



SOURIAU

micr 38999

A Complete Miniature Range

Threaded, Break Away, Bayonet

Esterline 
Connection Technologies



Presentation

- The micro38999 ranges are made to meet a new generation of applications where space and weight are limited (Tactical radio, UAV, on board equipment, infantry, C4ISR, instrumentation, small equipment for industry, ...).
- The micro38999 is the first complete platform of miniature products available on the market with a 38999 design in order to be compliant with the harshest specification (Vibration, operating temperature, durability, corrosion resistance, EMI shielding, ...)

micro38999
is your solution for:

- Compactness
- Density
- 38999 design
- Robustness
- Space & weight saving

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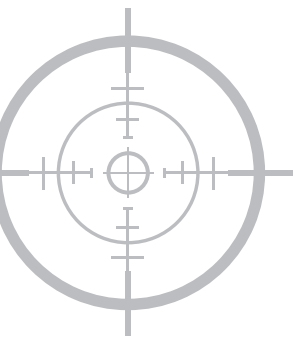
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major 3899



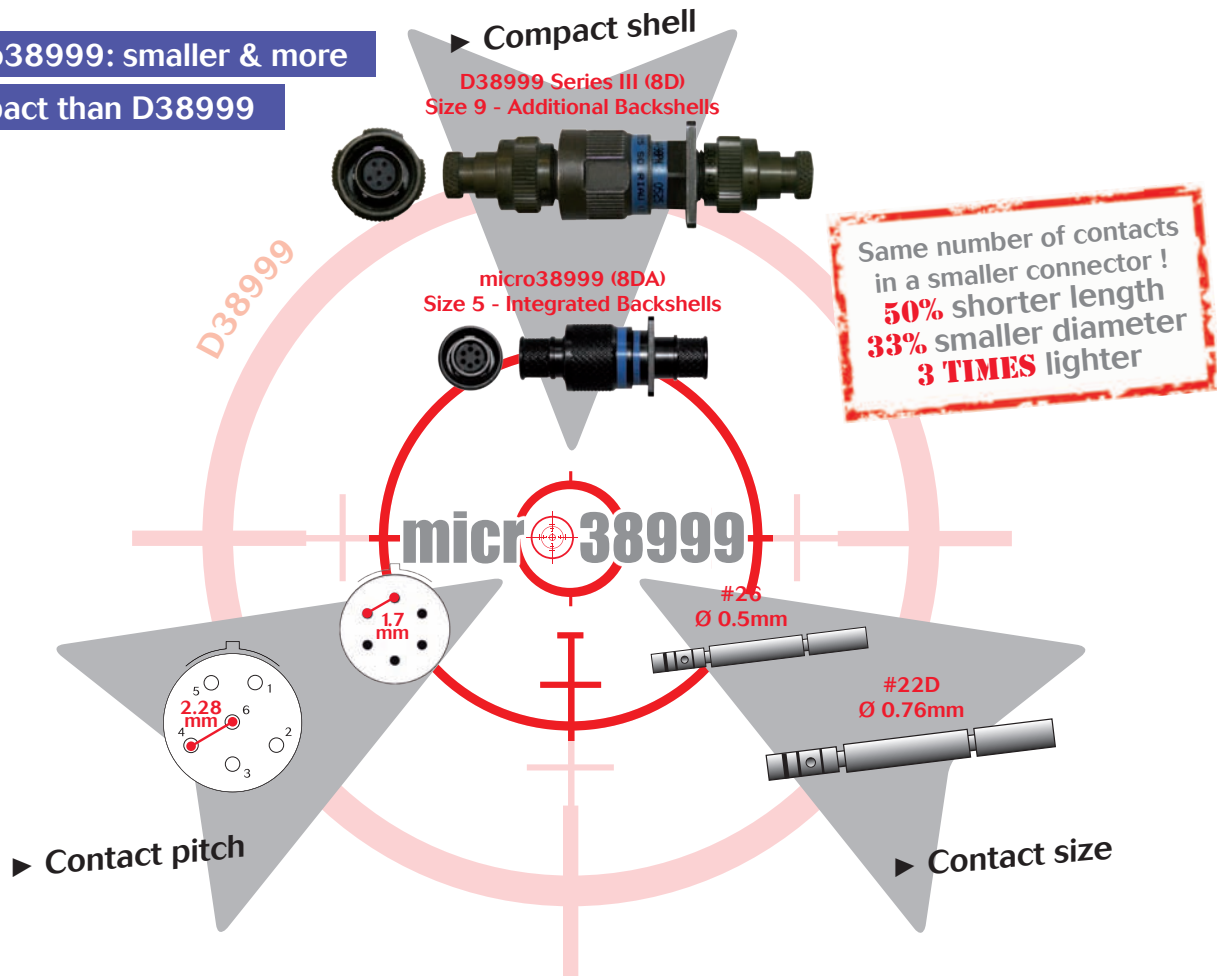
Overview

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micro38999/D38999 comparison

micro38999: smaller & more compact than D38999



Although smaller, micro38999 has all the features and excellence of D38999



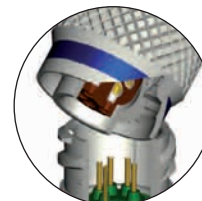
- High grade thermoplastic insert
- Silicone elastomer grommet and sealing - from -55° to 175°C as in D38999



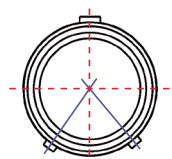
- Ratcheting system - Vibration: 44 grms @ 125°C
- EMI shielding - As in D38999



- Triple-start thread
- Contacts according to M39029 design
- EMI grounding - Connection as in D38999



- Scoop proof - Contacts protected like D38999



- 6 keyings - Same as D38999

Not QPL listed.



A wide miniature 38999 product ranges

3 coupling systems

► Threaded (8DA)



Plug



In line receptacle



Jam nut receptacle



Square flange receptacle



Square flange receptacle
PC tail contacts



Jam nut receptacle
PC tail contacts

► Break away (8BA)



Plug



In line receptacle



Jam nut receptacle

► Bayonet (8LTA)



Plug



In line receptacle



Jam nut receptacle



Square flange receptacle



Oval flange receptacle



Square flange receptacle
PC tail contacts



Oval flange receptacle
PC tail contacts



Jam nut receptacle
PC tail contacts

2 removable contacts



► AWG 26
#26: Ø 1.29mm



► AWG 22
#22D: Ø 1.5mm

2 materials 3 platings

Black Zinc Nickel
on aluminum



Nickel
on aluminum



Cadmium
on aluminum

Stainless
steel



6 layouts, 3 sizes

3-05



5#26

3-35



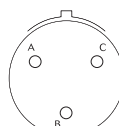
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5-06



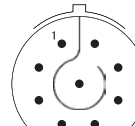
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5-35



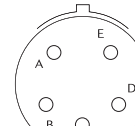
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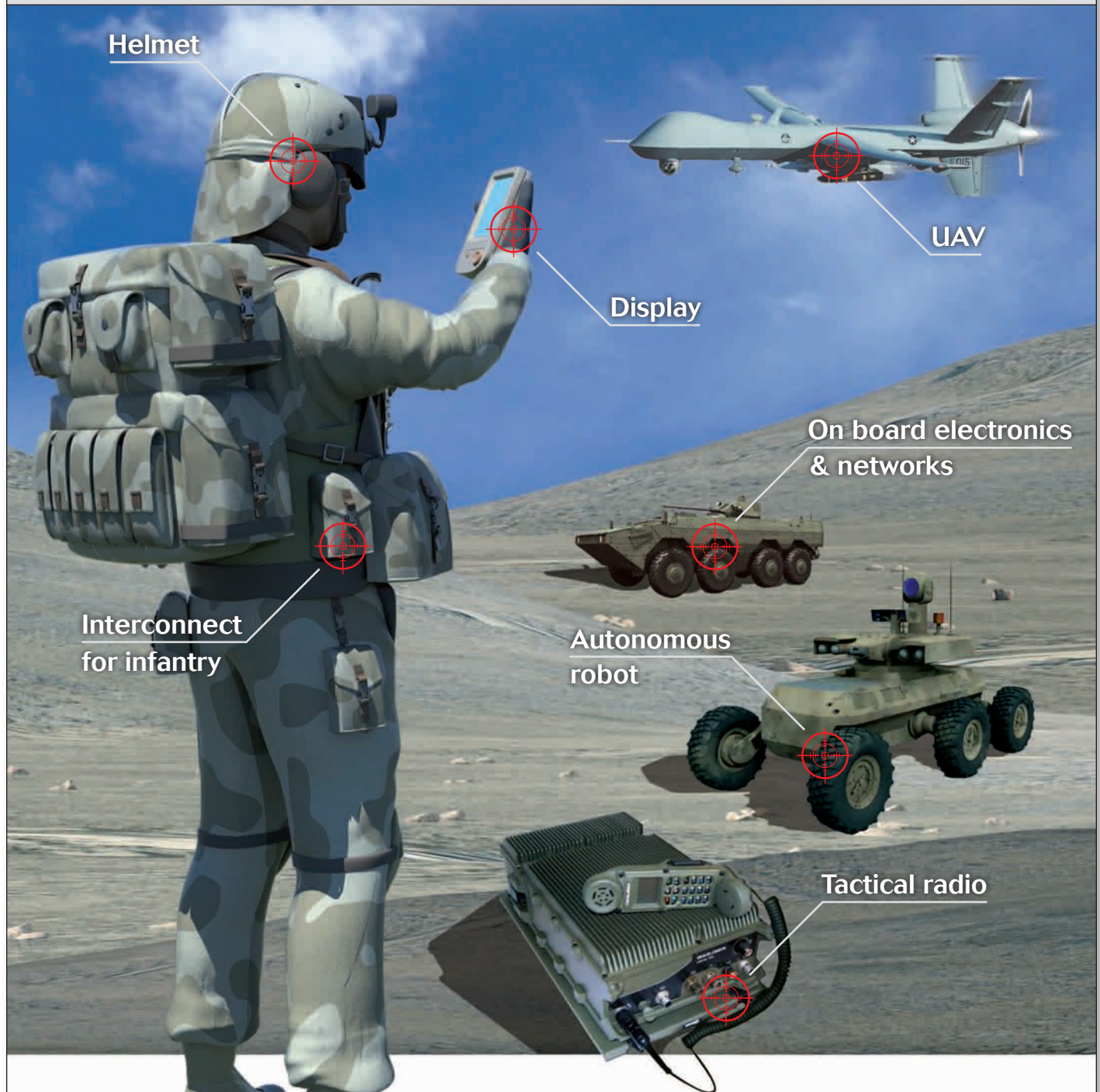
7-35



5#22D



Defense applications overview



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Space and weight saving for Defense...



Industrial applications overview



... and for Industry !



The micro38999 product matrix - Possible applications

					
	► Tactical radio or network systems Switch, docking station, power supply...	► Infantry Battery charger, display, helmet, radio, ...	► Autonomous robot Control unit, solar, data transmission...	► On board equipment UAV, Missile, civil & military aircraft, control unit, actuator, network and transmission system...	► Industrial equipment Instrumentation, small equipment for industry, ...
►  Threaded (8DA) p.14					
►  Break away (8BA) p.20					
►  Bayonet (8LTA) p.24					



Worldwide sales network

SOURIAU is recognized as one of the top international manufacturers of connectors for harsh environment and is continuously strengthening its leading position through its solid structure as an international group. Today the SOURIAU group has a strong global presence and operates 24 facilities (10 production sites and 14 offices) on 4 continents:

- 15 in Europe,
- 4 in Americas,
- 4 in Asia
- 1 in Africa.

Our international presence is reinforced by 26 franchised and value added distributors in 14 countries.

We also rely upon an extensive network of distributors and resellers worldwide. This coverage, together with a strong commitment towards service, ensures rapid responses to the specific needs of our customers.



- SOURIAU Operations & Sales Offices
- Franchised & Value Added Distributors

SOURIAU



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Series

■	8DA - Threaded coupling:	
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	Connector weights	29

micr⁺38999

8DA - Threaded



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
 - 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 (typical value)**

Shell size	Aluminum version	Stainless steel version
3		NA
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: 500 hours

Resistance to fluids

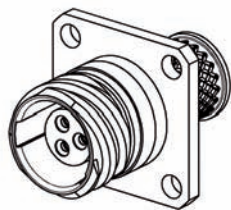
- **According to MIL-DTL-38999 standard**
 - Gasoline: JP5 (OTAN F44)
 - Mineral hydraulic fluid: MIL-H-5606 (OTAN H515)
 - Synthetic hydraulic fluid: Skydrol 500 B4
- **Compatible with de-icing fluids containing potassium acetate**



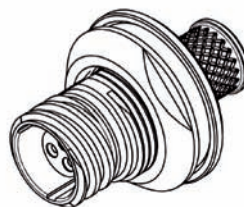
Shell type



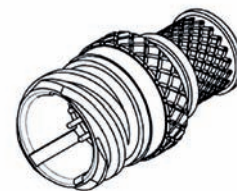
Plug



Square flange
receptacle



Jam nut
receptacle



In line
receptacle

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

Contact layouts

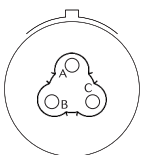
03

05



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35



3#22D

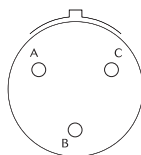
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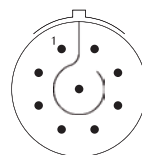
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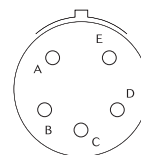
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9#26

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5#22D

Note: For information only.

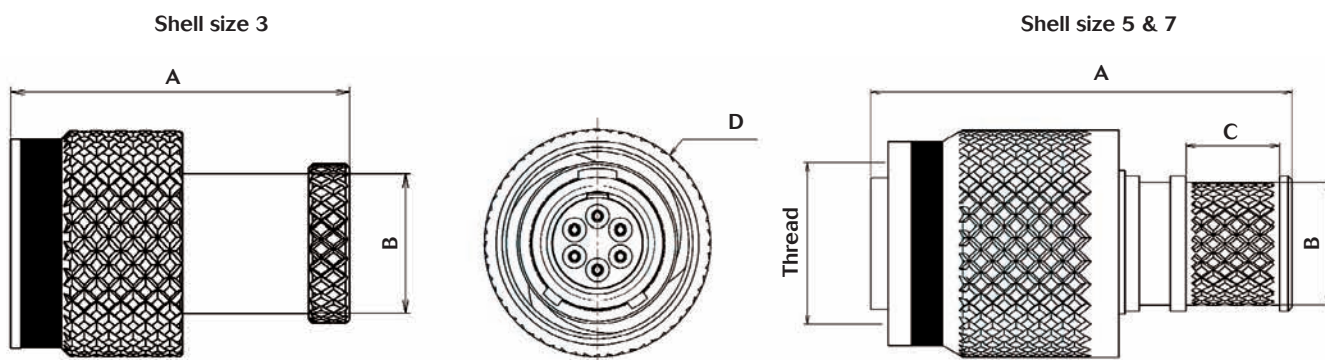
Ordering information

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 35)							



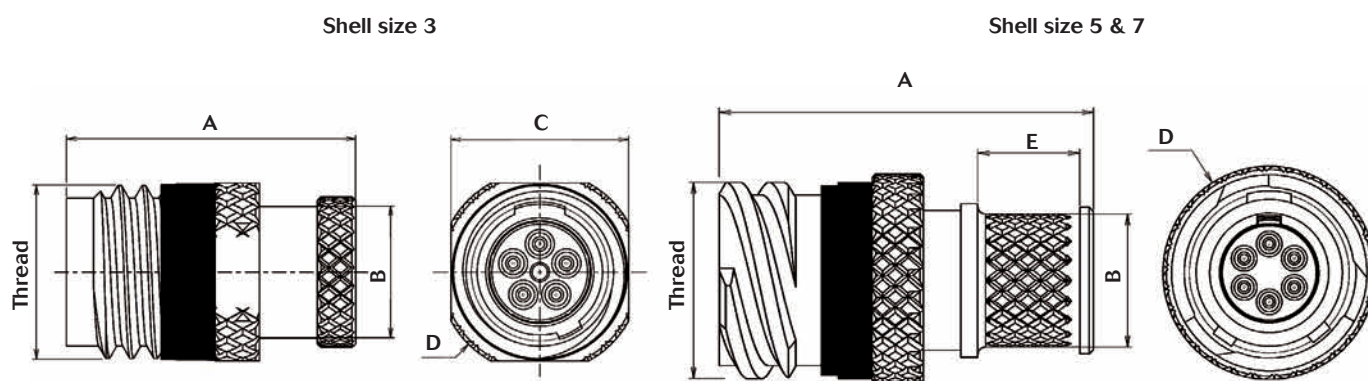
Dimensions

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

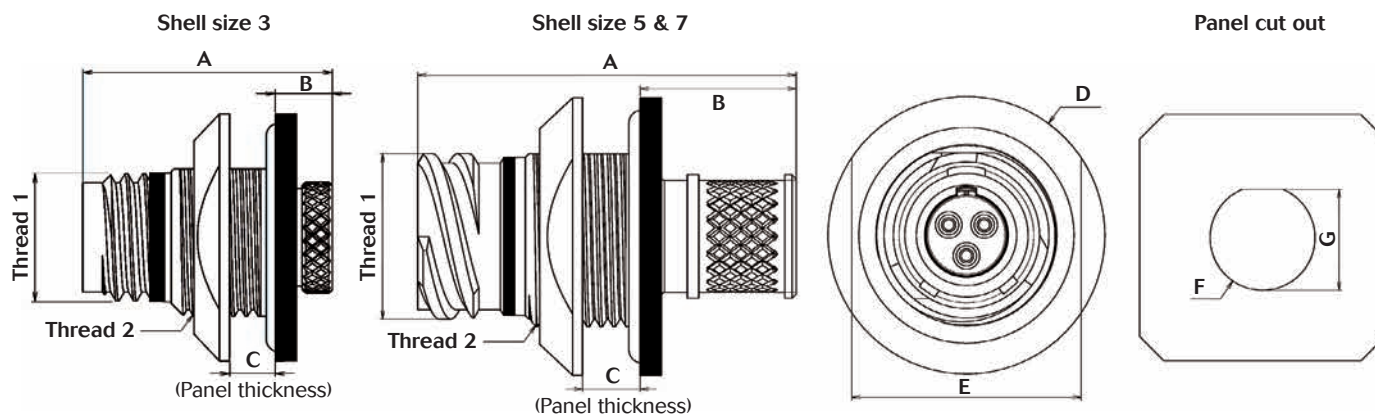


Shell size	Thread	A Max	B Max	C Max	Ø D Max	E Max
3	M9	15.5	7	9.3	11	-
5	5/11"-1P	23	8	-	13	6.1
7	1/2"-1P	25	9.5	-	13.5	6.1

Note: All dimensions are in mm.

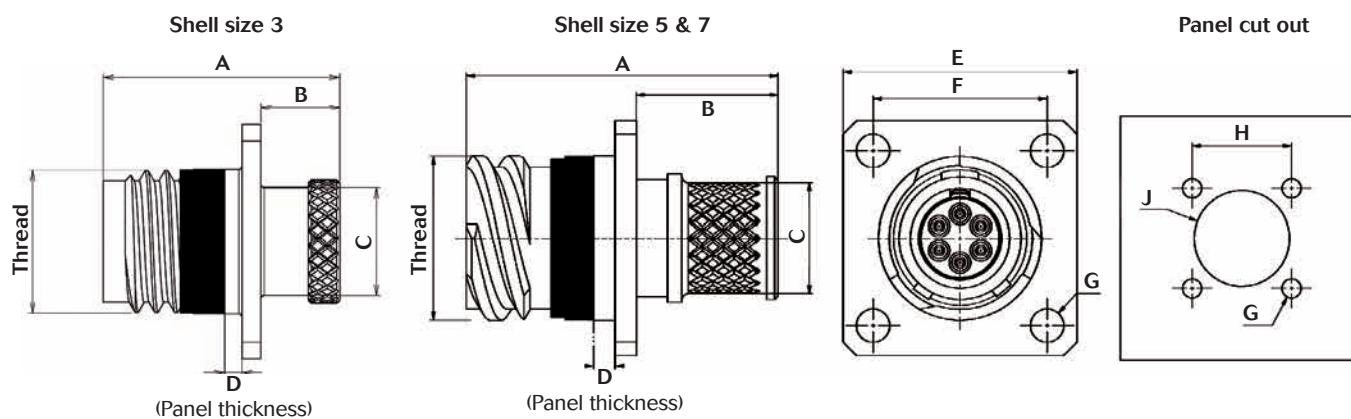


Jam nut receptacle - Shell type 7



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	10.6
	3-35	M9	7/16"28 UNEF 2A	20	4.5	3.2	17.5	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	20.8	17	14.5	13.8

Square flange receptacle - Shell type 0

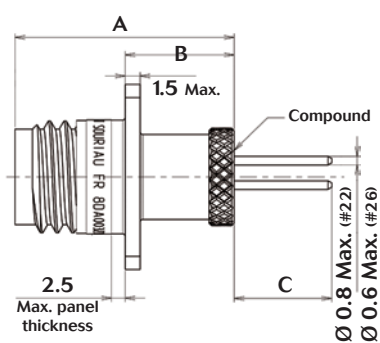


Shell size		Thread	A Max	B Max	Ø C Max	D Max	E Max	F Max	Ø G Max	H Max	Ø J Max
3	3-05	M9	15	5	6.8	2.5	15	10.5	2.35 ^{±0.08}	10.5	9.5
	3-35	M9	18	8	6.8	2.5	15	10.5	2.35 ^{±0.08}	10.5	9.5
5		5/11"-1P	23	10.5	8	2.5	16.6	12.27	2.35 ^{±0.08}	12.27	11.75
7		1/2"-1P	25	13	10	2.5	18	13.84	2.35 ^{±0.08}	13.8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

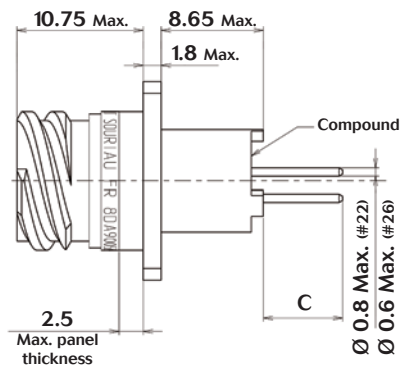
Note: All dimensions are in mm.



Square flange receptacle with PC tail contacts - Shell type 90



Shell size 3

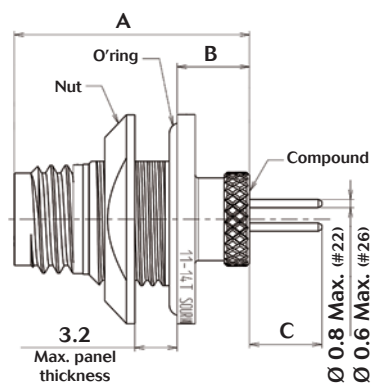


Shell size 5 & 7

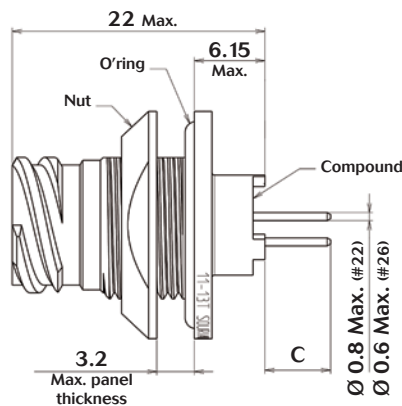
Layout	A Max.	B Max.	C Min.	C Max.
03-05	15	6.5	8.47	9.47
03-35	18	9	7.39	8.12
05-06	-	-	5.89	7
05-35	-	-	5.87	6.9
07-09	-	-	6.04	7
07-35	-	-	5.82	6.9

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

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.



Connector weights

Weight				
Aluminum version (in gram $\pm 10\%$)				
Shell size & layout	Plug		Square flange receptacle	
	Without contacts	With crimp contacts	Without contacts	With crimp 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

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8BA - Break Away



Description

- **A compact solution**
 - The smallest connector available on the market (shell size 3)
 - Break away: quick disconnect
 - Integrated backshell:
 - . Easy to wire and handle
 - . Compatible with heat shrink boot and braid retention band
 - . Compliant with overmolding
- **A versatile solution**
 - 3 shells sizes: 3, 5, 7
 - Plug; In line 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 (when sockets mounted into receptacle only)
 - Cavity to cavity sealed with interfacial seal and grommet
 - 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:**
 - 30 grms ambient, 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 (typical value)**

Shell size	Aluminum version	Stainless steel version
3		NA
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: 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**



Shell type



Plug



In line
receptacle



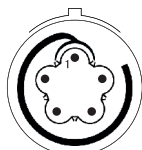
Jam nut
receptacle

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

Contact layouts

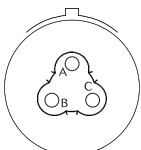
03

05



5#26

35



3#22D

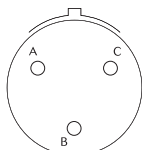
05

06



6#26

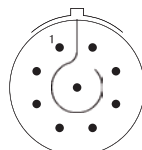
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3#22D

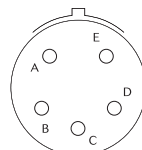
07

09



9#26

35



5#22D

Note: For information only.

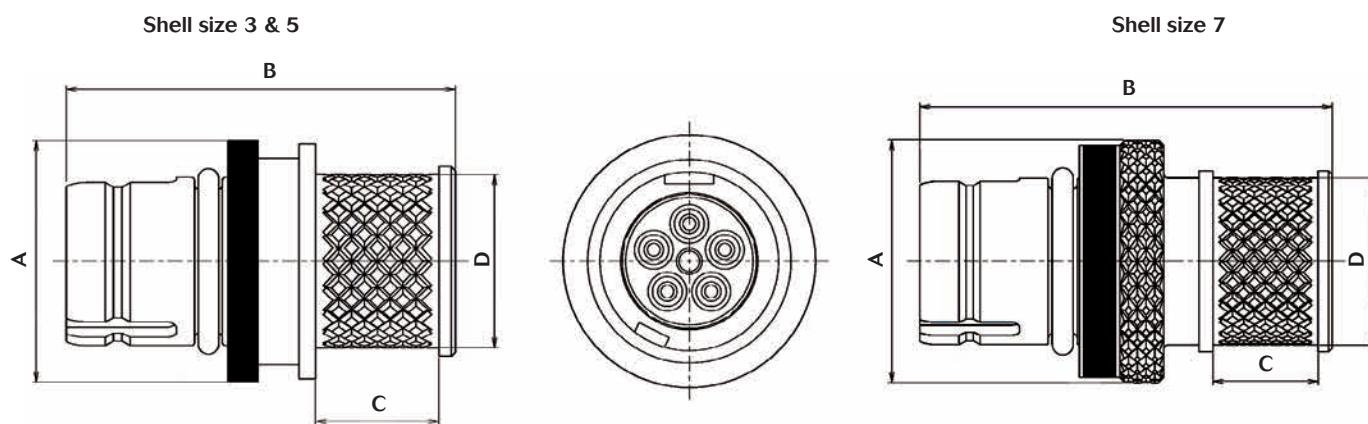
Ordering information

Basic Series	8BA	1	03	W	05	P	N
Shell type:							
1: In line receptacle							
6: Plug							
7: Jam nut receptacle							
Shell size: 03 - 05 - 07							
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							
S: Socket (Scoop proof only when socket contacts mounted in Type 1 & Type 7)							
Orientation:							
N, A, B, C, D, E (see page 35)							



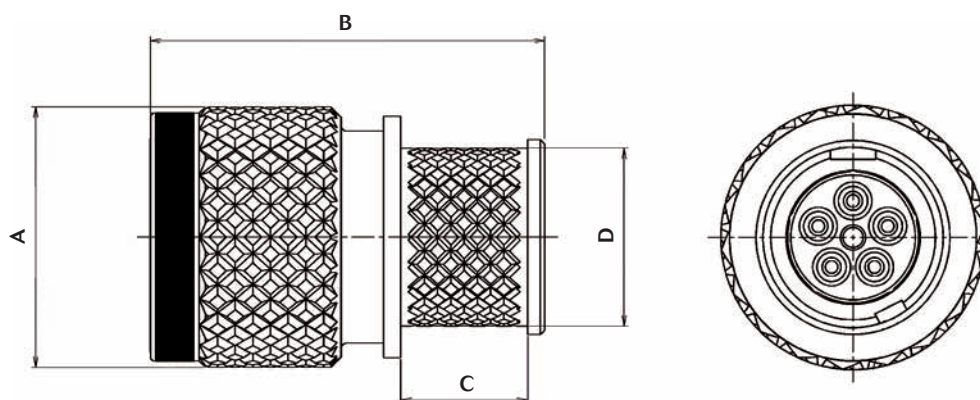
Dimensions

Plug - Shell type 6



Shell size	A	B Max	C Max	Ø D Max
3	10.3	18.4	6.1	7.3
5	12.2	19.4	6.1	8.9
7	14.3	24	6.1	10

In line receptacle - Shell type 1

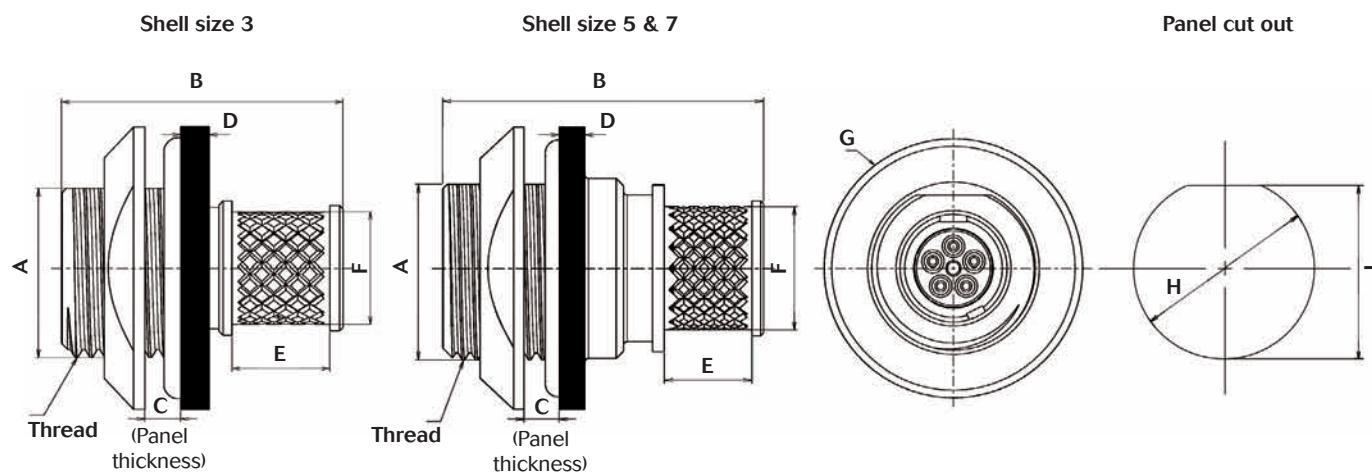


Shell size	A	B Max	C Max	Ø D Max
3	11	17.7	6.1	7.3
5	12.8	19.1	6.1	9
7	14.3	24	6.1	10

Note: All dimensions are in mm.



Jam nut receptacle - Shell type 7



Shell size	Thread	A Max	B Max	C Max	D	E Max	Ø F Max	Ø G Max	Ø H	J
3	7/16"28 UNEF 2A	10.55	17.7	3.2	1.75 ± 0.3	6.1	7.3	17.5	11.3 ± 0.1	10.6 ± 0.05
5	1/2"28 UNEF 2A	12.2	22.5	3.2	1.75 ± 0.3	6.1	8.9	19.5	12.8 ± 0.1	12.3 ± 0.05
7	9/16"24 UNEF 2A	13.6	24	3.2	1.75 ± 0.3	6.1	10	21	14.5 ± 0.1	13.8 ± 0.05

Note: All dimensions are in mm.

Connector weights

Weight

Aluminum version (in gram $\pm 10\%$)

Shell size & layout	Plug		In line receptacle	
	Without contacts	With crimp contacts	Without contacts	With crimp contacts
3-05	1.7	1.8	1.3	1.4
5-06	2.6	2.8	2.9	3.1
7-09	4.3	4.7	4.7	5.1

micr 38999

8LTA - Bayonet



Description

- **A compact solution**
 - The smallest connector available on the market (shell size 3)
 - Miniaturization of MIL-DTL-38999 Series I
 - Quick bayonet locking
 - Integrated backshell:
 - . Easy to wire and handle
 - . Compatible with heat shrink boot and braid retention band
 - . Compliant with overmolding
- **A versatile solution**
 - 3 shells sizes: 3, 5, 7
 - Plug; In line, square flange, oval flange and jam nut receptacle
 - 2 materials, 3 platings
 - Crimp & PC tails
 - Removable contacts #22D & #26
 - 6 keyings
- **Harsh environment-resistant solution**
 - Scoop Proof
 - Cavity to cavity sealed with interfacial seal and grommet
 - 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:
 - 250 mating/unmating cycles
 - Passivated stainless steel:
 - 1000 mating/unmating cycles
- **Vibration:**
 - 30 grms ambient, 2 axes during 8 hours

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 (typical value)**

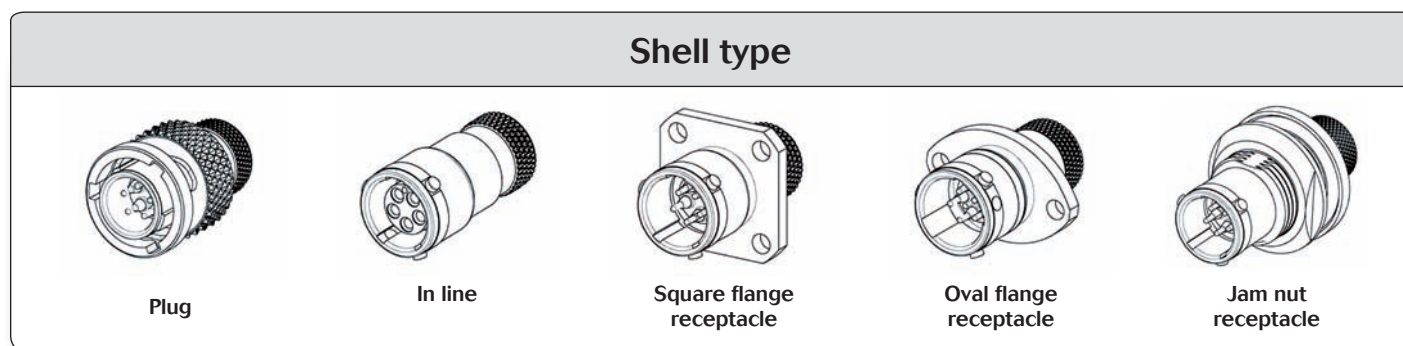
Shell size	All versions
03	250 mΩ
05	
07	
- **EMI:**
 - 55dB @ 1GHz

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

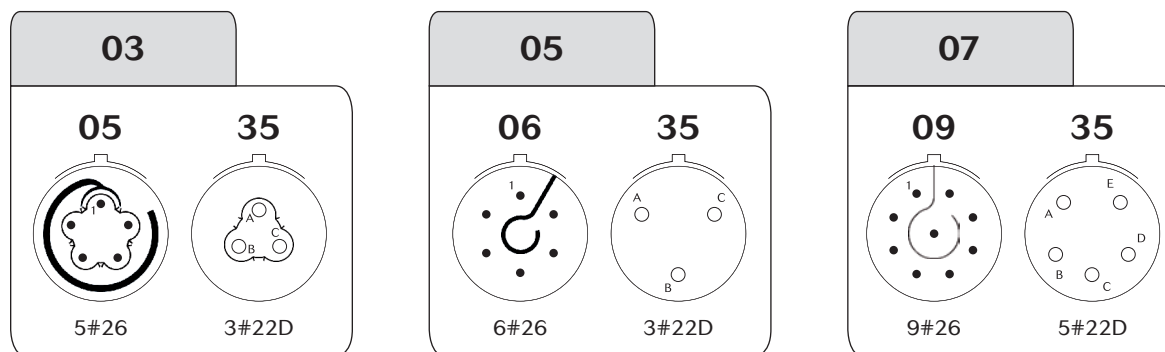
Resistance to fluids

- **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**



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

Contact layouts



Note: For information only.

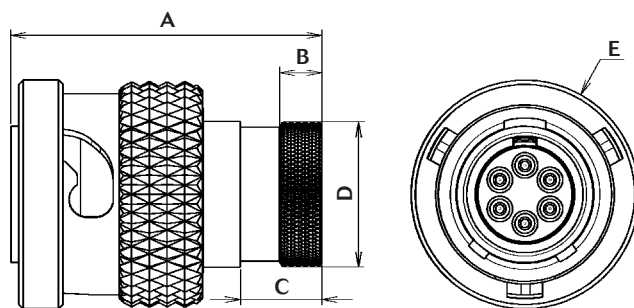
Ordering information

Basic Series	8LTA	0	03	W	05	P	N
Shell type: 0: Square flange receptacle 1: In line receptacle 2: Oval flange receptacle 6: Plug without EMI ring 7: Jam nut receptacle 90: Square flange receptacle with PCB contacts 92: Oval flange receptacle 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 S: Socket - not available for PCB version							
Orientation: N, A, B, C, D, E (see page 35)							



Dimensions

Plug - Shell type 6



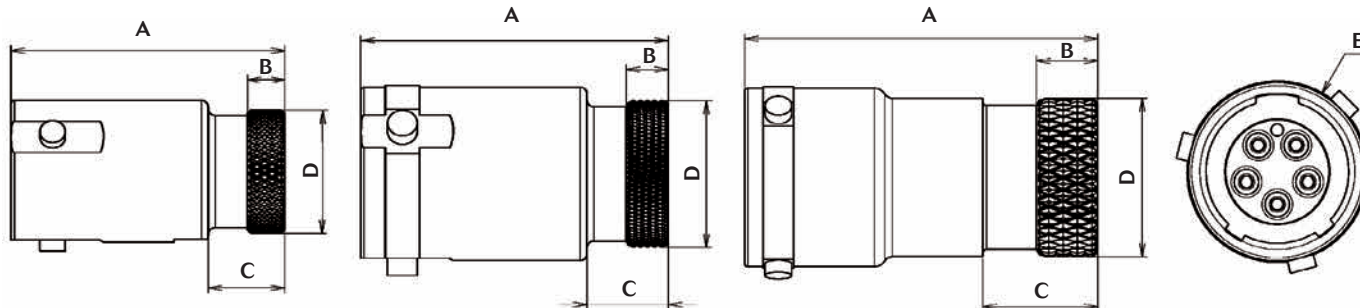
Shell size		A Max	B Max	C Max	Ø D Max	Ø E Max
3	3-05	16.2	2.2 $\pm$ 0.15	4.6	7.2	10.5
	3-35	17.5	2.2 $\pm$ 0.15	5.9	7.2	10.5
05		18.4	2.5 $\pm$ 0.15	4.9	8.55	13.5
07		22.06	3.65 $\pm$ 0.15	6.35	10.3	15.06

In line receptacle - Shell type 1

Shell size 3

Shell size 5

Shell size 7

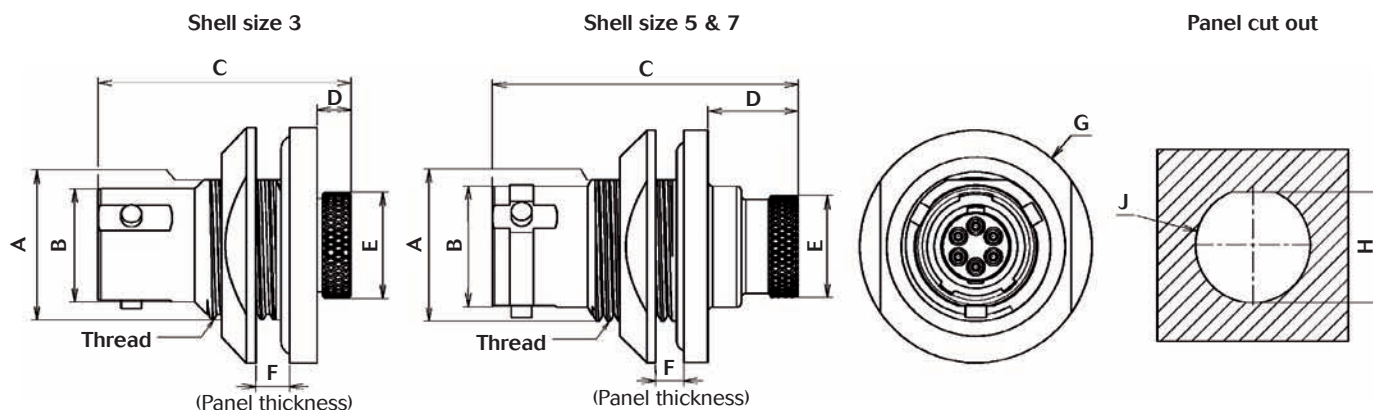


Shell size		A Max	B Max	C Max	Ø D Max	Ø E Max
3	3-05	16.2	2.2 $\pm$ 0.15	4.6	7.2	8.3
	3-35	17.5	2.2 $\pm$ 0.15	5.9	7.2	8.3
5		18.2	2.5 $\pm$ 0.15	4.9	8.55	10.15
7		23.6	4 $\pm$ 0.15	7.5	10.3	11.6

Note: All dimensions are in mm.

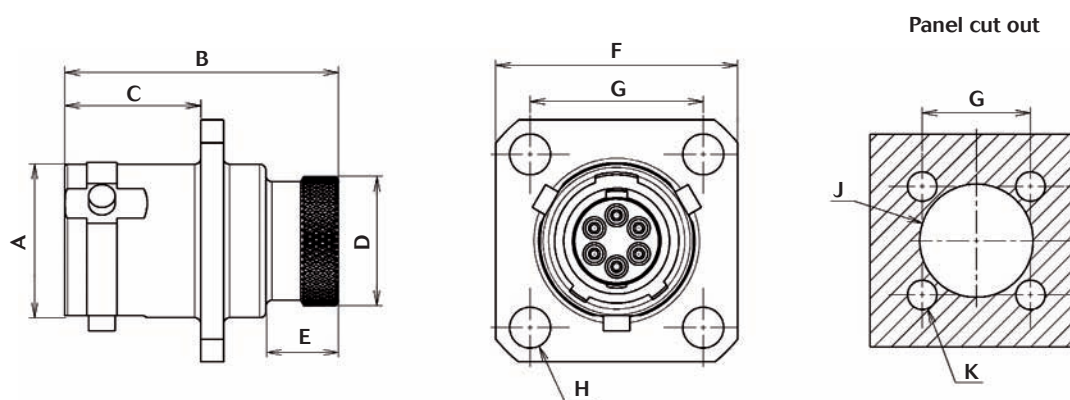


Jam nut receptacle - Shell type 7



Shell size		Thread	A Max	Ø B Max	C Max	D Max	Ø E Max	F Max	Ø G Max	H Max	Ø J Max
3	3-05	7/16"28 UNEF 2A	10.3	8.3	16.2	2.6	7.8	1 to 3.2	17.3	11.3 $\pm$ 0.1	12 $\pm$ 0.1
	3-35	7/16"28 UNEF 2A	10.3	8.3	17.5	2.6	7.8	1 to 3.2	17.3	11.3 $\pm$ 0.1	12 $\pm$ 0.1
5		1/2"28 UNEF 2A	11.7	10.5	25.9	7.7	8.55	1 to 3.2	19.5	13 $\pm$ 0.1	13.5 $\pm$ 0.1
7		9/16"24 UNEF 2A	13.4	11.6	33.55	10.4	10.3	1 to 3.2	20.8	14.4 $\pm$ 0.1	15.2 $\pm$ 0.1

Square flange receptacle - Shell type 0

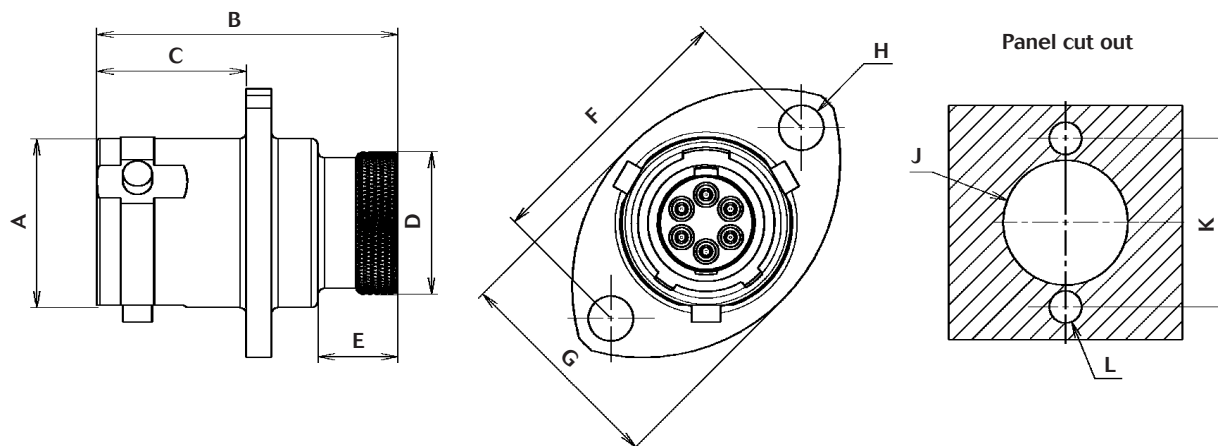


Shell size		Ø A Max	B Max	C Max	Ø D Max	E Max	F Max	G Max	Ø H Max	Ø J Max	Ø K Max
3	3-05	8.3	16.2	8.7	7.2	4.6	15.5	10.8	2.7 $\pm$ 0.1	9.3 $\pm$ 0.1	3.1 $\pm$ 0.1
	3-35	8.3	17.5	8.7	7.2	5.9	15.5	10.8	2.7 $\pm$ 0.1	9.3 $\pm$ 0.1	3.1 $\pm$ 0.1
5		10.15	18.2	9.05	8.55	4.9	16	11.45	2.7 $\pm$ 0.1	12 $\pm$ 0.1	3.1 $\pm$ 0.1
7		11.6	23.06	10.8	10.3	7.5	18	12.7	2.7 $\pm$ 0.1	13 $\pm$ 0.1	3.1 $\pm$ 0.1

Note: All dimensions are in mm.

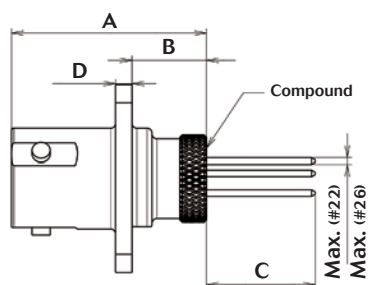


Oval flange receptacle - Shell type 2

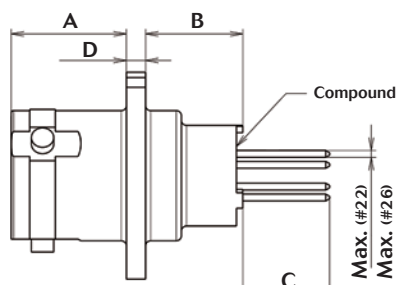


Shell size		Ø A Max	B Max	C Max	Ø D Max	E Max	F Max	G Max	Ø H Max	Ø J Max	K Max	Ø L Max
3	3-05	8.3	16.2	8.7	7.2	4.6	15.3 ^{±0.2}	10.5 ^{±0.1}	2.8	9.3 ^{±0.1}	15.3 ^{±0.2}	3.1 ^{±0.1}
	3-35	8.3	17.5	8.7	7.2	5.9	15.3 ^{±0.2}	10.5 ^{±0.1}	2.8	9.3 ^{±0.1}	15.3 ^{±0.2}	3.1 ^{±0.1}
5		10.15	18.2	9.05	8.55	4.9	16.2 ^{±0.2}	13 ^{±0.1}	2.7	12 ^{±0.1}	16.2 ^{±0.2}	3.1 ^{±0.1}
7		11.6	23.06	10.8	10.3	7.5	18 ^{±0.2}	14.8 ^{±0.1}	2.7	13 ^{±0.1}	18 ^{±0.2}	3.1 ^{±0.1}

Square flange receptacle with PC tail contacts - Shell type 90



Shell size 3



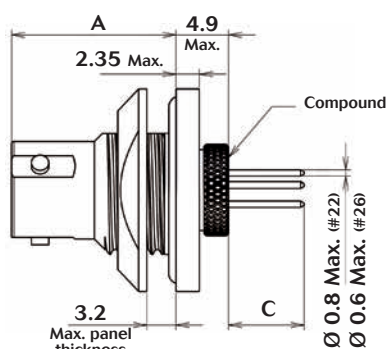
Shell size 5 & 7

Layout	A Max.	B Max.	C Min.	C Max.	D Max.
03-05	16.4	6.35	8.75	9.49	1.65
03-35	17.7	7.75	7.40	8.19	1.65
05-06	9.25	7.85	6.54	7.34	1.80
05-35	9.25	7.85	6.47	7.19	1.80
07-09	13.05	7.35	5.80	6.62	2.35
07-35	13.05	7.35	5.53	6.52	2.35

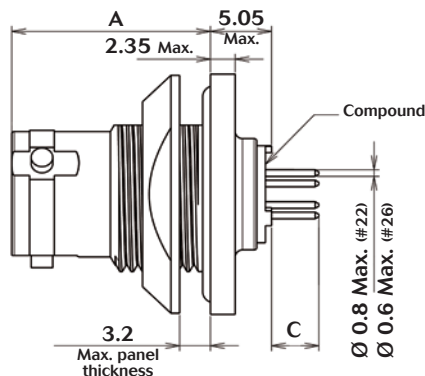
Shell design vary according to shell size.
For L contact (long PC tail) please consult us.



Jam nut receptacle with PC tail contacts - Shell type 97



Shell size 3

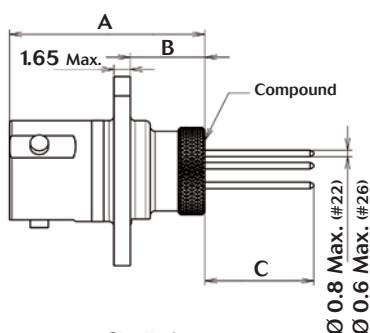


Shell size 5 & 7

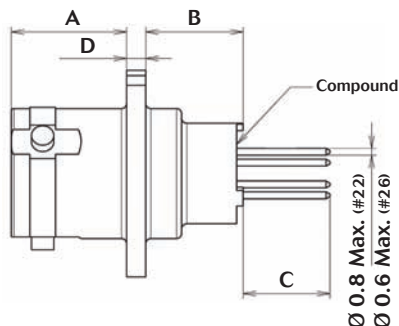
Layout	A Max.	Short PC tail C		Long PC tail L	
		C Min.	C Max.	C Min.	C Max.
03-05	14.4	6.15	7.04	10.65	11.54
03-35	15.7	4.8	5.7	9.3	10.19
05-06	16.4	3.54	4.52	7.99	9.02
05-35	16.4	3.42	4.33	7.92	8.83
07-09	21.3	4.05	5.07	7.60	8.57
07-35	21.3	3.79	4.93	7.29	8.43

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

Oval flange receptacle with PC tail contacts - Shell type 92



Shell size 3



Shell size 5 & 7

Layout	A Max.	B Max.	C Min.	C Max.	D Max.
03-05	16.2	6.35	8.75	9.49	-
03-35	17.5	7.75	7.4	8.19	-
05-06	9.25	7.85	6.54	7.34	1.80
05-35	9.25	7.85	6.47	7.19	1.80
07-09	13.05	7.35	5.8	6.62	2.35
07-35	13.05	7.35	5.53	6.52	2.35

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

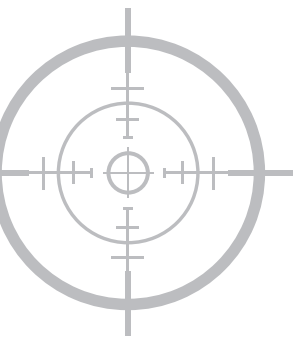
Connector weights

Weight

Aluminum version (in gram $\pm 10\%$)

Shell size & layout	Plug		Square flange receptacle	
	Without contacts	With crimp contacts	Without contacts	With crimp contacts
3-05	1.6	1.7	2	2.2
5-35	3	3.3	2.9	3.1
7-35	4.5	4.9	4.2	4.6

major 3899



Common Section

■ Tooling:	
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■ Accessories:	
Recommended accessories for wiring	33
Gaskets	33
Caps	34
■ Orientations	35
■ PCB hole drilling and position information	35



With the new miniature range, Souriau provides a wide range of accessories in order to offer an integrated solution.

In the following pages, you will find part numbers of necessary tools for micro38999 wiring and also recommended parts for accessories: braid, heat shrink boot, straight or elbow shrink boot and band-it.

Souriau also provides additional accessories for micro38999 connectors: caps and gaskets.

Tooling

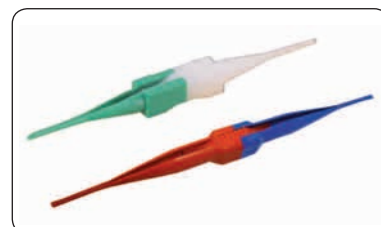
Crimping tools

Contact size	Contact type	Crimp tool M22520/2-01	
		Locator Part number	
		Standard	Souriau
#22D	Pin	M22520/2-09	8476-09
	Socket	M22520/2-06	8476-06
#26	Pin	-	640-088
	Socket	-	640-089



Insertion & extraction tools

Contact size	Material	Part number	Insertion / extraction tools	
			Insertion	Extraction
#22D	Plastic	M81969/14-01	Green	White
#26	Plastic	85990443	Red	Blue



Crimp contacts and recommended cables

Contact size	Contact type	Part number	Contact Ø	Conductor section				External Ø over insulator		Recommended cable
				AWG		mm²				
				Min	Max	Min	Max	Min	Max	
#22D	Pin	8599-0082	0.76	28	22	0.095	0.38	0.71	1.37	MIL-DTL-22759/33
	Socket	8599-0083								
#26	Pin	8599-0080	0.5	30	24	0.095	0.24	0.6	0.83	MIL-DTL-22759/33
	Socket	8599-0081								

Band-it tool



Micro banding tool
Part number: 85930339A



Accessories

Recommended accessories for wiring

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



To order wiring accessories, please contact your regular distributor or consult us at contactmilaero@souriau.com.

Micro band-it

Designation	Connector shell size	Part number
Individually coiled	3 / 5 / 7	85930337A
Not individually coiled	3 / 5 / 7	85930338A



Gaskets

Shell size	Part number		
	8DA square flange receptacle	8LTA square flange receptacle	8LTA oval flange receptacle
3	8DA0G03	8LTA0G03	8LTA2G03
5	8DA0G05	8LTA0G05	8LTA2G05
7	8DA0G07	8LTA0G07	8LTA2G07

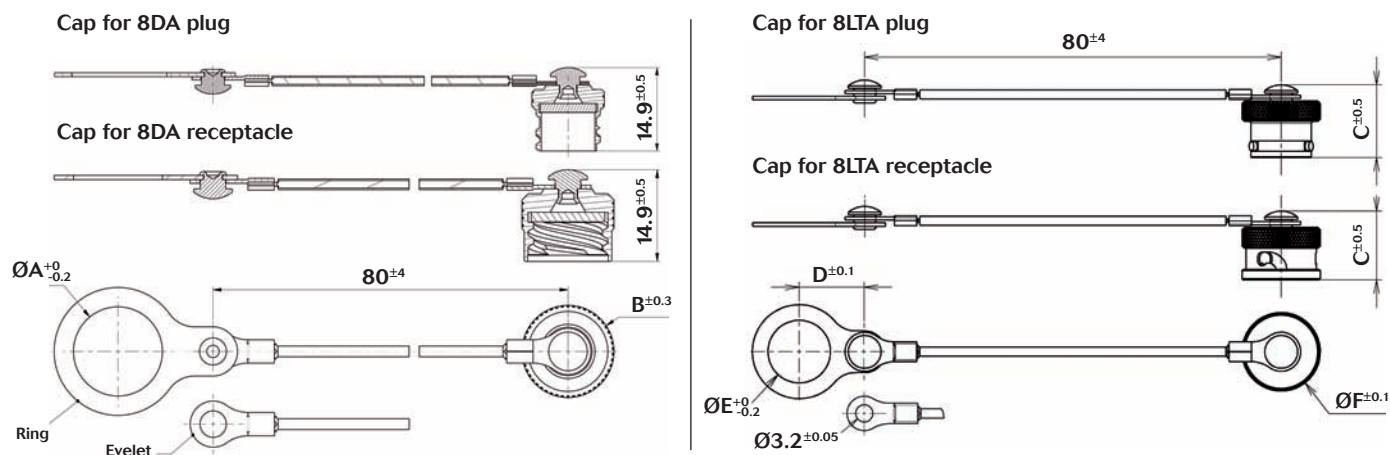




Caps

Basic Series: 8DAC: Cap for 8DA Series 8LTAC: Cap for 8LTA 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					

Dimensions



Size	A	B		C		D	E	F
		Plug	Receptacle	Plug	Receptacle			
03	11.5	11	12.5	14.1	12.1	13.5	11.5	10.4
05	13.5	13	15	13.7	13.9	14.5	13	13.4
07	14.5	14	17	14	13.1	15.5	14.5	15.05

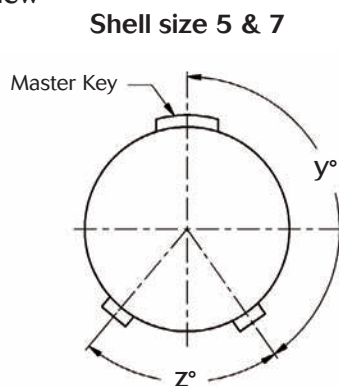
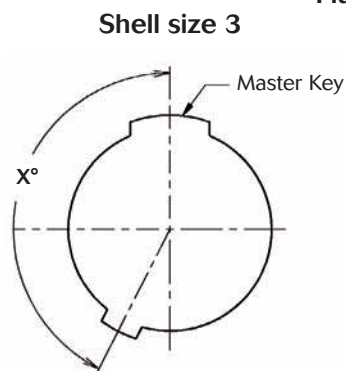
Note: for other lanyard length please consult us.



Orientations

Orientation - All shell types

Plug front face view



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

Contact layouts

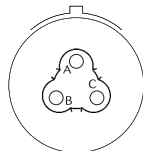
8DA & 8LTA PCB hole drilling and position information

Note: For information only.

03

05

35



Ctc	X	Y
1	0.00	1.45
2	-1.38	0.45
3	-0.85	-1.18
4	0.85	-1.18
5	1.38	0.45

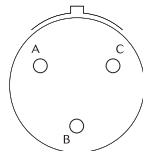
Ctc	X	Y
A	0.00	1.30
B	-1.13	-0.65
C	1.13	-0.65

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

05

06

35



Ctc	X	Y
1	0.00	1.70
2	-1.47	0.85
3	-1.47	-0.85
4	0.00	-1.70
5	1.47	-0.85
6	1.47	0.85

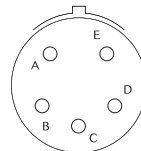
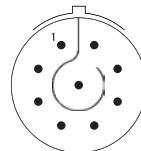
Ctc	X	Y
A	-1.24	0.72
B	0.00	-1.43
C	1.24	0.72

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

07

09

35

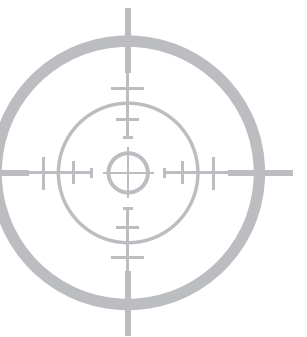


Ctc	X	Y
1	-0.85	2.05
2	-2.05	0.85
3	-2.05	-0.85
4	-0.85	-2.05
5	0.85	-2.05
6	2.05	-0.85
7	2.05	0.85
8	0.85	2.05
9	0.00	0.00

Ctc	X	Y
A	-1.24	1.70
B	-2.00	-0.66
C	0.00	-2.11
D	2.00	-0.66
E	1.24	1.70

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

major 3899



Range Extension

■ High density	38
■ 8DA ELIO®	38
■ 38999 Series III plug with integrated backshell	39
■ Push-pull connectors	39



Products Range Extension

38999 High Density

SOURIAU offers a robust & reliable High Density solution derived from 38999 Series I, Series III & VG96912.

3 shell sizes available:

- . Provides flexibility according to your application.

A reliable & robust solution:

- . Same well proven design as standard 38999 & VG96912.

Significant space saving:

- . Twice the number of contacts compared to size 13-35 with 22 contacts.
- . Two shell sizes smaller than a partially populated size 17-35 with 55 cavities.



See «High Density Connectors» product news on www.souriau.com

micro38999 ELIO®

The SOURIAU fiber optic ELIO® is the favorite Airbus butt-joint solution and is recognized as a world-wide standard.

SOURIAU commits to providing a full support to its customers to find a reliable and secured solution, from the design phase to the maintenance phase.

Rugged size 5 circular connector:

- . Threaded coupling with anti decoupling device.
- . Vibration and shock proof.
- . Harsh -55°C to +150°C.
- . User friendly ELIO® contact.

Silica fiber:

- . 9/125, 50/125 or 62/125, 100/140, 200/230.

POF fiber:

- . 1000/1500 MOSTPOF.



See our fiber optic website www.optical-connectors.com



Products Range Extension

38999 Series III Plug with Integrated Backshell

All the features and the benefits of 38999 Series III connectors with integrated backshells.

Integral part of the plug shell:

- . Space saving.
- . Better continuity.
- . Lighter weight than with standard backshell.

Backshell profile options:

- . Attachment with:
 - micro or macro band-it and optional heat shrink boot.
 - overmold.

Black zinc nickel:

- . A robust QPL 500 hours finish (RoHS) back compatible with cadmium receptacle..



Push-Pull Connectors

SOURIAU Push Pull connectors are suitable for high reliability and high quality applications where a simple yet fast method to connect/disconnect is required. Ideal for use in areas with limited space where endurance is the priority.

JBX Series:

- . Push-pull connectors designed for use in tight spaces where ergonomics, durability, high density and aesthetics are required.

JDX Series:

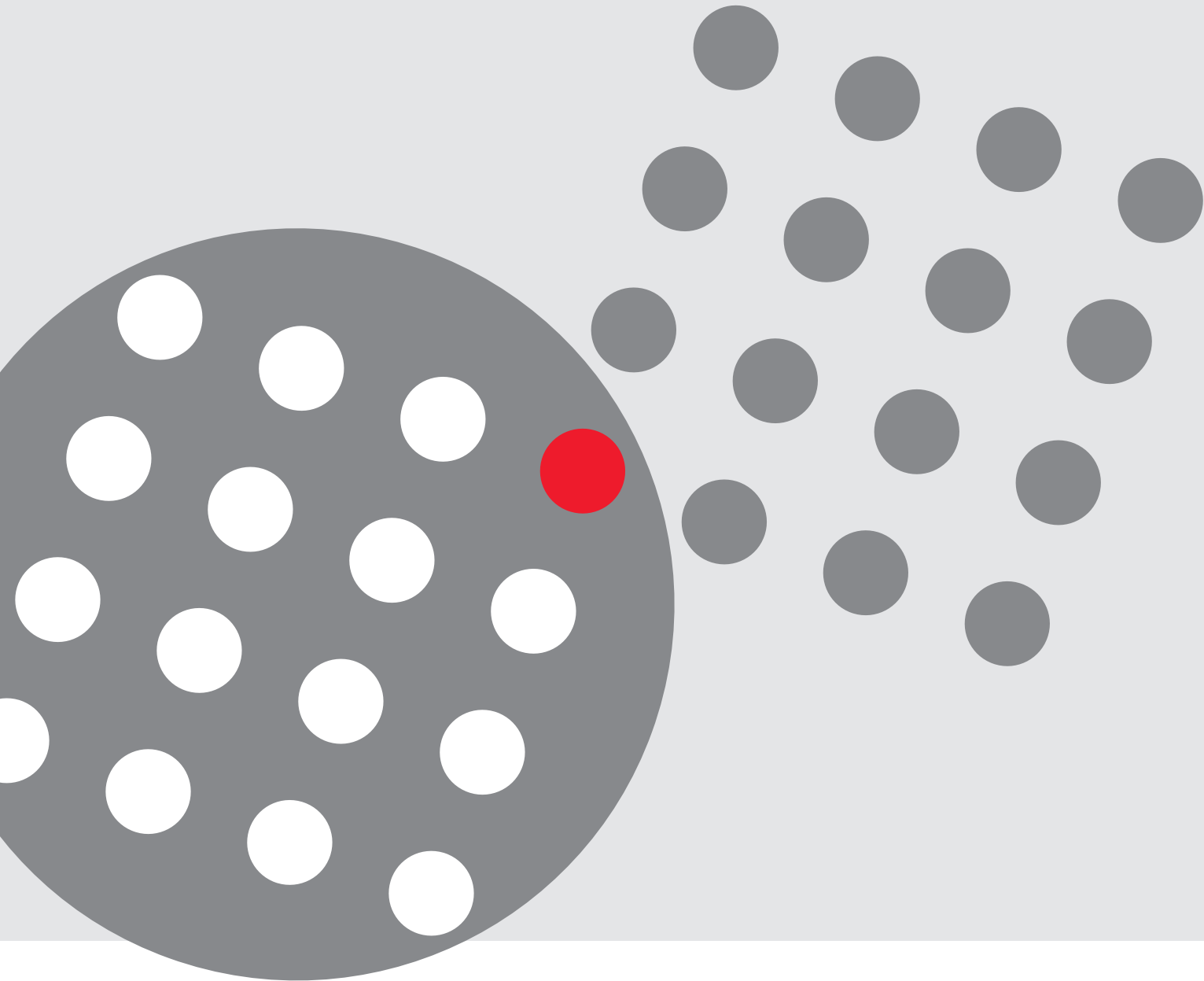
- . Breakaway connectors ideally suited for the most demanding environments and applications that require an emergency release coupler mechanism.

JKX Series:

- . Environmentally sealed push pull connector for use in outdoor applications.



See our «Push-Pull Connectors» webpage on www.souriau.com



SOURIAU

www.micro38999.com

contactmilaero@souriau.com