



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.
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).

Black zinc nickel



A robust QPL 500 hour finish (RoHS) backward compatible with cadmium receptacle.
All other standard plating available (Ni, Cd).

Not QPL registered.

38999 Series III

Integrated Backshell



Description

- Derived from standard MIL-DTL-38999 Series III
- Plug in 9 sizes (from size 09 to 25)
- Black zinc nickel, cadmium and nickel plating

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 O142)
 - . Synthetic lubricating: MIL-L-23699 (OTAN O156), MIL-L-7808
 - . Cleaning fluid: MIL-DTL-25769 diluted
 - . De-icing fluid: MIL-A-8243
 - . Extinguishing fluid: Bromochloromethane
 - . Cooling fluid: Coolanol

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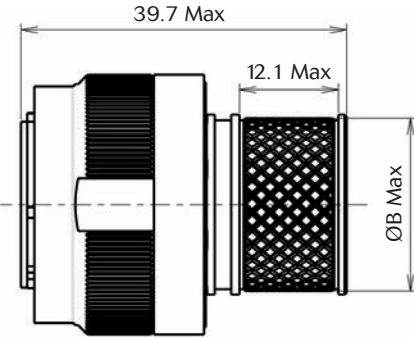
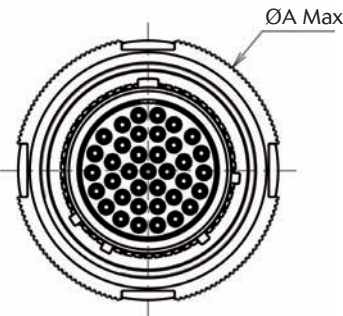

Ordering information

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 B: 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							

Note: Type 0 & Type 7 on request.

Dimensions

Plug Type 5

	09	11	13	15	17	19	21	23	25
ØA	21.8	25	29.4	32.5	35.7	38.5	41.7	44.9	48
ØB	11.1	14.1	17.1	21.1	24.1	27.1	30.1	33.1	36.1

Note: All dimensions are in millimeters (mm)

38999 Series III

Integrated Backshell

Accessories & Tooling

Recommended accessories for wiring

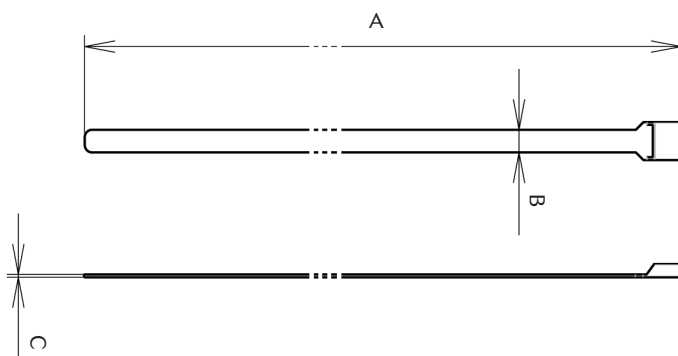
Braid, straight heat shrink boot, elbow heat shrink boot, shield band, ...



Shell size	Shield band (recommended)	Hand banding tool	Rear diameter to fit with boot	Boot straight (recommended)	Boot 90° (recommended)
9	8593-0338A or VG95387T04C001S	85930339A	11.1	VG95343T29A003A	VG95343T29D002A
11			14.1	VG95343T29A003A	
13			17.1	VG95343T29A004A	VG95343T29D003A
15			21.1	VG95343T29A005A	VG95343T29D004A
17			24.1	VG95343T29A006A	VG95343T29D005A
19			27.1		
21			30.1	VG95343T29A007A	VG95343T29D006A
23	8599-9344 or VG95387T04C001S	8599-9346	33.1	VG95343T29A008A	VG95343T29D007A
25	36.1		VG95343T29A008A	VG95343T29D007A	

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

Shield Band Dimension



	8593-0338A or VG95387T04C001S	8599-9344 or VG95387T04C001S
A	200 Min	362.1 ^{±1.5}
B	2.5 Min / 4 Max	6.1
C	0.35 min / 0.45 Max	0.5

Note: All dimensions are in millimeters (mm)

38999 Series III

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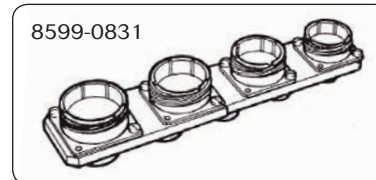
Accessories & Tooling

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 receptacle 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		Locator Part number	
			MIL Spec	Souriau	MIL Spec	Souriau
#22D	Pin	8599-0702 JJ	-	-	M22520/2-09	8476-09
	Socket	8599-0706 900	-	-	M22520/2-07	8476-07
#20	Pin	8599-0703 SA	M22520/1-04	8365-04	M22520/2-10	8476-10
	Socket	8599-0707 900				
#16	Pin	8599-0704 MJ	M22520/1-04	8365-04	-	-
	Socket	8599-0708 900			-	-
#12	Pin	8599-0705 MJ	M22520/1-04	8365-04	-	-
	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 contactmilaero@souriau.com or visit our web site www.souriau.com