

micro38999 SERIES



High Vibration Miniature Connectors

Qualified According MIL-DTL-38999



8DA, 8BA & 8LTA Series



micr  **38999**

Presentation

The micro38999 Series (8DA, 8BA and 8LTA ranges) is 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, ...).

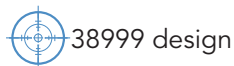
The micro38999 is the first complete platform on the market of integrated backshell products available with a 38999 design in order to be compliant with the harshest specification (high vibration, operating temperature, durability, corrosion resistance, EMI shielding, ...)



Compactness



Density



38999 design



Robustness



Space & weight saving

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micro38999 Series

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micro38999 SERIES

8DA, 8BA & 8LTA Series

Overview

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Typical applications



Radio / Network Systems



Infantry / Display



Control Unit / Solar



UAV / On Board Equipment



Aircraft Cabin / Cockpit



Industrial Equipment



Features & Benefits

- HIGH VIB**
D38999 Compliant
Connectors designed for harsh environment applications. High vibration and high temperature withstanding. Scoop proof.
- SPACE SAVING**
Compacity
Miniature shell sizes 3, 5 & 7. #26 high density layouts.
- MULTI SOURCE**
Secured Supply Chain
A reliable network of manufacturers and distributors. Less risks, more flexibility!
- USER FRIENDLY**
Integrated Backshell
No need of additional rear accessories. Cost & time saving. IP67 or IP68 with appropriate cable termination.
- LARGE OFFER**
A Wide and Reliable Range
3 coupling systems: threaded, break away, bayonet. 2 materials, 4 platings. Up to 1000 mating cycles.

Not QPL listed.

A wide product range of compact 38999

3
coupling
systems

5
shell
types

Threaded coupling
8DA Series, see p.14

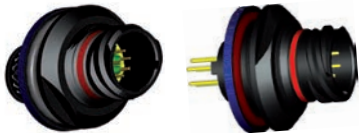


Plug

In Line Receptacle



Jam Nut Receptacle
PC tail contacts available



Square Flange Receptacle
PC tail contacts available



Break away
8BA Series, see p.19



Plug

In Line Receptacle



Jam Nut Receptacle



Bayonet coupling
8LTA Series, see p.22



Plug

In Line Receptacle



Jam Nut Receptacle
PC tail contacts available



Square Flange Receptacle
PC tail contacts available



Oval Flange Receptacle
PC tail contacts available



A wide product range of compact 38999

2
materials,
4 platings

- Aluminum**
- Black Zinc Nickel RoHS
 - Nickel RoHS
 - Cadmium
- Stainless Steel**
- Passivated RoHS

2
removable
contacts

- AWG 26**
#26 Ø 1.29 mm
- AWG 22**
#22D Ø 1.5 mm

3
miniature
shell sizes

- Shell size 3**
Layouts 3-05; 3-35
- Shell size 5**
Layouts 5-06; 5-35
- Shell size 7**
Layouts 7-09; 7-35

Smaller and more compact than D38999

**More
Compact
Shell**

8DA Series, size 5
with Integrated Backshells



8D Series, size 9
+ Additional Backshells



**Smaller
Contact
Size**

#26
Ø 0.5 mm



#22D
Ø 0.76 mm

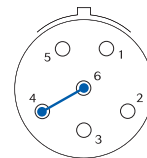


**Shorter
Contact
Pitch**

1.7 mm



2.28 mm



micro38999

D38999 Series III

micro38999

D38999 Series III

Same number of contacts in a smaller connector!

50% SHORTER LENGTH | **33% SMALLER DIAMETER** | **3 TIMES LIGHTER**

Although smaller, all the features and excellence of D38999

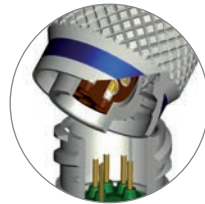


High grade thermoplastic insert

Silicone elastomer grommet and sealing
-55° to +175°C
as in D38999



Ratcheting system
Vibration:
44grms @125°C

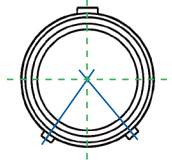


Scoop proof
Contacts protected like D38999



Triple-start thread
Contact design according to M39029

EMI grounding
Connection as in D38999



6 keyings
Same as D38999

Not QPL listed.

Always a solution to meet your application needs



Tactical radio/ Network systems
Switch, docking station, power supply, ...



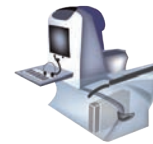
Infantry/ Display
Battery charger, helmet, radio, ...



Autonomous robot/Solar
Control unit, data transmission, ...



UAV/On board equipment
Missile, civil & military aircraft, control unit, actuator, ...



Cockpit/ Aircraft cabin
Lighting, interconnect, ...



Industrial equipment
Instrumentation, small equipment for industry, ...



Threaded
8DA, see p.14



Break away
8BA, see p.19



Bayonet
8LTA, see p.22

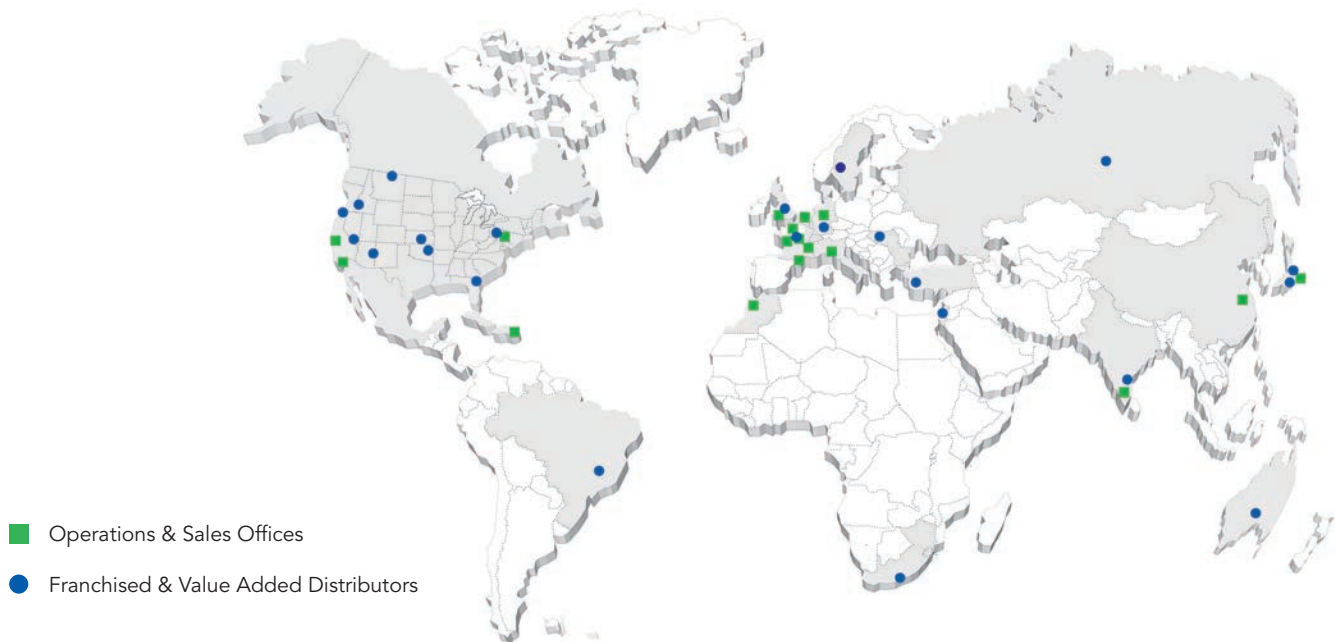


Worldwide Sales Network

SOURIAU-SUNBANK is recognized as one of the top international manufacturers of connectors, backshells and accessories for harsh environment and is continuously strengthening its leading position through its solid structure as an international group.

Today the **SOURIAU-SUNBANK** group has a worldwide strong global presence on 4 continents. Our international presence is reinforced by franchised and value added distributors in many 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.



Multisourcing

SOURIAU-SUNBANK have reached a partnership agreement in the manufacturing, qualification, and marketing of micro38999 connectors.

This partnership will provide customers with two independent sources of manufacture, guaranteed interchangeability and intermateability, with all critical features including interfacial and mounting dimensions, based on common controlled shared drawings.

Please contact us for more information.

micro38999 SERIES

8DA, 8BA & 8LTA Series

micro38999 Series

■ 8DA Series, threaded coupling	14
■ 8BA Series, break away	19
■ 8LTA Series, bayonet coupling	22



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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 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)**

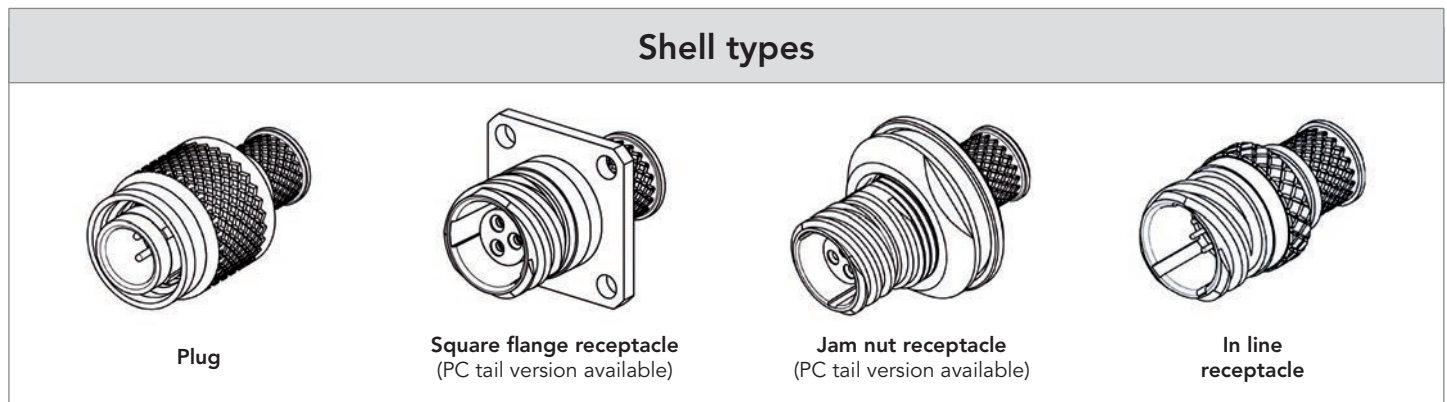
Shell size	Aluminum version	Stainless steel version
3	X	NA
5	10 mΩ	60 mΩ
7		
- **EMI:**
 - Aluminum: -70dB @ 1GHz
 - Passivated stainless steel: -55 dB @ 1Ghz

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: 250 hours

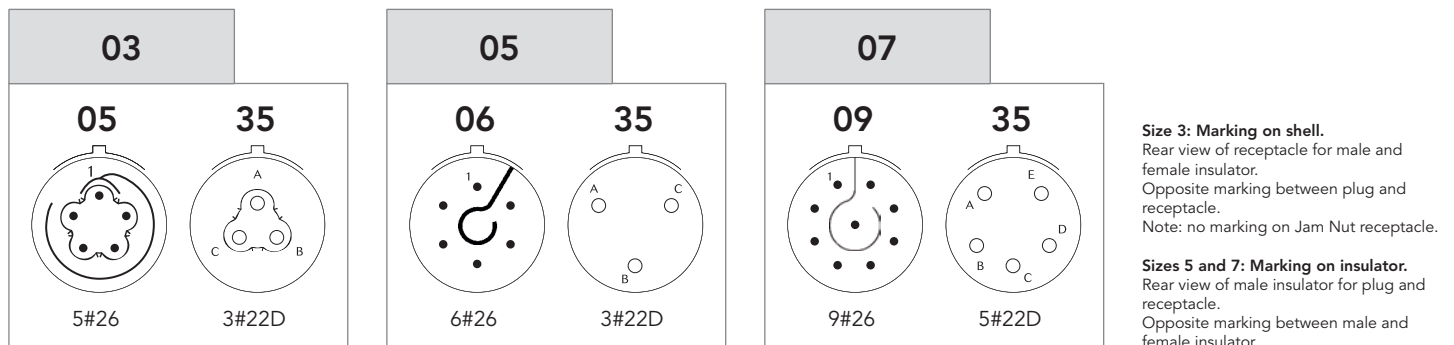
Resistance to fluids

- **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**



For other configuration, please consult us.

Contact layouts



Ordering information

Basic Series	8DA	0	03	W	05	P	N
<p>Shell type:</p> <ul style="list-style-type: none"> 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 <p>Contact type:</p> <ul style="list-style-type: none"> None: Standard crimp contacts C: Short PC tail L: Long PC tail (consult us) <p>Shell size: 03, 05, 07</p> <p>Plating :</p> <ul style="list-style-type: none"> Z: Black zinc nickel F: Nickel W: Olive drab cadmium K: Passivated stainless steel (only for sizes 05 & 07 with standard crimp contacts) <p>Contact layouts: See above</p> <p>Contact type:</p> <ul style="list-style-type: none"> 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 <p>Orientation: N, A - Consult us for B, C, D, E (see page 33)</p>							

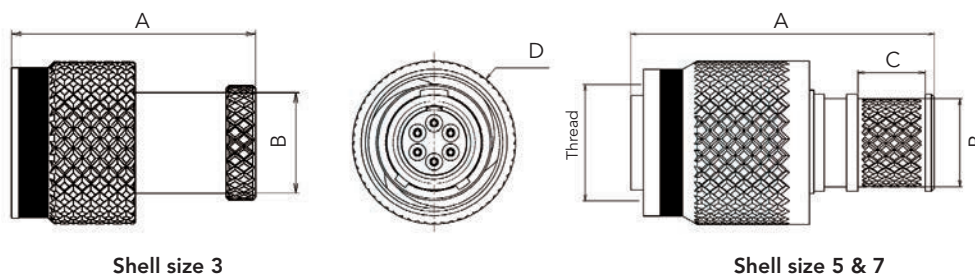
Connector weights

Aluminum version - in gram ±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

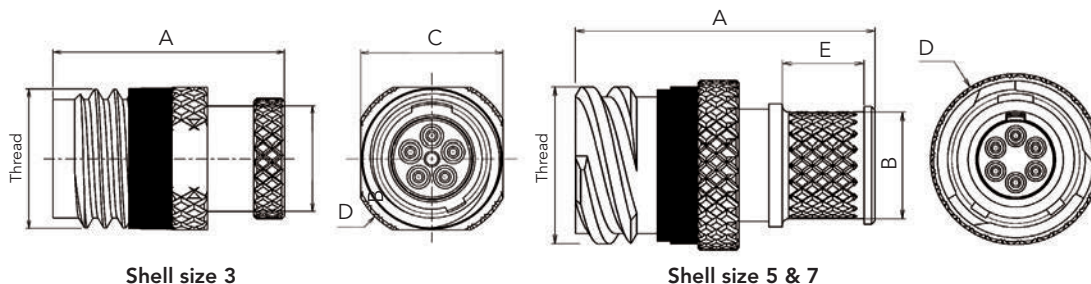
Dimensions

Plug - Shell type 5 & 6



Shell size	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

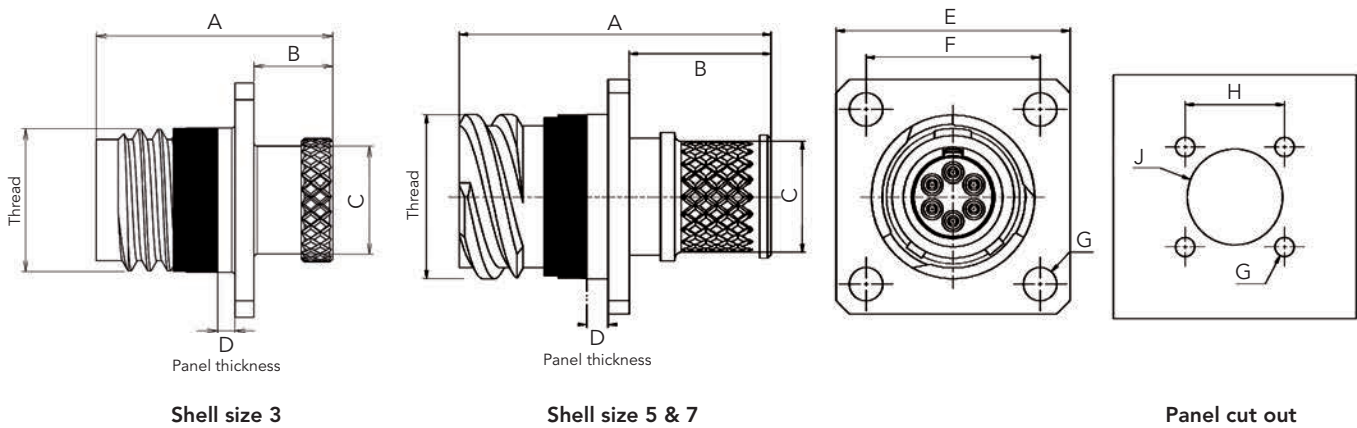
In line receptacle - Shell type 1



Shell size	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

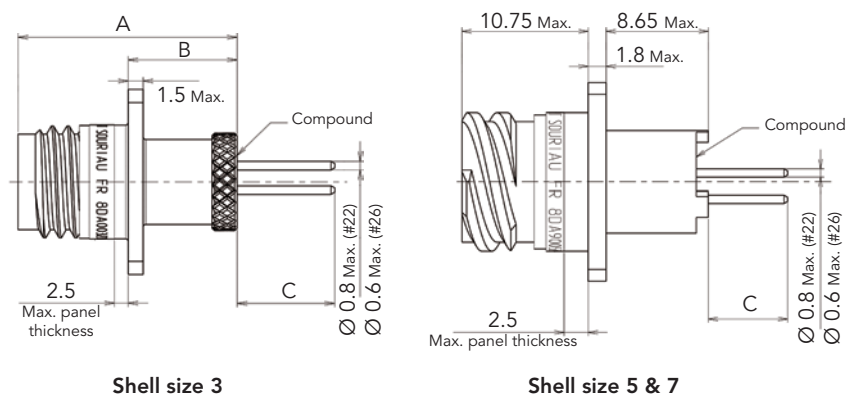
Note: All dimensions are in millimeters (mm)

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	

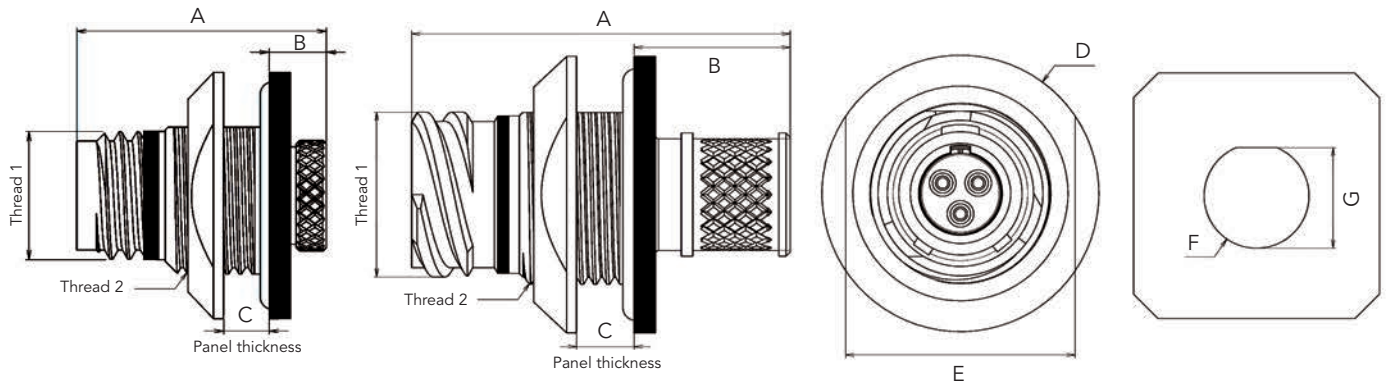
Square flange receptacle with PC tail contacts - Shell type 90



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.
For coordinates information, please see p.33.

Jam nut receptacle - Shell type 7



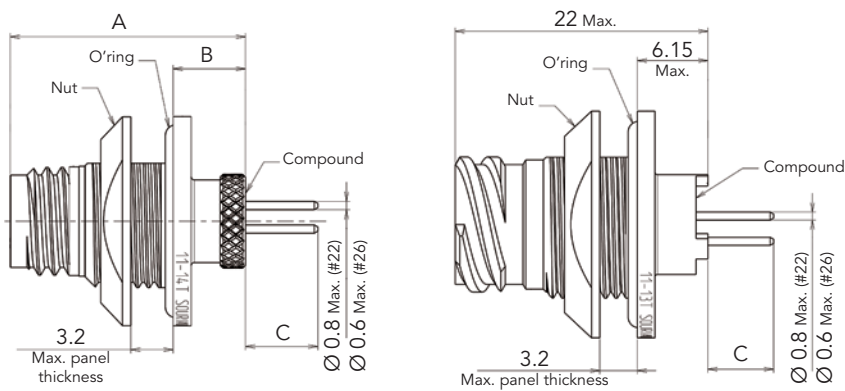
Shell size 3

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.
For coordinates information, please see p.33.

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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
 - Crimp & PC tails contacts (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
- **Shell plating:**
Aluminum:
 - . Zinc nickel (RoHS)
 - . Nickel (RoHS)
 - . Olive drab cadmium
- **Insulator:** Thermoplastic
- **Contact body:** Copper alloy
- **Contacts plating:** Gold over nickel plated
- **Shell endurance:**
Aluminum:
500 mating/unmating cycles
- **Vibration:**
30 grms ambient, 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)**

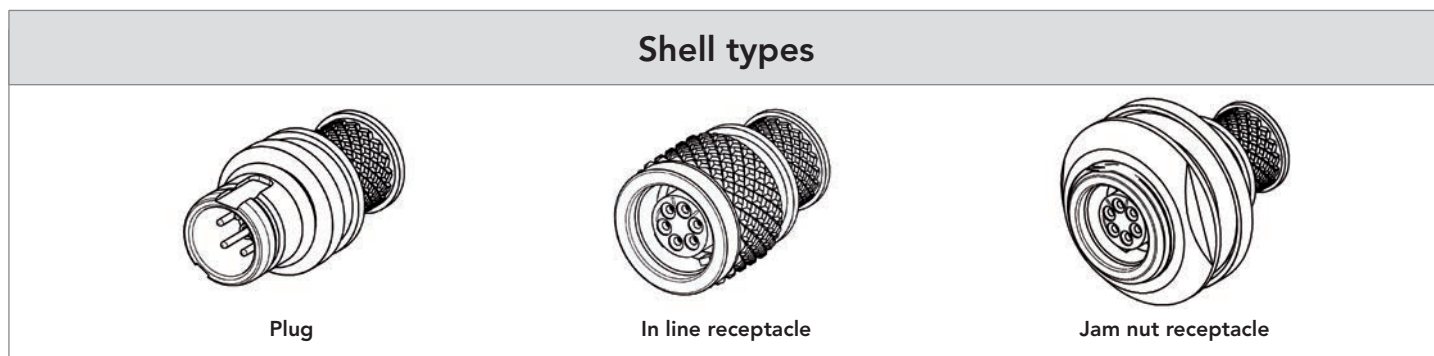
Shell size	Aluminum version
3	10 mΩ
5	
7	
- **EMI:**
Aluminum: -70dB @ 1GHz

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

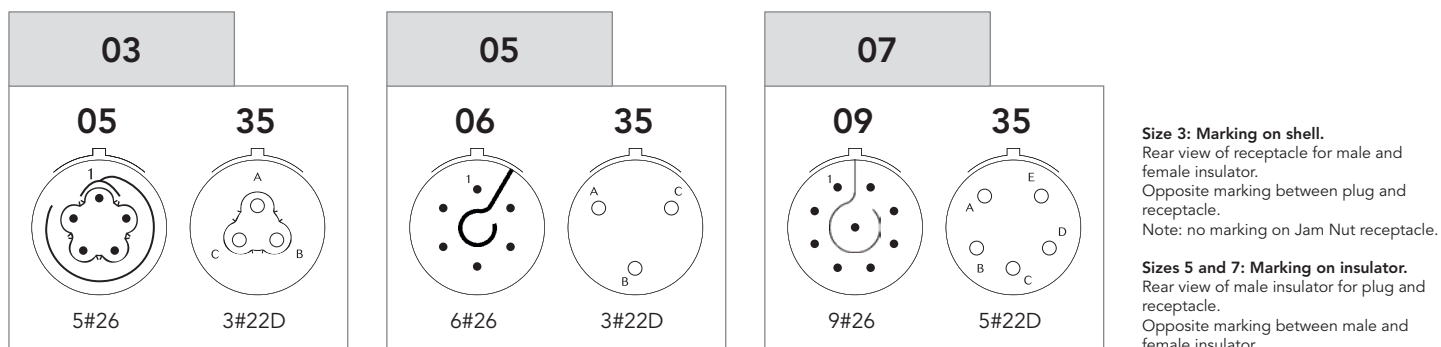
Resistance to fluids

- **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 or PC tail version, please consult us.

Contact layouts



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							
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 - Consult us for B, C, D, E (see page 33)							

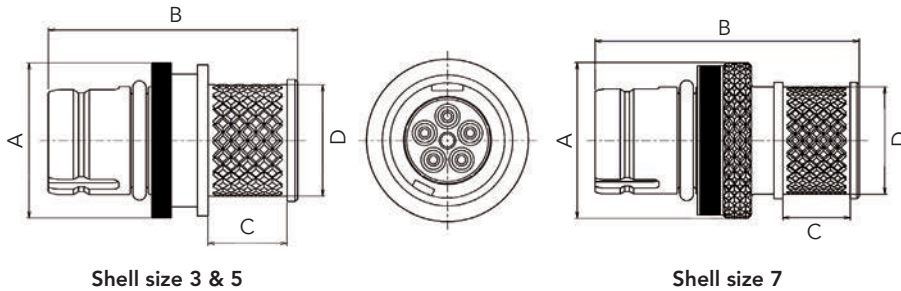
Connector weights

Aluminum version - in gram ±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

Dimensions

Plug - Shell type 6

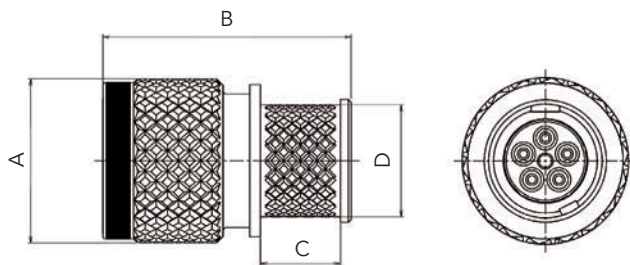


Shell size	A	B Max	C Max	ØD Max
3	10.3	18.4	6.1	7.3
5	12.2	19.4	6.1	8.9
7	14.3	24	6.1	10

Shell size 3 & 5

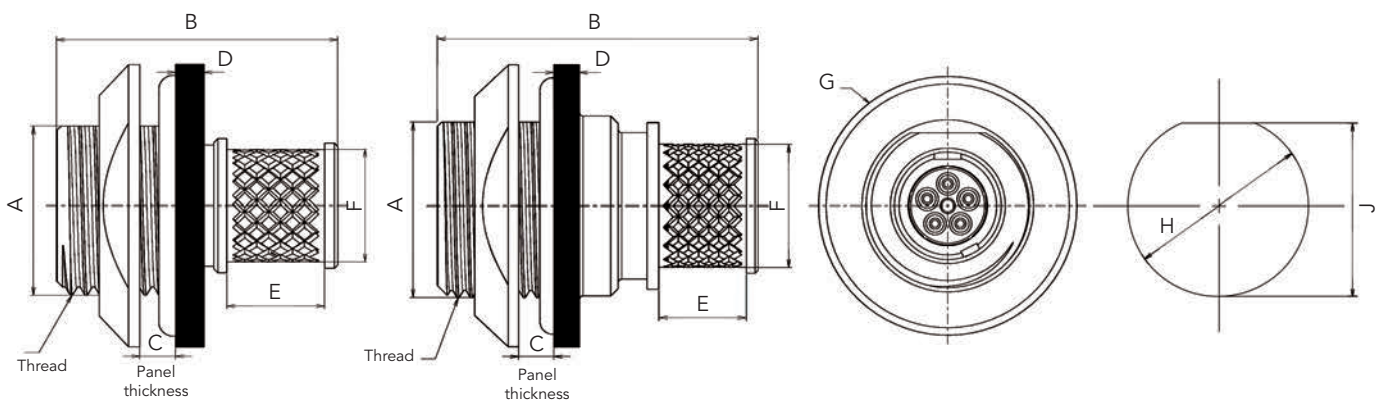
Shell size 7

In line receptacle - Shell type 1



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

Jam nut receptacle - Shell type 7



Shell size 3

Shell size 5 & 7

Panel cut out

Shell size	Thread	A Max	B Max	C Max	D	E Max	ØF Max	ØG Max	ØH	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 millimeters (mm)

micr 38999



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 shell sizes (3, 5, 7), 5 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
 - 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:
 - 500 mating/unmating cycles
- **Vibration:**
 - 30 grms ambient, 2 axes during 8 hours

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)**

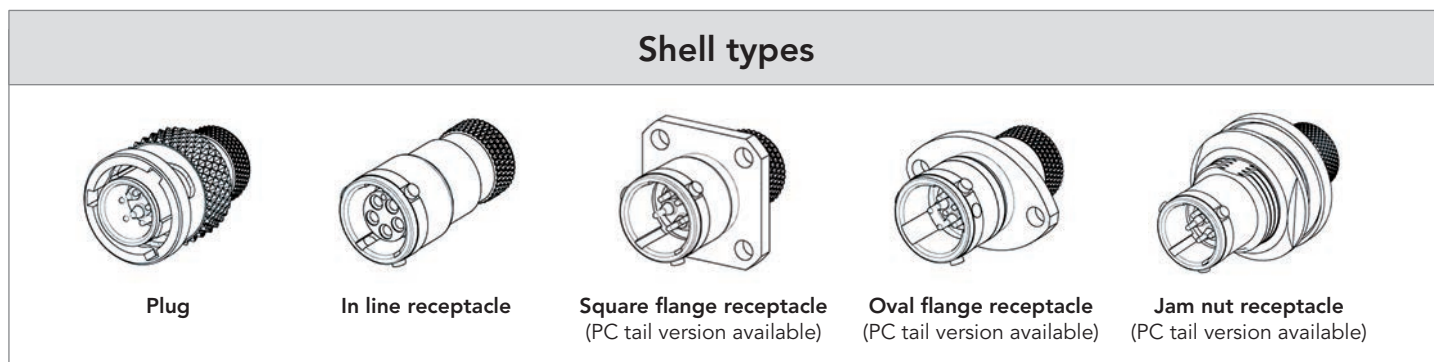
Shell size	All versions
3	250 mΩ
5	
7	
- **EMI:** -55dB @ 1GHz

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: 250 hours

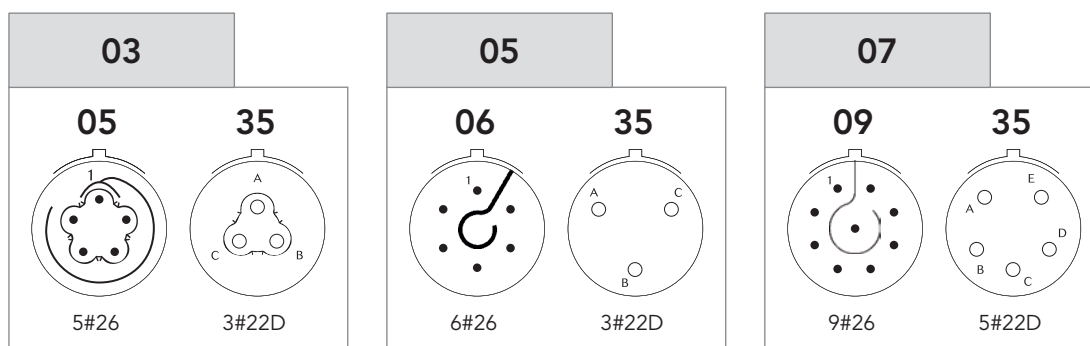
Resistance to fluids

- **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**



For other configuration, please consult us.

Contact layouts



Size 3: Marking on shell.
Rear view of receptacle for male and female insulator.
Opposite marking between plug and receptacle.
Note: no marking on Jam Nut 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	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 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							
S: Socket - not available for PCB version							
Orientation: N, A - Consult us for B, C, D, E (see page 33)							

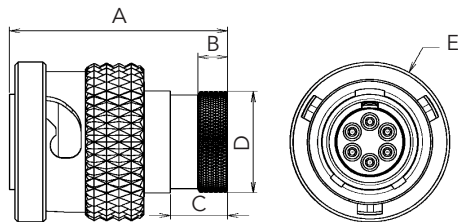
Connector weights

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

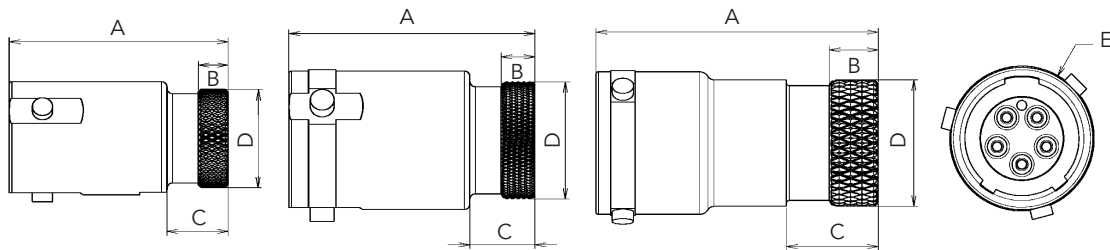
Dimensions

Plug - Shell type 6



Shell size	A Max	B Max	C Max	ØD Max	ØE Max	
3	3-05	16.2	2.2 ± 0.15	4.6	7.2	10.5
	3-35	17.5	2.2 ± 0.15	5.9	7.2	10.5
05	18.4	2.5 ± 0.15	4.9	8.55	13.5	
07	22.06	3.65 ± 0.15	6.35	10.3	15.06	

In line receptacle - Shell type 1



Shell size 3

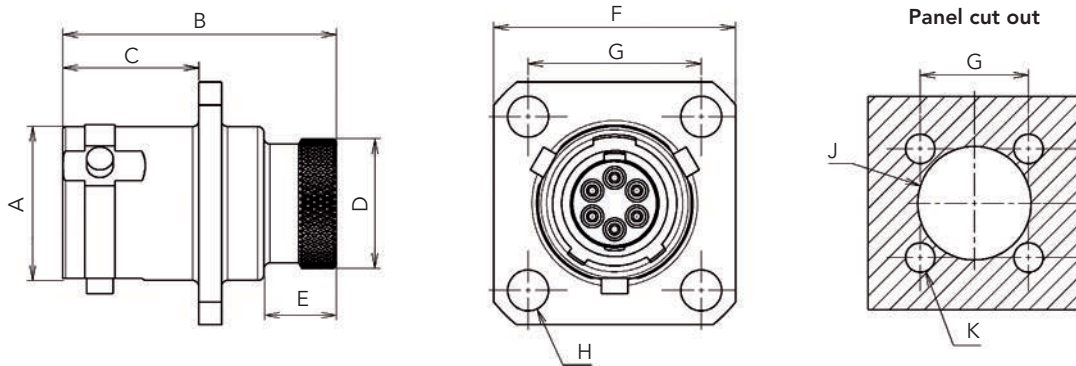
Shell size 5

Shell size 7

Shell size	A Max	B Max	C Max	ØD Max	ØE Max	
3	3-05	16.2	2.2 ± 0.15	4.6	7.2	8.3
	3-35	17.5	2.2 ± 0.15	5.9	7.2	8.3
5	18.2	2.5 ± 0.15	4.9	8.55	10.15	
7	23.6	4 ± 0.15	7.5	10.3	11.6	

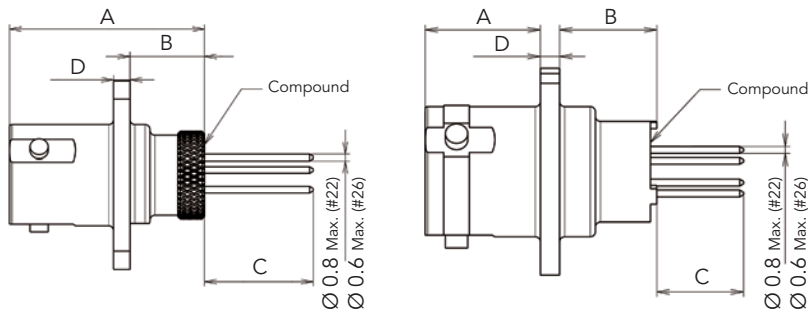
Note: All dimensions are in millimeters (mm)

Square flange receptacle - Shell type 0



Shell size	ØA Max	B Max	C Max	ØD Max	E Max	F Max	G Max	ØH Max	ØJ Max	ØK Max	
3	3-05	8.3	16.2	8.7	7.2	4.6	15.5	10.8	2.7 ^{+0.1}	9.3 ^{+0.1}	3.1 ^{+0.1}
	3-35	8.3	17.5	8.7	7.2	5.9	15.5	10.8	2.7 ^{+0.1}	9.3 ^{+0.1}	3.1 ^{+0.1}
5	10.15	18.2	9.05	8.55	4.9	16	11.45	11.45	2.7 ^{+0.1}	12 ^{+0.1}	3.1 ^{+0.1}
7	11.6	23.06	10.8	10.3	7.5	18	12.7	12.7	2.7 ^{+0.1}	13 ^{+0.1}	3.1 ^{+0.1}

Square flange receptacle with PC tail contacts - Shell type 90



Shell size 3

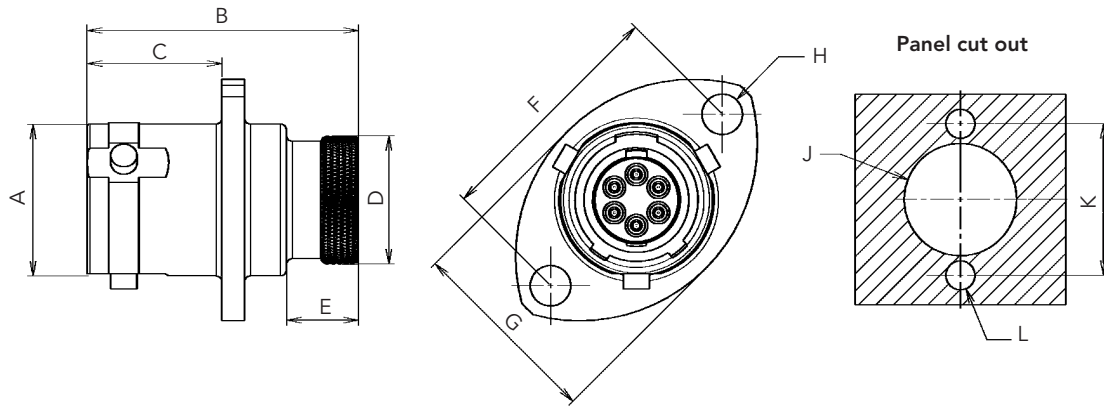
Shell size 5 & 7

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.
For coordinates information, please see p.33.

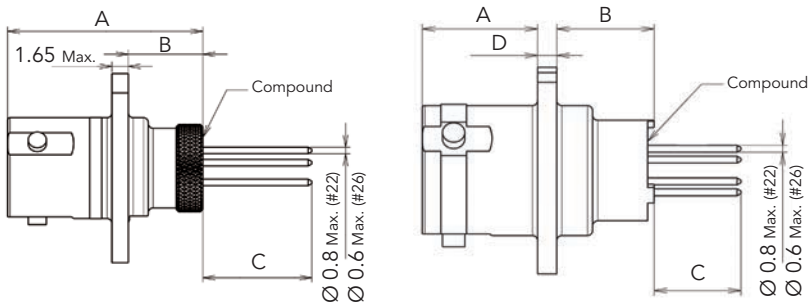
Note: All dimensions are in millimeters (mm)

Oval flange receptacle - Shell type 2



Shell size	ØA Max	B Max	C Max	ØD Max	E Max	F Max	G Max	ØH Max	ØJ Max	K Max	ØL 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	

Oval flange receptacle with PC tail contacts - Shell type 92



Shell size 3

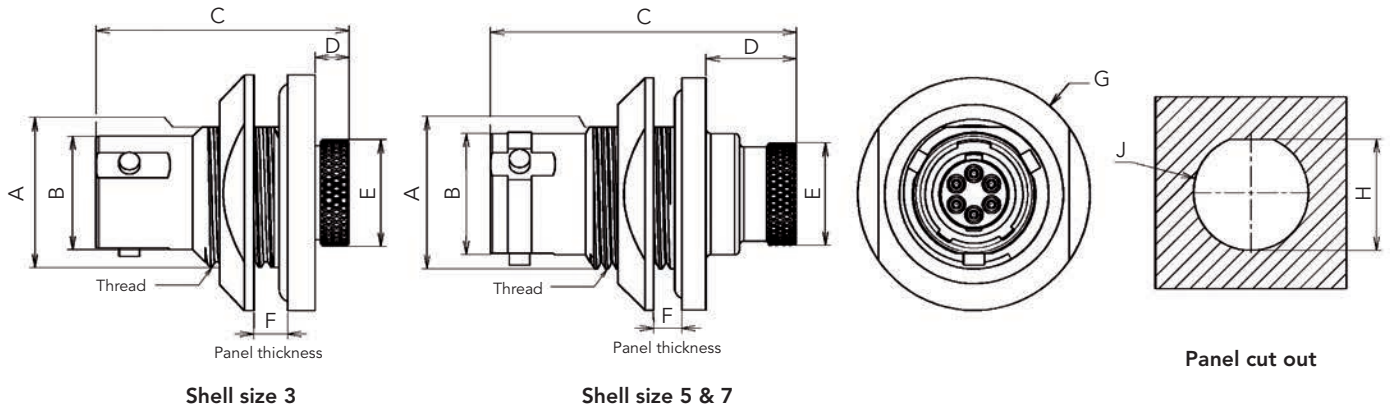
Shell size 5 & 7

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.
For coordinates information, please see p.33.

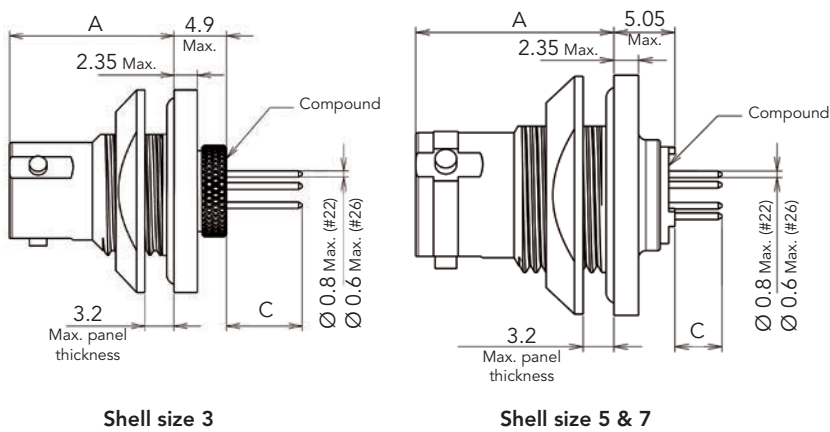
Note: All dimensions are in millimeters (mm)

Jam nut receptacle - Shell type 7



Shell size	Thread	A Max	ØB Max	C Max	D Max	ØE Max	F Max	ØG Max	H Max	ØJ 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 ^{+0.1}	12 ^{±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 ^{+0.1}	12 ^{±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 ^{+0.1}	13.5 ^{+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 ^{+0.1}	15.2 ^{±0.1}	

Jam nut receptacle with PC tail contacts - Shell type 97



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 coordinates information, please see p.33.

Note: All dimensions are in millimeters (mm)

micro38999 SERIES

8DA, 8BA & 8LTA Series

Common Section

■ Crimp contacts	30
■ Crimping tools	30
■ Insertion & extraction tools	30
■ Recommended accessories for wiring	31
■ Gaskets	31
■ Aluminum caps	32
■ Orientations	33
■ Coordinates information	33

Crimp contacts

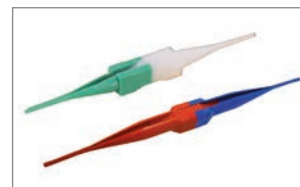
Contact size	Contact type	Part number		Contact Ø (mm)	Conductor section				External Ø over insulator (mm)	
		MIL-DTL-38999	SOURIAU		AWG		mm ²		min	max
					min	max	min	max		
#26	Pin	-	8599-1001	0.50	30	24	0.095	0.24	0.60	0.83
	Socket	-	8599-1002							
#22D	Pin	M39029/58 360	8599-0702 JJ	0.76	28	22	0.095	0.38	0.71	1.37
	Socket	M39029/57 354	8599-0710 900							

Crimping tools

Contact size	Contact type	Plier M22520/2-01 (SOURIAU 8476-01)	
		Locator Part number	
		MIL Spec	SOURIAU
#26	Pin	-	640-088
	Socket	-	640-089
#22D	Pin	M22520/2-09	-
	Socket	M22520/2-06	-

Insertion & extraction tools

Contact size	Material	Part number	Color	
			Insertion	Extraction
#26	Plastic	85990444900	Red	Blue
#22D	Plastic	M81969/14-01	Green	White



Recommended accessories for wiring

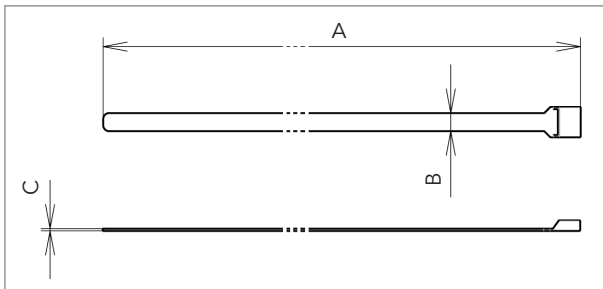
Braid, straight heat shrink boot, elbow heat shrink boot, shield band, ...

Shell size	Shield band (recommended)	Hand banding tool
3, 5 & 7	M85049/128-8 (individually coiled) M85049/128-7 (not individually coiled)	85930339A



To order braid, boot (e.g. VG95343T type) or other accessories, please contact your SOURIAU distributor.

Shield band dimensions



Shield band	M85049/128-7 or M85049/128-8 Shellsize 3, 5 & 7
A	206.2±1.5
B	2.92
C	0.38

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

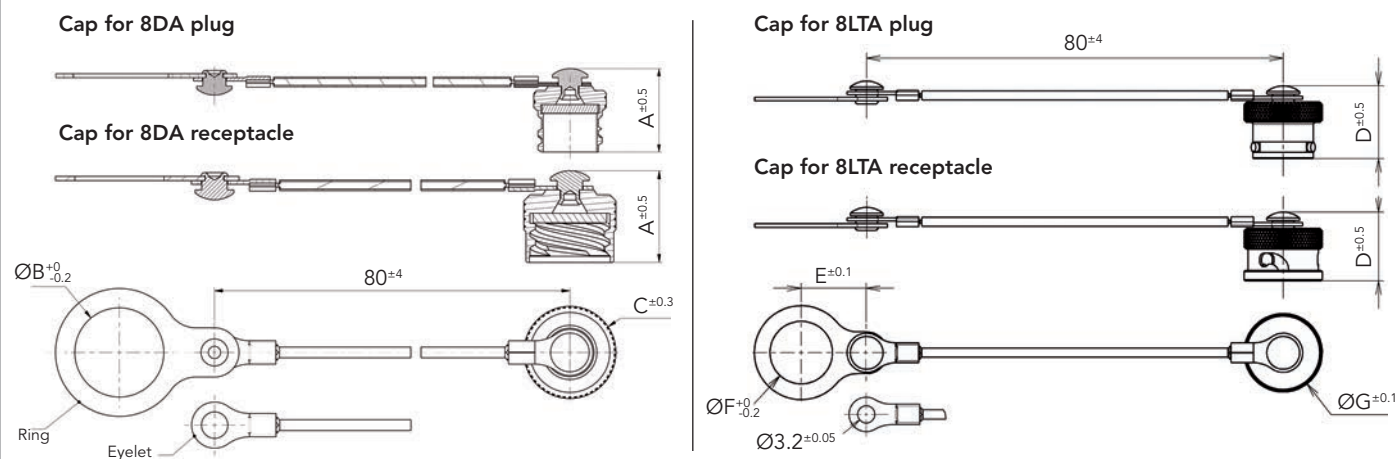


Note: All dimensions are in millimeters (mm)

Aluminum 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



Shell size	A		B	C		D		E	F	G
	Plug	Recep.		Plug	Recep.	Plug	Recep.			
03	14	14.3	11.5	11	12.5	14.1	12.1	13.5	11.5	10.4
05	15.8	15.8	13.5	13	15	13.7	13.9	14.5	13	13.4
07	15.8	15.8	14.5	14	17	14	13.1	15.5	14.5	15.05

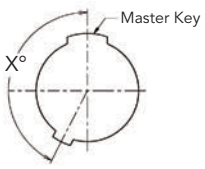
Note: for other lanyard length please consult us.

Orientations

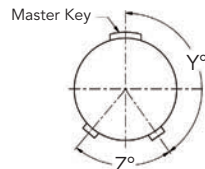
Orientations

Viewed from front face of plug

Shell size 3



Shell sizes 5 & 7



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

Consult us for orientations **B, C, D, E.**

Coordinates information

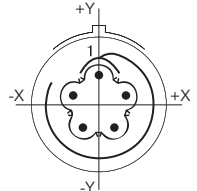
8DA & 8LTA PCB hole drilling and position information.

03

05

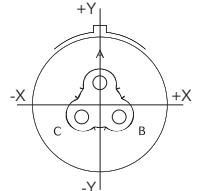
07

05
5#26



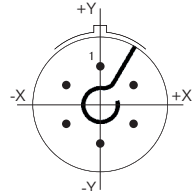
Ctc	X	Y
1	0.00	1.45
2	1.38	0.45
3	0.85	-1.18
4	-0.85	-1.18
5	-1.38	0.45

35
3#22D



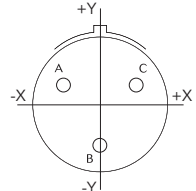
Ctc	X	Y
A	0.00	1.30
B	1.13	-0.65
C	-1.13	-0.65

06
6#26



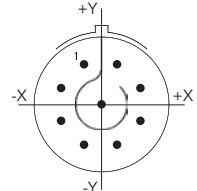
Ctc	X	Y
1	0.00	1.70
2	-1.47	0.85
3	-1.47	-0.85
4	0.00	-1.70
5	1.47	-0.85
6	1.47	0.85

35
3#22D



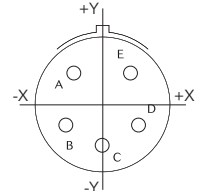
Ctc	X	Y
A	-1.24	0.72
B	0.00	-1.43
C	1.24	0.72

09
9#26



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

35
5#22D



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

Size 3: Marking on shell.
Rear view of receptacle for male and female insulator.
Opposite marking between plug and receptacle.
Note: no marking on Jam Nut receptacle.

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

micro38999 SERIES

8DA, 8BA & 8LTA Series

Range Extension

■ 8D integrated backshell	36
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■ 8STA Series	37
■ <i>microComp</i> ® Series	37
■ Push-pull connectors	38
■ Box mount interconnect solutions	38

Products Range Extension

8D Integrated Backshell

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. Single piece backshell and connector.
- . Better electrical continuity.
- . Lighter than with standard backshell.
- . Easier supply chain.

EMI backshell:

- . Shield band compatible.
- . Overmolding best solution.

Flexibility:

- . All Series III layouts developed by **SOURIAU** available

Black zinc nickel:

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



micro38999 with ELIO® Contact

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:

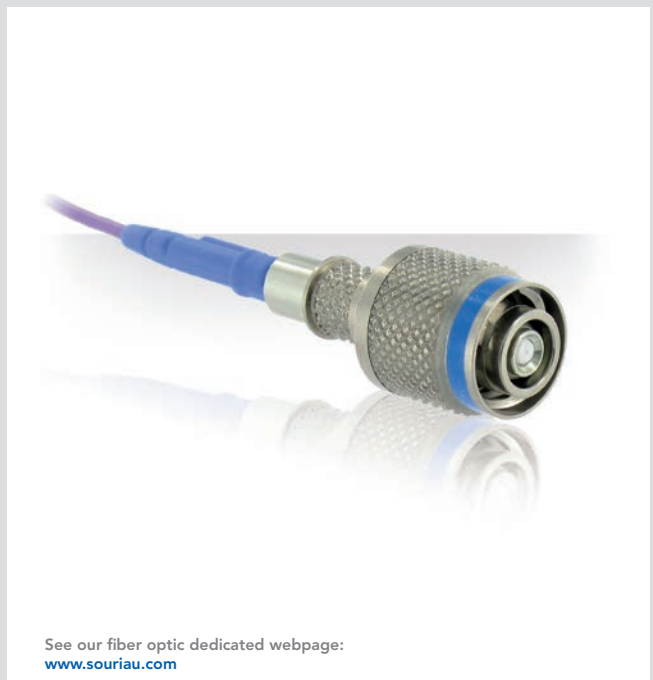
- . Threaded coupling with anti decoupling device.
- . Bayonet coupling.
- . Vibration and shock proof.
- . Harsh -55°C to +150°C.
- . User friendly ELIO® contact.

Silica fiber:

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

POF fiber:

- . 1000/1500 MOSTPOF.



See our fiber optic dedicated webpage:
www.souriau.com

Products Range Extension

8STA Series

8STA Series circular connectors are derived from international military specifications MIL-DTL-38999 and JN1003. Dedicated to Motorsport markets, these connectors are designed to withstand high levels of shock and vibration in harsh environments.

The world smallest and most popular connector:

- . 8STA Series Size 02.
- . Miniature lightweight connector.
- . Ideal for areas where space is a premium.

Versatility:

- . Removable crimp contacts.
- . Available with PCB contacts.

User friendly:

- . Quick bayonet locking.
- . Integrated backshell
- . Visual color indication when mated.
- . Up to 7 color coded keyway orientations.



See «Compact Circular Connectors 8STA/8TA Series» catalog on www.souriau.com

microComp® Series

To respond to miniaturization and weight saving trends in aeronautical and defense applications SOURIAU has developed an innovative high density connector range.

Very light & high density:

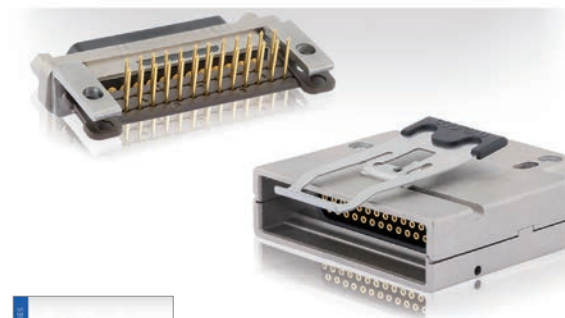
- . Shell in composite (or aluminum).
- . Up to 66% lighter than HD D-Sub.
- . Very high density up to 40% smaller than HD D-Sub.

Excellent features:

- . With crimp removable contacts for wire AWG 24 to 28
- . Temperature up to 175°C
- . High vibration and shock withstanding
- . Standard MIL-STD 83513 accessories
- . Compatible with high speed data rates (Gigabit Ethernet...)

Quick connect version for harsh environment:

- . 104 contacts push-push



See «microComp® Series - Miniature High Density» catalog on www.souriau.com

Products Range Extension

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.



Box Mount Interconnect Solutions

Box Interconnect Solutions: Inside/Outside. Anything you need - we can do !

PCB terminations:

- . with many lengths and different types of plating.

Shape of connector can be adapted:

- . to meet the board application as double flange receptacles.

Receptacles with short shell:

- . to minimize space inside the box.

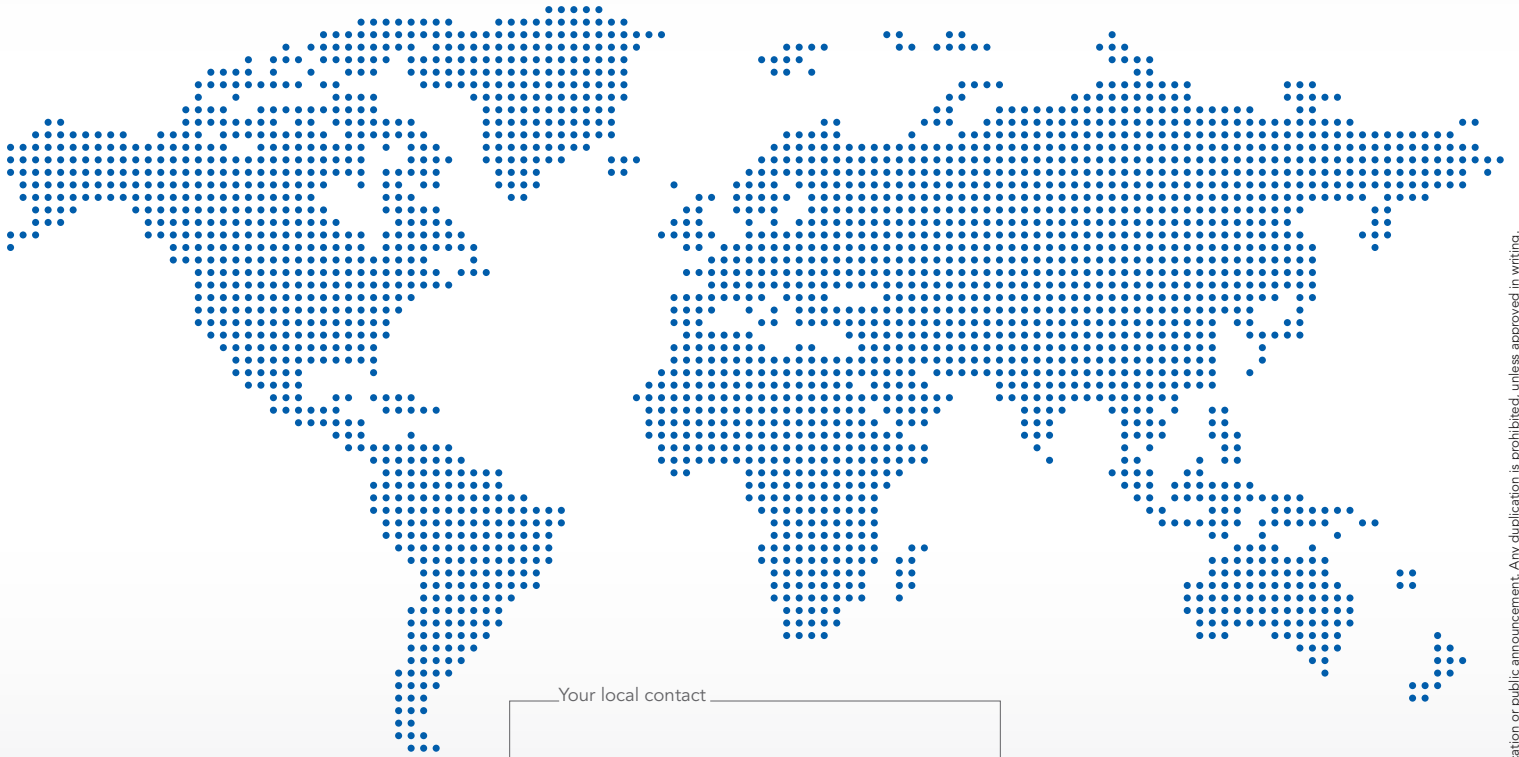
Any customized design:

- . to make box mount easier when space is a constraint.

Blindmate/hermetic/thin panel assembly solutions...



Reliable People, Reliable Solutions



Your local contact



Our contribution to environmental protection:
This catalog is printed on PEFC certified paper
Advancement of sustainable wood cultivation. www.pefc.org

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SOURIAU
Connection Technologies