

General

- High density miniature circular electrical connector.
- Low profile shell, small size and light weight.
- Bayonet coupling.
- EMI/RFI shielding and shell-to-shell conductivity.
- Shockproof and vibration proof.



Extensively used in aviation, space and military systems.

US military standard: MIL-DTL-38999K.

National military standard: GJB599A-1993

Company military standard: Q/Lk30003-2006

Characteristics

Mechanical Characteristics																		
- Shell: Aluminum alloy - Finishing: - Camouflage cadmium plate (B) - Nickel (F) - Insulator: - Thermo plastic material - Gasket: Silicon rubber elastomer - Contact: Copper alloy Finishing: Nickel plate followed by gold plate		- Durability: 500 cycles - Shock: 2940m/s² 3ms - Vibration: - Random 100 ~ 1000Hz 96(m/s²)²/ Hz - Contact retention force (min) #22D: 44N #16: 111N #20: 67N #12: 111N #8 coaxial: 111N #8 tri-coaxial: 111N																
Electrical Characteristics																		
- Dielectric withstanding voltage (Vrms) (Mated) (Vrms) <table><tr><th>Ratings</th><th>Sea level</th><th>21000m</th></tr><tr><td>M</td><td>1300</td><td>800</td></tr><tr><td>N</td><td>1000</td><td>600</td></tr><tr><td>I</td><td>1800</td><td>1000</td></tr><tr><td>II</td><td>2300</td><td>1000</td></tr></table>		Ratings	Sea level	21000m	M	1300	800	N	1000	600	I	1800	1000	II	2300	1000	- Contact resistance (include lead resistance) : #22D: 14.6milliohms #20: 7.3milliohms #16: 3.8milliohms #12: 1.8milliohms - Insulate resistance: ≥ 5000 MΩ (500V DC) - Contact current ratings: #22D: 5A #20: 7.5A #16: 13A #12: 23A	
Ratings	Sea level	21000m																
M	1300	800																
N	1000	600																
I	1800	1000																
II	2300	1000																
Environmental Characteristics																		
- Temperature ranges: - Cadmium (B): -65℃ ~ +175℃ - Nickel (F): -65℃ ~ +200℃ - Salt spray: 500h (B) 48h (F)		- Temperature shock: - For 24 hours, 10 cycles - Fluid immersion: - Hydraulic oil, Lubricating oil, Freezing liquid and other solvents.																

Identification

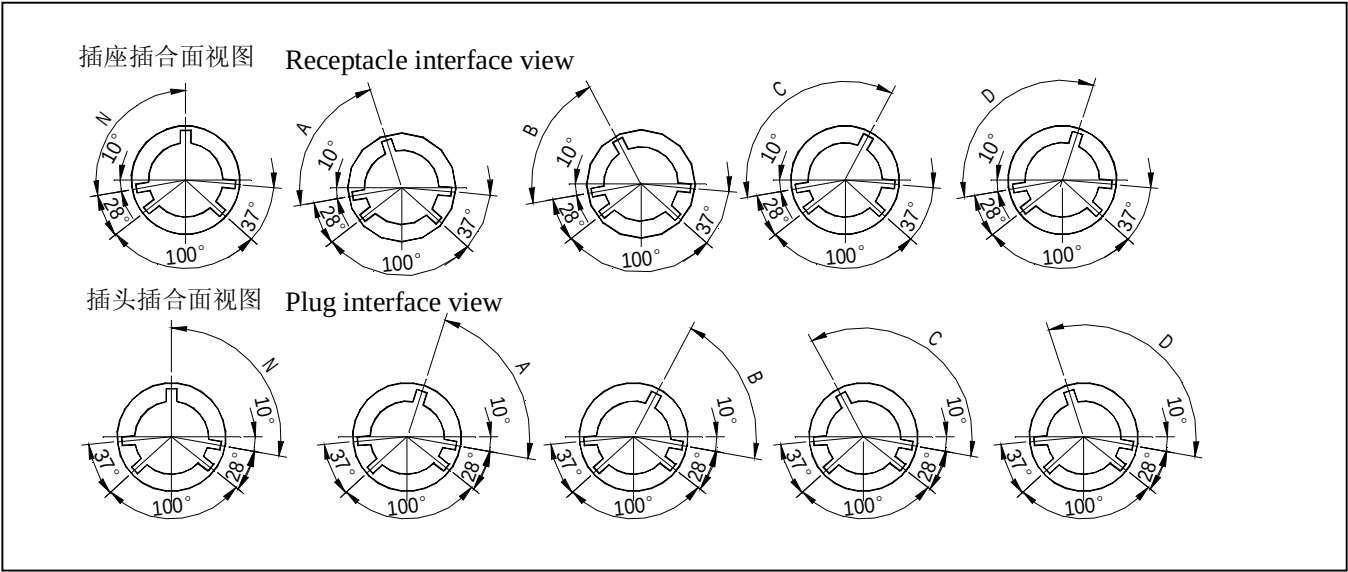
Series	JY	27497	T	14	B	35	P	N
Shell code	27473 - Plug 27484 - Shielded plug 27474 - Jam nut thread fixing mounted receptacle 27472 - Wall flange receptacle front panel mounting 27497 - Wall flange receptacle rear panel mounting 27513 - Box flange receptacle front panel mounting 27508 - Box flange receptacle rear panel mounting							
Type	T - shell with thread and accessory stop mechanism. (To be mounted with terminal accessories) (only JY27473,JY27484,JY27474,JY27472,JY27497) E - Without thead (only JY27508, JY27513)							
Shell code	08, 10, 12, 14, 16, 18, 20, 22, 24							
Finish	B - Olive cadmium F - Nickel							
Contact arrangement	See P43							
Contact types	P — Normal crimp type pin S — Normal crimp type Socket A — No or customer assigned pin B — No or customer assigned Socket PH — Solder type pin SH — Solder type PC — Short straight PCB termination pin PC — Long straight PCB termination pin SC — Short straight PCB termination socket SC — Long straight PCB termination socket							
Main key/keyway	N — Standard (No marking) A, B, C, D							
polarization	To see P18							

Note:

1. Identification is selfsame between GJB599A and MIL-DTL-38999 except series prefix. GJB599A use “JY” and MIL-C-38999 uses “MS”, both series are exchangeable with each other.
3. When using PC, SC contacts, normal polarization must be marked.

Key/keyway polarization

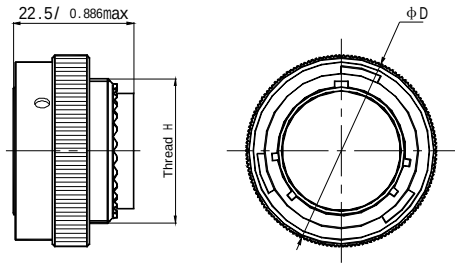
Polarization is assigned and guided by main key/keyway.



Shell size	Angular/degree				
	N	A	B	C	D
08	100	82	—	—	118
10	100	86	72	128	114
12	100	80	68	132	120
14	100	79	66	134	121
16	100	82	70	130	118
18	100	82	70	130	118
20	100	82	70	130	118
22	100	85	74	126	115
24	100	85	74	126	115

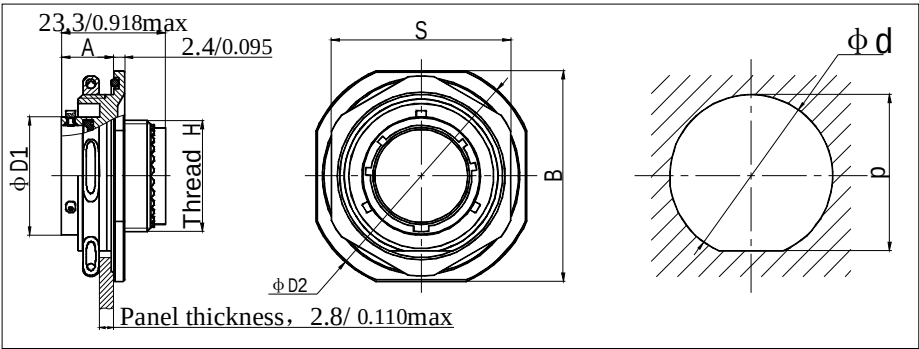
Outline Dimension

JY27473/JY27484 Plug



Shell size	D max	H
08	19.05/ .750	0.4375-28UNEF-2A
10	21.82/ .859	0.5625-24UNEF-2A
12	26.19/1.031	0.6875-24UNEF-2A
14	29.36/1.156	0.8125-20UNEF-2A
16	32.54/1.281	0.9375-20UNEF-2A
18	35.71/1.406	1.0625-18UNEF-2A
20	38.89/1.531	1.1875-18UNEF-2A
22	41.68/1.641	1.3125-18UNEF-2A
24	44.86/1.766	1.4375-18UNEF-2A

JY27474 Jam nut thread fixing mounted receptacle

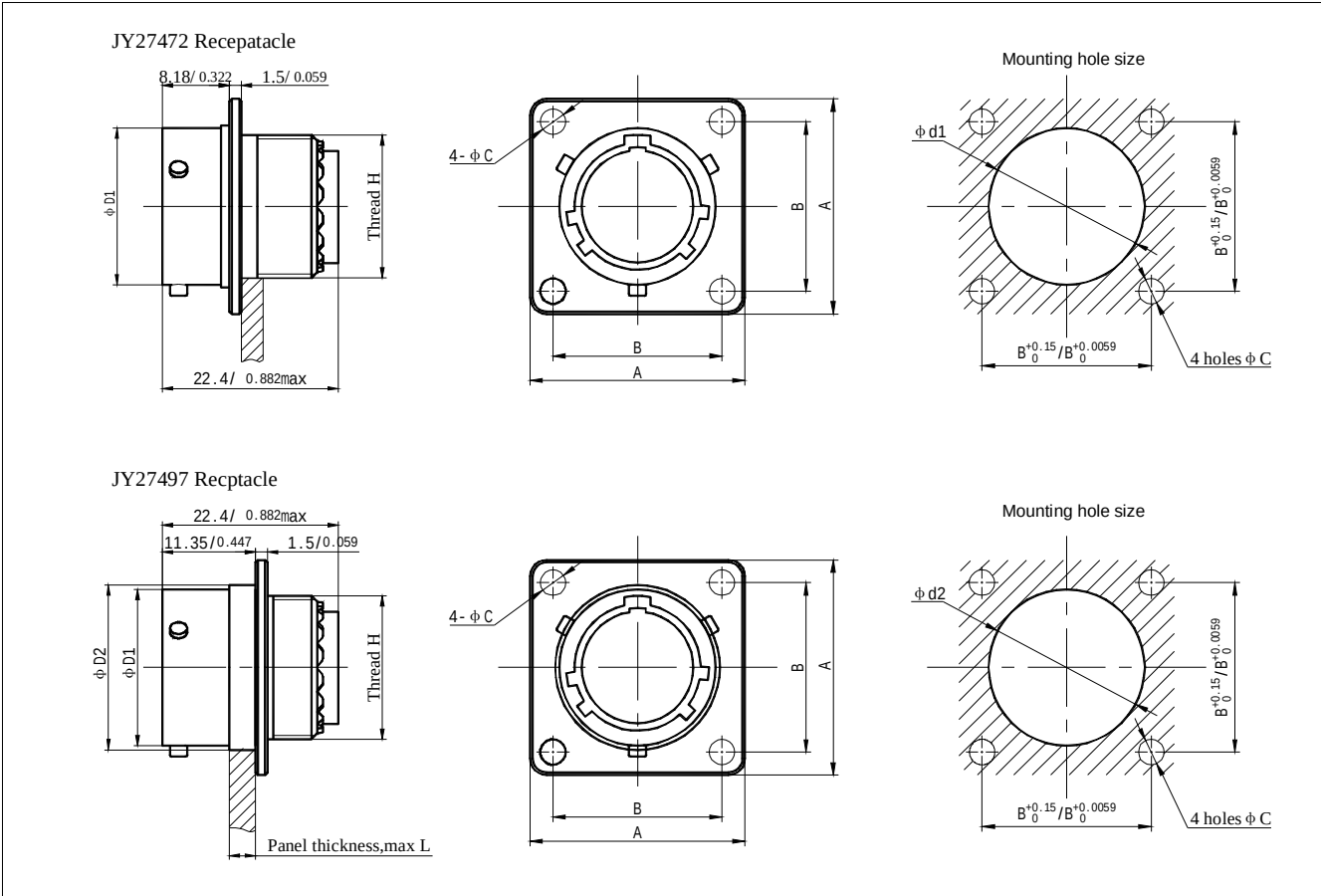


Shell size	D1	D2	A	B	S	$\begin{matrix} d \\ +0.25/+0.010 \\ 0 \end{matrix}$	$\begin{matrix} P \\ 0 \\ -0.25/-0.010 \end{matrix}$	H
08	12.00/ .472	34.95/1.376	11.1/ .437	31.75/1.25	27.40/1.079	22.48/ .885	21.08/ .830	0.4375-28UNEF-2A
10	15.00/ .591	38.10/1.5		34.95/1.376	30.61/1.205	25.65/1.010	24.26/ .955	0.5625-24UNEF-2A
12	19.05/ .750	41.28/1.625		38.10/1.5	33.75/1.329	28.83/1.135	27.56/1.085	0.6875-24UNEF-2A
14	22.2/3.875	44.45/1.75		41.28/1.625	36.96/1.455	32.01/1.260	30.73/1.210	0.8125-20UNEF-2A
16	25.40/1	49.23/1.938		45.24/1.781	40.10/1.579	35.18/1.385	33.91/1.335	0.9375-20UNEF-2A
18	28.58/1.125	51.21/2.016	11.8/ .465	48.00/1.890	43.31/1.705	38.35/1.50	37.08/1.460	1.0625-18UNEF-2A
20	31.75/1.250	54.38/2.141		51.21/2.016	46.45/1.829	41.53/1.635	40.26/1.585	1.1875-18UNEF-2A
22	34.93/1.375	57.53/2.265		54.36/2.140	51.23/2.017	44.70/1.760	43.43/1.710	1.3125-18UNEF-2A
24	38.10/1.5	60.71/2.390		57.53/2.265	54.41/2.142	47.88/1.885	46.61/1.835	1.4375-18UNEF-2A

Outline Dimension

JY27472 Wall flange receptacle front panel mounting

JY27497 Wall flange receptacle rear panel mounting

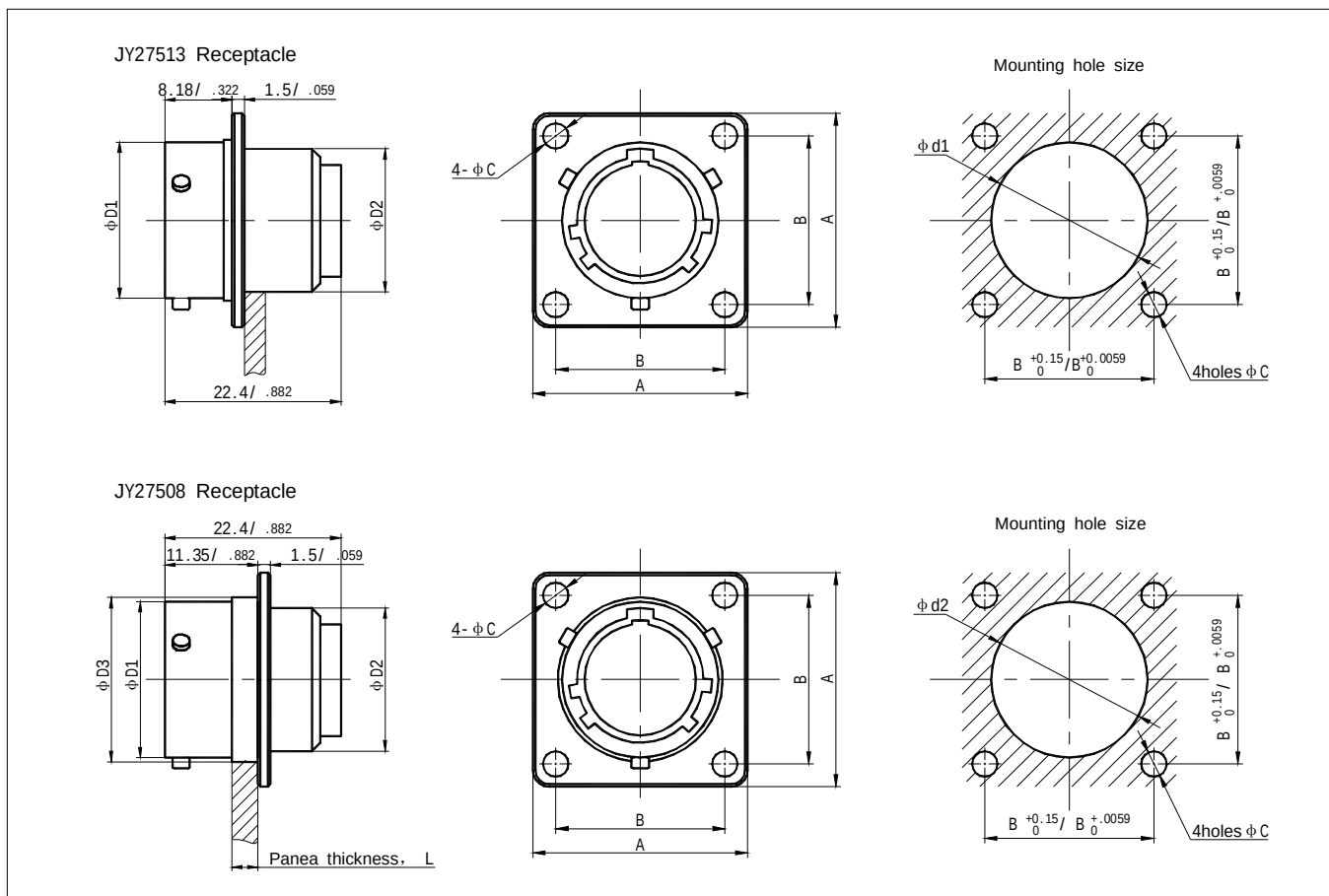


Shell size	A	B	C	D1	D2 max	L max	H UNEF-2A	d1 min	d2 min
08	21.00/.827	15.09/.594	3.20/.126	12.00/.472	13.50/.531	3.71/.146	0.4375-28	13.11/.516	14.15/.557
10	24.10/.949	18.26/.719		15.00/.591	16.50.650		0.5625-24	15.83/.741	17.32/.682
12	26.50/1.043	20.62/.812		19.05/.750	21.00/.827		0.6875-24	19.05/.750	21.69/.854
14	28.90/1.138	23.01/.906		22.20/.874	24.00/.945		0.8125-20	23.01/.906	24.87/.979
16	31.21/1.229	24.61/.969		25.43/1.001	27.00/1.063		0.9375-20	25.81/1.016	28.04/1.104
18	33.60/1.323	26.97/1.062		28.60/1.126	30.80/1.213		1.0625-18	28.98/1.141	31.22/1.229
20	36.80/1.449	29.36/1.156		31.75/1.25	33.00/1.229		1.1875-18	32.16/1.266	34.39/1.354
22	40.00/1.575	31.75/1.250	3.70/.146	34.93/1.375	36.20/1.425		1.3125-18	34.93/1.375	37.57/1.479
24	43.10/1.697	34.93/1.375		38.10/1.500	40.00/1.575		1.4375-18	37.69/1.484	40.74/1.604

Outline Dimension

JY27513 Box flange receptacle front panel mounting

JY27508 Box flange receptacle rear panel mounting



Shell size	A	B	C	D1	D2	D3 max	L max	d1 min	d2 min
08	21.00/.827	15.09/.594	3.20/.126	12.00/.472	11.51/.453	13.50/.531	3.71/.146	13.11/.516	14.15/.557
10	24.10/.949	18.26/.719		15.00/.591	14.68/.578	16.50/.650		15.83/.741	17.32/.682
12	26.50/1.043	20.62/.812		19.05/.750	17.86/.703	21.00/.827		19.05/.750	21.69/.854
14	28.90/1.138	23.01/.906		22.23/.875	21.03/.828	24.00/.945		23.01/.906	24.87/.979
16	31.21/1.229	24.61/.969		25.43/1.001	24.21/.953	27.00/1.063		25.81/1.016	28.04/1.10
18	33.60/1.323	26.97/1.062		28.60/1.126	26.97/1.062	30.80/1.213		28.98/1.141	31.22/1.22
20	36.80/1.449	29.36/1.156		31.75/1.25	30.18/1.188	33.00/1.229		32.16/1.266	34.39/1.35
22	40.00/1.575	31.75/1.250	3.70/.146	35.00/1.378	33.32/1.312	36.20/1.425		34.93/1.375	37.57/1.47
24	43.10/1.697	34.93/1.375		38.10/1.5	36.53/1.438	40.00/1.575		37.69/1.484	40.74/1.60

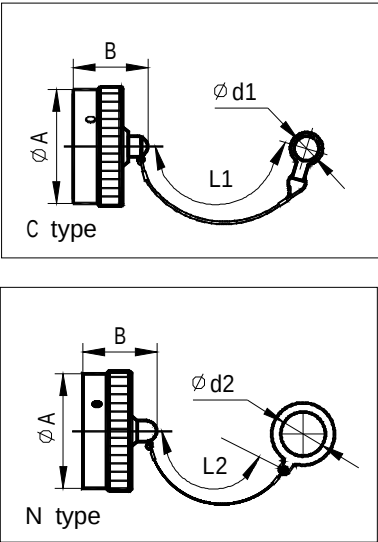
Rear accessory: Currency series I , see P10.

Protecting Cover (Order separately)

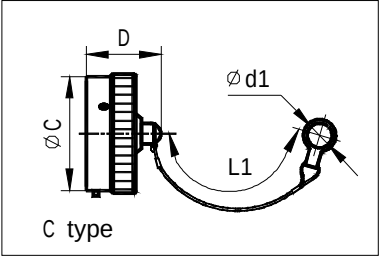
Protecting Cover Order Code

Basic series	JY27510 - plug use	JY27510	B	10	C	L
	JY27511 - receptacle use					
Finish	B - Camouflage cadmium plate					
	F - Nickel coating					
Shell size	08,10,12,14,16,18,20,22,24					
Type	C - Metal chain with eyelet					
	N - Metal chain with ring (only JY27511)					
	R - Metal rope					
	A - Without chain					
Length	L-127.00 See L1,L2 in the table					

Receptacle protecting cover



Plug protecting cover



Shell size	A max	B max	C max	D max	d1 min	d2 min	L1	L2
08	19.05/.750	20.83/.820	18.29/.720	20.83/.820	3.12/.123	22.61/.890	77.0/3.031	77.0/3.031
10	21.82/.859		21.59/.850			25.65/1.010		
12	26.19/1.031		25.40/1.000			28.96/1.140	90.0/3.543	90.0/3.543
14	29.36/1.156		28.70/1.130			32.00/1.260		
16	32.54/1.281		31.75/1.250			35.31/1.390		
18	35.71/1.406		35.05/1.380			38.35/1.510	102.0/4.016	102.0/4.016
20	38.89/1.531		38.10/1.500			41.66/1.640		
22	41.68/1.641		41.40/1.630			44.70/1.760		
24	44.86/1.766		44.45/1.750			48.01/1.890		