GJB599 Series IV Quarter-Turn Circular Connectors (38999 Series IV Type)

38999 Series IV type · 90° quarter-turn coupling · shell sizes 11–25



Coupling	Quarter-turn (90°)
Shell sizes	11 to 25
Insert arrangements	123
Contact sizes	22D to 10 (5–33 A)
Temperature	–65 to +200 °C

Key features

- Quarter-turn coupling: rotate 90° to mate and lock
- Built to GJB 599A Series IV, the Chinese counterpart of MIL-DTL-38999 Series IV
- Enhanced interfacial seal protects contacts from moisture and electrolytic corrosion
- Scoop-proof and keyed (six key positions) to prevent mismating
- Size 12 cavities accept coax, shielded or power contacts
- Seven shell finishes including titanium; hermetic receptacles in stainless steel

Specifications

Electrical

Parameter	Value	Condition
Shell-to-shell conductivity	1–10 mΩ	Depends on finish — see finish table
EMI shielding	45–65 dB at 10 GHz; 85 dB at 1 GHz (F)	Depends on finish — see finish table
Dielectric withstanding voltage	Tested to your requirements	

Mechanical and environmental

Parameter	Value	Condition
Coupling	Quarter-turn, 90°	
Coupling thread	M15 × 1 to M37 × 1	
Operating temperature	–65 to +200 °C	–65 to +175 °C for cadmium finish
Salt spray	48–500 h	Depends on finish — see finish table

Versions

Series code	Version	Notes
J599/40	Wall-mount square-flange receptacle	
J599/42	Box-mount square-flange receptacle	
J599/44	Jam-nut receptacle	

Series code	Version	Notes
J599/49	In-line (cable) receptacle	
J599/46 / 47	Shielded plug / unshielded plug	
J599/41 / 43 / 45 / 48	Hermetic receptacles: square flange / jam nut / solder mount / weld mount	

Shell materials and finishes

Code	Shell material	Finish	Shell conductivity	EMI shielding	Temperature	Salt spray
F	Aluminum alloy	Nickel	1 mΩ	65 dB at 10 GHz; 85 dB at 1 GHz	−65 to +200 °C	48 h
W	Aluminum alloy	Olive-drab cadmium	2.5 mΩ	50 dB at 10 GHz	−65 to +175 °C	500 h
K	Stainless steel	Passivated	10 mΩ	45 dB at 10 GHz	−65 to +200 °C	500 h
S	Stainless steel	Nickel	1 mΩ	65 dB at 10 GHz	−65 to +200 °C	48 h
TA	Titanium alloy	None	10 mΩ	65 dB at 10 GHz	−65 to +200 °C	500 h
Y	Stainless steel (hermetic)	Passivated	10 mΩ	45 dB at 10 GHz	−65 to +200 °C	500 h
N	Stainless steel (hermetic)	Nickel	1 mΩ	65 dB at 10 GHz	−65 to +200 °C	48 h

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)
10	3.20 mm	≤ 1 mΩ	—	33 A	AWG 10 (5.26 mm²)
8 twinax	—	Tested to your requirements	—	Signal (twinax)	Twinax cable to your requirements

How to order

J599/ [type] [finish] [shell] [arrangement] [contact] [key] [suffix]

Example: **J599/40FB35PN** — Wall-mount square-flange receptacle, aluminum with nickel, shell B (size 11), arrangement 11-35, pin contacts, key N

Code segment	Options
Type	**40 / 42** Square-flange receptacle, wall / box mount
Type	**44** Jam-nut receptacle
Type	**49** In-line (cable) receptacle
Type	**46 / 47** Shielded / unshielded plug
Type	**41 / 43 / 45 / 48** Hermetic: square flange / jam nut / solder mount / weld mount
Finish	**F / W** Aluminum — nickel / olive-drab cadmium
Finish	**S / K** Stainless steel — nickel / passivated
Finish	**TA** Titanium alloy
Finish	**N / Y** Hermetic stainless steel — nickel / passivated
Shell	**B C D E F G H J** Shell size 11, 13, 15, 17, 19, 21, 23, 25
Arrangement	**e.g. 35** See the insert arrangement table below
Contact	**P / S** Pin / socket
Contact	**P** Hermetic pin (hermetic receptacles)
Key	**N** Normal
Key	**A B C D K** Alternate
Suffix	**V** 200 °C oil-resistant seals
Suffix	**H** Solder contacts (crimp if not marked)

Hermetic receptacles do not use layouts with coax, shielded or twinax contacts.

Insert arrangements

Arrangement	Contacts	Contact sizes	Service rating
11-02	2	2 × size 16	I
11-04	4	4 × size 20	I
11-05	5	5 × size 20	I
11-08a	8	4 × size 20, 4 × size 22D	M
11-35	13	13 × size 22D	M
11-98	6	6 × size 20	I
11-99	7	7 × size 20	I
13-03	3	3 × size 16	II
13-04	4	4 × size 16	I
13-06	6	2 × size 12, 4 × size 20	M
13-06A	6	2 × size 16, 4 × size 20	M
13-08	8	8 × size 20	I
13-08A	8	4 × size 16, 4 × size 20	M
13-12	12	1 × size 12 coax, 11 × size 22D	M
13-12A	12	12 × size 20	N
13-16	16	3 × size 16, 13 × size 22D	N

Arrangement	Contacts	Contact sizes	Service rating
13-35	22	22 × size 22D	M
13-98	10	10 × size 20	I
15-03	3	2 × size 12, 1 × size 16	I
15-04A	4	4 × size 12	M
15-4B	4	4 × size 12 coax	N
15-05	5	5 × size 16	II
15-06A	6	6 × size 16	M
15-13	13	4 × size 16, 2 × size 20, 7 × size 22D	M
15-14	14	6 × size 16, 8 × size 22D	N
15-15	15	1 × size 16, 14 × size 20	I
15-18	18	18 × size 20	I
15-19	19	19 × size 20	I
15-23	23	3 × size 16, 2 × size 20, 18 × size 22D	M
15-32	32	9 × size 20, 23 × size 22D	M
15-35	37	37 × size 22D	M
15-97	12	4 × size 16, 8 × size 20	I
17-02	39	1 × size 8 twinax, 38 × size 22D	M
17-06	6	6 × size 12	I
17-06C	6	4 × size 12, 2 × size 22	I
17-08	8	8 × size 16	II
17-14	14	2 × size 12, 4 × size 16, 8 × size 20	M
17-15	15	5 × size 12 coax, 10 × size 22D	M
17-19	19	4 × size 16, 11 × size 20, 4 × size 22D	M
17-20	20	4 × size 12, 16 × size 22D	M
17-26	26	26 × size 20	I
17-28A	28	3 × size 12, 25 × size 22D	M
17-30	6	3 × size 10, 3 × size 20	N
17-35	55	55 × size 22D	M
17-42	42	42 × size 22	M
17-75	2	2 × size 8 twinax	N
17-99	23	2 × size 16, 21 × size 20	I
19-06A	6	3 × size 12 coax, 3 × size 16	N
19-11	11	11 × size 16	II
19-13	13	8 × size 12, 5 × size 20	I
19-17	17	2 × size 12, 15 × size 20	M
19-18	18	4 × size 8 twinax, 14 × size 22D	M
19-18A	18	4 × size 12 coax, 14 × size 22D	M

Arrangement	Contacts	Contact sizes	Service rating
19-20	20	8 × size 16, 4 × size 20, 8 × size 22D	M
19-22	22	7 × size 12, 15 × size 22D	M
19-28	28	2 × size 16, 26 × size 20	I
19-30	30	1 × size 16, 29 × size 20	I
19-32	32	32 × size 20	I
19-35	66	66 × size 22D	M
19-45	67	67 × size 22D	M
19-53	53	53 × size 22	M
19-82	8	8 × size 12 coax	I
19-96	9	9 × size 12	I
21-10A	10	10 × size 12 coax	II
21-11	11	11 × size 12	I
21-13	13	2 × size 10, 7 × size 12, 4 × size 20	M
21-16	16	16 × size 16	II
21-24	24	24 × size 20	I
21-25	25	25 × size 20	I
21-27	27	27 × size 20	I
21-28	28	3 × size 10, 25 × size 22D	I
21-35	79	79 × size 22D	M
21-35A	68	2 × size 12 coax, 66 × size 22D	M
21-39	39	2 × size 16, 37 × size 20	I
21-39A	39	2 × size 8 twinax, 4 × size 16, 33 × size 22D	M
21-41	41	41 × size 20	I
21-61	61	6 × size 16, 55 × size 22D	M
21-75	4	4 × size 8 twinax	N
21-75A	4	4 × size 12	I
23-02	85	85 × size 22	M
23-06H	6	6 × size 10	II
23-14	14	14 × size 12	I
23-21	21	21 × size 16	II
23-26	26	8 × size 12, 18 × size 20	M
23-32	32	32 × size 20	I
23-34	34	34 × size 20	I
23-34A	34	4 × size 12, 16 × size 16, 14 × size 22D	M
23-35	100	100 × size 22D	M
23-36	36	36 × size 20	I
23-44a	44	2 × size 10, 4 × size 12, 38 × size 22D	M

Arrangement	Contacts	Contact sizes	Service rating
23-53	53	53 × size 20	I
23-55	55	55 × size 20	I
23-70	70	10 × size 20, 60 × size 22D	M
23-72	72	2 × size 8 twinax, 70 × size 22D	M
23-86	86	16 × size 20, 70 × size 22D	M
23-97	16	16 × size 16	I
23-99	11	11 × size 16	II
25-02	100	100 × size 22	M
25-04	56	8 × size 16, 48 × size 20	I
25-07	99	2 × size 8 twinax, 97 × size 22D	M
25-08	8	8 × size 8 twinax	N
25-10	10	6 × size 10, 4 × size 12	N
25-11	11	9 × size 10, 2 × size 20	N
25-19	19	19 × size 12	I
25-20	30	3 × size 8 twinax, 1 × size 12 coax, 3 × size 12 shielded, 13 × size 16, 10 × size 20	N
25-24	24	12 × size 12, 12 × size 16	I
25-29	29	29 × size 16	I
25-31	31	2 × size 8 twinax, 5 × size 10, 12 × size 16, 12 × size 20	M
25-32	32	6 × size 10, 10 × size 16, 16 × size 20	M
25-35	128	128 × size 22D	M
25-35A	35	11 × size 12 coax, 24 × size 20	M
25-36	36	2 × size 8 twinax, 4 × size 10, 8 × size 16, 22 × size 20	N
25-39	39	2 × size 12, 17 × size 16, 20 × size 20	M
25-43	43	20 × size 16, 23 × size 20	I
25-45	45	8 × size 12, 37 × size 20	M
25-46	46	2 × size 8 twinax, 4 × size 16, 40 × size 20	I
25-61	61	61 × size 20	I
25-64a	64	8 × size 16, 40 × size 20, 16 × size 22D	M
25-69	69	10 × size 16, 15 × size 20, 44 × size 22D	M
25-92	92	4 × size 20, 88 × size 22D	M
25-93	118	8 × size 16, 110 × size 22D	M
25-94	94	4 × size 12 coax, 8 × size 16, 82 × size 22D	M
25-118G	118	8 × size 16, 110 × size 22D	N

Standards

- **GJB 599A Series IV** — Chinese specification for Series IV quarter-turn circular connectors, the counterpart of MIL-DTL-38999 Series IV.

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