	13	34	24.5
20	35.5	16	37	27.5



4-弯式电缆罩 (90°)

Shielded Cable Boot

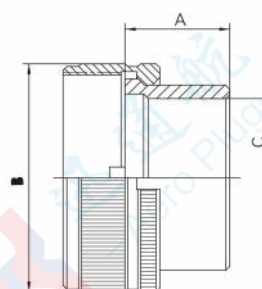
shell size		ΦA	ΦB	L
16		29.5	13.5	42.5
20	2a-Large Cable Clamp	35.5	20	50
	2b-Small Cable Clamp		15.5	47
28		50	25	56



6-屏蔽式电缆罩

Short Potting Type

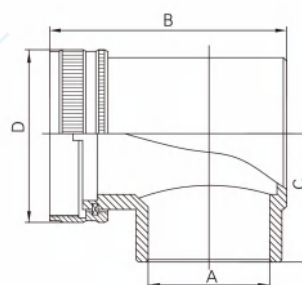
shell size	A	B	C
12	13.5	22.5	15.5
16	13.5	29.5	20.5
20	15	35.5	25



3b-短灌封式

Angled Cable Clamp and Potting Type

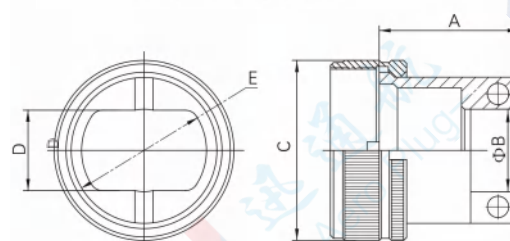
shell size	ΦA	B	C	ΦD
20	25	48.8	26.4	35.5



4d-弯形夹线灌封式

Cable Clamp and Potting Type

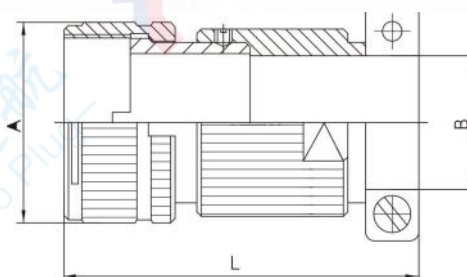
shell size	A	B	C	D	E
12	17	10	22.5	10	15.5
16	23	13.5	29.5	13.5	20.5
20	27.5	17	35.5	17	25



2d-夹线灌封式

Split-Type Large Cable Clamp Plate

shell size	ΦA	ΦB	L
12	22.5	15	40



2c-分体大夹线板式

Y25 Series Circular Connector

This series of circular sealed electrical connectors is mainly used for electrical connections between various electrical equipment under harsh marine climate conditions, and can also be widely applied in electromechanical equipment and signal transmission systems of various models such as aviation and aerospace.

The plug and socket are connected by threads for convenient use; they adopt a modular structure with complete specifications; the socket is sealed by potting, and the connecting ends of each component are sealed with O-rings, featuring salt spray resistance, water resistance, and electromagnetic interference (EMI) shielding functions. Installation methods include flange type, nut fixing type, and through-wall type, etc.

Product Marking Code

XTH	Y	25	X	II	-	37	04	Z	S	11	d
1	2	3	4	5	6	7	8	9	10	11	



- 1— Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.
- 2— Circular Electrical Connector
- 3— Design Serial Number
- 4— Category Code: X-Plug or Potted Sealed Socket (may be omitted)
- 5— Anti-Misinsertion Mark: I, II, III, IV, V, VI (Mark I may be omitted)
- 6— Shell Size: 07、12、19、27、37、48、61
- 7— Number of Contact Pairs: 03、04、06、10、12、14、16、19、22、24、27、37、41、48、61
- 8— Electrical Connector Type: T-Plug Z-Socket
- 9— Contact Type: J-Pin K-Socket Contact
- 10— Mounting Type: 10-Square Flange Type 11-Circular Flange Type 14-Nut Fixing Type
- 11— d-Aluminum Alloy (Copper Alloy may be omitted) B-Stainless Steel

Color Code for Position Change of Insulating Mounting Plate

Marking Code	I	II	III	IV	V	VI
Marking Color	Scarlet	Sky Blue	white	black	Pale Yellow	Emerald Green

Accessory Product Marking Code

XTH	Y	25	-	37	00	11
1	2	3	4	5	6	

- 1—Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.
- 2— Circular Electrical Connector
- 3— Design Serial Number
- 4— Shell Size: 07、12、19、27、37、48、61
- 5— Universal Mark: Within the same shell size, all types of cable boots are interchangeable.
- 6— Rear Accessory Category:
 - 11-Straight Shielded Cable Boot (Outlet No. 1)
 - 21-Angled Shielded Cable Boot (Outlet No. 1)
 - 12-Straight Shielded Cable Boot (Outlet No. 2)
 - 22-Angled Shielded Cable Boot (Outlet No. 2)
 - 13-Straight Shielded Cable Boot (Outlet No. 3)
 - 23-Angled Shielded Cable Boot (Outlet No. 3)
 - 30-Cable Clamp Plate Type Cable Boot
 - 31-Metal Socket Dust Cover Assembly
 - 32-Metal Plug Dust Cover Assembly

Note: Accessories and special tools shall be ordered separately from our factory.

Product Technical Features

I. Operating Environmental Conditions

Operating Temperature: $-55^{\circ}\text{C} \sim +140^{\circ}\text{C}$
 Relative Humidity: $90\% \sim 98\%$ at $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$
 Operating Pressure: $1.33\text{Pa} \sim 101.33\text{kPa}$
 Vibration: Acceleration 150 m/s^2
 Shock: Acceleration 500 m/s^2

Salt Spray: 24 Hours in 5% NaCl Mist
 Water Immersion: 0.2m Water Depth
 Sealing Performance: 0.2MPa
 Mechanical Life: ≥ 1000 Mating Cycles

II. Electrical Characteristics

Contact Characteristics

Contact Pair Diameter (Φmm)	1	1.5	2.5	3.5	5	7
Operating Current (A)	7.5	13	23	46	63	100
Contact Resistance ($\text{m}\Omega$)	≤ 5	≤ 3	≤ 2	≤ 1	≤ 1	≤ 1

Withstand Voltage

Pressure Value (Pa)	Operating Voltage (V)	Withstand Voltage AC Vrms	Applicable Specifications
1×10^5	250	1500	0707、1212、1907、1919、2727、2724、2722、2716、3737、3712、4848、6161、6141
	500	2000	Remaining Specifications
1.33		200	Full Series

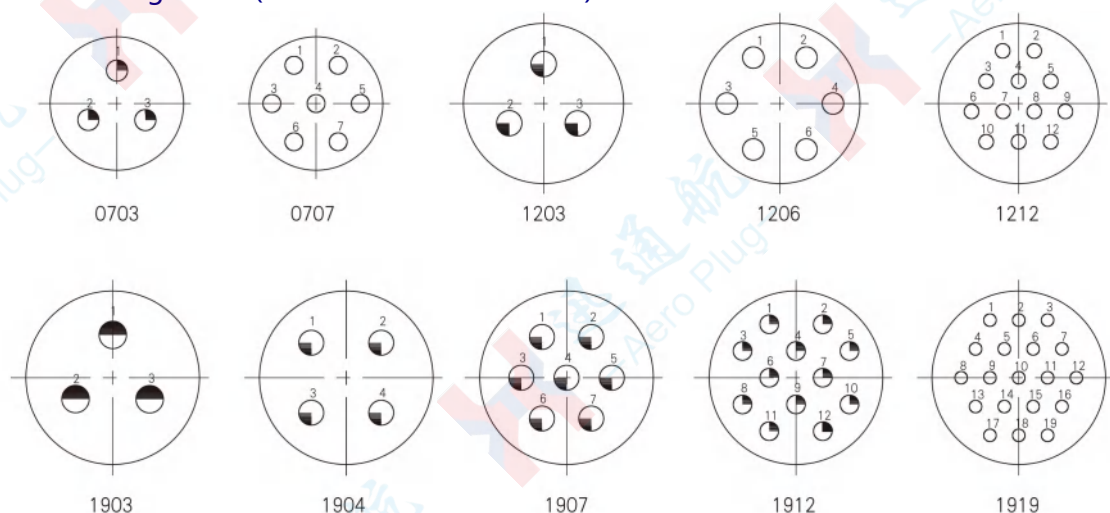
Insulation Resistance

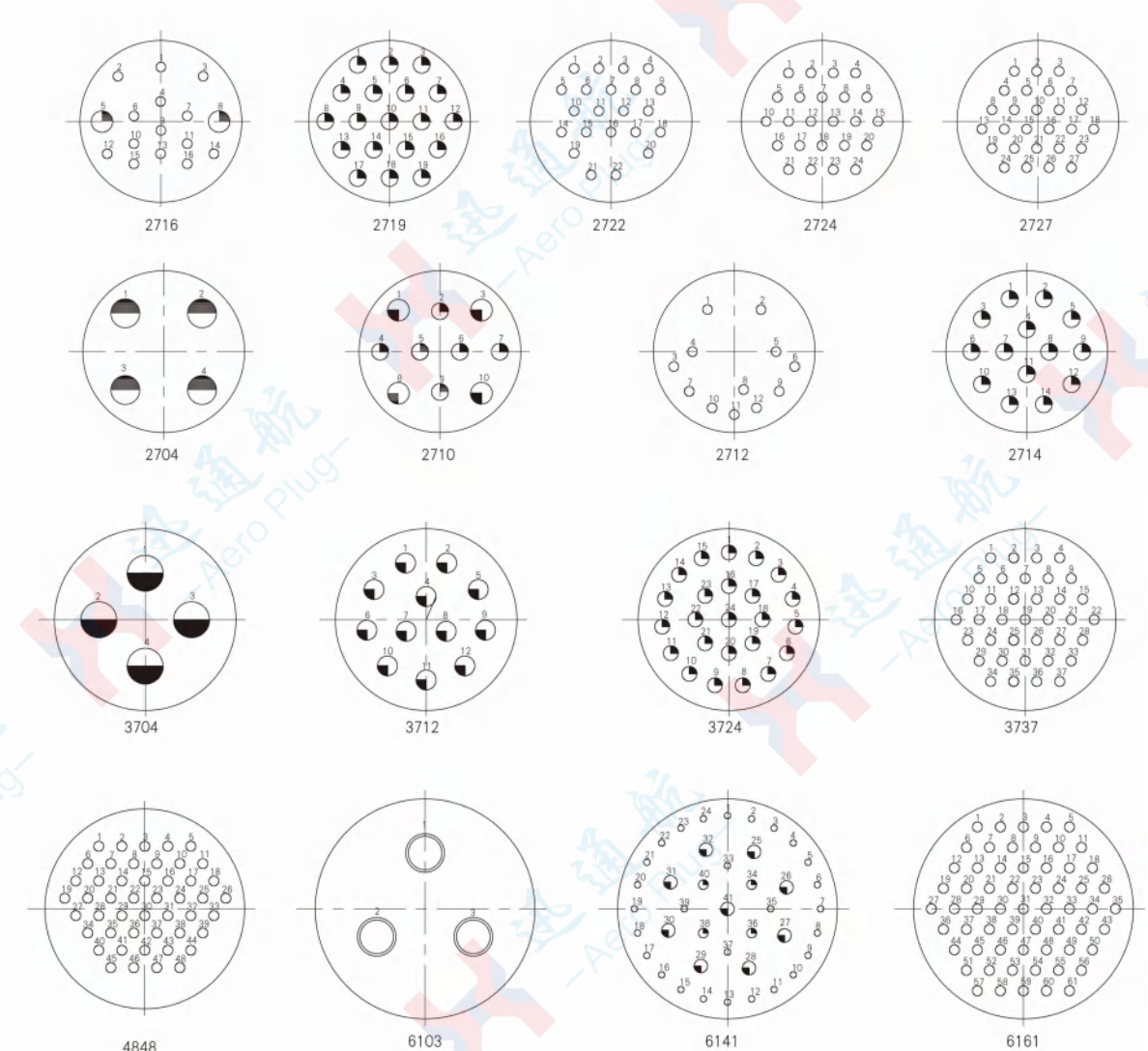
Standard Atmospheric Pressure	High-Temperature Condition	Humid Condition	Immersion Condition
$\geq 5000\text{M}\Omega$	$\geq 500\text{M}\Omega$	$\geq 50\text{M}\Omega$	$\geq 50\text{M}\Omega$

Rated Current Degradation Rate

Number of Contacts	1 ~ 10	11 ~ 20	21 ~ 30	31 ~ 50	51 ~ 80
Degradation Rate (%)	0	10	20	30	40

III. Contact Arrangement (Viewed from the Pin Side)

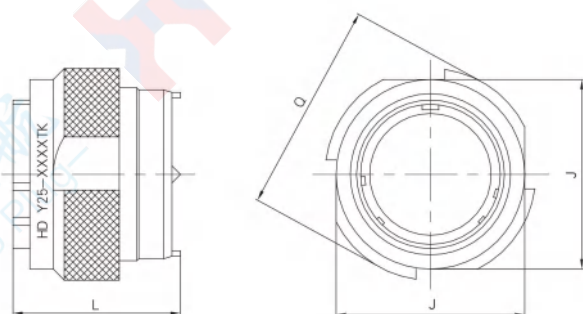




注:接触对直径标志 ○ $\Phi 1$ ◐ $\Phi 1.5$ ◑ $\Phi 2.5$ ◒ $\Phi 3.5$ ◓ $\Phi 5$ ⊙ $\Phi 7.0$

IV. Overall Dimensions

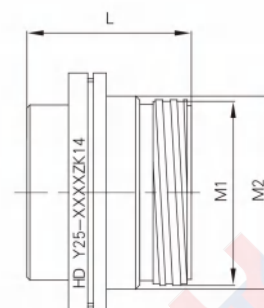
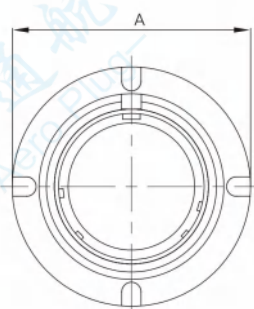
1.1 Plug Overall Dimensions



shell size	L	J	ΦQ
07	41.5	29	32
12	41.5	33	36
19	41.5	37	40
27	41.5	42	46
37	41.5	45.6	50
48	41.5	49.5	54
61	41.5	53	57

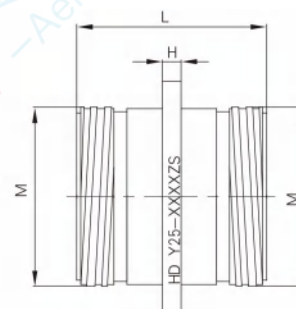
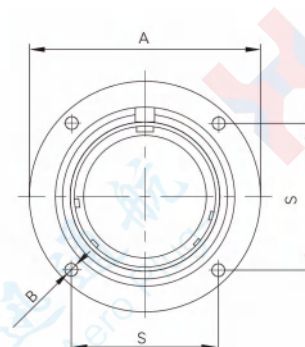
2. Nut-Mounted Socket Overall and Mounting Dimensions

shell size	L	M1	M2	ΦA
12	43.5	Tr28 x 3	M30 x 1	45
19	43.5	Tr32 x 3	M36 x 1.5	50
27	43.5	Tr36 x 3	M40 x 1.5	54
37	43.5	Tr40 x 3	M45 x 1.5	58
48	43.5	Tr44 x 3	M48 x 1.5	62



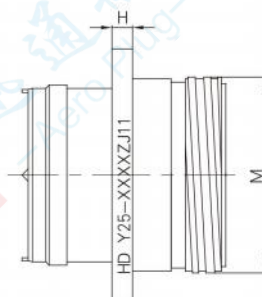
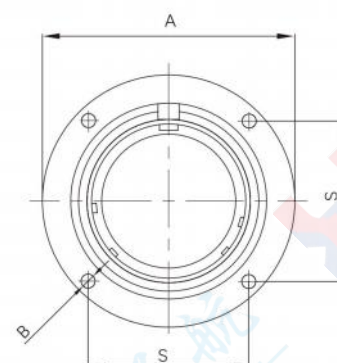
3. Through-Wall Socket Overall and Mounting Dimensions

shell size	L	M	ΦA	ΦB	S	H
07	59	Tr24 x 3	38	3.3±0.10	22±0.10	4
12	59	Tr28 x 3	44	3.3±0.10	27±0.10	4
19	59	Tr32 x 3	46	3.3±0.10	28±0.10	4
27	59	Tr36 x 3	49	3.3±0.10	30±0.10	5
37	59	Tr40 x 3	53	3.3±0.10	33±0.10	5
48	59	Tr44 x 3	56	3.3±0.10	35±0.10	5
61	59	Tr46 x 3	59	3.3±0.10	37±0.10	5

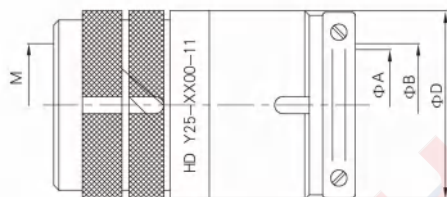


4. Circular Flange-Mounted Socket Overall and Mounting Dimensions

shell size	L	M	ΦA	ΦB	S	H
07	51	Tr24 x 3	38	3.3±0.10	22±0.10	4
12	51	Tr28 x 3	44	3.3±0.10	27±0.10	4
19	51	Tr32 x 3	46	3.3±0.10	28±0.10	4
27	51	Tr36 x 3	49	3.3±0.10	30±0.10	5
37	51	Tr40 x 3	53	3.3±0.10	33±0.10	5
48	51	Tr44 x 3	56	3.3±0.10	35±0.10	5
61	51	Tr46 x 3	59	3.3±0.10	37±0.10	5

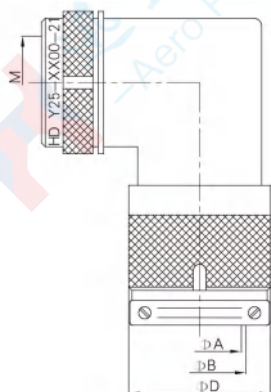


5. Straight Shielded Backshell Overall Dimensions



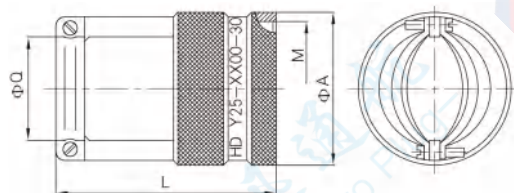
shell size	M	ΦA (Waterproof Sealing Ring)			ΦB (Cable Outlet)			ΦD	L
		Num ber 1	Nu mb er 2	Nu mb er 3	Num ber 1	Nu mb er 2	Nu mb er 3		
07	M20x1	6	10	14	7	11	15	28	80
12	M24x1	11	15	19	11.5	15	19	32	80
19	M28x1	15	18	23	16	20	24	37	80
27	M33x1	19	23	27	20	24	28	42	85
37	M36x1	22	26	30	23	27	31	46	85
48	M40x1	25	29	33	26	30	34	49	85
61	M45x1	30	34	38	31	35	39	54	90

6. Angled Shielded Backshell Overall Dimensions



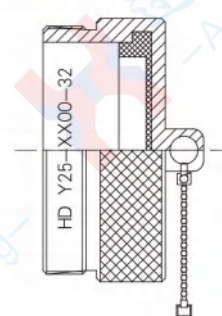
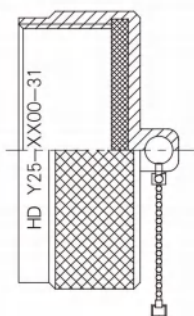
shell size	M	ΦA (Waterproof Sealing Ring)			ΦB (Cable Outlet)			ΦD
		Num ber 1	Num ber 2	Num ber 3	Numb er 1	Num ber 2	Num ber 3	
07	M20x1	6	10	14	7	11	15	28
12	M24x1	11	15	19	11.5	15	19	32
19	M28x1	15	18	23	16	20	24	37
27	M33x1	19	23	27	20	24	28	42
37	M36x1	22	26	30	23	27	31	46
48	M40x1	25	29	33	26	30	34	49
61	M45x1	30	34	38	31	35	39	54

7. Wire Plate-Mounted Backshell Overall Dimensions



shell size	ΦQ	M	ΦA	L
37	22	M36x1.5	38.5	45
61	38	M45x1.5	50	45

8. Metal Dust Cap Assembly



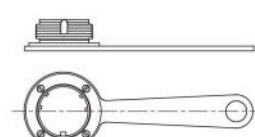
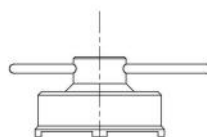
9. Other Accessories

HD-FJ1-专用工具

HD-FJ2-专用工具

HD-FJ3-专用工具

HD-FJ4-专用工具



Y27 Series Circular Electrical Connector

This series of electrical connectors complies with GJB2905-2004 standard. It is suitable for blind mating or other mating scenarios, featuring quick connection and disconnection, vibration and shock resistance, salt spray protection, and electromagnetic interference (EMI) shielding. Available in variants with dust protection, rain protection, and gas tightness, it is widely used in aerospace, marine, field operations, public transportation power, railway, postal and telecommunications, and other fields.

Product Marking Code

<u>XTH</u>	<u>Y</u>	<u>27</u>	<u>A</u>	<u>m - 20</u>	<u>24</u>	<u>T/Z</u>	<u>J/K</u>	<u>B</u>	<u>M</u>	<u>A</u>	<u>II</u>	<u>B</u>	
1	2	3	4	5	6	7	8	9	10	11	12	13	14

- 1— Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.
- 2— Main Designation Code of Circular Electrical Connector
- 3— Military Filing Design Serial Number
- 4— Metric Series : Q、A、B、C、F、G、H,
(Note: Q may be omitted; H indicates wire spring socket)
- 5— Anti-Misplug Key Position Number: I, II, III, (Note: Key Position I may be omitted)
- 6— Shell Size: 08、10、12、14、16、8、20、22、24、26、28、30
- 7— Number of Contact Pairs: Refer to Type Spectrum Specification
- 8— Plug/Socket Category: T-Plug; Z-Socket
- 9— Contact Category: J-Pin; K-Jack
- 10— Rear Encapsulation Type: L-Cable Type, B/B1-Square Flange Mounting;
B2-Nut Mounting装; B4-Through-Wall Mounting
- 11— Socket Sealing Type: M- Rubber Sealing;; P-Non-Sealing (Omitted if not marked)
- 12— Disconnection Type (Plug Only) : A-Push/Pull Type (May be omitted)
- 13— Rear Accessory Type: No Mark - No Rear Accessory; II-Equipped with Typell;
III-Equipped with Type III; IV- Equipped with Type IV IX-Equipped with Type IX
- 14— Shell Material Category Code: No Mark - Nickel-Plated Aluminum Alloy;
B- Passivated Stainless Ste; C-Nickel-Plated Naval Brass



Rear Accessory Marking Code

<u>XTH</u>	<u>Y27</u>	-	<u>10</u>	<u>V</u>	<u>B</u>	<u>B</u>
1	2		3	4	5	6

- 1—Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.
- 2— Series Number
- 3— Shell Size
- 4— Type: II—Heat-Shrinkable Tubing Compatible Type
III - Single Wire Clamp Plate Type
IV—Double Wire Clamp Plate Type
V—Shielded Sealed Type
VI-0° Angled Shielded Sealed Type
VII-Wire Clamp Type、
VIII-Shielded Type
X-Shielded, Sealed, and Cable-Protected Type
- 5— Distinction Code: A, B, C, D, E, F; L indicates Extended Type (Refer to Type IV Rear Accessory))
- 6—Shell Material Category Code:
No Mark - Aluminum Alloy;
B - Stainless Steel; C - Naval Brass

Metal Dust Cap Marking Code

<u>XTH</u>	<u>JS</u>	<u>27A - 08</u>	<u>T</u>	<u>N</u>	<u>L</u>	
1	2	3	4	5	6	7

- 1—Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.
- 2— Metal Dust Cap
- 3— Applicable Product Series Code: 27A for Y27, Y27A, B, C;
27F for Y27F, G, H
- 4— Shell Size
- 5— Plug/Socket Distinction: T-For Plug; Z-For Socket
- 6— Plating Material Distinction Code: N-Nickel
Plated/Aluminum; H-Olive Drab Oxide/Aluminum
B-Passivated/Stainless Steel C-Nickel Plated/Naval Brass
- 7— Chain Distinction Code: (No Mark) - Chain Provided by User; L - Metal Chain

Product Technical Characteristics

1. Operating Environment Conditions

Operating Temperature:: -55°C ~ +125°C

Immersion: Immersion depth 2m (Y27F, Y27G, Y27H series only)

Sinusoidal Vibration: 10Hz ~ 2000Hz, 196m/s²

Random Vibration: Power Spectral Density 0.4G²/Hz;

Root Mean Square (RMS) Acceleration 23.1G

Electromagnetic Interference (EMI) Shielding: Minimum attenuation of 45dB at an

interference frequency of 100MHz ~ 1GHz

Electrical Continuity Between Shells: 0.01Ω for copper and aluminum shells; 0.05Ω if one of the plug/socket is constructed of stainless steel or ferroalloy

Operating Pressure: 1.33Pa ~ 101.33kPa

Shock: Acceleration 980m/s²

Acceleration: 980m/s²

Relative Humidity: 92% ~ 98% at 40°C±2°C

Socket Air Tightness: Leakage rate of rubber-sealed type ≤1Pa·cm³/s

Salt Spray Resistance: Y27, Y27A, B, C series: 48h;

Y27F, G, H series: 48h for aluminum alloy shells;

1000h for naval brass and stainless steel shells

Mechanical Life: ≥1000 mating cycles

2. Electrical Characteristics

Rated Current of Contacts (A)

Contact Mating Diameter (Φ mm)		0.8	1.0	1.5	2.5	3.5	5.0	7.0	9.0	10.0	12.0
Rated Current of Contacts	Y27	3	--	--	--	--	--	--	--	--	--
	Y27A	--	5	--	--	--	--	--	--	--	--
	Y27B	--	5	10	25	50	75	100	150	200	--
	Y27C	--	5	10	25	50	75	100	150	200	--
	Y27F	--	7.5	--	--	--	--	--	--	--	--
	Y27G	--	7.5	13	25	50	75	100	150	200	250
	Y27H	3	5	--	--	--	--	--	--	--	--

Insulation Resistance (MΩ)

Series		Y27	Y27A	Y27B	Y27C	Y27F	Y27G	Y27H
Standard Conditions		1000	4000	5000	5000	5000	5000	4000
High Temperature	General	500	1000	1000	1000	1000	1000	1000
	Sintering	200	200	200	200	200	200	--
Humidity		50	100	100	100	100	100	100
Rain Exposure		20	20	20	20	--	--	--
Immersion		--	--	--	--	20	20	20

Contact Resistance (mΩ)

Mating Diameter (D, mm)	0.8	1.0	1.5	2.5	3.5	5.0	7.0	9.0	10.0	12.0
Material	Copper	Copper	Copper	Copper	Copper	Copper	Copper	Copper	Copper	Copper
Before Life Test	7	6	5	1.5	1	0.7	0.5	0.4	0.4	0.3
After Life Test	10	10	8	3	1.5	1	0.8	0.7	0.6	0.5
Soldering Inner Diameter										
Soldering Outer Diameter										

Withstand Voltage (V)

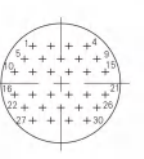
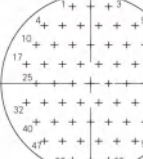
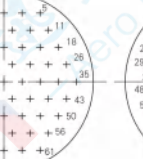
Series	Test Voltage (50Hz AC RMS)						
	Y27	Y27A	Y27B	Y27C	Y27F	Y27G	Y27H
Standard Conditions	750	1300	1500	2500	2300	2300	1300
Low Pressure (≤1.33Pa)	100	200	200	300	200	200	200

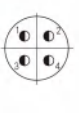
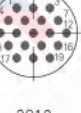
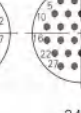
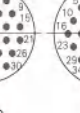
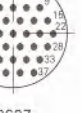
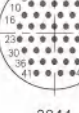
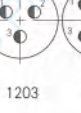
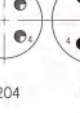
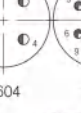
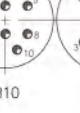
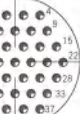
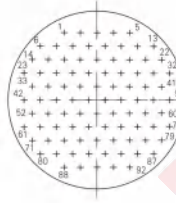
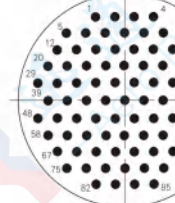
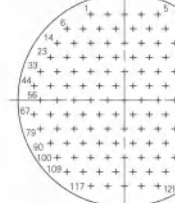
III. Operation Method

During Connection,First, push the locking sleeve on the free-end connector forward to the unlocked position, and rotate it clockwise to prevent retraction. Align the primary key pin on the plug with the primary key slot on the fixed connector, then fully insert the plug into the socket. Rotate the locking sleeve counterclockwise to return it to the locked position. When fully mated, the locking sleeve shall be completely retracted, and the full circle of red locking confirmation mark on the plug head shall be fully visible. If the locking sleeve fails to retract to the locked position and the red locking confirmation mark is not fully exposed, push the accessory at the plug tail forward to resolve the issue.

During Disconnection,First, push the locking sleeve on the plug forward to the unlocked position, and rotate it clockwise to prevent retraction. Then pull the plug backward to separate the entire plug from the socket.

IV. Contact Arrangement (Viewed from the Socket Face)

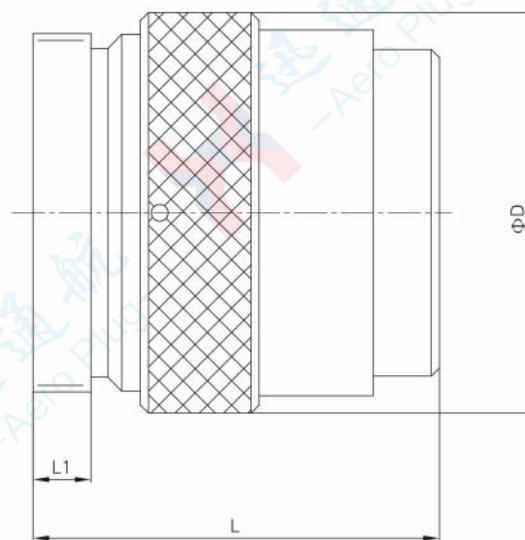
Y27 Series	     1424 1430 2255 2261 2485
Y27A Series	       0804 0805 1007 1410 1414 1619 2024
Y27B Series	      1203 1607 2001 2004 2012 2214

Y27C Series	 1604  2004  2604  2617  3004  3006
Y27F Series	 1004  1610  1814  2019  2224  2430  2637  2844  2855
Y27G Series	 1003  1203  1204  1405  1407  1604  1810  2004  2014  2210  2424  2837  3203  3204  3243  3255
Y27H Series	 2692  2885  28121

注: 接触对直径标志 +Φ0.8 ● Φ1.0 ● Φ1.5 ● Φ2.5 ● Φ3.5 ⊕ Φ5.0 ⊗ Φ7.0 ⊖ Φ9.0 ⊕ Φ10 ⊗ Φ12

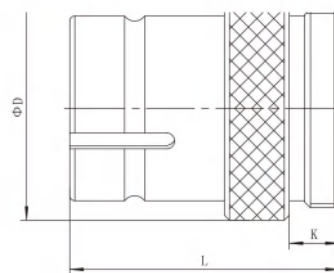
V. Overall Dimensions

shell size	D	Y27/Y27A/Y27B/ Y27C		Y27F/Y27G		Y27H	
		L	L1	L	L1	L	L1
08	19.5	31	5	32	6	--	--
10	21.5	31	5	32	6	--	--
12	23.5	31	5	32	6	--	--
14	26.0	31	5	32	6	--	--
16	28.0	31	5	32	6	--	--
18	30.0	31	5	32	6	--	--
20	33.5	31	5	32	6	--	--
22	36.5	31	5	32	6	--	--
24	39.5	32	6	34	7	--	--
26	43.0	32	6	34	7	$\frac{3}{4}$	7
28	46.0	32	6	34	7	$\frac{3}{4}$	7
30	50.0	37	6	38	7	--	--
32	53.0	37	--	38	7	--	--



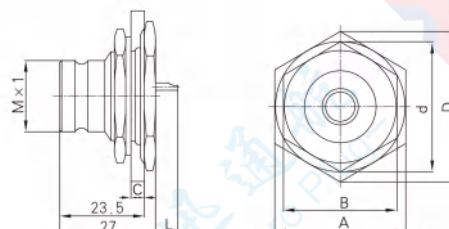
2. Overall and Mounting Dimensions of Cable-Mounted Socket

shell size		08	10	12	14	16	18	20	22	24	26	28	30	32
D	Y27、A、B、C	15	17	19	22	23	25	28	31	33	36	39	42	--
	Y27F、G、H	--	--	--	--	--	--	--	--	--	--	--	45	--
K	Y27 A、B、C	5	5	5	5	5	5	5	5	6	6	6	6	--
	Y27F、G、H	6	6	6	6	6	6	6	6	7	7	7	--	7
L	Y27、A、B、C	27	27	27	27	27	27	27	27	27	27	27	27	--
	Y27F、G、H	30	30	30	30	30	30	30	30	30	30	30	--	30



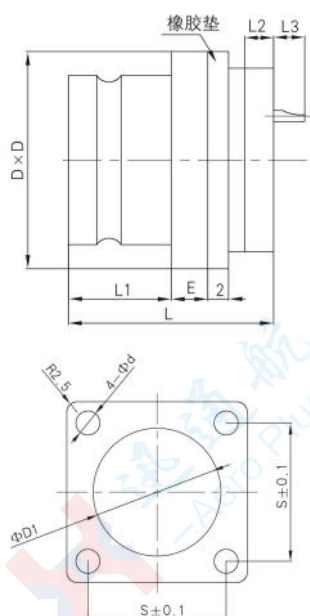
3. Overall and Mounting Dimensions of Nut-Mounted Rubber-Sealed Socket (Mounting Type: B2)

Serial Number	shell size	D	d	A	B	M	C _{min}	C _{msx}	L _{max}
Y27A	26	55.5	48.5	48	42	36	2	4.5	0
Y27B	26	55.5	48.5	48	42	36	2	4.5	2
Y27C	26	55.5	48.5	48	42	36	2	4.5	5



Y27B Series (Mounting Type: B)

4. Overall and Mounting Dimensions of Square Flange-Mounted Rubber-Sealed Socket



shell size	D	S	ΦD1	Φd	E	L	L1	L2	L3max
12	24	18	18.5	3.6	3.6	27	16	5	2
16	27	21	22.5	3.6	3.6	27	16	5	2
20	32	26	27.5	3.6	3.6	27	16	5	7
22	35	27	30.2	3.6	3.6	27	16	5	2
24	42	33	33.5	5.5	2.2	27	16	6	5
26	42	32	36.5	3.6	2.2	27	16	6	2

Y27C Series (Mounting Type: B)

Shell Size	D	S	ΦD1	Φd	E	L	L1	L2	L3max
16	27	21	22.5	3.6	1.5	27	16	5	2
20	32	25	27.5	3.6	1.5	27	16	6	2
26	43	34	36.5	5.5	2.2	27	16	6	5
30	50	40	42.5	5.5	2.2	27	16	4.5	7

Y27F and Y27G Series (Mounting Type: B)

Shell Size	D	S	ΦD1	Φd	E	L	L1	L2	L3max (F)	L3max (G)
08	21	15	14.5	3.6	1.5	29	17.5	5.5	1.2	1.2
10	22	16	16.5	3.6	1.5	29	17.5	5.5	1.2	1.2
12	24	18	18.5	3.6	1.5	29	17.5	5.5	1.2	2.2
14	26	20	20.5	3.6	1.5	29	17.5	5.5	1.2	1.2
16	27	21	22.5	3.6	1.5	29	17.5	5.5	1.2	1.2
18	30	23	24.5	3.6	2	29	17.5	5.5	1.2	1.2
20	33	15	27.5	3.6	2	29	17.5	5.5	1.2	1.2
22	36	28	30.5	3.6	2	29	17.5	5.5	1.2	1.2
24	39	31	33.5	3.6	2.5	29	17.5	5.5	1.2	1.2
26	42	33	36.5	3.6	2.5	29	17.5	5.5	1.2	1.2
28	45	36	39.5	3.6	2.5	29	17.5	5.5	1.2	1.2
32	52	42	45.5	5.5	2.5	29	17.5	5.5	1.2	6

Y27A Series (Mounting Type: B)

Shell Size	D	S	ΦD1	Φd	E	L	L1	L2	L3max
08	21	15	14.5	3.6	1.5	27	16	5	0
10	22	16	16.5	3.6	1.5	27	16	5	0
12	24	18	18.5	3.6	1.5	27	16	5	1
14	26	20	20.5	3.6	1.5	27	16	5	1
16	27	21	22.5	3.6	1.5	27	16	5	1
18	30	23	24.5	3.6	1.5	27	16	5	2
20	32	25	27.5	3.6	1.5	27	16	5	3
22	35	27	30.5	3.6	1.5	27	16	5	3
24	37	29	33.5	3.6	2.2	27	16	6	0
26	40	31	36.5	3.6	2.2	27	16	6	0

Y27 and Y27A Series (Mounting Type: B1)

shell size	D	S	ΦD1	Φd	E	L	L1	L2	L3max
10	24	18	16.5	3.6	1.5	27	16	5	0
14	27	21	20.5	3.6	1.5	27	16	5	1
16	29	23	22.5	3.6	1.5	27	16	5	1
24	41	32	33.5	3.6	2.2	27	16	6	0
26	44	35	36.5	3.6	2.2	27	16	6	0

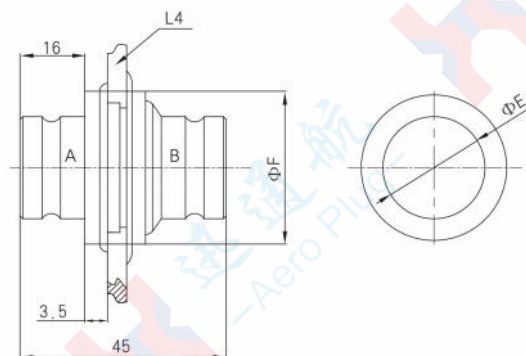
Y27H Series (Mounting Type: B)

shell size	D	S	ΦD1	Φd	E	L	L1	L2	L3max (F)	L3max (G)
26	42	33	36.5	3.6	2.5	29	17.5	5.5	1.2	1.2
28	45	36	39.5	3.6	2.5	29	17.5	5.5	1.2	1.2

5. Overall and Mounting Dimensions of Through-Wall Rubber-Sealed Socket (Mounting Type: B4)

shell size	08	10	12	14	16	20	22	24	26
L4min	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
L4max	5	5	5	5	5	5	5	5	5
ΦF	22	24	26	28	32	37	40	43	46
ΦE	14.5	16.5	18.5	20.5	22.5	27.5	30.5	33.5	36.5

Among them, for model Y27G-1203ZB4M: Total Length: 48 (Unit: mm, default if not specified), Interface Length: 17.5 (Unit: mm, default if not specified), F: 26 (Unit: mm, default if not specified), E: Φ18.5 (Unit: mm, default if not specified); the socket's A-end is mated with a socket-contacted plug, and its B-end is mated with a pin-contacted plug.



VI. Accessories

To facilitate user operation, the Y27 series electrical connectors are supplied with Type I, Type IA, Type IB, Type I, Type IV, Type V, Type VI, Type VII, Type VIII rear accessories and metal dust caps. Users shall fully consider the contents of the following table when selecting these accessories.

Accessory Name, Model		Compatible Electrical Connector Series	Immersion Sealing Performance	Electromagnetic Shielding Function	Compatible Cable	Other Performances
Type II Rear Accessory		Y27、Y27A、B、C	--	Yes	Flexible Wire Harness	To equip the connector with dustproof, moistureproof, rainproof and other protection functions
Type IIA Rear Accessory		Y27、Y27A、B、C	--	Yes	Shielded Mesh Cable Harness	
Type IIB Rear Accessory		Y27F、G、H	--	Yes	Shielded Mesh Cable Harness	
Type III Rear Accessory		Y27、Y27A、B、C、F、G、H	--	--	Flexible Wire Harness	
Type IV Rear Accessory		Y27、Y27A、B、C	--	--	Flexible Wire Harness	
Type V Rear Accessory		Y27F、G、H	Yes	Yes	Shielded Mesh Cable Harness	
Type VI Rear Accessory		Y27F、G、H	Yes	Yes	Shielded Mesh Cable Harness	
Type VII Rear Accessory		Y27F、G、H	--	Yes	Shielded Mesh Cable Harness	
Type VIII Rear Accessory		Y27F、G、H	--	Yes	Shielded Mesh Cable Harness	
Metal Dust Cap	Olive Drab Oxide	Y27、Y27A、B、C	--	--	--	To equip the connector with dustproof, moistureproof, rainproof and other protection functions
	Nickel Plated, with Chain	Y27、Y27A、B、C	--	Yes	--	
	Olive Drab Oxide	Y27F、G、H	--	--	--	
	Nickel Plated, with Chain	Y27F、G、H	--	Yes	--	

Type II Rear Accessory

It is suitable for clamping flexible wire harnesses and can also be used to connect cables with rigid sheaths and shielded meshes. A heat shrinkable tube can be shrunk over the exterior of the rear accessory.

A sealing ring is provided at the junction between the Type II Rear Accessory and the connector.

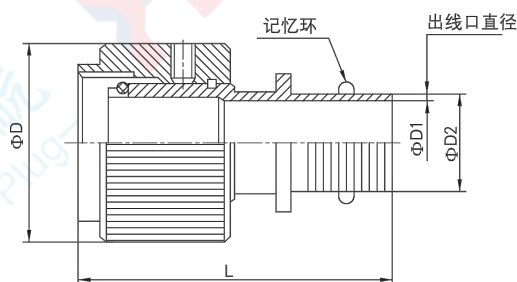
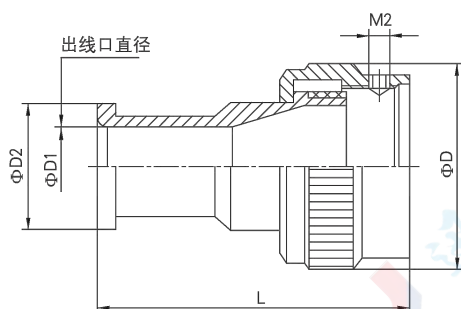
The overall dimensions and models of the Type II Rear Accessory are as follows:

Type IIA Rear Accessory

It is suitable for clamping flexible wire harnesses and can also be used to connect cables with rigid sheaths and shielded meshes. The shielded mesh can be compressed via a retaining ring, and a heat shrinkable tube can be shrunk over the exterior of the rear accessory.

A sealing ring is provided at the junction between the Type IIA Rear Accessory and the connector.

The overall dimensions and models of the Type IIA Rear Accessory are as follows:



Model	Matching Shell Number	ΦD	ΦD1	ΦD2	L
Y27-08 II	08	19	5.5	9.5	36
Y27-10 II	10	21	7.5	11.5	36
Y27-12 II	12	23	9.5	13.5	36
Y27-14 II	14	25	11.5	15.5	36
Y27-16 II	16	27	13.5	17.5	37
Y27-18 II	18	29	15	19.5	37
Y27-20 II	20	33	18.5	22.5	38
Y27-22 II	22	36	21.5	25.5	39
Y27-24 II	24	39	23.5	27.5	39
Y27-26 II	26	42	26.5	30.5	42
Y27-28 II	28	45	28	33.5	42
Y27-30 II	30	47	30	35	45
Y27-32 II	32	50	33	38	45

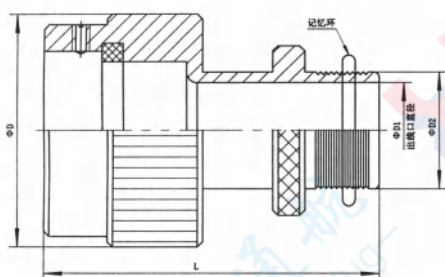
Model	Matching Shell Number	ΦD	ΦD1	ΦD2	L
Y27-08 A	08	20	7.5	9.5	33.5
Y27-10 A	10	22	9	11	33.5
Y27-12 A	12	25	10.7	12.7	33.5
Y27-14 A	14	26	12.3	14.3	33.5
Y27-16 A	16	28	13.9	15.9	35.5
Y27-20 A	20	34	20.2	22.2	37.5
Y27-22 A	22	37	23.4	25.4	37.5
Y27-24 A	24	40	26.5	28.5	38.5
Y27-26 A	26	42	29.8	31.8	41.5
Y27-30 A	30	49	36	38	44.5

Type IIB Rear Accessory

It is suitable for clamping the ends of flexible wires. It can also be used to connect cables with rigid sheaths and shielded meshes. The shielded mesh can be compressed via a retaining ring, and a heat shrinkable tube can be shrunk over the exterior of the rear accessory.

A sealing ring is provided at the junction between the Type IIB Rear Accessory and the connector.

The overall dimensions and models of the Type IIB Rear Accessory are as follows:



Note: The Ti-N alloy retaining rings for Type IIA and Type IIB Rear Accessories are optional parts and shall be purchased separately by the user when placing an order.

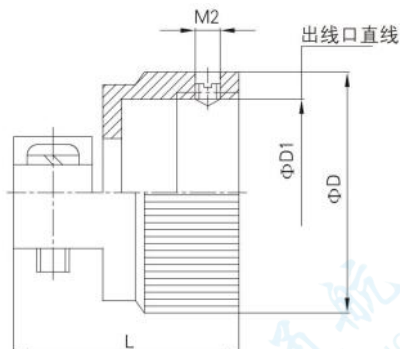
For the usage method of the retaining ring, refer to "General Accessories for XC and Extended Series Electrical Connectors".

Model	Matching Shell Number	ΦD	ΦD1	ΦD2	L
Y27-10 B	10	22	9	11	31.6
Y27-12 B	12	24	10.7	12.7	31.6
Y27-14 B	14	26	12.3	14.3	31.6
Y27-16 B	16	28	13.9	15.9	33.6
Y27-18 B	18	30	17	19	33.6
Y27-20 B	20	33	20.2	22.4	35.6
Y27-22 B	22	36	23.4	25.4	35.6
Y27-24 B	24	39	26.5	28.5	36.6
Y27-26 B	26	42	29.8	31.8	39.6
Y27-28 B	28	45	33	35	39.6
Y27-32 B	32	51	39.3	41.3	39.6

Type III Rear Accessory

It is suitable for clamping flexible wire harnesses. The moistureproof function is only achieved after internal potting.

The overall dimensions and models of the Type III Rear Accessory are as follows:



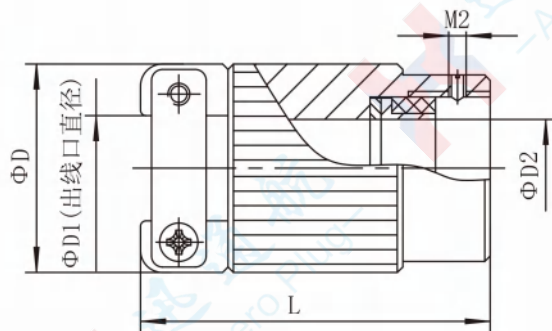
Model	Matching Shell Number	ΦD	ΦD1	ΦL
08III	08	17	6	19
10III	10	19	8	19
12III	12	21	8	19
14III	14	23	10	20
16III	16	25	12	22
18III	18	27	12	22
20III	20	30	16	24
22III	22	33	16	25
24III	24	37	18	26
26III	26	40	24	29
28III	28	42	26	29
30III	30	45	30	35
32III	32	48	36	38

Type IV Rear Accessory

It is suitable for clamping flexible wire harnesses and can also be used to connect cables with rigid sheaths and shielded meshes (especially the extended Type IV Rear Accessory).

A sealing ring is provided at the junction between the Type IV Rear Accessory and the connector, and the moistureproof function is only achieved after internal potting.

The overall dimensions and models of the Type IV Rear Accessory are

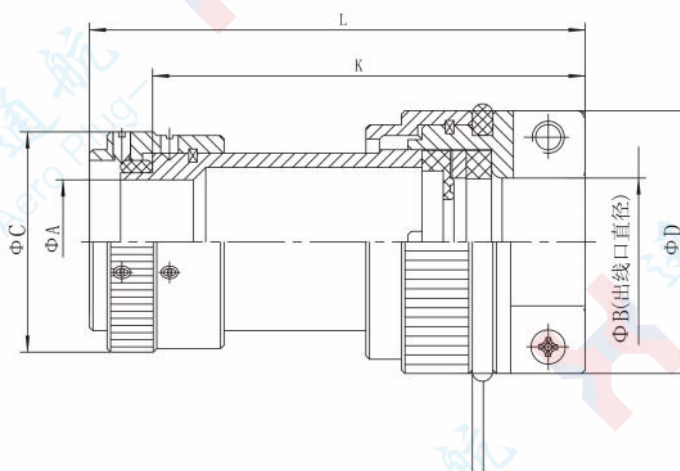


Model	Matching Shell Number	ΦD	ΦD	ΦD2	ΦL
Y27-08IV	08	19	9	9	32
Y27-10TV	10	21	10	10	32
Y27-12IV	12	24	12	12	32
Y27-14IV	14	31	17	13.5	32
Y27-16IV	16	35	22	15.5	32
Y27-18IV	18	34	20	19	32
Y27-20IV	20	37	24	20.8	32
Y27-24IV	24	39	26	25.5	36
Y27-26IV	26	46	28	29	40
Y27-26IVL	26	46	28	29	53
Y27-28IV	28	50	32	32	56
Y27-30IV	30	54	36	35	56
Y27-30IVL	30	54	36	35	85

Type V Rear Accessory

It is suitable for clamping shielded mesh waterproof cables and features sealing and electromagnetic shielding functions.

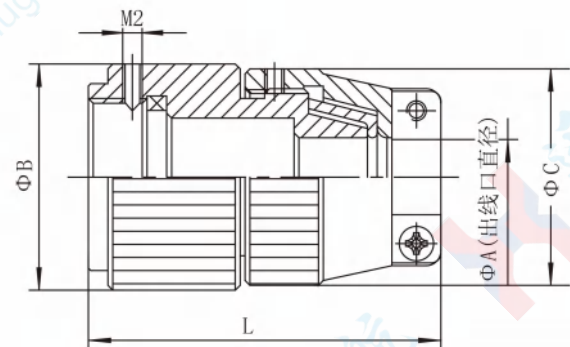
The overall dimensions and models of the Type V Rear Accessory are as follows:



Type VIII Rear Accessory

It is suitable for clamping shielded mesh cables and features an electromagnetic shielding function.

The overall dimensions and models of the Type VIII Rear Accessory are as follows:

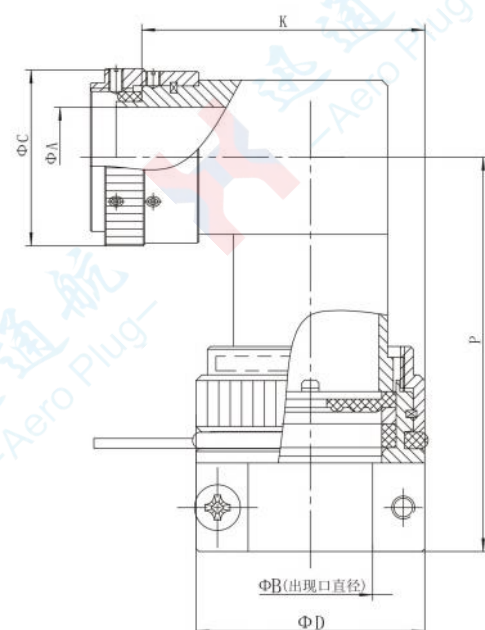


Model	Matching Shell Number	ΦA	ΦB	ΦC	L
Y27-08VIII	08	6	19.5	19.5	36
Y27-10VIII	10	7	22	22	36
Y27-12VIII	12	10	24	24	38
Y27-12VIII X	12	9	24	24	38
Y27-14VIII	14	10.5	26	24	38
Y27-16VIII	16	11	28	26	40
Y27-16VIII A	16	16	28	30	50
Y27-18VIII	18	9	28	24	40
Y27-20VIII	20	16	33	33	42
Y27-24VIII	24	11	39	26	42
Y27-26VIII	26	14	42	28	42

Type VI Rear Accessory

It is suitable for 90° angled cable exit, clamps shielded mesh waterproof cables, and features sealing and electromagnetic shielding functions.

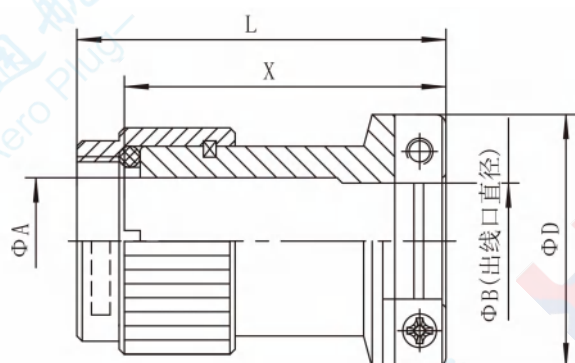
The overall dimensions and models of the Type VI Rear Accessory are as follows:



Model	ΦA	ΦB	ΦC	ΦD	K	L	Tmin	Tmax
Y27-10VA	9.6	11	23	27	54	59	6.0	11.0
Y27-10VD	9.6	13	23	29	54	59	6.0	13.0
Y27-12VA	11.6	11	25	27	46	51	6.0	11.0
Y27-12VB	11.6	13	25	29	54	59	8.0	13.0
Y27-12VC	11.6	15	25	31	54	59	10.0	15.0
Y27-12VD	11.6	18	28	34	54	59	12.0	18.0
Y27-14VA	13.6	11	26	27	47	52	6.0	11.0
Y27-14VB	13.6	13	26	29	47	52	8.0	13.0
Y27-14VD	13.6	15	26	31	57	62	10.0	15.0
Y27-16V	15.6	11	28	27	47	52	6.0	11.0
Y27-16VA	15.6	15	28	31	49	54	10.0	15.0
Y27-16VB	15.6	18	28	34	60	65	12.0	18.0
Y27-18VA	17.6	15	31	31	49	54	10.0	15.0
Y27-18VB	17.6	18	31	34	60	65	10.0	18.0
Y27-18VD	17.6	21	31	37	65	70	12.0	21.0
Y27-18VF	17.6	24	34	40	65	70	14.0	24.0
Y27-20VA	20.6	18	34	34	51	56	12.0	18.0
Y27-20VB	20.6	21	34	37	68	73	14.0	21.0
Y27-20VC	20.6	24	34	40	68	73	16.0	24.0
Y27-20VD	20.6	27	37	43	68	73	18.0	27.0
Y27-22VA	23.6	21	37	37	57	63	14.0	21.0
Y27-22VB	23.6	24	37	40	71	76	16.0	24.0
Y27-22VC	23.6	27	37	43	71	76	18.0	27.0
Y27-22VD	23.6	33	37	51	76	81	22.0	30.0
Y27-24VA	25.6	21	40	37	57	63	14.0	36.0
Y27-24VB	25.6	24	40	40	57	63	16.0	24.0
Y27-24VC	25.6	27	40	43	71	77	18.0	27.0
Y27-24VD	25.6	30	40	48	71	77	20.0	30.0
Y27-24VE	25.6	36	40	54	76	82	24.0	36.0
Y27-26VA	28.6	24	42	40	59	65	16.0	24.0
Y27-26VB	28.6	27	42	43	59	80	18.0	27.0
Y27-26VC	28.6	30	42	48	74	65	20.0	30.0
Y27-28VA	31.6	27	46	43	59	65	18.0	27.0
Y27-28VB	31.6	30	46	48	59	87	20.0	30.0
Y27-28VC	31.6	33	46	51	81	87	22.0	33.0
Y27-28VD	31.6	39	46	57	81	87	28.0	39.0
Y27-28VE	31.6	46	46	65	81	87	28.0	46.0
Y27-32VA	37.6	46	58	65	81	87	28.0	46.0

The Overall Dimensions of the Type VII Rear Accessory

It is suitable for clamping shielded mesh cables and features an electromagnetic shielding function. The overall dimensions and models of the Type VIII Rear Accessory are as follows:



Model	ΦA	ΦB	ΦC	ΦD	K	L	Tmin	Tmax
Y27-12VIC	11.6	15	25	31	40	8.0	15.0	50
Y27-16VI	15.6	15	28	31	49	8.0	15.0	56
Y27-18VID	17.6	21	31	37	46.5	12.0	21.0	67.5
Y27-18VIF	17.6	24	31	40	49.5	14.0	24.0	69
Y27-20VIB	20.6	21	34	37	46.5	14.0	21.0	68.5
Y27-20VIC	20.6	24	34	40	49.5	16.0	24.0	70
Y27-20VID	20.6	27	37	43	52.5	18.0	27.0	71.5
Y27-22VIA	23.6	21	37	37	48	22.0	21.0	73.5
Y27-22VIB	23.6	24	37	40	49.5	16.0	24.0	75
Y27-22VIC	23.6	27	37	43	52.5	18.0	27.0	76.5
Y27-22VID	23.6	33	37	51	59.5	22.0	33.0	84.5
Y27-24V	25.5	15	37	31	49	8.0	15.0	59
Y27-24VIA	25.6	21	37	37	49	14.0	21.0	73.5
Y27-24VIB	25.6	24	37	40	50.5	16.0	24.0	75
Y27-24VIC	25.6	27	40	43	52.5	18.0	27.0	76.5
Y27-24VID	25.6	30	40	48	56.5	20.0	30.0	78
Y27-24VIE	25.6	36	40	54	62.5	24.0	30.0	86
Y27-26VIA	28.6	24	42	40	52	16.0	24.0	76
Y27-26VIB	28.6	27	42	43	53.5	18.0	27.0	77.5
Y27-26VIC	28.6	30	42	48	56.5	20.0	30.0	79
Y27-28VIA	31.6	27	46	43	55	18.0	27.0	77.5
Y27-28VIB	31.6	30	46	48	57.5	20.0	30.0	85.5
Y27-28VIC	31.6	33	46	51	59.5	22.0	33.0	85.5
Y27-28VID	31.6	39	46	57	65.5	28.0	39.0	85.5
Y27-28VIE	31.6	46	46	65	73	28.0	46.0	91.5
Y27-32VIA	37.6	46	58	65	73	28.0	46.0	91.5

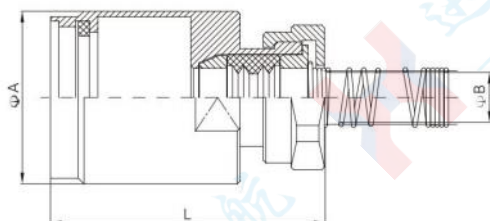
Note: T refers to the allowable outer diameter of the cable sheath at the contact point with the sealing ring of the rear accessory.

Model	ΦA	ΦB	ΦD	X	L
Y27-10VIA	12	12	27	30	35
Y27-12VIA	12	12	27	30	35
Y27-12VB	15	16	31	40	45
Y27-12 C/D	15	19	34	40	45
Y27-14VIA	14	14	29	35	40
Y27-14VB	16	19	34	35	40
Y27-16VIA	16	16	28	35	40
Y27-18VA	19	19	34	35	40
Y27-18VB	21	22	37	50	55
Y27-20VIA	22	22	37	45	50
Y27-20VB	24	25	40	55	60
Y27-22VIA	25	16	40	45	50
Y27-22VB	27	28	43	55	60
Y27-24VIA	25	25	40	45	51
Y27-24VB	39	31	48	60	66
Y27-26VIA	28	28	43	50	56
Y27-28VIA	31	31	48	55	61
Y27-28VB	35	40	57	65	71
Y27-32VIA	41	46	65	65	71

Type X Rear Accessory

It is suitable for clamping shielded mesh cables and features moistureproof and electromagnetic shielding functions.

The overall dimensions and models of the Type X Rear Accessory are as follows:



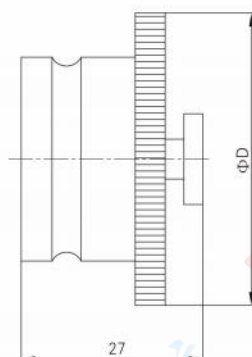
Note: Dimension B is for reference only. Customers can place an order with our factory according to the diameter of the cable used.

Model	Matching Shell Number	ΦA	ΦB	L
Y27-08X	08	18	6	41
Y27-10X	10	21	8	41
Y27-12X	12	24	10	41
Y27-14X	14	25.5	13	41
Y27-16X	16	28	16	41
Y27-18X	18	31	19	46
Y27-20X	20	33	21	46
Y27-22X	22	35	24	56
Y27-24X	24	38	27	51
Y27-26X	26	41	30	51
Y27-28X	28	44	33	51
Y27-30X	30	47	36	51
Y27-32X	32	50	39	61

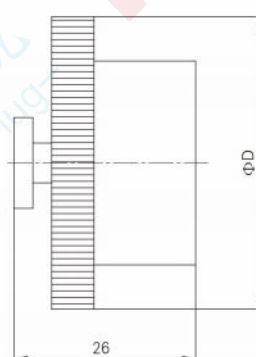
7. Metal Dust Cover

The metal dust cover is used to protect the contacts of the connector from damage when the connector is in the non-mating state, and also provides dustproof, moistureproof and rainproof protection.

金属插头防尘盖



金属插座防尘盖



Suitable for Y27, Y27A, Y27B, Y27C		Suitable for Y27F, Y27G, Y27H		D	Chain Length	Suitable for Y27, Y27A, Y27B, Y27C		Suitable for Y27F, Y27G, Y27H		D	Chain Length
Olive Drab Oxide	Nickel Plated, with Chain	Olive Drab Oxide	Nickel Plated, with Chain			Olive Drab Oxide	Nickel Plated, with Chain	Olive Drab Oxide	Nickel Plated, with Chain		
JS27A-08TH	JS27A-08TN	--	--	20	100	JS27A-08ZH	JS27A-08ZN	--	--	20.5	100
JS27A-10TH	JS27A-10TN	JS27F-08TH	JS27F-08TN	22		JS27A-10ZH	JS27A-10ZN	JS27F-08ZH	JS27F-08ZN	22.5	
JS27A-12TH	JS27A-12TN	JS27F-12TH	JS27F-12TN	24		JS27A-12ZH	JS27A-12ZN	JS27F-12ZH	JS27F-12ZN	24.5	
JS27A-14TH	JS27A-14TN	JS27F-14TH	JS27F-14TN	26.5		JS27A-14ZH	JS27A-14ZN	JS27F-14ZH	JS27F-14ZN	26	
JS27A-16TH	JS27A-16TN	JS27F-16TH	JS27F-16TN	28.5		JS27A-16ZH	JS27A-16ZN	JS27F-16ZH	JS27F-16ZN	29	
JS27A-18TH	JS27A-18TN	JS27F-18TH	JS27F-18TN	30.5		JS27A-18ZH	JS27A-18ZN	JS27F-18ZH	JS27F-18ZN	31	
JS27A-20TH	JS27A-20TN	JS27F-20TH	JS27F-20TN	33.5	150	JS27A-20ZH	JS27A-20ZN	JS27F-20ZH	JS27F-20ZN	34	150
JS27A-22TH	JS27A-22TN	JS27F-22TH	JS27F-22TN	36.5		JS27A-22ZH	JS27A-22ZN	JS27F-22ZH	JS27F-22ZN	37	
JS27A-24TH	JS27A-24TN	JS27F-24TH	JS27F-24TN	39		JS27A-24ZH	JS27A-24ZN	JS27F-24ZH	JS27F-24ZN	39.5	
JS27A-26TH	JS27A-26TN	JS27F-26TH	JS27F-26TN	42		JS27A-26ZH	JS27A-26ZN	JS27F-26ZH	JS27F-26ZN	42.5	
--	--	JS27F-28TH	JS27F-28TN	45		--	--	JS27F-28ZH	JS27F-28ZN	45.5	
JS27A-30TH	JS27A-30TN	--	--	52		JS27A-30ZH	JS27A-30ZN	--	--	48	
--	--	JS27F-32TH	JS27F-32TN	49		--	--	JS27F-32ZH	JS27F-32ZN	49	

Y50EX Series Circular Electrical Connector

This series of electrical connectors complies with GJB598A-96 and references MIL-C-26482 (U.S. Military Standard). The connection method adopts bayonet-type quick coupling and separation, featuring compact size, high density, excellent environmental resistance, and high reliability. Widely used for circuit connection in electrical and electronic equipment such as aerospace, marine, field operations, military vehicles, public transportation power systems, post and telecommunications, and railway command systems, they can be modified into filtered connectors according to customer requirements.

Product Designation Code

XTH	Y	50	EX	-	12	10	T	J	2	W	H	S	L*
XTH	Y	50	EX	-	12	10	Z	K	10	W	H	S	L*
1	2	3	4	5	6	7	8	9	10	11	12	13	



- 1—Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.
- 2—Main Designation Code of Circular Electrical Connector
- 3—Military Standard Registered Design Serial Number
- 4—E-English Series; X-Soldered Potting, P-Soldered Shielded Potting, A-PCB Soldered Potting, C-Non-Magnetic Potting
- 5—Shell Number: 08, 10, 12, 14, 16, 18, 20, 22, 24
- 6—Number of Contact Pairs: 1 ~ 67 contacts, indicated by two digits
- 7—Plug & Socket Category: T-Plug; T1-Reverse-Order Plug corresponding to SJ and SK; Z-Socket
- 8—Contact Category: J- Pin; K-Socket Contact; S-Feedthrough Pin & Socket; SJ-Feedthrough Pin; SK- Feedthrough Socket
One of the plugs matching SJ and SK has a reverse connection order.
- 9—Rear Potting Type: 2 - Cable Boot Type (see Table 1 for details)
—Socket Mounting Type: 10 - Square Panel Mount (see Table 2 for details)
- 10—Anti-Misplug Key Position: N, W, X, Y, Z (N may be omitted) (see Item 4: Anti-Misplug)
- 11—Conductive Plating: P1- Electroless Nickel Plating; P2-Bright Nickel Electroplating; P3-Semi-Bright Nickel Electroplating; E-Stainless Steel Passivation; H1-Black Conductive Plating; H3-Zinc-Nickel Alloy Plating; L2-Cadmium Plating with Military Green Passivation; L5-Bright Chromium Plating
—Non-Conductive Plating: H-Black Anodization; L-Military Green Anodization; L1-Matte Military Green Anodization
- 12—Shell Material: S- Naval Brass (only for P, P2, P3, H1 platings); B- Stainless Steel (Passivated) Aluminum Alloy (no marking)
- 13—PCB Socket Tail Length: L-Length Mark; *—Length Value

Digital Code	1	2	2x	2M	2P	3	4	5	6	5-6	8	8-2
Plug Tail	Ground Compression Type	Cable Boot Type	Double Cable Clamp Plate	Sealed Cable Boot	Shielded Cable Boot	Simplified Potting Type	Anti-Wave & Tensile Type	Bent Cable Protection Type	Wire Spring Cable Protection Type	Bent Wire Spring Type	Cable Protection Microphone Type	Sealed & Tensile-Resistant Type

Table 2

Digital Code	10	20	11	14	10-2	11-2	24
Socket Shell	Square Panel (Front-Mounted Type)	Square Panel (Rear-Mounted Type)	Circular Panel	Nut Fastened Type	Square Base with Cable Clamping Body	Circular Base with Cable Clamping Body	Circular Nut Fastened Type

Product Technical Characteristics

1. Operating Environment Conditions

Operating Temperature: -55°C ~ +125°C

Operating Air Pressure: 4.39kpa ~ 101.33kpa

Relative Humidity: 90%-95% at 40°C±2°C

Relative Humidity: 90%-95% at 40°C±2°C

Sealing Performance: The socket shall withstand an air pressure of not less than 196kpa

Salt Spray: 5% NaCl mist, 48h

Vibration: 10Hz-2000Hz, acceleration 196m/s²

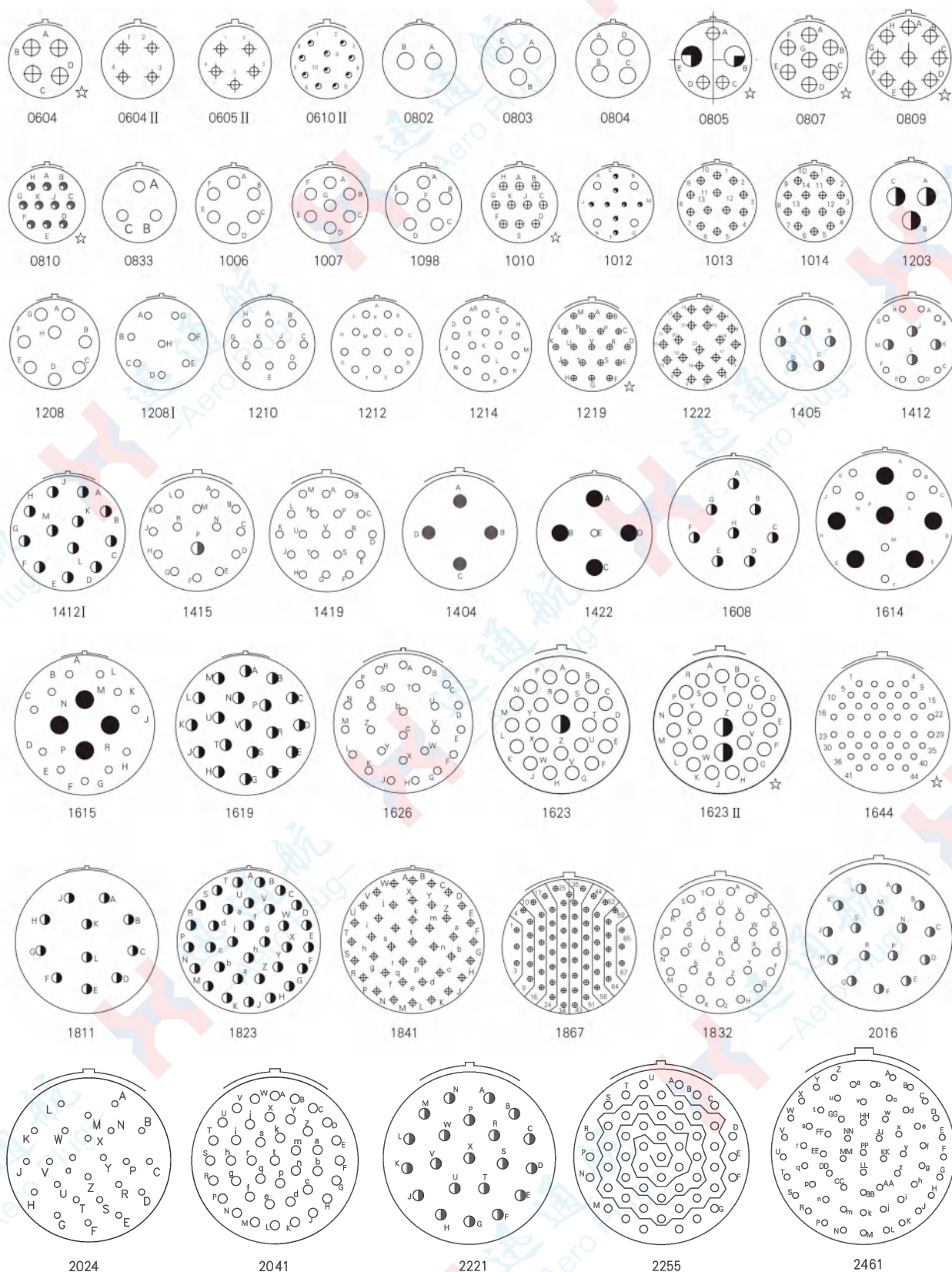
Shock: 490m/s² ≤ 1μs

Mechanical Life: ≥1000 mating/unmating cycles

2. Electrical Characteristics

Contact Symbol	Pin Diameter (mm)	Wire Cross-Sectional Area mm ²)	Contact Resistance (MΩ)	Wire Outer Diameter (mm)		Operating Current (A)	Operating Voltage (AC RMS)			Withstand Voltage (AC RMS)				Insulation Resistance (MΩ)					
				Min	Max		Height	Grade I	Grade	Height	Minimum Test Voltage			Room Temperature					
25#	0.60	0.15	≤20	--	0.90	2					Sea Level	600V	1000V			Sea Level	≥1500V	≥2300V	≥800V
22#	0.80	0.15	≤6	--	0.90	3													
20#	1.00	0.20	≤ 5	1.02	2.11	3													
		0.30				5													
		0.50				7.5													
16#	1.59	0.50	≤3	1.59	2.62	7.5	7000 Feet (439 kPa)	300V	450V	21336m	≥375V	≥ 500V	--	High Temperature	≥500				
		0.80				10													
		1.25				13													
12#	2.39	2.00	≤2	2.39	4.00	17								Finished Cable	Signal	≥ 500V	--	Finished Cable	≥500
		3.15				25								Power Supply	≥ 1 500V	--	Extended Product Spectrum	≥2000	

III. Contact Arrangement (Viewed from the Pin Side)



注：1、接触件直径标志 ○Φ0.5 ●Φ0.6 ⊕Φ0.8 ○Φ2 ○Φ1 ●Φ1.59 ●Φ2.39

2、带“☆”号为扩展型谱

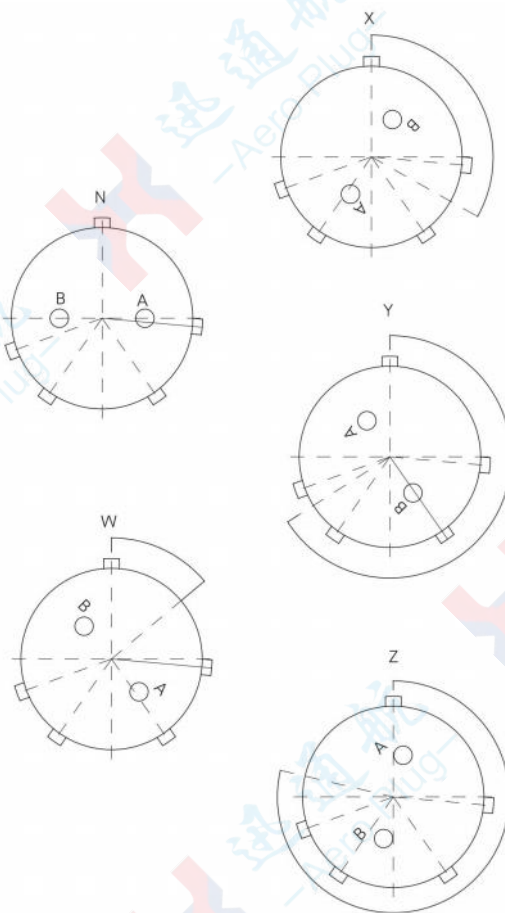
3、型谱1412I 等同于Y50EFX-1412

4、0604 II、0605 II、0610 II 同航联互换

IV. Anti-Misinsertion Key Positions

Keys with different angles are provided on the outer circumference of the insulator. The manufacturer can assemble them by indexing according to the user's requirements, which prevents misinsertion of plugs and sockets of the same specification. Only plugs and sockets of the same type and specification with the corresponding same assembly key number can be mated, while those with different assembly key numbers cannot be inserted. The indexing angles of the keys are shown in the table, and their angular positions are illustrated in the figure.

shell size	Insulation Mounting Plate Arrangement Number	Insulation Mounting Plate Rotation Angle Position (N=0)				Grade I	Grade
		W	X	Y	Z	Withstand Voltage1 500V	Withstand Voltage 2300V
8	2	58	122	--	--	x	
	3	60	210			x	
	3A (98)	60	210			x	
	4	45				x	
	9	68	155	270	314	x	
	33	90				x	
10	10	60	155	270	295		
	6	90				x	
	7	90				x	
	96	90	180	240	270	x	
12	10	60	150	270	295		
	3			180			x
	8	90	112	203	292	x	
	10	60	155	270	295	x	
14	49	30	165	31 5		x	
	4	45	150				x
	5	40	92	184	273		x
	12	43	90			x	
	15	17	110	155	234	x	
	18	15	90	180	270	x	
16	19	30	165	31 5		x	
	8	54	152	180	331		
	14	25	78	180	240	x	
	23	158	270			x	
	26	60		275	338	x	
18	44	30	165	31 5		x	
	19	30	165	31 5		x	
	32	85	138	222	265	x	
	30	180	193	285	350	x	
20	67	24	165	226	31 5	x	
	16	238	31 8	333	347		x
	39	63	144	252	333	x	
	41	45	126	225		x	
	24	70	145	215	290	x	
	25	72	144	216	288	x	
22	27	72	144	216	288	x	
	21	16	135	175	349		x
	36	72	144	216	288	x	
	55	30	142	226	314	x	
24	32	72	145	21 5	288	x	
24	61	80	180	270	324	x	



注:

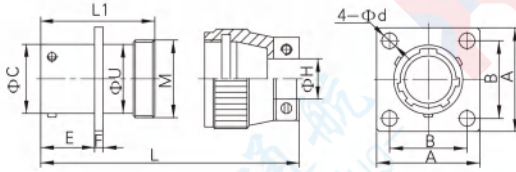
1、Y50EX-0804 W45°

Y50EF-0804 X65°、Y0°、Z115°

2、Y50EX-0807 The W key position has 95 ° and 45 °

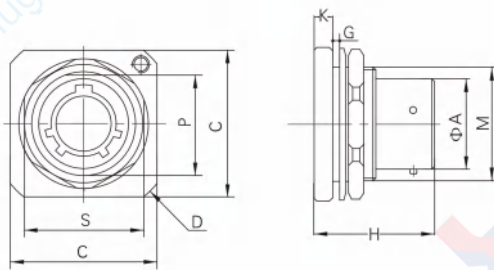
V. Overall Dimensions

1. Cable Mounting Dimensions of Square Socket (Square Flange Type)



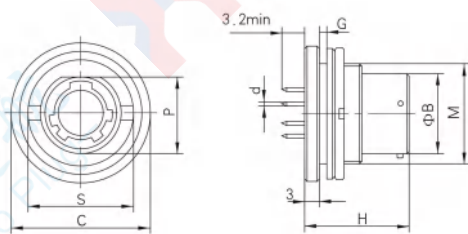
shell size	ΦC	ΦH	ΦU	L	L1	F	M	E		A	B	Φd
								Front Mounting	Rear Mounting			
06	8.8	3-6	8.8	36.5	21.5	2.0		10.95	14.5	18.10	12.50	3.2
0807	12.0	4-6	12.00		21.0	1.5	12x1		14.5	21.00	15.00	3.6
08	12.0	4-6	11.00	36.5	21.5	1.5	1/2-20	10.95	14.5	20.60	15.09	3.6
10	15.0	4-8	15.50	36.5	22.0	1.5	5/8-24	10.95	14.5	24.00	18.30	3.6
12	19.1	5-10	17.50	38.5	21.5	2.0	3/4-20	10.95	14.5	26.20	20.60	3.6
14	22.2	6-14	19.80	43.0	22.0	2.0	21x1	10.95	14.5	30.00	23.00	3.6
16	25.4	6-16	24.00	43.0	21.5	2.0	1-20	10.95	14.5	31.00	24.60	3.6
18	28.6	6-17.5	26.00	44.5	22.0	2.0	27.4x1	10.95	14.5	33.30	27.00	3.6
20	31.8	6-20	29.00	49.0	26.5	2.0	30x1	12.50	19.5	36.50	29.36	3.6
22	34.9	6-24	33.50	49.0	26.5	2.0	35x1	12.50	19.5	40.00	32.00	3.6
24	38.1	6-27	6.00	53.0	26.5	2.0	37.4-20	12.50	19.5	42.90	34.93	3.6

2. Overall Dimensions of Nut-Tightened Socket

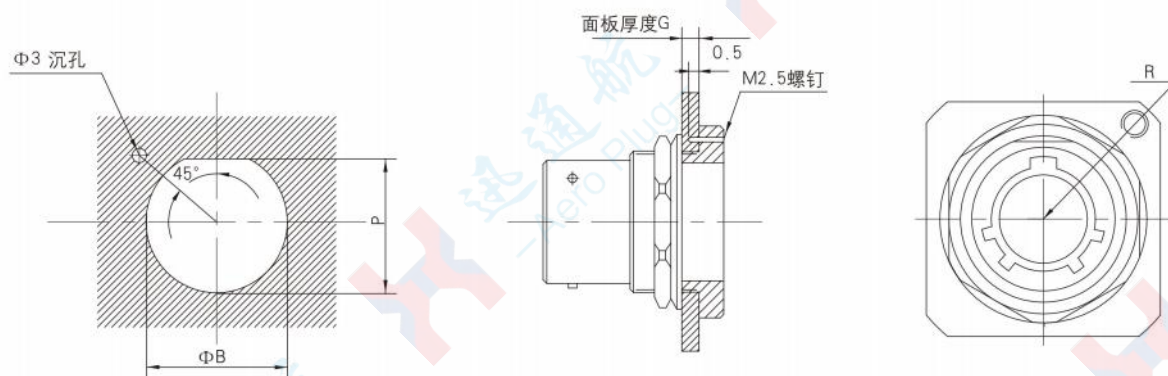


shell size	G		K	H±0.1	A ⁰ _{-0.1}	S ⁰ _{-0.1}	P ⁰ _{-0.1}	C ⁰ _{-0.1}	D	M
	min	max								
06	1.6	3.2	3.2	21.0	8.8	16.50	10.10	18.00	24.00	7/16-28
0807	1.6	3.2	2.5	19.0	12.00	18.00	13.00	19.00	24.50	14x1
08	1.6	3.2	3.2	21.0	12.00	19.10	13.20	23.80	27.26	9/16-20
10	1.6	3.2	3.2	21.0	15.00	22.20	16.50	27.00	30.40	11/16-24
12	1.6	3.2	3.2	21.0	19.10	27.00	21.20	31.80	35.20	7/8-20
14	1.6	3.2	3.2	21.0	22.20	32.00	24.20	34.90	38.40	1-20
16	1.6	3.2	3.2	21.0	25.40	33.30	27.35	38.10	41.50	1 1/8-20
18	1.6	3.2	3.2	21.0	28.60	36.50	30.35	41.30	44.70	1/4-18
20	1.6	6.4	4.0	26.5	31.80	39.70	33.70	46.00	49.40	13/8-18
22	1.6	6.4	4.0	26.5	34.95	44.00	36.60	49.20	52.60	1/2-18
24	1.6	6.4	4.0	26.5	38.10	46.00	40.05	52.50	55.80	15/8-18

3. Overall Dimensions of Printed Circuit Board (PCB) Socket



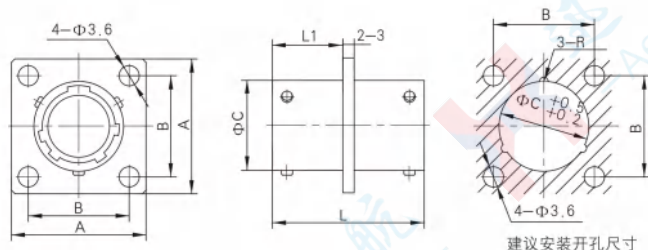
shell size	G		H	B	M	C ⁰ _{-0.1}	Φd	P ⁰ _{-0.1}	ΦS
	min	max							
06	1.6	3.2	19	8.8	7/16-28	18.0	0.8	10.1	17.5
0807	1.6	3.2	19	12.0	14x1	18.0	0.8	13.0	18.0
08	1.6	3.2	19	12.0	9/16-20	23.8	1	13.2	21.0
10	1.6	3.2	19	15.0	11/16-24	27.0	1/1.5	16.5	26.0
12	1.6	3.2	19	19.1	7/8-20	31.0	1/1.5	21.2	30.0
14	1.6	3.2	19	22.2	1-20	34.9	1/1.5	24.2	34.0
16	1.6	3.2	19	2.4	1 1/8-20	36.5	1/1.5	27.35	35.5
18	1.6	3.2	19	26.6	1 1/4-18	41.0	1/1.5	30.35	38.5
20	1.6	6.4	24	31.8	1 3/8-18	43.0	1/1.5	33.7	42.0
22	1.6	6.4	24	34.9	1 1/2-18	46.5	1/1.5	36.6	45.5
24	1.6	6.4	24	38.1	1 5/8-18	50.0	1	40.05	48.5



Panel Mounting Dimensions of Nut-Tightened / PCB Sockets

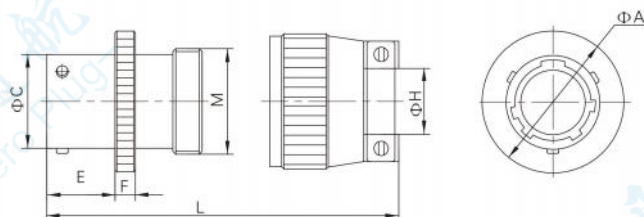
shell size	06	0807	08	10	12	14	16	20	22	22	24
$\Phi B_{+0.1}^0$	11.10	14.1	14.3	17.45	22.20	25.50	28.20	31.85	34.90	38.00	41.25
$P_{+0.1}^0$	10.2	13.1	13.2	16.55	21.30	24.30	27.45	30.45	33.80	36.70	40.15
R	10.25	10.5	11.5	13.50	15.50	17.50	19.00	20.50	23.00	24.50	26.00

4、Overall Mounting Dimensions of Wall-Mounted Socket (Square Flange Type))



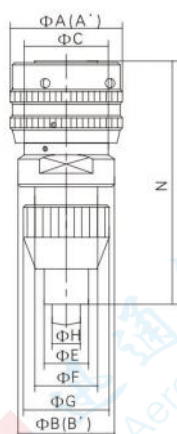
shell size	A	B	ΦC	L	L1	R
0807	21.00	15.00	12.00	28.0	13.0	1.5
08	20.60	15.09	12.00	33.0	14.5	1.5
10	24.00	18.30	15.00	33.0	14.5	1.5
12	26.20	20.60	19.10	33.0	14.5	1.5
14	30.00	23.00	22.20	33.0	14.5	1.5
16	31.00	24.60	25.40	33.0	14.5	1.5
18	33.30	27.00	28.60	33.0	14.5	1.5
20	36.50	29.36	31.78	36.0	16.5	1.5
22	40.00	32.00	34.95	36.0	16.5	1.5
24	42.90	34.93	38.10	36.0	16.5	2.0

5、Cable Mounting Dimensions of Circular Socket

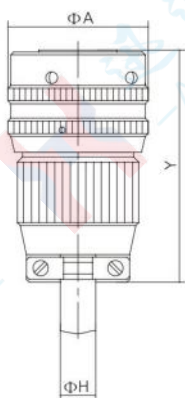


shell size	ΦC	E	F	ΦH	L	ΦA	M
08	12.00	10.05	3.5	4-7	36.5	20.0	1/2-20
10	15.00	10.90	3.5	4-7	36.5	23.0	5/8-24
12	19.10	10.95	3.5	5-10	36.5	27.0	3/4-20
14	22.20	10.95	3.5	6-14	43.0	30.0	21x1
16	25.40	10.95	3.5	6-16	43.0	33.5	1-20
18	28.60	10.95	3.5	6-17.5	44.5	36.5	27.4x 1
20	31.78	12.5 ₀	4.0	6-20	49.0	40.0	30x1
22	34.95	12.50	4.0	6-24	49.0	43.0	35x1
24	38.10	12.50	4.0	6-27	53.0	47.0	37.4-20

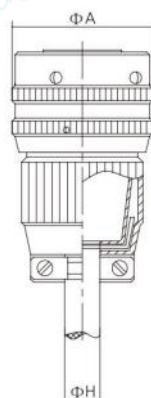
6、Overall and Cable Mounting Dimensions of Plug



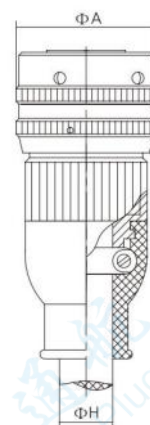
1—接地压紧式



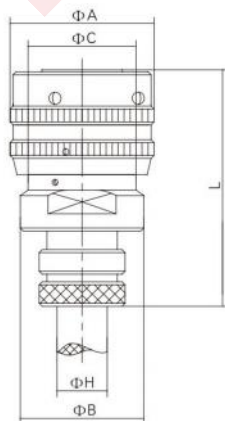
2—电缆夹线式



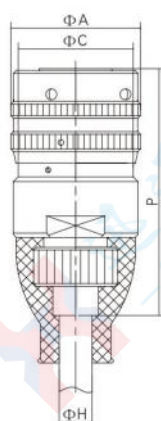
2P—屏蔽电缆罩式



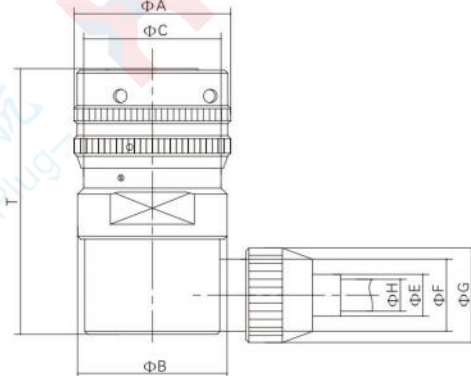
2M—密封电缆罩式



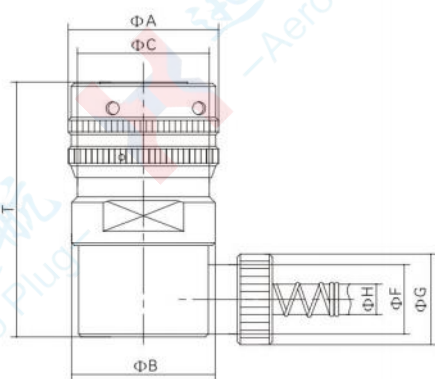
3—简易封装式



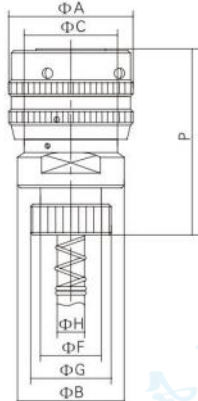
4—防波抗拉式



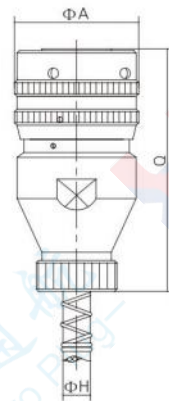
5—弯形护线式



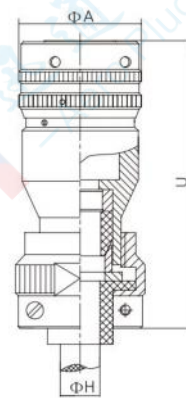
5—6弯形线簧式



6—线簧护线式



8—护线话筒式



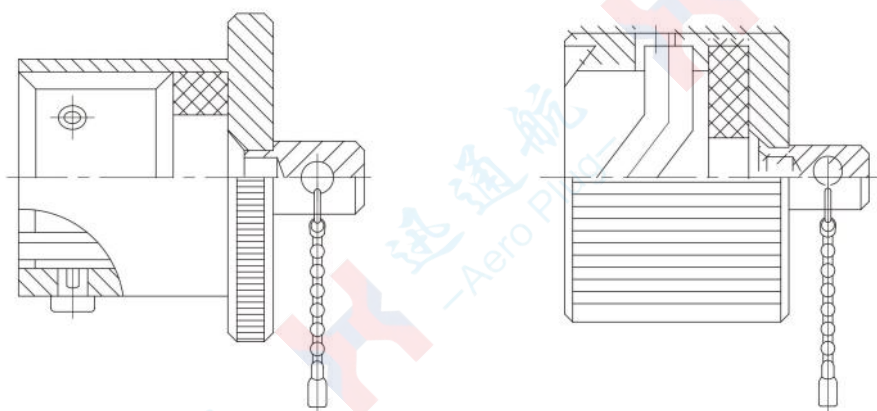
8—2密封抗拉式

shell size	ΦA	ΦB	ΦC	ΦH	ΦE	ΦF	ΦG	N(max)	L(max)	Y(max)	T(max)	$\frac{0}{A'-0.1}$	B'	P(max)	Q(max)	U(max)
06	16		12.5	3-6												
08	19	18	15.5	4-7	7.5	12	17.5	52	45	30	44	24	23	50	55	60
10	22	21	19	4-7	9.1	12	18	52	50	31	44			55	60	65
12	26	26	22	5-10	9.5	13	18	57	50	42	44			55	60	65
14	28.5	27.5	24	6-14	10.3	15	23.5	57	50	45	44			55	60	65
16	31	29.4	27.4	6-16	18	21	26.5	57	50	45	48			60	65	70
18	35	35	29.4	6-17.5	19.5	20	27	57	50	50	48			60	65	70
20	39	39	34	6-20	22	21	28	60.5	50	52	48			65	75	85
22	43	42	36	6-24	26	21	28	60.5	50	52	52			65	75	85
24	45	45	40.5	6-27	29	21	28	60.5	50	52	52			65	75	85

Note: 1. Dimensions E, F, G, and T vary with the cable outlet diameter; the values in the table are reference dimensions.

2. The length and cable outlet diameter of the connector shown in the above figures are all reference dimensions, which can be customized by the user.

VI. Dust Cover



VII. Operation Method

1、The two corresponding parts of the connector adopt internal bayonet connection. Rotate the connecting cap in the clockwise direction; when fully mated and the connecting bayonet is in the locked position, the stainless steel bayonet pin can be seen through the observation holes on the circumference of the connecting cap. To separate, rotate the connecting cap in the counterclockwise direction until separated.

2、Connector soldering must be performed according to the corresponding contact numbers; the soldering time shall not exceed 53 seconds, and the electric soldering iron power shall not exceed 45W (for power series connectors, the electric soldering iron power can be appropriately increased according to the pin diameter).

3、For soldered connectors, soldering must be strictly carried out in accordance with the interface procedure shown in the cable installation diagram.

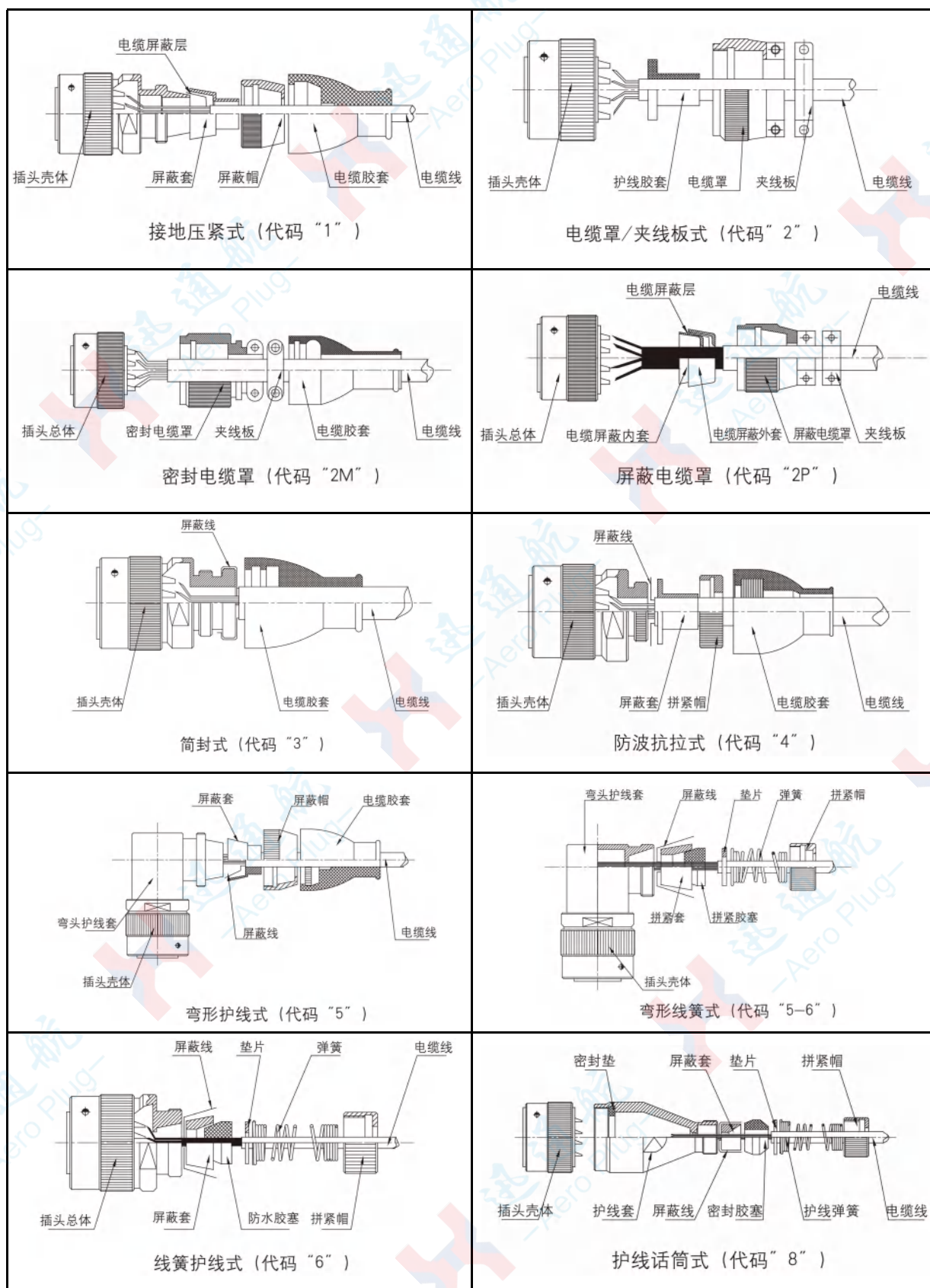
4、When the two parts of the connector need to be separated, separate them and cover with dust covers.

5、It is strictly prohibited to mate pin-equipped plugs with pin-equipped sockets.

6、Personnel responsible for the installation and use of the connector who need to understand the connector's performance and usage methods may contact the technical department of our factory.

7、Do not energize the connector before it is locked; do not separate it under load.

VIII. Cable Installation Diagram



Y50X Series Circular Electrical Connector

This series of electrical connectors complies with GJB101A-1997 and references MIL-C-26482 (U.S. Military Standard). Adopting bayonet-type quick connection and quick disconnection, it features small size, high density, excellent environmental resistance, and high reliability. Widely used in line connections of electrical and electronic equipment in aerospace, marine, field operations, military vehicles, public transportation power, post and telecommunications, railway command systems, etc., it can also be modified into filter connectors according to user requirements.

Product Marking Code

XTH Y 50 X -12 10 T J 2 III H S L*

XTH Y 50 X -12 10 Z K 10 III H S L*

1 2 3 4 5 6 7 8 9 10 11 12 13

1—Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— Main Designation Code for Circular Electrical Connectors

3— Military Standard Filing Design Serial Number

4— Metric Series; X-Welded Potting, P-Welded Shielded Potting,

A-PCB Welded Potting, C-Non-magnetic or Low-magnetic

5— Shell Number: 08、10、12、14、16、18、20、22、24、26、32

6— Number of Contact Pairs: 2~61 contacts, indicated by two digits (e.g., "02" for 2 contacts)

7— Plug/Socket Category: T-Plug; T1--Reverse Sequence Plug corresponding to SJ/SK; Z-Socket

8— Contact Category: J-Pin; K-Socket Contact; S-Through-wall Pin/Socket

SJ-Through-wall Pin; SK-Through-wall Socket

(One of the plugs corresponding to SJ and SK has a reverse connection sequence)

9— Rear Potting Type: 2-Cable Boot Type (see Table 1 for details)

— Socket Mounting Method: 10-Square Panel Type (see Table 2 for details)

10— Anti-misinsertion Key Number: I, II, III, IV, V (III may be omitted, see Item 4: Anti-misinsertion)

11— Conductive Plating: P₁-Electroless Nickel Plating; P₂-Bright Nickel Plating; P₃-Semi-bright Nickel Plating; H₁-Black; L₂-Cadmium Plating (Olive Drab)

— Non-conductive Plating: H-Anodized Black; L-Anodized Military Green;; L₁-Matte Military Green, L₃ -Oxidized White

12— Shell Material: S-Navy Brass (for P₁, P₂, P₃, H platings only); B-Stainless Steel (Passivated); Aluminum Alloy (not marked)

13— PCB Socket Tail Length: L + length value (e.g., L8.5 for 8.5mm tail length)

Note: The "*" symbol in the upper right corner of "X" indicates a shielded plug



Table 1

Digital Code	1	2	2M	2P	3	4	5	6	5-6	8	8-2
Plug Rear	Grounding Compression Type	Cable Boot Type	Sealed Cable Boot	Shielded Cable Boot	Simplified Potting Type	Wave-Resistant and Tensile-Resistant Type	Bent Cable Protection Type	Wire Spring Cable Protection Type	Bent Wire Spring Type	Cable Protection Microphone Type	Sealed and Tensile-Resistant Type

Table 2

Digital Code	10	11	14	10-2	11-2	20	24
Socket Shell	Square Panel (Front-Mounted Type)	Circular Panel	Nut Fastened Type	Square Base with Cable Clamp Body	Circular Base with Cable Clamp Body	Square Panel (Rear-Mounted Type)	Circular Nut Fastened Type

Product Technical Characteristics

1、Operating Environment Conditions

Operating Temperature: $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$

Relative Humidity: 90% ~ 95% at $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$

Operating Air Pressure: 4.39kPa ~ 101.33kPa

Rain Protection: Complies with the provisions of 3.6.17 in GJB101A-97, tested in accordance with the method specified in 4.6.17

Salt Spray Resistance: Complies with the provisions of 3.6.13 in GJB1217A-97, tested in accordance with the method specified in 4.6.13

Mold Resistance: Complies with the provisions of 3.6.2 in GJB101A-97, tested in accordance with the method specified in 4.3.2

Vibration: 10Hz ~ 2000Hz Acceleration 196m/s^2

Shock: Acceleration 980m/s^2

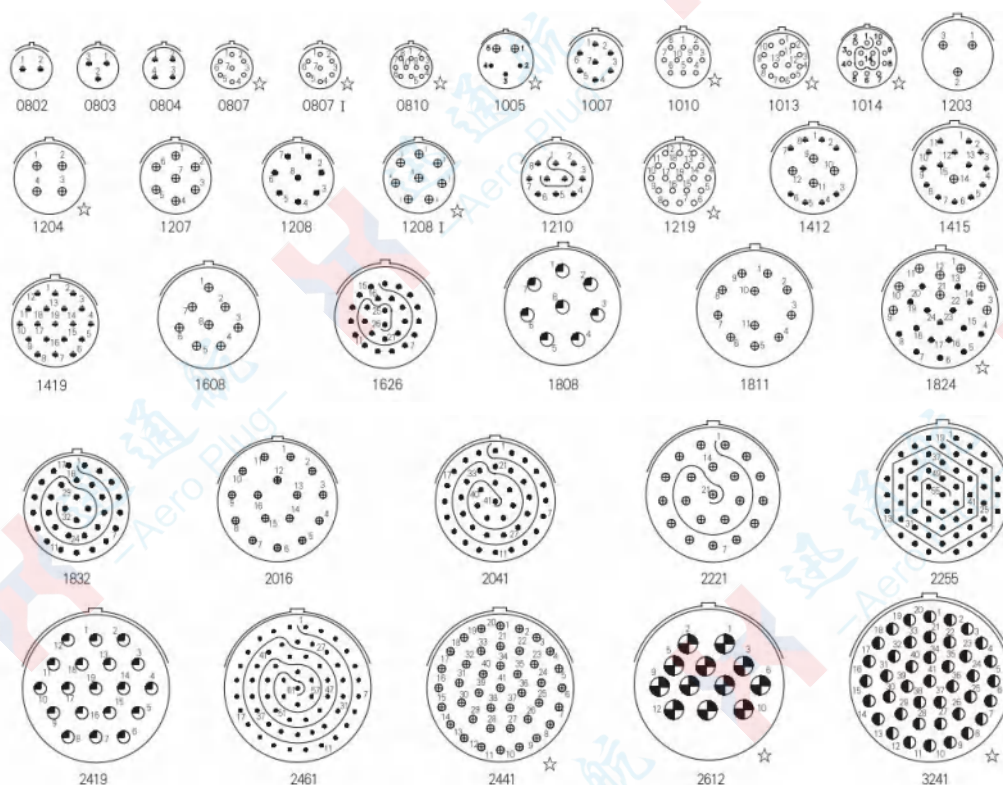
Collision: Acceleration 392m/s^2

Mechanical Life: Plug-in Cycles ≥ 1000 Times

2、Electrical Characteristics

Contact Designation	Pin Mating Diameter (mm)	Wire Cross-Sectional Area (mm²)	Contact Resistance (mΩ)	Wire Outer Diameter (mm)		Operating Current (A)	Operating Voltage (AC RMS)			Operating Voltage (AC RMS)		Insulation Resistance (mΩ)		
				Min	Max					Height	Minimum Test Voltage			
20#	Φ1.00	0.20	≤5	1.2	2.11	5	Height	Grade I	Grade II			Grade I	Grade II	Room Temperature
		Sea Level								≥1500V		≥2300V		
										0.50				
16#	Φ1.5	0.50	≤3	1.7	2.8	10	Sea Level	600V	1000V	21336m	≥375V	-	Humidity	≥20
		0.80												
		1.25												
12#	Φ2.5	2.00	≤2	2.5	3.6	25	21336m	300V	450V	Finished Cable Assembly	Signal	≥500V	High Temperature	≥500
		3.15									Power Supply	≥1500V	Expanded Product Spectrum	≥2000

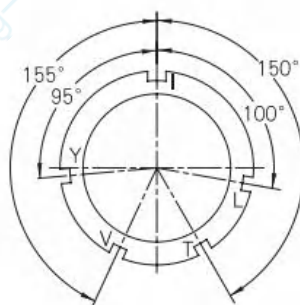
III. Contact Arrangement: (Viewed from the Pin Face)



注：1、接触件直径标志 ○ $\Phi 0.8$ ● $\Phi 1$ ⊕ $\Phi 1.5$ ⊙ $\Phi 2.5$ ● $\Phi 3$ ● $\Phi 4$
2、带“☆”为扩展型谱

IV. Anti-Misinsertion Key Position

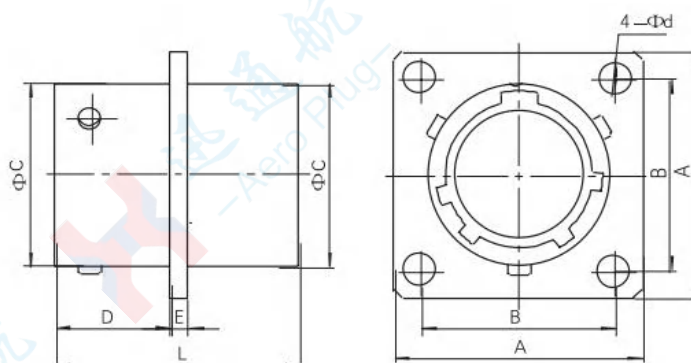
Keys with different angles are opened around the insulator, which can be rotated and assembled by the manufacturer according to the user's requirements to ensure that plugs and sockets of the same specification will not be misinserted. The rotation angles of the keys are shown in the table, and the angle positions are shown in the figure. Due to the deficiencies in the general specification of this product, some product spectrums with circumferentially evenly distributed insulator mounting plate hole arrangements (such as 0804, 1007) do not have five anti-misinsertion rotation positions. When the user selects this function, they can consult the Research Institute of our factory



Marking Code	Five Keyway Installation Letters	Angle Relative to Main Key I
I	V	155°
II	Y	95°
III	I	0°
IV	L	100°
V	T	150°

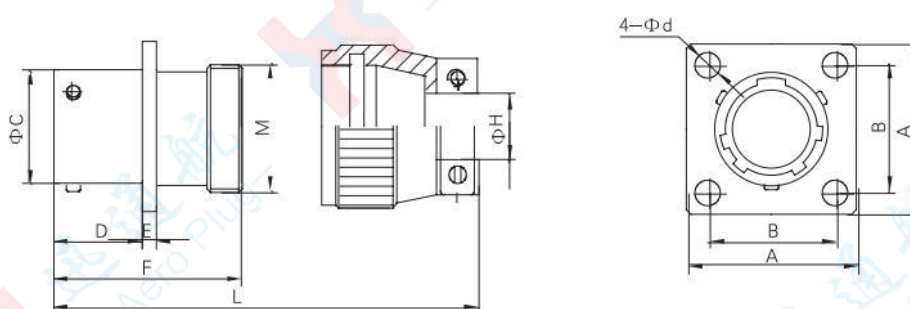
V. Overall Dimensions

1. Square Socket Mounting



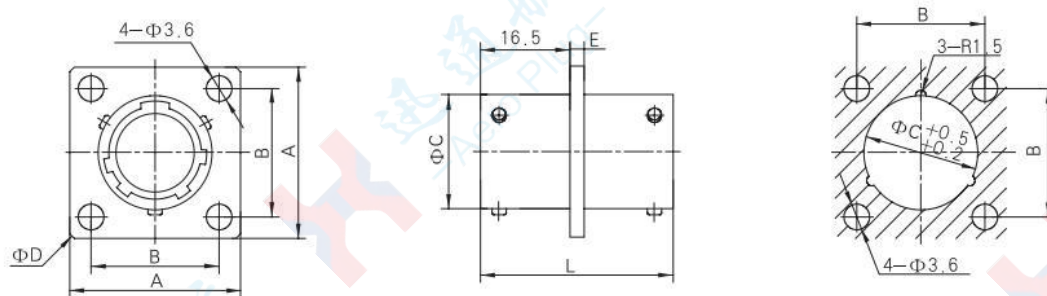
shell size	A	B±0.15	C	E	L	d	D	
							Front Mounting	Rear Mounting
0807	21	15	12	1.5	20	3.6		14.5
08	21	15	13	2	26	3.6	12.5	14.5
10	24	18	16	2	26.5	3.6	12.5	14.5
12	27	21	20	2	26.5	3.6	12.5	14.5
14	30	23	23	2	26.5	3.6	12.5	14.5
16	33	25	26	2	26.5	3.6	12.5	14.5
18	36	27	29	2	27.5	3.6	12.5	14.5
20	39	29	32	2	27.5	3.6	12.5	14.5
22	42	32	35	2	26.5	3.6	12.5	14.5
24	45	35	38	2	27.5	3.6	12.5	14.5
26	48	38	41	2	28.5	3.6	12.5	14.5
32	57.5	47	50	2.5	28.5	5.2	12.5	16

2. Socket Cable Connection Mounting Dimensions



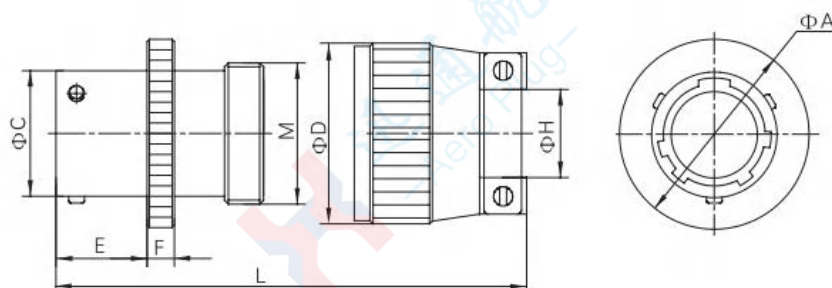
shell size	A	B±0.15	ΦC	E	F	M	ΦH	L	d	D	
										Front Mounting	Rear Mounting
0807	21	15	12	1.5	20	M12×1.0			3.6		14.5
08	21	15	13	2	26	M14×1.0	4-7	41.5	3.6	12.5	14.5
10	24	18	16	2	26.5	M18×1.0	4-7	41.5	3.6	12.5	14.5
12	27	21	20	2	26.5	M20×1.0	5-10	43.5	3.6	12.5	14.5
14	30	23	23	2	26.5	M24×1.0	6-14	49.5	3.6	12.5	14.5
16	33	25	26	2	26.5	M27×1.0	6-16	49.5	3.6	12.5	14.5
18	36	27	29	2	27.5	M29×1.0	6-17.5	49.5	3.6	12.5	14.5
20	39	29	32	2	27.5	M33×1.0	6-20	51	3.6	12.5	14.5
22	42	32	35	2	26.5	M36×1.0	6-24	51	3.6	12.5	14.5
24	45	35	38	2	27.5	M38×1.0	6-27	55	3.6	12.5	14.5
26	48	38	41	2	28.5	M42×1.0	6-27	55	3.6	12.5	14.5
32	57.5	47	50	2.5	28.5	M50×1.0	6-32	62	5.2	12.5	16

3、Through-Wall Socket Overall and Mounting Dimensions



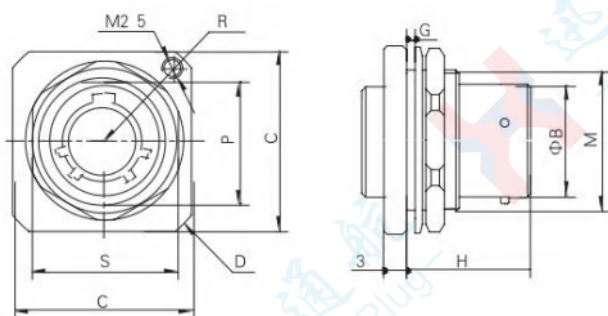
shell size	08	10	12	14	16	18	20	22	24
A	21	24	27	30	33	36	39	42	45
B±0.15	15	18	21	23	25	27	29	32	35
φC	13	16	20	23	26	29	32	35	38
E	3	3	3	3	3	3	3	3	3
L	36	36	35.5	36	36	36	36	36	36
φD	27	33	37	40	44.5	45	50	55	60

4、Circular Socket Cable Mounting Dimensions



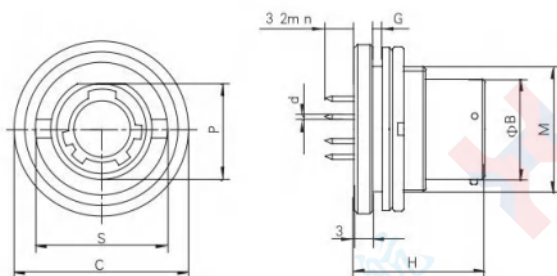
shell size	φC	E	F	D	φH	L	φA	M
08	13.00	12.5	4	16.0	4-6	41.5	23.0	14×1
10	16.00	12.5	4	20.0	4-7	41.5	27.0	18×1
12	20.00	12.5	4	22.0	5-10	43.5	31.0	20×1
14	23.00	12.5	4	26.0	6-14	49.5	34.0	24×1
16	26.00	12.5	4	30.0	6-16	49.5	36.0	27×1
18	29.00	12.5	4	31.5	6-17.5	49.5	39.0	29×1
20	32.00	12.5	4	35.5	6-20	51.0	44.0	33×1
22	35.00	12.5	4	38.6	6-24	51.0	47.0	36×1.5
24	38.00	12.5	4	40.5	6-27	55.0	50.0	38×1.5

5. Nut-Tightened Socket Overall Dimensions



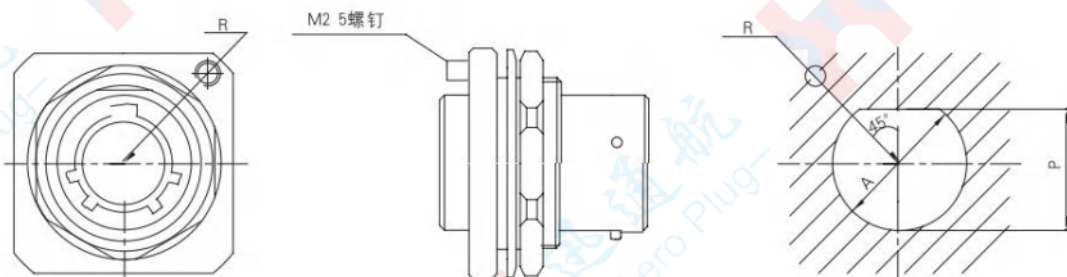
Shell Size	G		H	B	M	$C_1^{+0.0}_{-0.1}$	ϕD	R	$P^{0}_{-0.1}$	S
	min	max								
0807	1.6	3.2	19.0	12	M14×1.0	19	24.5	10.5	13	17
08	1.6	3.2	21.0	13	M16×1.0	24	31.5	13.4	15	22
10	1.6	3.2	21.0	16	M20×1.5	27	33.2	14.4	19	24
12	1.6	3.2	21.0	22	M24×1.5	32	39.2	17.4	23	27
14	1.6	3.2	21.0	23	M27×1.5	36	42.2	18.9	26	30
16	1.6	3.2	21.0	26	M30×1.5	38	45.2	20	29	32
18	1.6	3.2	21.0	29	M33×1.5	41	47.2	21.7	32	36
20	1.6	3.2	23.5	32	M36×1.5	46	50.2	23.2	35	41
22	1.6	3.2	23.5	35	M39×1.5	50	54.2	25	38	43
24	1.6	3.2	23.5	38	M42×1.5	53	56.2	26.2	41	46

6. Printed Circuit Board Socket Overall and Mounting Dimensions



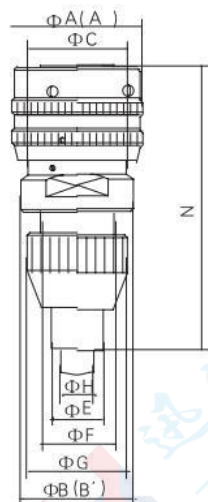
Shell Size	G		H	B	M	$C_1^{+0.0}_{-0.1}$	$P^{0}_{-0.1}$	S
	min	max						
0807	1.6	3.2	19.0	12	M14×1.0	19	13	18
08	1.6	3.2	21.0	13	M16×1.0	24	15	23
10	1.6	3.2	21.0	16	M20×1.5	27	19	26
12	1.6	3.2	21.0	22	M24×1.5	32	23	31
14	1.6	3.2	21.0	23	M27×1.5	36	26	35
16	1.6	3.2	21.0	26	M30×1.5	38	29	37
18	1.6	3.2	21.0	29	M33×1.5	41	32	40
20	1.6	3.2	23.5	32	M36×1.5	46	35	45
22	1.6	3.2	23.5	35	M39×1.5	50	38	49
24	1.6	3.2	23.5	38	M42×1.5	53	41	52

7. Panel Mounting Dimensions for Nut-Assembled / Printed Circuit Board Socket

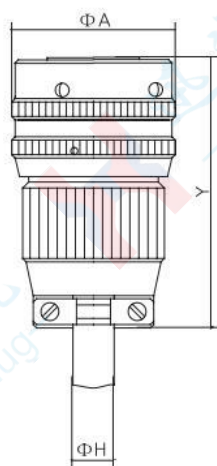


Shell Size	0807	08	10	12	14	16	18	20	22	24
$\phi A \pm 0.1$	14.2	16.0	20.0	24	27	30	33	36	39	42
$P \pm 0.1$	13.1	15.1	19.1	23.1	26.1	29.1	32.1	35.1	38.1	41.1
$R \pm 0.1$	10.5	13.4	14.4	17.4	18.9	20	21.7	23.2	25	26.2

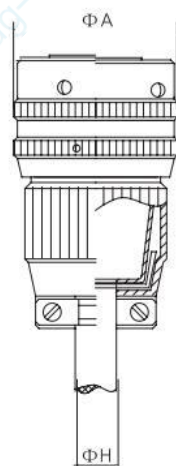
8、Plug Overall Dimensions



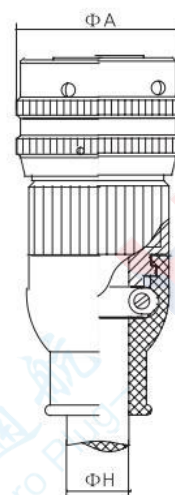
1-接地压紧式



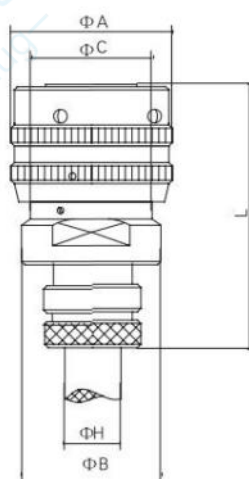
2-电缆夹线式



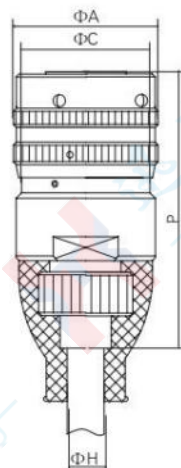
2P-屏蔽电缆罩式



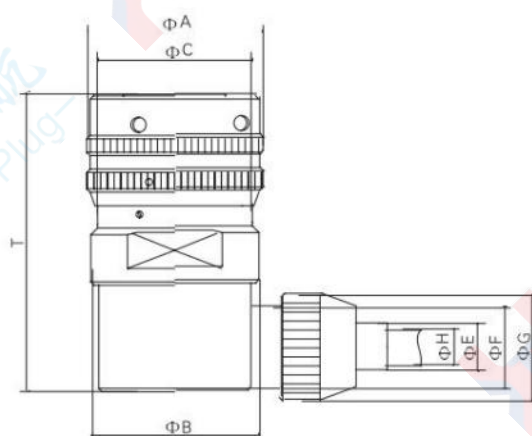
2M-密封电缆罩式



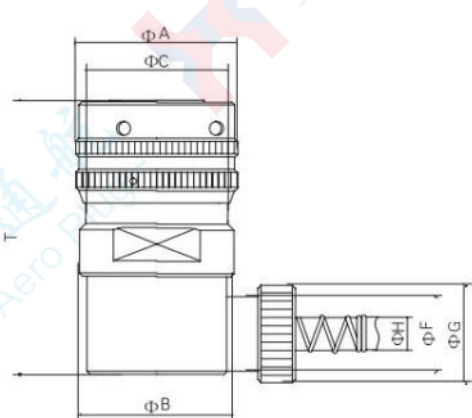
3-简易封装式



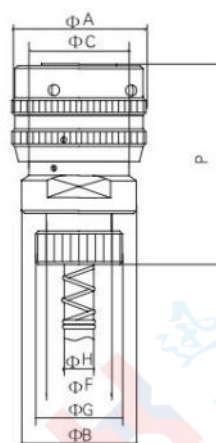
4-防波抗拉式



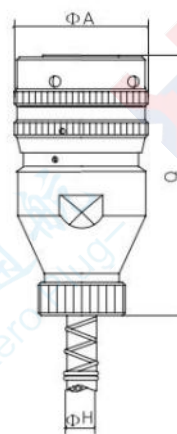
5-弯形护线式



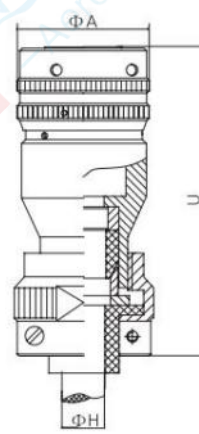
5-6弯形线簧式



6-线簧护线式



8-护线话筒式



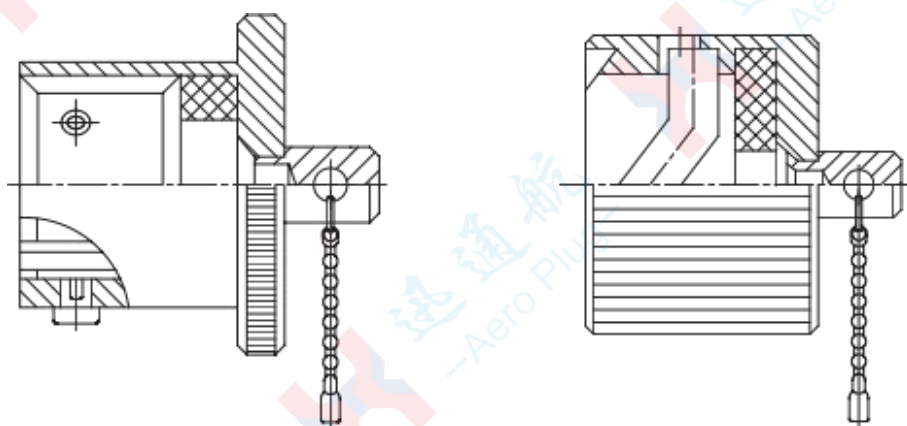
8-2密封抗拉式

shell size	φA	φB	φC	φH	φE	φF	φG	N (max)	L (max)	Y (max)	T (max)	A _{0.1} ⁰	B'	P (max)	Q (max)	U (max)
08	20	18	16	4-7	7.5	12	17.5	55	45	37	45	25	24	55	60	65
10	23	22.5	20	4-7	9.1	13	18	60	50	37	45			60	65	70
12	26	25	22.5	5-10	10	17	21	60	50	45	54			60	65	70
14	30	29	26	6-14	11.5	16	22	60	50	46	58			60	65	70
16	33.5	33	30	6-16	18	20	30	60	50	47	58			65	70	75
18	35	35	32	6-17.5	20	22	30	60	50	47	60			65	70	75
20	39	39	35.5	6-20	23	28	32	60	50	50	60			70	80	90
22	43	42	37	6-24	24	29	32	60	50	55	65			70	80	90
24	46	46	43	6-27	26	29	32	60	50	56	65			70	80	90

Note: 1. Dimensions E, F, G, and T vary according to the cable outlet diameter; the values in the table are reference dimensions.

2. The length and cable outlet diameter of the connector shown in the above figure are both reference dimensions, which can be customized by the user.

VI. Dust Cover



Ordering Instructions for Dust Cover

Y50X	0800	80R	H
1	2	3	4

- 1— Model (Including Y50X, Y50EX, Y50DX))
- 2— Shell Size
- 3— 80—Plug Metal Dust Cover with Retaining Clip
81—Socket Metal Dust Cover with Retaining Clip
80R—Plug Metal Dust Cover with R Washer
81R—Socket Metal Dust Cover with R Washer
- 4— H—Black Nylon Cord
L—Olive Drab Nylon Cord
G—Steel Wire Rope
T—Stainless Steel Chain

VII. Operation Method and Cable Installation Method are the Same as Those of Y50EX

Y50DX Series Circular Electrical Connector

This series of electrical connectors complies with GJB101A-1997 standard and is an extended product of Y50X. The overall dimensions and mounting dimensions of plugs and sockets in the power series with the same shell size are interchangeable. It adopts bayonet connection, featuring quick connection and quick disconnection, small volume, light weight, and excellent environmental resistance. It is suitable for the connection of high-current power supply series.

Product Marking Code

XTH Y 50 DX -12 031 T J 2 III H S ϕ Wire Gauge
 XTH Y 50 DX -12 031 Z K 2 III H S ϕ Wire Gauge
 1 2 3 4 5 6 7 8 9 10 11 12



- 1— Enterprise Designation of Shenzhen Xuntonghang Electroni
- 2—Main Designation Code of Circular Electrical Connector
- 3— Military Standard Registered Design Serial Number
- 4—DX—Power Supply Series (representing potting type, refer to Y50X)
- 5—Shell Size: 10、12、14、16、18、20、22、24、28、32、D4
- 6—Number of Contact Pairs: 02, 03, 04, 05, 06 (with "I" indicating non-standard spectrum category number)
- 7— Plug and Socket Category: T-Plug; T1-Reverse Sequence Plug corresponding to SJ and SK Z-Socket
- 8— Contact Category: : J-Pin; K-Socket Contact; S-Through-Wall Pin and Socket; SJ-Through-Wall Pin; SK-Through-Wall Socket (one of the plug connection sequences corresponding to SJ and SK is reversed (T1));
- 9— Rear Potting Type: 2—Cable Boot Type (see Table 1 of Y50X for details)
 — Socket Mounting Method: 10-Square Panel Type (see Table 2 of Y50X for details)
- 10— Anti-Misinsertion Key Position Number: I, II, III, IV, V (III may be omitted, see Item 4 Anti-Misinsertion)
- 11— Conductive Plating: P₁-Electroless Nickel Plating; P₂-Bright Nickel Plating; P₃-Semi-Bright Nickel Plating; H₁-Black; L₂—Copper Plated Olive Drab
 — Non-Conductive Plating: H-Anodized Black; L-Anodized Olive Drab; L1-Matte Olive Drab, L3-Oxidized White
- 12— Shell Material: S-Naval Brass (only for P, PZ, P3, H platings) ; B-Stainless Steel (Passivated) ; Aluminum Alloy (not marked)

Note: A "*" marked in the upper right corner of "DX" indicates a shielded plug

Product Technical Characteristics

I. Operating Environment Conditions

Operating Temperature: -55°C ~ +125°C (For temperatures above 150°C, please specify when ordering; a "*" can be marked at the top left corner of the shell size)

Relative Humidity: 90%-95% at 40°C±2°C

Operating Air Pressure: 4.39kPa ~ 101.33kPa

Vibration: 10Hz-2000Hz, Acceleration 196m/s²

Shock: Acceleration 980m/s²

Mechanical Life: ≥500 Insertion/Extraction Cycles

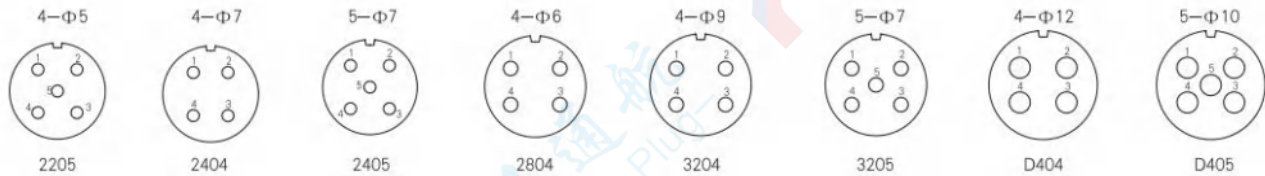
II. Electrical Characteristics

Contact Pair Diameter (ϕ , mm)	1.5	2.39	2.5	3	3.5	4	5	6	7	9	10	12
Operating Current (A)	10	25	30	50	50	60	75	100	100	150	200	250
Contact Resistance (m Ω)	≤3	≤2	≤2	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1	≤1
Solder Cup Diameter (ϕ , mm)	1.7	2	3	3	3.5	4	5.5	6	7	9	10	11

Withstand Voltage: ≥1500V Insulation Resistance: ≥3000M Ω at Normal Temperature, ≥20M Ω in Humid Environment, ≥500M Ω at High Temperature

III. Contact Arrangement (Viewed from the Pin Side)

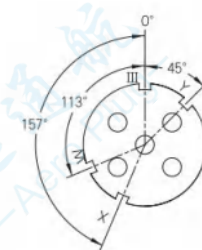
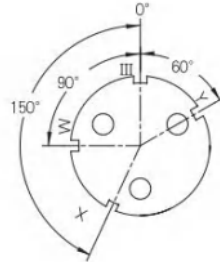
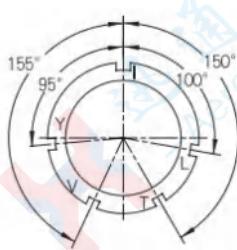




IV. Anti-Misinsertion Key Positions

Keys with different angles are provided around the insulator, which can be assembled in rotated positions by the manufacturer according to the user's requirements to prevent misinsertion of plugs and sockets of the same specification. The rotation angles of the keys are shown in the figure below.

This product refers to GJB101A standard. Due to the particularity of the spectrum arrangement of 3-core, 4-core, 5-core and 6-core types, they do not have five anti-misinsertion rotation positions. When the user selects this function, please consult the Research Institute of our factory.



Anti-Misinsertion Rotation of 3-Core Contact Spectrum

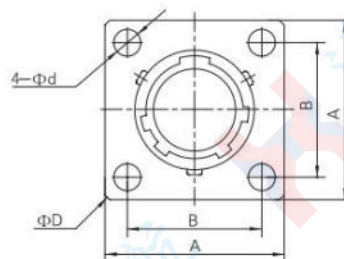
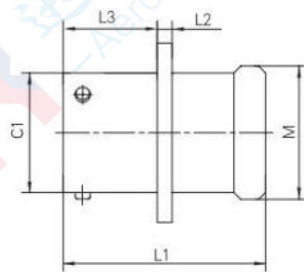
Anti-Misinsertion Rotation of 4-Core and 5-Core

Marking Code	Five Keyway Installation Letters	Angle with Main Key I
I	V	155°
II	Y	95°
III	I	0°
IV	L	100°
V	T	150°

For the 3-core, 4-core, and 5-core types of this series, if the conventional anti-misinsertion rotation angles are adopted (as shown in the left figure), it will be difficult to control misinsertion. It is recommended to use the rotation angles shown in the above figure for reference when users select the product, and the requirement shall be specified when ordering.

V. Overall Dimensions

The overall dimensions, mounting dimensions, and cable outlet diameter corresponding to the Y50DX series are the same as those of the Y50X series.



shell size	L1	L2	L3	C1	M	A	B	d	D
28	33.2	2.5	12.5	45.3	46	50	41	5.2	67
32	28.5	2.5	12.5	50	50	57.5	47	5.2	76
D4	70	6	30	70	70	80	60	6.5	110

VI. Operation Methods and Cable Installation (Same as Y50EX Series)

Y50PD Series Circular Electrical Connector

This product is designed with reference to GJB101A-1997 and MIL-C-26482 standards, serving as an extended product of the Y50X series. Plugs and sockets with the same shell size feature interchangeable mounting dimensions, adopting a bayonet-type quick-connect and quick-disconnect mechanism. Equipped with soldered contacts, it enables high current transmission and boasts unique load connection and disconnection characteristics. Widely used for line connections between various power stations and electrical equipment.

Product Marking Code

XTH Y 50 PD -16 04 T J 2 III H S φWire Gauge

XTH Y 50 PD -16 04 Z K 10 III H S φWire Gauge

1 2 3 4 5 6 7 8 9 10 11 12

1— Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— Main Designation Code of Circular Electrical Connector

3— Military Standard Registered Design Serial Number

4— PD-Load (Creepage) Power Connector

5— Shell Size: 16,18,20,22,24,28,32

6— Number of Contact Pairs: 03, 04

7— Plug and Socket Category: T-Plug; T1-Reverse Sequence Plug Corresponding to SJ and SK; Z-Socket

8— Contact Category: J-Pin; K-Socket; S-Through-Wall Pin/Socket

SJ-Through-Wall Pin; SK--Through-Wall Socket

One of the plugs corresponding to SJ and SK has the opposite connection sequence (T1);

9— Rear Encapsulation Type: 2-Cable Boot Type (see Table 1 for details)

— Square Panel Type (see Table 2 for details)

10— Anti-Misinsertion Key Position Number: I, II, III, IV, V (Note: III may be omitted, refer to Section IV Anti-Misinsertion)

11— Conductive Plating: P1-Electroless Nickel Plating; P2-Bright Nickel Plating; P3-Semi-Bright Nickel Plating; H1-Black; L2-Olive Drab Cadmium Plating

— Non-Conductive Plating: H-Anodized Black; L-Anodized Military Green; L1-Matte Military Green, L -Oxidized White

12— Shell Material: S-Navy Brass (only for P1, P2, P3, H platings); B-Stainless Steel (Passivated);

Aluminum Alloy (no marking)

Note: A "*" symbol in the upper right corner of "DX" indicates a shielded plug

Table 1

Digital Code	1	2	2M	2P	4	5	6	5-6	8
Plug Rear	Ground Compression Type	Cable Boot Type	Sealed Cable Boot	Shielded Cable Boot	Waveproof and Tensile Type	Bent Cable Protection Type	Wire Spring Cable Protection Type	Bent Spring Type	Cable Protection Microphone Type

Table 2

Digital Code	10	11	14	10-2	11-2	20	24
Socket Housing	Square Panel (Front-Mounted)	Round Panel	Nut Fastening Type	Square Base with Cable Clamp Body	Round Base with Cable Clamp Body	Square Panel (Rear-Mounted Type)	Round Nut Fastening Type

Product Technical Characteristics

1、Operating Environment Conditions

Operating Temperature: -55℃ to +125℃ (For operating temperature above 150℃, please specify when placing an order; a "*" symbol can be added at the top left corner of the product shell number)

Relative Humidity: 90%-95% at 40℃±2℃

Operating Air Pressure: 4.39kPa to 101.33kPa

Vibration:

10Hz-2000Hz, acceleration 196m/s²

Shock: Acceleration 980m/s²

Impact: Acceleration 392m/s²

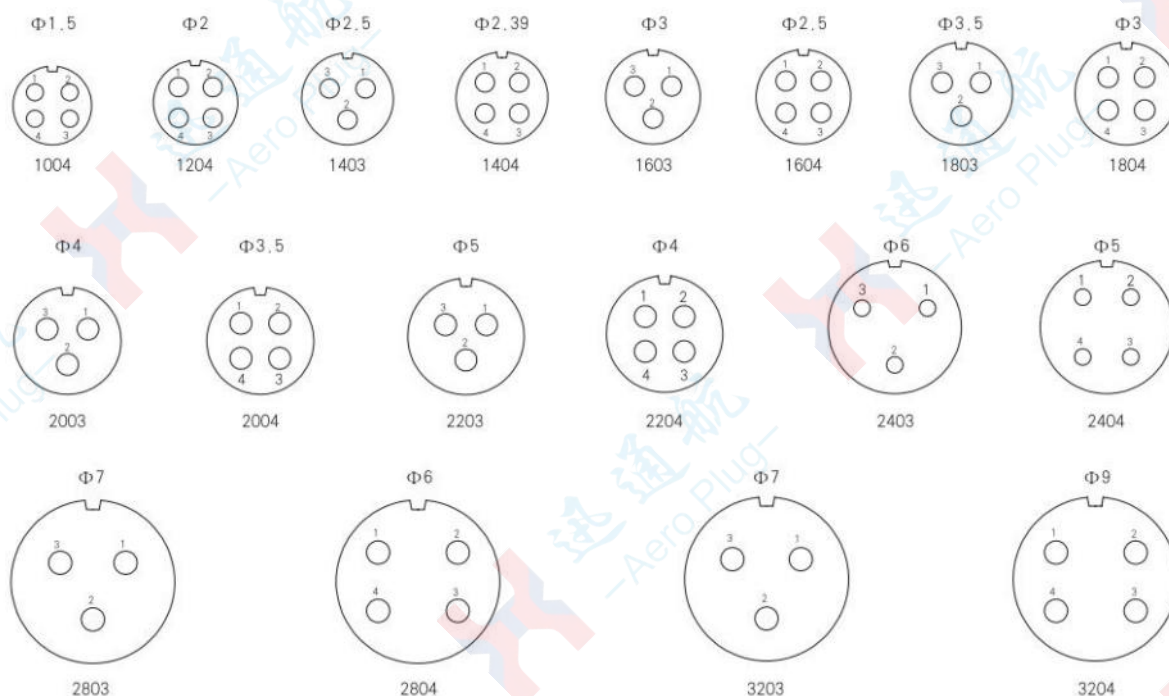
Mechanical Life: Plug-in cycles ≥500 times



II. Electrical Characteristics

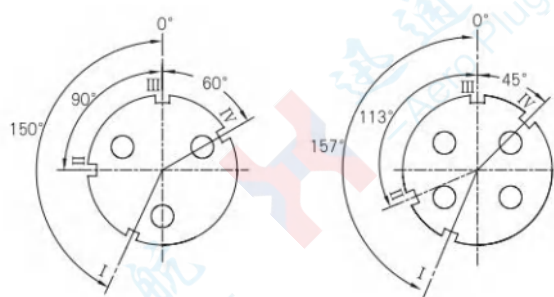
Contact Diameter (Φ , mm)	1.5	2.39	2.5	3	3.5	4	5	6	7	8	9
Operating Current (A)	15	20	25	35	50	50	60	75	100	100	100
Contact Resistance ($M\Omega$)	≤ 3	≤ 3	≤ 3	≤ 2	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1
Solder Cup Diameter (Φ , mm)	1.7	2	2	3	3	3.5	4	5.5	6	7	9

III. Contact Arrangement (Viewed from the Pin Side)



IV. Anti-Misinsertion

Keys with different angles are provided on the outer circumference of the insulator. The manufacturer can assemble them by rotating the keys according to the user's requirements, which prevents misinsertion of plugs and sockets of the same specification. Only plugs and sockets of the same type and specification with the corresponding assembly key serial number can be mated, while those with different assembly key serial numbers cannot be inserted. The rotation angles of the keys are shown in the figure on the right.



V. Mounting Dimensions of Electrical Connector Plug and Socket and Cable Dimensions (Refer to Y50X Series)

VI. Operation Method and Cable Installation Method are the Same as Those of Y50EX

XCN Series High-Reliability Sealed Wire Spring Connectors

This series of electrical connectors complies with GJB2889 standard. It adopts bayonet-type quick connection and disconnection, featuring convenient operation, reliable connection, vibration resistance and shock resistance. The contacts are of welded type, utilizing hyperboloid wire spring sockets, which offer characteristics such as smooth insertion/extraction, low contact resistance, water resistance, moisture resistance, salt spray resistance and mold resistance. Additionally, it possesses anti-slant insertion, anti-misinsertion and tail accessory anti-rotation sealing functions. Widely used in military fields including aviation, aerospace, ordnance, ships and field communications, as well as line connections of post and telecommunications, railways, computers and various instruments and meters.

Product Technical Characteristics

I. Operating Environment Conditions

Operating Temperature: -55°C~200°C

Relative Humidity: Up to 95% at 40°C

Operating Altitude: 30,000m

Salt Spray Resistance: Nickel-plated aluminum alloy surface: Salt spray resistance for 200h;

Hard anodized aluminum alloy shell surface: Salt spray resistance for 200h;

Nickel-plated copper alloy shell surface: Salt spray resistance for 500h;

Passivated stainless steel shell surface: Salt spray resistance for 1000h;

Hermeticity: For through-wall sealed adapter sockets, when bearing an internal and external pressure difference of 1 atmospheric pressure, the air leakage rate $\leq 1 \times 10^{-3} \text{ Pa} \cdot \text{cm}^3/\text{s}$

II. Mechanical Characteristics

Sinusoidal Vibration: Frequency 10 ~ 2000Hz, Acceleration 196m/s²

Random Vibration: Power Spectral Density 0.6G²/Hz, Acceleration RMS Value 28.4G

Shock: Acceleration 980m/s²

Constant Acceleration: 980m/s²

Mechanical Life: 1000 cycles

Implemented Enterprise Standard: Q/HD20093

III. Electrical Performance

Insulation Resistance: $\geq 5000 \text{ M}\Omega$ at room temperature; $\geq 100 \text{ M}\Omega$ under damp heat conditions

Withstand Voltage & Rated Voltage:

—General Connectors

Operating Environment	Operating Class							
	N		I		II		III	
	Withstand Voltage V	Rated Voltage V	Withstand Voltage V	Rated Voltage V	Withstand Voltage V	Rated Voltage V	Withstand Voltage V	Rated Voltage V
At Room Temperature	1000	300	1500	500	2000	650	3000	1000
Under Damp Heat Conditions	750	250	1125	375	1500	500	2250	750
Low Pressure Condition (1kPa)	200	60	300	100	400	130	600	200

—Hermetically Sealed Connector (Glass Sintered Type))

Operating Environment	Operating Class							
	N		I		II		III	
	Withstand Voltage V	Rated Voltage V	Withstand Voltage V	Rated Voltage V	Withstand Voltage V	Rated Voltage V	Withstand Voltage V	Rated Voltage V
At Room Temperature	1000	300	1500	500	2000	650	3000	1000
Under Damp Heat Conditions	500	150	750	250	1000	300	1500	500
Low Pressure Condition (1kPa)	200	60	300	100	400	130	600	200

Contact Resistance and Rated Current:

Contact Size mm	Contact Resistance mΩ	Rated Current A	Inner Diameter of Wire Solder Sleeve mm	Inner Cross-Sectional Area of Wire Solder Sleeve mm ²	Compatible Core Cross-Sectional Area mm ²
Φ0.635	25	1	Φ0.8	0.5	≤ 0.35
Φ1.0	5	5	Φ1.3	1.3	≤ 0.9
Φ1.5	2.5	10	Φ1.8	2.5	≤ 1.75
Φ2.0	1.25	20	Φ2.5	4.9	≤ 3.43
Φ2.5	1	25	Φ2.5	4.9	≤ 3.43
Φ3.0	0.75	40	Φ3.4	9	≤ 6.3
Φ3.5	0.5	45	Φ4	12.56	≤ 8.8
Φ4.5	0.41	60	Φ5.5	23.7	≤ 16.6
Φ10	0.2	200	Φ10	78.5	≤ 55
Φ12	0.15	250	Φ15	149.5	≤ 104

Through-wall Sealed Adapter Socket: Compatible with two plugs (Type U and Type T) with different mounting holes; the contact resistance of the contacts is 6 times the value in the table.

Through-wall Non-sealed Adapter Socket: Compatible with two standard plugs; the contact resistance of the contacts is 2 times the value in the table.

Product Marking Code

XTH XCN 14 T 4 K1 P13 (W) -03
1 2 3 4 5 6 7 8 9

1—Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Main Designation of Circular Electrical Connector (Equivalent to XC158)

3—Shell Size: 12, 14, 18, 22, 24, 27, 30, 33, 36

4—Plug/Socket Type: T—Plug;

F—Square Flange Socket;

Y—Round Flange Socket

L—Pin Anti-rotation Nut Fastened Socket ;

LA—Flat Anti-rotation Nut Fastened Socket

U—Left Plug (Only for left plugs matched with through-wall sealed adapter sockets)

5—Number of Contacts: 1 ~ 129 (See "Contact Arrangement Diagram")

6—Contact Type: Z1—Pin with Gold Plating; K1—Socket with Gold Plating

7—Shell Plating:

Shielded Plating: P13—With Thread at Tail, Optional Accessory, Aluminum Alloy with Nickel Plating;

P11—With Thread at Tail, Optional Accessory, Copper Alloy with Nickel Plating

P40—With Thread at Tail, Optional Accessory, Stainless Steel with Passivation

DP13—Without Thread at Tail, Aluminum Alloy with Nickel Plating

DP11—Without Thread at Tail, Copper Alloy with Nickel Plating

DP40—Without Thread at Tail, Stainless Steel with Passivation

Unshielded Plating: E22—With Thread at Tail, Optional Accessory, Aluminum Alloy with Hard Anodization

DE22—Without Thread at Tail, Aluminum Alloy with Hard Anodization

8—Key Position: No Mark—N Key、(W)—W Key、(X)—X Key、(Y)—Y Key、(Z)—Z Key

9—Modification Code: -03 Square Flange Socket, Rear Panel Mounting (Panel Thickness ≤6mm)

Notes:

①[F] For square flange sockets (non--03 type) requiring accessory installation at the tail, the panel thickness at the user's site shall not exceed 4mm, and the mounting hole spacing is recommended to be handled according to the maximum value of E:

②[F] If there are waterproof requirements inside and outside the panel, ensure the surface roughness and flatness of the panel, and perform separate waterproof treatment on the screws after installing the square flange socket or drill the four mounting holes as blind threaded holes;

③[Y] Round flange sockets are suitable for electrical transfer occasions without through-wall installation;

④[L] The recommended panel opening size for pin anti-rotation nut fastened sockets is the size viewed from the mating end towards the panel; do not drill the pin hole in the wrong position;

⑤[L] If there are waterproof requirements inside and outside the panel, ensure the surface roughness and flatness of the panel, and perform separate waterproof treatment on the pins after installing the pin anti-rotation nut fastened socket or drill the pin holes as blind holes;

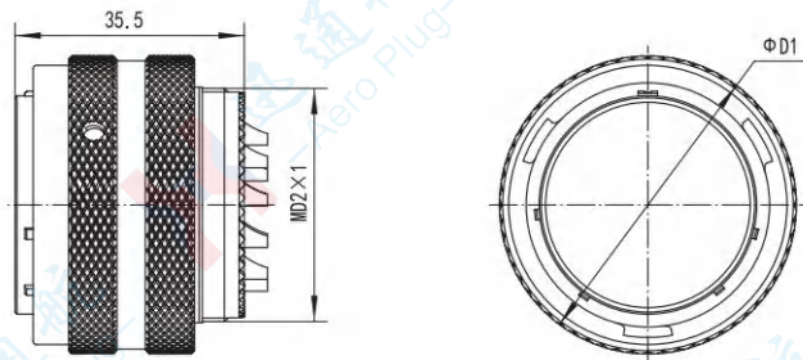
⑥[L/LA] For the two types of nut fastened sockets, if the panel thickness is between 3 ~ 6mm, only a single nut can be used. After installation, anti-loosening treatment shall be performed on the nut; if the panel thickness is between 2 ~ 3mm, double nuts can be used for fastening;

⑦[U] Left plugs shall be mated with the outer end of the panel of through-wall sealed sockets (corresponding diagrams are provided in the through-wall sealed socket data);

⑧[F/L/LA] If square flange sockets need to be equipped with conductive square flange gaskets, add C2 at the end of the model; if nut fastened sockets need to be equipped with conductive O-rings, add C5 at the end of the model.

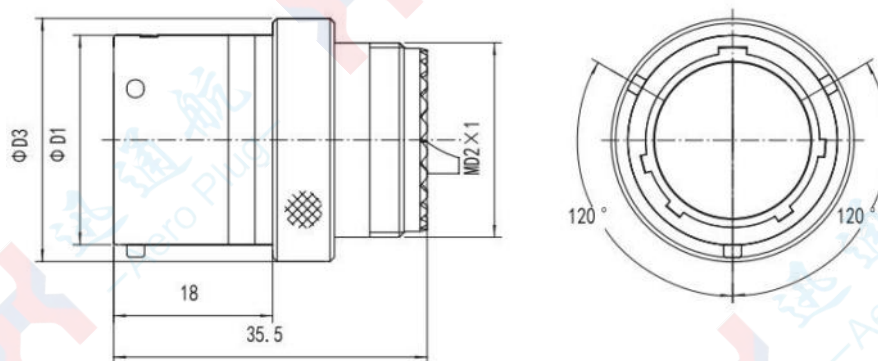
Overall Dimensions

1 .XCN Plug (Left Plug)



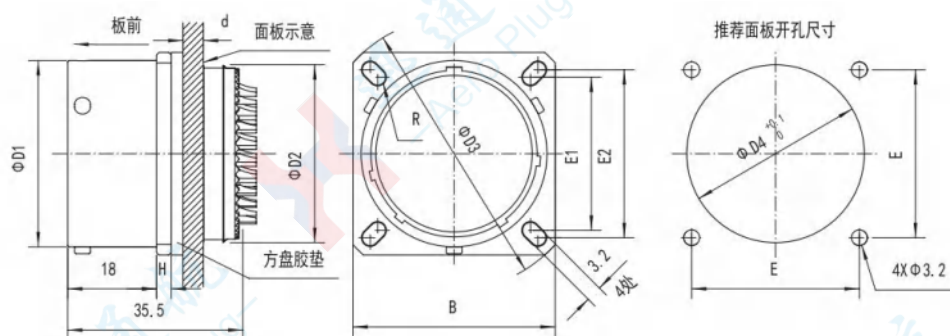
shell size	D1	D2
12	20.0	12
14	23.0	14
18	27.2	18
22	30.5	22
24	33.5	24
27	37.0	27
30	40.0	30
33	43.0	33
36	46.0	36

2 .XCN Round Flange Socket



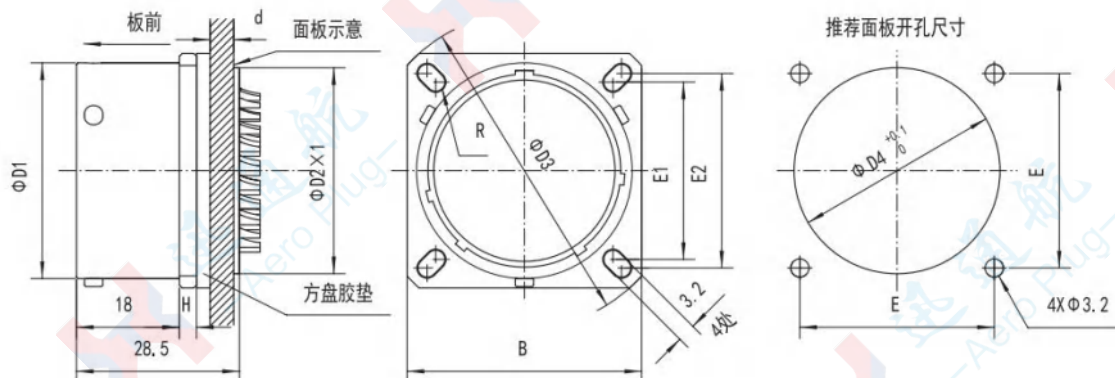
shell size	D1	D2	D3
12	13.7	12	17.5
14	15.7	14	20.5
18	19.7	18	22.5
22	23.7	22	27.5
24	25.7	24	30.5
27	28.7	27	33.5
30	31.7	30	36.5
33	34.7	33	39.5
36	37.7	36	42.5

3.XCN Square Flange Socket (With Thread at Tail, Front Panel Mounting)



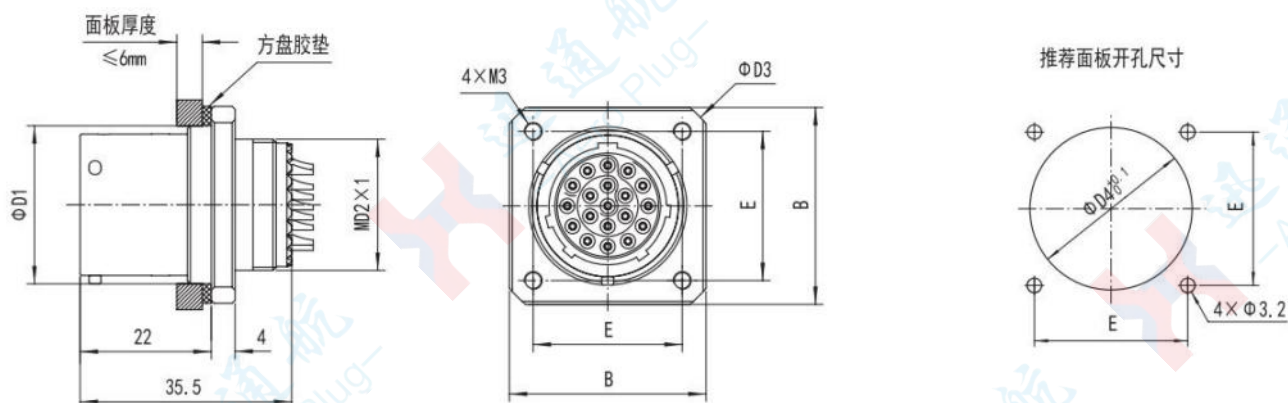
shell size	D1	D2	H	D3	B	E1	E2	D4	E
12	13.7	12	2.5	30.04	23	14	17	12.1	14~17
14	15.7	14	2.5	32.87	25	16	19	14.1	16~19
18	19.7	18	2.5	36.4	27.5	18.5	21.5	18.1	18.5~21.5
22	23.7	22	2.5	39.94	30	21	24	22.1	21~24
24	25.7	24	2.5	42.77	32	23	26	24.1	23~26
27	28.7	27	3	46.06	34.5	25	28	27.1	25~28
30	31.7	30	3	48.32	36.5	27	30	30.1	27~30
33	34.7	33	3	52.96	39.5	29.5	32.5	33.1	29.5~32.5
36	37.7	36	3	55.08	41	31	34	36.1	31~34

4.XCN Square Flange Socket (Without Thread at Tail, Front Panel Mounting)



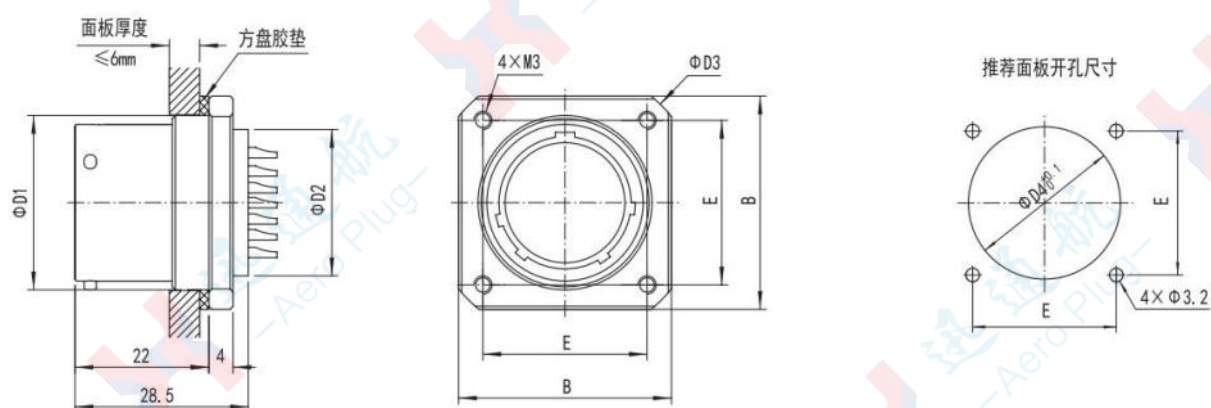
shell size	D1	D2	H	D3	B	E1	E2	D4	E
12	13.7	12	2.5	30.04	23	14	17	12.1	14~17
14	15.7	14	2.5	32.87	25	16	19	14.1	16~19
18	19.7	18	2.5	36.4	27.5	18.5	21.5	18.1	18.5~21.5
22	23.7	22	2.5	39.94	30	21	24	22.1	21~24
24	25.7	24	2.5	42.77	32	23	26	24.1	23~26
27	28.7	27	3	46.06	34.5	25	28	27.1	25~28
30	31.7	30	3	48.32	36.5	27	30	30.1	27~30
33	34.7	33	3	52.96	39.5	29.5	32.5	33.1	29.5~32.5
36	37.7	36	3	55.08	41	31	34	36.1	31~34

5.XCN-F-03 Square Flange Socket (With Thread at Tail, Rear Panel Mounting)

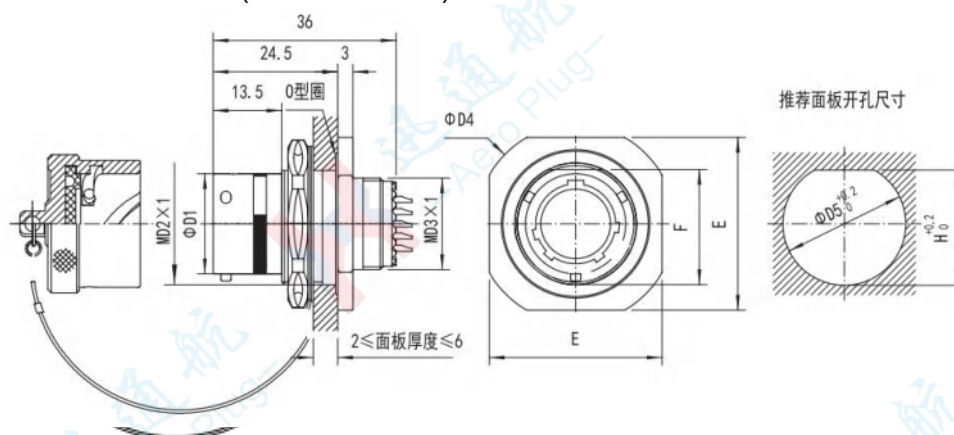


shell size	D1	D2	D3	D4	B	E
12	15.9	12	30	16.1	23	17
14	17.9	14	33	18.1	25	19
18	22.5	18	38	22.7	29	22.5
22	26.5	22	43	26.7	33	25
24	28.4	24	46	28.6	35	27
27	31.4	27	49.5	31.6	38	29
30	34.4	30	53	34.6	41	31
33	37.4	33	57.5	37.6	44	33.5
36	40.4	36	61	40.6	47	35

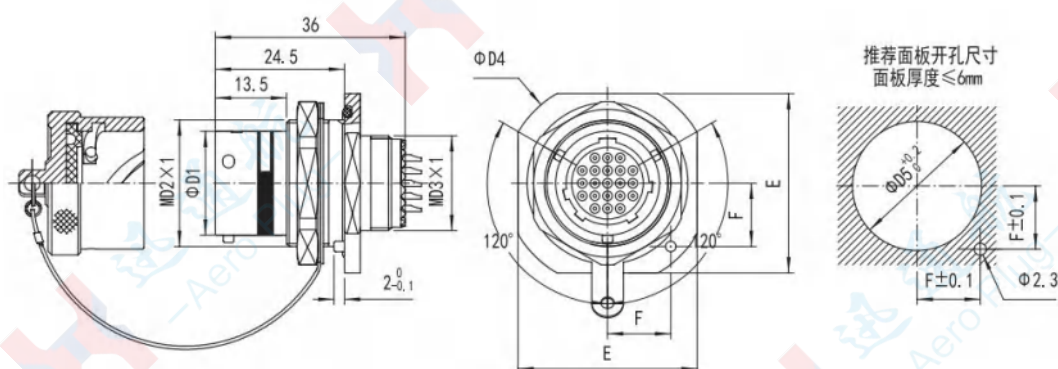
6.XCN-F-03 Square Flange Socket (Without Thread at Tail, Rear Panel Mounting)



shell size	D1	D2	D3	D4	B	E
12	15.9	12	30	16.1	23	17
14	17.9	14	33	18.1	25	19
18	22.5	18	38	22.7	29	22.5
22	26.5	22	43	26.7	33	25
24	28.4	24	46	28.6	35	27
27	31.4	27	49.5	31.6	38	29
30	34.4	30	53	34.6	41	31
33	37.4	33	57.5	37.6	44	33.5
36	40.4	36	61	40.6	47	35

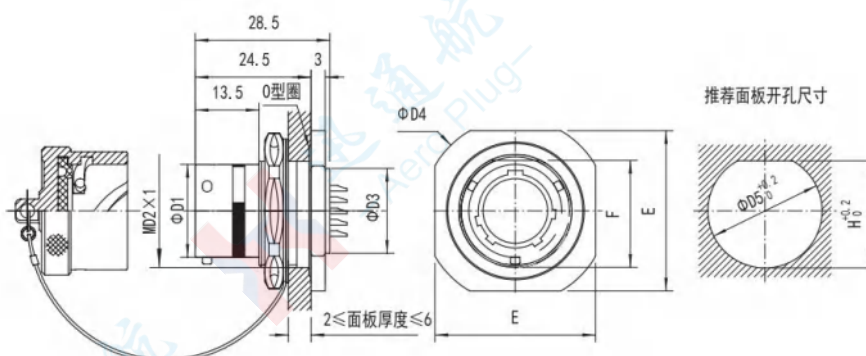
7.XCN-LA Nut Fastened Socket (Flat Anti-rotation)


shell size	D1	D2	D3	D4	D5	E	F	H
12	13.7	18	12	33	18.2	26	16.5	16.7
14	15.7	20	14	34	20.2	28	18.5	18.7
18	19.7	24	18	39	24.2	34	22.5	22.7
22	23.7	27	22	42	27.2	36	25.8	26
24	25.7	30	24	46	30.2	38	28.5	28.7
27	28.7	33	27	46	33.2	41	31.5	31.7
30	31.7	36	30	50	36.2	44	34.5	34.7
33	34.7	39	33	55	39.2	49	37.5	37.7
36	37.7	42	36	60	42.2	54	40.5	40.7

8.XCN-L Nut Fastened Socket (Pin Anti-rotation)


shell size	D1	D2	D3	D4	D5	E	F
12	13.7	18	12	33	18.2	26	10
14	15.7	20	14	34	20.2	28	10
18	19.7	24	18	39	24.2	34	12
22	23.7	27	22	42	27.2	36	13
24	25.7	30	24	46	30.2	38	14
27	28.7	30	27	46	31.2	38	15
30	31.7	33	30	50	34.2	41	16
33	34.7	39	33	55	39.2	49	18
36	37.7	42	36	60	42.2	54	19

9.XCN-LA Nut Fastened Socket (Flat Anti-rotation, Without Thread at Tail)



shell size	D1	D2	D3	D4	D5	E	F	H
12	13.7	18	12	33	18.2	26	16.5	16.7
14	15.7	20	14	34	20.2	28	18.5	18.7
18	19.7	24	18	39	24.2	34	22.5	22.7
22	23.7	27	22	42	27.2	36	25.8	26
24	25.7	30	24	46	30.2	38	28.5	28.7
27	28.7	33	27	46	33.2	41	31.5	31.7
30	31.7	36	30	50	36.2	44	34.5	34.7
33	34.7	39	33	55	39.2	49	37.5	37.7
36	37.7	42	36	60	42.2	54	40.5	40.7

Model Nomenclature of Through-wall Adapter Socket

XTH XCN 14 C 4 M1 D40 (W) -03
 1 2 3 4 5 6 7 8 9

1—Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Main Designation of Circular Electrical Connector (Equivalent to XC158)

3—Shell Size: 12-14-18-22-24-27-30-33-36 4

4—Product Type: S—Nut Fastened Through-wall Sealed Adapter Socket (Pins on both inner and outer sides of the panel)

C—Square Flange Mounted Through-wall Sealed Adapter Socket (Pins on both inner and outer sides of the panel)

SA—Nut Fastened Through-wall Non-sealed Adapter Socket (Socket on the outer side of the panel, Pin on the inner side)

SB—Nut Fastened Through-wall Non-sealed Adapter Socket (Pin on the outer side of the panel, Socket on the inner side);

CA—Square Flange Mounted Through-wall Non-sealed Adapter Socket (Socket on the outer side of the panel, Pin on the inner side)

CB—Square Flange Mounted Through-wall Non-sealed Adapter Socket (Pin on the outer side of the panel, Socket on the inner side)

5—Number of Contacts: 1 ~ 129 (See "Contact Arrangement Diagram")

6—Description Mark: M1—Contacts with Gold Plating

7—Shell Plating (Shielded Plating)

D40—Stainless Steel Passivation (Exclusive for through-wall sealed adapter sockets)

D13—Aluminum Alloy with Nickel Plating

D11—Copper Alloy with Nickel Plating

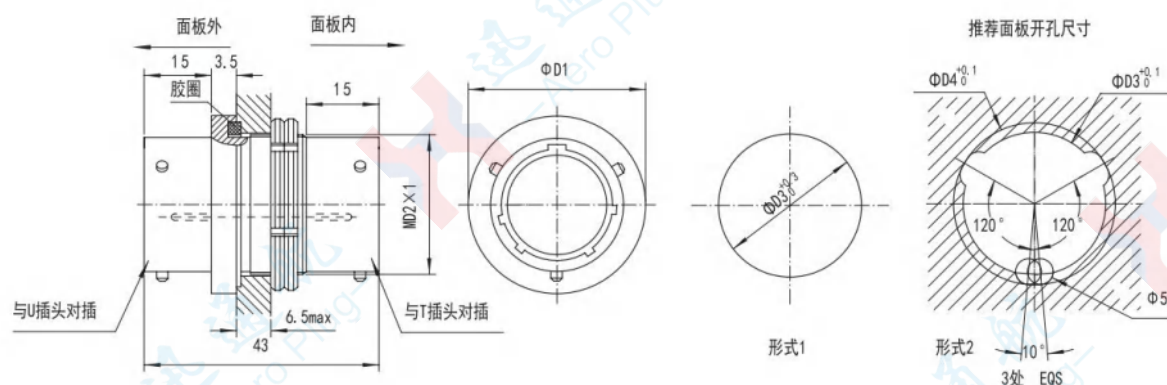
8—Key Position: No Mark—N Key、(W)—W Key、(X)—X Key、(Y)—Y Key、(Z)—Z Key;

9—Modification Code: -03 Modification Code for Square Flange Mounted Through-wall Sealed Adapter Socket (Circular Panel Opening)

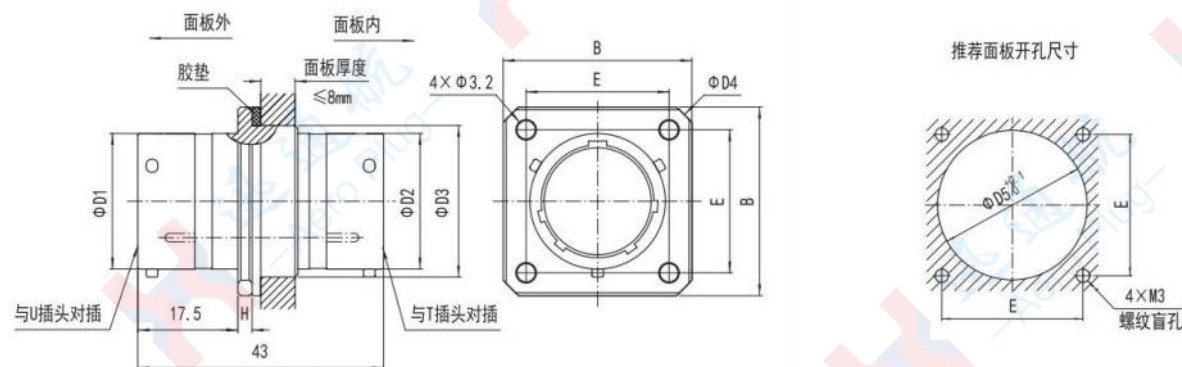
Selection Notes

①There may be discrepancies between the actual inner and outer sides of the panel at the user's site; please make corresponding conversions according to the actual situation.

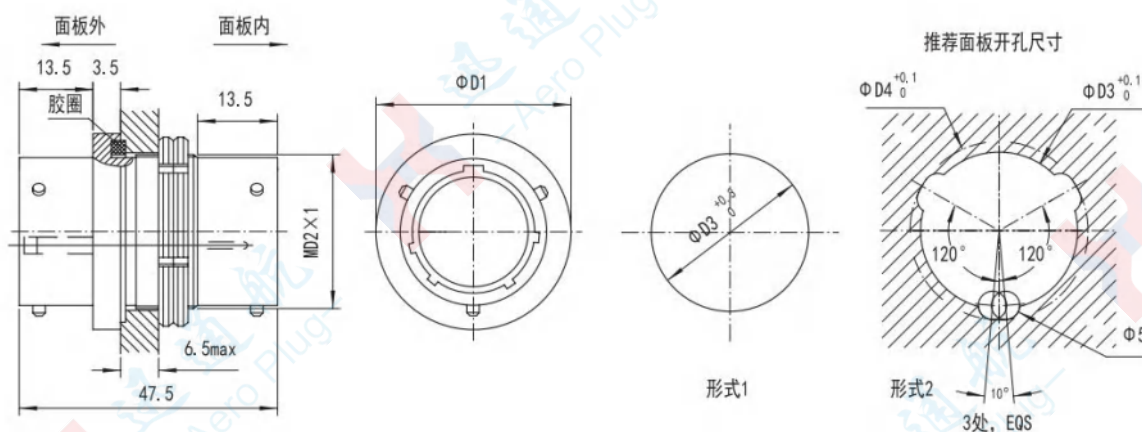
②When selecting through-wall sealed adapter sockets, contact arrangements containing $\Phi 0.635$ contacts are not allowed.

10 .XCN-S-M Nut Fastened Through-wall Sealed Adapter Socket (Pins on Both Inner and Outer Sides of the Panel)


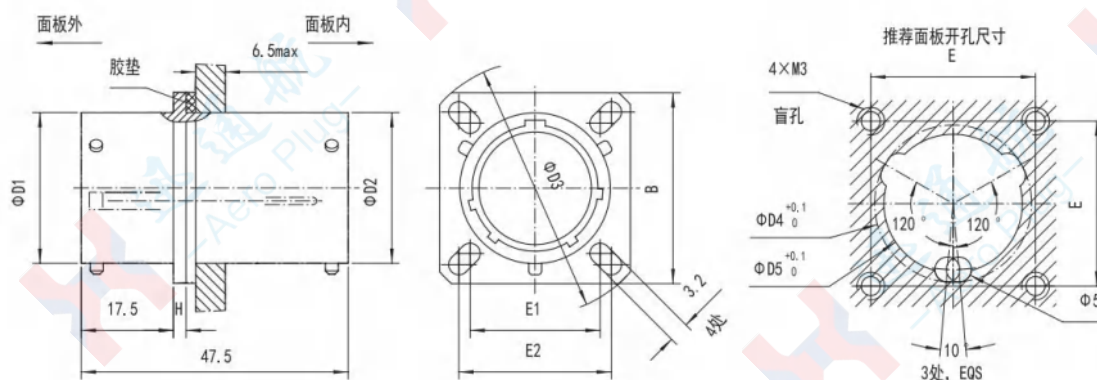
shell size	D1	D2	D3	D4	备注
12	27	16	16.1	—	形式1
14	27	18	18.1	—	形式1
18	31	22	22.1	22.7	形式2
22	36	27	27.1	—	形式1
24	36	27	27.1	28.6	形式2
27	39	30	30.1	31.6	形式2
30	42	33	33.1	34.6	形式2
33	45	36	36.1	37.6	形式2
36	48	39	39.1	40.6	形式2

11 .XCN-C-M-03 Square Flange Mounted Through-wall Sealed Adapter Socket (Pins on Both Inner and Outer Sides of the Panel)


shell size	D1	D2	H	D3	D4	D5	B	E
12	13.7	13.7	2.5	15.9	30	16.1	23	17
14	15.7	15.7	2.5	17.9	33	18.1	25	19
18	19.7	19.7	2.5	22.5	38	22.7	29	22.5
22	23.7	23.7	2.5	26.5	43	26.7	33	25
24	25.7	25.7	2.5	28.4	46	28.6	35	27
27	28.7	28.7	3	31.4	49.5	31.6	38	29
30	31.7	31.7	3	34.4	53	34.6	41	31
33	34.7	34.7	3	37.4	57.5	37.6	44	33.5
36	37.7	37.7	3	40.4	61	40.6	47	35

12.XCN-SA (SB)-M Nut Fastened Through-wall Non-sealed Adapter Socket


shell size	D1	D2	D3	D4	备注
12	27	16	16.1	—	形式1
14	27	18	18.1	—	形式1
18	31	22	22.1	22.7	形式2
22	36	27	27.1	—	形式1
24	36	27	27.1	28.6	形式2
27	39	30	30.1	31.6	形式2
30	42	33	33.1	34.6	形式2
33	45	36	36.1	37.6	形式2
36	48	39	39.1	40.6	形式2

13.XCN-CA (CB)-M Square Flange Mounted Through-wall Non-sealed Adapter Socket


shell size	D1	D2	H	D3	B	E1	E2	D4	D5	E
12	13.7	13.7	2.5	30.04	23	14	17	16.1	14	14~17
14	15.7	15.7	2.5	32.87	25	16	19	18.1	16	16~19
18	19.7	19.7	2.5	36.4	27.5	18.5	21.5	22.7	20	18.5~21.5
22	23.7	23.7	2.5	39.94	30	21	24	26.7	24	21~24
24	25.7	25.7	2.5	42.77	32	23	26	28.6	26	23~26
27	28.7	28.7	3	46.06	34.5	25	28	31.6	29	25~28
30	31.7	31.7	3	48.32	36.5	27	30	34.6	32	27~30
33	34.7	34.7	3	52.96	39.5	29.5	32.5	37.6	35	29.5~32.5
36	37.7	37.7	3	55.08	41	31	34	40.6	38	31~34

Model Nomenclature of Printed Circuit Board (PCB) Socket

<u>XTH</u>	<u>XCNB</u>	<u>14</u>	<u>F</u>	<u>4</u>	<u>K1</u>	<u>P13</u>	<u>(W)</u>	<u>-A</u>
1	2	3	4	5	6	7	8	9

1—Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Main Designation of Circular Electrical Connector (Equivalent to XC158)

3—Shell Size: 12-14-18-22-24-27-30-33-36

4—Product Type: F-Square Flange Socket

5—Number of Contacts: 1-129 (Refer to "Contact Arrangement Diagram")

6—Contact Type:

Z1—Gold-Plated Pin

K1—Gold-Plated Jack

7—Shell Plating: Shielded Plating

P13—Threaded Tail, Aluminum Alloy Nickel-Plated

P11—Threaded Tail, Copper Alloy Nickel-Plated

P40—Threaded Tail, Stainless Steel Passivated

DP13—Non-Threaded Tail, Aluminum Alloy Nickel-Plated

DP11—Non-Threaded Tail, Copper Alloy Nickel-Plated

DP40—Non-Threaded Tail, Stainless Steel Passivated

Non-Shielded Plating:

E22—Threaded Tail, Optional Accessory, Aluminum Alloy Hard Anodized

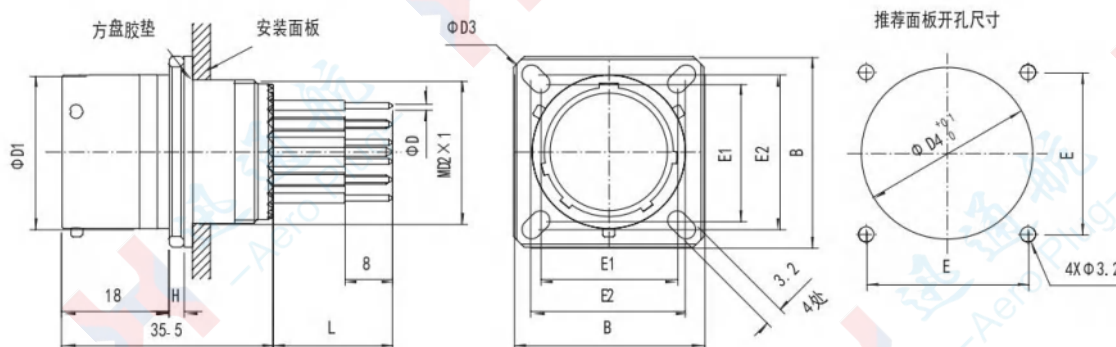
DE22—Non-Threaded Tail, Aluminum Alloy Hard Anodized

8—Key Position: Unmarked—N Key、(W)-W Key、(X)-X Key、(Y)-Y Key、(Z)-Z Key

9—Pin Protrusion: -A 5mm -B 10mm

Shell Length: -C 15mm -D 20mm

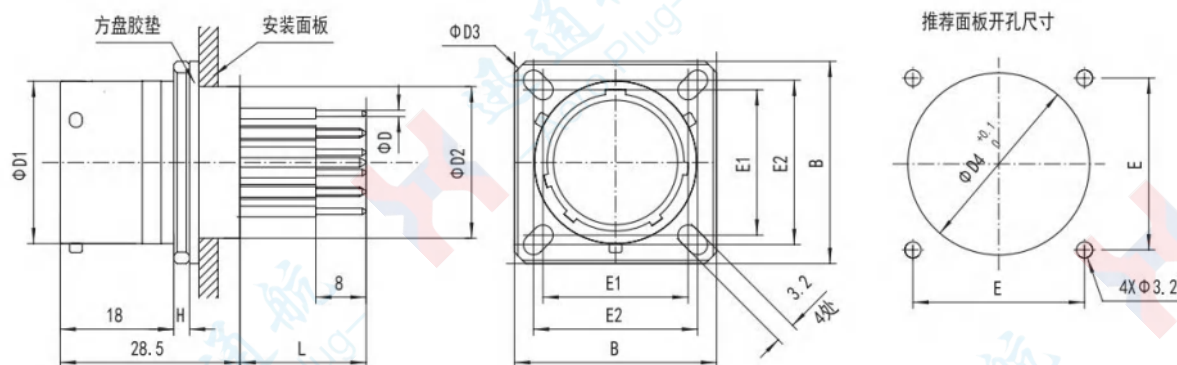
14.XCNB-F: Square Flange Mounted PCB Socket (Threaded Tail)



shell size	D1	D2	H	D3	B	E1	E2	D4	E
12	13.7	12	2.5	30.04	23	14	17	12.1	14~17
14	15.7	14	2.5	32.87	25	16	19	14.1	16~19
18	19.7	18	2.5	36.4	27.5	18.5	21.5	18.1	18.5~21.5
22	23.7	22	2.5	39.94	30	21	24	22.1	21~24
24	25.7	24	2.5	42.77	32	23	26	24.1	23~26
27	28.7	27	3	46.06	34.5	25	28	27.1	25~28
30	31.7	30	3	48.32	36.5	27	30	30.1	27~30
33	34.7	33	3	52.96	39.5	29.5	32.5	33.1	29.5~32.5
36	37.7	36	3	55.08	41	31	34	36.1	31~34

Contact Specification	Φ0.635	Φ1	Φ1.5	Φ2	Φ3
D	0.64	1	1.5	2	3

15.XCNB-F: Square Flange Mounted PCB Socket (Non-Threaded Tail)

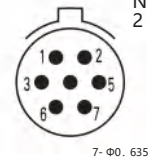
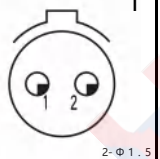
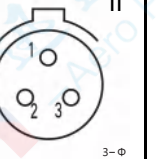
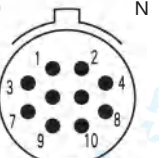
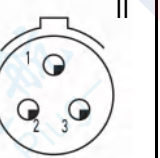
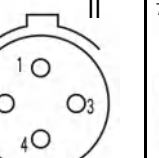
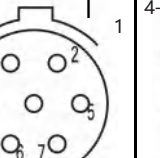
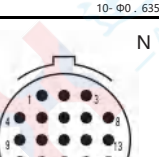
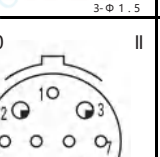
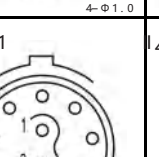
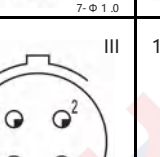
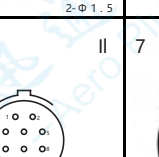
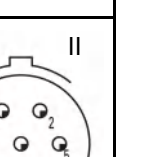
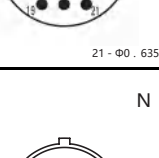
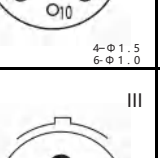
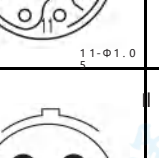
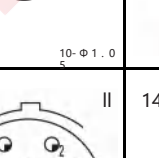
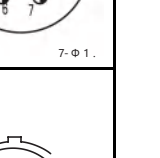
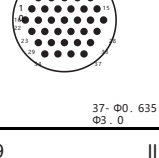
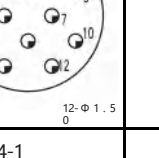
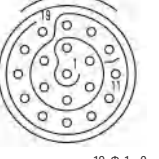
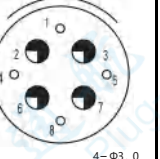
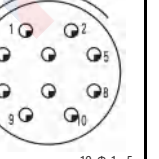
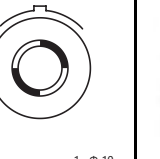
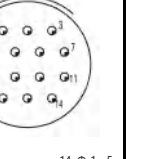
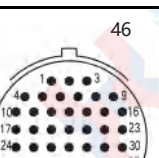
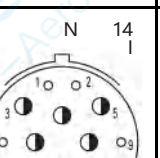
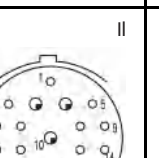
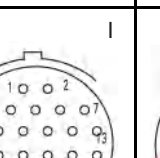
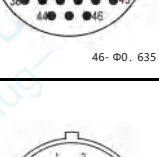
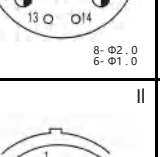
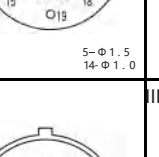
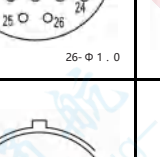


shell size	D1	D2	H	D3	B	E1	E2	D4	E
12	13.7	12	2.5	30.04	23	14	17	12.1	14~17
14	15.7	14	2.5	32.87	25	16	19	14.1	16~19
18	19.7	18	2.5	36.4	27.5	18.5	21.5	18.1	18.5~21.5
22	23.7	22	2.5	39.94	30	21	24	22.1	21~24
24	25.7	24	2.5	42.77	32	23	26	24.1	23~26
27	28.7	27	3	46.06	34.5	25	28	27.1	25~28
30	31.7	30	3	48.32	36.5	27	30	30.1	27~30
33	34.7	33	3	52.96	39.5	29.5	32.5	33.1	29.5~32.5
36	37.7	36	3	55.08	41	31	34	36.1	31~34
Contact Specification	Φ0.635		Φ1		Φ1.5		Φ2		Φ3
D	0.64		1		1.5		2		3

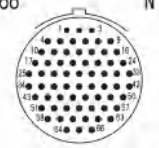
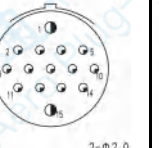
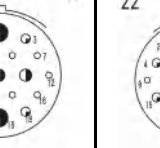
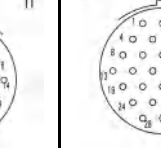
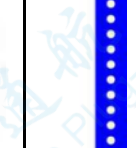
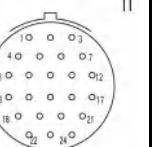
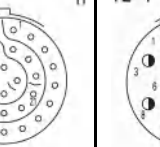
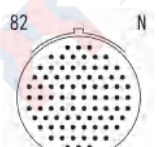
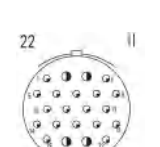
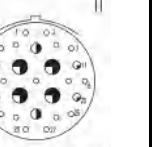
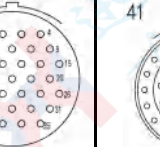
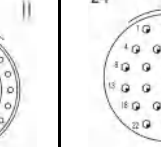
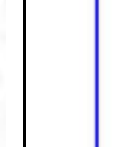
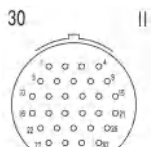
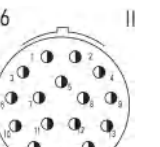
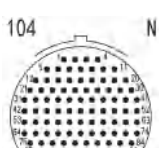
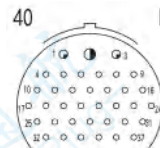
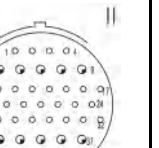
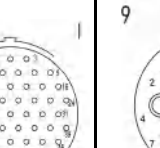
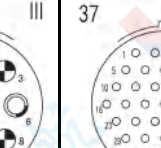
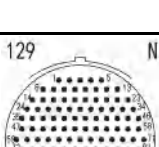
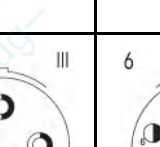
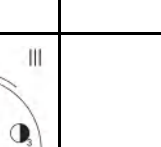
Notes for Selection

- ① When the pin protrusion length of the PCB socket beyond the shell end face is 5mm or 10mm, the pins have no shoulder and the dimension "8" shown in the diagram is not applicable.
- ② Do not unpack the PCB socket when not in use to avoid pin bending, which may prevent the socket from being installed on the printed circuit board.
- ③ The printed circuit board shall not be installed tightly against the shell end face to prevent electrical connection between the circuit and the shell.
- ④ The PCB hole dimensions corresponding to pin-equipped and jack-equipped products are different. Users shall determine the PCB hole dimensions and pad layout according to whether the ordered product is pin-equipped or jack-equipped.
- ⑤ If waterproofing is required inside and outside the panel, ensure the surface roughness and flatness of the panel. After installing the square flange socket, separately perform waterproof treatment on the screws or drill the four mounting holes as blind threaded holes.

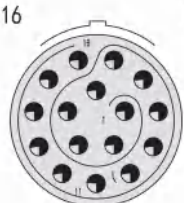
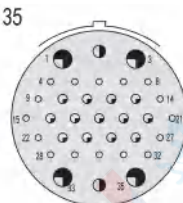
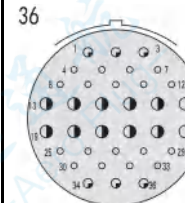
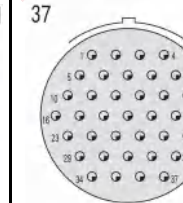
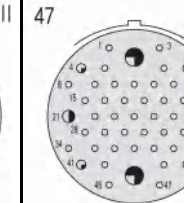
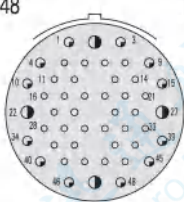
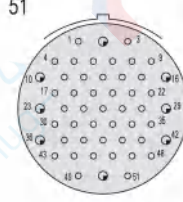
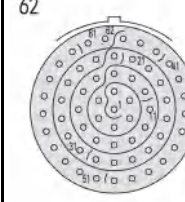
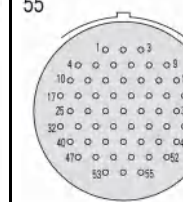
Contact Arrangement (Pin-Equipped Insulator Mating Face View)

12	 7-Φ0.635 1-Φ0.635	 2-Φ1.5	 3-Φ			
14	 10-Φ0.635 3-Φ0.635	 3-Φ1.5	 4-Φ1.0	 7-Φ1.0	 2-Φ1.0 2-Φ1.5	
18	 21-Φ0.635	 10-Φ1.5 6-Φ1.0	 11-Φ1.0	 4-Φ1.	 10-Φ1.0 5-Φ1.0	 7-Φ1.
22	 37-Φ0.635 Φ3.0	 3-Φ3.0	 4-Φ3.0	 5-Φ	 12-Φ1.5 0	 14-Φ1.
	 19-Φ1.0	 8-Φ3.0 4-Φ1.0	 10-Φ1.5	 1-Φ10	 14-Φ1.5	
24	 46-Φ0.635	 8-Φ2.0 6-Φ1.0	 5-Φ1.5 14-Φ1.0	 26-Φ1.0	 19-Φ1.0	 14-Φ1.5
	 4-Φ3.5	 12-Φ3.0 Φ3.5	 3-Φ1.0	 2-Φ3.5		
	 4-Φ3.5	 12-Φ3.0 Φ3.5	 3-Φ3.5	 2-Φ		

● Φ0.635 ○ Φ1.0 ○ Φ1.5 ○ Φ2.0 ○ Φ2.5
 ● Φ3.0 ○ Φ3.5 ○ Φ4.5 ○ Φ10 ○ Φ12

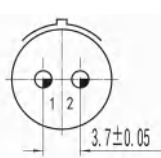
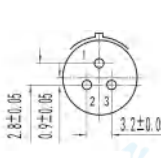
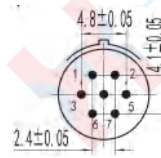
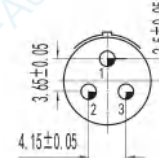
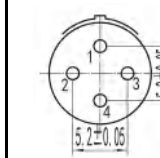
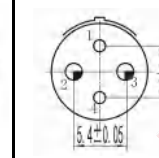
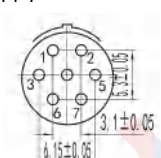
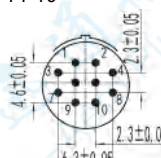
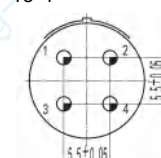
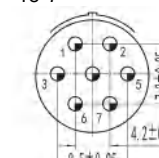
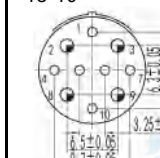
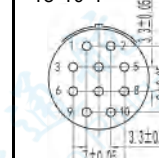
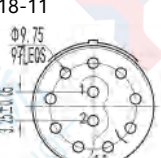
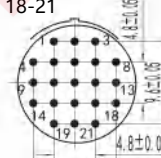
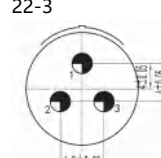
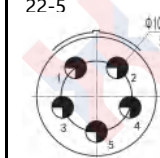
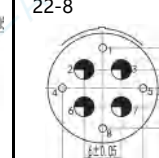
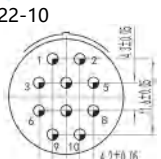
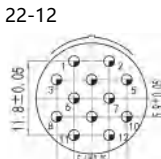
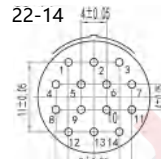
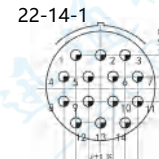
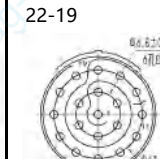
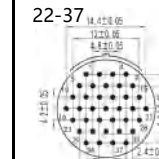
shell size						
27	66 N  66-Φ0.635	12 II  8-Φ2.0 4-Φ1.5	15 II  2-Φ2.0 13-Φ1.5	19 II  2-Φ3.0, 3-Φ2.0 4-Φ1.5, 10-Φ1.0	22 II  6-Φ2.0, 6-Φ1.5 10-Φ1.0	30 II  30-Φ1.0
	1 III  1-Φ12	6 II  2-Φ3.5 4-Φ1.5	24 II  24-Φ1.0	32 II  32-Φ1.0	12-1 II  12-Φ2.0	
30	82 N  82-Φ0.635	22 II  4-Φ2.0 18-Φ1.5	27 II  4-Φ3.0, 2-Φ2.0 4-Φ1.5, 17-Φ1.0	35 II  35-Φ1.0	41 II  41-Φ1.0	24 II  24-Φ1.5
	30 II  30-Φ1.0	16 II  16-Φ2.0				
33	104 N  104-Φ0.635	40 II  2-Φ2.0, 4-Φ1.5 34-Φ1.0	41 II  10-Φ1.5 31-Φ1.0	55 I  55-Φ1.0	9 III  5-Φ2.5 4-Φ3.5	37 II  37-Φ1.0
	17 II  7-Φ1.5, 4-Φ3.0 6-Φ3.5					
36	129 N  129-Φ0.635	2 III  2-Φ10	3 III  3-Φ4.5	4 III  4-Φ4.5	6 III  1-Φ10, 5-Φ2.0	

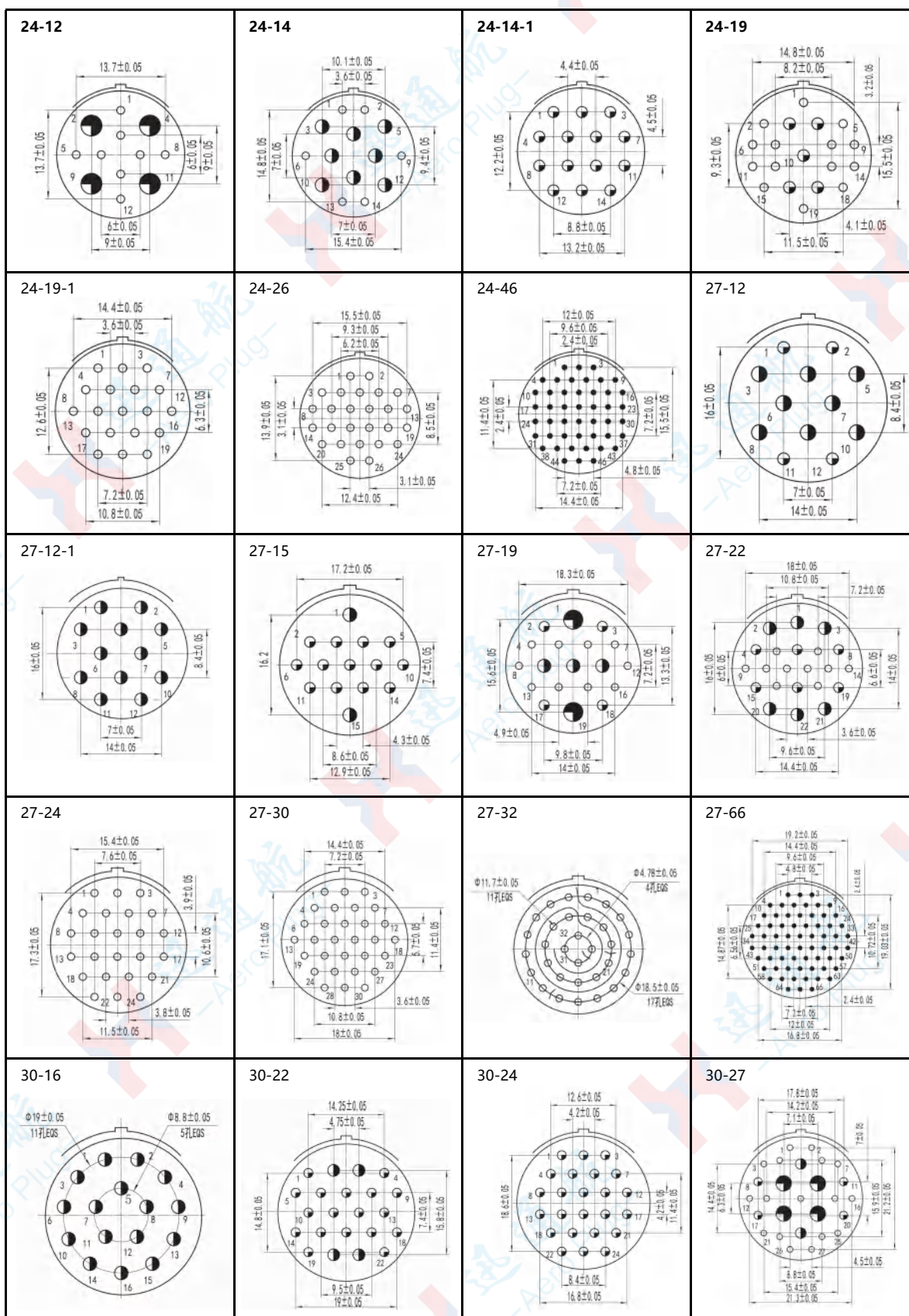
● Φ0.635 ○ Φ1.0 ◐ Φ1.5 ◑ Φ2.0 ◒ Φ2.5
 ◓ Φ3.0 ◔ Φ3.5 ◕ Φ4.5 ◖ Φ10 ◗ Φ12

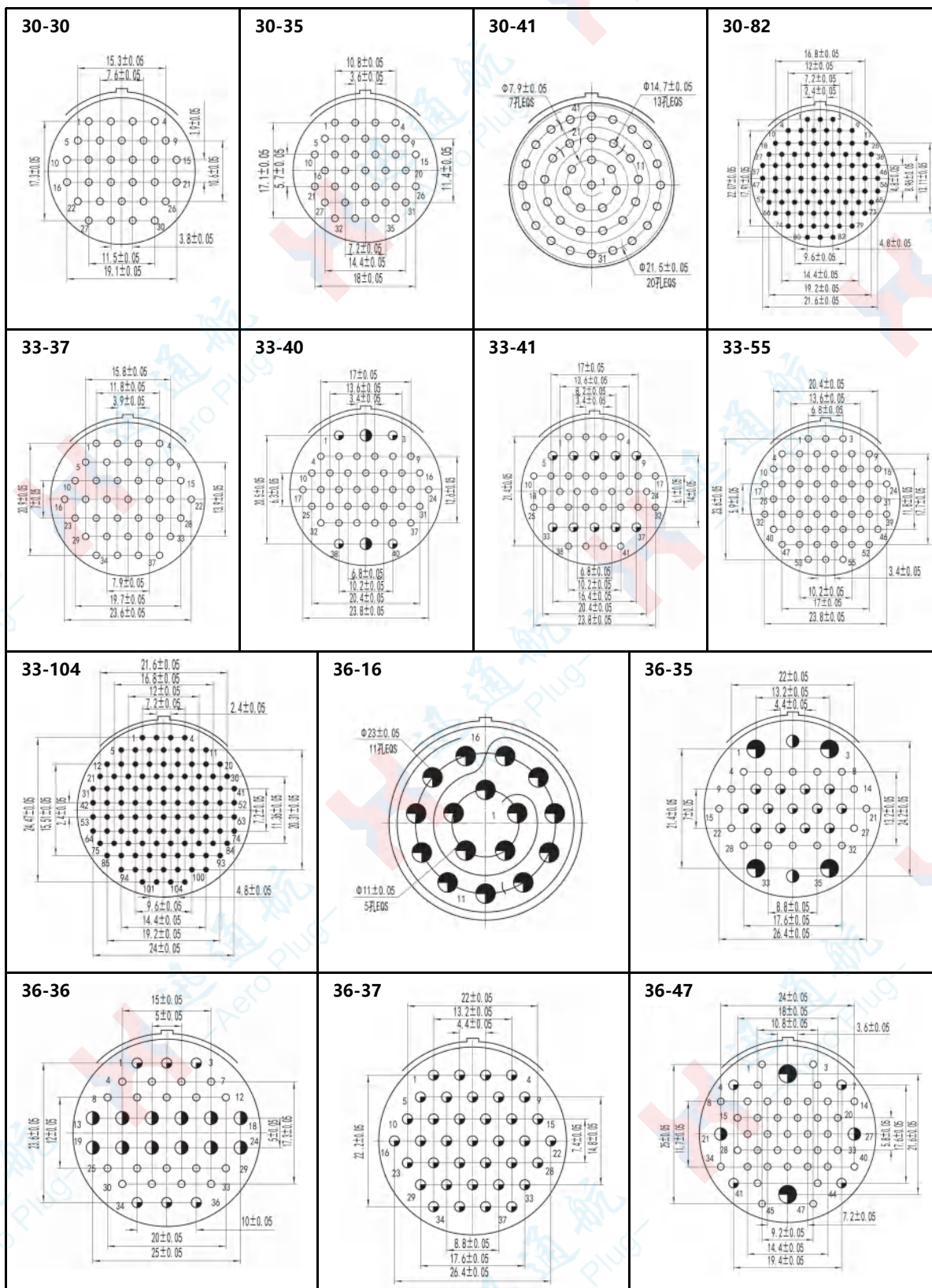
shell size	16	35	36	37	47
					
3	16- $\Phi 3.0$	4- $\Phi 3.0$, 13- $\Phi 1.5$ 2- $\Phi 2.0$, 16- $\Phi 1.0$	12- $\Phi 2.0$, 6- $\Phi 1.5$ 18- $\Phi 1.0$	37- $\Phi 1.5$	2- $\Phi 3.0$, 2- $\Phi 2.0$ 4- $\Phi 1.5$, 39- $\Phi 1.0$
6	48	51	62	55	
					
	4- $\Phi 2.0$, 12- $\Phi 1.5$ 32- $\Phi 1.0$	8- $\Phi 1.5$ 43- $\Phi 1.0$	62- $\Phi 1.0$	55- $\Phi 1.0$	

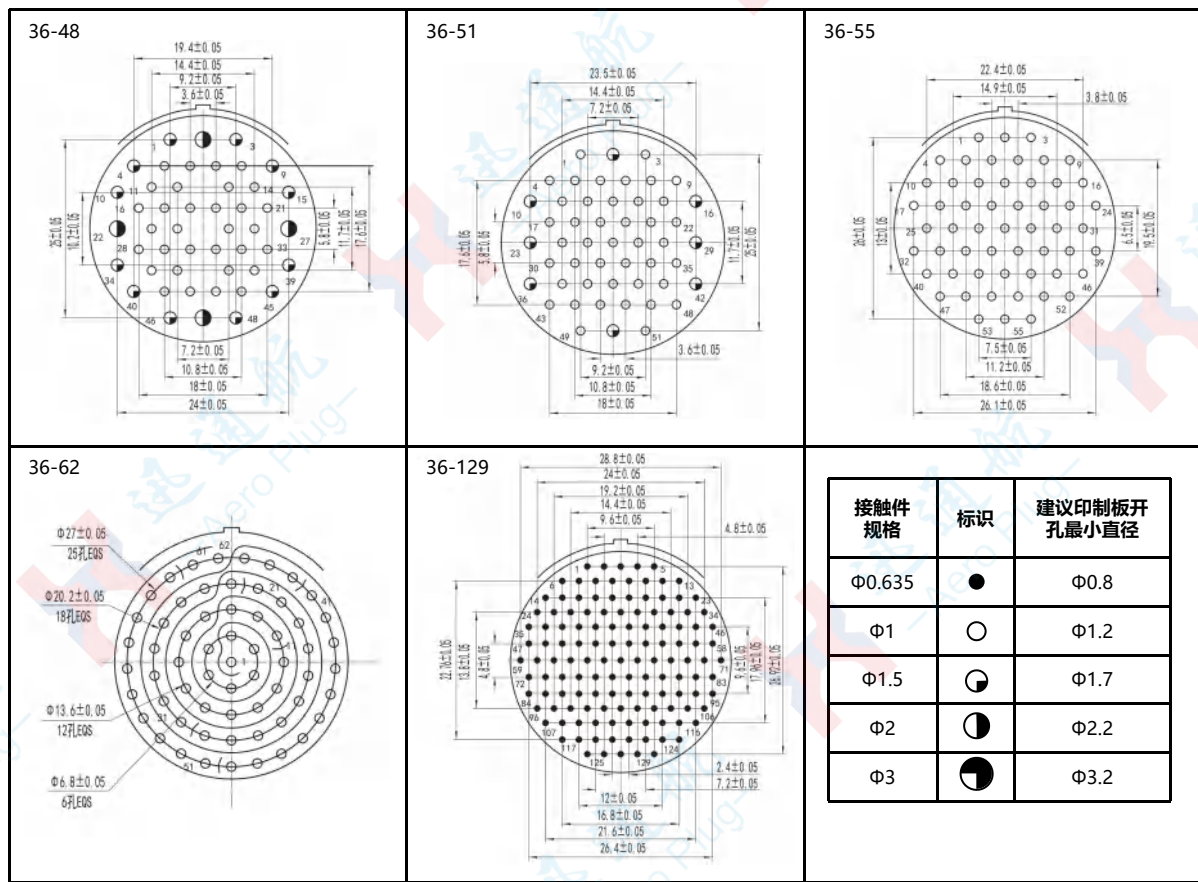
$\bullet$ $\Phi 0.635$ $\circ$ $\Phi 1.0$ $\odot$ $\Phi 1.5$ $\bullet$ $\Phi 2.0$ $\bullet$ $\Phi 2.5$
 $\bullet$ $\Phi 3.0$ $\odot$ $\Phi 3.5$ $\odot$ $\Phi 4.5$ $\bullet$ $\Phi 10$ $\odot$ $\Phi 12$

PCB Hole Dimensions (Pin-Equipped Insulator Mating Face View)

12-2	12-3	12-7	14-3	14-4	14-4-1
					
14-7	14-10	18-4	18-7	18-10	18-10-1
					
18-11	18-21	22-3	22-4	22-5	22-8
					
22-10	22-12	22-14	22-14-1	22-19	22-37
					







XCN Series Accessories

1、Plug and Socket Sealing Caps

When used with XCN series products, they can provide the plugs and sockets of XCN series with a sealing performance resistant to 1m water depth

Model Nomenclature

XTH XCN 14 FJ 1 P13 A
 1 2 3 4 5 6 7

1—Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Main Designation of Circular Electrical Connector (Equivalent to XC158)

3—Shell Size: 12-14-18-22-24-27-30-33-36

4—Accessory Mark: FJ

5—Accessory Type: 1—Socket Sealing Cap 2—Plug Sealing Cap

6—Shell Plating: Shielded Plating: P13—Aluminum Alloy Nickel-Plated P40—Stainless Steel Passivated

Non-Shielded Plating: E22—Aluminum Alloy Hard Anodized

7—Chain Type: A—Without Steel Wire Rope N—Stainless Steel Wire Rope with Fixing Ring

R—Stainless Steel Wire Rope with Fixing Plate

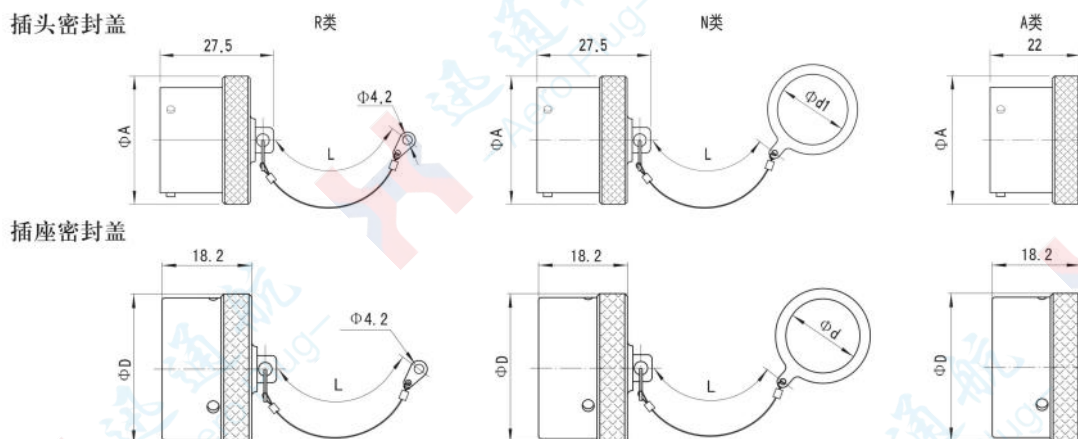
Precautions for Selection

① For square flange socket dust caps, it is recommended to select Type 【R】 (with fixing plate), and fasten the fixing plate to the mounting screws.

② For metal dust caps of round flange sockets with accessories and plugs with accessories, it is recommended to select Type 【N】 (with fixing ring), and fit the fixing ring over the tail threads.

④ When the socket is circular, add the number "1" after the letter N (i.e., N1).

Overall Dimensions



shell size		12	14	18	22	24	27	30	33	36
A	max	19.7	21.7	25.7	29.7	31.7	34.7	37.7	40.7	43.7
D	max	19	21	27.2	32	34	37	40	43	46
d1	min	12.1	14.1	14.1	22.1	24.1	27.1	30.1	33.1	36.1
d	min	16.1	18.1	22.1	27.1	27.1	30.1	33.1	36.1	39.1
L	max	200								

2、Cable Accessories

Used for fixing wires and securing sealed cables.

Available in two types: straight and angled. Both are equipped with built-in pressure plates to clamp cables or wires; meanwhile, the pressure plates can also clamp the shielding braid to achieve electromagnetic shielding. After the sealing accessories are installed with the product, they can withstand a water depth of 1m.

Model Nomenclature

XTH XCN 14 FJ 3 P13 D1
 1 2 3 4 5 6 7

1— Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— Main Designation of Circular Electrical Connector (Equivalent to XC158)

3— Shell Size: 12-14-18-22-24-27-30-33-36

4— Accessory Mark: FJ

5— Accessory Type: 3—Straight, Sealed Accessory with Built-in Pressure Plate for Cable Clamping

4—Straight, Non-Sealed Accessory with Built-in Pressure Plate for Cable Clamping

5—Angled, Sealed Accessory with Built-in Pressure Plate for Cable Clamping

6—Angled, Non-Sealed Accessory with Built-in Pressure Plate for Cable Clamping

6—Shell Plating: Shielded Plating: P13—Aluminum Alloy Nickel-Plated; P40—Stainless Steel Passivated

Non-Shielded Plating: E22—Aluminum Alloy Hard Anodized

7—Outlet Port Code: Sealed Accessories:D1, D2 ...

Non-Sealed Accessories: Not specified (Standard Outlet Port); B1, B2 (Custom Outlet Ports)

Precautions for Selection

①Angled cable accessories are not suitable for contact configurations 22-1, 27-1, 36-2, 36-3, 36-4, 36-6. Please contact our company if required.

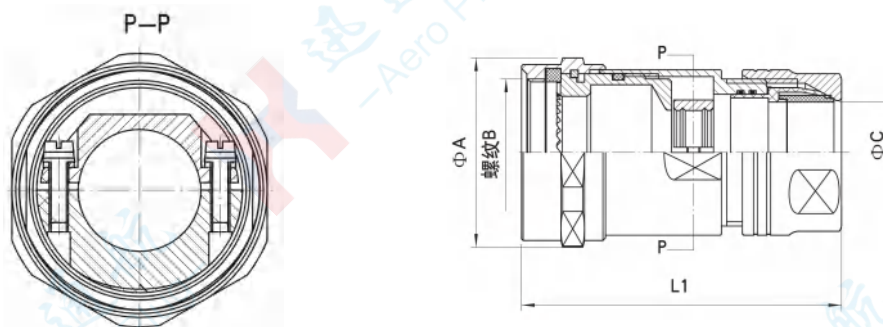
②If the existing outlet port diameter of the accessory cannot meet the application requirements, please contact us for customized development.

③Angled non-sealed accessories only provide standard outlet port diameters.

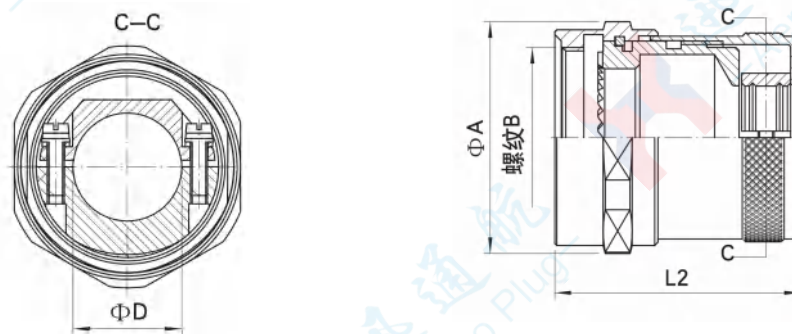
④The accessories are equipped with a serrated anti-rotation design. When tightening the accessory, use soft-jaw pliers to clamp the coupling nut and fasten the accessory securely.

Overall Dimensions

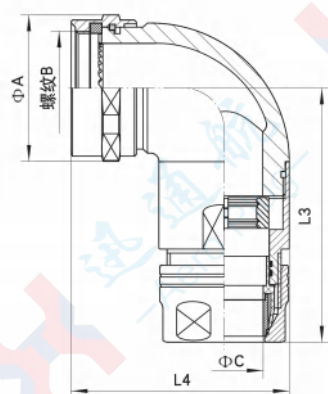
1、Straight Sealed Cable Accessory



2、Straight Non-Sealed Cable Accessory



3、Angled Sealed Cable Accessory



4、Angled Non-Sealed Cable Accessory

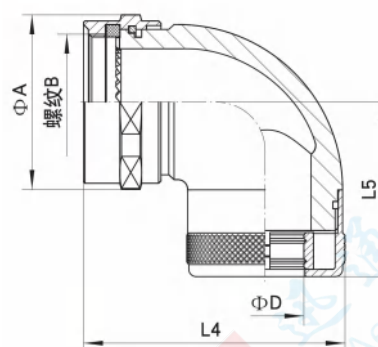


Table 1

shell size	A	Thread B	L1 max	L2 max	L3 max	L4 max	L5 max	Outlet Port Diameter Code C	Diameter of Outlet Port for Non-sealed Accessories D(max)		
									Standard Outlet Port	B1	B2
12	19	M12×1	47.4	28	53.7	39.2	27.6	D1、D2	4	7	10
14	22.2	M14×1	49.4	29.5	56.2	40.7	30.1	D1、D2	7	10	12
18	25.4	M18×1	51.9	31	57.7	44.2	31.6	D1、D2、D3	10	12	14
22	29.6	M22×1	57	32.5	60.7	48	34	D1、D2、D3	12	14	16
24	32.8	M24×1	59	35	63.7	51.7	37.5	D1、D2、D3	14	16	19
27	36	M27×1	64	38.1	65.2	54.5	39	D1、D2、D3	16	19	22
30	39.2	M30×1	67.2	41	66.7	56.7	40.5	D1、D2、D3	19	22	25
33	42.4	M33×1	70.3	44.1	68.7	59.2	42.5	D1、D2、D3	22	25	-
36	45.6	M36×1	72.4	46.2	70.2	64.7	44	D1、D2、D3	25	-	-

shell size	Outlet Port Diameter Code	Outlet Port Size Range(C)
12	D1	3.5 ~ 5.5
	D2	2 ~ 4.5
	D3	5 ~ 7.5
	D4	7.5 ~ 10.5
14	D1	5 ~ 7.5
	D2	3.5 ~ 5.5
	D3	7.5 ~ 10.5
	D4	8.5 ~ 12
18	D1	7.5 ~ 10.5
	D2	5 ~ 7.5
	D3	3.5 ~ 5.5
	D4	8.5 ~ 12
	D5	10.5 ~ 15
22	D1	8.5 ~ 12
	D2	7.5 ~ 10.5
	D3	5 ~ 7.5
	D4	10.5 ~ 15
	D5	13.5 ~ 18
24	D1	10.5 ~ 15
	D2	8.5 ~ 12
	D3	7.5 ~ 10.5
	D4	13.5 ~ 18
	D5	16.5 ~ 21
27	D1	13.5 ~ 18
	D2	10.5 ~ 15
	D3	8.5 ~ 12
	D4	16.5 ~ 21
	D5	18.5 ~ 23.5
30	D1	16.5 ~ 21
	D2	13.5 ~ 18
	D3	10.5 ~ 15
	D4	18.5 ~ 23.5
	D5	21.5 ~ 26.5
33	D1	18.5 ~ 23.5
	D2	16.5 ~ 21
	D3	3.5 ~ 18
	D4	21.5 ~ 26.5
36	D1	21.5 ~ 26.5
	D2	18.5 ~ 23.5
	D3	16.5 ~ 21

Model Nomenclature for Straight Fully Shielded Accessorie

XTH XCN 14 FJ7 P(13) 02 A
 1 2 3 4 5 6 7

1—Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Main Designation of Circular Electrical Connector (Equivalent to XC158)

3—Shell Size: 12-14-18-22-24-27-30-33-36

4—Accessory Plating: P(13)—Aluminum Alloy Nickel-Plated

P(11)—Copper Alloy Nickel-Plated

P(40)—Stainless Steel Passivated

6—Outlet Port Code: 01, 02, 03, 04, 05, 06, 07, 08, 09, 10

7—Length Code: Standard Length (Not Marked); A, B, C

Precautions for Selection

- ① If the selected wire is relatively stiff or thick, fully consider the wire stripping and core bending requirements when choosing the accessory length.
- ② If the existing optional outlet port diameters cannot meet your requirements, please contact us for customized development.
- ③ The accessory is equipped with a serrated anti-rotation design. When tightening the accessory, use soft-jaw pliers to clamp the coupling nut and fasten it securely.

Overall Dimensions

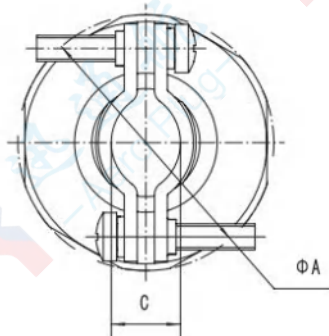


Table 1

shell size	ptional Outlet Port Diameter Code	A	Thread B
12	01 ~ 02	19	M12×1
14	01 ~ 03	22.2	M14×1
18	02 ~ 04	25.4	M18×1
22	02 ~ 05	29.6	M22×1
24	02 ~ 06	32.8	M24×1
27	03 ~ 07	36	M27×1
30	03 ~ 08	39.2	M30×1
33	03 ~ 9	42.4	M33×1
36	04 ~ 10	45.6	M36×1

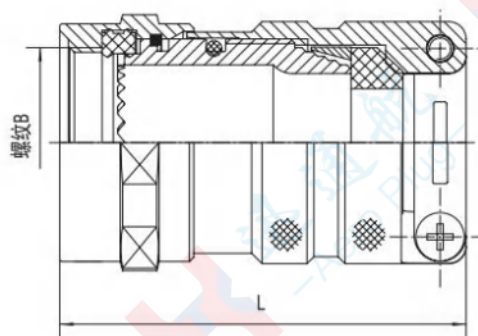


Table 2

Outlet Port Code	Outlet Port Size Range (C)
01	1.57 ~ 3.18
02	3.18 ~ 6.35
03	6.35 ~ 9.53
04	9.53 ~ 12.7
05	12.7 ~ 15.88
06	15.88 ~ 19.05
07	19.05 ~ 22.23
08	22.23 ~ 25.4
09	25.4 ~ 28.58
10	28.58 ~ 31.75

Table 3

shell size	Length Code	L
12 ~ 36	Standard (Omitted from Marking)	47
12 ~ 36	A	64.4
12 ~ 36	B	89.8
22 ~ 36	C	115.2

Nomenclature of Straight Accessory Models

XTH XCN 14 FJ8 P13 -10
 1 2 3 4 5 6

- 1—Enterprise Designation: Shenzhen Xuntonghang Electronic Technology Co., Ltd.
- 2—Main Designation of Circular Electrical Connector (Equivalent to XC158)
- 3—Shell Size: 12-14-18-22-24-27-30-33-36
- 4—Accessory Type: FJ8—Straight Accessory with Tail Pressure Plate
- 5—Shell Plating: P13—Aluminum Alloy Nickel-Plated
 P11—Copper Alloy Nickel-Plated
 P40—Stainless Steel Passivated
- 6—Outlet Port Diameter: -10 (Corresponds to Value D in Table 4)

Precautions for Selection

- ① If the accessory requires dustproof and waterproof functionality, potting treatment must be performed between the cable and the sleeve after cable clamping.
- ② If the existing optional outlet port diameters cannot meet your requirements, please contact us for customized development.
- ③ The accessory is equipped with a serrated anti-rotation design. When tightening the accessory, use soft-jaw pliers to clamp the coupling nut and fasten it securely.

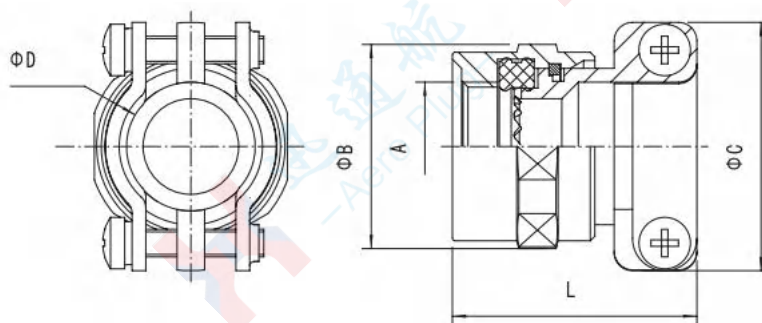
Overall
Dimensions


Table4

shell size	A	B	C	D	L
12	M12×1	19	16	4	27
			18.5	7	
			25	10	
14	M14×1	22.2	16	4	28.5
			18.5	7	
			25	10	
			28	14	
18	M18×1	25.4	18.5	7	30
			25	10	
			28	14	
			32	18	
22	M22×1	29.6	18.5	7	31.5
			25	10	
			28	14	
			32	18	
24	M24×1	32.8	34	20	33
			25	10	
			28	14	
			32	18	
			34	20	
27	M27×1	36	38	24	34.5
			28	14	
			32	18	
			34	20	
			38	24	
30	M30×1	39.2	40	27	36
			28	14	
			32	18	
			34	20	
			38	24	
33	M33×1	42.4	44	30	37.5
			28	14	
			32	18	
			34	20	
			38	24	
36	M36×1	45.6	40	27	39
			44	30	
			28	14	
			32	18	
			34	20	
			38	24	
			46	32	
			58	38	

XC Series Circular Electrical Connectors

This series of electrical connectors complies with GJB2889 standard. Adopting a bayonet-type quick connection and disconnection method, it features convenient operation, reliable connection, vibration resistance, and shock resistance. The shell is made of high-strength aluminum alloy, and the contacts are available in soldered type and rear-release crimp type. Equipped with hyperboloid wire spring sockets, the connectors offer smooth mating and unmating, low contact resistance, as well as moisture resistance, salt spray resistance, mold resistance, and rain resistance. They are widely used in military fields such as aviation, aerospace, ordnance, ships, and field communications, as well as in line connections for postal and telecommunications, railways, computers, and various instruments and meters.

Product Designation Code

$\frac{XTH}{1}$ $\frac{XC}{2}$ $\frac{14}{3}$ $\frac{F/T}{4}$ $\frac{1}{5}$ $\frac{Z/K}{6}$ $\frac{HP}{7}$ $\frac{W}{8}$

1—Enterprise Designation: Shenzhen Xuntonghang Electronic Technology Co., Ltd.

2— Main Designation of Circular Electrical Connector

3—Shell Size: 14、18、22、24、27、30、33、36、39

4— Plug & Socket Category: See Table

5— Number of Contact Pairs: 1 ~ 62 Contacts

6—Contact Category: Z—Pin (Silver-Plated); Z₁— Pin (Gold-Plated);
 K—Socket (Silver-Plated); K₁—Socket (Gold-Plated);
 M—Sealed Socket Contact (Silver-Plated); M₁—Sealed Socket Contact (Gold-Plated);

7— Shell Plating & Rear Accessories: See Table 2 for Details

8— Anti-Misinsertion Key Position: N, W, X, Y, Z; Note: "N" may be omitted (see Anti-Misinsertion Key Positions for reference)

Notes: 1、 To ensure compatibility with various cable specifications, a variety of dedicated rear accessories are available.

For detailed information, refer to General Accessories for XC and Its Extended Series Electrical Connectors.

2、 For requests requiring Type B crimp contacts, mark "B" at the end of the model. Type A crimp contacts are standard if not marked (see specifications in the Crimp Contacts Table for XC Series).

Table 1: Plug & Socket Categories

Plug & Socket Type	Basic Marking	Structural Characteristics	Remarks
Crimp Plug	$XC-T-\frac{Z}{K}$ —	Aluminum alloy shell with shielded or unshielded plating; Copper alloy contacts with silver or gold plating, rear-release crimp type; Dual-compatible configuration (pins and sockets); Non-hermetic.	Equipped with threads at the rear, it can mate with any of the following sockets.
Soldered Plug	$XCH-T-\frac{Z}{K}$ —	Aluminum alloy shell with shielded or unshielded plating; Copper alloy contacts with silver or gold plating, soldered (non-removable); Dual-compatible configuration (pins and sockets); Non-hermetic.	Equipped with threads at the rear, it can mate with any of the following sockets.
Square Flange Crimp Socket	$XC-F-\frac{Z}{K}$ —	Aluminum alloy shell with shielded or unshielded plating, square flange mounted; Copper alloy contacts with silver or gold plating, rear-release crimp type; Dual-compatible configuration (pins and sockets); Non-hermetic.	Two structural options: rear-threaded (accessory-compatible) and non-threaded
Circular Crimp Socket	$XC-T-\frac{Z}{K}$ —	Aluminum alloy shell with shielded or unshielded plating, no mounting flange; Copper alloy contacts with silver or gold plating, rear-release crimp type; Dual-compatible configuration (pins and sockets); Non-hermetic.	Rear-threaded
Square Flange Soldered Socket	$XCH-F-Z...$	Aluminum alloy shell with shielded or unshielded plating, square flange mounted; Copper alloy contacts with silver or gold plating, soldered (non-removable); Dual-compatible configuration (pins and sockets); Non-hermetic.	Non-threaded at the rear
Square Flange PCB Socket	$XCB-F-Z...$	Aluminum alloy shell with shielded or unshielded plating, square flange mounted; Copper alloy contacts with silver or gold plating, PCB soldered (non-removable); Pin-only configuration; Non-hermetic.	Non-threaded Rear



Continued Table 1

Plug and Socket Types	Basic Marking	Structural Characteristics	Remarks
Wall-Mounted Hermetic Socket (Potting Sealed)	XC-S-M...	Aluminum alloy shell with shielded or unshielded plating; Copper alloy contacts with silver or gold plating (non-removable); Plug-in configuration on one end and socket configuration on the other end; Hermetic.	Sockets outside the panel and pins inside the panel
Square Flange Mounted Wall-Mounted Hermetic Socket (Potting Sealed)	XC—S1—M XC—S2—M...	Aluminum alloy shell with shielded or unshielded plating; Copper alloy contacts with silver or gold plating (non-removable); Pin configuration on one end and socket configuration on the other end; Hermetic.	XC—S1—M: Sockets outside the panel and pins inside the panel XC—S2—M: Pins outside the panel and pins inside the panel

Table 2: Shell Plating and Rear Accessories

Marking Code	Meaning of Marking	Marking Code	Meaning of Marking	Remarks
No Marking	Non-threaded Rear, Anodized Black	E	Threaded Rear, Optional Accessories, Anodized Black	Non-Shielded Plating
H	Straight Cable Mounted at the Rear, Anodized Black	W	Angled Cable Clip Mounted at the Rear, Anodized Black	
D1	Non-threaded Rear, Electroless Nickel Plated	P1	Threaded Rear, Optional Accessories, Electroless Nickel Plated	Shielded Plating
D3	Non-threaded Rear, Zinc-Plated with Military Green Passivation	P3	Threaded Rear, Optional Accessories, Zinc-Plated with Military Green Passivation	
HP	Shielded Nut Mounted at the Rear, Electroless Nickel Plated	WP1	Angled Cable Clip Mounted at the Rear, Electroless Nickel Plated	
HP3	Shielded Nut Mounted at the Rear, Zinc-Plated with Military Green Passivation	WP3	Angled Cable Clip Mounted at the Rear, Zinc-Plated with Military Green Passivation	
D40	Non-threaded Rear, Stainless Steel Passivated	P40	Threaded Rear, Optional Accessories, Stainless Steel Passivated	

Product Technical Characteristics

1. Operating Environment Conditions

Operating Temperature : -55°C ~ +125°C

-55°C ~ +200°C (to be specified at time of order)

Relative Humidity: 90%~95% at 40°C±2°C

Operating Altitude: 30,000m

Vibration: Frequency 10Hz-2000Hz, Acceleration 196m/s²

Hermeticity: Dual-sealed socket with a pressure

difference of 50.7 kPa, Leak Rate ≤ 46 Pa·cm³/s

Constant Acceleration: 980 m/s²

Shock: Acceleration 980 m/s²

mechanical Life: ≥ 1000 Insertion/Extraction Cycles

2. Electrical Characteristics

Contact Resistance and Rated Current

Contact Resistance and Rated Current (mm)	Contact Resistance (mΩ)	Dual-sealed Contact Resistance (mΩ)	Rated Current (A)
φ1.0	≤5.0	≤10.0	5
φ1.5	≤2.5	≤5.0	10
φ2.0	≤1.25	≤2.5	20
φ3.0	≤0.75	≤1.5	40

Rated Voltage and Withstand Voltage

Operating Environment	Hermetically Sealed Electrical Connector		Non-Hermetically Sealed Electrical Connector	
	Rated Voltage (V)	Withstand Voltage (V)	Rated Voltage (V)	Withstand Voltage (V)
Room Temperature Condition	500	≥1500	500	≥1500
Humid Heat Condition	500	≥750	500	≥1125
Low Pressure Condition (1kPa)	150	≥300	250	≥300

Insulation Resistance (MΩ)

Operating Class	Standard Condition	High Temperature	Humid Heat
Insulation Resistance	≥5000	≥1000	≥100

Diameter of Contact Soldering Hole (mm)

Contact Specification	φ1	φ1.5	φ2	φ3
Soldering Hole Specification	1.5	2	2.5	3.5

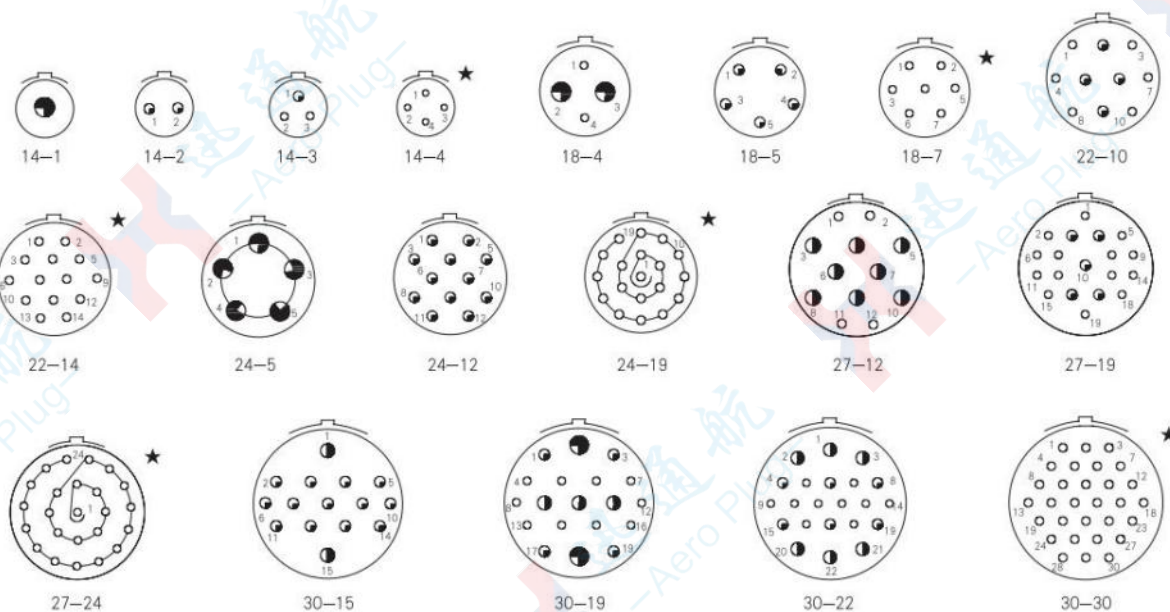
Electrical Continuity Between Housings: ≤ 2.5 mΩ for Aluminum Alloy Housings

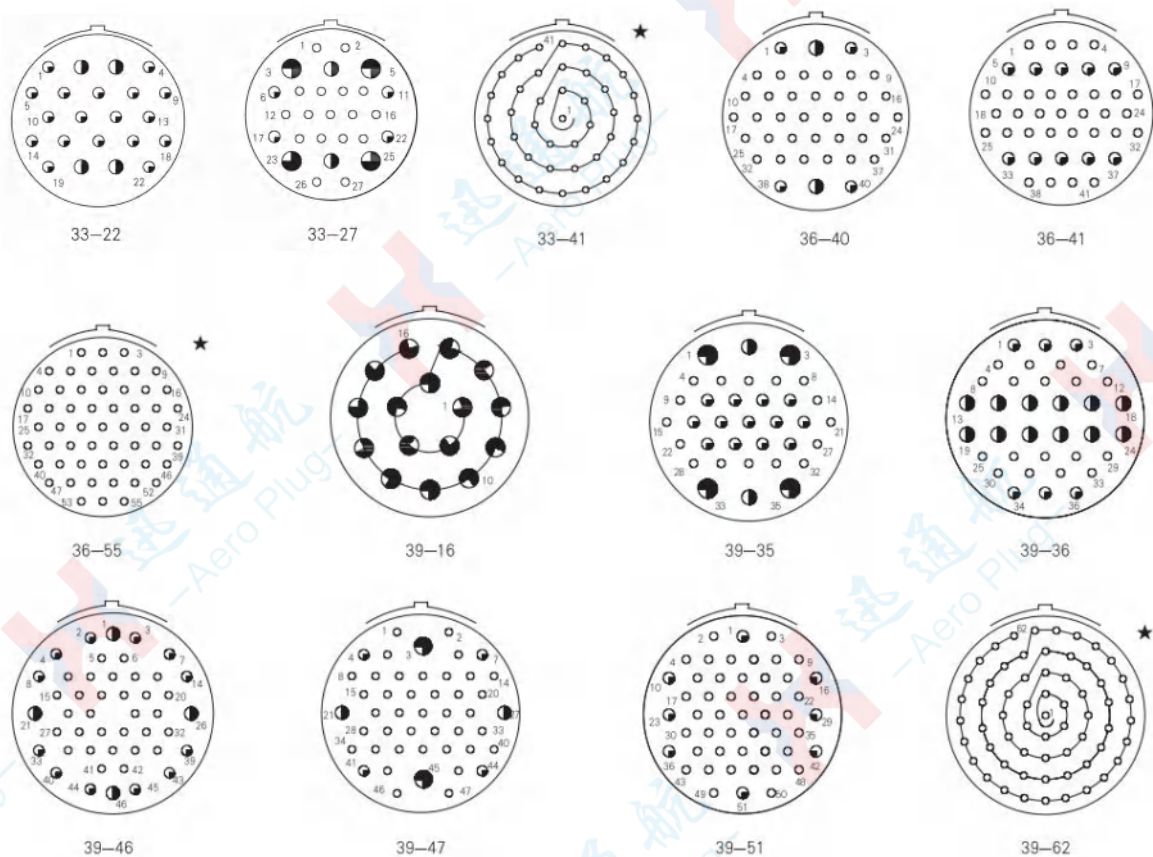
III. Crimp Contact Marking

Specification	Type	Color Code Band	Inner Diameter of Crimp Barrel mm	Outer Diameter of Crimp Barrel mm	Applicable Wire Cross-Section mm ²	Removal Tool Code
φ1.0	A	red	φ1.0	φ2.1	0.2 0.35 0.5	MS81969/14-φ1
	B	bule	φ1.3		0.75	
φ1.5	A	red	φ1.4	φ2.8	0.75 1	MS81969/14-φ1.5
	B	bule	φ1.8		1.2	
					1.5	
φ2.0	A	red	φ2.1	φ3.6	2	MS81969/14-φ2.0
	B	bule	φ2..5		2.5 3	
φ3.0	A	red	φ3.2	φ4.6	4	MS81969/14-φ3.0
	B	bule	φ3.4		5	

Note: Any crimping tool complying with GB9022 "General Specification for Hand or Power-Driven Crimping Tools" is acceptable.

IV. Contact Arrangement (Viewed from the Pin Side)





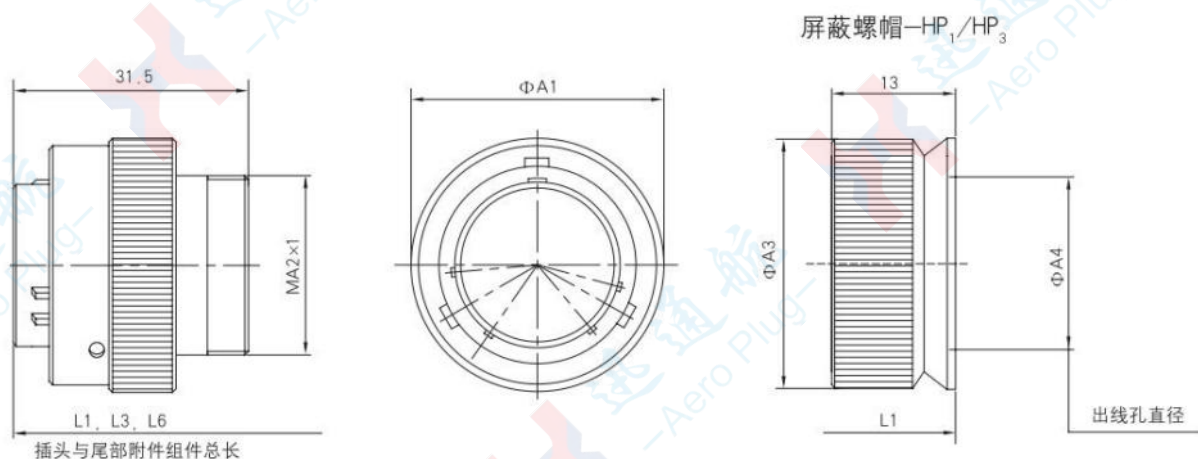
Note: Contact Diameter Marking



Note: Contact arrangements marked with "★" can be processed into XCB printed circuit board (PCB) sockets. For detailed dimensions, please contact our factory to request the specifications.

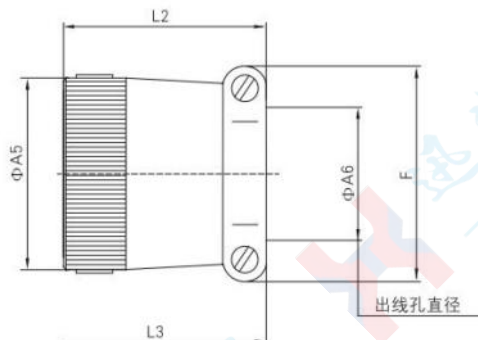
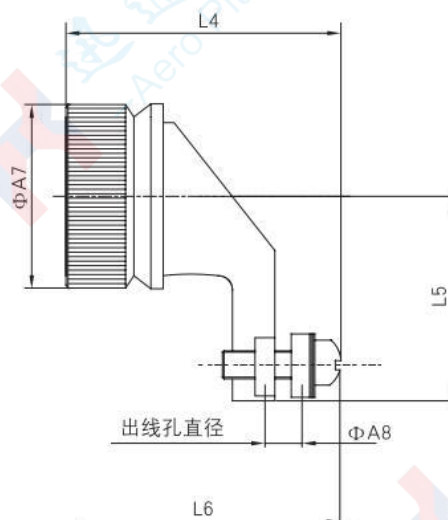
IV. Overall Dimensions

1. XC Series Plugs and Rear Accessories

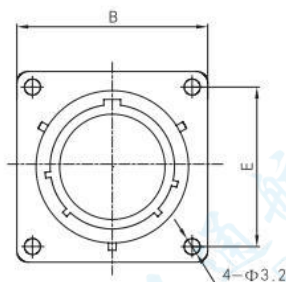
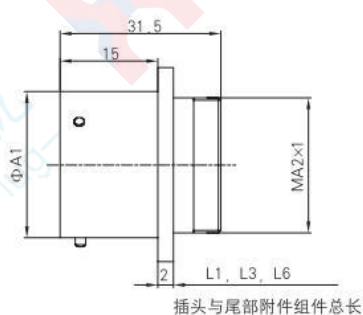
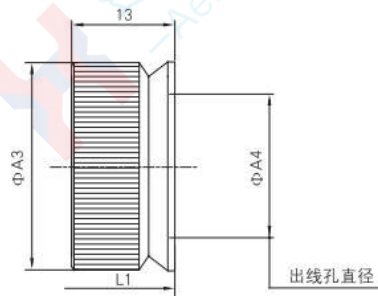


shell size	14	18	22	24	27	30	33	36	39
A1	24	28	32	34	37	40	43	46	49
A2	14	18	22	24	27	30	33	36	39
A3	18	22	26	28	31	34	37	40	43
A4	10	14	18	20	23	26	29	32	35
L1	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
A5	16	20	24	26	29	33	36	39	42
A6min	5.5	8.5	8.5	10.5	10.5	15	15	21	21
A6max	8	13	13	18	18	23	23	28	28
F	22	27	27	32	32	37	37	42	42
L2	22	22	25	25	25	30	30	30	30
L3	48.5	48.5	51.5	51.5	51.5	56.5	56.5	56.5	56.5
A7	22	26	30	32	35	38	40	44	46
A8min	5	8	8	10	10	14	14	20	20
A8max	11	15	19	21	24	26	29	32	35
L4	37.5	39.5	41.5	45.5	45.5	53.5	53.5	55.5	55.5
L5	21	23	25	26	27.5	29.5	31	32.5	34
L6max	63.5	65.5	69.5	71.5	71.5	79.5	79.5	81.5	81.5

Straight Cable Clip-H


Angled Cable Clip-WP₁/WP₃


2. XC Series Crimp Sockets and Rear Accessories

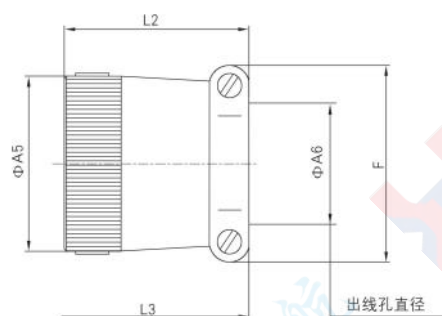
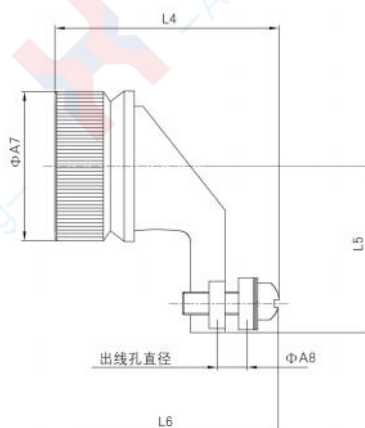

屏蔽螺帽-HP₁/HP₃


Note: 1. It is recommended that the panel opening diameter be $\Phi A2 + 0.5 \sim 1$ (preferred for optimal fit).

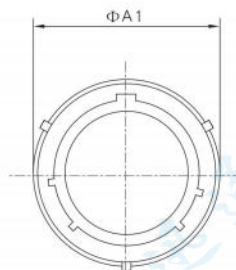
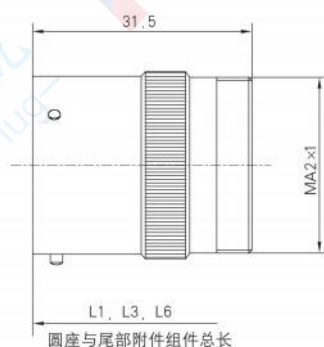
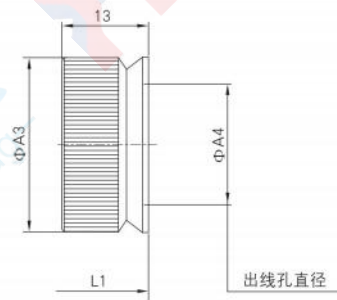
2. The rear accessories are available in two types: threaded and non-threaded at the rear. Their overall dimensions are consistent.

shell size	14	18	22	24	27	30	33	36	39
A1	15.7	19.7	23.7	25.7	28.7	31.7	34.7	37.7	40.7
A2	14	18	22	24	27	30	33	36	39
B	25	27.5	30	32	34.5	36.5	39.5	41	43
E	19	21.5	24	26	28	30	32.5	34	36
A3	18	22	26	28	30	34	37	40	43
A4	10	14	18	20	23	26	29	32	35
L1	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
A5	16	20	24	26	29	33	36	39	42
A6min	5.5	8.5	8.5	10.5	10.5	15	15	21	21
A6max	8	13	13	18	18	23	23	28	28
F	22	27	27	32	32	37	37	42	42
L2	22	22	25	25	25	30	30	30	30
L3	31.5	31.5	34.5	34.5	34.5	39.5	39.5	39.5	39.5
A7	22	26	30	32	35	38	40	44	46
A8min	5	8	8	10	10	14	14	20	20
A8max	11	15	19	21	24	26	29	32	35
L4	37.5	39.5	41.5	45.5	45.5	53.5	53.5	55.5	55.5
L5	21	23	25	26	27.5	29.5	31	32.5	34
L6max	46.5	48.5	52.5	54.5	54.5	62.5	62.5	64.5	64.5

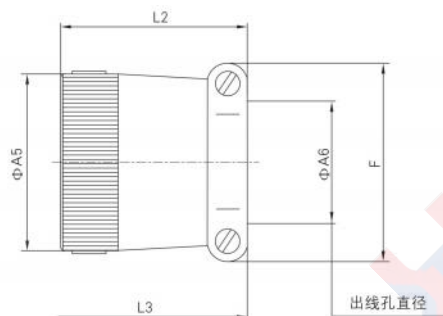
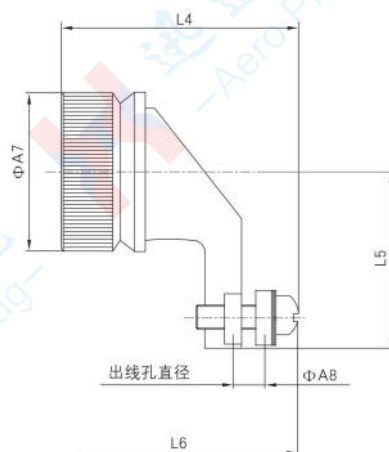
Straight Cable Clip - H


Angled Cable Clip-WP₁/WP₃


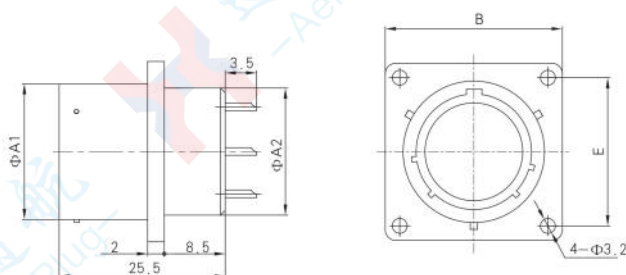
3. XC Series Circular Crimp Sockets


屏蔽螺帽-HP₁/HP₃


shell size	14	18	22	24	27	30	33	36	39
A1	17	21	25	27	30	33	36	39	42
A2	14	18	22	24	27	30	33	36	39
A3	18	22	26	28	31	34	37	40	43
A4	10	14	18	20	23	26	29	32	35
L1	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
A5	16	20	24	26	29	33	36	39	42
A6min	5.5	8.5	8.5	10.5	10.5	15	15	21	21
A6max	8	8.5	8.5	10.5	10.5	15	15	21	21
F	22	27	27	32	32	37	37	42	42
L2	22	22	25	25	25	30	30	30	30
L3	48.5	48.5	51.5	51.5	51.5	56.5	56.5	56.5	56.5
A7	22	26	30	32	35	38	40	44	46
A8min	5	8	8	10	10	14	14	20	20
A8max	11	15	19	21	24	26	29	32	35
L4	37.5	39.5	41.5	45.5	45.5	53.5	53.5	55.5	55.5
L5	21	23	25	26	27.5	29.5	31	32.5	34
L6max	63.5	65.5	69.5	71.5	71.5	79.5	79.5	81.5	81.5

Straight Cable Clip-H

Angled Cable Clip-WP₁/WP₃


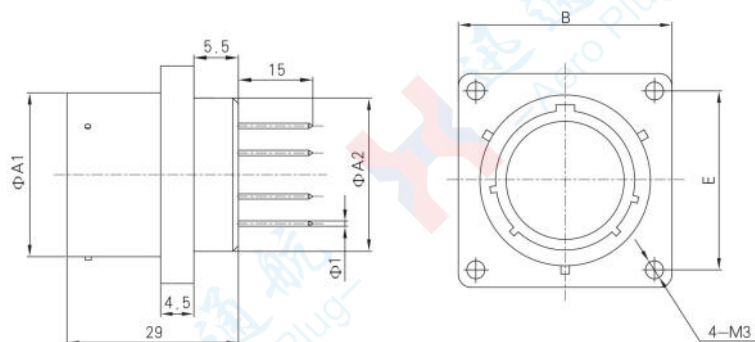
4. XCH Square Flange Soldering Socket



Note: It is recommended that the panel opening diameter be $\Phi A2^{+0.5}_{-1.0}$ (preferred for optimal fit).

shell size	A1	A2	B	E
14	15.7	14	25	19
18	19.7	18	27.5	21.5
22	23.7	22	30	24
24	25.7	24	32	26
27	28.7	27	34.5	28
30	31.7	30	36.5	30
33	34.7	33	39.5	32.5
36	37.7	36	41	34
39	40.7	39	43	36

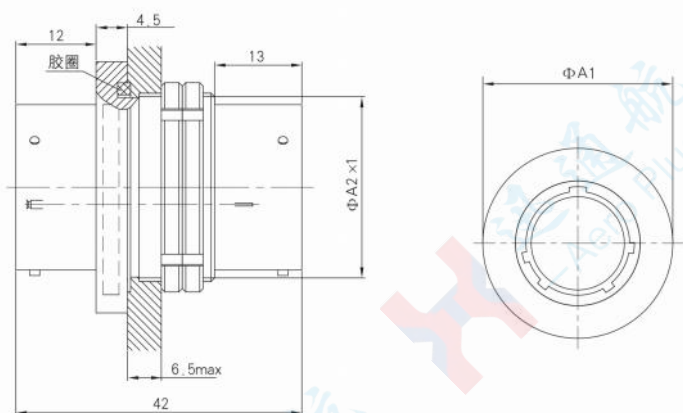
5、XCB Square Flange Printed Circuit Board (PCB) Soldering Socket



Note: It is recommended that the panel opening diameter be $\Phi A2^{+0.5^{+1.0}}$ (preferred for optimal fit).

shell size	A1	A2	B	E
14	15.7	14	25	19
18	19.7	18	27.5	21.5
22	23.7	22	30	24
24	25.7	24	32	26
27	28.7	27	34.5	28
30	31.7	30	36.5	30
33	34.7	33	39.5	32.5
33	37.7	36	44	34
39	40.7	39	46	36

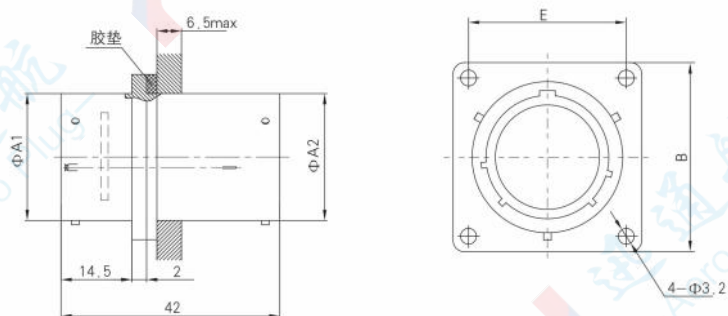
6 XC-S-M Nut-Fastened Through-Wall Hermetic Socket (Socket Contacts Outside the Panel, Pin Contacts Inside)



Note: It is recommended that the panel opening diameter be $M^{+0.5^{+1.0}}$ (preferred for optimal fit).

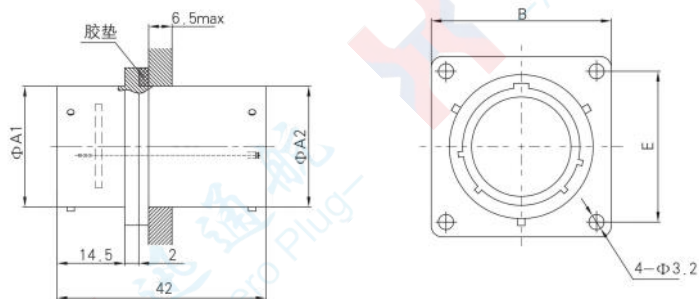
shell size	A1	A2
14	27	18
18	31	22
22	36	27
24	36	27
27	39	30
30	42	33
33	45	36
36	48	39
39	51	42

7、XC-S1-M Square Flange Mounted Through-Wall Hermetic Socket (Socket Contacts Outside the Panel, Pin Contacts Inside)



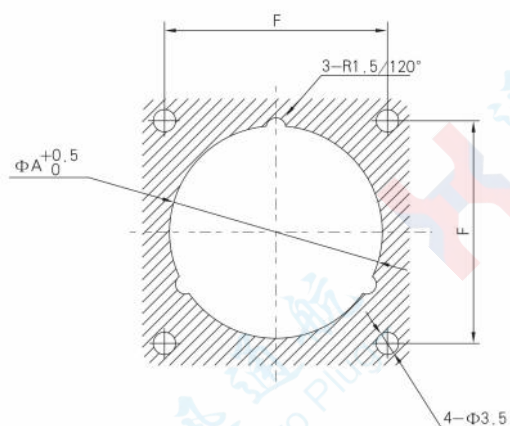
shell size	A1	A2	B	E
14	15.7	15.7	25	19
18	19.7	19.7	27.5	21.5
22	23.7	23.7	30	24
24	25.7	25.7	32	26
27	28.7	28.7	34.5	28
30	31.7	31.7	36.5	30
33	34.7	34.7	39.5	32.5
36	37.7	37.7	44	34
39	40.7	40.7	46	36

8. XC-S2-M Square Flange Mounted Through-Wall Hermetic Socket (Pin Contacts Outside the Panel, Socket Contacts Inside)



shell size	A1	A2	B	E
14	15.7	15.7	25	19
18	19.7	19.7	27.5	21.5
22	23.7	23.7	30	24
24	25.7	25.7	32	26
27	28.7	28.7	34.5	28
30	31.7	31.7	36.5	30
33	34.7	34.7	39.5	32.5
36	37.7	37.7	44	34
39	40.7	40.7	46	36

9. Recommended Panel Opening Dimensions for XC-S1-M and XC-S2-M Sockets



shell size	A	F
14	16	19
18	20	21.5
22	24	24
24	26	26
27	29	28
30	32	30
33	35	32.5
36	38	34
39	41	36

XCA Series Circular Electrical Connectors

This series of electrical connectors complies with GJB2889 standard. It adopts bayonet-type quick connection and disconnection, featuring interchangeability with XC Series products, convenient operation, and reliable connection. With excellent vibration and shock resistance, the connector housing is made of high-strength aluminum alloy, and the contacts adopt a rear-release crimping design—among which the socket contacts are wire spring sockets, boasting soft mating, low contact resistance, moisture resistance, salt spray resistance, and mold resistance. Compatible with American standard and domestic small-diameter wires, the angled cable clip at the rear end offers anti-rotation and water accumulation prevention functions. Widely used in military fields such as aerospace, ordnance, ships, and field communications, it is also suitable for circuit connections in post and telecommunications, railways, computers, marine navigation, and various instruments and meters.

Product Marking Code

XTH	XCA	14	T	4	K	HP ₁	W
1	2	3	4	5	6	7	8

1— Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— Main Designation Code of Circular Electrical Connectors

3— Shell Size: 14、18、22、24、27、30、33、36、39

4— Plug/Socket Category: See Table 1

5— Number of Contact Pairs: 1 ~ 62 contacts

6— Contact Category: Z-Silver-plated Pin; Z₁-Gold-plated Pin K-Silver-plated Socket;

K₁— Gold-plated Socket; M-Silver-plated Contacts for Hermetic Sockets; M₁— Gold-plated Contacts for Hermetic Sockets

7— Shell Plating and Rear Accessories: See Table 2 for details

8— Anti-misinsertion Key Position: N, W, X, Y, Z; among which "N" may be omitted (see Anti-misinsertion Key Positions for reference)



Notes: 1、To ensure compatibility with various cable specifications, a variety of dedicated rear accessories are available. For detailed information, refer to General Accessories for XC and Its Extended Series Electrical Connectors.

2、For products requiring Type B crimp contacts, mark "B" at the end of the model. If unmarked, the product defaults to Type A crimp contacts (see specifications in the Crimp Contact Table for XCA Series).

Table 1: Plug/Socket Categories

Plug and Socket Types	Basic Marking	Structural Characteristics	Remarks
Crimp Plug	XCA-T ^Z _K ...	Aluminum alloy housing with shielded or unshielded plating; Copper alloy contacts with silver or gold plating, featuring a rear-release crimping design; Compatible with both pins and sockets; Non-hermetic.	Compatible with any of the following sockets for mating
Square Flange Crimp Socket	XCA-F ^Z _K ...	Aluminum alloy housing with shielded or unshielded plating and a square mounting flange; Copper alloy contacts with silver or gold plating, featuring a rear-release crimping design; Compatible with both pins and sockets; Non-hermetic.	Two structural types are available: with threads at the rear (for accessory connection) and without threads.
Circular Crimp Socket	XCA-Y ^Z _K ...	Aluminum alloy housing with shielded or unshielded plating, no mounting flange; Copper alloy contacts with silver or gold plating, featuring a rear-release crimping design; Compatible with both pins and sockets; Non-hermetic.	With threads at the rear
Nut-Fastened Through-Wall Hermetic Adapter (Potting Seal)	XCA-S-M XCA-S3-M...	Aluminum alloy housing with shielded or unshielded plating; Copper alloy contacts with silver or gold plating, non-removable; Sockets on the panel exterior and pins on the panel interior; Hermetic.	The difference between the two is: XCA—S3-M... is provided with a locating flat milled on the thread to prevent rotation.

Table 2: Housing Plating and Rear Accessories

Marking Code	Marking Meaning	Marking Code	Marking Meaning	Remarks
No Marking	Without threads at the rear, with black anodization	E	Threaded Rear Section, Optional Auxiliary Components, and Black Anodized Finish	Unshielded Plating
H	Equipped with a straight cable at the rear, with black anodization	W	Equipped with a Bent Cable Clip at the Rear, Black Anodized Finish	
D1	Without threads at the rear, with electroless nickel plating	P1	Threaded Rear Section, Optional Auxiliary Components, and Electroless Nickel Plating	Shielded Plating
D3	Without threads at the rear, with zinc-plated olive drab passivation finish	P3	With threads at the rear, optional accessories available, and zinc-plated olive drab passivation finish	
HP1	Equipped with a shielded nut at the rear, with electroless nickel plating	WP1	Equipped with an angled cable clip at the rear, with electroless nickel plating	
HP3	Equipped with a shielded nut at the rear, with zinc-plated olive drab passivation finish	WP3	Equipped with an angled cable clip at the rear, with zinc-plated olive drab passivation finish	
D30	Without threads at the rear, with stainless steel passivation finish	P40	With threads at the rear, optional accessories available, and stainless steel passivation finish	

Product Technical Features

I. Operating Environment and Conditions

Operating Temperature: -55°C ~ +125°C -55°C ~ +200°C (to be specified when ordering)

Hermeticity Pressure Difference: 50.7 kPa Leak Rate: ≤46 Pa·cm³/s

Hermeticity Pressure Difference: 50.7 kPa Leak Rate: ≤46 Pa·cm³/s

Constant Acceleration: 980m/s²

operating altitude : 30,000 m

shock: Acceleration: 980 m/s²

vibration: frequency:10Hz ~ 2000Hz, accleration:196m/S² Mechanical Life: Mating/Unmating Cycles: ≥1000 times

II. Electrical Characteristics

Crimp Contacts for XCA Series

Specifcation	Type / Types	Color Code	Inner Diameter of the Crimp Sleeve mm	Outer Diameter of the Crimp Sleeve mm	Compatible Wire Cross-Section 2	Compatible with American Wire Gauge AWG	Compatible with Wire Insulation Outer Diameter	Removal Tool Code
Φ1.0	A	Yellow	Φ1.0	Φ1.8	0.20 0.35 0.50	22 20	Φ1.1 ~ Φ2.1	MS81969/14-Φ1
	B	bule	Φ1.3		0.75	20 18		
Φ1.5	A	Yellow	Φ1.4	Φ2.4	0.75 1.00	18	Φ1.3 ~ Φ2.6	MS81969/14-Φ1.5
	B	bule	Φ1.8		1.20 1.50	16 14		
Φ2.0	A	Yellow	Φ2.1	Φ3.2	2.00	14	Φ2.5 ~ Φ3.6	MS81969/14-Φ2
	B	bule	Φ2.5		2.50 3.00	12		
Φ3.0	A	Yellow	Φ3.0	Φ4.2	4.00	12	Φ2.5 ~ 4.6	MS81969/14-Φ3
	B	bule	Φ3.4		5.00	10		

Note: Any crimping tool that complies with GB 9022 "General Specification for Hand or Power-Driven Crimping Tools" may be used.

Contact Resistance and Rated Current

Contact Specifications(mm)	Contact Resistance (mΩ)	Double-End Sealed Contact Resistance (mΩ)	Rated Current (A)
Φ1.0	≤5.0	≤10.0	5
Φ1.5	≤2.5	≤5.0	10
Φ2.0	≤1.25	≤2.5	20
Φ3.0	≤0.75	≤1.5	40

Rated Voltage and Withstand Voltage

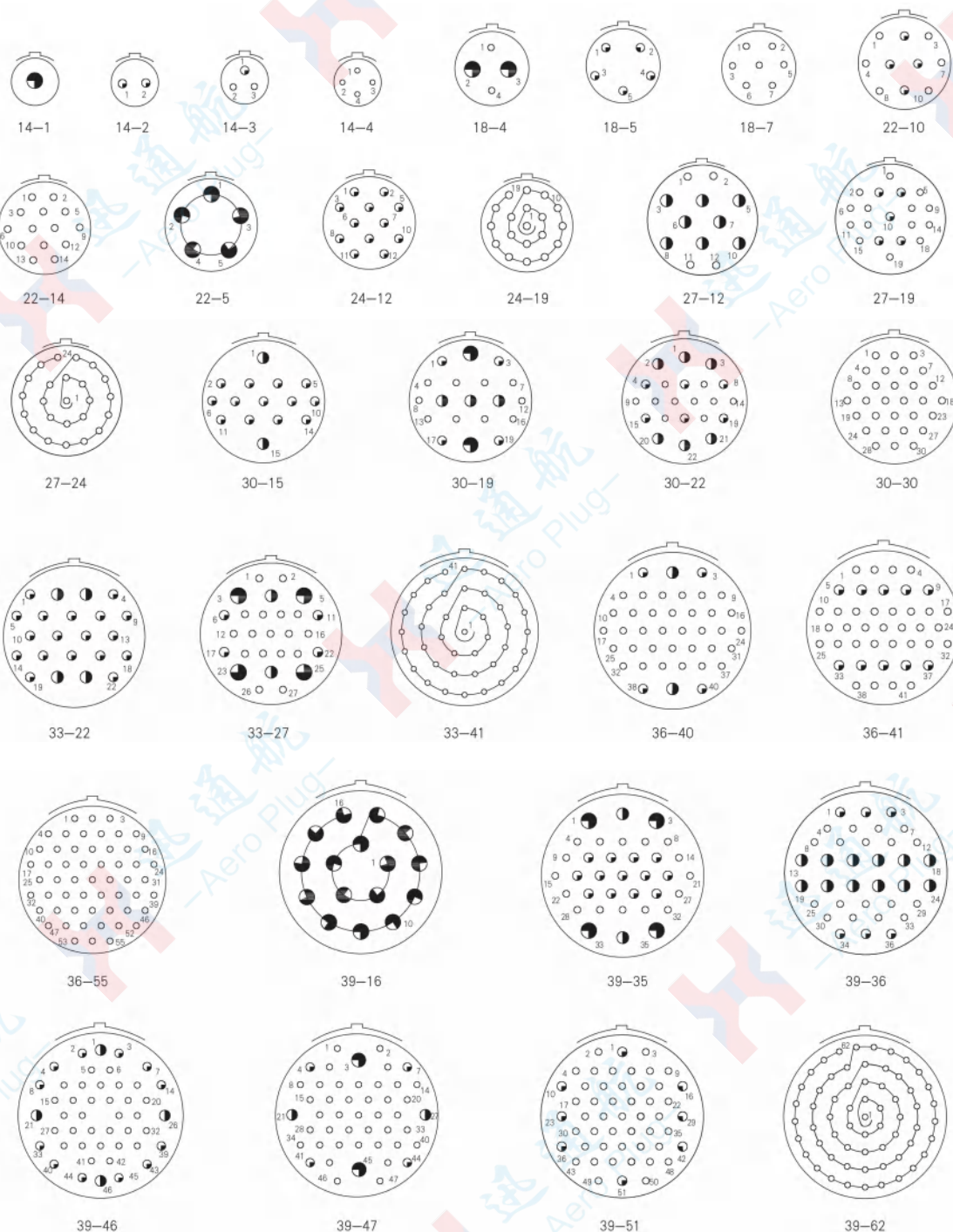
Operating Environment	Sealed Electrical Connector		Unsealed Electrical Connector	
	Rated Voltage (V)	Withstand Voltage (V)	Rated Voltage (V)	Withstand Voltage (V)
Normal Temperature Condition	500	≥1500	500	≥1500
Damp Heat Condition	500	≥750	500	≥1125
Low Pressure Condition (1kpa)	150	≥300	250	≥300

Insulation Resistance ($M\Omega$)

Working Class	Standard Condition	High Temperature	Damp Heat
Insulation Resistance	≥ 5000	≥ 1000	≥ 100

Electrical Continuity Between Housings: Aluminum Alloy Housing $\leq 2.5 m\Omega$

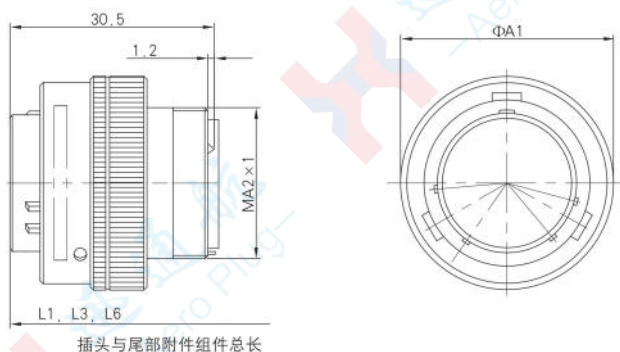
III. Contact Arrangement (Viewed from the Pin Side)



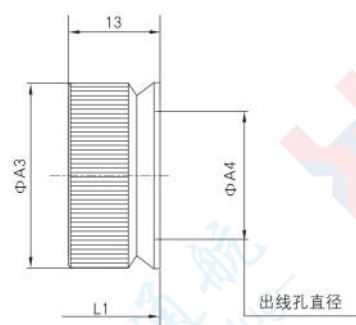
注：接触件直径标志 ○ $\Phi 1.0$ ◐ $\Phi 1.5$ ◑ $\Phi 2.0$ ◒ $\Phi 3.0$

IV. Overall Dimensions

1、XCA Series Receptacles and Rear Accessories

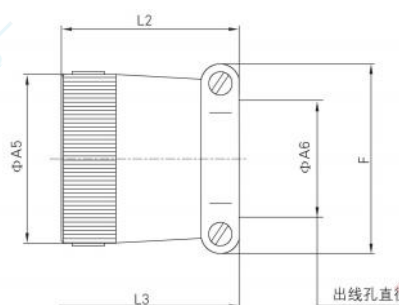


Shielded Nut -HP₁/HP₃

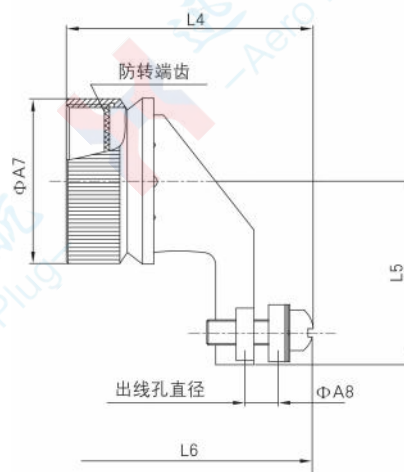


shell size	14	18	22	24	27	30	33	36	38
A1	24	28	32	34	37	40	43	46	49
A2	14	18	22	24	27	30	33	36	43
A3	18	22	26	28	31	34	37	32	43
A4	10	14	18	20	23	26	29	32	35
L1	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5
A5	16	20	24	26	29	33	36	39	42
A6min	5.5	8.5	8.5	10.5	10.5	15	15	21	21
A6max	8	13	13	18	18	23	23	28	28
F	22	27	27	32	32	37	37	42	42
L2	22	22	25	25	25	30	30	30	30
L3	47.5	47.5	50.5	50.5	50.5	55.5	55.5	55.5	55.5
A7	16.5	20.5	24.5	26.5	29.5	32.5	35.5	38.5	41.5
A8min	5	8	8	10	10	14	14	20	20
A8max	11	15	19	21	24	26	29	32	35
L4	37.5	39.5	41.5	45.5	45.5	53.5	53.5	55.5	55.5
L5	21	23	25	26	27.5	29.5	31	32.5	34
L6max	62.5	64.5	68.5	70.5	70.5	78.5	78.5	80.5	80.5

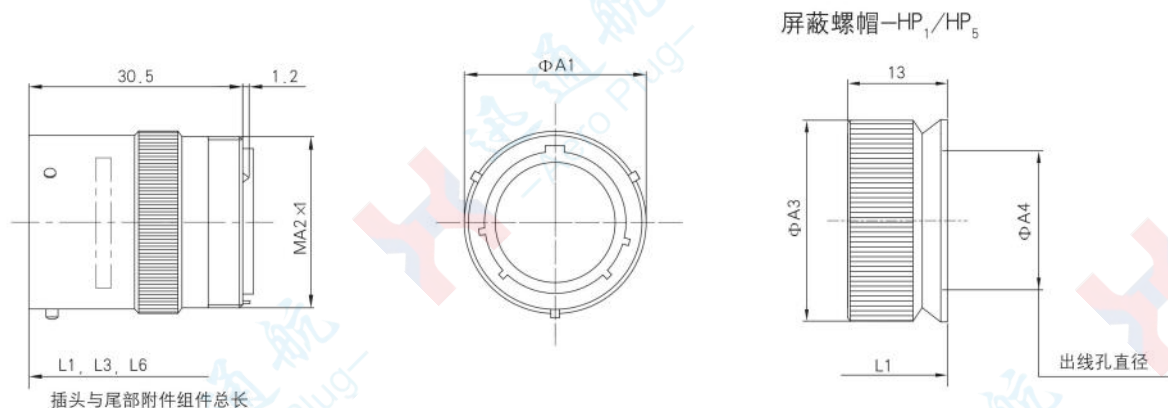
Straight Cable Clip - H



Angled Cable Clip - WP1/WP3



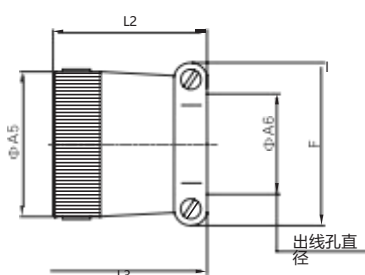
2. XCA Series Circular Receptacles and Rear Accessories



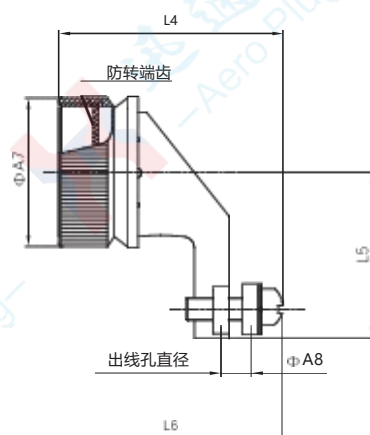
Note: It is recommended that the panel cutout diameter be $\Phi A2 + 0.5 \sim 1$ for optimal fit.

shell size	14	18	22	24	27	30	33	36	39
A1	17	21	25	27	30	33	36	39	42
A2	14	18	22	24	27	30	33	36	39
A3	18	22	26	28	31	34	37	40	43
A4	10	14	18	20	23	26	29	32	35
L1	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5
A5	16	20	24	26	29	33	36	39	42
A6min	5.5	8.5	8.5	10.5	10.5	15	15	21	21
A6max	8	13	13	18	18	23	23	28	28
F	22	27	27	32	32	37	37	42	42
L2	22	22	25	25	25	30	30	30	30
L3	47.5	47.5	50.5	50.5	50.5	55.5	55.5	55.5	55.5
A7	16.5	20.5	24.5	26.5	29.5	32.5	35.5	38.5	41.5
A8min	5	8	8	10	10	14	14	20	20
A8max	11	15	19	21	24	26	29	32	35
L4	37.5	39.5	41.5	45.5	45.5	53.5	53.5	55.5	55.5
L5	21	23	25	26	27.5	29.5	31	32.5	34
L6max	62.5	64.5	68.5	70.5	70.5	78.5	78.5	80.5	80.5

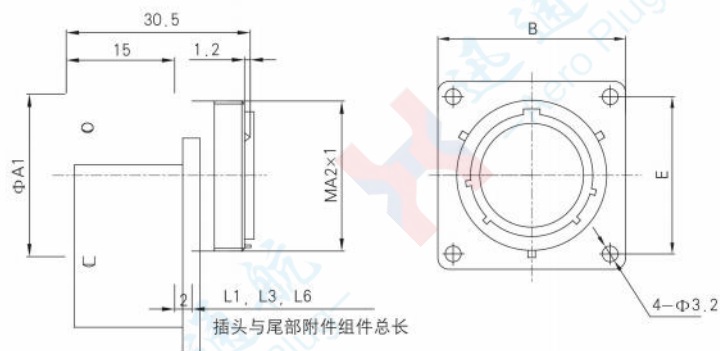
Straight Cable Clip - H



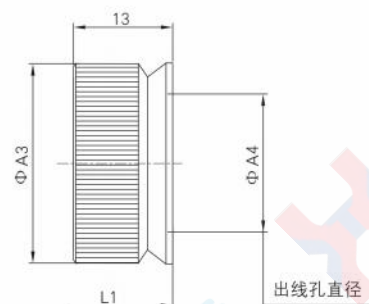
Angled Cable Clip - WP1/WP3



3. XCA Series Square Receptacles and Rear Accessories



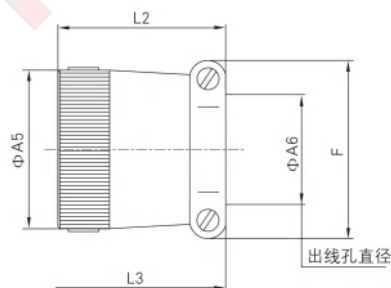
Shielded Nut - HP1/HP3



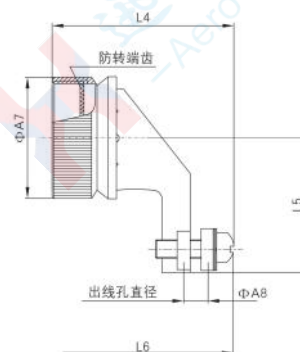
Note: It is recommended that the panel cutout diameter be $\Phi A2 + 0.5 \sim 1$ for optimal fit.

shell size	14	18	22	24	27	30	33	36	39
A1	15.7	19.7	23.7	25.7	28.7	31.7	34.7	37.7	40.7
A2	14	18	22	24	27	30	33	36	39
B	25	27.5	30	32	34.5	36.5	39.5	41	43
E	19	21.5	24	26	28	30	32.5	34	36
A3	18	22	26	28	31	34	37	40	43
A4	10	14	18	20	23	26	29	32	35
L1	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
A5	16	20	24	26	29	33	33	36	42
A6min	5.5	8.5	8.5	10.5	10.5	15	15	21	21
A6max	8	13	13	18	18	23	23	28	28
F	22	27	27	32	32	37	37	42	42
L2	22	22	25	25	25	30	30	30	30
L3	30.5	30.5	33.5	33.5	33.5	38.5	38.5	38.5	38.5
A7	16.5	20.5	24.5	26.5	29.5	32.5	35.5	38.5	41.5
A8min	5	8	8	10	10	14	14	20	20
A8max	11	15	19	21	24	26	29	32	35
L4	37.5	39.5	41.5	45.5	45.5	53.5	53.5	55.5	55.5
L5	21	23	25	26	27.5	29.5	31	32.5	34
L6max	45.5	47.5	51.5	53.5	53.5	61.5	61.5	63.5	63.5

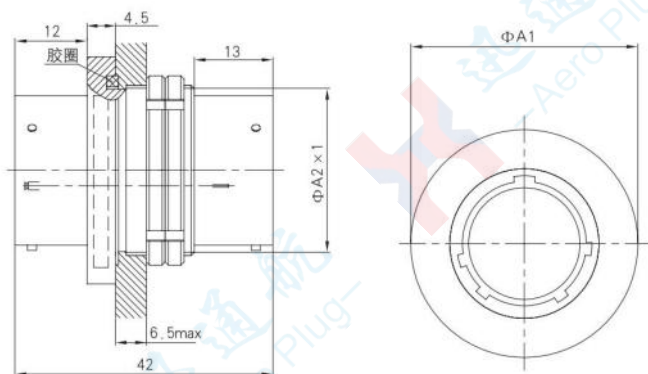
Straight Cable Clip - H



Angled Cable Clip - WP1/WP3



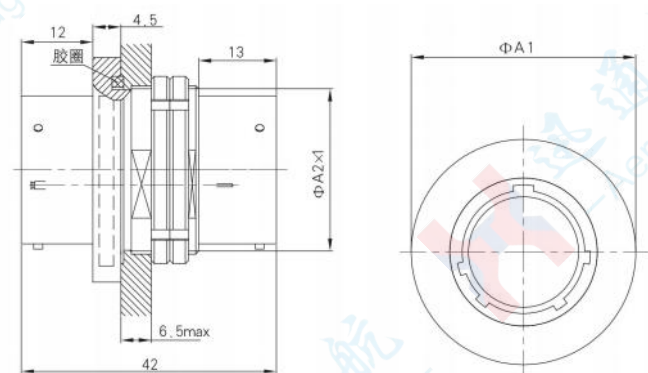
4. XCA-S-M Nut-Fastened Through-Wall Hermetic Receptacle (Socket Contacts External to Panel, Pin Contacts Internal)



shell size	A1	A2
14	27	18
18	31	22
22	36	27
24	36	27
27	39	30
30	42	33
33	45	36
36	48	39
39	51	42

Note: It is recommended that the panel cutout diameter be $\Phi A2 + 0.5 \sim 1$ for optimal fit.

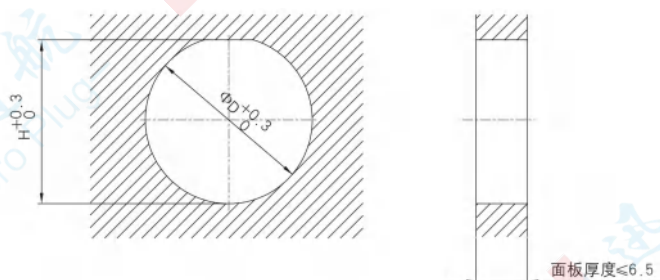
5. XCA-S3-M Nut-Fastened Anti-Rotation Through-Wall Hermetic Receptacle (Socket Contacts External to Panel, Pin Contacts Internal)



shell size	A1	A2
14	27	18
18	31	22
22	36	27
24	36	27
27	39	30
30	42	33
33	45	36
36	48	39
39	51	42

Note: It is recommended that the panel cutout diameter be $\Phi A2 + 0.5 \sim 1$ for optimal fit.

6. Panel Cutout Dimensions for XCA-S3-M Receptacle



shell size	D	H
14	18.3	17.0
18	22.3	21.0
22	27.3	25.4
24	27.3	26.4
27	30.3	29.4
30	33.3	32.4
33	36.3	35.4
36	39.3	38.4
39	42.3	41.4

CXCH Series Circular Electrical Connectors

This series of electrical connectors is an extended product of the XC Series. Its key technical performance complies with GJB2889 standard, featuring bayonet-type quick connection and disconnection for convenient operation, reliable connection, vibration resistance, and shock resistance. The housing is made of high-strength aluminum alloy, and the contacts include soldered types—with socket contacts adopting wire-spring structure, which offer smooth mating/unmating and low contact resistance. It exhibits properties such as moisture resistance, salt spray resistance, mold resistance, and rain resistance, making it suitable for various harsh environments including ships. Additionally, it can be applied in military fields such as aviation, aerospace, ordnance, naval vessels, and field communications.

Product Marking Code

XTH	CXCH	14	F/T	4	Z/K	P ₁	W
1	2	3	4	5	6	7	8

1— Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Main Designation Code for Circular Electrical Connectors

3— Shell Size: 14、18、22、24、27、30、33、36、39

4— Connector Type: T-Plug; F-Square Flange Receptacle

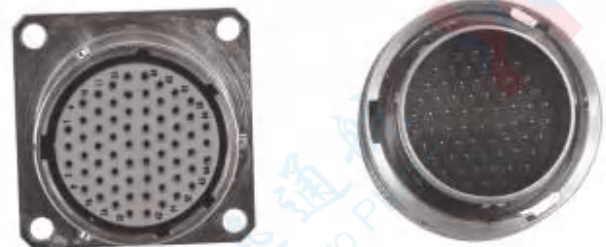
5— Number of Contacts: 1 ~ 62 Contacts

6— Contact Type: Z- Silver - Plated Pin; Z₁-Gold - Plated Pin;

K-Silver - Plated Socket; K₁- Gold - Plated Socket:

7— Shell Plating and Rear Accessories: See Table 1

8— Anti - Misinsertion Key Position: N, W, X, Y, Z; where "N" may be omitted (see Anti - Misinsertion Key Positions for details)



Note: To ensure compatibility with various cable specifications, a variety of dedicated rear accessories are available. For detailed information, refer to General Accessories for XC and Its Extended Series Electrical Connectors.

Table 1 Shell Plating and Rear Accessories

Code	Meaning of Marking	Marking Code	Meaning of Marking	Remarks
No Marking	No Thread at Rear, Anodized Black	E	Threaded at Rear, Optional Accessories, Anodized Black	Non-Shielded Plating
D ₁	No Thread at Rear, Electroless Nickel Plated	P ₁	Threaded at Rear, Optional Accessories, Electroless Nickel Plated	Shielded Plating
D ₃	No Thread at Rear, Zinc-Plated with Military-Green Passivation	P ₃	Threaded at Rear, Optional Accessories, Zinc-Plated with Military-Green Passivation	
D40	No Thread at Rear, Stainless Steel Passivated	P40	Threaded at Rear, Optional Accessories, Stainless Steel Passivated	

Product Technical Features

I. Operating Environment Conditions

Operating Temperature: -55°C ~ +125°C
 -55°C ~ +200°C (Specify when ordering)

Relative Humidity: 90% ~ 95% at 40°C±2°C

Vibration: Frequency 10Hz ~ 2000Hz, Acceleration 196m/s²

Operating Altitude: 30,000m

Constant Acceleration: 980m/s²

Shock: Acceleration 980m/s²

Mechanical Life: ≥10,000 Mating Cycles

II. Electrical Characteristics

Contact Resistance and Rated Current

Contact Specifications (mm)	Contact Resistance	Rated Current	Inner Diameter of Welding Sleeve (mm)	Maximum Conductor Cross-Sectional Area of Compatible Wire (mm ²)
Φ1.0	≤5.0	5	Φ1.5	1.0
Φ1.5	≤2.5	10	Φ2.0	1.5
Φ2.0	≤1.25	20	Φ2.5	3.0
Φ3.0	≤0.75	40	Φ3.0	6.0

Rated Voltage and Withstand Voltage

Operating Environment	Rated Voltage (V)	Withstand Voltage (V)
Ambient Temperature Environment	500	≥1500
Humid and Hot Environment	500	≥1125

Insulation Resistance (MΩ)

Working Class	Standard Conditions	High Temperature	Humid and Hot
Insulation Resistance	≥5000	≥1000	≥100

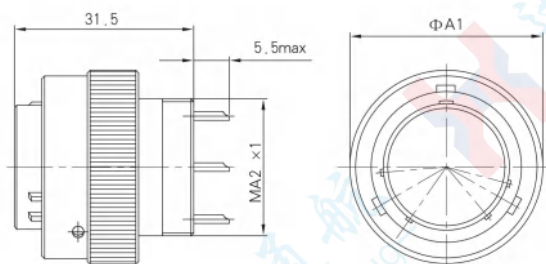
Electrical Continuity Between Housings: Aluminum Alloy Housings ≤ 2.5mΩ

III. Contact Arrangement

The contact arrangement of this series is the same as that of the XC series.

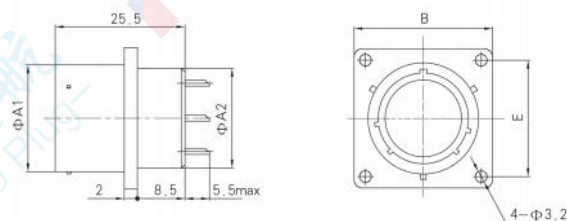
IV. Overall Dimensions

1. Overall Dimensions of CXCH Series Plugs



shell size	A1	A2
14	24	14
18	28	18
22	32	22
24	34	24
27	37	27
30	40	30
33	43	33
36	46	36
39	49	39

2. Overall Dimensions of CXCH Series Square Flange Sockets



shell size	A1	A2	B	E
14	15.7	14	25	19
18	19.7	18	27.5	21.5
22	23.7	22	30	24
24	25.7	24	32	26
27	28.7	27	34.5	28
30	31.7	30	36.5	30
33	34.7	33	39.5	32.5
36	37.7	36	41	34
39	40.7	39	43	36

*It is recommended that the panel opening diameter be $\Phi A2 + 0.5 \sim 1$ (preferred tolerance range).

CXCH-01 Series Circular Electrical Connectors

This series of electrical connectors is an extended product of the XC series. Its main technical performance complies with GJB2889 standard. According to customer requirements, the shell wall thickness has been increased to enhance the mechanical strength of the product. It adopts a bayonet-type quick connection and separation method, featuring convenient operation, reliable connection, vibration resistance and impact resistance. The shell is made of high-strength aluminum alloy, and the contacts include soldered types. Among them, the jacks are wire spring jacks, which possess characteristics such as smooth insertion and extraction, low contact resistance, moisture resistance, salt spray resistance, mold resistance, and rain resistance. It is mainly applied to the line connection of ships, postal and telecommunications, instruments, as well as railway command systems, navigation equipment and various instruments.

Product Marking Code

XTH CXCH 14 F/T 4 ZK P₁ w - 01
 1 2 3 4 5 6 7 8 9



- 1— Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.
- 2— Main Designation Code of Circular Electrical Connectors
- 3— Shell Size:: 14、18、22、24、27、30、33、36、39、42
- 4— Connector Type: T- Plug; F-Square Flange Socket
- 5— Number of Contact Pairs: 1 ~ 62 Contacts
- 6— Contact Type: Z- Silver - Plated Pin; Z₁-Gold - Plated Pin:
 K-Silver - Plated Jack; K₁—Gold - Plated Jack:
- 7— Shell Plating and Tail Accessories: See Table 1
- 8— Anti - Misinsertion Key Position: N, W, X, Y, Z; Among them, "N" may be omitted (see Anti - Misinsertion Key Positions for details)
- 9— Modified Product Mark: 01

Note: To ensure compatibility with various specifications of cables, a variety of dedicated rear accessories are available. For detailed information, refer to "General Accessories for XC and Its Extended Series Electrical Connectors".

Table 1 Shell Plating and Rear Accessories

Code	Marking Meaning	Code	Marking Meaning	remarks
No Marking	No thread at the rear, black anodized	E	With thread at the rear, optional accessories, black	Non-shielded Plating
D1	No thread at the rear, electroless nickel plated	P1	With thread at the rear, optional accessories, electroless nickel plated	Shielded Plating
D3	No thread at the rear, galvanized with military green passivation	P3	With thread at the rear, optional accessories, galvanized with military green passivation	
D40	No thread at the rear, stainless steel passivated	P40	With thread at the rear, optional accessories, stainless steel passivated	

Product Technical Features

I. Operating Environment Conditions

Operating Temperature: $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$

$-55^{\circ}\text{C} \sim +200^{\circ}\text{C}$ (Specify when ordering)

Operating Altitude: 30,000m

Constant Acceleration: 980m/s^2

Relative Humidity: 90%-95% at $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$

Shock: Acceleration 980m/s^2

Vibration: Frequency 10Hz ~ 2000Hz, Acceleration 196m/s^2

Mechanical Life: ≥ 1000 Insertion/Extraction Cycles

II. Electrical Characteristics

Contact Resistance and Rated Current

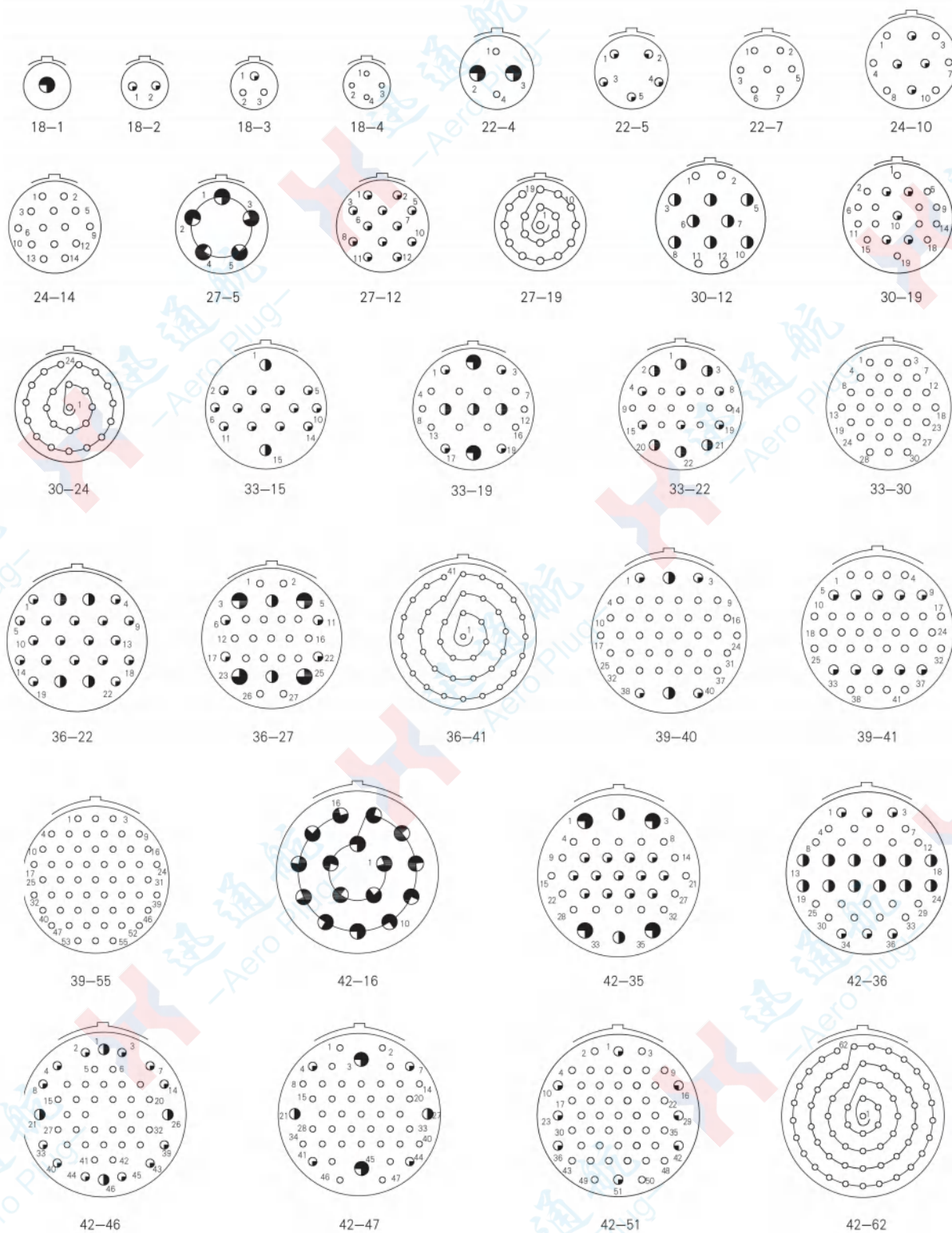
Contact Specifications (mm)	Contact Resistance (m Ω)	Rated Current (A)	Inner Diameter of Welding Sleeve(mm)	Maximum Cross-Sectional Area of Compatible Conductor Core (mm 2)
$\Phi 1.0$	≤ 5	5	$\Phi 1.5$	1.0
$\Phi 1.5$	≤ 2.5	10	$\Phi 2.0$	1.5
$\Phi 2.0$	≤ 1.25	20	$\Phi 2.5$	3.0
$\Phi 3.0$	≤ 0.75	40	$\Phi 3.0$	6.0

Rated Voltage, Withstand Voltage and Insulation Resistance

Operating Environment	Rated Voltage (V)	Withstand Voltage (V)	Insulation Resistance (M Ω)
Normal Humidity Condition	500	≥ 150	≥ 5000
Damp Heat Condition	500	≥ 1125	≥ 100

Electrical Continuity Between Shells: Aluminum Alloy Shell $\leq 2.5\text{m}\Omega$

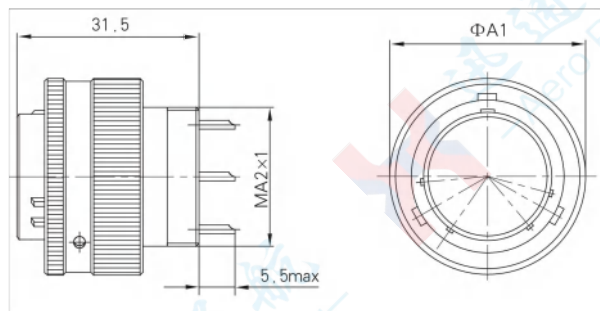
III. Contact Arrangement (Viewed from the Pin Side)



注:接触件直径标志 ○ $\Phi 1.0$ ◐ $\Phi 1.5$ ◑ $\Phi 2.0$ ◒ $\Phi 3.0$

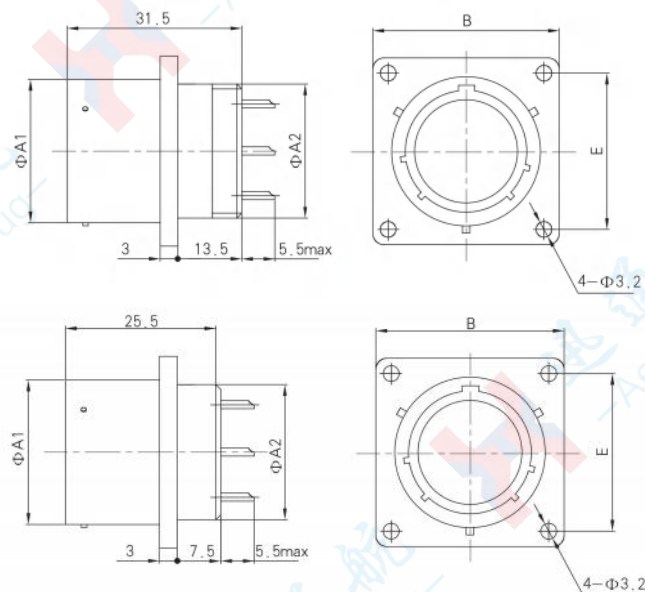
IV. Overall Dimensions

1. Overall Dimensions of CXCH-01 Series Plug



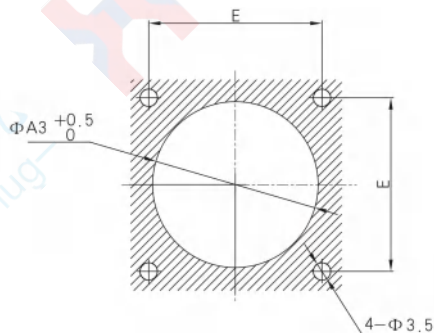
shell size	A1	A2
18	28	18
22	32	22
24	34	24
27	37	27
30	40	30
33	43	33
36	46	36
39	49	39
42	52	42

2. Overall Dimensions of CXCH-01 Series Square Panel Socket



shell size	A1	A2	B	E
18	19.7	18	27.5	21.5
22	23.7	22	30.0	24.0
24	25.7	24	32.0	26.0
27	28.7	27	34.5	28.0
30	31.7	30	36.5	30.0
33	34.7	33	39.5	32.0
36	37.7	36	41.0	34.0
39	40.7	39	43.0	36.0
42	43.7	42	46.0	39.0

3. Overall Dimensions of CXCH-01 Series Square Panel Socket



shell size	A3	E
18	18.5	21.5
22	22.5	24.0
24	24.5	26.0
27	27.5	28.0
30	30.5	30.0
33	33.5	32.5
36	36.5	34.0
39	39.5	36.0
42	42.5	39.0

XCG Series Circular Electrical Connectors

This series of electrical connectors is fully interchangeable with the XC series. Featuring a bayonet-type quick-connect/disconnect mechanism, it offers convenient operation, secure connection, excellent vibration resistance, and impact durability. The shell is constructed from high-strength aluminum alloy, and the contacts include solder-type variants—with socket contacts adopting wire-spring design. Key characteristics include smooth mating/unmating, low contact resistance, moisture resistance, salt spray resistance, mold resistance, and rainproof performance. Primarily designed for harsh environments such as marine applications, it is also suitable for military fields including aviation, aerospace, ordnance, and field communications, as well as circuit connections in postal and telecommunications systems, railway command systems, computers, marine navigation equipment, and various instruments and meters.

Product Marking Code

$\frac{XTH}{1}$ $\frac{XCG}{2}$ $\frac{14}{3}$ $\frac{F/T}{4}$ $\frac{4}{5}$ $\frac{Z/K}{6}$ $\frac{P_1}{7}$ $\frac{W}{8}$

1— Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— Main Designation Code for Circular Electrical Connectors

3— Shell Size: 18、22、24、27、30、33、36、39

4— Plug and Socket Type: T- Plug; F-Square Panel Socket

5— Number of Contact Pairs: 1 ~ 62 Contacts

6— Contact Type: Z- Silver - Plated; Z₁-Gold - Plated Pin; K-Silver - Plated Jack; k₁- Gold - Plated Jack;

7— Shell Plating and Rear Accessories: See Table 1

8— Anti - Misinsertion Key Position: N, W, X, Y, Z; among which "N" may be omitted (see Anti - Misinsertion Key Positions for details)

Note: To ensure compatibility with various specifications of cables, a variety of dedicated rear accessories are available. For detailed information, refer to General Accessories for XC and Its Extended Series Electrical Connectors.

Table 1: Shell Plating and Rear Accessories

Code	Marking Meaning	Marking code	Marking Meaning	Remarks
No Mark	Threadless Rear, Black Anodized	E	Threaded Rear (Optional Accessories), Black Anodized	Non-Shielding Plating
D1	Threadless Rear, Electroless Nickel Plated	P1	Threaded Rear (Optional Accessories), Electroless Nickel Plated	Shielding Plating
D3	Threadless Rear, Zinc-Plated with Military-Green Passivation	P2	Threaded Rear (Optional Accessories), Zinc-Plated with Military-Green Passivation	
D40	Threadless Rear, Stainless Steel Passivated	P40	Threaded Rear (Optional Accessories), Stainless Steel Passivated	

Product Technical Features

I. Operating Environment Conditions

Operating Temperature: -55°C ~ +125°C
 55°C ~ +200°C (to be specified when ordering)

Relative Humidity: 90% ~ 95% at 40°C±2°C

Operating Altitude: 30,000m

Vibration: Frequency 10Hz ~ 2000Hz, Acceleration 196m/s²

Hermeticity: 35.5kPa

Constant Acceleration: 980m/s²

Mechanical Life: ≥1000 Insertion/Extraction Cycles

Shock: Acceleration 980m/s²

II. Electrical Characteristics

Rated Voltage, Withstand Voltage and Insulation Resistance

Operating Environment	Rated Voltage (V)	Withstand Voltage (V)	Insulation Resistance (MΩ)
Normal Temperature Condition	500	≥1500	≥ 5000
Damp Heat Condition	500	≥750	≥100
Low Atmospheric Pressure Condition (1kPa)	150	≥200	-

Electrical Continuity Between Housings:
 Aluminum Housing ≤ 2.5mΩ

Contact Resistance and Rated Current

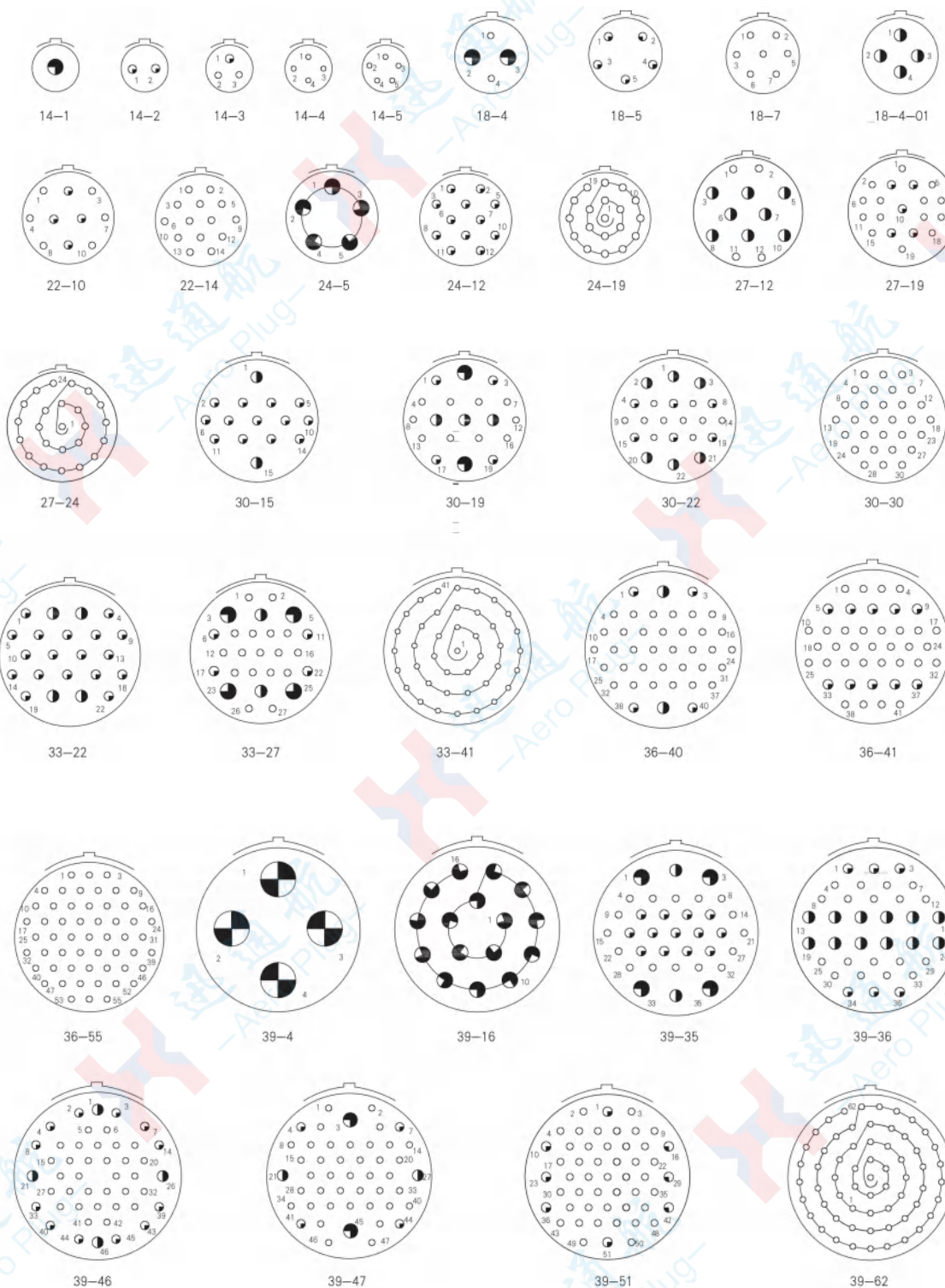
Contact Specification (mm)	contact Resistance	Rated Current (A)
Φ1.0	≤5.0	5
Φ1.5	2.5	10
Φ2.0	≤1.25	20
Φ3.0	≤0.75	40
Φ4.5	≤0.35	65

Diameter of the Contact Welding Hole

Contact Specification (mm)	Welding Hole Diameter (Φmm)
Φ1.0	1.5
Φ1.5	2.0
Φ2.0	2.5
Φ3.0	3.0
Φ4.5	4.5



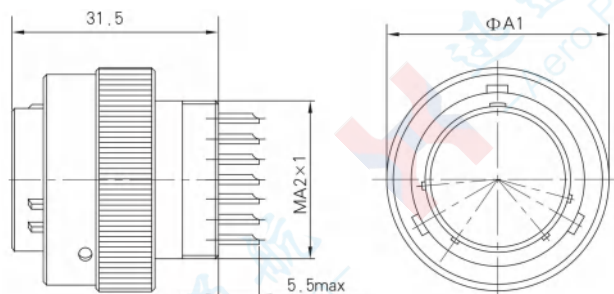
III. Contact Arrangement (Viewed from the Pin Side)



注：接触件直径标志 ○ $\Phi 1.0$ ◐ $\Phi 1.5$ ◑ $\Phi 2.0$ ◒ $\Phi 3.0$ ◓ $\Phi 4.5$

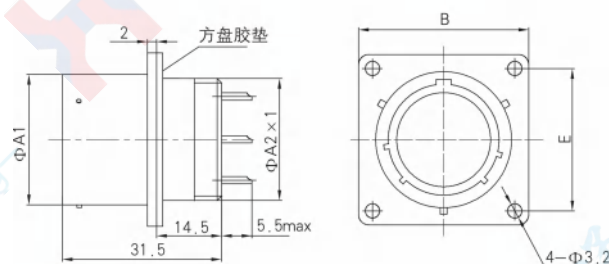
IV. Overall Dimensions

1. Overall Dimensions of XCG Series Plug



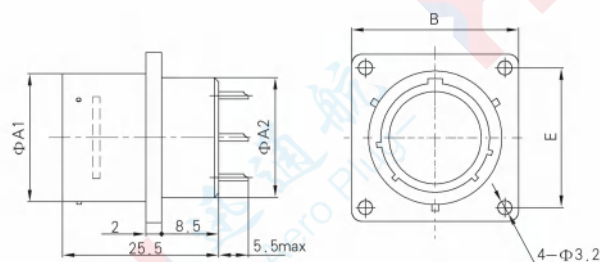
shell size	A1	A2
14	24	14
18	28	18
22	32	22
24	34	24
27	37	27
30	40	30
33	43	33
36	46	36
39	49	36

2. XCG Series Square Panel Socket (Threaded Rear)



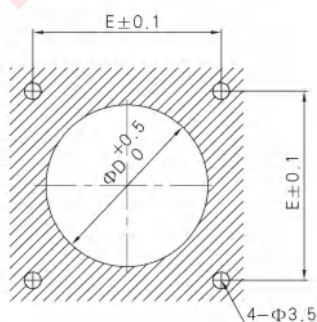
shell size	A1	A2	B	E
14	15.7	14	25.0	19.0
18	19.7	18	27.5	21.5
22	23.7	22	30.0	24.0
24	25.7	24	32.0	26.0
27	28.7	27	34.5	28.0
30	31.7	30	36.5	30.0
33	34.7	33	39.5	32.5
36	37.7	36	41.0	34.0
39	40.7	39	43.0	36.0

3. XCG Series Square Panel Socket (Threadless Rear)



shell size	A1	A2	B	E
14	15.7	14	25.0	19.0
18	19.7	18	27.5	21.5
22	23.7	22	30.0	24.0
24	25.7	24	32.0	26.0
27	28.7	27	34.5	28.0
30	31.7	30	36.5	30.0
33	34.7	33	39.5	32.5
36	37.7	36	41.0	34.0
39	40.7	39	43.0	36.0

4. Panel Mounting Hole Dimensions



壳体号	D	E
14	14.5	19.0
18	18.5	21.5
22	22.5	24.0
24	24.5	26.0
27	27.5	28.0
30	30.5	30.0
33	33.5	32.5
36	36.5	34.0
39	39.5	36.0

XCE Series Circular Electrical Connector

Based on the contact arrangement of the XC series, this electrical connector series features compressed spacing between contact holes, offering a more compact size and lighter weight than the XC series with the same number of contact pairs; constructed from high-strength aluminum alloy, both plugs and sockets are compatible with either pins or jacks, adopting a bayonet-type quick coupling mechanism for convenient operation, secure connection, excellent vibration resistance and shock resistance; the contacts are available in soldered types, with jacks adopting wire-spring structures, boasting characteristics such as smooth mating/unmating, low contact resistance, moisture resistance, salt spray resistance, mold resistance and rain resistance, and are mainly applied in harsh environments such as marine applications, as well as military fields including aerospace, ordnance and field communications, and line connections in telecommunications, railway command systems, computers, marine navigation equipment and various instruments.

Product Marking Code

XTH XCE 14 F/T 4 Z/K P₁ W
1 2 3 4 5 6 7 8



1— Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— Main Designation Code for Circular Electrical Connectors

3— Shell Number: 12、14、18、22、24、27、30、33、36、39

4— Plug/Socket Category:

T-Plug; F- Square Panel Socket

S-Nut - Secured Wall - Mounted Hermetic Adapter (Pins Inside, Jacks Outside the Panel)

S₀-Nut - Secured Wall - Mounted Hermetic Adapter (Pins Inside, Jacks Outside the Panel)

S₁-Square Panel - Mounted Wall - Mounted Hermetic Adapter (Pins Inside, Jacks Outside the Panel)

S₂- Square Panel - Mounted Wall - Mounted Hermetic Adapter (Pins Inside, Jacks Outside the Panel)

5— Number of Contact Pairs: 1 ~ 85 Contacts

6— Contact Category: Z1 - Gold - Plated Pins; K1 - Gold - Plated Jacks; M1 - Potting Sealed (Gold - Plated Contacts)

7— Shell Plating and Rear Accessories: See Table 1 for Details

8— Anti - Misinsertion Key Number: N, W, X, Y, Z; Note: "N" may be omitted (see Anti - Misinsertion Key Positions)

Note: To ensure compatibility with various cable specifications, a variety of dedicated rear accessories are available. For detailed information, refer to "General Accessories for XC and Its Extended Series Electrical Connectors".

Table 1: Shell Plating and Rear Accessories

Code	Marking Meaning	Code	Marking Meaning	Remarks
No Mark	Threadless Rear, Anodized Black	E	Threaded Rear (Optional Accessories), Anodized Black	Non-Shielding Plating
D ₁	Threadless Rear, Electroless Nickel Plating	P ₁	Threaded Rear (Optional Accessories), Electroless Nickel Plating	Shielding Plating
D ₃	Threadless Rear, Zinc-Plated Olive Drab Passivation	P ₃	Threaded Rear (Optional Accessories), Zinc-Plated Olive Drab Passivation	
D40	Threadless Rear, Stainless Steel Passivation	P40	Threaded Rear (Optional Accessories), Stainless Steel Passivation	

Product Technical Characteristics

I. Operating Environment Conditions

Operating Temperature: -55°C ~ +125°C

-55°C ~ +200°C (Specify when ordering))

Relative Humidity: 90% ~ 95% at 40°C±2°C

Vibration: Frequency 10Hz ~ 2000Hz, Acceleration 196m/s²

II. Electrical Characteristics

Contact Resistance, Rated Current and Diameter of Soldering Hole

Contact Specification (mm)	Contact Resistance (mΩ)	Rated Current (A)	Welding Hole Diameter (Φmm)
Φ1.0	≤5.0	5	1.3
Φ1.5	≤2.5	10	1.8
Φ2.0	≤1.25	20	2.5
Φ3.0	≤0.75	30	3.4

Shock: Acceleration 980m/s²

Constant Acceleration: 980m/s²

Operating Altitude: 30000m

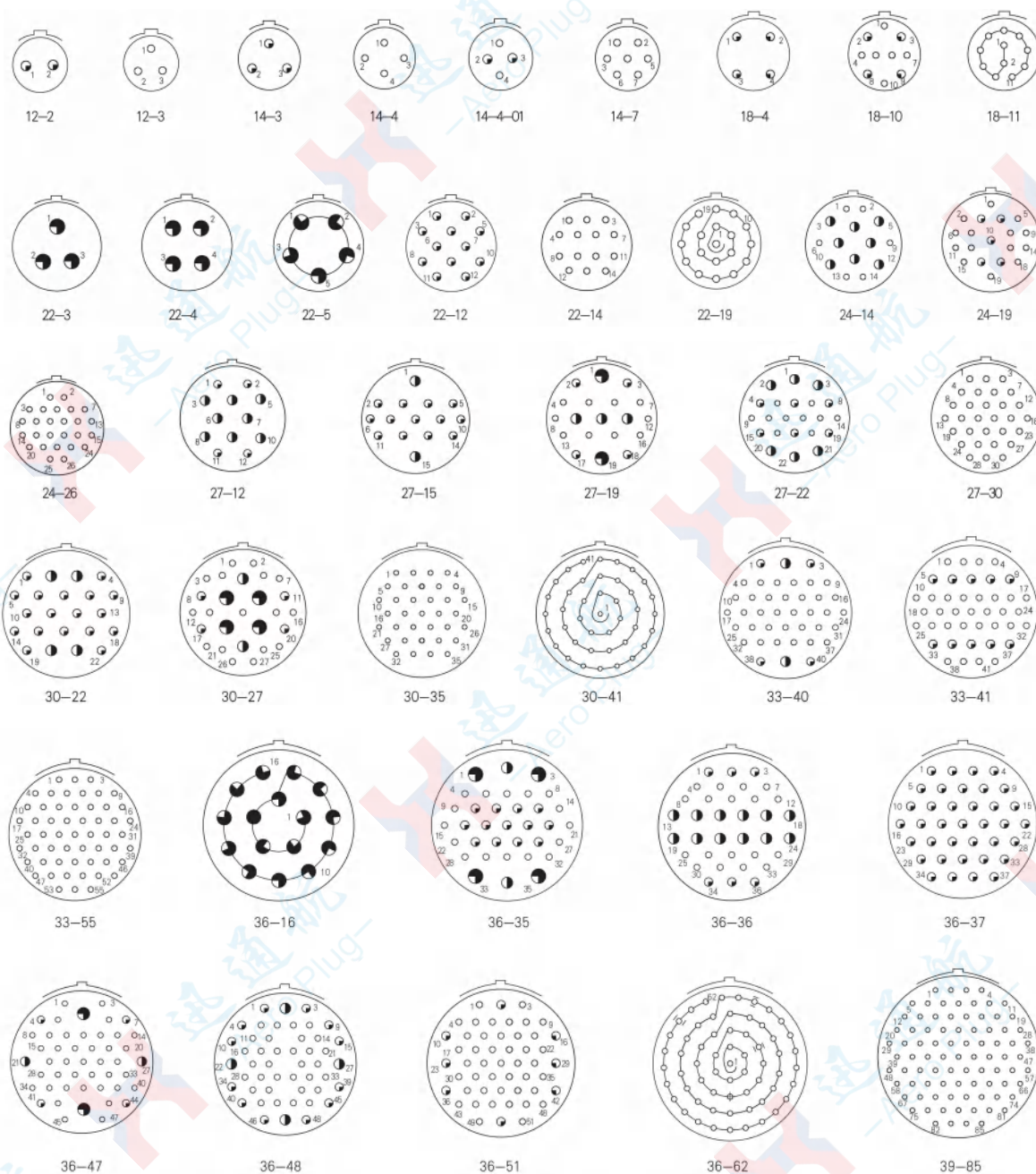
Mechanical Life: ≥1000 Mating/Unmating Cycles

Rated Voltage, Withstand Voltage and Insulation Resistance

Operating Environment	Rated Voltage (V)	Withstand Voltage (V)	Insulation Resistance (MΩ)
Normal Temperature Condition	500	≥ 1500	≥ 5000
Damp Heat Condition	500	≥ 1125	≥ 100
Low Atmospheric Pressure Condition (1kPa)	250	≥ 300	

Electrical Continuity Between Housings: Aluminum Alloy Housing ≤ 2.5mΩ

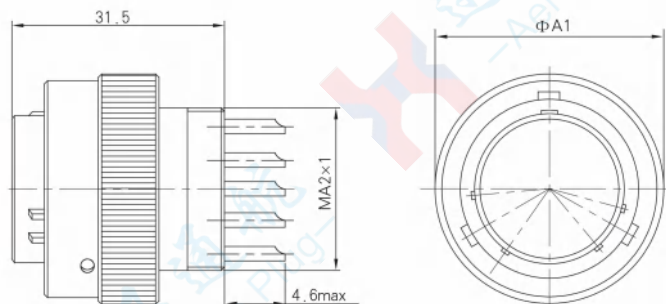
III. Contact Arrangement (Viewed from the Pin Side)



注：接触件直径标志 ○ $\Phi 1.0$ ◐ $\Phi 1.5$ ◑ $\Phi 2.0$ ◒ $\Phi 3.0$

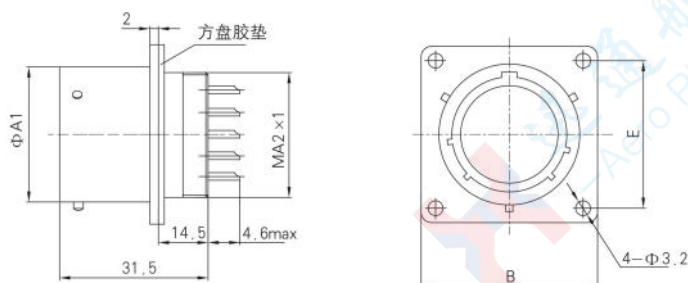
IV. Overall Dimensions

1. XCE Series Square Panel Plug



shell size	A1	A2
12	19	12
14	24	14
18	28	18
22	32	22
24	34	24
27	37	27
30	40	30
33	43	33
36	46	36
39	49	39

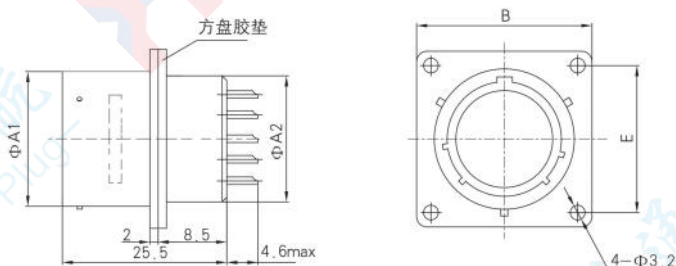
2. XCE Series Square Panel Socket (Threaded Rear)



*建议面板开孔ΦA2+0.5~1为宜

shell size	A1	A2	B	E
12	13.7	12	23.0	17.0
14	15.7	14	25.0	19.0
18	19.7	18	27.5	21.5
22	23.7	22	30.0	24.0
24	25.7	24	32.0	26.0
27	28.7	27	34.5	28.0
30	31.7	30	36.5	30.0
33	34.7	33	39.5	32.5
36	37.7	36	41.0	34.0
39	40.7	39	43.0	36.0

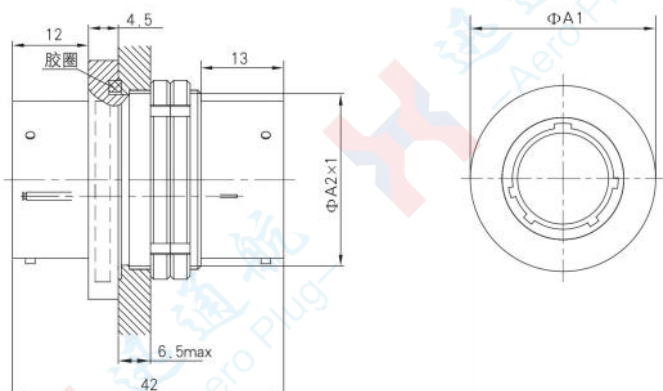
3. XCE Series Square Panel Socket (Threadless Rear)



*建议面板开孔ΦA2+0.5~1为宜

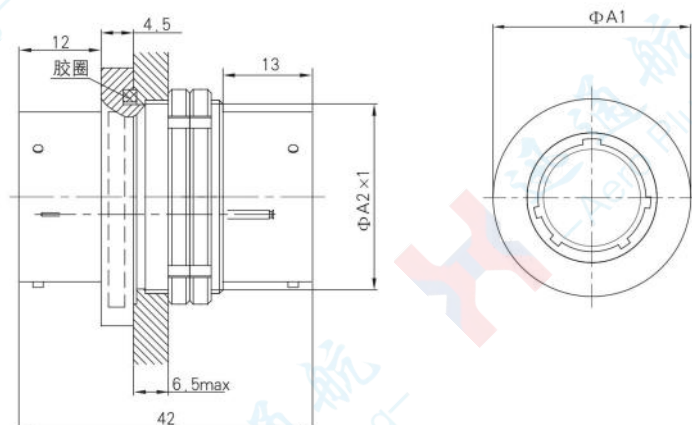
shell size	A1	A2	B	E
12	13.7	12	23.0	17.0
14	15.7	14	25.0	19.0
18	19.7	18	27.5	21.5
22	23.7	22	30.0	24.0
24	25.7	24	32.0	26.0
27	28.7	27	34.5	28.0
30	31.7	30	36.5	30.0
33	34.7	33	39.5	32.5
36	37.7	36	41.0	34.0
39	40.7	39	43.0	36.0

4. XCE-S-M Nut-Secured Wall-Mounted Hermetic Socket (Jacks Outside the Panel, Pins Inside)



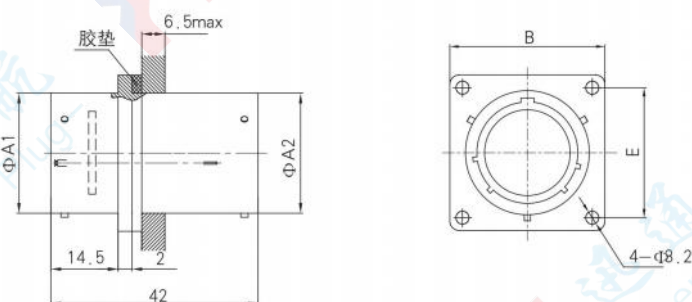
shell size	A1	A2
12	27	16
14	27	18
18	31	22
22	36	27
24	36	27
27	39	30
30	42	33
33	45	36
35	48	39

5. XCE-S0-M Nut-Secured Wall-Mounted Hermetic Socket (Pins Outside the Panel, Jacks Inside)



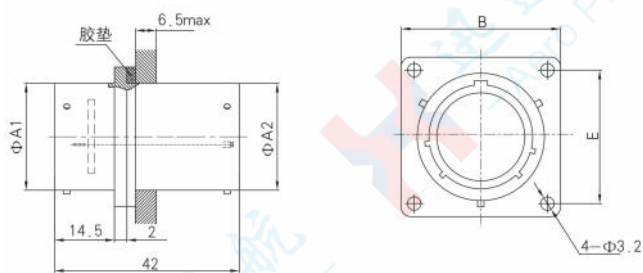
shell size	A1	A2
12	27	16
14	27	18
18	31	22
22	36	27
24	36	27
27	39	30
30	42	33
33	45	36
36	48	39

6. XCE-S1-M Square Panel-Mounted Wall-Mounted Hermetic Socket (Jacks Outside the Panel, Pins Inside)



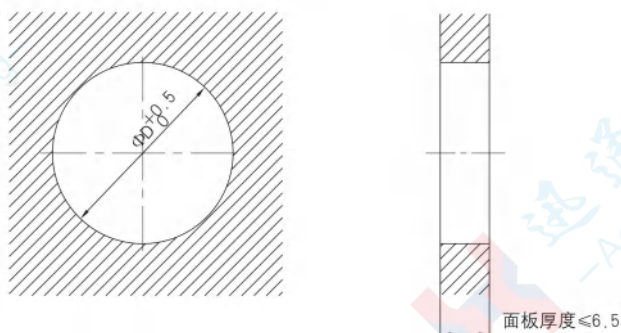
shell size	A1	A2	B	E
12	13.7	13.7	23	17
14	15.7	15.7	25	19
18	19.7	19.7	27.5	21.5
22	23.7	23.7	30	24
24	25.7	25.7	32	26
27	28.7	28.7	34.5	28
30	31.7	31.7	36.5	30
33	34.7	34.7	39.5	32.5
36	37.7	37.7	44	34

7. XCE-S2-M Square Panel-Mounted Wall-Mounted Hermetic Socket (Pins Outside the Panel, Jacks Inside the Panel)



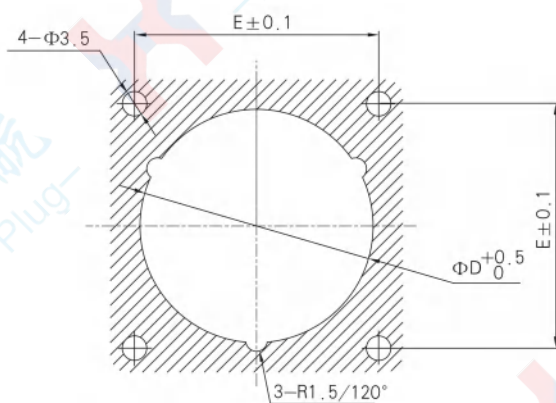
shell size	A1	A2	B	E
12	13.7	13.7	23	17
14	15.7	15.7	25	19
18	19.7	19.7	27.5	21.5
22	23.7	23.7	30	24
24	25.7	25.7	32	26
27	28.7	28.7	34.5	28
30	31.7	31.7	36.5	30
33	34.7	34.7	39.5	32.5
36	37.7	37.7	44	34

8. XCE-S-M and XCE-S0-M Square Panel Cut-out Dimensions



shell size	D
12	16.5
14	18.5
18	22.5
22	27.5
24	27.5
27	30.5
30	33.5
33	36.5
36	39.5

9. XCE-S1-M and XCE-S2-M Square Panel Cut-out Dimensions



shell size	D	E
12	14	17
14	16	19
18	20	21.5
22	24	24
24	26	26
27	29	28
30	32	30
33	35	32.5
36	38	34

XCF Series Circular Electrical Connectors

This series of electrical connectors is equivalent to the MIL-C-38999-1 series standard, featuring high density, small size, and light weight. The housing is made of high-strength aluminum alloy. Both plugs and sockets can be equipped with either pins or jacks. The connection method adopts a bayonet-type quick connect-disconnect mechanism, ensuring convenient operation and reliable connection with excellent vibration and shock resistance. The contacts are available in soldered type, with jacks designed as wire-spring sockets. The product exhibits characteristics such as smooth mating/unmating, low contact resistance, moisture resistance, salt spray resistance, mold resistance, and rain resistance. It is mainly used in ships and other harsh environment applications, as well as military fields including aviation, aerospace, ordnance, and field communications. Additionally, it is suitable for line connections in postal and telecommunications, railway command systems, computers, marine navigation, and various instruments and meters.

Product Marking Code

<u>XTH</u>	<u>XCF</u>	<u>14</u>	<u>F/T</u>	<u>10</u>	<u>Z₁/K₁</u>	<u>P₁</u>	<u>W</u>
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>



1— Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— Main Designation Code of Circular Electrical Connector

3— Shell Size: 12、14、18、22、24、27、30、33、36

4— Plug/Socket Type: T-Plug; F-Square Panel Socket

5— Number of Contact Pairs: 7 ~ 129 Contacts

6— Contact Type: Z1-Pin (Gold-Plated); K1-Jack (Gold-Plated)

7— Shell Plating & Rear Accessory: D₁ -Rear Threadless, Electroless Nickel Plated;

P₁ -Rear Threaded, Optional Accessory, Electroless Nickel Plated;

D40-Rear Threadless, Stainless Steel Passivated

P40- Rear Threaded, Optional Accessory, Stainless Steel Passivated.

8— Anti-Misinsertion Key Position: N, W, X, Y, Z; Note: "N" may be omitted (see Anti-Misinsertion Key Positions for details).

Note: To ensure compatibility with various specifications of cables, a variety of dedicated rear accessories are available. For detailed information, refer to General Accessories for XC and Its Extended Series Electrical Connectors.

Product Technical Features

I. Operating Environmental Conditions

Operating Temperature: -55°C ~ +125°C

-55°C ~ +200°C (to be specified when ordering)

Relative Humidity: 90% ~ 95% at 40°C ± 2°C

Vibration: Frequency 10Hz ~ 2000Hz, Acceleration 196m/s²

Shock: Acceleration 980m/s²

Constant Acceleration: 980m/s²

Operating Altitude: 30,000m

Mechanical Life: ≥ 1000 Mating/Unmating Cycles

II. Electrical Characteristics

Rated Voltage, Withstand Voltage, and Insulation Resistance

Operating Environment	Rated Voltage(V)	Withstand Voltage(V)	Insulation Resistance (MΩ)
Normal Temperature Condition	250	≥ 1000	≥ 20
Damp Heat Condition	250	≥ 750	≥ 20
Low Atmospheric Pressure (1 kPa)	115	≥ 750	

Contact Diameter: Φ0.635mm

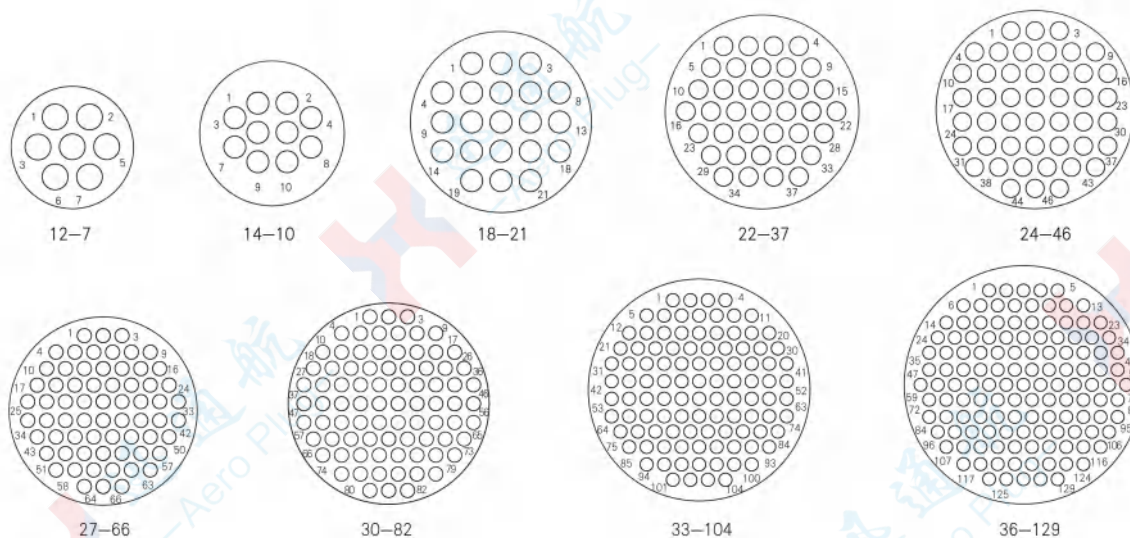
Rated Current: 1A

Contact Resistance: ≤ 15mΩ

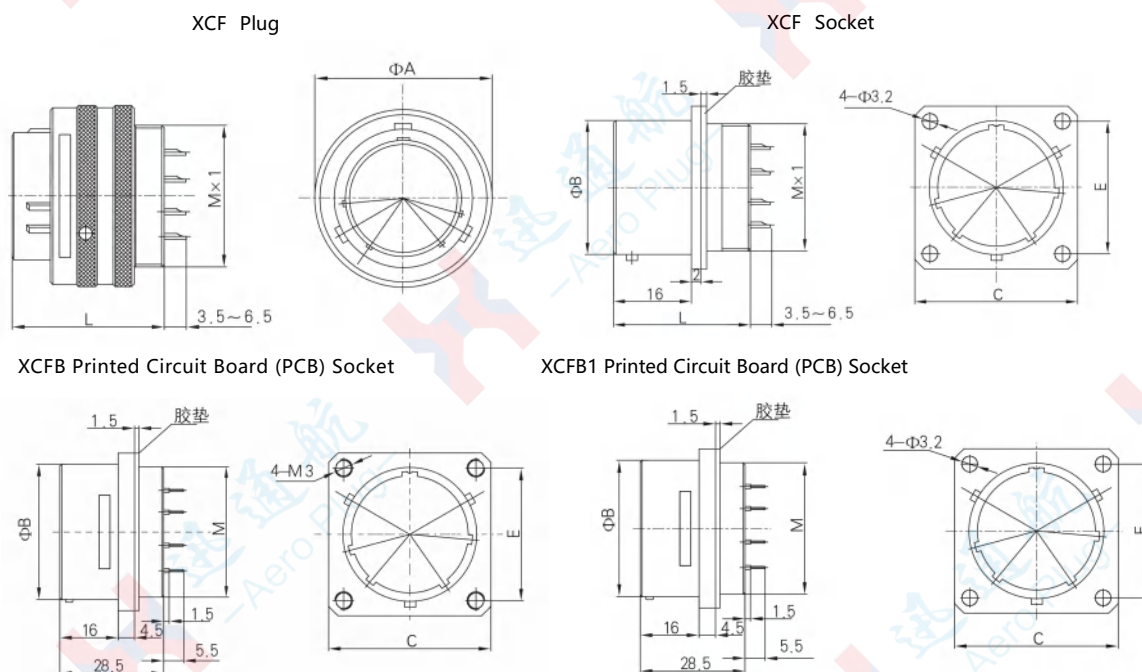
Welding Hole Diameter: Φ0.8mm

Electrical Continuity Between Shells Aluminum Alloy Shell: ≤ 2.5 mΩ

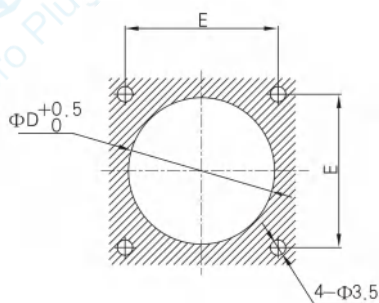
III. Contact Arrangement (Viewed from the Pin Side)



IV. Overall Dimensions



Recommended Cut-out
Dimensions for the XCF Socket
Panel



shell size	A	B	C	D	E	M	L
12	19.5	13.7	23.0	12.5	17.0	12	25.5
14	21.5	15.7	25.0	14.5	19.0	14	
18	25.5	19.7	27.5	18.5	21.5	18	
22	29.5	23.7	30.0	22.5	24.0	22	
24	31.5	25.7	32.0	24.5	26.0	24	
27	34.5	28.7	34.5	27.5	28.0	27	28.5
30	37.5	31.7	36.5	30.5	30.0	30	
33	40.5	34.7	39.5	33.5	32.5	33	
36	43.5	37.7	41.0	36.5	34.0	36	

XCD Series Circular Electrical Connector

This series is a wire-spring type power connector. The contacts adopt various termination methods, and the housing is made of high-strength aluminum alloy. Both plugs and sockets can be equipped with either pins or jacks. The connection method adopts a bayonet-type quick connect-disconnect mechanism, and threaded connection is also available, ensuring convenient operation, reliable connection, and excellent vibration and shock resistance. The jacks are designed as wire-spring sockets, featuring smooth mating/unmating, low contact resistance, moisture resistance, salt spray resistance, mold resistance, and rain resistance. It is mainly used for line connections under high-current operating conditions between power stations and various electrical equipment.

Product Marking Code

$\frac{XTH}{1} \quad \frac{XCD}{2} \quad \frac{45}{3} \quad \frac{F/T}{4} \quad \frac{4}{5} \quad \frac{Z_1/K_1}{6} \quad \frac{P_1}{7} \quad \frac{W}{8} \quad \frac{01}{9}$

1— Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— Main Designation Code of Circular Electrical Connector

3— Shell Size: 22、27、33、36、39、45、85

4— Plug/Socket Type: T-Plug; F-Square Panel Socket; L-Nut-Fastened Socket

5— Number of Contact Pairs: 1, 2, 3, 4, 6, 8, 9 Contacts

6— Contact Type: Z₁ -Pin (Gold-Plated); K₁ -Jack (Gold-Plated)

7— Shell Plating & Rear Accessory: D₁ - Electroless Nickel Plated, Rear Threadless

D₄₀- Stainless Steel Passivated, Rear Threadless

P₁ - Electroless Nickel Plated, Rear Threaded P₄₀ - Stainless Steel Passivated, Rear Threaded

8— Anti-Misinsertion Key Position: N, W, X, Y, Z; Note: "N" may be omitted (see Anti-Misinsertion Key Positions for details)

9— Wire Connection Method: 01-Threaded Connection; 02-Crimp Connection; Unmarked-Soldered Connection

Note: To ensure compatibility with various cable specifications, a variety of dedicated rear accessories are available. For detailed information, refer to General Accessories for XC and Its Extended Series Electrical Connectors.

Product Technical Characteristics

I. Operating Environmental Conditions

Operating Temperature: -55°C ~ +125°C

-55°C ~ +200°C(to be specified when ordering)

Relative Humidity: 90% ~ 95% at 40°C±2°C

Vibration: Frequency 10Hz ~ 2000Hz, Acceleration 196m/s²

Shock: Acceleration 980m/s²

Constant Acceleration: 980m/s²

Operating Altitude: 30,000m

Mechanical Life: ≥1000 Mating/Unmating Cycles

II. Electrical Characteristics

Contact Resistance, Rated Current, and Related Dimensions of Contacts

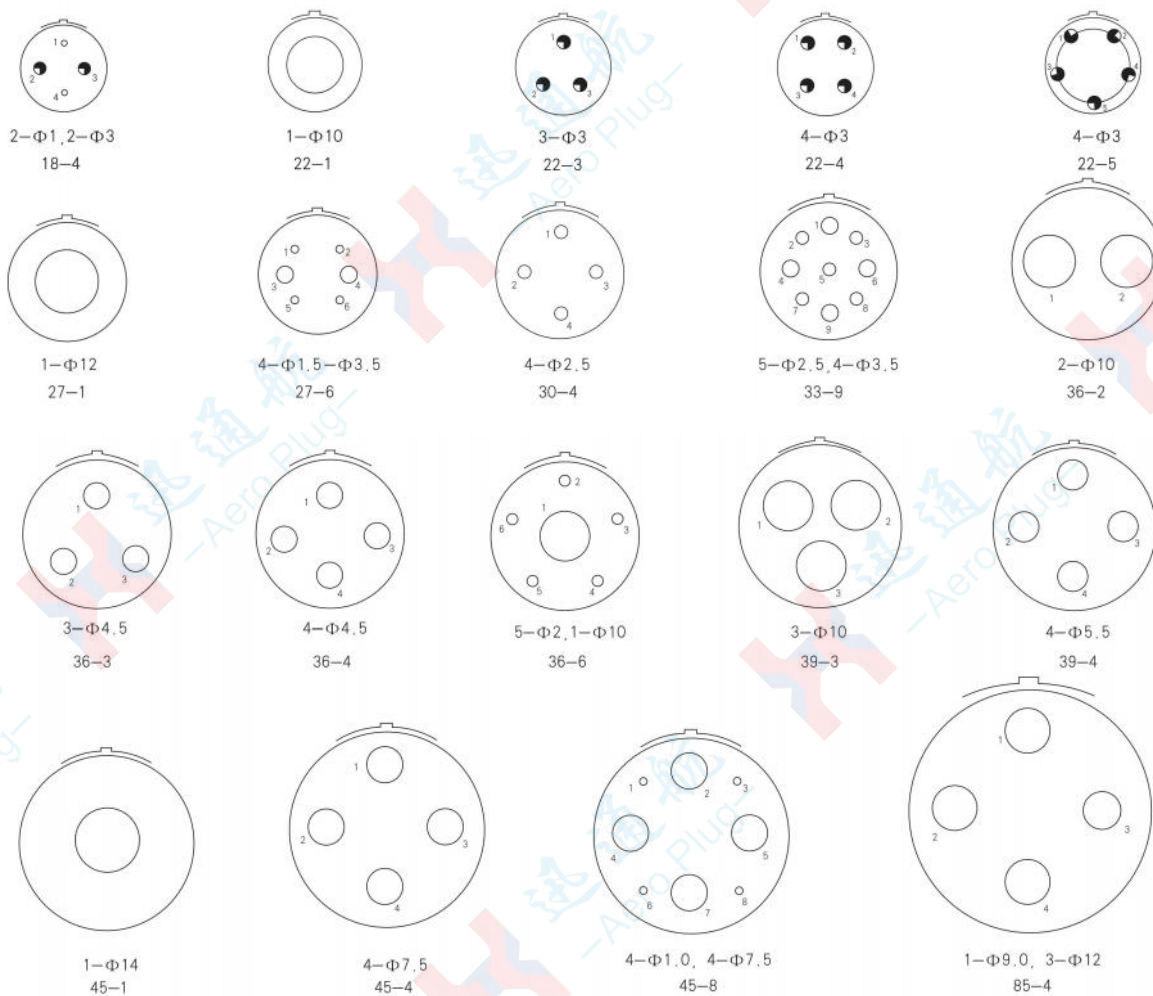
Rated Voltage, Withstand Voltage, and Insulation

Specification (mm)	Contact Resistance (mΩ)	Rated Current流 (A)	Inner Diameter of Solder Cup or Crimp Barrel(mm)	Outer Diameter of Solder Cup or Crimp Barrel (mm)	Length Extending from the Housing (mm)
φ1.5	≤2.50	10	φ2.0	φ2.5	6.2
φ2.0	≤1.25	20	φ2.5	φ3.1	3.5
φ2.5	≤1.00	25	φ2.5	φ3.1	6.2
φ3.5	≤0.50	50	φ4.8	φ5.8	6.2
φ4.5	≤0.35	60	φ5.5	φ6.5	8.0
φ5.5	≤0.30	100	φ6.5	φ7.5	10.0
φ7.5	≤0.20	150	φ9.0	φ10.5	10.5
φ9.0	≤0.17	200	φ12.0	φ17.0	—
φ10	≤0.20	200	φ10.0	φ12.0	10.0
φ12	≤0.15	250	φ14.0	φ15.8	10.2
φ14	≤0.12	300	—	—	—

Operating Environment	Rated Voltage V	Withstand Voltage V	Insulation Resistance MΩ
Normal Temperature Condition	500	1500	≥5000
Damp Heat Condition	500	750	≥1000

Electrical Continuity Between Housings:
Aluminum Alloy Housing ≤2.5 mΩ

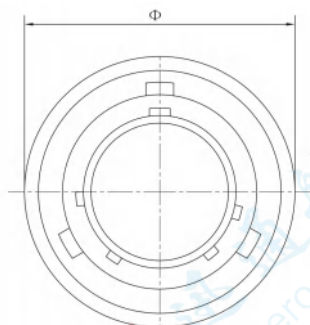
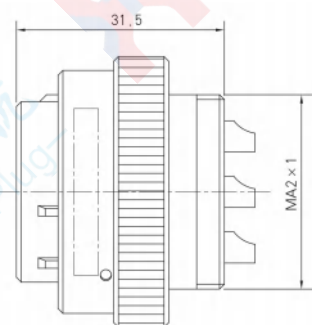
III. Contact Arrangement (Viewed from the Pin Side)



IV. Overall Dimensions

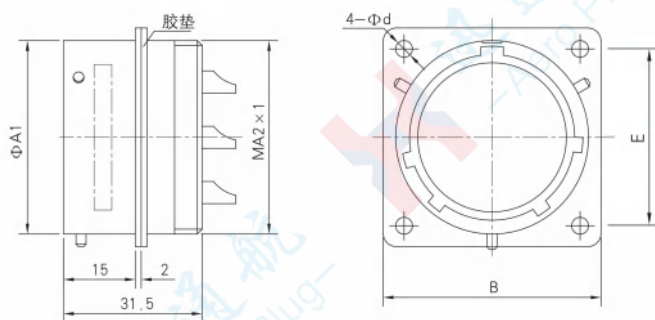
I. Soldered Connection with Wires

1. Plug



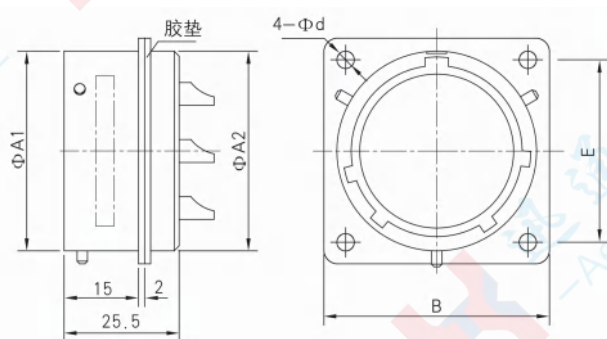
shell size	A1	A2
22	32	22
27	37	27
33	43	33
36	46	36
39	49	39
45	55	45

2. Square Panel Socket (With Threaded Rear)



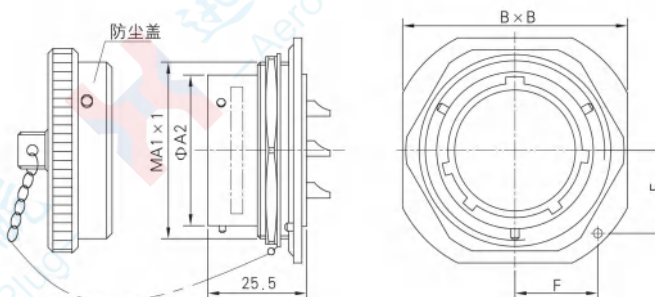
shell size	A1	A2	d	B	E
27	28.7	27	3.2	34.5	28.0
33	34.7	33	3.2	39.5	32.5
36	37.7	36	3.2	41.0	34.0
39	40.7	39	3.2	43.0	36.0
45	46.7	45	3.7	49.0	42.0

3. Square Panel Socket (With Threadless Rear)



shell size	A1	A2	d	B	E
22	23.7	22	3.2	30.0	24.0
27	28.7	27	3.2	34.5	28.0
33	34.7	33	3.2	39.5	32.5
36	37.7	36	3.2	41.0	34.0
39	40.7	39	3.2	43.0	36.0

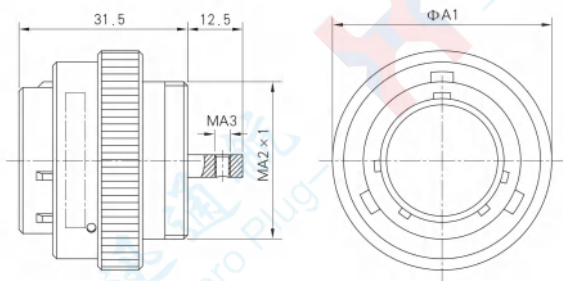
4. Nut-Fastened Socket



shell size	A1	A2	B	E
36	42	37.7	54	19.0
39	45	40.7	56	20.0
45	51	46.7	62	22.5

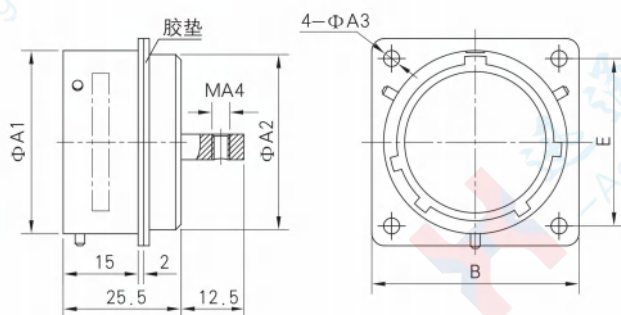
II. Threaded Connection with Wires (01)

1、Plug



shell size	A1	A2	A3
22	32	22	5
27	37	27	6
36	46	36	5

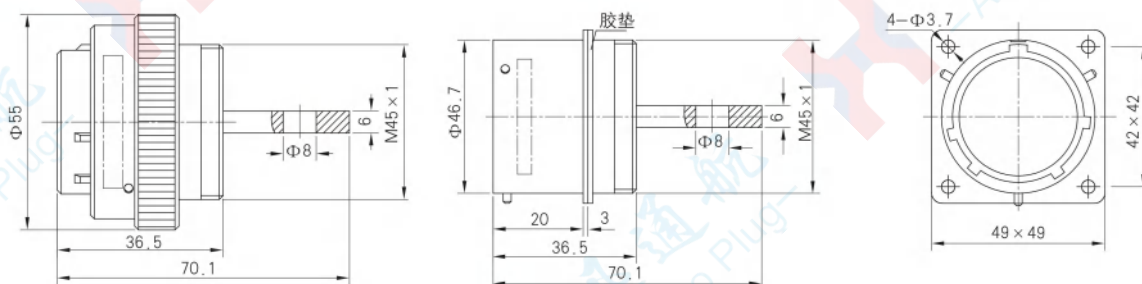
2. Square Panel Socket



shell size	A1	A2	A3	A4	B	E
22	23.7	22	3.2	5	30.0	24.0
27	28.7	27	3.2	6	34.5	28.0
36	37.7	36	3.2	5	41.0	34

Plug: XCD45T1Z1(K1)P₁

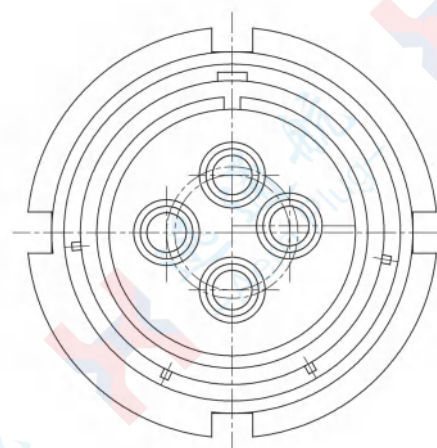
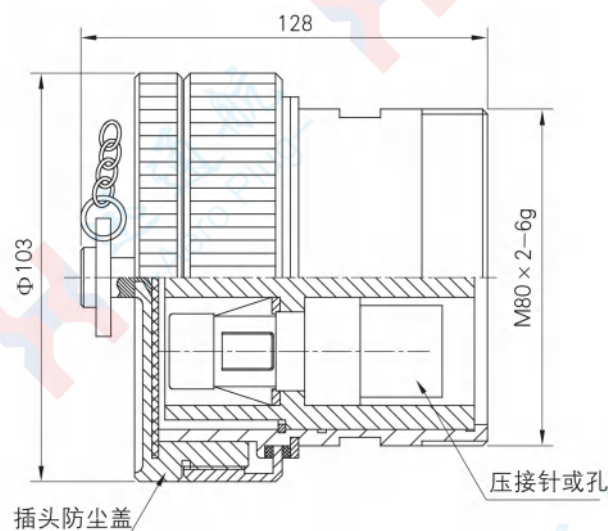
Socket: XCD45F1K1(Z1)P1



III. Crimp Connection with Wires (02)

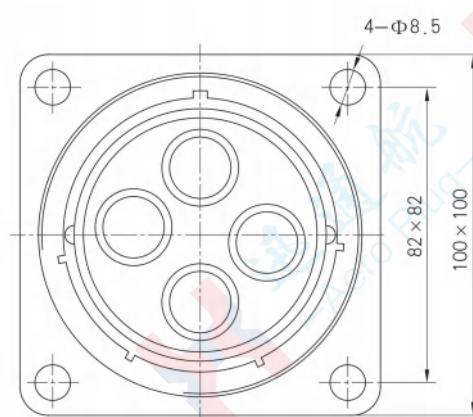
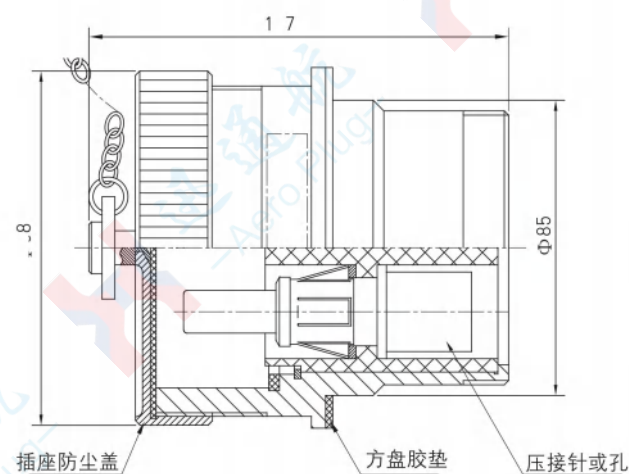
1. Plug: XCD85T4Z₁ (K₁)P₁

Remove the plug's dust cover



2. Socket: XCD85F4K1(Z1)P1

Remove the plug's dust cover



XCM Series Circular Electrical Connectors

This series of electrical connectors complies with GJB2889 standard. Featuring a bayonet-type quick connection and disconnection mechanism, it offers convenient operation, secure mating, excellent vibration and shock resistance. The housing is made of high-strength, high-quality aluminum alloy, and the contacts adopt a soldered type—with jacks designed as wire spring sockets. Key characteristics include smooth mating/unmating, low contact resistance, moisture resistance, salt spray resistance, mold resistance, and rain resistance. It is widely used in military fields such as aerospace, ordnance, ships, and field communications, as well as in connections for postal and telecommunications, railway command systems, computers, marine equipment, and various instruments.

Product Designation Code

XTH	XCM	14	Z/T	4	J/K	L	W
1	2	3	4	5	6	7	8

1—Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2—Main Designation Code of Circular Electrical Connector

3—Shell Size: 14、18、22、24、27、30、33、36、39

4—Plug/Socket Type: T - Plug; Z - Socket

5—Number of Contact Pairs: 1 ~ 62 Contacts

6—Contact Type: J - Gold-Plated Pin; K - Gold-Plated Jack

7—Socket Fixing Method: F - Square Panel Mount; L - Nut Mount

8—Anti-Misinsertion Key Position: N, W, X, Y, Z; Note: "N" may be omitted (see Anti-Misinsertion Key Positions for details)

Notes: 1、To ensure compatibility with various cable specifications, a variety of dedicated rear accessories are available. For detailed information, refer to General Accessories for XC and Its Extended Series Circular Electrical Connectors.

2、Special cable accessories are also provided for this product. When required, mark "+XCM30FJ-φ" after the electrical connector model, where "φ" indicates the cable outlet diameter of the accessory.



Product Technical Characteristics

I. Operating Environment Conditions

Operating Temperature: -55°C ~ +125°C

-55°C ~ +200°C(Specify when ordering)

Relative Humidity: 90% ~ 95% at 40°C±2°C

Vibration: Frequency 10Hz ~ 2000Hz, Acceleration 196m/s²

Shock: Acceleration 980m/s²

Constant Acceleration: 980m/s²

Operating Altitude: 30000m

Mechanical Life: ≥1000

Mating/Unmating Cycles

II. Electrical Characteristics

Contact Resistance and Rated Current

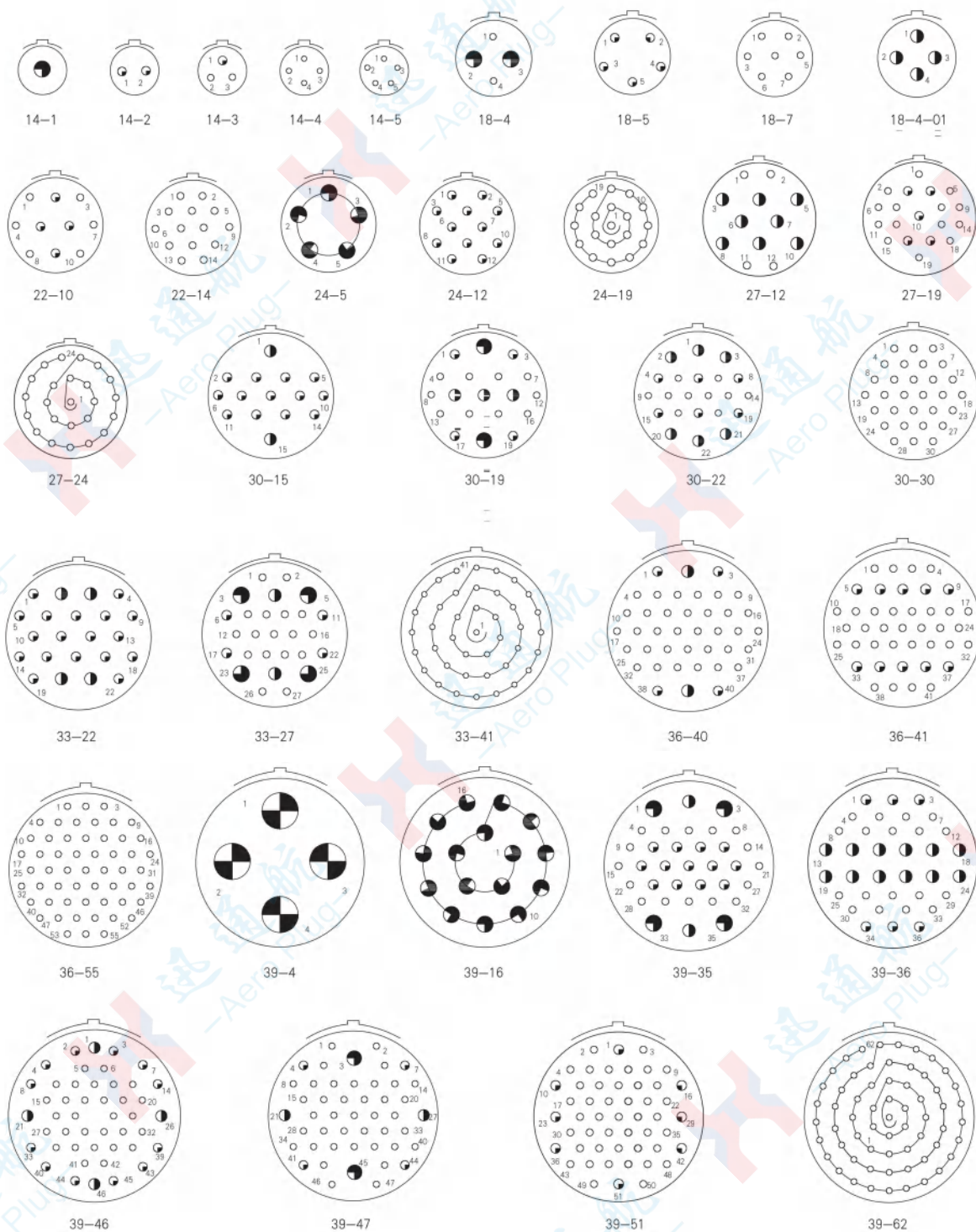
Specification(mm)	Contact Resistance(mΩ)	Rated Current(A)	Soldering Barrel Inner Diameter(mm)
φ1.0	≤5.0	5	Φ1.5
φ1.5	≤2.5	10	φ2.0
φ2.0	≤1.25	20	φ2.5
φ3.0	≤0.75	40	φ3.0
φ4.5	≤0.35	65	φ4.5

Rated Voltage, Withstand Voltage and Insulation Resistance

Operating Environment	Rated Voltage V	Withstand Voltage V	Insulation Resistance MΩ
Normal Temperature Condition	500	≥1500	≥1000
Damp Heat Condition	500	≥1125	≥20
Low Atmospheric Pressure (1kPa)	150	≥300	

Electrical Continuity Between Housings: ≤2.5 mΩ (Aluminum Alloy Housings)

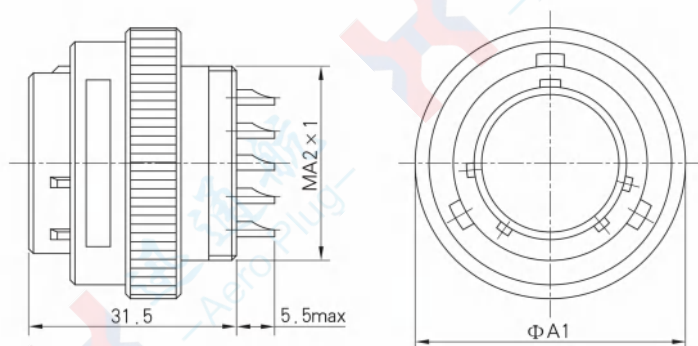
III. Contact Arrangement (Viewed from the Pin Side)



注：接触件直径标志 ○ $\Phi 1.0$ ◐ $\Phi 1.5$ ◑ $\Phi 2.0$ ◒ $\Phi 3.0$ ◓ $\Phi 4.5$

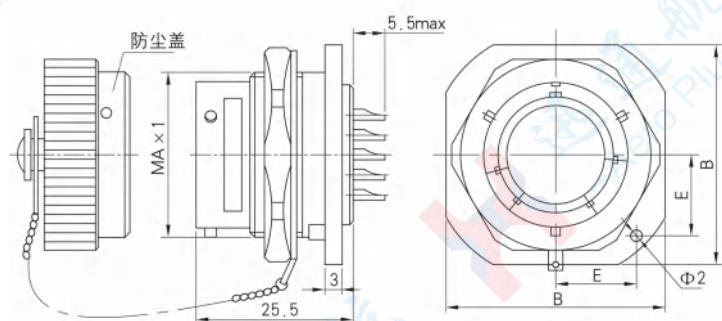
IV. Overall Dimensions

1、XCM Plug



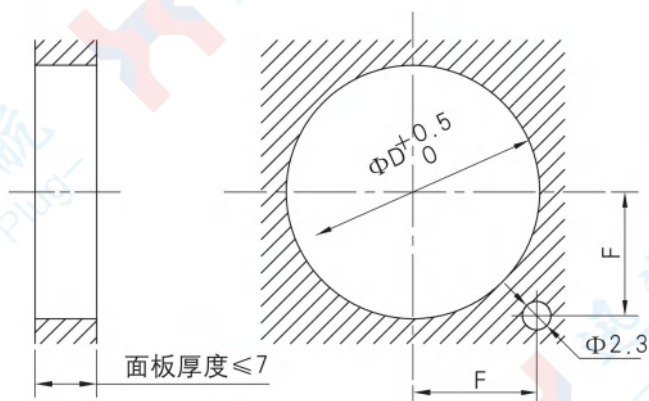
shell size	A1	A2
14	24	14
18	28	18
22	32	22
24	34	24
27	37	27
30	40	30
33	43	33
36	46	36
39	49	39

2. XCM Socket - Nut-Fastened Socket

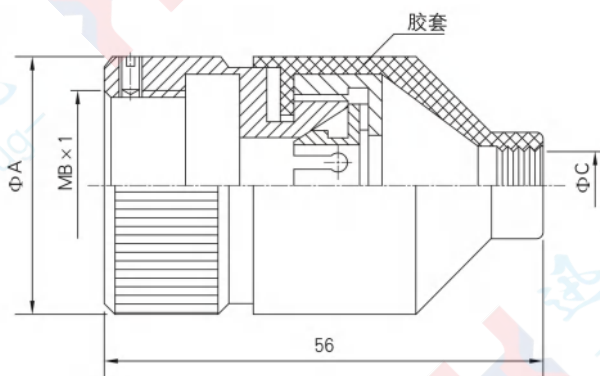


shell size	A	B	E
14	20	27	10
18	24	34	12
22	27	36	13
24	30	36	14
27	30	36	15
30	33	38	16
33	39	49	18
36	42	54	19
39	45	56	20

3. Panel Cutout Dimensions



shell size	D	F
14	20.5	10
18	24.5	12
22	27.5	13
24	30.5	14
27	30.5	15
30	33.5	16
33	39.5	18
36	42.5	19
39	45.5	20

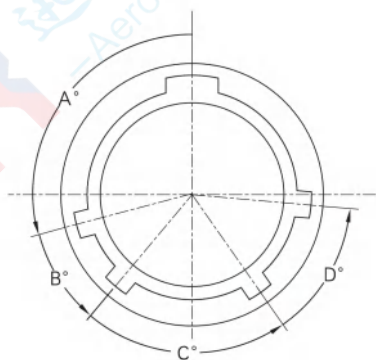
V. FJ-Type Cable Accessories


shell size	Accessory Model	A	B	C
14	XCM14FJ-3.4	20	14	3.4
	XCM14FJ-5			5
	XCM14FJ-7			7
	XCM14FJ-7.5			7.5
	XCM14FJ-8			8
18	XCM18FJ-8	24	18	8
	XCM18FJ-8.6			8.6
	XCM18FJ-9			9
	XCM18FJ-9.5			9.5
	XCM18FJ-10			10
	XCM18FJ-14			14
22	XCM22FJ-6.8	28	22	6.8
	XCM22FJ-7.5			7.5
	XCM22FJ-8			8
	XCM22FJ-10			10
24	XCM24FJ-10	30	24	10
	XCM24FJ-14			14
27	XCM27FJ-8	33	27	8
	XCM27FJ-11			11
30	XCM30FJ-11	36	30	11
	XCM30FJ-11.5			11.5
33	XCM33FJ-12	39	33	12
36	XCM36FJ-22	42	36	22
39	XCM39FJ-13.1	42	39	13.1
	XCM39FJ-15.9			15.9
	XCM39FJ-18			18

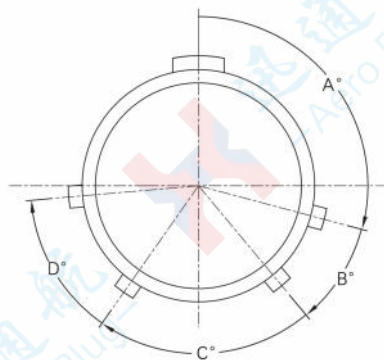
General Data for XC and Its Extended Series Electrical Connectors

I. Anti-Misinsertion Key Positions

Socket Key Angle



Plug Key Angle



Key Position Code		Key Position Angle				Color Identification
		A	B	C	D	
Normal Key Position	N	105°	140°	215°	265°	Sky Blue
Modified Key Position	W	100°	142°	220°	260°	Green
	X	110°	145°	208°	250°	Yellow
	Y	95°	135°	210°	255°	Black
	Z	90°	130°	224°	270°	Red

Accessories for XC and Its Extended Series Electrical Connectors

To expand the application scope of the XC Series Electrical Connectors and facilitate user operations, the following dedicated accessories are available for selection. When choosing these accessories, users must refer to the following instructions:

- 1、The accessories are available in two types: shielded and unshielded.
Shielded housings offer multiple plating options: galvanized with military green passivation, electroless nickel plating, etc.;
- 2、Shielded housings feature electromagnetic interference (EMI) protection.
- 3、Shielded housings feature electromagnetic interference (EMI) protection.
- 4、The accessories should be selected according to the cable diameter.

Serial No.	Accessory Name & Model	performance	Ordering Method
1	Straight Cable Clamp	Secures cable; Shieldable	Order separately
2	Angled Cable Clamp WP		
3	XC-FJA	Secures cable; Shieldable	
4	XC-FJC		
5	XC-FJD/FJDP		
6	XC-FJHP		
7	XC-FJB/FJBP(Socket Dust Cap)	Protects plug or socket	
8	XC-FJE/FJEP(Plug Dust Ca)		
9	XC-FJGP	Secures cable; Shieldable; Waterproof	
10	XC-FJGWP		
11	XC-FJJP、XC-FJJP01		

Ordering Instructions

1.When selecting a cable accessory, its model can be appended to the matching product model with a "+" sign in between.

Examples:

Socket with accessory: XC24F13ZP+FJC

Plug with accessory: XC24T19KP+FJDP

2.For separate orders of specific cable accessories, specify the compatible shell size and the main cable accessory model.Example: Accessory: XC30-FJDP

3.For shielded accessories with specific plating, add a numeric subscript after the last letter of the base model to indicate the plating type, as specified in this manual:

Electroless nickel plating: Add numeric subscript "1"

Galvanized with military green passivation: Add numeric subscript "3"

Corresponding accessory models:

XC-FJBP₁ -01 (Electroless nickel plating)

XC-FJBP₃ -01 (Galvanized with military green passivation)

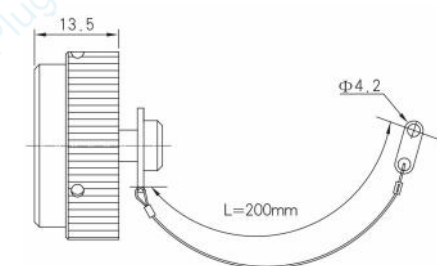
Dust Cap Accessories for Plugs and Sockets

I. Socket Dust Cap Accessories

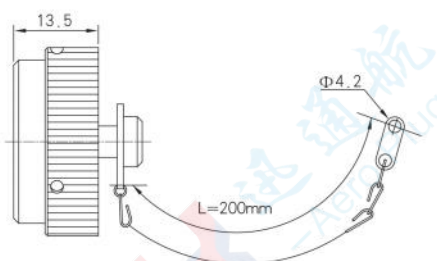
This accessory features enhanced environmental resistance and is available in two tail structures: nylon cord and metal chain. The model designations for different plating types are as follows:

	Black Anodization	Electroless Nickel Plating
Nylon Cord	XC-FJB	XC-FJBP ₁
Steel Wire Rope	XC-FJB-01	XC-FJBP ₁ -01
Steel Wire Rop	XC-FJB-03A	XC-FJBP ₁ -03A

XC-FJB
(Nylon rope)



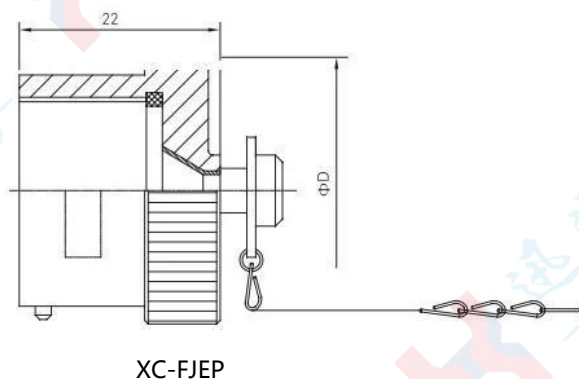
XC-FJB-01
(Metal chain)



shell size	12	14	18	22	24	27	30	33	36	39
D	20	23	27	31	33	36	39	42	45	48

II. Plug Dust Cap Accessory XC - FJEP

This accessory equips the plug with protection against moisture, salt spray, mold, dust, and rain.



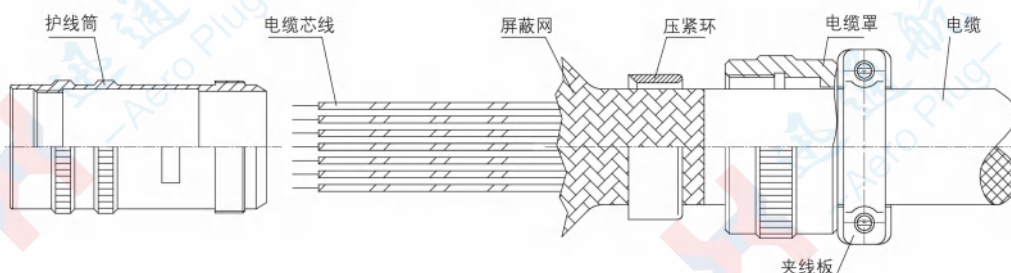
Compatible Shell Size	D
12	19.7
14	21.7
18	25.7
22	29.7
24	31.7
27	34.7
30	37.7
33	40.7
36	43.7
39	46.7

General Cable Accessories

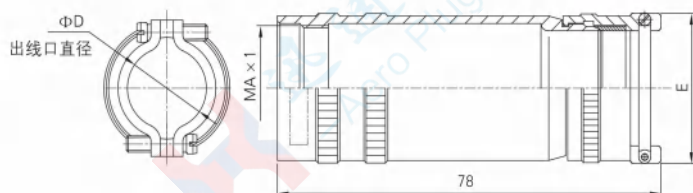
I. XC-FJA Shielded Cable Accessory

This accessory is designed for clamping shielded cables with a shielding braid, and is exclusively compatible with shielded electrical connectors. It requires a relatively large installation space. The shielding braid of the cable is clamped between the cable gland and the compression ring, and secured by the cable cover to ensure tight contact between the shielding braid and the cable gland, thereby achieving electromagnetic shielding. Meanwhile, the cable is clamped by the cable clamp, preventing the cable from being pulled out due to external forces at the connection with the connector.

1、Assembly Diagram



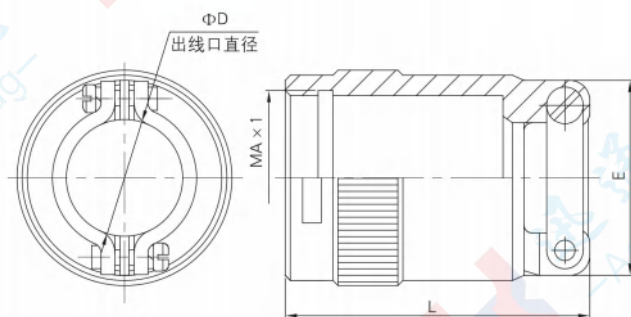
2、Overall Dimension



Compatible Shell Size	A	D _{Min}	D _{Max}	E
18	18	13	16	29.5
22	22	13	16	29.5
		10	22	33.0
24	24	10	20	33.0
		12	24	36.5
27	27	10	20	33.0
		12	24	36.5
30	30	10	20	33.0
		12	24	36.5
		14	26	40.0
		14	28	40.0
33	33	12	24	36.5
		14	26	40.0
		16	30	44.0
36	36	10	20	33.0
		12	24	36.5
		16	30	44.0
		18	32	46.0
39	39	10	20	33.0
		14	26	40.0
		20	34	48.0
42	42	22	38	58.0
45	45	22	38	58.0

II. XC-FJC Shielded Cable Accessory (XC-FJC03 with Set Screw)

This accessory is designed for cable clamping and requires a moderate installation space.

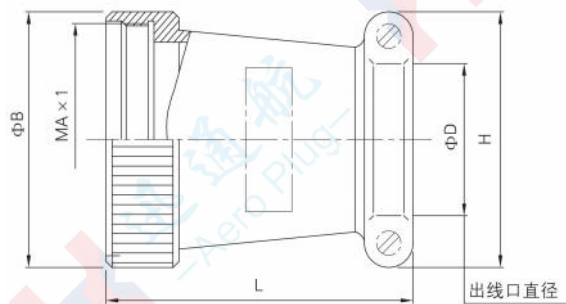


Compatible Shell Size	A	D _{Min}	D _{Max}	E	L
12	12	5	10	15	30
14	14	4	7	18.5	
		11	14	27	
18	18	9	11	25.2	
		9	14	28	
		13	17	31	
22	22	6	10	25	40
		10	15	28	
		9	18	32	
24	24	10	14	28	
		9	18	32	
		22	24	38	
27	27	10	14	28	50
		9	18	32	
		11	20	34	
		22	23	37	
30	30	24	27	40	
		9	19	32	
		22	23	38	
33	33	15	30	44	65
		24	27	40	
36	36	15	30	44	
		19	32	46	
		24	26	40	
39	39	15	30	44	
		21	34	48	
		23	38	58	
		24	26	40	
42	42	15	30	44	
45	45	15	30	44	50
		22	36	54	65
		23	40	58	65

Marking Example: XC24FJC-22 indicates compatibility with Shell Size 24 and a maximum cable outlet diameter of $\phi 22$.

III. XC-FJD (Unshielded) & XC-FJDP (Shielded Cable Accessory) – XC-FJDP05 (Modified Version with Set Screws)

This accessory is designed for cable clamping and requires minimal installation space. The inner wall of the cable gland features a tapered surface leading toward the cable outlet, and the cable is clamped via two pressure plates. Compared with the FJC series, the FJD and FJDP series are suitable for thinner signal cables.

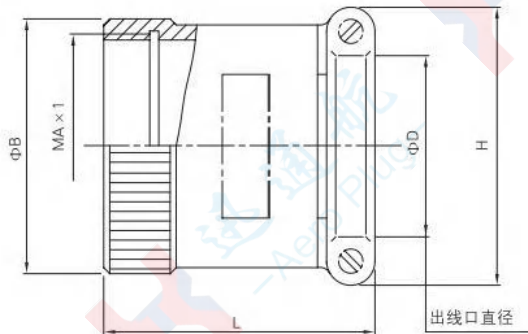


Compatible Shell Siz	A	B	D _{Min}	D _{Max}	H	L
14	14	16.5	7	8	22	23.5
18	18	20.5	7	8	22	23.5
22	22	24.5	10	13	27	27
24	24	26.5	10	13	27	30
27	27	30	10	13	27	30
30	30	33	12	18	32	35.5
33	33	36	12	18	32	35.5
36	36	39	16	23	37	40.5
39	39	42	16	23	37	40.5

XC-FJDP05 (Modified Version with Set Screws)

IV. XC-FJHP Shielded Cable Accessory

This accessory is currently the cable clamping accessory with the smallest installation space.



Compatible Shell Siz	A	B	D _{Min}	D _{Max}	H	L
14	14	16.5	6	8	22	22
18	18	20.5	9	13	27	22
22	22	24.5	9	13	27	25
24	24	26.5	11	18	32	25
27	27	30	11	18	32	25
30	30	33	15	23	37	30
33	33	36	15	23	37	30
36	36	39	21	28	42	30
39	39	42	21	28	42	30

Special Function Accessories

To meet users' specific requirements, especially for harsh marine operating environments, electrical connectors are not only required to have salt spray, rain, and mold resistance but also a certain level of waterproof performance when used outdoors. In response to this, users can select the following accessories:

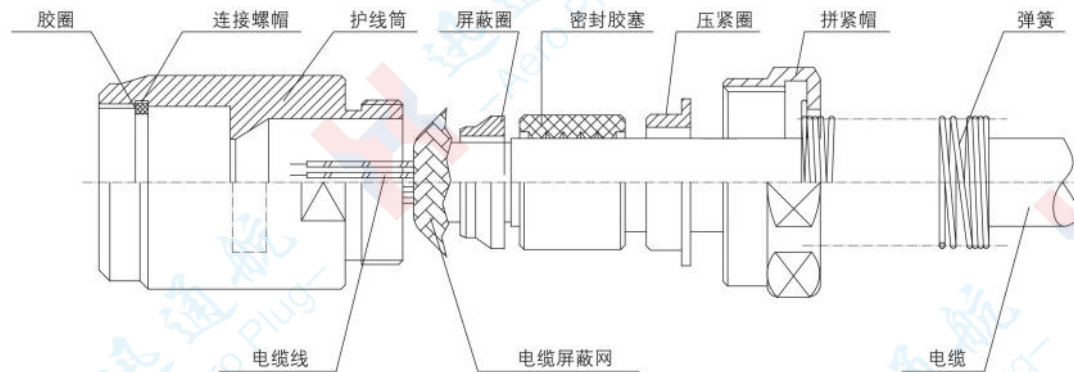
I. XC-FJJP & XC-FJJP01 Shielded Cable Accessories

XC-FJJP is suitable for flexible cables; XC-FJJP01 is suitable for rigid cables.

Drawing on the advantages of watertight structures, these accessories use cable glands to clamp cables, featuring anti-rotation, high clamping force without damaging the cable. As the current cable clamping accessories with the highest clamping force, they achieve watertight integrity and 360° electromagnetic shielding, compatible with both externally and internally shielded cables. These accessories are particularly suitable for harsh outdoor environments such as marine, swamp, and tunnel applications.

1. XC-FJJP Shielded Cable Accessory

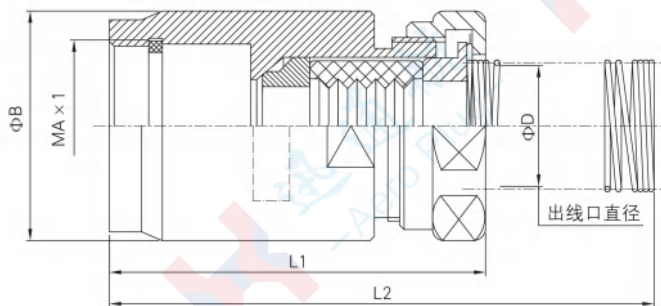
Assembly Diagram



Usage Instructions

- (1) Pass the cable through the spring, compression cap, compression ring, sealing rubber plug, and shielding ring in sequence. Fold the cable's shielding braid over the shielding ring.
- (2) Terminate the cable core wires to the plug contacts.
- (3) Screw the cable gland tightly onto the threaded tail of the plug, achieving a seal with the plug via one of the rubber rings.
- (4) Tighten the compression cap: the sealing rubber plug deforms under pressure to tightly wrap around the cable, clamping the cable and ensuring a seal between the accessory and the cable. Simultaneously, this presses the shielding ring, shielding braid, and the inner cavity at the tail of the cable gland into tight contact, realizing electrical continuity between the shielding braid and the accessory housing.
- (5) Fit the spring over the junction of the cable and the accessory to prevent cable damage caused by excessive bending.

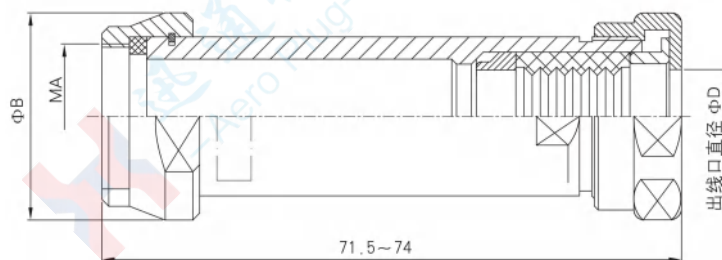
Outline Dimensions



Compatible Shell Siz	A	B	D	L1	L2
14	14	20	7.5	42	70
18	18	26	7.5	42	70
			10		
			14		
22	22	30	7.5	44	72
			10		
			14		
			16		
24	24	32	18	44	72
			10		
			12		
			16		
			18		
27	27	36.5	20	44	86
			14		
			18		
			20		
30	30	39.5	12	44	86
			20		
			22		
33	33	43	12	44	86
36	36	44	18	48.9	90.4
39	39	38	22	54	96

Marking Example: XC24FJP-20 indicates compatibility with Shell Size 24 and a maximum cable outlet diameter of $\phi 20$.

2. XC-FJJP01 Shielded Cable Accessory



Compatible Shell Size	A	B	D
12	12×1	20	10
			12
			14
14	14×1	20	10
			12
			14
			16
18	18×1	26	10
			12
			14
			16
22	22×1	30	12
			14
			16
			18
			20
24	24×1	32	12
			14
			16
			18
			20
27	27×1	36.5	14
			16
			18
			20
30	30×1	39.5	7.5
			12
			14
			18
			20
33	33×1	43	20
			22
			24
36	36×1	44	24
39	39×1	48	18

II. XC-FJGP (Straight Type) & XC-FJGWP (Angled Type) Shielded Cable Accessories

These accessories are designed for clamping shielded cables with a shielding braid, exclusively compatible with shielded electrical connectors. Available in two main types (straight and angled), they achieve sealing through an end-face rubber ring and a heat-shrinkable tube installed at the tail. Utilizing Ti-Ni alloy shape memory technology, the Ti-Ni alloy shape memory ring shrinks when heated, tightly clamping the shielding braid to the accessory tail and realizing electrical continuity between the shielding braid and the accessory housing.

Note: The Ti-Ni alloy shape memory ring is an optional component and must be purchased separately by the user when placing an order. If required from our factory, add the letter "A" to the base model (FJGP/FJGWP) to indicate inclusion, resulting in models XC-FJGPA or XC-FJGWPA.

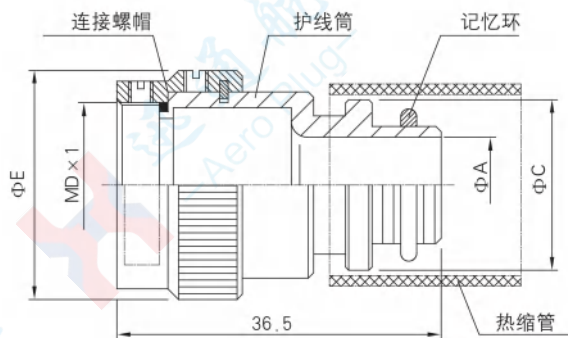
Usage Instructions

- (1) Pass the cable through the heat-shrinkable tube, Ti-Ni alloy shape memory ring, and cable gland in sequence.
- (2) Terminate the cable core wires to the plug contacts.
- (3) Screw the cable gland tightly onto the threaded tail of the plug, achieving a seal with the plug via one of the rubber rings.
- (4) Wrap the cable's shielding braid around the accessory tail. The memory ring shrinks when heated*, tightly clamping the shielding braid to the accessory tail and realizing electrical continuity between the shielding braid and the accessory housing.
- (5) Tighten the locking screws.

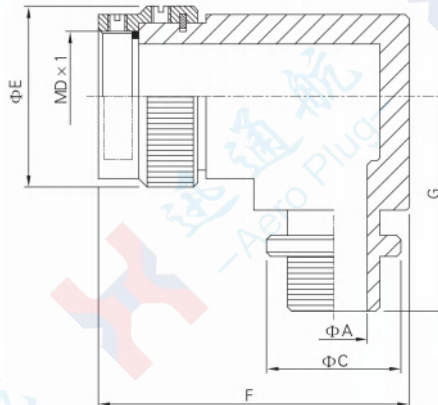
(6) Fit the heat-shrinkable tube over the junction of the cable and the accessory, then heat it to trigger shrinkage. The tube will tightly wrap around the accessory and cable, achieving a seal between them.

***Heating and Shrinkage of the Shape Memory Ring:** This can be accomplished using a dedicated resistance heater (utilizing the memory ring's own resistance for electric heating) or a heat gun. The shrinkage process is complete when the temperature indicator on the memory ring changes from green to black, at which point the ring's temperature reaches approximately 165°C—stop heating immediately. Ensure uniform heating of the memory ring during the process. Electric heating takes about 4-5 seconds, while heat gun heating requires approximately 45 seconds to 1 minute.

XC-FJGP



XC-FJGWP



Optional Cable Outlet Diameters

Compatible Shell Size	Structure	Cable Outlet Diameter ΦA												
		6.3	7.9	9.5	11.1	12.7	16.0	19.0	22.2	25.4	28.5	31.8	35.0	38.1
14	Straight Type	√	√	√	—	—								
	Angled Type	√	√	√	—	—		—						
18	Straight Type	√	√	√	√	√	√	√						
	Angled Type	√	√	√	√	√	—							
22	Straight Type	—	—	√	√	√	√	√						
	Angled Type			√	√	√	√							
24	Straight Type				√	√	√	√	√	√				
	Angled Type	—		—	√	√	√	√		—	—	—	—	
27	Straight Type					√	√	√	√	√	√	√		—
	Angled Type				—	√	√			√				—
30	Straight Type			—		√	√	√	√	√	√	√		
	Angled Type					√	√	√	√	√				
33	Straight Type	—	—			√	√	√	√	√	√	√	√	
	Angled Type				—	√	√	√	√	√	√			—
36	Straight Type					√	√	√	√	√	√	√	√	√
	Angled Type				—	√	√	√	√	√	√	√	—	
39	Straight Type						√	√	√	√	√	√	√	√
	Angled Type	—	—	—	—	—	√	√	√		√	√	√	√

"√" indicates optional values; "—" indicates no such value.

Other Relevant Overall Dimensions

shell size	F	D	E	G
14	37.0	14	22.5	26.5
18	41.8	18	26.0	29.5
22	44.7	22	30.5	29.5
24	49.2	24	32.5	33.5
27	50.7	27	35.5	33.5
30	51.1	30	38	39.0
33	55.2	33	41.5	39.0
36	61.5	36	46.0	44.0
39	63.7	39	48.0	44.0

The diameter ΦA of the tail outlet hole is compatible with the specifications of Ti-Ni rings and shielding mesh.

A	C	Compatible with Ti-Ni Ring Specifications	Shielding Braid Specifications(Nominal Diameter of Tinned Copper Wire)
6.3	14.0	TR-04	6×10(0.15)
7.9	15.5	TR-05	10×16(0.20)
9.5	17.1	TR-06	10×16(0.20)
11.1	18.7	TR-07	10×16(0.20)
12.7	20.3	TR-08	16×24(0.30)
16.0	23.5	TR-10	16×24(0.30)
19.0	26.7	TR-12	16×24(0.30)
22.2	30.0	TR-14	24×30(0.30)
25.4	33.0	TR-16	24×30(0.30)
28.5	36.2	TR-18	30×40(0.30)
31.8	39.4	TR-20	30×40(0.30)
35.0	42.5	TR-22	30×40(0.30)
38.1	45.0	TR-24	40×55(0.30)

Marking Examples:

(1) XC24-FJGP- ϕ 11.1 indicates a straight-type shielded cable accessory compatible with Shell Size 24, featuring a cable outlet diameter of Φ 11.1 and no Ti-Ni ring included. If a Ti-Ni ring is required, add the letter "A" after "FJGP" – the model becomes XC24-FJGPA- ϕ 11.1.

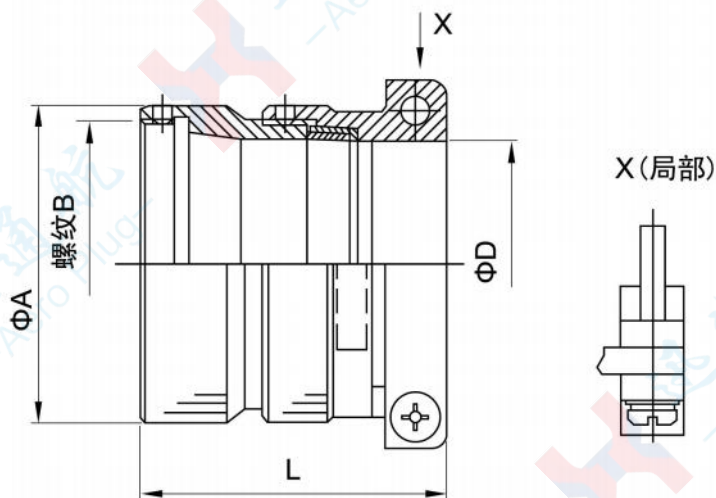
(2) XC24-FJWGP- ϕ 11.1 indicates an angled-type shielded cable accessory compatible with Shell Size 24, featuring a cable outlet diameter of Φ 11.1 and no Ti-Ni ring included. If a Ti-Ni ring is required, add the letter "A" after "FJGP" – the model becomes XC24-FJWGPA- ϕ 11.1.

How to Select FJGP & FJGWP Accessories

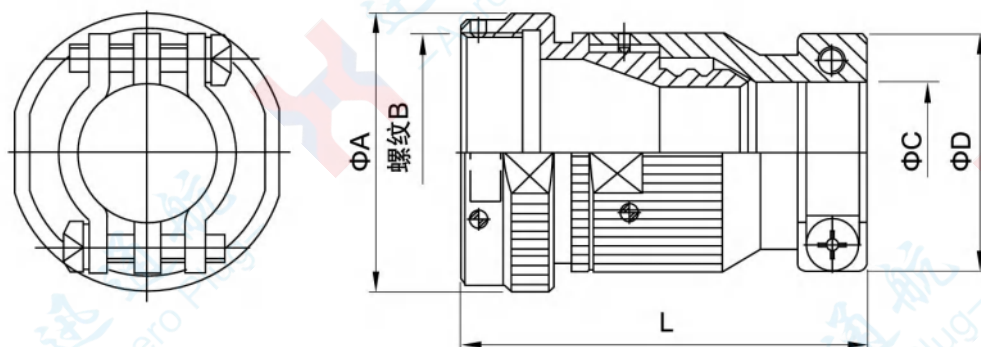
Select the appropriate electrical connector and cable based on application requirements; according to the connector's shell size, select the matching Ti-Ni ring model from the table based on the cable's outer diameter (preferably the outer diameter of the cable with the outer insulation and shielding braid stripped off), and then select the corresponding accessory model from the table.

FB,01 Accessory::

Applicable Products: XC\XCA\XCG\XCE Series; 45FBi01-40 Accessory is Suitable for XCD45 Products.



Item No.	Model No.	A	Thread B	D	L
1	12FB ₀₁ -8	15	M12 x 1	8	28
2	14FB ₀₁ -10	17	M14 x 1	10	28
3	18FB ₀₁ -10	21	M18 x 1	10	29
4	18FB ₀₁ -17	25	M18 x 1	17	31
5	22FB ₀₁ -10	25	M22 x 1	10	31.5
6	22FB ₀₁ -11.1	25	M22 x 1	11.1	31.5
7	22FB ₀₁ -17	25	M22 x 1	17	32
8	24FB ₀₁ -12.7	27	M24 x 1	12.7	32.5
9	24FB ₀₁ -22	30	M24 x 1	22	32.5
10	27FB ₀₁ -12.7	30	M27 x 1	12.7	32.5
11	27FB ₀₁ -22	30	M27 x 1	22	32.5
12	30FB ₀₁ -19	33	M30 x 1	19	33.5
13	33FB ₀₁ -28	36	M33 x 1	28	33.5
14	36FB ₀₁ -31	39	M36 x 1	31	34
15	39FB ₀₁ -33	42	M39 x 1	33	34
16	45FB ₀₁ -40	48	M45 x 1	40	37

FB₁A Accessory:


Item No.	Model No.	A	Thread B	C	D	L
1	14FB ₁ A-8	18.5	M14 x 1	8	20	38.5
2	18FB ₁ A-10	22.5	M18 x 1	10	20	46
3	18FB ₁ A-12			12	25	
4	18FB ₁ A-16			16	27	
5	22FB ₁ A-12	26.5	M22 x 1	12	25	46
6	22FB ₁ A-16			16	27	
7	24FB ₁ A-14	28.5	M24 x 1	14	27	46
8	24FB ₁ A-19			19	32	
9	24FB ₁ A-22			22	33	
10	27FB ₁ A-16	31.5	M27 x 1	16	27	46
11	27FB ₁ A-22			22	33	
12	27FB ₁ A-25			25	36.5	
13	30FB ₁ A-19	34.5	M30 x 1	19	32	46
14	30FB ₁ A-25			25	36.5	
15	30FB ₁ A-28			28	40	
16	33FB ₁ A-22	37.5	M33 x 1	22	33	46
17	33FB ₁ A-25			25	36.5	
18	33FB ₁ A-31			31	44	
19	36FB ₁ A-25	40.5	M36 x 1	25	36.5	46
20	36FB ₁ A-28			28	40	
21	39FB ₁ A-28	43.5	M39 x 1	28	40	46
22	39FB ₁ A-31			31	44	
23	42FB ₁ A-31	46.5	M42 x 1	31	44	46

YMA and YMB Series Marine Anti - Corrosion Waterproof Electrical Connectors

The YMA series electrical connectors adopt bayonet-type quick connection and disconnection, while the YMB series feature thread anti-loosening connection. Both series offer convenient operation and reliable connectivity, with five-key positioning, blind mating and anti-misinsertion functions. The contacts utilize high-reliability hyperboloid wire spring sockets, ensuring smooth mating/unmating and low contact resistance. They are widely used for electrical connections between equipment and cables, as well as between cables and cables, under harsh environments such as humidity and submersio

Product Marking Code

XTH	YMA	14	T	3	K ₁	P ₄₀	(W)
1	2	3	4	5	6	7	8

1— Enterprise Designation of Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— YMA—Bayonet-Type Quick-Connect Marine Corrosion-Resistant Waterproof Electrical Connector

YMB—Threaded Anti-Loosening Marine Corrosion-Resistant Waterproof Electrical Connector

3— Shell Size: 14、18、22、24、27、30、33、36、39

4— Shell Type: T-Plug F-Square Flange Socket

5— Nut Fastened Through-Wall Sealed Adapter Socket (Socket on the outer side of the panel, Pin on the inner side)

6— Number of Contacts: See Contact Arrangement Diagram

6— Contact Type: Z—Gold-Plated Pin; K₁—Gold-Plated Socket;

M1—Through-Wall Sealed Contact (Gold-Plated, Exclusive for Through-Wall Sealed Adapter Sockets)

7— Shell Plating & Structure:

D₄₀—Short Shell, No Thread at Tail, Stainless Steel Passivation (Exclusive for Square Flange Sockets and Through-Wall Sealed Adapter Sockets)

P₄₀—Thread at Tail (Optional Accessory), Stainless Steel Passivation

D₁—Short Shell, No Thread at Tail, Aluminum Alloy with Electroless Nickel Plating

P₁—Thread at Tail (Optional Accessory), Aluminum Alloy with Electroless Nickel Plating

8— Key Position: No Mark—N Key; (W)—W Key; (X)—X Key; (Y)—Y Key; (Z)—Z Key

Notes:

1. When indicating an electrical connector, the model marking adopts a fractional format. The socket marking is written as the numerator, and the plug marking as the denominator (only the shell plating and structure type of the plug may be specified), separated by a slash. See the model marking example for reference.

2. The model numbers of plugs and sockets are directly marked on the products, while the electrical connector model numbers are used for customer orders, as well as the company's production and operation management.

3. Optional accessories require separate orders; specific details are provided below.

Examples of Product Marking Codes

* Socket: YMA Series, Shell Size 14, 3-Pin Socket, Short Shell, No Thread at Tail, Stainless Steel Passivation, W Key Position

Model Marking: YMA14F3K1D40(W)

* Plug: YMA Series, Shell Size 14, 3-Pin Pin, Thread at Tail (Optional Accessory), Stainless Steel Passivation, W Key Position

Model Marking: YMA14T3Z1P40(W)

* Complete Electrical Connector: YMA14F3K1D40 (W)/P40(W)

Product Technical Characteristics

1. Operating Environment Conditions

1. Operating Environment Conditions

Operating Temperature: -55 ~ +125°C; +200°C (per customer requirements)

Relative Humidity: Up to 95% at 60°C

Sealing Performance: Submersion depth of 0 ~ 50 meters

Environmental Resistance: 1000-hour salt spray test

Excellent mold resistance, dust resistance, and other environmental protection properties



2. Electrical Characteristics

Contact Resistance and Rated Current

Contact Size mm	Contact Resistance mΩ	Rated Current A	Soldering Barrel Inner Diameter mm
Φ1.0	5	5	Φ1.3
Φ1.5	2.5	10	Φ1.8
Φ2.0	1.25	20	Φ2.5
Φ3.0	0.75	40	Φ3.4

Rated Voltage, Withstand Voltage and Insulation Resistance

Operating Environment	Rated Voltage(V)	Withstand Voltage(V)	Insulation Resistance (MΩ)
Normal Temperature Condition	500	1500	≥ 5000
Damp Heat Condition	500	1125	≥100
Low Atmospheric Pressure (1 kPa)	250	500	—

Electromagnetic Interference (EMI) Shielding: Minimum attenuation of 60 dB at 100 MHz ~ 1 GHz

3. Mechanical Characteristics

Shell: Stainless steel passivation; copper alloy with satin nickel plating is also available per customer requirements.

Vibration: Frequency 10 ~ 2000 Hz; Acceleration 196 m/s²

Insulator: Thermosetting material

Shock: Acceleration 980 m/s²

Cable Gland & Sealing Ring: Silicone rubber

Constant Acceleration: 980 m/s²

Contacts: Copper alloy with gold plating

Mechanical Life: ≥1000 mating/unmating cycles

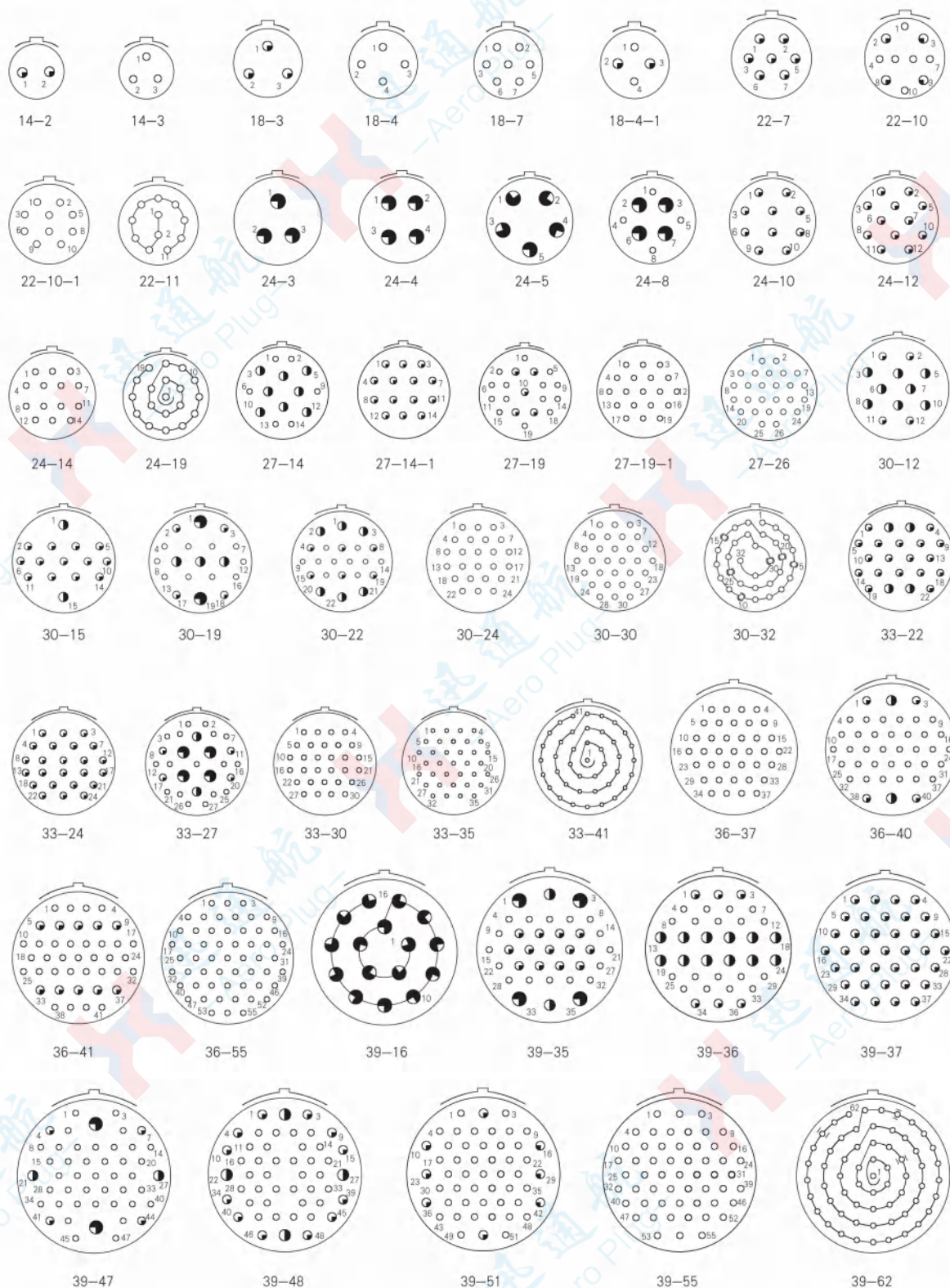
Weight Table for Plugs and Sockets of YMA & YMB Series (Shell Material: Stainless Steel)

Unit: Grams (g)

shell size	Plug	Socket (No Thread at Tail)	Socket (Thread at Tail)
14	40	37	38
18	52	48	50
22	58	60	62
24	83	66	69
27	100	81	85
30	124	92	97
33	142	103	108
36	160	117	123
39	176	146	152

Note: The values in the table are the average values for various contact arrangements (both pin-mounted and socket-mounted) of the corresponding shell size. All data is for reference only.

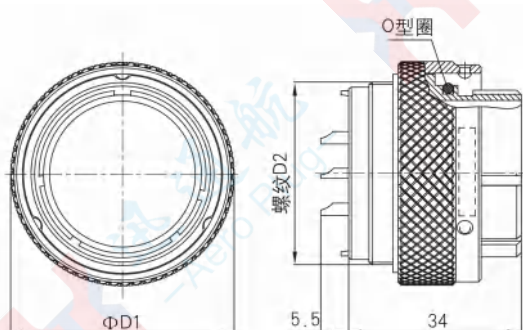
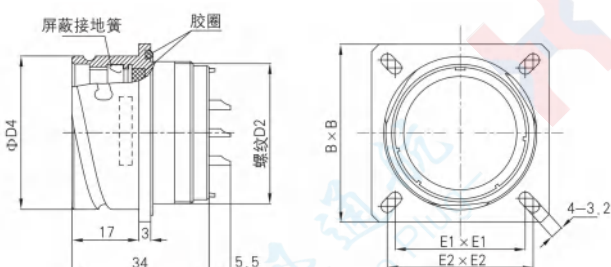
4. Contact Arrangement (View of Pin-Mounted Insulator Mating Face)



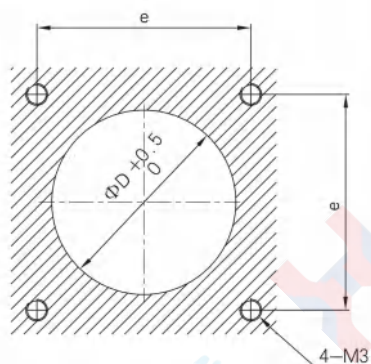
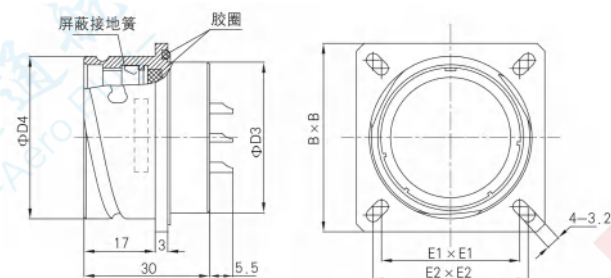
注：接触件直径标志 ○ $\Phi 1.0$ 接触件 ● $\Phi 1.5$ 接触件 ◐ $\Phi 2.0$ 接触件 ◑ $\Phi 3.0$ 接触件

5. Overall Dimensions

YMA Series (Bayonet-Type Quick Connection)

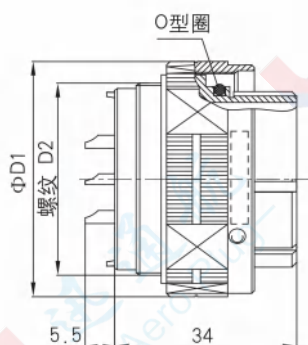
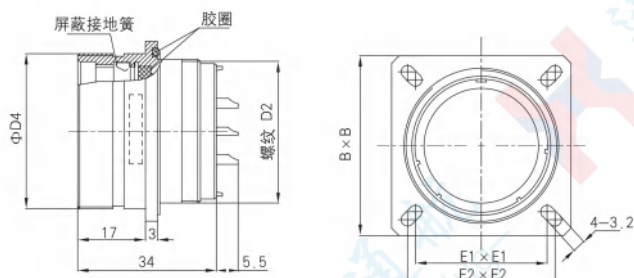
Plug YMA-T-P₄₀

Plug YMA-F-P₄₀


Panel Cutout Dimensions for YMA Sockets

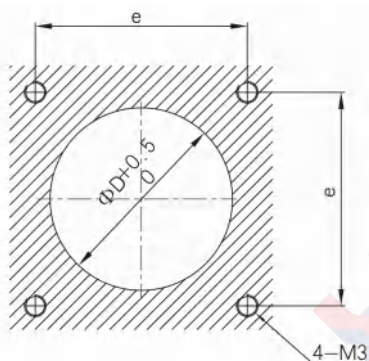
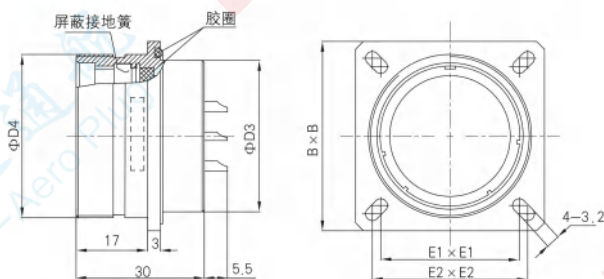

Plug YMA-F-D₄₀


shell size	D1	D2	D3	D4	B	E1	E2	d	e
14	22.0	M14 x 1	14.0	16.8	25.0	18.0	19.0	14.5	18.0 ~ 19.0
18	26.0	M18 x 1	18.0	20.8	27.5	21.0	22.0	19.5	21.0 ~ 22.0
22	30.0	M22 x 1	22.0	24.8	24.8	23.0	24.5	22.5	23.0 ~ 24.5
24	32.0	M24 x 1	24.0	26.8	26.8	25.0	27.0	24.5	25.0 ~ 27.0
27	35.0	M27 x 1	27.0	29.8	29.8	27.0	30.0	27.5	27.0 ~ 30.0
30	38.0	M30 x 1	30.0	32.8	32.8	29.0	32.0	30.5	29.0 ~ 32.0
33	41.0	M33 x 1	33.0	35.8	35.8	31.0	34.5	33.5	31.0 ~ 34.5
36	44.0	M36 x 1	36.0	38.8	38.8	33.0	37.0	36.5	33.0 ~ 37.0
39	47.0	M39 x 1	39.0	41.8	48.0	35.5	39.0	39.5	35.5 ~ 39.0

YMB Series (Threaded Anti-Loosening Connection)

Plug YMB-T-P₄₀

Plug YMB-F-P₄₀


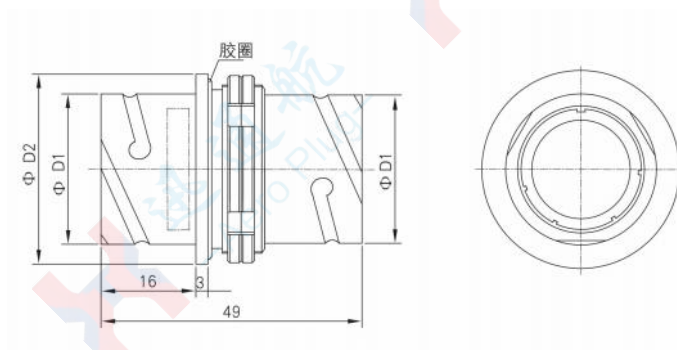
Panel Cutout Dimensions for YMB Sockets


Plug YMB-F-D₄₀


shell size	D1	D2	D3	D4	B	E1	E2	d	e
14	25.0	M14 x 1	14.0	19.1	25.0	18.0	19.0	14.5	18.0 ~ 19.0
18	29.4	M18 x 1	18.0	22.3	27.5	21.0	22.0	18.5	21.0 ~ 22.0
22	32.4	M22 x 1	22.0	25.4	30.0	23.0	24.5	22.5	23.0 ~ 24.5
24	35.6	M24 x 1	24.0	30.2	33.0	25.0	27.0	24.5	25.0 ~ 27.0
27	38.6	M27 x 1	27.0	31.8	36.0	27.0	30.0	27.5	27.0 ~ 30.0
30	41.7	M30 x 1	30.0	34.8	39.0	29.0	32.0	30.5	29.0 ~ 32.0
33	44.8	M33 x 1	33.0	38.1	42.0	31.0	34.5	33.5	31.0 ~ 34.5
36	48.1	M36 x 1	36.0	41.2	45.0	33.0	37.0	36.5	33.0 ~ 37.0
39	51.0	M39 x 1	39.0	44.5	48.0	35.5	39.0	39.5	35.5 ~ 39.0

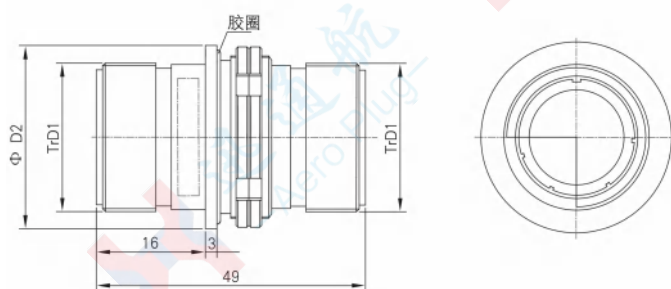
YMA and YMB Series Through-Wall Sealed Adapter Sleeves

Through-Wall Sealed Adapter Sleeve YMA-S-M1D40



shell size	D1	D2
14	16.8	30.0
18	20.8	34.0
22	24.8	38.0
24	26.8	40.0
27	29.8	43.0
30	32.8	46.0
33	35.8	49.0
36	38.8	52.0
39	41.8	55.0

Through-Wall Sealed Adapter Sleeve YMB-S-M1D40



shell size	D1	D2
14	20	32.0
18	24	37.0
22	28	40.0
24	30	43.0
27	34	46.0
30	36	49.0
33	40	52.0
36	42	55.0
39	46	58.0

YMG Series Marine Anti-Corrosion Waterproof Electrical Connectors

This series of electrical connectors adopts bayonet-type quick connection and disconnection, featuring convenient operation and reliable connection. Equipped with five-key positioning, it has blind mating and anti-misinsertion functions. The contacts utilize high-reliability hyperboloid wire spring sockets, offering smooth mating/unmating and low contact resistance. Both plugs and sockets of this series are solder-mounted, and they are widely used for electrical connections between equipment and cables, as well as between cables and cables in humid environments.

Product Identification Code

XTH	YMG	16	T	3	K	P ₄₀	X
1	2	3	4	5	6	7	8

1— Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— YMG Series Marine Anti-Corrosion Waterproof Electrical Connectors

3— Shell Size: 16、18、20、22、24、27、30、33、36、39

4—Shell Type: T - Plug; F - Square Flange Socket

5— Number of Contacts: See YMG Contact Arrangement Diagram

6—Contact Type: Z - Gold-Plated Pin; K - Gold-Plated Socket

7— Shell Plating & Structure

D₄₀-Short shell, no thread at tail, stainless steel passivation (for square flange sockets and through-wall sealed adapter sockets only)

P₄₀-Thread at tail, optional accessories, stainless steel passivation

D₁-Short shell, no thread at tail, aluminum alloy, electroless nickel plating

P₁-Thread at tail, optional accessories, aluminum alloy, electroless nickel plating

8— Key Position: Unmarked - N Key; (W) - W Key; (X) - X Key; (Y) - Y Key; (Z) - Z Key

Notes:

(1)、 When indicating the electrical connector, the model designation shall adopt a fractional format. The socket designation shall be written as the numerator, and the plug designation as the denominator (only the shell plating and structural type of the plug may be specified), separated by a slash.

(2)、 The model designations of plugs and sockets shall be directly marked on the products. The electrical connector model is for customer ordering, as well as the company's production and operation management.

Examples:

* Socket: YMG Series, Shell Size 16, 3-Way Socket Contacts, Thread at Tail, Optional Accessories, Stainless Steel Passivation, N Key Position,

Model Designation : YMG16F3K₁P₄₀

* Plug: YMG Series, Shell Size 16, 3-Way Pin Contacts, Thread at Tail, Optional Accessories, Stainless Steel Passivation, N Key Position

Model Designation : YMG16T3Z₁P₄₀

* Complete Electrical Connector Model: YMG16F3K₁P₄₀/P₄₀

Product Identification Code

1. Operating Environmental Conditions

Operating Temperature: -55°C to +125°C; +200°C (Customer Request)

Relative Humidity: Up to 95% at 60°C

Environmental Resistance: 1000-hour Salt Spray Test

The electrical connector also features excellent mold resistance, dust resistance, and other performance characteristics.

2. Electrical Characteristics

Contact Resistance and Rated Current

Contact Size mm	Contact Resistance mΩ	Rated Current A	Welding Sleeve Inner Diameter mm
Φ1.0	5	5	Φ1.3
Φ1.5	2.5	10	Φ1.6
Φ3.0	0.75	40	Φ3.4

Rated Current, Voltage Withstand and Insulation Resistance

Operating Environment	Rated Voltage V	Withstand Voltage V	Insulation Resistance MΩ
Normal Temperature Condition	500	1500	≥5000
Damp Heat Condition	500	1125	≥100
Low Pressure Condition (1Kpa)	200	200	-

Electromagnetic Interference (EMI) Shielding: 100MHz ~ 1GHz, Minimum Attenuation of 45dB

3. Mechanical Characteristics

Shell: Stainless steel with passivation treatment; copper alloy with satin nickel plating is also available upon customer request

Insulator: Thermosetting material

Cable Gland & Sealing Ring: Silicone rubber

Contacts: Copper alloy with gold plating

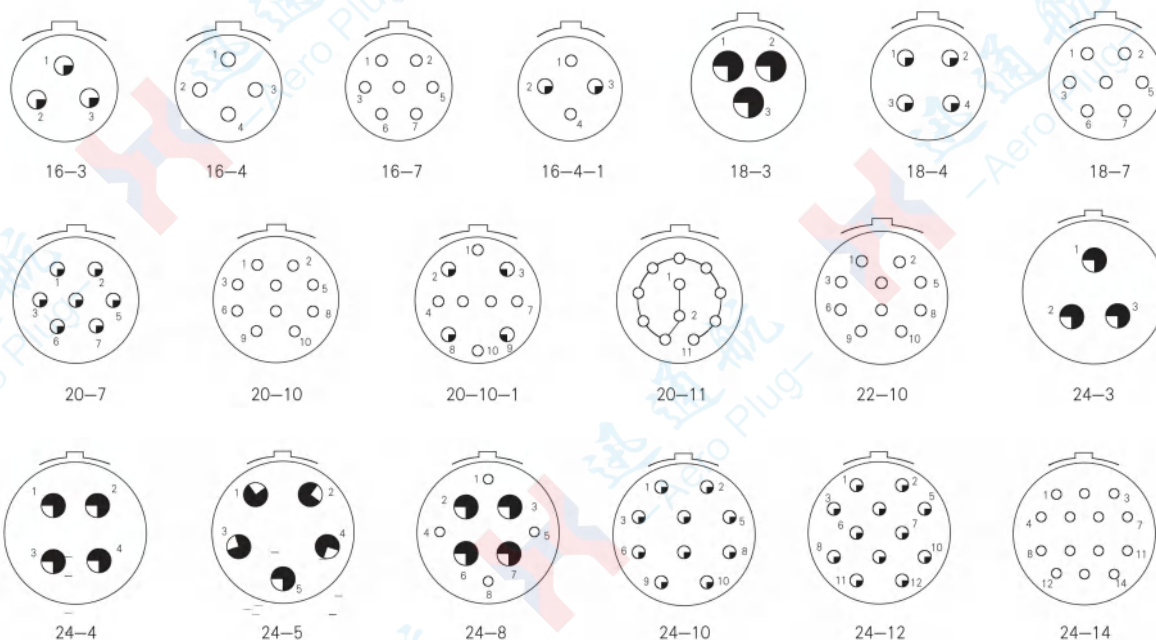
Vibration: Frequency 10 ~ 2000Hz, Acceleration 196m/s²

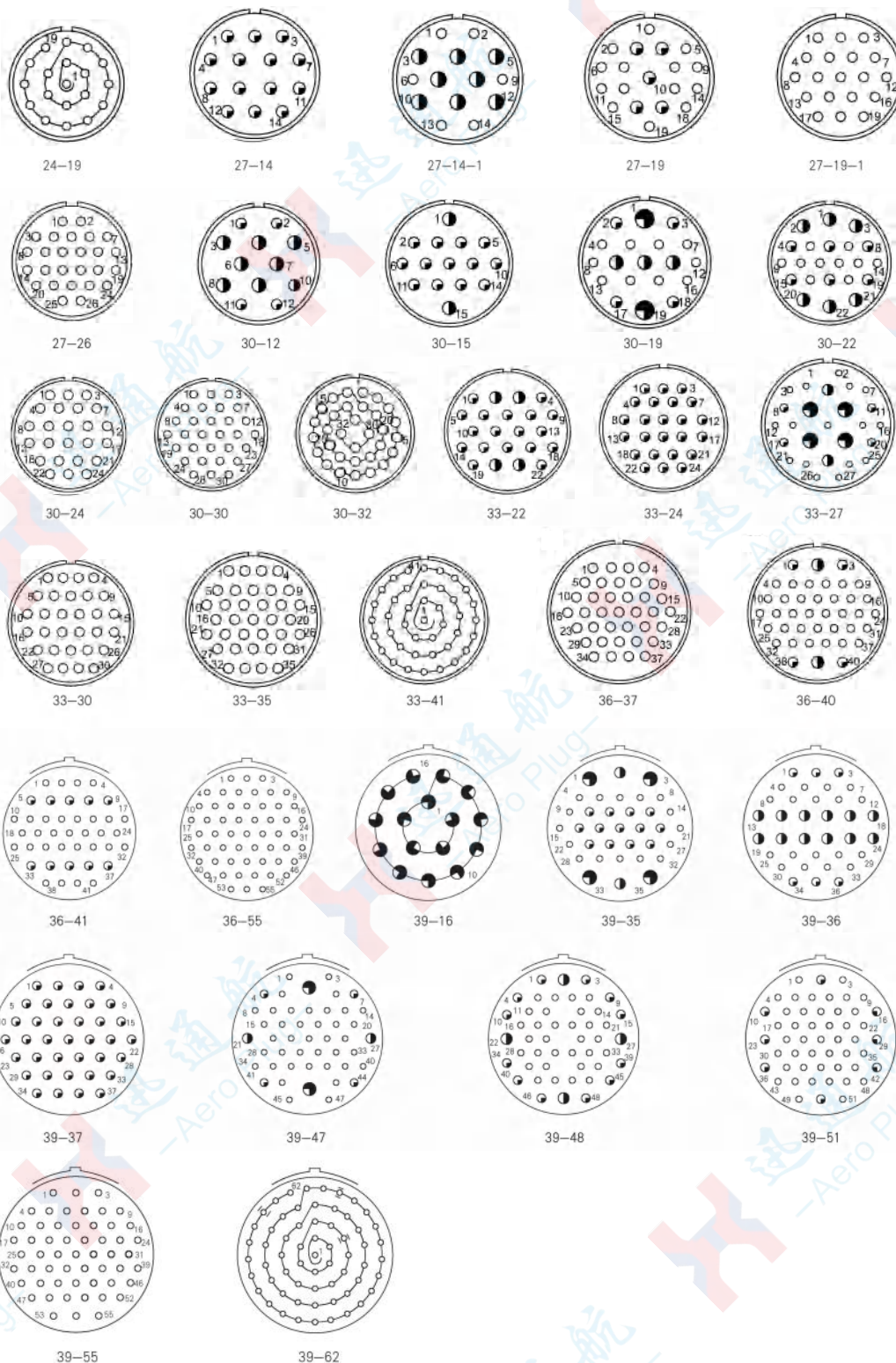
Shock: Acceleration 980m/s²

Constant Acceleration: 980m/s²

Mechanical Life: ≥1000 Mating Cycles

4. Contact Arrangement (View of Pin Insulator Mating Face)

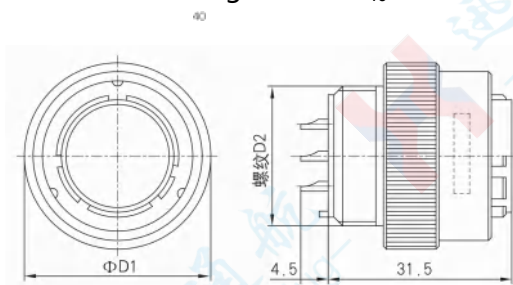




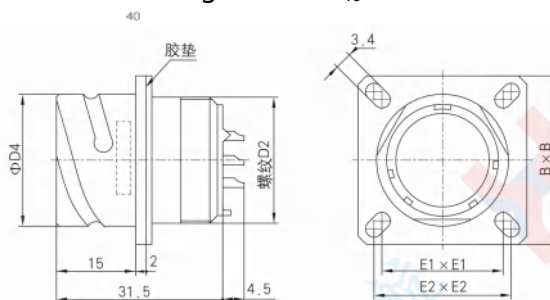
注：接触件直径标志 ○ $\Phi 1.0$ 接触件 ● $\Phi 1.5$ 接触件 ◐ $\Phi 2.0$ 接触件 ◑ $\Phi 3.0$ 接触件

5. Overall Dimensions

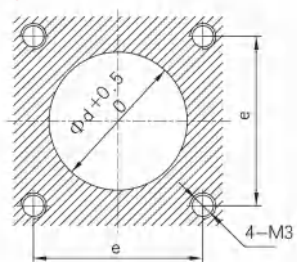
Plug YMG-T-P₄₀



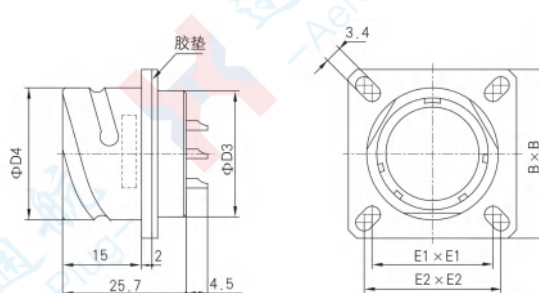
Plug YMG-F-P₄₀



Panel Cutout Dimensions for YMG Socket



Plug YMG-F-D₄₀



shell size	D1	D2	D3	D4	B	E1	E2	d	e
16	24.0	M16x1	16	17.2	25.0	16.0	19.0	16.5	16.0-18.0
18	26.0	M18x1	18	19.2	27.0	18.0	21.5	19.5	18.0-21.5
20	28.0	M20x1	20	21.2	28.0	20.0	22.5	20.5	20.0-22.5
22	30.0	M22x1	22	23.2	30.0	21.0	24.0	22.5	21.0-24.0
24	32.0	M24x1	24	25.2	32.0	23.0	26.0	24.5	23.0-26.0
27	35.0	M27x1	27	28.2	34.5	25.0	28.0	27.5	25.0-28.0
30	38.0	M30x1	30	31.2	36.0	27.0	30.5	30.5	27.0-30.5
33	41.0	M33x1	33	34.2	39.0	29.0	32.0	33.5	29.0-32.0
36	44.0	M36x1	36	37.2	42.0	32.0	35.0	36.5	32.0-35.0
39	47.0	M38x1	39	40.2	45.0	35.0	38.0	39.5	35.0-38.0

Plug and Socket Sealing Caps

For YMA and YMC Series: Socket Sealing Cap YM-BP; Plug Sealing Cap YM-CP
 For YMB Series: Socket Sealing Cap YMB-BP; Plug Sealing Cap YMB-CP

Product Identification Code

XTH	YM	14	B	P ₄₀
1	2	3	4	5

1—Enterprise Designation: Shenzhen Xuntonghang Electronics Technology Co., Ltd.

2— YM: For YMA and YMC Series

YMB: : For YMB Series.

3— Shell Size: 14、18、22、24、27、30、33、36、39、42

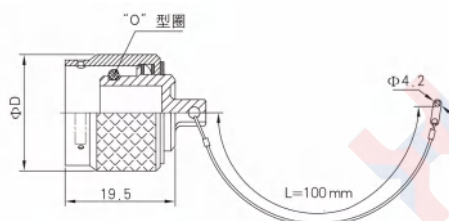
4—Shell Type:B: Socket Sealing Cap C: Plug Sealing Cap

5— Shell Material & Plating: P40 - Stainless Steel Passivation

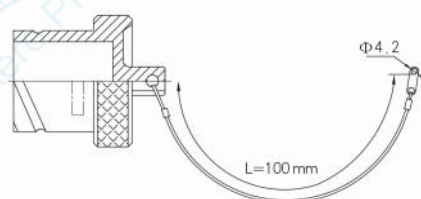
Overall Dimensions

1 Applicable to YMA and YMC Series

Socket Sealing Cap: YM-BP



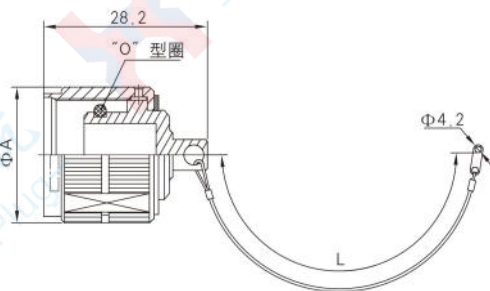
Plug Sealing Cap: YM-CP



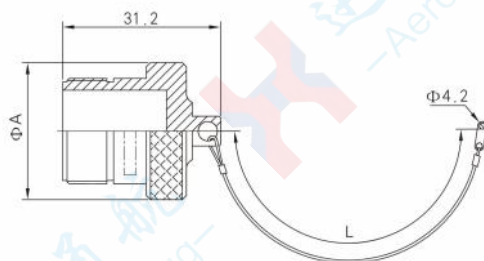
shell size	14	18	22	24	27	30	33	36	39	42
D	22.0	26.0	30.0	32.0	35.0	38.0	41.0	44.0	47.0	50.0

2、Applicable to YMB Series

Socket Sealing Cap: YMB-BP



Plug Sealing Cap: YMB-CP



shell size	14	18	22	24	27	30	33	36	39
A	25.0	29.4	32.4	28.5	38.5	--	44.9	48.0	51.0
L	100	100	100	100	100	120	120	120	120

YMG Series Accessories (Applicable to All YM Series)

Cable Clamp

The cable clamp is used for securing the cable at the tail end, available in two structural types: straight and angled, as well as other modified versions. For example, by installing an adapter sleeve, one shell size can offer more options for cable outlet diameters. Additionally, our FA accessories are available as optional components.

Features

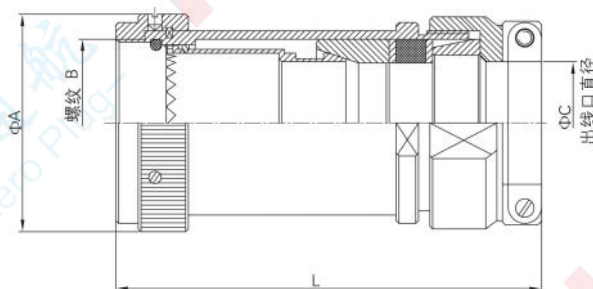
- 1、 Available in two structural options: straight and angled
- 2、 High resistance to tension, vibration, and shock.
- 3、 Equipped with electromagnetic compatibility (EMC) function, achieving 360° shielding effect to meet special requirements.
- 4、 Sealing with the electrical connector is achieved through O-rings.
- 5、 The internal sealing rubber sleeve offers excellent sealing performance, effectively preventing water and dust ingress while securing the cable.

It can be reliably used at a depth of 50 meters underwater.

Overall Dimensions

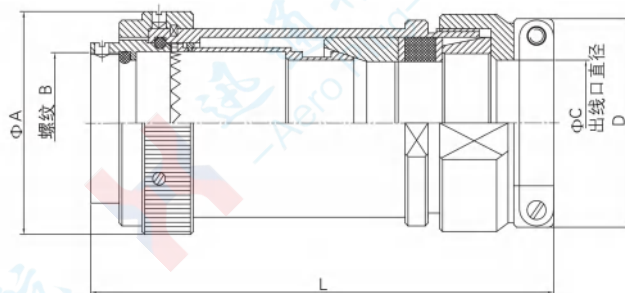
Applicable to YMA, YMB, and YMC Series

YM-AP₄₀



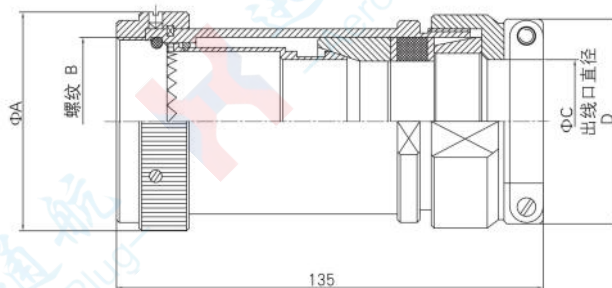
Model	A	Thread B	C	L
Y M14AP ₄₀	23	M14 x 1	3、 5、 6	78
Y M18AP ₄₀	27	M1 8 x 1	5、 7 9	79
Y M22AP ₄₀	31	M22 x 1	7、 10、 13	78
Y M24AP ₄₀	33	M24 x 1	7 10、 13、 16	82
Y M27AP ₄₀	36	M27 x 1	10、 13、 16、 18. 5	79
Y M30AP ₄₀	39	M30 x 1	10、 13、 16、 19、 22	78
Y M33AP ₄₀	42	M33 x 1	13、 16、 19、 22、 24.5	79
Y M36AP ₄₀	45	M36 x 1	17、 19、 22、 25、 27. 5	80
Y M39AP ₄₀	48	M39 x 1	19、 22、 25、 28、 30. 5	79
Y M42AP ₄₀	51	M42 x 1	22、 25、 28、 31 、 33. 5	81

YM-AP₄₀01



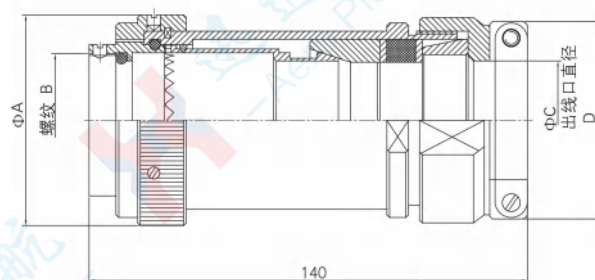
Model	A	Thread B	C	D	L
YM1824AP ₄₀ 01	33	M1 8 x 1	7、10、13、16	34	84
YM2430AP ₄₀ 01	39	M24 x 1	10、13、16、19、22	36.5	83
YM2733AP ₄₀ 01	42	M27 x 1	13、16、19、22、24.5	40	84
YM3036AP ₄₀ 01	45	M30 x 1	17、19、22、25、27.5	48	85
YM3342AP ₄₀ 01	51	M33 x 1	22、25、28、31、33.5	54	86
YM3942AP ₄₀ 01	51	M39 x 1	22 25、28、31、33.5	54	86

YM-AP₄₀02



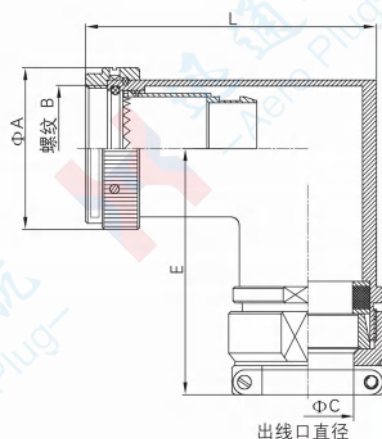
Model	A	Thread B	Cable Outlet Diameter C
YM14AP ₄₀ 02	23	M14 x 1	3、5、6
YM18AP ₄₀ 02	27	M18 x 1	5、7、9
YM22AP ₄₀ 02	31	M22 x 1	7、10、13
Y M24AP ₄₀ 02	33	M24 x 1	7、10、13、16
Y M27AP ₄₀ 02	36	M27 x 1	10、13、16、18.5
YM30AP ₄₀ 02	39	M30 x 1	10、13、16、19、22
YM33AP ₄₀ 02	42	M33 x 1	13、16、19、22、25
Y M36AP ₄₀ 02	45	M36 x 1	17、19、22、25、28
YM39AP ₄₀ 02	48	M39 x 1	19、22、25、28、30.5
YM42AP ₄₀ 02	51	M42 x 1	22、25、28、31、34

YM-AP₄₀03



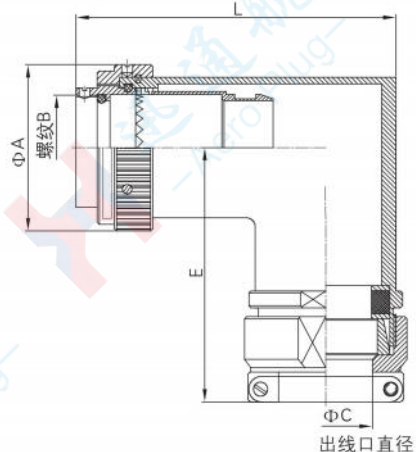
Model	A	Thread B	Cable Outlet Diameter C
Y M18AP ₄₀ 03	31	M18 x 1	7、10、13、16
YM24AP ₄₀ 03	39	M24 x 1	10、13、16、19、22
YM27AP ₄₀ 03	42	M27 x 1	13、16、19、22、25
Y M30AP ₄₀ 03	45	M30 x 1	17、19、22、25、28
Y M33AP ₄₀ 03	51	M33 x 1	22、25、28、31、34
Y M39AP ₄₀ 03	51	M39 x 1	22、25、28、31、34

YM-GP₄₀



Model	A	Thread B	Cable Outlet Diameter C	E	L
Y M14GP ₄₀	23	M14 x 1	3、5、6	37	58
Y M18GP ₄₀	27	M18 x 1	5、7、9	40	60.5
Y M22GP ₄₀	31	M22 x 1	7、10、13	43	64
Y M24GP ₄₀	33	M24 x 1	7、10、13、16	45	67
Y M27GP ₄₀	36	M27 x 1	10、13、16、18.5	47	78.5
Y M30GP ₄₀	39	M30 x 1	10、13、16、19、22	49	82
Y M33GP ₄₀	42	M33 x 1	13、16、19、22、24.5	51	85.5
Y M36GP ₄₀	45	M36 x 1	17、19、22、25、28	52	80
Y M39GP ₄₀	48	M39 x 1	19、22、25、28、30.5	53	90.5
Y M42GP ₄₀	51	M42 x 1	22、25、28、31、33.5	55	96

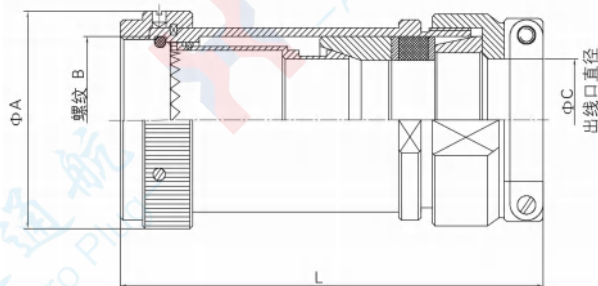
YM-GP₄₀01



Model	A	B	Cable Outlet Diameter C	E	L
Y M1824GP ₄₀ 01	33	M1 8 x 1	7、10、13、16	45	67
Y M2430GP ₄₀ 01	39	M24 x 1	10、13、16、19、22	49	82
YM2733GP ₄₀ 01	42	M27 x 1	13、16、19、22、24.5	51	85.5
YM3036GP ₄₀ 01	45	M30 x 1	17、19、22、25 27.5	52	90
YM3342GP ₄₀ 01	51	M33 x 1	22、25、28、31、33.5	55	96
Y M3942GP ₄₀ 01	51	M39 x 1	22、25、28、31、33.5	55	96

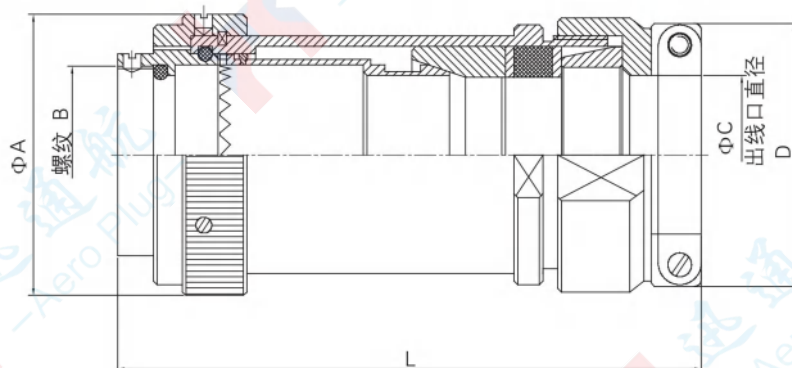
Applicable to YMG Series

YMG-AP₄₀



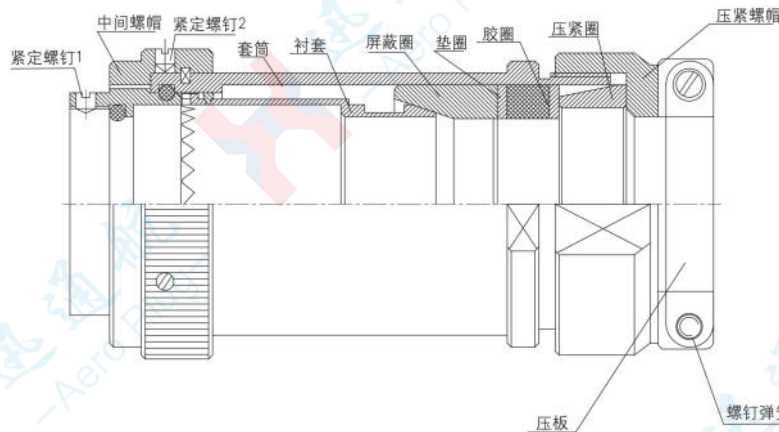
Model	A	Thread B	Cable Outlet Diameter C	L
Y MG16AP ₄₀	26	M16 x 1	5、7	78
Y MG18AP ₄₀	27	M18 x 1	5、7、9	79
Y MG20AP ₄₀	30	M20 x 1	7、11	78
Y MG22AP ₄₀	31	M22 x 1	7、10、13	78
Y MG24AP ₄₀	33	M24 x 1	7、10、13、16	82
Y MG27AP ₄₀	36	M27 x 1	10、13、16、18.5	79
Y MG30AP ₄₀	39	M30 x 1	10、13、16、19、22	78
Y MG33AP ₄₀	42	M33 x 1	13、16、19、22、24.5	79
Y MG36AP ₄₀	45	M36 x 1	17、19、22、25、27.5	80
Y MG39AP ₄₀	48	M39 x 1	19、22、25、28、30.5	79

YMG-AP₄₀01



Model	A	B	Cable Outlet Diameter C	D	L
YMG16AP ₄₀ 01	33	M16 x 1	7、10、13、16	34	87
YMG18AP ₄₀ 01	36	M18 x 1	10、13、16、18.5	32	83
YMG20AP ₄₀ 01	31	M20 x 1	7、10、13	27	84
YMG24AP ₄₀ 01	39	M24 x 1	10、13、16、19、22	36.5	82
YMG27AP ₄₀ 01	45	M27 x 1	17、19、22、25、27.5	48	85
YMG30AP ₄₀ 01	45	M30 x 1	17、19、22、25、27.5	48	85
YMG33AP ₄₀ 01	51	M33 x 1	22、25、28、31、33.5	54	86
YMG36AP ₄₀ 01	51	M36 x 1	22、25、28、31、33.5	54	86
YMG39AP ₄₀ 01	51	M39 x 1	22、25、28、31、33.5	54	86

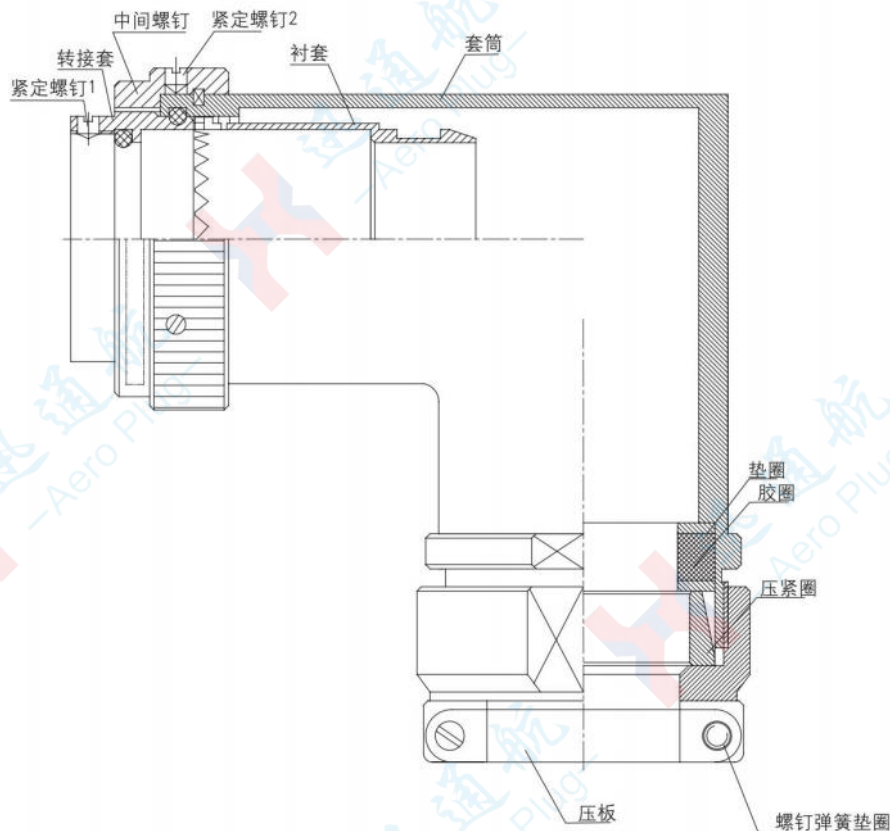
Usage Instructions for Straight Cable Clamp



Assembly Steps:

- 1、Disassemble the accessory: Unscrew Set Screw 1 and Set Screw 2 from the accessory, remove the Compression Nut, then take out the Compression Ring, Shielding Ring, Rubber Gasket, Washer, and another Shielding Ring. Extract the Bushing (if the bushing is difficult to remove, first take out the O-ring at the front end of the Sleeve, then extract the bushing from the left end).
- 2、Use a wrench to fasten the Adapter Sleeve to the connector plug (ensure tight connection), then tighten Set Screw 1.
- 3、Slide the following parts onto the cable in the specified order: 1. Compression Nut → 2. Compression Ring → 3. Washer (1 piece) → 4. Rubber Gasket → 5. Washer (1 piece) → 6. Shielding Ring → 7. Sleeve Intermediate Nut Assembly → 8. Bushing.
- 4.Strip the cable: Remove 43-48mm of the outer insulation layer, and retain at least 30mm of the shielding braid.
- 5.Solder the contact pins of the plug.
- 6、Push the Bushing forward until it abuts the end teeth of the Adapter Sleeve. Cover the shielding braid over the outer annular groove of the Bushing, secure the shielding braid tightly in the annular groove using the loose shielding wires (spot welding at the connection is optional, but the solder joint must not be excessively large), then cut off the excess shielding braid.
- 7、Push the Intermediate Nut and Sleeve forward, insert the Bushing into the Sleeve (align the riveting key of the Bushing with the groove of the Sleeve), fasten the Intermediate Nut to the Adapter Sleeve, and tighten Set Screw 2.
- 8、Sequentially insert the Shielding Ring, Washer, Rubber Gasket, Washer, and Compression Ring into the Sleeve.
- 9、Use a wrench to tighten the Compression Nut.
- 10、Install the Pressure Plate, Screws, and Spring Washers onto the Compression Nut, then tighten the screws to secure the cable.
- 11、Accessory installation is complete.

Usage Instructions for Angled Cable Clamp



- 1、Disassemble the accessory: Unscrew Set Screw 1, Set Screw 2, and the Adapter Sleeve from the accessory. Remove the Compression Nut, then take out the Compression Ring, Shielding Ring, Rubber Gasket, and Washer. Extract the Bushing (if the bushing is difficult to remove, first take out the O-ring at the front end of the Sleeve, then extract the bushing from the left end).
- 2、Use a wrench to fasten the Adapter Sleeve to the connector plug (ensure tight connection), then tighten Set Screw 1.
- 3、Slide the following parts onto the cable in the specified order: 1. Compression Nut → 2. Compression Ring → 3. Washer (1 piece) → 4. Rubber Gasket → 5. Washer (1 piece) → 6. Sleeve Intermediate Nut Assembly → 7. Bushing.
- 4、Strip the cable: Remove 43-48mm of the outer insulation layer, and retain at least 30mm of the shielding braid.
- 5、Solder the contact pins of the plug.
- 6、Push the Bushing forward until it abuts the end teeth of the Adapter Sleeve. Cover the shielding braid over the outer annular groove of the Bushing, secure the shielding braid tightly in the annular groove using the loose shielding wires (spot welding at the connection is optional, but the solder joint must not be excessively large), then cut off the excess shielding braid.
- 7、Push the Intermediate Nut and Sleeve forward, insert the Bushing into the Sleeve (align the riveting key of the Bushing with the groove of the Sleeve), fasten the Intermediate Nut to the Adapter Sleeve, and tighten Set Screw 2.
- 8、Sequentially insert the Washer, Rubber Gasket, Washer, and Compression Ring into the Sleeve.
- 9、Use a wrench to tighten the Compression Nut.
- 10、Install the Pressure Plate, Screws, and Spring Washers onto the Compression Nut, then tighten the screws to secure the cable.
- 11、Accessory installation is complete.

A bright future can be created
together by us!