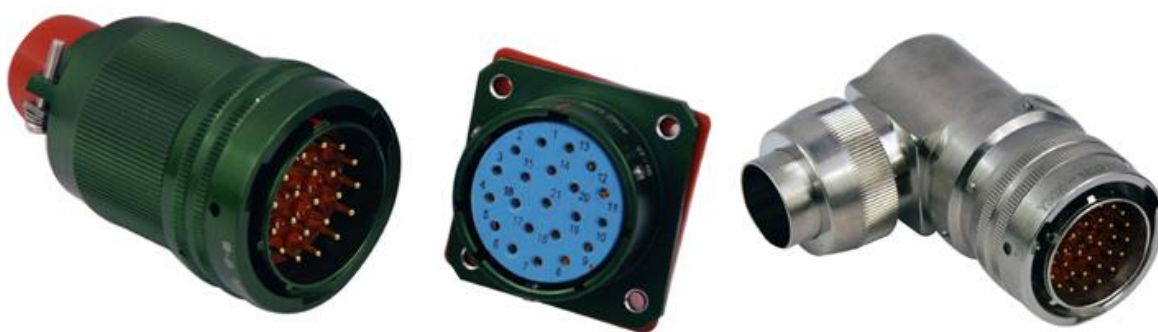


Y50X series circular electrical connector



Conform to Chinese military connector standard GJB101A-1997, Y50X series is designed as bayonet coupling, small volume, high density.

Part number

	Y50	X	12	-10	T	J	2	III	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											
08, 10, 12, 14, 16, 18, 20, 22, 24, 26, 32											
Number of contact											
2 ~ 61											
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											
H1 = Conductive black											
L2 = Olive drab cadmium plating											
H = Black anodized											
L = Olive drab anodized											
L1 = Olive drab matte											
L3 = White anodized											
Material of shell											
S = Cooper-alloy											
B = Stainless steel passivated											
Omit = Aluminium-alloy											
Length											

Datasheet I

Sign	Plug
1	Earthing jam
2	Cable connecting
2M	Hermetic cable back shell
2P	Shielded cable back shell
3	Hermetic
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 back shell
8-2	Hermetic 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

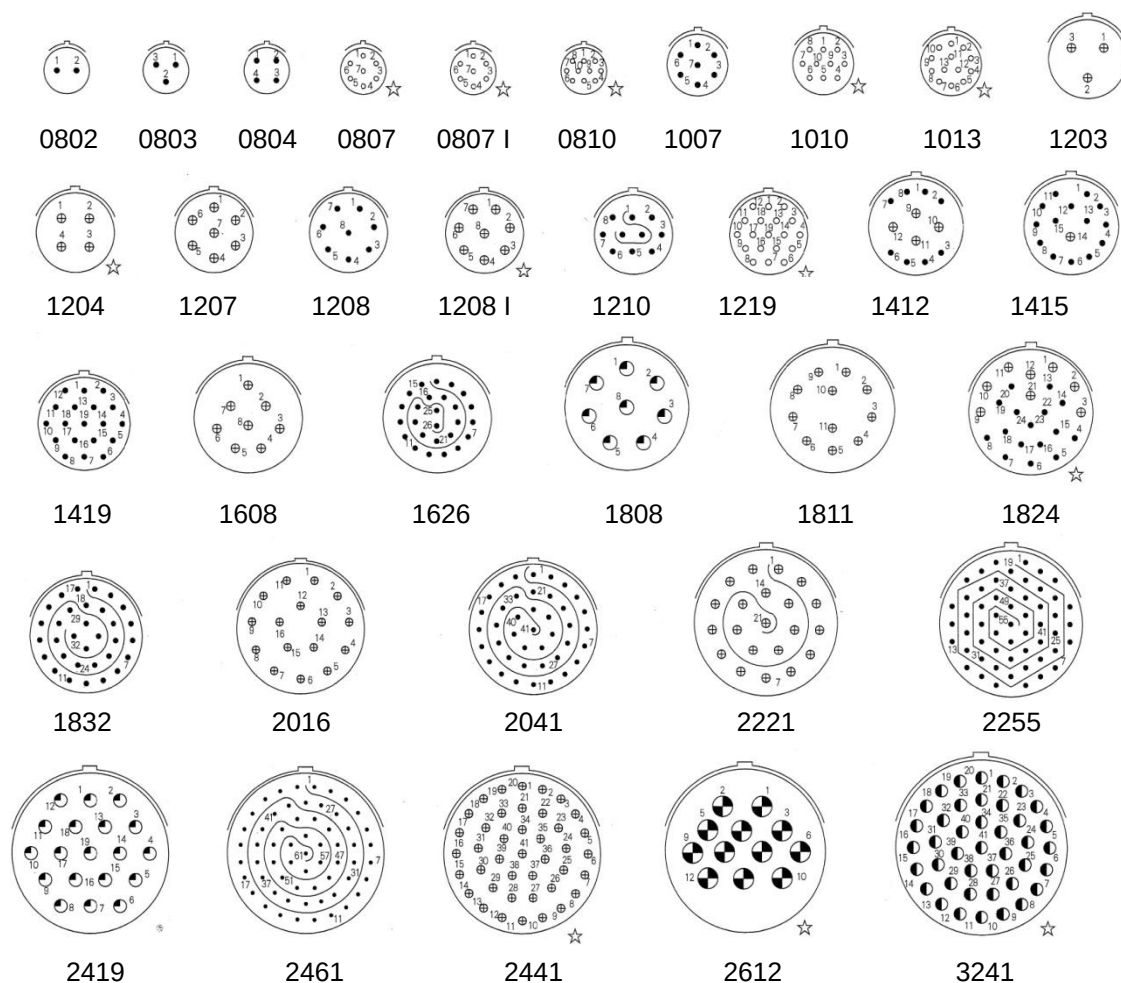
Relative humidity: 40 ± 2 °C, 90% ~ 95%

Durability: ≥ 1000 cycles

Contact specification

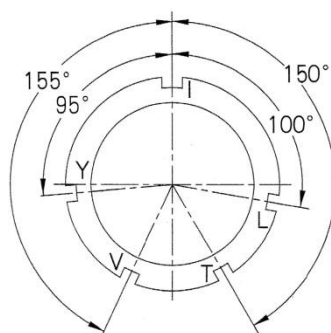
Contact No.	Cross section for cable (mm ²)	Resistance (mΩ)	Current (A)
20#	0.20	≤5	5
	0.30		
	0.50		
16#	0.50	≤3	10
	0.80		
	1.25		
12#	2.00	≤2	25
	3.15		

Contact layout



○ $\Phi 0.8$ ● $\Phi 1$ ⊕ $\Phi 1.5$ ⊙ $\Phi 2.5$ ● $\Phi 3$ ⊕ $\Phi 4$

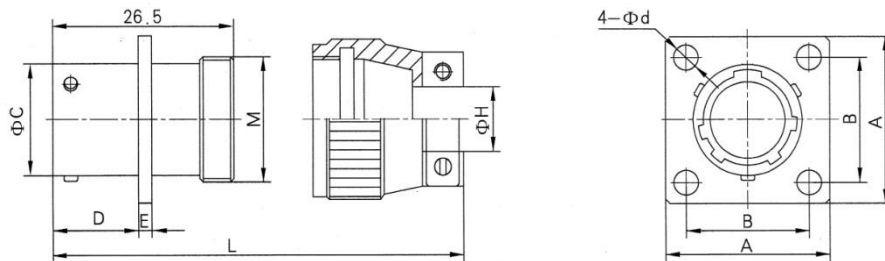
Orientation



No.	I	II	III	IV	V
Letter of sign	V	Y	I	L	T
Degree	155°	95°	0°	100°	150°

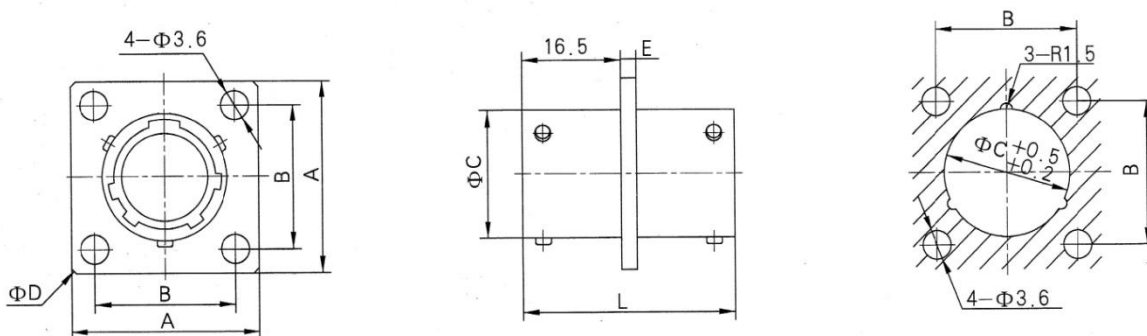
Shell size

Square flange receptacle



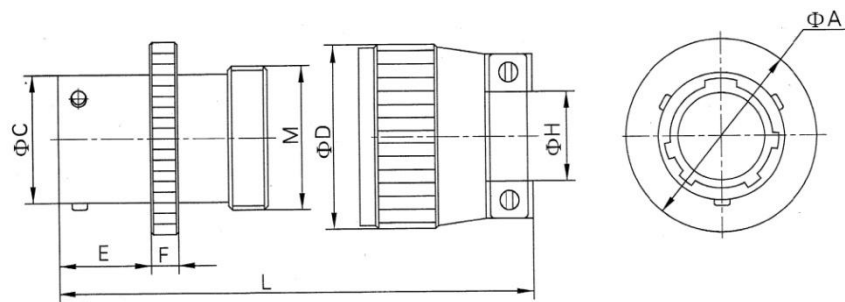
Shell No.	A	B	Φ C	E	Thread M	Φ H	L	D		Φ d
								Front	Back	
0807	21	15 ± 0.15	12	1.5	— —	— —	— —	— —	14.5	3.6
08	21	15 ± 0.15	13	2.0	M14*1.0	4-7	41.5	12.5	14.5	3.6
10	24	18 ± 0.15	16	2.0	M18*1.0	4-7	41.5	12.5	14.5	3.6
12	27	21 ± 0.15	20	2.0	M20*1.0	5-10	43.5	12.5	14.5	3.6
14	30	23 ± 0.15	23	2.0	M24*1.0	6-14	49.5	12.5	14.5	3.6
16	33	25 ± 0.15	26	2.0	M27*1.0	6-16	49.5	12.5	14.5	3.6
18	36	27 ± 0.15	29	2.0	M29*1.0	6-17.5	49.5	12.5	14.5	3.6
20	39	29 ± 0.15	32	2.0	M33*1.0	6-20	51.0	12.5	14.5	3.6
22	42	32 ± 0.15	35	2.0	M36*1.0	6-24	51.0	12.5	14.5	3.6
24	45	35 ± 0.15	38	2.0	M38*1.0	6-27	55.0	12.5	14.5	3.6
26	48	38.5 ± 0.15	41	2.0	M42*1.0	6-27	55.0	12.5	14.5	3.6

Thru bulkhead square flange receptacle



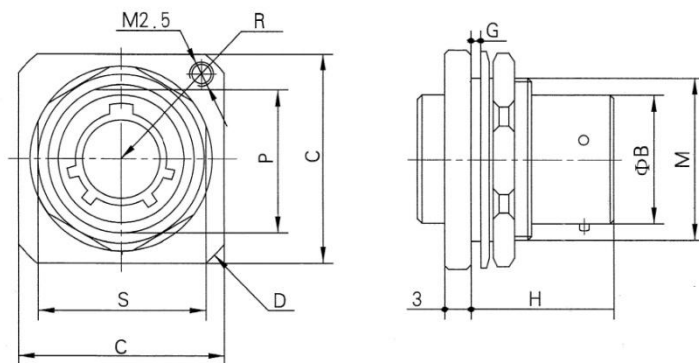
Shell No.	08	10	12	14	16	18	20	22	24
A	21	24	27	30	33	36	39	42	45
$B \pm 0.15$	15	18	21	23	25	27	29	32	35
ΦC	13	16	20	23	26	29	32	35	38
E	3	3	3	3	3	3	3	3	3
L	36	36	35.6	36	36	36	36	36	36
ΦD	27	33	37	40	44.5	45	50	55	60

Circular flange receptacle



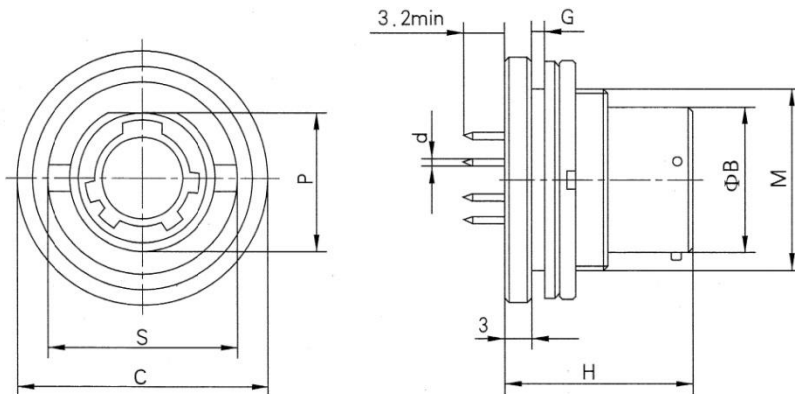
Shell No.	ΦC	E	F	D	ΦH	L	ΦA	Thread M
08	13.00	12.5	4	16.0	4-6	41.5	23.0	14*1
10	16.00	12.5	4	20.0	4-7	41.5	27.0	18*1
12	20.00	12.5	4	22.0	5-10	43.5	31.0	20*1
14	23.00	12.5	4	26.0	6-14	49.5	34.0	24*1
16	26.00	12.5	4	30.0	6-16	49.5	36.0	27*1
18	29.00	12.5	4	31.5	6-17.5	49.5	39.0	29*1
20	32.00	12.5	4	35.5	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		40.5	6-27	55.0	50.0	38*1.5

Jam nut receptacle



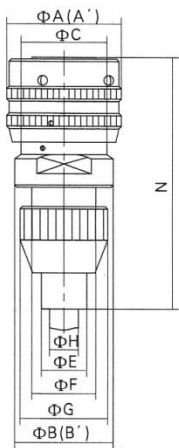
Shell No.	H	B	P ± 0.1	S	Thread M	Φ D	R	G		C ± 0.1
								Min	Max	
0807	19.0	12	13	17	M14*1.0	24.5	10.5	1.6	3.2	19
08	21.0	13	15	22	M16*1.0	31.5	13.4	1.6	3.2	24
10	21.0	16	19	24	M20*1.5	33.2	14.4	1.6	3.2	27
12	21.0	20	23	27	M24*1.5	39.2	17.4	1.6	3.2	32
14	21.0	23	26	30	M27*1.5	42.2	18.9	1.6	3.2	36
16	21.0	26	29	32	M30*1.5	45.2	20.0	1.6	3.2	38
18	21.0	29	32	36	M33*1.5	47.2	21.7	1.6	3.2	41
20	23.5	32	35	41	M36*1.5	50.2	23.2	1.6	6.4	46
22	23.5	35	38	43	M39*1.5	54.2	25.0	1.6	6.4	50
24	23.5	38	41	46	M42*1.5	56.2	26.2	1.6	6.4	53

PCB receptacle

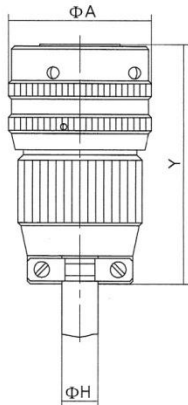


Shell No.	H	B	P ± 0.1	S	Thread M	G		C ± 0.1
						Min	Max	
0807	19.0	12	13	18	M14*1.0	1.6	3.2	19
08	21.0	13	15	23	M16*1.0	1.6	3.2	24
10	21.0	16	19	26	M20*1.5	1.6	3.2	27
12	21.0	20	23	31	M24*1.5	1.6	3.2	32
14	21.0	23	26	35	M27*1.5	1.6	3.2	36
16	21.0	26	29	37	M30*1.5	1.6	3.2	38
18	21.0	29	32	40	M33*1.5	1.6	3.2	41
20	23.5	32	35	45	M36*1.5	1.6	6.4	46
22	23.5	35	38	49	M39*1.5	1.6	6.4	50
24	23.5	38	41	52	M42*1.5	1.6	6.4	53

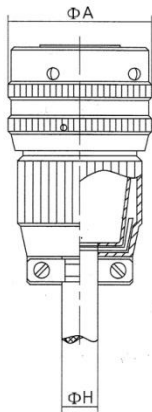
Plug



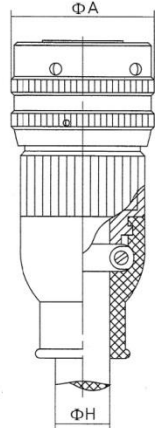
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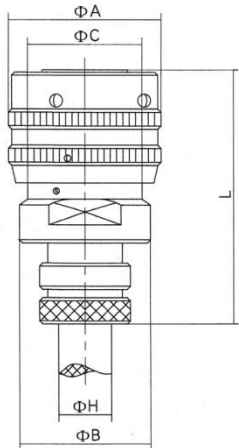
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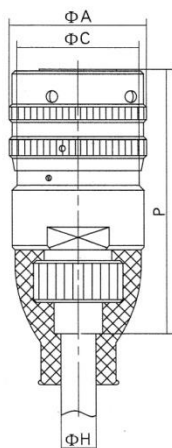
2P



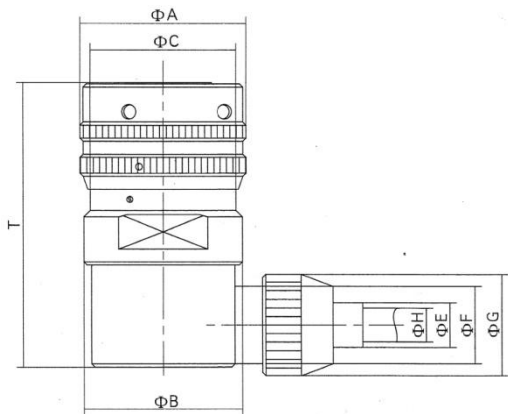
2M



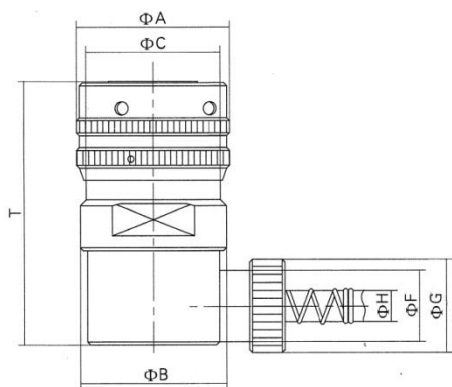
3



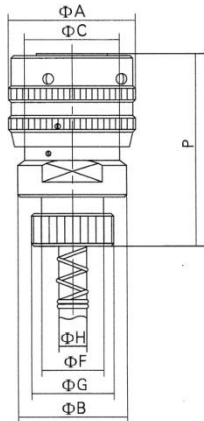
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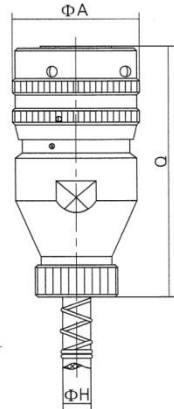
5



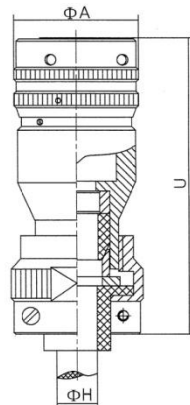
5-6



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)
08	20	18	16	4-7	7.5	12	17.5	55	45	37	45	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	10.0	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

Dust cap

