

Miniature Threaded Coupling Connector

Space saving with scoop proof connector designed for any harsh application where both size and EMI shielding are critical.

A compact solution ■ Diameter up to 45% smaller than D38999 size 9. Integrated backshell: up to 40% shorter.

A high density solution ■ With #26 contacts (according 39029). 6 layouts (size 3, 5 and 7 with #22 & #26).

Excellent features ■ Designed for D38999 requirements. IP67 sealing when mated. EMI ring and ratcheting system.

RoHS and Cadmium free ■ Available in zinc nickel (RoHS) plating, as well as nickel and olive drab cadmium.

Not QPL listed.



Miniature sizes

- **A compact solution**
 - The smallest connector available on the market (shell size 3)
 - Miniaturization of MIL-DTL-38999 Series III
 - Threaded coupling (between 1/2 and 3/4 turn to mate) with ratcheting system (size 5 & 7)
 - Integrated backshell:
 - . Easy to wire and handle
 - . Compatible with heat shrink boot and braid retention band
 - . Compliant with overmolding
 - Triple-start thread
- **A versatile solution**
 - 3 shell sizes (3, 5, 7), 4 shell types
 - 2 materials, 4 platings
 - Crimp & PC tails contacts
 - Removable contacts #22D & #26
 - 6 keyings
- **Harsh environment-resistant solution**
 - Scoop Proof
 - Cavity to cavity sealed with interfacial seal and grommet
 - EMI ring (for size 5 & 7)
 - Fluid resistant

Technical features

Mechanical

- **Shell:**
 - Aluminum alloy
 - Passivated stainless steel (for size 5 & 7)
- **Shell plating:**
 - Aluminum:
 - . Zinc nickel (RoHS)
 - . Nickel (RoHS)
 - . Olive drab cadmium
 - Passivated stainless steel (RoHS)
- **Insulator:** Thermoplastic
- **Contact body:** Copper alloy
- **Contacts plating:** Gold over nickel plated
- **Shell endurance:**
 - Aluminum:
 - 500 mating/unmating cycles
 - Passivated stainless steel:
 - 1000 mating/unmating cycles
- **Vibration:**
 - 44 grms @125°C, 2 axes during 8 hours
- **Shock:**
 - 300g, 3 ms

Electrical

- **Wire size**

Layouts	Wire (AWG)
03-05; 05-06; 07-09	24-30
03-35; 05-35; 07-35	22-28
- **Test voltage (at sea level):**
 - Size 22D: 1000 Vrms
 - Size 26: 400 Vrms
- **Contact resistance:**
 - Size 22D: <14.6 mΩ
 - Size 26: <16 mΩ
- **Contact rating:**
 - Size 22D: 5A
 - Size 26: 3A
- **Contact retention:**
 - Size 22D: 45N
 - Size 26: 30N
- **Shell to shell continuity (typical value)**

Shell size	Aluminum version	Stainless steel version
3	X	
5	10 mΩ	60 mΩ
7		
- **EMI:**
 - Aluminum: -70dB @ 1GHz
 - Passivated stainless steel: -55 dB @ 1Ghz

Environmental

- **Temperature range:**
 - 55°C to +175°C
- **Water immersion:**
 - IP 67 on mated connector
 - 1 meter for 30 min minimum
 - > IP68 with appropriate cable termination
- **Salt spray:**
 - Zinc nickel: 500 hours
 - Nickel: 48 hours
 - Olive drab cadmium: 500 hours
 - Passivated stainless steel: 250 hours

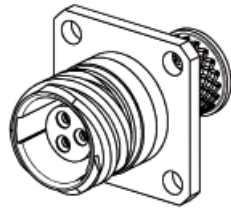
Resistance to fluids

- **According to MIL-DTL-38999 standard**
 - Gasoline: JP5 (OTAN F44)
 - Mineral hydraulic fluid: MIL-H-5606 (OTAN H515)
 - Synthetic hydraulic fluid: Skydrol 500 B4
- **Compatible with de-icing fluids containing potassium acetate**

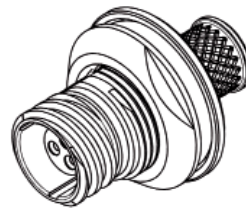
Shell types



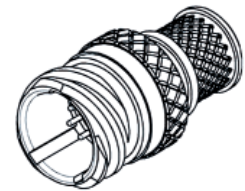
Plug



Square flange receptacle
(PC tail version available)



Jam nut receptacle
(PC tail version available)



In line
receptacle

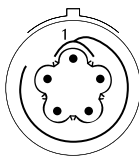
For other configuration, please consult us.

Contact layouts

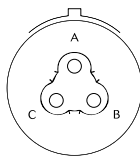
03

05

35



5#26



3#22D

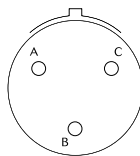
05

06

35



6#26

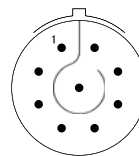


3#22D

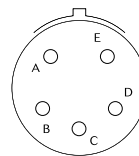
07

09

35



9#26



5#22D

Size 3: Marking on shell.

Rear view of receptacle for male and female insulator. Opposite marking between plug and receptacle.

Sizes 5 and 7: Marking on insulator. Rear view of male insulator for plug and receptacle. Opposite marking between male and female insulator.

Ordering information

Basic Series	8DA	0	03	W	05	P	N
Shell type: 0: Square flange receptacle 1: In line receptacle 5: Plug with EMI ring (Size 5 & size 7) 6: Plug without EMI ring (Size 3 only) 7: Jam nut receptacle 90: Square flange receptacle with PCB contacts 97: Jam nut receptacle with PCB contacts							
Contact type: None: Standard crimp contacts C: Short PC tail L: Long PC tail (consult us)							
Shell size: 03, 05, 07							
Plating : Z: Black zinc nickel F: Nickel W: Olive drab cadmium K: Passivated stainless steel (only for sizes 05 & 07 with standard crimp contacts)							
Contact layouts: See above							
Contact type: P: Pin (Shell size 3 scoop proof only when pin contacts mounted in Type 6) S: Socket (Shell size 3 scoop proof only when socket contacts mounted in Types 0, 1 or 7) - not available for PCB version							
Orientation: N, A, B, C, D, E (see page 7)							

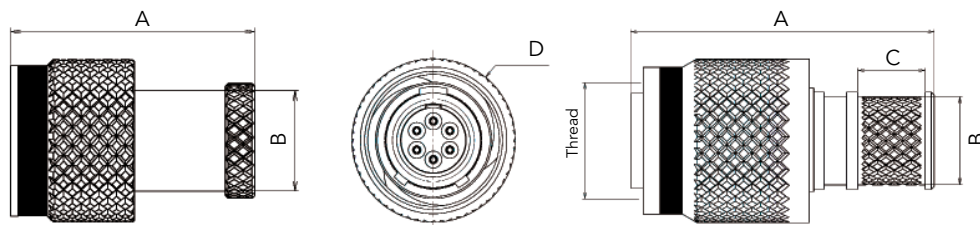
Connector weights

Aluminum version - in gram $\pm 10\%$

Shell size & layout	Plug		Square flange receptacle		Jam nut receptacle	
	Without contacts	With crimp contacts	Without contacts	With crimp contacts	Without contacts	With crimp contacts
3-05	2.4	2.5	1.9	2.1	3	3.1
5-06	6	6.2	5.4	5.8	6	6.4
7-09	6.5	6.8	6	6.5	7	7.5

Dimensions

Plug - Shell type 5 & 6

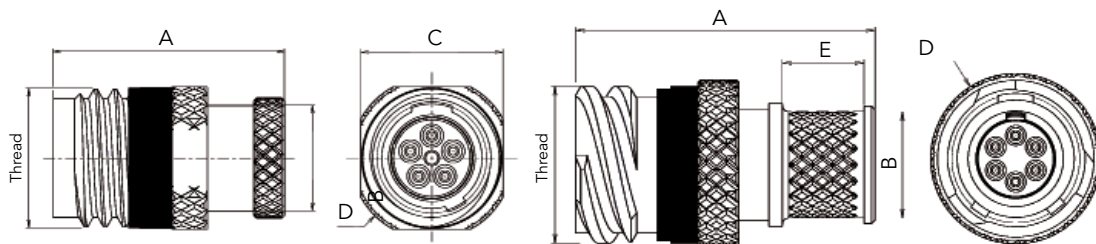


Shell size 3

Shell size 5 & 7

Shell size	Thread	A Max	ØB Max	C Max	ØD Max
3	3-05	-	17	7	-
	3-35	-	17.5	7	-
5	5/11"-1P	28	8	6.1	15
7	1/2"-1P	28	9.5	6.1	16

In line receptacle - Shell type 1



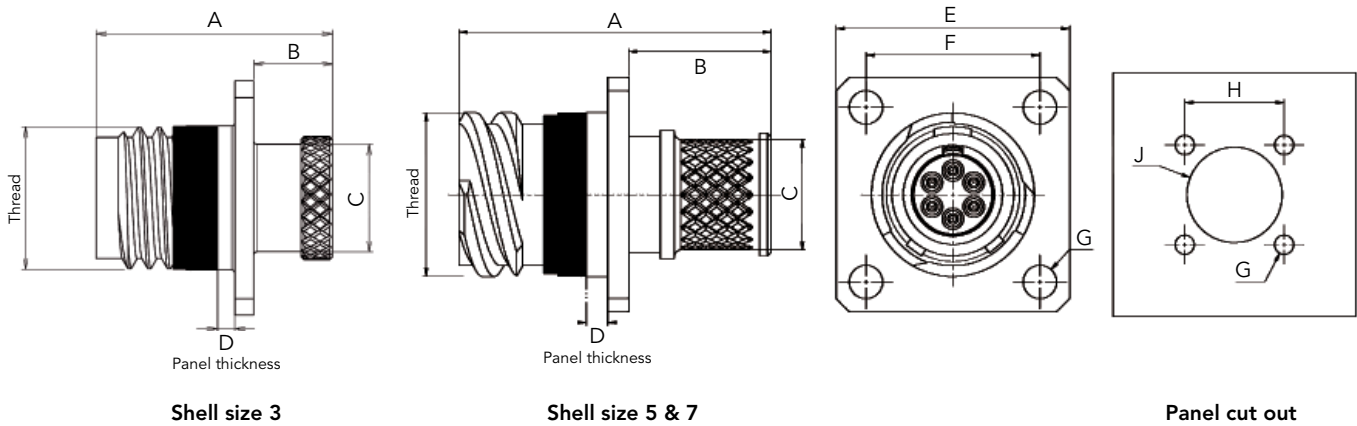
Shell size 3

Shell size 5 & 7

Shell size	Thread	A Max	B Max	C Max	ØD Max	E Max
3	M9	15.5	7	9.3	11	-
5	5/11"-1P	23	8	-	13	6.1
7	1/2"-1P	25	9.5	-	13.5	6.1

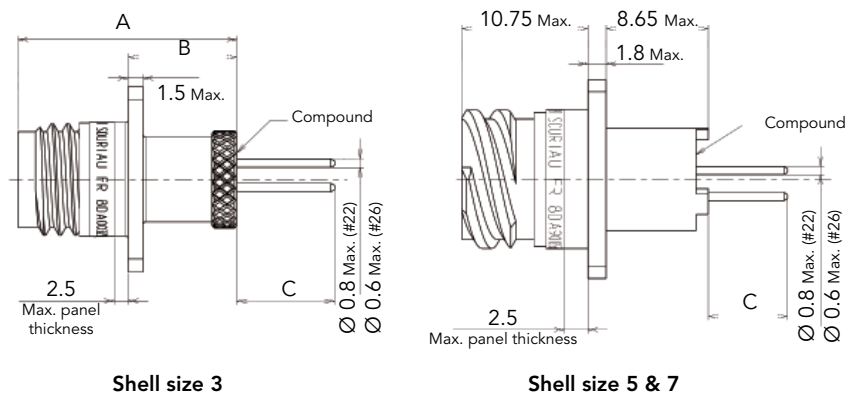
Note: All dimensions are in millimeters (mm)

Square flange receptacle - Shell type 0



Shell size	Thread	A Max	B Max	ØC Max	D Max	E Max	F Max	ØG Max	H Max	ØJ Max	
3	3-05	M9	15	5	6.8	2.5	15	10.5	2.35 ^{+0.08}	10.5	9.5
	3-35	M9	18	8	6.8	2.5	15	10.5	2.35 ^{+0.08}	10.5	9.5
5	5/11"-1P	23	10.5	8	2.5	16.6	12.27	2.35 ^{+0.08}	12.27	11.75	
7	1/2"-1P	25	13	10	2.5	18	13.84	2.35 ^{+0.08}	13.8	12.95	

Square flange receptacle with PC tail contacts - Shell type 90

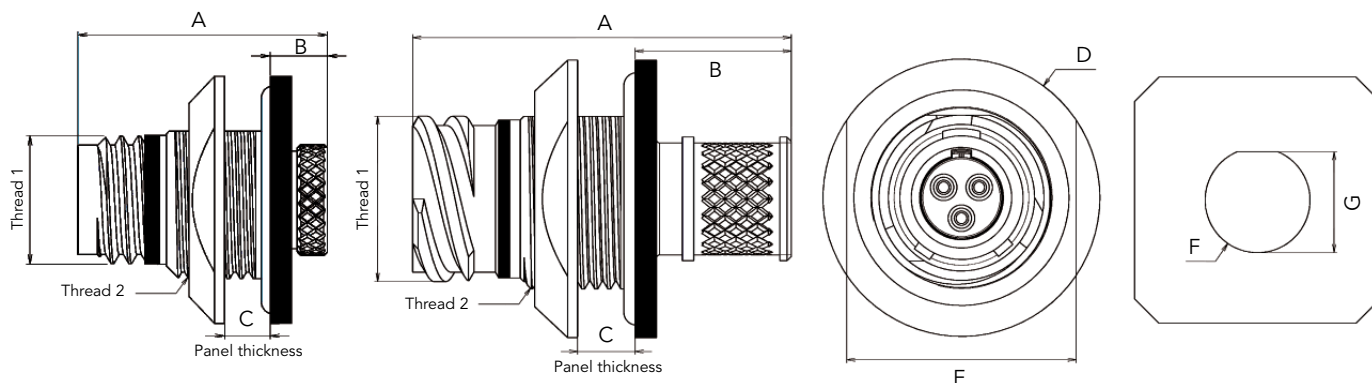


Layout	A Max.	B Max.	C Min.	C Max.
03-05	15	6.5	8.47	9.47
03-35	18	9	7.39	8.12
05-06	-	-	5.89	7
05-35	-	-	5.87	6.9
07-09	-	-	6.04	7
07-35	-	-	5.82	6.9

Shell design vary according to shell size.
For L contact (long PC tail) please consult us.

Note: All dimensions are in millimeters (mm)

Jam nut receptacle - Shell type 7



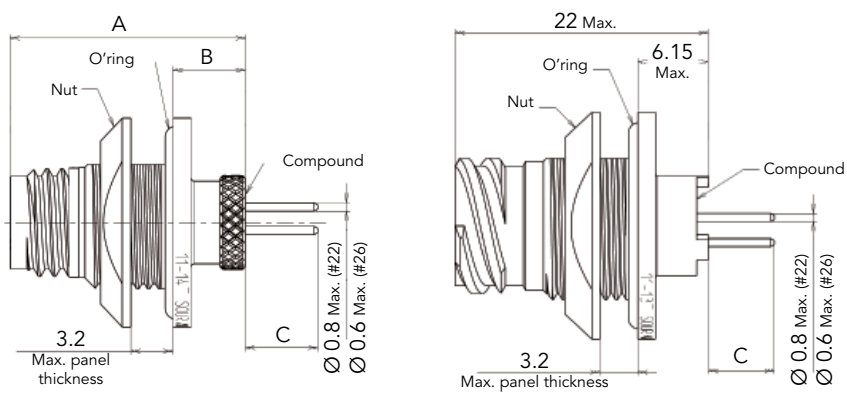
Shell size 3

Shell size 5 & 7

Panel cut out

Shell size	Thread 1	Thread 2	A Max	B Max	C Max	ØD Max	E Max	ØF Max	G Max	
3	3-05	M9	7/16"28 UNEF 2A	18	4.5	3.2	18	14	11.3	10.6
	3-35	M9	7/16"28 UNEF 2A	20	6.5	3.2	18	14	11.3	10.6
5	5/11"-1P	1/2"28 UNEF 2A	27	11	3.2	19.5	16	12.8	12.3	
7	1/2"-1P	9/16"24 UNEF 2A	27	11.5	3.2	21	17	14.5	13.8	

Jam nut receptacle with PC tail contacts - Shell type 97



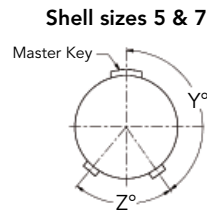
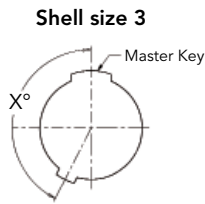
Shell size 3

Shell size 5 & 7

Layout	A Max.	B Max.	C Min.	C Max.
03-05	18.5	4.2	5.87	6.97
03-35	20.5	6.2	5.19	6.02
05-06	-	-	4.86	5.95
05-35	-	-	4.82	5.85
07-09	-	-	4.99	5.95
07-35	-	-	4.77	5.85

Shell design vary according to shell size.
For L contact (long PC tail) please consult us.

Orientations



Shell size	Angles	N	A	B	C	D	E
3	X°	153	51	102	204	255	306
5 & 7	Y°	145	130	110	155	90	90
	Z°	75	120	120	115	115	180

Viewed from front face of plug

Aluminum caps

Basic Series	8DAC	32	Z	03	N
Cap type:					
32: Cap for plug					
33: Cap for receptacle					
Plating:					
Z: Black zinc nickel					
F: Nickel					
W: Olive drab cadmium					
Shell size: 03, 05, 07					
Style:					
N: Ring					
R: Eyelet					

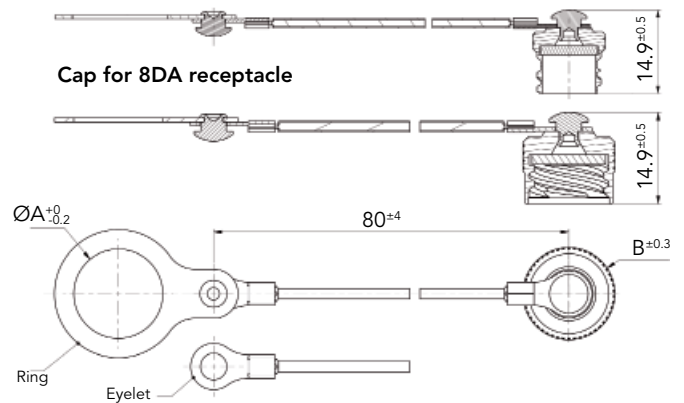
Gaskets

Shell size	Part number
3	8DA0G03
5	8DA0G05
7	8DA0G07

Dimensions

Cap for 8DA plug

Cap for 8DA receptacle



Shell size	A	B Plug	B Recep.
03	11.5	11	12.5
05	13.5	13	15
07	14.5	14	17

Note: for other lanyard length please consult us.

Note: All dimensions are in millimeters (mm)

For further information contact us at contactmilaero@souriau.com or visit our web site www.souriau.com