J599G 38999 Series III-Type Connectors with Audible Full-Mate Indication

Full-mate indication by feel and sound · shell sizes 9–25 · hermetic versions



Coupling	Triple-start thread, anti-decoupling
Mate indication	Slip and audible click at full mate
Shell sizes	9 to 25
Contact sizes	26 to 10 (2–33 A)
Temperature	–65 to +200 °C
Mating cycles	500

Key features

- Full-mate indication: the coupling nut slips with a metallic click once the plug is fully seated
- Meets the GJB 599 Series III performance requirements; uses the J599 Series III insert arrangements
- Blind mating, scoop-proof, EMI/RFI shielded
- Square-flange and jam-nut receptacles, plugs, and hermetic receptacles (flange, jam-nut, solder and weld mount)
- Aluminum, stainless-steel or titanium shells; rated for acid salt spray, acid atmosphere and mold
- Crimp or solder terminations; fluorosilicone (oil-resistant) seals on request

Specifications

Electrical

Parameter	Value	Condition
Withstanding voltage, service rating M	1300 Vrms / 800 Vrms	Sea level / 21,000 m, mated
Withstanding voltage, service rating N	1000 Vrms / 600 Vrms	Sea level / 21,000 m, mated
Withstanding voltage, service rating I	1800 Vrms / 1000 Vrms	Sea level / 21,000 m, mated
Withstanding voltage, service rating II	2300 Vrms / 1000 Vrms	Sea level / 21,000 m, mated
Insulation resistance	≥ 5000 MΩ	500 VDC

Mechanical

Parameter	Value	Condition
Coupling	Triple-start thread with full-mate slip indication	
Durability	500 mating cycles	
Shock	2940 m/s²	
Sine vibration	10–2000 Hz, 60 g (140–2000 Hz), 12 h per axis	Temperature cycling
Random vibration	50–2000 Hz, 1 g²/Hz (100–2000 Hz), 8 h per axis	Maximum temperature

Mechanical		
Parameter	**Value**	**Condition**
Random vibration	25–2000 Hz, 5 g²/Hz (100–300 Hz), 8 h per axis	Ambient temperature

Environmental		
Parameter	**Value**	**Condition**
Operating temperature	–65 to +200 °C	–65 to +175 °C with cadmium finish
Damp heat	10 cycles of 24 h	
Altitude	≤ 30,480 m	
Hermetic receptacles, leak rate	Tested to your requirements	
Marine environment	Acid salt spray, acid atmosphere and mold	

Versions

Series code	Version	Notes
J599G/20	Square-flange receptacle	
J599G/24	Jam-nut receptacle	-A: double jam nut
J599G/26	Plug	-U: left-hand plug (pin version)
J599G/21, /23, /25, /27	Hermetic receptacles: square flange, jam nut, solder mount, weld mount	Solder pin contacts; stainless (Y) or titanium (TA)

Shell materials and finishes

Code	Shell material	Finish	Shell conductivity	EMI shielding	Temperature	Salt spray
W	Aluminum alloy	Olive-drab cadmium	2.5 mΩ	50 dB at 10 GHz	–65 to +175 °C	Acid salt spray rated
K	Stainless steel	Passivated	10 mΩ	45 dB at 10 GHz	–65 to +200 °C	Acid salt spray rated
TA	Titanium alloy	None	10 mΩ	65 dB at 10 GHz	–65 to +200 °C	Acid salt spray rated
Y	Stainless steel (hermetic)	Electropolished	—	—	–65 to +200 °C	Acid salt spray rated

Contact sizes and current ratings

Contact size	Engaging diameter	Contact resistance	Contact resistance (hermetic)	Current rating
26	0.508 mm	≤ 26 mΩ	—	2 A
22D	0.76 mm	≤ 14.6 mΩ	≤ 28 mΩ	5 A
20	1.02 mm	≤ 7.3 mΩ	≤ 12.0 mΩ	7.5 A
16	1.58 mm	≤ 3.7 mΩ	≤ 8.5 mΩ	13 A
12	2.41 mm	≤ 1.83 mΩ	≤ 5 mΩ	23 A
10	3.20 mm	≤ 1 mΩ	—	33 A

J599G/20 square-flange receptacle dimensions

Shell	Code	Thread A	Ø B (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Ø H (mm)
9	A	M12 × 1-6g	17.28	15.09	18.26	23.8	3.25
11	B	M15 × 1-6g	20.45	18.26	20.62	26.2	3.25
13	C	M18 × 1-6g	23.63	20.62	23.01	28.6	3.25
15	D	M22 × 1-6g	26.8	23.01	24.61	31	3.25
17	E	M25 × 1-6g	31.56	24.61	26.97	33.3	3.25
19	F	M28 × 1-6g	33.15	26.97	29.36	36.5	3.25
21	G	M31 × 1-6g	36.13	29.36	31.75	39.7	3.25
23	H	M34 × 1-6g	39.5	31.75	34.93	42.9	3.91
25	J	M37 × 1-6g	42.68	34.93	38.1	46	3.91

J599G/24 jam-nut receptacle dimensions

Shell	Code	Thread A	Ø B (mm)	Mounting thread C	L1 (mm)	L2 (mm)	W (mm)
9	A	M12 × 1-6g	30.2	M17 × 1-6g	27	16.53	2.5
11	B	M15 × 1-6g	34.9	M20 × 1-6g	31.8	19.07	2.5
13	C	M18 × 1-6g	38.1	M25 × 1-6g	34.9	23.82	2.5
15	D	M22 × 1-6g	41.3	M28 × 1-6g	38.1	26.97	2.5
17	E	M25 × 1-6g	44.5	M32 × 1-6g	41.3	30.15	2.5
19	F	M28 × 1-6g	49.2	M35 × 1-6g	46	33.32	3.3
21	G	M31 × 1-6g	52.4	M38 × 1-6g	49.2	36.5	3.3
23	H	M34 × 1-6g	55.6	M41 × 1-6g	52.4	39.67	3.3
25	J	M37 × 1-6g	58.7	M44 × 1-6g	55.6	42.85	3.3

How to order

J599G/[type] M [finish][shell][arrangement][contact][key][termination][options]

Example: **J599G/20MKB35ZN** — Square-flange receptacle, marine environment, stainless steel, shell 11, arrangement 11-35, pin contacts, key N, crimp

Code segment	Options
Type	**20** Square-flange receptacle
Type	**24** Jam-nut receptacle
Type	**26** Plug
Type	**21 / 23 / 25 / 27** Hermetic receptacle (flange / jam nut / solder / weld mount)
Class	**M** Marine environment
Finish	**W** Aluminum, olive-drab cadmium
Finish	**K** Stainless steel, passivated
Finish	**TA** Titanium alloy
Finish	**Y** Stainless steel, electropolished (hermetic)
Shell	**A–J** Shell 9, 11, 13, 15, 17, 19, 21, 23, 25

Code segment	Options
Arrangement	**—** As J599 Series III
Contact	**Z** Pin
Contact	**K** Socket
Contact	**P** Solder pin (hermetic)
Key	**N** Normal
Key	**A–E** Alternate keys
Termination	**(none)** Crimp
Termination	**H** Solder

Options: -U left-hand plug; C1 fluorosilicone (oil-resistant) seals; -A double jam nut (type 24 and 23).

Cadmium finish W is not RoHS compliant and is supplied on request.

Standards

- **GJB 599 Series III** — Performance to GJB 599 Series III, the Chinese counterpart of MIL-DTL-38999 Series III.

Request a quote or drawing: https://sinoxh.com/request-a-quote/?product=J599G