

GJB599 Space Connector Series

General

- Meet MIL-DTL-38999 common products requirements.
- Thermal vacuum out-gassing :
All non-metal materials used in the finished connector except printing ink shall not release greater than :
1.0 percent total mass loss (TML)
0.1 percent collected volatile condensable material (CVCM)
Printing ink: TML $\leq$ 10%, CVCM $\leq$ 1%
- Radialization Resistance:
Radialization dosage ratio: 0.5Gy/s,
Total radialization dosage: $\geq 5 \times 10^5$ Gy.
After testing insulation resistance $\geq 1000M \Omega$, Dielectric withstanding voltage is not reduced.
- Magnetic permeability:
Relative permeability < 2.0



Products are Extensively used in the fields of aviation, aerospace, secondary planet, space station, launcher and all other related industries.

US military standard: MIL-DTL-38999K.

International space system standard: ESA/SCC or ESCC

National military standard: GJB599A

Material and finishing

Component code	Hermetic connector, accessory and adapter	Hermetic connector
Shell	Aluminum alloy , nickel coating	Corrosion-resistant steel, passivated
Ground reed	Beryllium copper nickel coating	
Insert interface	Special plastic	Glass sintering
Supporting ring	Beryllium copper	
Contact	Copper alloy 2 μ nickel coating, 1.27 μ gold coating min	Ni-Fe alloy, Gold plate on nickel 1.27 μ min
Terminal shell accessory and adapter	Aluminum alloy nickel coating	

GJB599 Space Connector Series

Order

【GJB599 Series I】

Series	JY	27466	G	13	F	8	P	A
Shell type	27466 — Wall flange receptacle front panel mounting 27656 — Wall flange receptacle rear panel mounting 27468 — Jam nut mounting receptacle 27470 — Jam nut mounting receptacle 27467 — Plug							
Type	G — Space grade H — Hermetic, Space grade(only used for JY27470)							
Shell size	09, 11, 13, 15, 17, 19, 21, 23, 25							
Finishing	F — Nickel coating E — Stainless steel passivation							
Contact arrangement	To see P71							
Contact type	P — Pin S — Socket							
Key/keyway	N — normal(non-noted), A, B, C, D. To see P4.							

Polarization

Note: China National military standard GJB 1784 is the same as US MIL-DTL-38999 except the series prefix. In the identification, GJB 1784 use “J599” and MIL-DTL-38999 uses “D38999”. Both series are exchangeable with each other.

Contrast of our order with SCC (space components coordination group) order

【ESA/SCC 3401 052 Series I Space grade】

Series	8LTS	00	13	35	P	N	L
Shell type	00 — Wall flange receptacle front panel mounting 03 — Wall flange receptacle rear panel mounting 07 — Jam nut mounting receptacle 06G — Plug						
Shell size	09, 11, 13, 15, 17, 19, 21, 23, 25						
Contact arrangement	To see P71						
Contact type	P — Pin S — Socket						
Key/keyway Polarization	N — Standard (not marked), A, B, C, D L — Parts order separately (Symbol “L” is not included in the P/N)						

GJB599 Space Connector Series

Order

【GJB599 SeriesⅢ】

Series	J599/ 20	G	B	35	P	N
Shell type	20 — Wall flange receptacle 24 — Jam nut thread mounting receptacle 26 — RFI shielding plug					
Finishing	G — Space grade nickel coating					
Shell size	09 11 13 15 17 19 21 23 25					
Shell code	A B C D E F G H J					
Contact arrangement	To see P71					
Contact type	P — Pin S — Socket					
Key/keyway polarization	N — Normal, A, B, C, D, E To see P24.					

Note: China national military standard GJB 1784 is the same as US MIL-DTL-38999 except the series prefix. In the identification, GJB 1784 use “J599” and MIL-DTL-38999 uses “D38999”. Both series are exchangeable with each other.

Contrast of our order with SCC (space components coordination group) order

【ESA/SCC 3401 056 SeriesⅢ Space grade】

Series	8DS 00	13-	35	P	N	L
Shell type	00 — Wall flange receptacle 07 — Jam nut thread mounting receptacle 06G — Plug					
Shell size	09, 11, 13, 15, 17, 19, 21, 23, 25					
Contact arrangement	To see P71					
Contact type	P — Pin S — Socket					
Key/keyway Polarization	N — Normal, A, B, C, D, E L — Parts order separately (Symbol “L” is not included in the P/N)					

Order

GJB599 Space Connector Series

【GJB599 Series III hermetic receptacle】

Series	J599/	21	H	B	35	P	N
Shell type	21 — Flat flange receptacle 25 — Solder mounting receptacle 23 — Jam nut thread mounting receptacle						
Finishing	H — Hermetic, stainless steel shell passivation, Space Grade						
Shell size	09 11 13 15 17 19 21 23 25						
Shell code	A B C D E F G H J						
Contact arrangement	To see P71						
Contact type	P — Pin S — Socket						
Key/keyway Polarization	N — normal, A, B, C, D, E To see P24.						

Note: China National military standard GJB 1784 is the same as US MIL-DTL-38999 except the series prefix. In the identification, GJB 1784 use “J599” and MIL-DTL-38999 uses “D38999”. Both series are exchangeable with each other.

Contrast of our order with SCC (space components coordination group) order

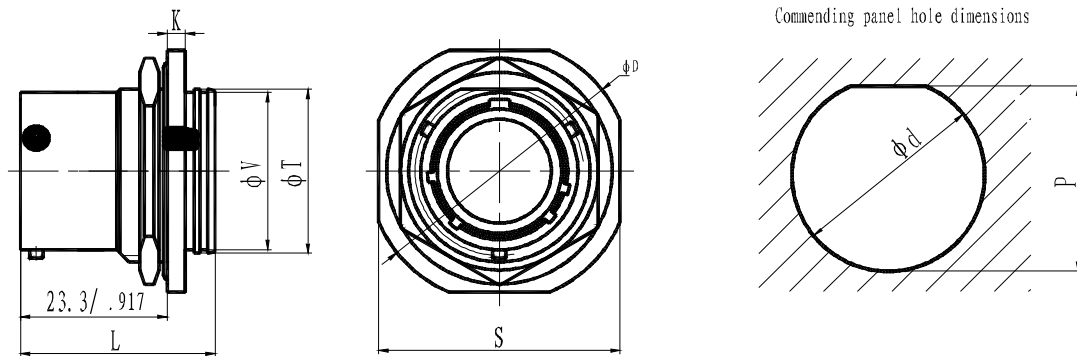
【ESA/SCC 3401 056 SeriesIII Space grade hermetic receptacle】

Series	8DS	00	H	13-	35	P	N
Shell type	00 — Flat flange receptacle 07 — Jam nut thread mounting receptacle 01 — Solder mounting receptacle						
Finishing	H — Hermetic, stainless steel shell passivation, Space Grade						
Shell size	09, 11, 13, 15, 17, 19, 21, 23, 25						
Shell code	A B C D E F G H J						
Contact arrangement	To see P71						
Contact type	P — Pin						
Key/keyway Polarization	N — normal, A, B, C, D, E To see P24.						

GJB599 Space Connector Series

Dimensions

JY27470 Jam nut thread mounting receptacle

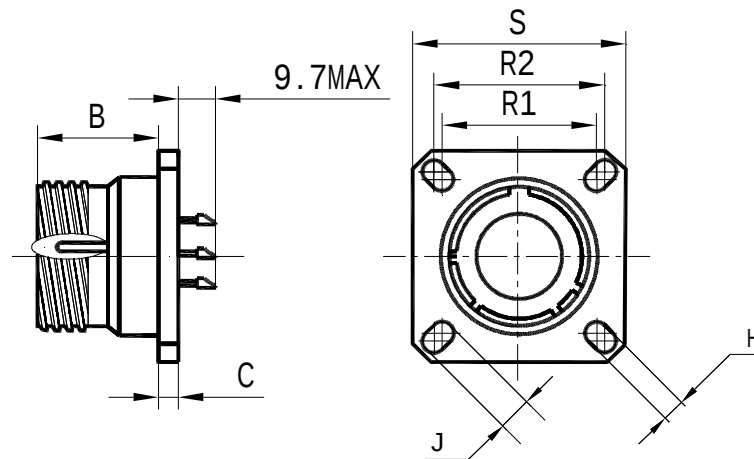


Shell size	09	11	13	15	17
K	2.8/.110	2.8/.110	2.8/.110	2.8/.110	2.8/.110
L	30.2/1.189	30.2/1.189	30.2/1.189	30.2/1.189	30.2/1.189
V	15.3/.602	18.4/..724	21.6/.580	24.8/.976	28.0/1.102
T	16.31/.642	19.46/.766	22.66/.892	25.86/1.018	29.01/1.142
D	30.2/1.189	34.9/1.374	38.1/1.5	41.3/1.626	44.5/1.752
S	27/1.063	31.8/1.252	34.9/1.374	38.1/1.5	41.3/1.626
P	17.02/.670	19.59/.771	24.26/.955	27.56/1.085	30.73/1.210
d	17.78	20.96	25.65	28.83	32.01
Shell size	19	21	23	25	
K	3.6/.142	3.6/.142	3.6/.142	3.6/.142	
L	30.8/1.213	30.8/1.213	30.8/1.213	30.8/1.213	
V	31.2/1.228	34.3/1.350	37.5/1.476	40.7/1.602	
T	32.21/1.268	35.36/1.392	38.56/1.518	41.71/1.642	
D	49.2/1.937	52.4/2.063	55.6/2.190	58.7/2.311	
S	46.0/1.811	49.2/1.937	52.4/2.063	55.6/2.189	
P	33.91/1.335	37.08/1.460	40.26/1.585	43.43/1.710	
d	35.18	38.35	41.53	44.70	

GJB599 Space Connector Series

Dimensions

J599/21 Flat flange receptacle

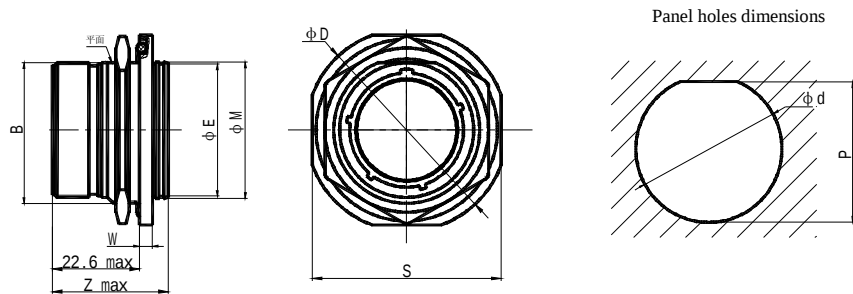


Shell size	09	11	13	15	17
Bmax	21.4/.843	21.4/.843	21.4/.843	21.4/.843	21.4/.843
C	2.50/.098	2.50/.098	2.50/.098	2.50/.098	2.50/.098
J	5.49/.216	4.93/.194	4.93/.194	4.39/.173	4.93/.194
H	16.31/.642	19.46/.766	22.66/.892	25.86/1.018	29.01/1.142
R1	15.09/.594	18.26/.719	20.62/.882	23.01/.906	24.61/.969
R2	18.26/.719	20.62/.812	23.01/.906	24.61/.969	26.97/1.062
S	23.8/.937	26.2/1.031	28.6/1.126	31.0/1.220	33.3/1.311
Shell size	19	21	23	25	
Bmax	21.4/.843	21.4/.843	21.4/.843	21.4/.843	
C	2.50/.098	2.50/.098	2.50/.098	2.50/.098	
J	4.93/.194	4.93/.194	6.15/.242	6.15/.242	
H	32.21/1.268	35.36/1.392	38.56/1.518	41.71/1.642	
R1	26.97/1.062	29.36/1.156	31.75/1.25	34.93/1.375	
R2	29.36/1.156	31.75/1.25	34.93/1.375	38.10/1.5	
S	36.5/1.437	39.7/1.563	42.9/1.689	46.0/1.811	

GJB599 Space Connector Series

Dimensions

J599/23 Jam nut thread mounting receptacle

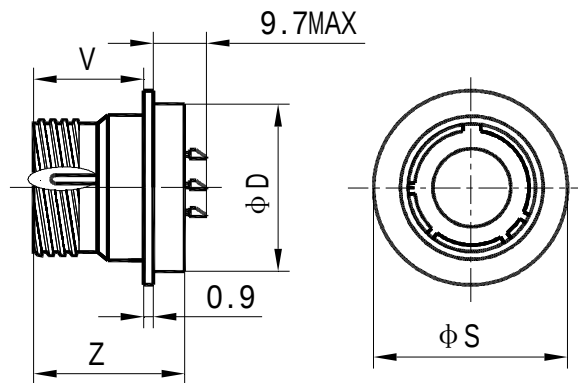


Shell size	09	11	13	15	17
Z max	29.2/1.150	29.2/1.150	29.3/1.154	29.3/1.154	29.3/1.154
D	30.2/1.189	34.9/1.374	38.1/1.5	41.3/1.626	44.5/1.752
S	27/1.063	31.8/1.252	34.9/1.374	38.1/1.5	41.3/1.626
W	2.6/.102	2.6/.102	2.6/.102	2.6/.102	2.6/.102
B	16.53/.651	19.07/.751	23.82/.938	26.97/1.062	30.15/1.187
E	15.3/.602	18.4/.724	21.6/.850	24.8/.976	28.0/1.102
M	16.3/.642	19.4/.764	22.7/.894	25.9/1.020	29.0/1.142
P	17.02/.671	19.59/.771	24.26/.955	27.56/1.085	30.73/1.210
d	17.78/.700	20.96/.825	25.65/1.010	28.83/1.135	32.01/1.260
Shell size	19	21	23	25	
Z max	30.1/1.185	30.1/1.185	30.1/1.185	30.1/1.185	
D	49.2/1.937	52.4/2.063	55.6/2.189	58.7/2.311	
S	46.0/1.811	49.2/1.937	52.4/2.063	55.6/2.189	
W	3.4/.134	3.4/.134	3.4/.134	3.4/.134	
B	33.32/1.312	36.50/1.437	39.67/1.562	42.85/1.687	
E	31.2/1.228	34.3/1.350	37.5/1.476	40.7/1.602	
M	32.2/1.268	35.4/1.394	38.6/1.520	41.7/1.642	
P	33.91/1.335	37.08/1.460	40.26/1.585	43.43/1.710	
d	35.18/1.385	38.35/1.510	41.53/1.635	44.70/1.687	

GJB599 Space Connector Series

Dimensions

J599/25 Solder mounting receptacle



Shell size	09	11	13	15	17
Zmax	23.8/.937	23.8/.937	23.8/.937	23.8/.937	23.8/.937
Vmax	17.2/.677	17.2/.677	17.2/.677	17.2/.677	17.2/.677
S	19.4/.764	21.8/.858	24.9/.980	28.1/1.063	31.3/1.232
D	17.1/.673	19.9/.783	23.1/.909	26.2/1.031	29.4/1.157
Shell size	19	21	23	25	
Zmax	23.8/.937	23.8/.937	24.6/.969	24.6/.969	
Vmax	17.2/.677	17.2/.677	17.2/.677	17.2/.677	
S	33.6/1.323	36.8/1.449	40.0/1.575	43.2/1.706	
D	31.8/1.252	35.0/1.252	38.2/1.504	41.3/1.626	

Crimp tool

		Crimp tool component code		
Contact code	Contact type	Crimp tool	Locator	Install/removal tool (Plastic)
#22	Pin	M22520/2-01	M22520/2-09	M81969/14-01
	Socket		M22520/2-07	
#20	Pin / Socket	M22520/1-01	M22520/1-04	M81969/14-10
#16	Pin / Socket	M22520/1-01	M22520/1-04	M81969/14-03
#12	Pin / Socket	M22520/1-01	M22520/1-04	M81969/14-04
#8	Pin / Socket	M22520/23-01	M22520/23-09 M22520/23-02	M81969/29-02*
#4 (Cable code 4/6)	Pin / Socket	M22520/23-01	M22520/23-11 M22520/23-04	M81969/29-03*
#4 (Cable code 8/10)	Pin / Socket	M22520/23-01	8975-3988 M22520/23-02	M81969/29-03*

* Only for metal removal tool. Should order separately..

GJB599 Space Connector Series

Contact arrangement (See from pin insulator interface)

Shell size 09 A	35 6#22D Service rating M 	98 3#20 Service rating I
	35 13#22D Service rating M 	98 6#20 Service rating I
	35 22#22D Service rating M 	98 10#20 Service rating I
	35 37#22D Service rating M 	19 19#20 Service rating I
11 B	35 55#22D Service rating M 	26 26#20 Service rating I
	35 66#22D Service rating M 	32 32#20 Service rating I
	35 79#22D Service rating M 	41 41#20 Service rating I
	35 100#22D Service rating M 	53 53#20 Service rating I
13 C	35 128#22D Service rating M 	61 61#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
15 D	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
17 E	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
19 F	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
21 G	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
23 H	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
25 J	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I
	35 29#16 Service rating I 	43 20#16 23#20 Service rating I

