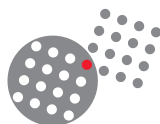




Miniature Product with a Threaded Coupling

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 size 9 (D38999). Up to 40% shorter.
- A high density solution** ✓ With #26 contacts (according 39029). 5 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.
- Robustness** ✓ Connector available with stainless steel (1500 matings) and aluminum shell (500 matings).
- Integrated backshell** ✓ Cost and space saving.





Description

- **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 shells sizes: 3, 5, 7
 - Plug; In line, square flange and jam nut receptacle
 - 2 materials, 3 platings
 - Crimp & PC tails (on request)
 - 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**

Layout	Wire (AWG)
03-05	24-30
03-35	22-28
05-06	24-30
05-35	22-28
07-09	24-30
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**

Shell size	Aluminum version	Stainless steel version
3	< 10 mΩ	< 60 mΩ
5		
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: 500 hours

Resistance to fluids

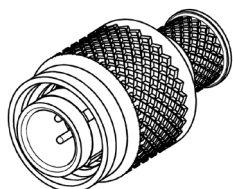
- **According to MIL-DTL-38999 standard**
 - Gasoline: JP5 (OTAN F44)
 - Mineral hydraulic fluid: MIL-H-5606 (OTAN H515)
 - Synthetic hydraulic fluid: Skydrol 500 B4
- **Compatible with de-icing fluids containing potassium acetate**

micr 38999

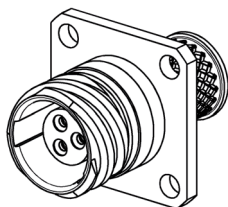
8DA Threaded Coupling



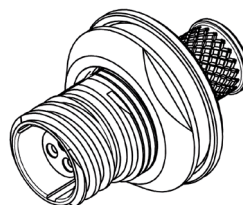
Shell type



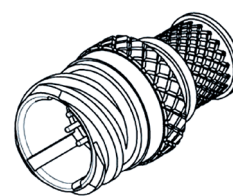
Plug



Square flange receptacle



Jam nut receptacle



In line receptacle

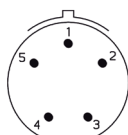
For other configuration (PC tail, specific jam nut, ...) please consult us.

Contact layouts

Ø3

Ø5

35



5#26

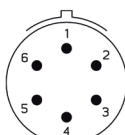


3#22D

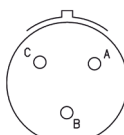
Ø5

Ø6

35



6#26



3#22D

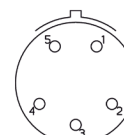
Ø7

Ø9

35



9#26



5#22D

Ordering information

Basic Series	8DA	Ø	Ø3	W	Ø5	P	N
Shell type: Ø: 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							
Shell size: Ø3 - Ø5 - Ø7							
Plating : Z: Black zinc nickel F: Nickel W: Olive drab cadmium K: Passivated stainless steel (except for size 3)							
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 Type 1 & Type 7)							
Orientation: N, A, B, C, D, E							

Note: Ø = Zero

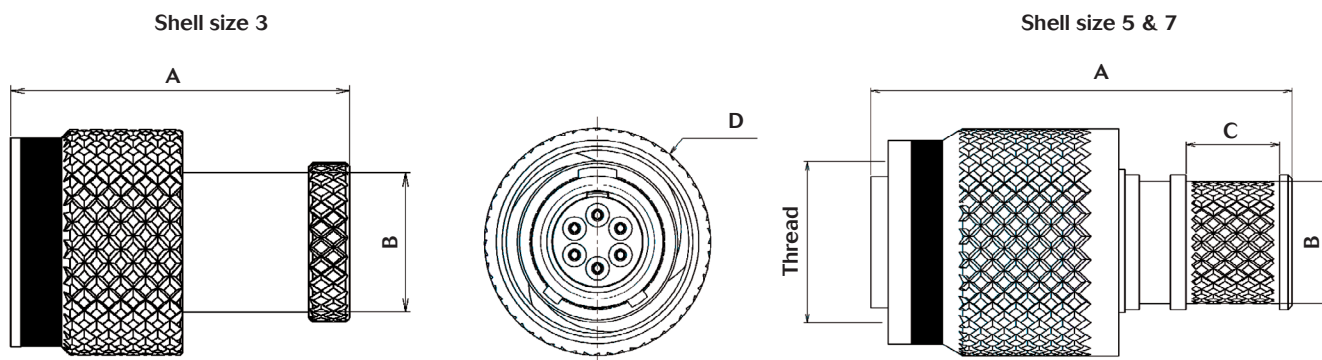
micr 38999

8DA Threaded Coupling



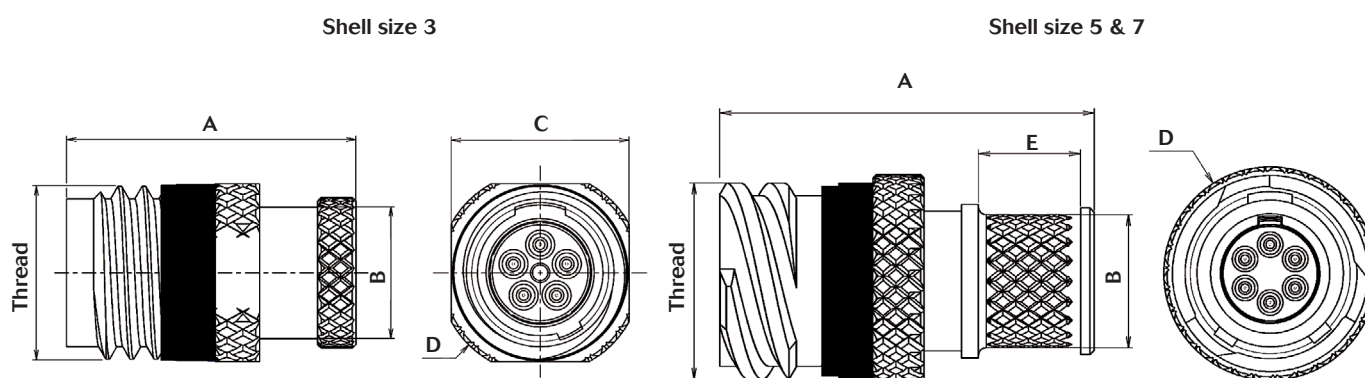
Dimensions

Plug - Shell type 5 & 6



Shell size	Thread	A Max	Ø B Max	C Max	Ø D Max
3	3-05	-	7	-	11.5
	3-35	-	7	-	11.5
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

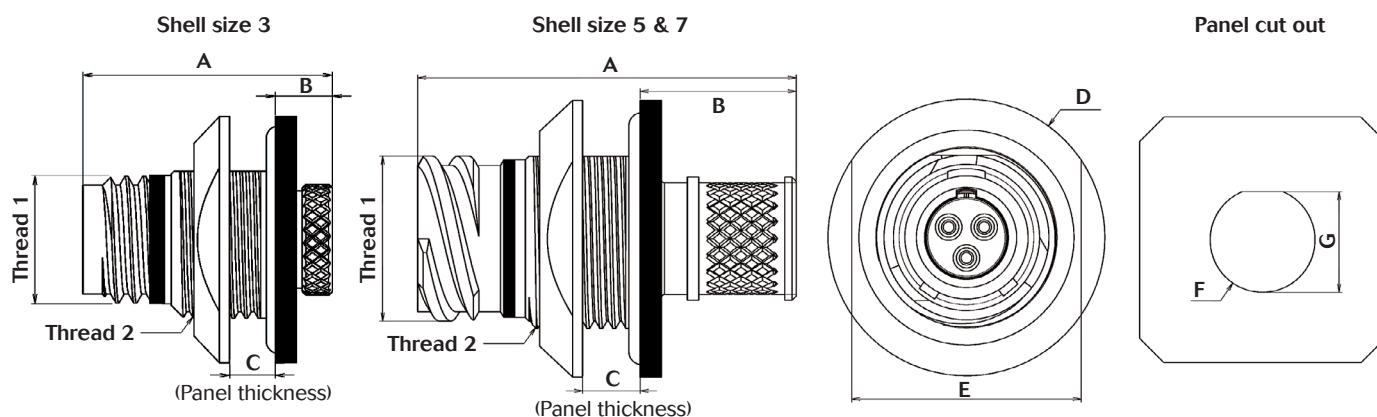


Shell size	Thread	A Max	B Max	C Max	Ø D Max	E Max
3	M9	15.5	7	9.3	11	-
5	5/11"-1P	23	8	-	13	6.1
7	1/2"-1P	25	9.5	-	13.5	6.1

Note: All dimensions are in mm.

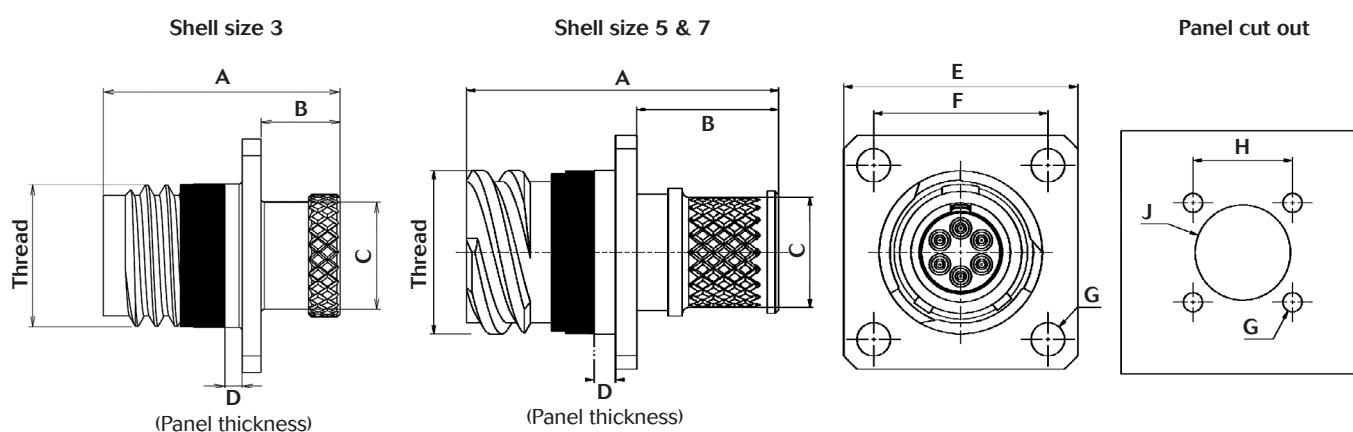


Jam nut receptacle - Shell type 7



Shell size	Thread 1	Thread 2	A Max	B Max	C Max	Ø D Max	E Max	Ø F Max	G Max
3	3-05	M9	7/16"28 UNEF 2A	18	4.5	3.2	18	14	11.3
	3-35	M9	7/16"28 UNEF 2A	20	4.5	3.2	17.5	14	11.3
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	20.8	17	14.5	13.8

Square flange receptacle - Shell type 0



Shell size	Thread	A Max	B Max	Ø C Max	D Max	E Max	F Max	Ø G Max	H Max	Ø J Max
3	M9	15	5	6.8	2.5	15	10.5	2.35 $\pm$ 0.08	10.5	9.5
5	5/11"-1P	23	10.5	8	2.5	16.6	12.27	2.35 $\pm$ 0.08	12.27	11.75
7	1/2"-1P	25	13	10	2.5	18	13.84	2.35 $\pm$ 0.08	13.8	12.95

Note: All dimensions are in mm.

micro38999

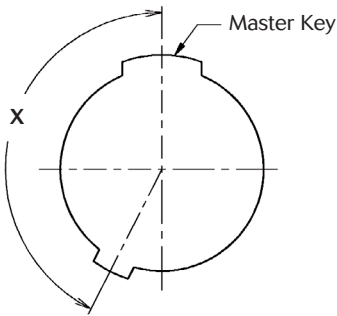
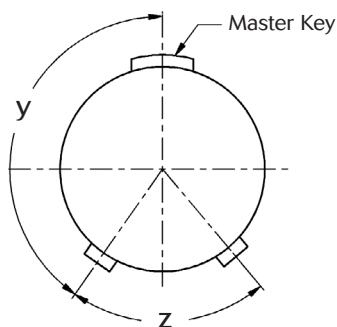
8DA Threaded Coupling



Connector weights

Weight				
Aluminum version (in gram $\pm 10\%$)				
Shell size & layout	Plug		Square flange receptacle	
	Without contacts	With contacts	Without contacts	With contacts
3-05	1.7	1.8	1.9	2.1
5-06	2.8	3	5.4	5.8
7-09	3.6	3.9	6	6.5

Orientations

Orientation - All shell types							
Shell size 3 				Shell size 5 & 7 			
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

For further information contact us at contactmilaero@souriau.com
or visit our web sites www.souriau.com & www.micro38999.com