

Y50EX series circular electrical connector



Conform to Chinese military connector standard GJB598A-96, Y50EX is designed as bayonet coupling, small volume, high density.

Part number

	Y50E	X	12	-10	T	J	2	W	H	S	L
Basic series											
Type											
X = Solder and hermetic by adhesive											
P = Solder shielding and hermetic by adhesive											
A = PCB, solder and hermetic by adhesive											
C = Hermetic by adhesive without magnetism											
Shell size											
06, 08, 10, 12, 14, 16, 18, 20, 22, 24											
Number of contact											
1 ~ 67											
Type of connector											
T = Plug											
Z = Receptacle											
Type of contact											
J = Pin											
K = Socket											
SJ = Thru bulkhead Pin											
SK = Thru bulkhead Socket											
Type of plug and receptacle (See below datasheet I)											
Orientation											
Omit = N											
N, W, X, Y, Z (See below)											
Finish											
P1 = Electroless nickel plating											
P2 = Bright nickel plating											
P3 = Half bright nickel plating											
E = Stainless steel passivated											
H1 = Conductive black											
L2 = Olive drab cadmium plating											
H = Black anodized											
L = Olive drab anodized											
L1 = Olive drab matte											
Material of shell											
S = Cooper-alloy											
B = Stainless steel											
Omit = Aluminium-alloy											
Length											

Datasheet I

Sign	Plug
1	Earthing jam
2	Cable connecting
2X	Double cable clamp
2M	Cable sealed
2P	Shielded cable
3	Sealed
4	Avoid-wave and tensile
5	90° elbow and protect cable
6	Thread spring and protect cable
5-6	90° elbow line spring
8	Protect cable
8-2	Sealed tensile
10	Square flange (front)
20	Square flange (back)
11	Circular flange
14	Jam nut
10-2	Square flange with cable clamp
11-2	Circular flange with cable clamp
24	Circular jam nut

Performance specification

Operating temperature range: -55 °C~ +125 °C

Corrosion resistance: Withstand 48 hours salt spray (5% NaCl fog)

Operating atmospheric pressure: 4.39 KPa ~ 101.33 KPa

Vibration: 10 Hz ~ 2000 Hz, acceleration 196 m/s²

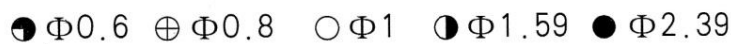
Relative humidity: 40 ± 2 °C, 90% ~ 95%

Durability: ≥ 1000 cycles

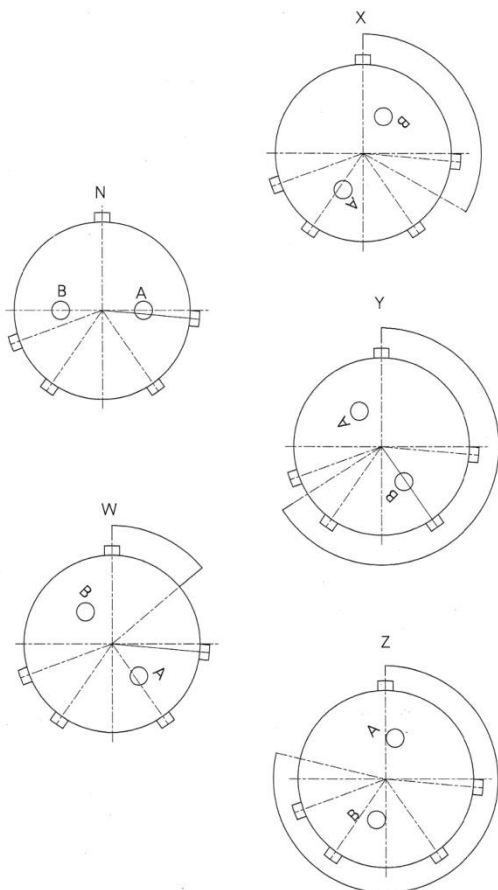
Contact specification

Contact No.	Cross section for cable (mm ²)	Resistance (mΩ)	Current (A)
20#	0.20	≤5	3.0
	0.30		5.0
	0.50		7.5
16#	0.50	≤3	7.5
	0.80		10.0
	1.25		13.0
12#	2.00	≤2	17.0
	3.15		25.0

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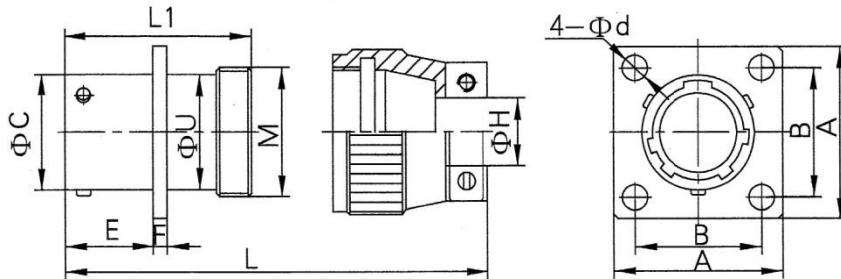
Orientation



Shell No.	Degree (N=0°)			
	W	X	Y	Z
8	58 °	122 °	—	—
	60 °	210 °		
	60 °	210 °		
	45 °			
	90 °			
	60 °	155 °	270 °	295 °
10	90 °			
	90 °	180 °	240 °	270 °
	60 °	150 °	270 °	295 °
12			180 °	
	90 °	112 °	203 °	292 °
	60 °	155 °	270 °	295 °
14	40 °	92 °	184 °	273 °
	43 °	90 °		
	17 °	110 °	155 °	234 °
	15 °	90 °	180 °	270 °
	30 °	165 °	315 °	
16	54 °	152 °	180 °	331 °
	158 °	270 °		
	60 °		275 °	338 °
	30 °	165 °	315 °	
18	30 °	165 °	315 °	
	85 °	138 °	222 °	265 °
	180 °	193 °	285 °	350 °
20	238 °	318 °	333 °	347 °
	63 °	144 °	252 °	333 °
	45 °	126 °	225 °	
	70 °	145 °	215 °	290 °
	72 °	144 °	216 °	288 °
	72 °	144 °	216 °	288 °
22	16 °	135 °	175 °	349 °
	72 °	144 °	216 °	288 °
	30 °	142 °	226 °	314 °
	72 °	145 °	215 °	288 °
24	90 °	180 °	270 °	324 °

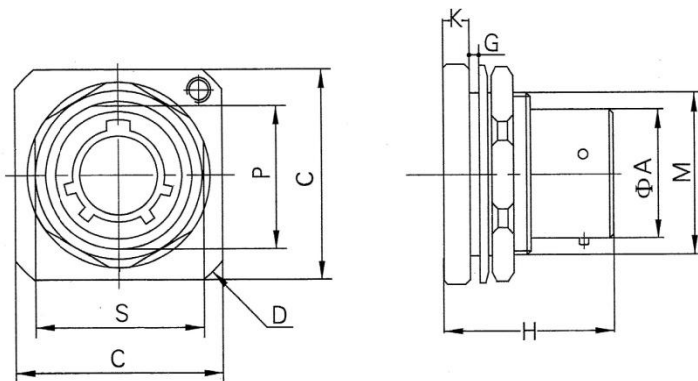
Shell size

Square flange receptacle



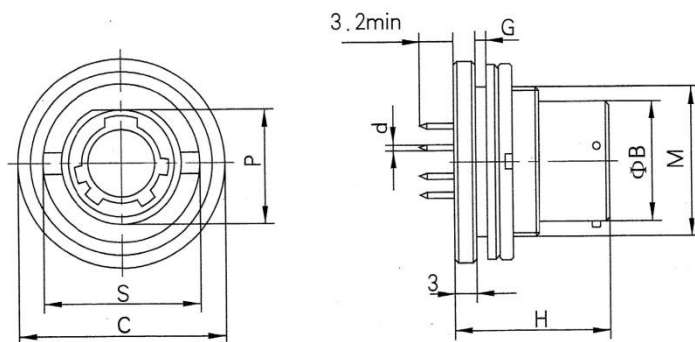
Shell No.	ΦC	ΦH	ΦU	L	L1	F	M	E		A	B	Φd
								Front	Back			
06	8.8	3-6	10.90	36.5	21.5	2.0		10.95	14.5	18.10	12.50	3.2
0807	12.0	4-6	12.00			1.5	12×1		14.5	21.00	15.00	3.6
08	12.0	4-6	12.80	36.5	21.5	1.5	1/2-20	10.95	14.5	20.60	15.90	3.6
10	15.0	4-8	16.01	36.5	21.5	1.5	5/8-24	10.95	14.5	23.80	18.30	3.6
12	19.1	5-10	19.10	38.5	21.5	2.0	3/4-20	10.95	14.5	26.20	20.62	3.6
14	22.2	6-14	22.30	43.0	21.5	2.0	21×1	10.95	14.5	30.00	23.00	3.6
16	25.4	6-16	25.54	43.0	21.5	2.0	1-20	10.95	14.5	31.00	24.60	3.6
18	28.6	6-17.5	28.60	44.5	21.5	2.0	27.4×1	10.95	14.5	33.30	27.00	3.6
20	31.8	6-20	31.50	49.0	26.5	2.6	30×1	12.50	19.5	36.50	29.36	3.6
22	34.9	6-24	35.00	49.0	26.5	2.6	35×1	12.50	19.5	40.00	32.00	3.6
24	38.1	6-27	38.00	53.0	26.5	2.6	37.4-20	12.50	19.5	42.90	34.93	3.6

Jam nut receptacle



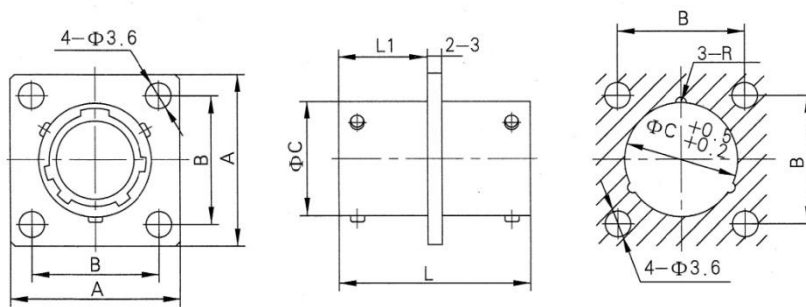
Shell No.	G		K	H ± 0.1	A ± 0.1	S ± 0.1	P ± 0.1	C ± 0.1	D	M
	Min	Max								
06	1.6	3.2	3.2	21.0	8.80	16.50	10.10	18.00	24.00	1/16-26
0807	1.6	3.2	2.5	19.0	12.00	18.00	13.00	19.00	24.50	14×1
08	1.6	3.2	3.2	21.0	12.00	19.10	13.20	23.80	27.25	9/16-20
10	1.6	3.2	3.2	21.0	15.00	22.20	16.50	27.00	30.40	11/16-24
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 / ₉ -20
18	1.6	3.2	3.2	21.0	28.60	36.50	30.35	41.30	44.70	1 ¹ / ₄ -18
20	1.6	6.4	6.4	26.5	31.78	39.70	33.70	46.00	49.40	1 ³ / ₈ -18
22	1.6	6.4	6.4	26.5	34.95	44.00	36.60	49.20	52.60	1 ¹ / ₂ -18
24	1.6	6.4	6.4	26.5	38.10	46.00	40.05	52.50	55.80	1 ⁵ / ₈ -18

PCB receptacle



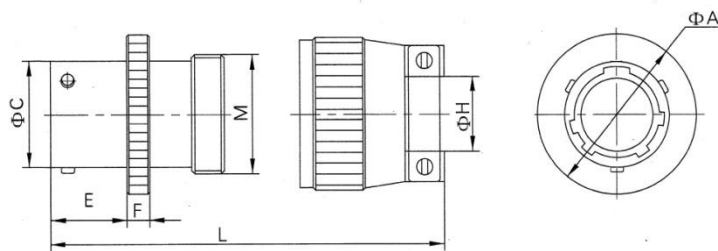
Shell No.	G		K	H	B	M	C ± 0.1	Φ d	P ± 0.1	S
	Min	Max								
06	1.6	3.2	3.2	19	8.8	7/16-28	18.0	0.8	---	---
0807	1.6	3.2	2.5	19	12.0	14×1	19.0	0.8	13.0	17.0
08	1.6	3.2	3.2	19	12.0	9/16-20	23.8	1.0	13.2	23.0
10	1.6	3.2	3.2	19	15.0	11/16-24	26.0	1/1.5	16.5	25.0
12	1.6	3.2	3.2	19	19.1	7/8-20	31.0	1/1.5	21.2	30.0
14	1.6	3.2	3.2	19	22.2	1-20	34.9	1/1.5	24.2	34.0
16	1.6	3.2	3.2	19	25.4	1 ¹ / ₉ -20	36.5	1/1.5	27.4	35.5
18	1.6	3.2	3.2	19	28.6	1 ¹ / ₄ -18	41.0	1/1.5	30.4	38.5
20	1.6	6.4	6.4	24	31.8	1 ³ / ₈ -18	43.0	1/1.5	30.7	42.0
22	1.6	6.4	6.4	24	34.9	1 ¹ / ₂ -18	46.5	1/1.5	36.6	45.5
24	1.6	6.4	6.4	24	38.1	1 ⁵ / ₈ -18	50.0	1.0	40.1	48.5

Thru bulkhead square flange receptacle



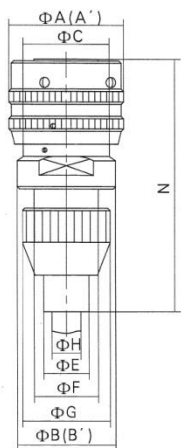
Shell No.	A	B	Φ C	L	L1	R
0807	20.60	15.00	12.00	28.0	13	1.5
08	20.60	15.09	12.00	33.5	14.5	1.5
10	23.80	18.30	15.00	33.5	14.5	1.5
12	26.20	20.60	19.10	33.5	14.5	1.5
14	30.00	23.00	22.20	33.5	14.5	1.5
16	31.00	24.60	25.40	33.5	14.5	1.5
18	33.30	27.00	28.60	33.5	14.5	1.5
20	36.50	29.36	31.78	36.0	16.5	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

Circular flange receptacle

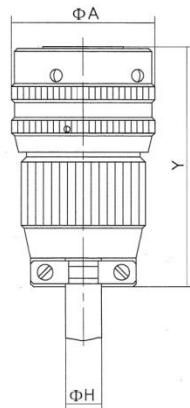


Shell No.	Φ C	E	F	Φ H	L	Φ A	M
08	12.00	10.05	3.5	4-7	36.5	20.0	1/2-20
10	15.00	10.90	3.5	4-7	36.5	23.0	5/8-24
12	19.10	10.95	3.5	5-10	36.5	27.0	3/4-20
14	22.20	10.95	3.5	6-14	43.0	30.0	21×1
16	25.40	10.95	3.5	6-16	43.0	33.5	1-20
18	28.60	10.95	3.5	6-17.5	44.5	36.5	27.4×1
20	31.78	12.50	4.0	6-20	49.0	40.0	30×1
22	34.95	12.50	4.0	6-24	49.0	43.0	35×1
24	38.10	12.50	4.0	6-27	53.0	47.0	37.4-20

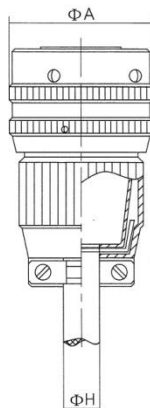
Plug



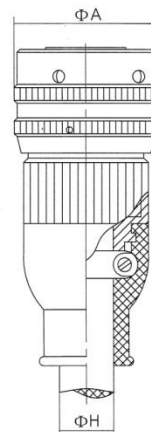
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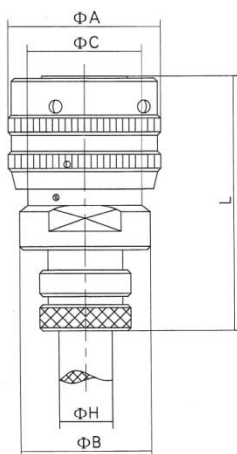
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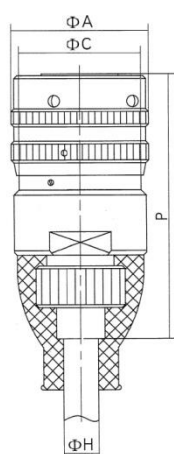
2P



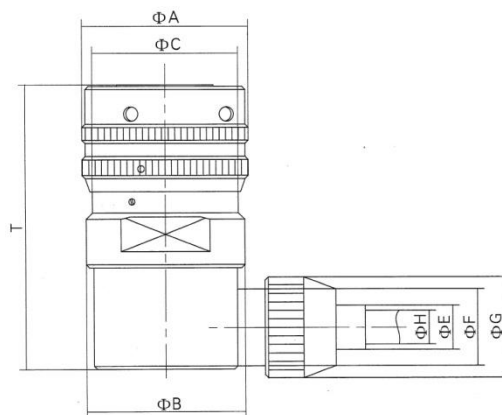
2M



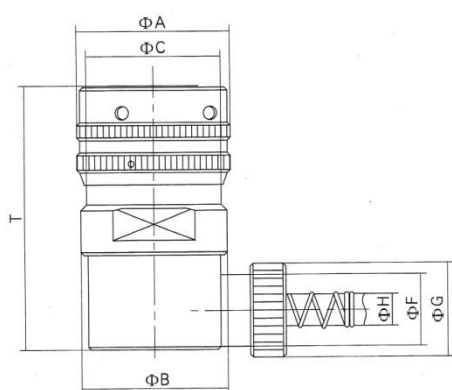
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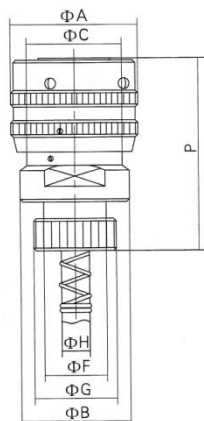
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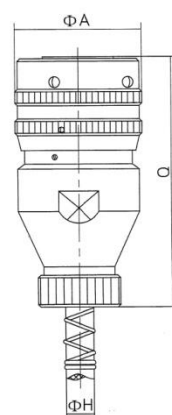
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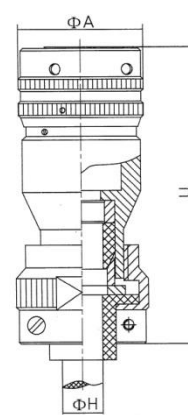
5-6



6



8



8-2

Shell No.	Φ A	Φ B	Φ C	Φ H	Φ E	Φ F	Φ G	N (max)	L (max)	Y (max)	T (max)	P (max)	Q (max)	U (max)
06	16.0	---	12.5	3-6	---	---	---	---	---	--	---	---	---	---
08	19.0	18.0	15.5	4-7	7.5	12	17.5	52	45	30	44	50	55	60
10	22.0	21.0	19.0	4-7	9.1	12	18	52	50	31	44	55	60	65
12	26.0	26.0	22.0	5-10	9.5	13	18	57	50	42	44	55	60	65
14	28.5	27.5	24.0	6-14	10.3	15	23.5	57	50	45	44	55	60	65
16	31.0	31.0	27.4	6-16	18	21	26.5	57	50	45	48	60	65	70
18	35.0	35.0	29.4	6-17.5	19.5	20	27	57	50	50	48	60	65	70
20	39.0	39.0	34.0	6-20	22	21	28	60.5	50	52	48	65	75	85
22	43.0	42.0	36.0	6-24	26	21	28	60.5	50	52	52	65	75	85
24	45.0	45.0	40.5	6-27	29	21	28	60.5	50	52	52	65	75	85

Dust cap

