RAINEON

南京睿宁电子科技有限公司

NANJING RAINEON ELECTRONIC TECHNOLOGY CO., LTD

PRODUCT CATALOGUE

Aviation Connectors | Interconnect Technology



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Features



- Y11 series circular sealed connectors feature quick coupling, quick separation, small size and light weight; internal bayonet coupling is used for locking.
- Solder termination; shells available in shielded and non-shielded types.
- Easy to use, versatile, multifunctional and complete in specifications.
- National standard: GJB101 General Specification for Environment-Resistant Quick-Separation Small Circular Connectors
- Enterprise standard: Q/LK.J(11)04-2009

Environmental Performance

- Operating temperature: solder type -55 °C ~ +125 °C
- Relative humidity: up to 95% at 40 °C
- Operating altitude: 30000 m above sea level
- Vibration: frequency 10 Hz ~ 2000 Hz, acceleration 196 m/s²
- Shock: acceleration 490 m/s²
- Salt spray, rain and sand/dust resistance meet GJB101A-97
- Hermeticity: 0.2 MPa (glue-potted receptacles)

Contact Resistance & Rated Current

Contact size (mm)	Contact resistance (mOhm)	Rated current (A)
Φ1.0	≤ 5	5
Φ1.5	≤ 3	10

- Shell-to-shell electrical continuity <= 200 mOhm
- Shielded shell-to-shell electrical continuity <= 5 mOhm
- EMI at 8000 MHz: minimum attenuation 45 dB

Rated Voltage, Dielectric Strength & Insulation Resistance

Environment	Rated voltage (V)	DWV (V)	Insulation (mOhm)
Ambient	500	1500	≥ 30000
Damp heat	500	500	≥ 20
High temp	250	-----	≥ 500
Low pressure 1KPa	150	200	-----

Mechanical Performance

- Shell: high-strength aluminum alloy / copper alloy
- Non-shielding plating: anodized, colored
- Shielding plating: electroless nickel
- Insulator: heat-resistant thermoplastic
- Wire-sealing gland & seals: silicone rubber
- Contacts: copper alloy, gold plating
- Mechanical life: 500 cycles

How to Order

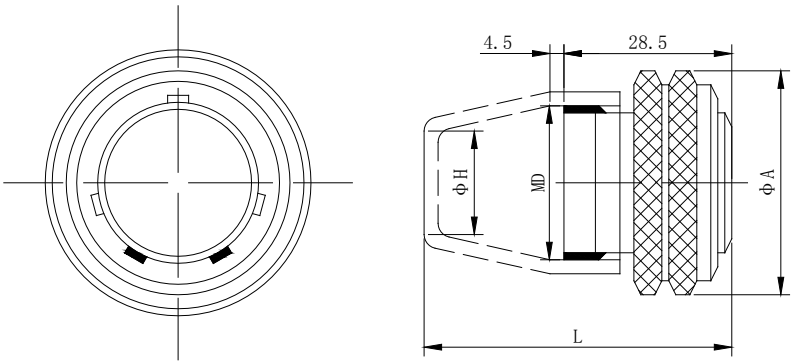
Y11–P	III	–	20	41	Z	J	10	–	6	H	S
(1)	(2)		(3)	(4)	(5)	(6)	(7)		(8)	(9)	(10)

(1) Basic code: Y11 series circular sealed electrical connectors;
P - Type: x - rubber sealed; P: shielded potted;
N: radiation-hardened; S: copper shell; H: glass sintered (receptacle)
(2) Index position: I II III IV V (III not marked);
(3) Shell size: 08 10 12 14 16 18 20 22 24;
(4) Contact count: 04 07 10 12 16 19 21 26 32 41 55 61;
(5) Shell class: T - plug; Z - receptacle;
(6) Contact class: J - pin; K - socket; S - through-wall contact;
(7) Mounting: 10 - square flange; 11 - circular flange; 14 - nut-clamped;
(8) Shroud type: 2 - clip; 5 - heat-shrink tube type 1;
6 - shielded; 5a - heat-shrink tube type 2;
(9) Finish: H - black anodized; L - military-green anodized; Ni - sand-blasted Ni plated;
(10) Shell material: no mark - aluminum alloy; S - copper alloy;

Ordering Guide:

1. Users may order by the functions required; the manufacturer assembles and supplies accordingly, ensuring economical use.
2. Special orders must refer to the special assembly structures above and order by assembly code: Y11-××OO-80, Y11-××OO-81, Y11-××OO-83, Y11-××OO-84, Y11-××OO-85, Y11-××OO-86, Y11-××OO-87, Y11-××OO-88, Y11-××OO-89. ·××OO· in the code means any shell size may be selected. E.g. to order a size-14 plug metal dust cap,
write Y11-1400-80 on the order; for a size-10 receptacle metal dust cap, write Y11-1000-81; for a size-18 shell empty receptacle, write Y11-1800-83;
3. The copper cable shroud of the Y11S series is ordered separately; code Y11-××OO-93, same structure as Y11-××OO-88, total length 15 mm

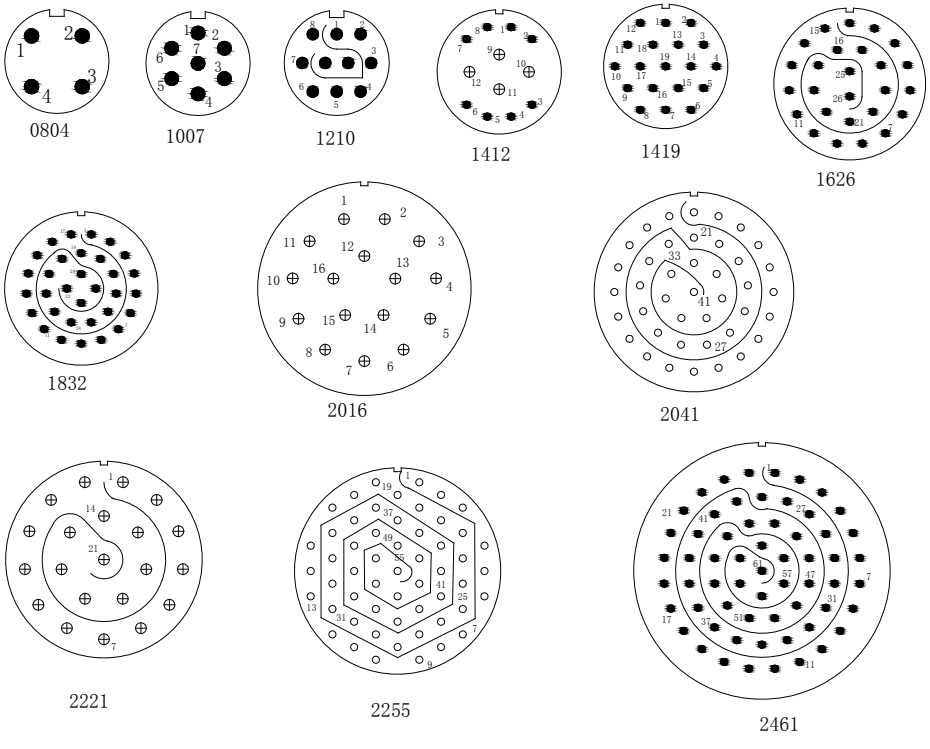
Outline & Dimensions



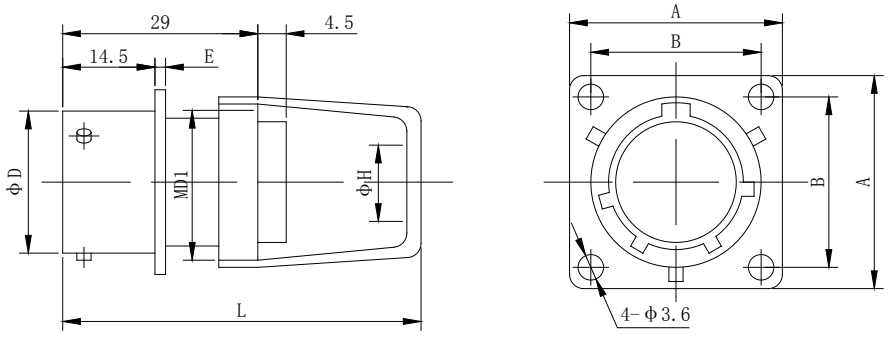
Shell No.	A	MD	H	L
08	Φ20	M14*1	Φ6	41
10	Φ23	M18*1	Φ8	41
12	Φ26	M20*1	Φ10	43
14	Φ30	M24*1	Φ12	49
16	Φ33	M27*1	Φ14	49
18	Φ36	M30*1	Φ17	49
20	Φ39	M33*1.5	Φ20	50.5
22	Φ42	M36*1.5	Φ24	50.5
24	Φ45	M39*1.5	Φ27	55

Contact Hole Arrangement

Φ 1mm Φ 1.5mm

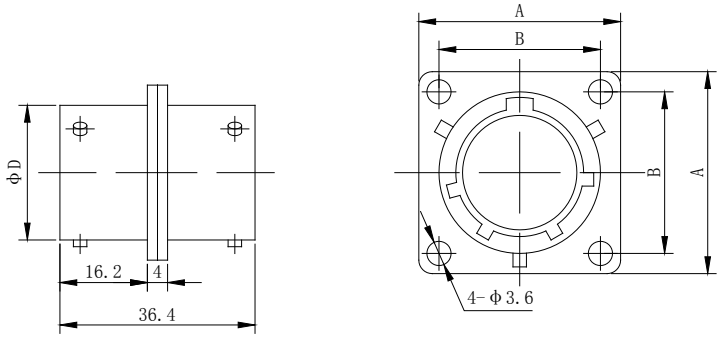


Square Flange Receptacle



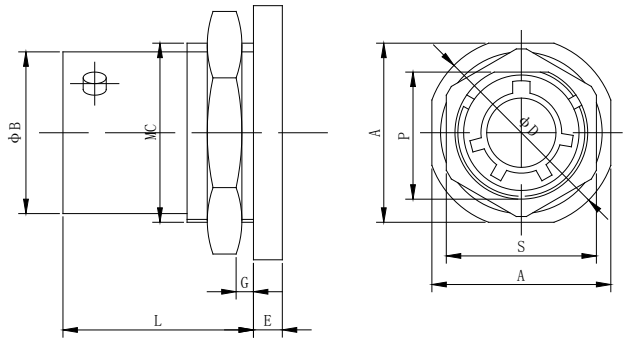
Shell No.	A	B	D	E	MD1	H	L
08	21	15±0.15	13	1.3	14*1	6	41.5
10	24	18±0.15	16	1.5	18*1	8	41.5
12	27	21±0.15	20	1.5	20*1	10	43.5
14	30	23±0.15	23	1.5	24*1	12	49.5
16	33	25±0.15	26	1.5	27*1	14	49.5
18	36	27±0.15	29	1.5	30*1	17	49.5
20	39	29±0.15	32	2.2	33*1.5	20	51
22	42	32±0.15	35	2.2	36*1.5	24	51
24	45	35±0.15	38	2.2	39*1.5	27	55

Square Flange Bulkhead Receptacle



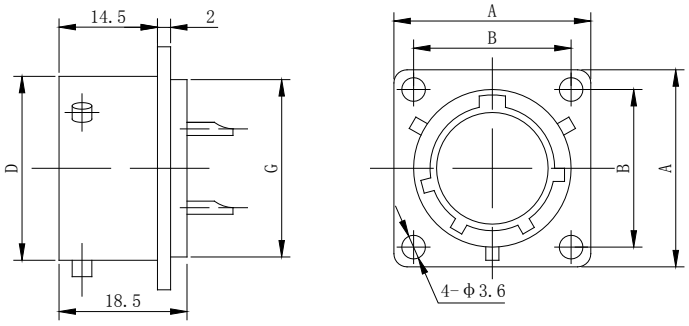
Shell No.	A	B	D
08	21	15±0.15	Φ13
10	24	18±0.15	Φ16
12	27	21±0.15	Φ20
14	30	23±0.15	Φ23
16	33	25±0.15	Φ26
18	36	27±0.15	Φ29
20	39	29±0.15	Φ32
22	42	32±0.15	Φ35
24	45	35±0.15	Φ38

Nut-Fixed Receptacle



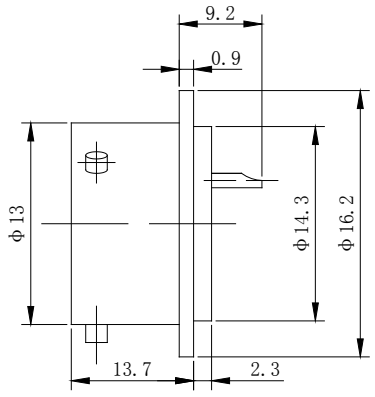
Shell No.	G		E	L	B	MC	A	D	P	S
	min	max								
08	1.6	3.2	2.5	18.5	Φ13	16*1	24	Φ27	15	22
10	1.6	3.2	2.5	18.5	Φ16	20*1	27	Φ30	19	24
12	1.6	3.2	2.5	18.5	Φ20	24*1	32	Φ35	23	27
14	1.6	3.2	2.5	18.5	Φ23	27*-1	36	Φ38	26	30
16	1.6	3.2	2.5	18.5	Φ26	30*1	38	Φ42	29	32
18	1.6	3.2	2.5	18.5	Φ29	33*1.5	41	Φ45	32	36
20	1.6	6.4	3.0	18.5	Φ32	36*1.5	46	Φ49	35	41
22	1.6	6.4	3.0	18.5	Φ35	39*1.5	50	Φ53	38	43
24	1.6	6.4	3.0	18.5	Φ38	42*1.5	53	Φ56	41	46

Square Flange Glass-Sealed Receptacle

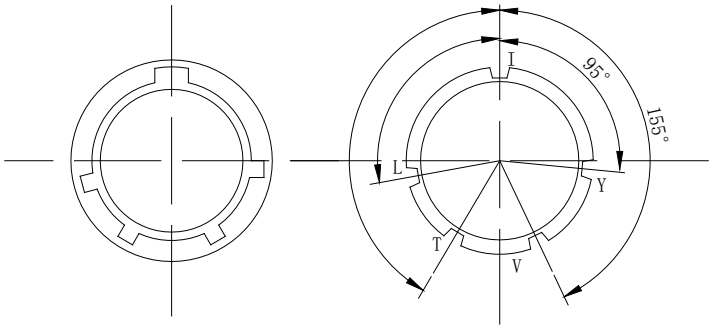


Shell No.	A	B	D	G
08	21	15±0.15	Φ13	Φ12
10	24	18±0.15	Φ16	Φ16
12	27	21±0.15	Φ20	Φ19
14	30	23±0.15	Φ23	Φ22
16	33	25±0.15	Φ26	Φ25
18	36	27±0.15	Φ29	Φ28
20	39	29±0.15	Φ32	Φ31
22	42	32±0.15	Φ35	Φ34
24	45	35±0.15	Φ38	Φ37

Y11H-0804ZJ11 Circular Flange Glass-Sealed Receptacle



Insulator position variation

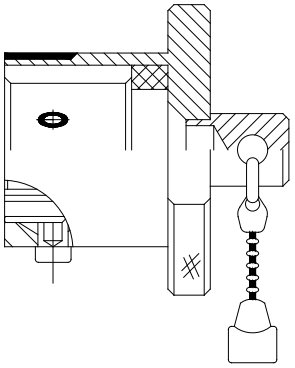


Mark code	I	II	III	IV	V
5-key slot mounting letter	I	L	T	V	Y
Angle to main key	0°	100°	150°	155°	95°

Accessory Outline Dimensions

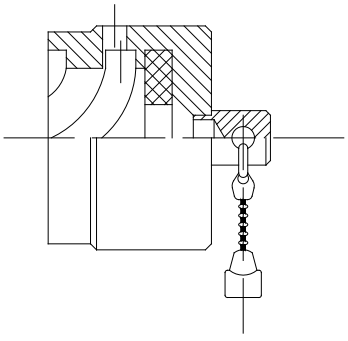
Plug Metal Dust Cap

(Y11-XX00-80)

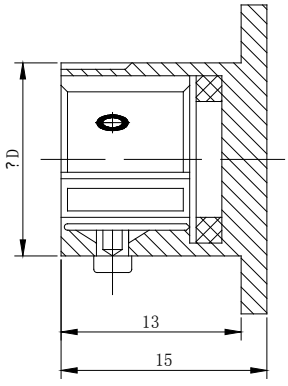


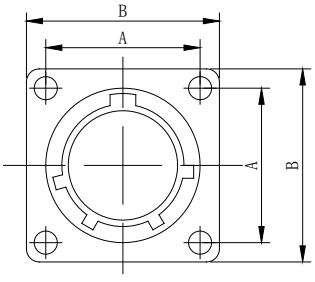
Receptacle Metal Dust Cap

(Y11-XX00-81)



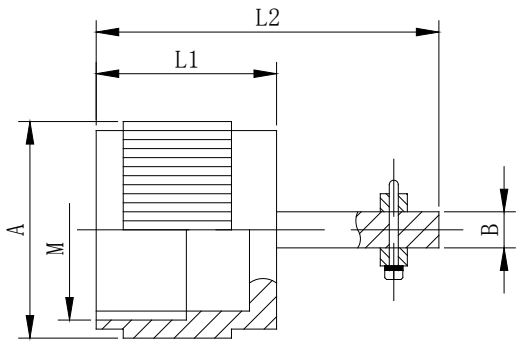
Empty Receptacle Assembly (Y11-××OO-83)





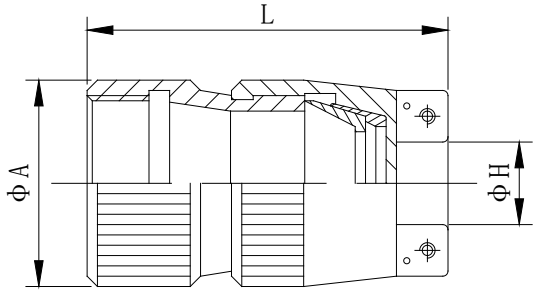
Shell No.	08	10	12	14	16	18	20	22	24
D	13	16	20	23	26	29	32	35	38
A	21	24	27	30	33	36	39	42	45
B	15	18	21	23	26	27	29	32	35

Open Long Cable Shroud (Y11-××OO-85)



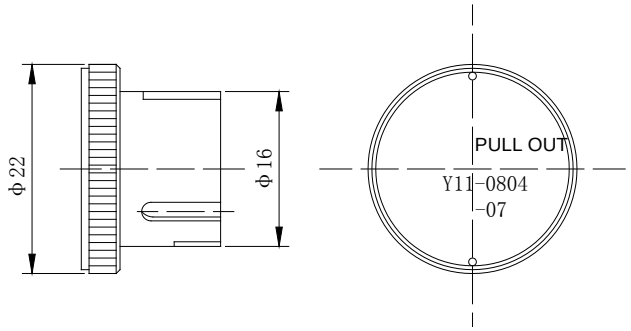
Shell No.	A	L1	L2	B	M	Exit hole
08	Φ17	15	29	2.5	14*1	Φ10
10	Φ20	15	29	2.5	18*1	Φ12
12	Φ24.5	15	31	2.5	20*1	Φ14
14	Φ26.5	20	38	3	24*1	Φ16
16	Φ29.5	20	39	3	27*1	Φ18
18	Φ32.5	20	40	4	30*1	Φ20
20	Φ35.5	22	42	4.5	33*1.5	Φ20
22	Φ38.5	22	42	5	36*1.5	Φ22
24	Φ41.5	27	47	5	39*1.5	Φ24

Shielded Cable Shroud (Y11-××OO-86)

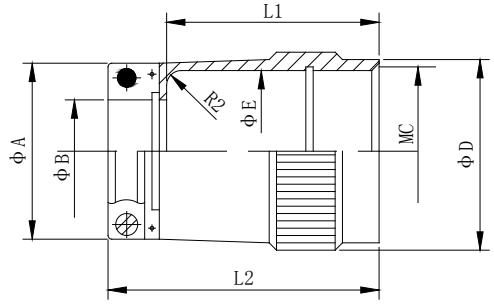


Shell No.	L	A	H	Shell No.	L	A	H
08	35	18	10	18	50	34	20
10	35	21	10	20	50	37	22.5
12	37	25.5	14.5	22	50	38.5	22.5
14	40	31	16.5	24	50	41.5	24
16	40	31	16.5				

Shorting Cap (Y11-0804-87)

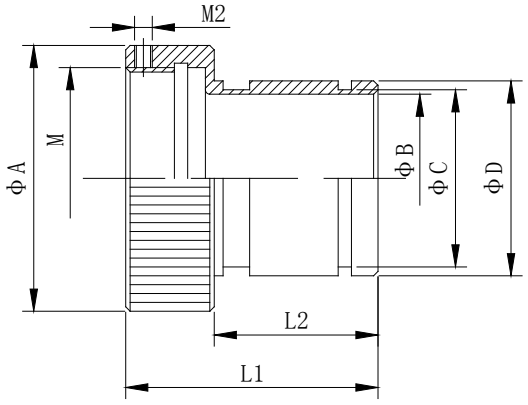


Long Cable Shroud (Y11-××00-88)



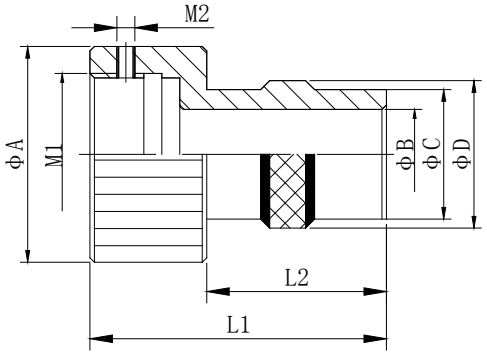
Shell No.	A	B	E	MC	D	L1	L2
08	14	6	13	14*1	17	29	35
10	17	8	16	18*1	20	29	35
12	20	10	19	20*1	22.5	30	37
14	24	12	23	24*1	26.5	34	43
16	26	14	25	27*1	29.5	34	43
18	30	17	29	30*1	32.5	34	43
20	33	20	31	33*1.5	35.5	36	45
22	36	24	34	36*1.5	38.5	36	45
24	39	27	37	39*1.5	41.5	41	50

Heat-Shrink Tubing Type 1 Cable Shroud (Y11-××00-84)



Shell No.	L1	L2	A	B	C	D	M1	M2
08	27	15	20	9	11	13	14*1	2.5
10	27	15	24	10	12	14	18*1	2.5
12	30	15	26.5	13	15	17	20*1	2.5
14	31	16	30.5	17	19	21	24*1	3
16	31	18	33	18	20	22	27*1	3
18	34	22	36	23	25	27	30*1	3
20	35	20	39.8	24	26	28	33*1.5	3
22	34	22	42	27	29	31	36*1.5	3
24	36	24	45	30	32	34	39*1.5	3

Heat-Shrink Tubing Type 2 Cable Shroud (Y11-××00-89)



Shell No.	A	B	C	D	M1	L1	L2	M2
08	20	8.7	12.8	14.8	14*1	33	20	2.5
10	24	10	14.4	16.4	18*1	33	20	2.5
12	26.5	15	19.1	21.1	20*1	33	20	2.5
14	30.5	18.2	22.3	24.3	24*1	33	20	3
16	33	18.2	22.3	25.3	27*1	33	20	3
18	36	24.5	28.7	30.7	30*1	33	20	3
20	39.8	24.5	28.7	30.7	33*1.5	35	20	3
22	42	27.7	31.8	33.8	36*1.5	35	20	3
24	45	30	31.8	34	39*1.5	35	20	3