GJB599 Series II Low-Profile Bayonet Connectors (38999 Series II Type)

38999 Series II type · low-profile bayonet · 96 insert arrangements



Coupling	Bayonet, low profile
Shell sizes	8 to 24
Insert arrangements	96
Contact sizes	22D to 12 (5–23 A)
Temperature	–65 to +200 °C
Mating cycles	500

Key features

- Low-profile bayonet design: short, light shells
- Built to GJB 599A Series II, the Chinese counterpart of MIL-DTL-38999 Series II
- Removable crimp and solder contacts; PCB contacts for board-mounted receptacles
- EMI/RFI shielding; shielded plug version
- Hermetic receptacles and bulkhead feed-through receptacles, leak rate ≤ 1×10^{-8} Pa·m³/s
- Five key positions prevent mismating
- Marine-environment (M) version in stainless steel or titanium, 500 h salt spray

Specifications

Electrical

Parameter	Value	Condition
Dielectric withstanding voltage, service rating M	1300 Vrms / 800 Vrms	Sea level / 21,000 m altitude, mated
Dielectric withstanding voltage, service rating N	1000 Vrms / 600 Vrms	Sea level / 21,000 m altitude, mated
Dielectric withstanding voltage, service rating I	1800 Vrms / 1000 Vrms	Sea level / 21,000 m altitude, mated
Dielectric withstanding voltage, service rating II	2300 Vrms / 1000 Vrms	Sea level / 21,000 m altitude, mated
Insulation resistance	≥ 5000 MΩ	Room temperature
Insulation resistance	≥ 1000 MΩ / ≥ 200 MΩ	High temperature, non-hermetic / hermetic
Insulation resistance	≥ 100 MΩ	After humidity
EMI shielding	45 dB at 1 GHz	Aluminum shells

Mechanical

Parameter	Value	Condition
Coupling	Bayonet	
Durability	500 mating cycles	250 cycles for JY27484 shielded plugs

Mechanical		
Parameter	**Value**	**Condition**
Shock	300 g, 3 ms	

Environmental		
Parameter	**Value**	**Condition**
Operating temperature	−65 to +200 °C	−65 to +175 °C for cadmium finish
Random vibration	100–1000 Hz, 1 g^2/Hz (41.7 g rms)	
Damp heat, cyclic	10 cycles × 24 h	GJB 1217A, type II
Hermetic receptacle leak rate	≤ 1 × 10^{-8} Pa·m^3/s	0.1 MPa pressure differential
Operating altitude	≤ 30,480 m	
Mold resistance	Grade 2, 28 days	GJB 150

Versions

Series code	Version	Notes
JY27473T	Plug	
JY27484T	Shielded plug	
JY27472T / JY27497T	Wall-mount square-flange receptacle, front / rear mounting	
JY27513E / JY27508E	Box-mount square-flange receptacle, front / rear mounting	
JY27474T	Jam-nut receptacle	
JY27902T	Round-flange adapter receptacle	
JY27476Y / 27477Y / 27478Y	Hermetic receptacles: wall mount / jam nut / solder mount	
JY27472Y ...C	Hermetic bulkhead feed-through receptacle	
JY27...M	Marine-environment version (M)	Aluminum olive-drab cadmium (B), stainless (E) or titanium (TA) shells, 500 h salt spray; rated for acid salt spray, acid atmosphere and mold. Example: JY27472T14ME35PN.

Shell materials and finishes

Code	Shell material	Finish	Shell conductivity	EMI shielding	Temperature	Salt spray
F	Aluminum alloy	Electroless nickel	1 mΩ	45 dB at 1 GHz	−65 to +200 °C	48 h
B	Aluminum alloy	Olive-drab cadmium	2.5 mΩ	45 dB at 1 GHz	−65 to +175 °C	500 h
E	Stainless steel	Passivated	50 mΩ	—	−65 to +200 °C	500 h
TA	Titanium alloy	None (bare titanium)	10 mΩ	65 dB at 10 GHz	−65 to +200 °C	500 h (marine version)

Contact sizes and current ratings

Contact size	Engaging diameter	Contact resistance	Contact resistance (hermetic)	Current rating	Wire size
22D	0.76 mm	≤ 14.6 mΩ	≤ 28 mΩ	5 A	AWG 22–26 (0.13–0.33 mm²)
22	0.76 mm	Tested to your requirements	—	5 A	AWG 22–26
20	1.02 mm	≤ 7.3 mΩ	≤ 12.0 mΩ	7.5 A	AWG 20–24 (0.20–0.52 mm²)
16	1.58 mm	≤ 3.7 mΩ	≤ 8.5 mΩ	13 A	AWG 16–20 (0.52–1.31 mm²)
12	2.41 mm	≤ 1.83 mΩ	≤ 5 mΩ	23 A	AWG 12–14 (2.08–3.31 mm²)

How to order

JY [type] [class] [shell] [finish] [arrangement] [contact] [key] [suffix]

Example: **JY27508E14F35SN** — Box-mount rear-mounting receptacle, no backshell thread, shell 14, aluminum with nickel, arrangement 14-35, crimp socket contacts, key N

Code segment	Options
Type	**27473 / 27484** Plug / shielded plug
Type	**27472 / 27497** Wall-mount square-flange receptacle, front / rear
Type	**27513 / 27508** Box-mount square-flange receptacle, front / rear
Type	**27474** Jam-nut receptacle
Type	**27902** Round-flange adapter receptacle
Type	**27476 / 27477 / 27478** Hermetic: wall mount / jam nut / solder mount
Class	**T** Rear thread for backshells
Class	**E** No rear thread
Class	**Y** Hermetic
Shell	**08 – 24** 8, 10, 12, 14, 16, 18, 20, 22, 24
Finish	**F / B** Aluminum — electroless nickel / olive-drab cadmium
Finish	**E, K1 / W1** Stainless steel — passivated / cadmium
Arrangement	**e.g. 35** See the insert arrangement table below
Contact	**P / S** Pin / socket (crimp or solder)
Contact	**PC, PL / SC, SL** PCB pin / socket, short or long tail
Contact	**C** Feed-through pin (JY27472Y)
Key	**N** Normal
Key	**A B C D** Alternate (shell 8: N, A, D only)
Suffix	**H** Solder-cup contacts
Suffix	**V** Fluorosilicone seals
Suffix	**-U** Reverse-side plug
Suffix	**Rn** n pairs of thermocouple contacts

Protective caps JY27510 (plug) and JY27511 (receptacle) are ordered separately.

Insert arrangements

Arrangement	Contacts	Contact sizes	Service rating
8-03	3	3 × size 20	I
8-35	6	6 × size 22D	M
8-44	4	4 × size 22	M
8-98	3	3 × size 20	I
10-02	2	2 × size 16	I
10-04	4	4 × size 20	I
10-05	5	5 × size 20	I
10-08a	8	4 × size 20, 4 × size 22D	M
10-35	13	13 × size 22D	M
10-98	6	6 × size 20	I
10-99	7	7 × size 20	I
12-03	3	3 × size 16	II
12-04	4	4 × size 16	I
12-06	6	2 × size 12, 4 × size 20	M
12-06A	6	2 × size 16, 4 × size 20	M
12-08	8	8 × size 20	I
12-08A	8	4 × size 16, 4 × size 20	M
12-12A	12	12 × size 20	N
12-16	16	3 × size 16, 13 × size 22D	N
12-35	22	22 × size 22D	M
12-98	10	10 × size 20	I
14-04A	4	4 × size 12	M
14-05	5	5 × size 16	II
14-06A	6	6 × size 16	M
14-13	13	4 × size 16, 2 × size 20, 7 × size 22D	M
14-14	14	6 × size 16, 8 × size 22D	N
14-15	15	1 × size 16, 14 × size 20	I
14-18	18	18 × size 20	I
14-19	19	19 × size 20	I
14-23	23	3 × size 16, 2 × size 20, 18 × size 22D	M
14-32	32	9 × size 20, 23 × size 22D	M
14-35	37	37 × size 22D	M
14-97	12	4 × size 16, 8 × size 20	I
16-06	6	6 × size 12	I

Arrangement	Contacts	Contact sizes	Service rating
16-06C	6	4 × size 12, 2 × size 22	I
16-08	8	8 × size 16	II
16-14	14	6 × size 12, 8 × size 22D	N
16-19	19	4 × size 16, 11 × size 20, 4 × size 22D	M
16-26	26	26 × size 20	I
16-28A	28	3 × size 12, 25 × size 22D	M
16-35	55	55 × size 22D	M
16-42	42	42 × size 22	M
16-99	23	2 × size 16, 21 × size 20	I
16-20	20	4 × size 12, 16 × size 22D	M
18-11	11	11 × size 16	II
18-13	13	8 × size 12, 5 × size 20	I
18-17	17	2 × size 12, 15 × size 20	M
18-20	20	8 × size 16, 4 × size 20, 8 × size 22D	M
18-22	22	7 × size 12, 15 × size 22D	M
18-28	28	2 × size 16, 26 × size 20	I
18-30	30	1 × size 16, 29 × size 20	I
18-32	32	32 × size 20	I
18-35	66	66 × size 22D	M
18-45	67	67 × size 22D	M
18-53	53	53 × size 22	M
18-96	9	9 × size 12	I
20-11	11	11 × size 12	I
20-16	16	16 × size 16	II
20-24	24	24 × size 20	I
20-25	25	25 × size 20	I
20-27	27	27 × size 20	I
20-35	79	79 × size 22D	M
20-39	39	2 × size 16, 37 × size 20	I
20-41	41	41 × size 20	I
20-61	61	6 × size 16, 55 × size 22D	M
20-75A	4	4 × size 12	I
22-02	85	85 × size 22	M
22-14	14	14 × size 12	I
22-21	21	21 × size 16	II
22-26	26	8 × size 12, 18 × size 20	M
22-32	32	32 × size 20	I

Arrangement	Contacts	Contact sizes	Service rating
22-34	34	34 × size 20	I
22-34A	34	4 × size 12, 16 × size 16, 14 × size 22D	M
22-35	100	100 × size 22D	M
22-36	36	36 × size 20	I
22-53	53	53 × size 20	I
22-55	55	55 × size 20	I
22-70	70	10 × size 20, 60 × size 22D	M
22-86	86	16 × size 20, 70 × size 22D	M
22-97	16	16 × size 16	I
22-99	11	11 × size 16	II
24-02	100	100 × size 22	M
24-04	56	8 × size 16, 48 × size 20	I
24-19	19	19 × size 12	I
24-24	24	12 × size 12, 12 × size 16	I
24-29	29	29 × size 16	I
24-35	128	128 × size 22D	M
24-39	39	2 × size 12, 17 × size 16, 20 × size 20	M
24-43	43	20 × size 16, 23 × size 20	I
24-45	45	8 × size 12, 37 × size 20	M
24-61	61	61 × size 20	I
24-64a	64	8 × size 16, 40 × size 20, 16 × size 22D	M
24-69	69	10 × size 16, 15 × size 20, 44 × size 22D	M
24-92	92	4 × size 20, 88 × size 22D	M
24-93	118	8 × size 16, 110 × size 22D	M
24-118G	118	8 × size 16, 110 × size 22D	N

Standards

- **GJB 599A Series II** — Chinese specification for Series II low-profile bayonet connectors, the counterpart of MIL-DTL-38999 Series II.

Request a quote or drawing: https://sinoxh.com/request-a-quote/?product=GJB599%20Series%20II