

38999 Series III Integrated Backshell



38999 All In One!

Plug with integrated backshell: all the features and the benefits of 38999 Series III connectors now ready to use.

Embedded backshell ■ Space and time saving.
Better electrical continuity and signal protection.
Lighter than with standard backshell.
Easier supply chain.
Single piece backshell and connector.

EMI backshell ■ Shield band compatible.
Overmolding best solution.



Flexibility ■ All Series III layouts developed by SOURIAU available (more than 90 layouts).

Versatility ■ Compatible, among others, with VG95343 and MIL-I-81765 heat shrink boots.



Description

- Derived from standard MIL-DTL-38999 Series III
- Plug in 9 sizes (from size 09 to 25)
- Black zinc nickel RoHS plating, a robust QPL 500 hours finish backward compatible with cadmium receptacle.
- Standard cadmium and nickel plating available.

Technical features

Mechanical

- **Shell:** Aluminum
- **Shell plating:**
 - . Nickel (F)
 - . Black zinc nickel (Z)
 - . Olive drab cadmium: (W)
- **Insulator:** Thermoplastic
- **Seal:** Silicone elastomer
- **Contact:** Copper alloy
- **Contact plating:** Gold over nickel
- **Endurance:** 500 matings/unmatings
- **Shock & Vibration:**
 - According to 38999 specification

Electrical

- **Contact resistance:**

Contacts size	22	20	16	12	8	4
Resistance mΩ	14.6	7.3	3.8	3.5	3	2

- **Insulation resistance:**
 - ≥5000mΩ (at 500Vdc)

- **Contact rating:**

Contacts size	22	20	16	12	8	4
Rating (A)	5	7.5	13	23	45	80

- **Shell continuity**
 - . Nickel (F): 1 mΩ
 - . Black zinc nickel (Z): 2.5 mΩ
 - . Olive drab cadmium (W): 2.5 mΩ

Environmental

- **Temperature range:**
 - 55°C to +175°C (Z & W)
 - 55°C to +200°C (F)
- **Sealing mated connectors:**
 - IP 67 (1 meter for 30 min minimum)
- **Salt spray:**
 - . 48 hours (F)
 - . 500 hours (Z & W)

Resistance to fluids

- **According to MIL-DTL-38999 standard**
 - . Gasoline: JP5 (OTAN F44)
 - . Mineral hydraulic fluid: MIL-H-5606 (OTAN H515)
 - . Synthetic hydraulic fluid: Skydrol 500 B4
- **LD4 (SAE AS 1241)**
 - . Mineral lubricating: MIL-L-7870A (OTAN 0142)
 - . Synthetic lubricating: MIL-L-23699 (OTAN 0156), MIL-L-7808
 - . Cleaning fluid: MIL-C-87936 diluted
 - . De-icing fluid: MIL-A-8243
 - . Extinguishing fluid: Bromochloromethane
 - . Cooling fluid: Coolanol

Ordering information

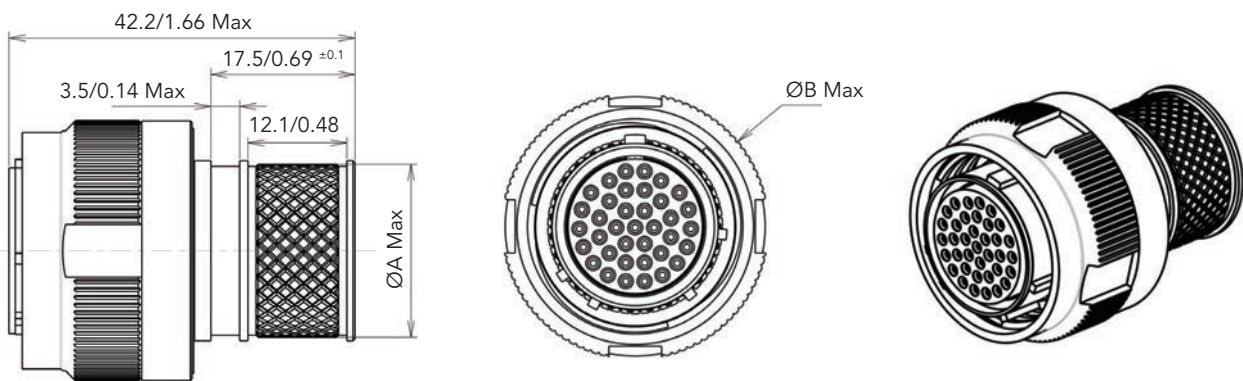
Basic series	8DA	5	-	13	Z	35	P	N
Shell type:								
5: Plug with RFI shielding								
Style:								
-: Connector with standard crimp contacts								
Shell size:								
09, 11, 13, 15, 17, 19, 21, 23, 25								
Plating:								
Z: Black zinc nickel								
F: Nickel								
W: Olive drab cadmium								
Contact layout:								
See «8D Series - MIL-DTL-38999 Series III» SOURIAU catalog								
Contact type:								
P: Male								
S: Female								
Orientation:								
N, A, B, C, D, E								
L: Without contact								

Note: Power, Quadrax and Optical layouts, please consult us. Type 0 and Type 7 on request.

3D models

8D Integrated Backshell 3D models are available on www.traceparts.online.net
Registration is quick and the downloads are free!

Dimensions

Plug Type 5										
										
	09	11	13	15	17	19	21	23	25	
ØA	11.1/0.44	14.1/0.55	17.1/0.67	21.1/0.83	24.1/0.95	27.1/1.07	30.1/1.18	33.1/1.30	36.1/1.42	
ØB	21.8/0.86	25.0/0.98	29.4/1.16	32.5/1.28	35.7/1.41	38.5/1.52	41.7/1.64	44.9/1.77	48.0/1.89	

Note: All dimensions are in millimeters and inches (mm/inch)

Connectors weight - in gram ($\pm 15\%$)

Shell size & layout	9-35	11-35	13-35	15-35	17-35	19-35	21-35	23-35	25-35
Weight with contacts	14.92	20.62	29.82	40.37	48.33	59.51	70.23	82.41	96.86

Accessories & Tooling

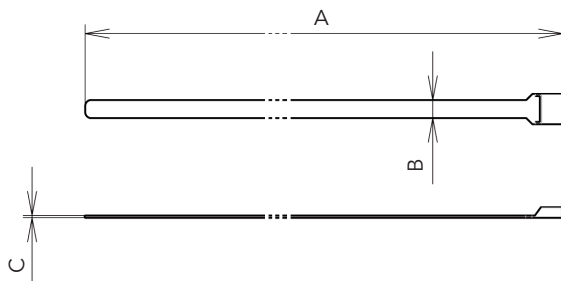
Recommended accessories for wiring

Shell size	Shield band (recommended)	Hand banding tool	Rear diameter to fit with boot
9	85930337A (individually coiled) 85930338A (not individually coiled)	85930339A	11.1/0.44
11			14.1/0.55
13			17.1/0.67
15			21.1/0.83
17			24.1/0.95
19			27.1/1.07
21			30.1/1.18
23	85999344 (not individually coiled) 85999345 (individually coiled)	85999346	33.1/1.30
25			36.1/1.42



To order braid, boot or other accessories, please contact your SOURIAU distributor.

Shield Band Dimension



	85930337A or 85930338A	85999344 or 85999345
A	200/7.87 Min	362.1/14.26 ± 1.5
B	3.0/0.12	6.0/0.24
C	0.4/0.016 Max	0.5/0.019

Note: All dimensions are in millimeters and inches (mm/inch)

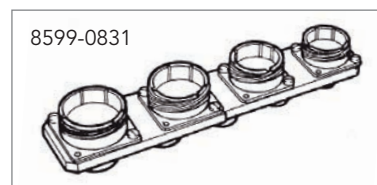
Accessories & Tooling

Recommended installation torque

Shell Size	Installation Torque (Inch-Pounds)
09, 11, 13, 15, 17 & 19	40
21, 23 & 25	80

Note: Torque values are based on 80% of the coupling thread strength specified in SAE-AS85049 standard.

Tightening support



Part number: **8599-0831**

This tool is made up of dummy receptacles housings of all 9 sizes for all key polarisation, and secures free connectors during wiring and fitting of rear accessories.

Crimping tools - for standard contacts

Contact size	Contact type	Contact Part number	Plier M22520/1-01	Plier M22520/2-01 (SOURIAU 8476-01)
			Turret Part number MIL Spec	Locator Part number MIL Spec
#22D	Pin	8599-0702 JJ	-	M22520/2-09
	Socket	8599-0706 900	-	M22520/2-06
#20	Pin	8599-0703 SA	M22520/1-04	M22520/2-10
	Socket	8599-0707 900		
#16	Pin	8599-0704 MJ	M22520/1-04	-
	Socket	8599-0708 900		-
#12	Pin	8599-0705 MJ	M22520/1-04	-
	Socket	8599-0709 900		-

Insertion & extraction tools - for standard contacts

Contact size	Material	Part number	Color	
			Insertion	Extraction
#22D	Plastic	M81969/14-01	Green	White
#20	Plastic	M81969/14-10	Red	Orange
#16	Plastic	M81969/14-03	Blue	White
#12	Plastic	M81969/14-04	Yellow	White
#10	Plastic	M81969/14-05	Grey	-

Other Accessories, Tooling & Contacts

See SOURIAU «8D Series - MIL-DTL-38999 Series III» catalog.

For further information contact us at technical.emear@souriau.com (Europe - Asia - Africa)
technical.americas@souriau.com (North America)
 or visit our web site www.souriau.com

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