

# 8LTA Series Bayonet Coupling



## Miniature Bayonet Coupling Connector

Space saving with scoop proof connector for harsh applications.

**A compact solution** ■ Diameter up to 45% smaller than D38999 size 9.  
Integrated backshell: up to 50% 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.

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

## Miniature sizes

- **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)**

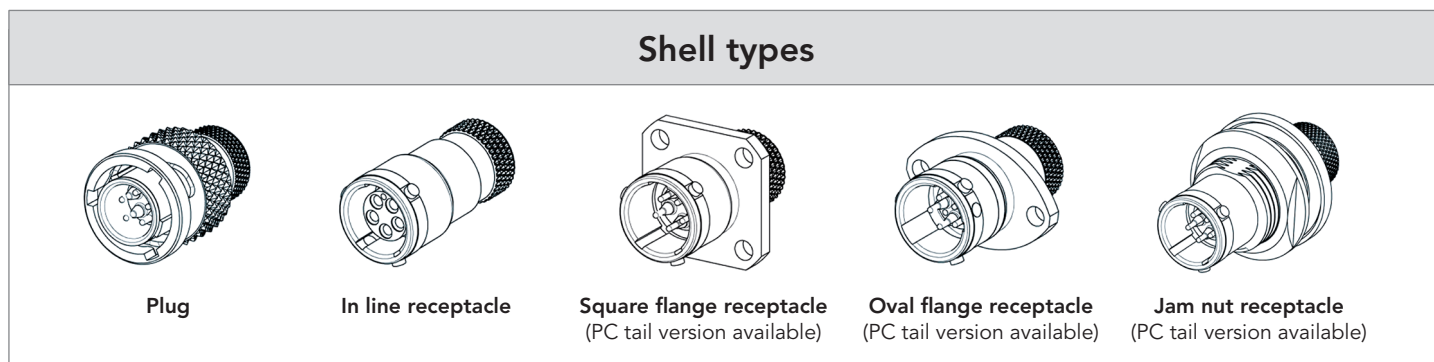
Shell size	All versions
3	250 mΩ
5	
7	
- **EMI:** -55dB @ 1GHz

### 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

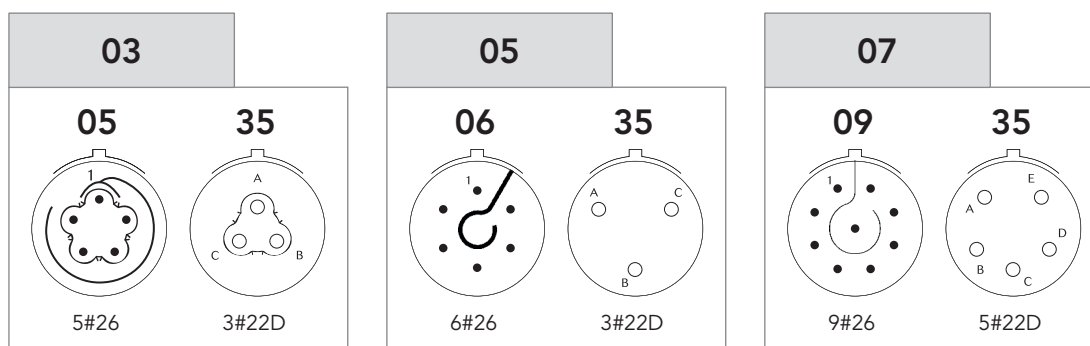
### Resistance to fluids

- **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.

**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

<b>Basic Series</b>	8LTA	0		03	W	05	P	N
<b>Shell type:</b>								
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								
<b>Contact type:</b>								
None: Standard crimp contacts								
C: Short PC tail								
L: Long PC tail (consult us)								
<b>Shell size: 03, 05, 07</b>								
<b>Plating :</b>								
Z: Black zinc nickel								
F: Nickel								
W: Olive drab cadmium								
K: Passivated stainless steel (only for sizes 05 & 07 with standard crimp contacts)								
<b>Contact layouts:</b> See above								
<b>Contact type:</b>								
P: Pin								
S: Socket - not available for PCB version								
<b>Orientation:</b> N, A, B, C, D, E (see page 8)								

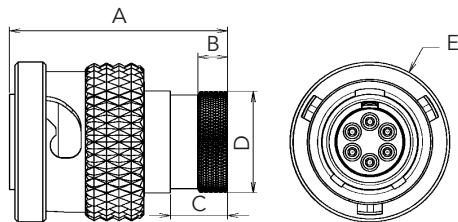
## Connector weights

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

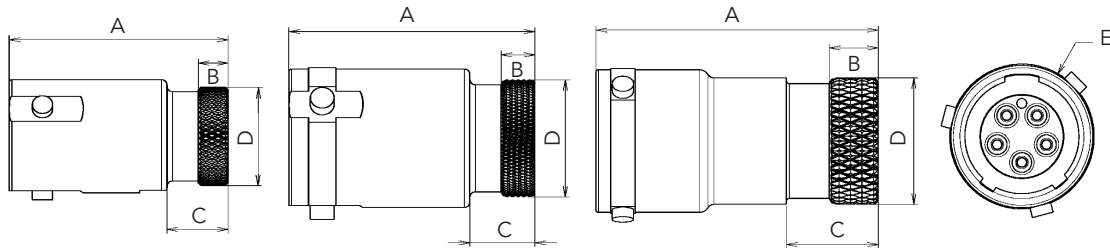
## Dimensions

### Plug - Shell type 6



Shell size	A Max	B Max	C Max	ØD Max	ØE Max	
3	3-05	16.2	2.2 $\pm 0.15$	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

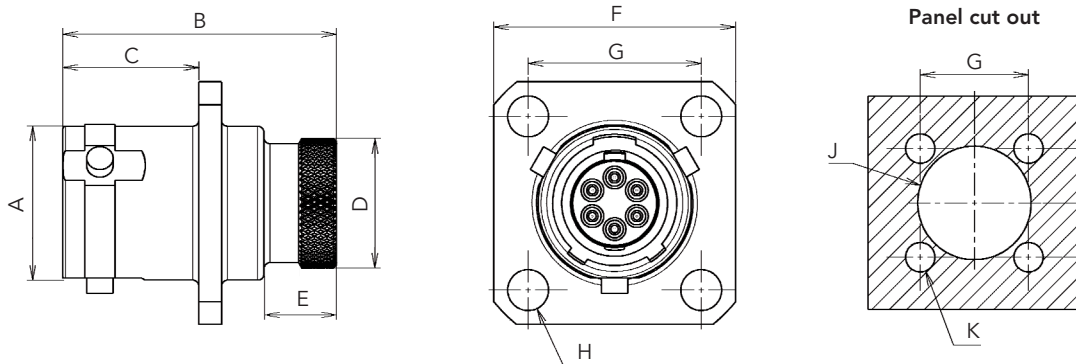
Shell size 5

Shell size 7

Shell size	A Max	B Max	C Max	ØD Max	ØE 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	

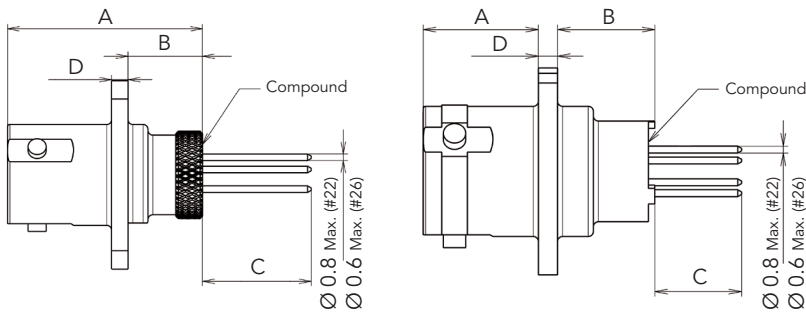
Note: All dimensions are in millimeters (mm)

### 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 <sup>+0.1</sup>	9.3 <sup>±0.1</sup>	3.1 <sup>±0.1</sup>
	3-35	8.3	17.5	8.7	7.2	5.9	15.5	10.8	2.7 <sup>+0.1</sup>	9.3 <sup>±0.1</sup>	3.1 <sup>±0.1</sup>
5		10.15	18.2	9.05	8.55	4.9	16	11.45	2.7 <sup>+0.1</sup>	12 <sup>±0.1</sup>	3.1 <sup>±0.1</sup>
7		11.6	23.06	10.8	10.3	7.5	18	12.7	2.7 <sup>+0.1</sup>	13 <sup>±0.1</sup>	3.1 <sup>±0.1</sup>

### Square flange receptacle with PC tail contacts - Shell type 90



Shell size 3

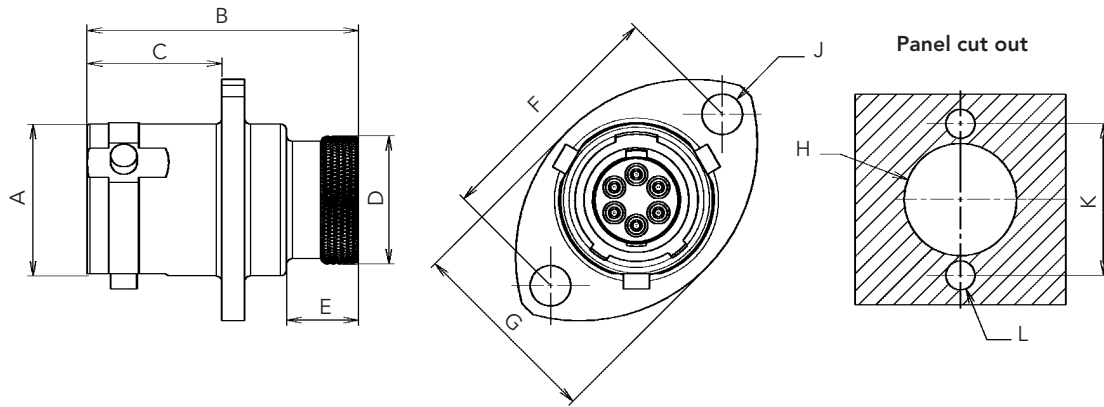
Shell size 5 & 7

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.

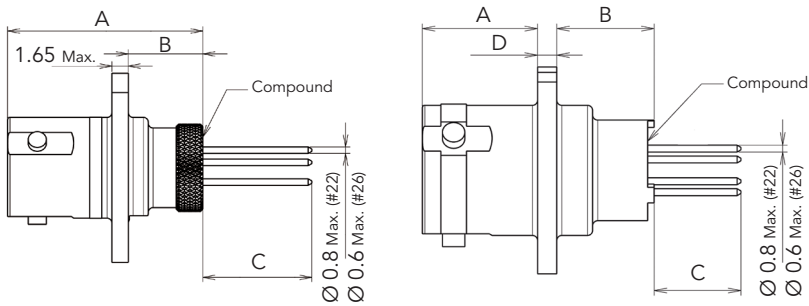
Note: All dimensions are in millimeters (mm)

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

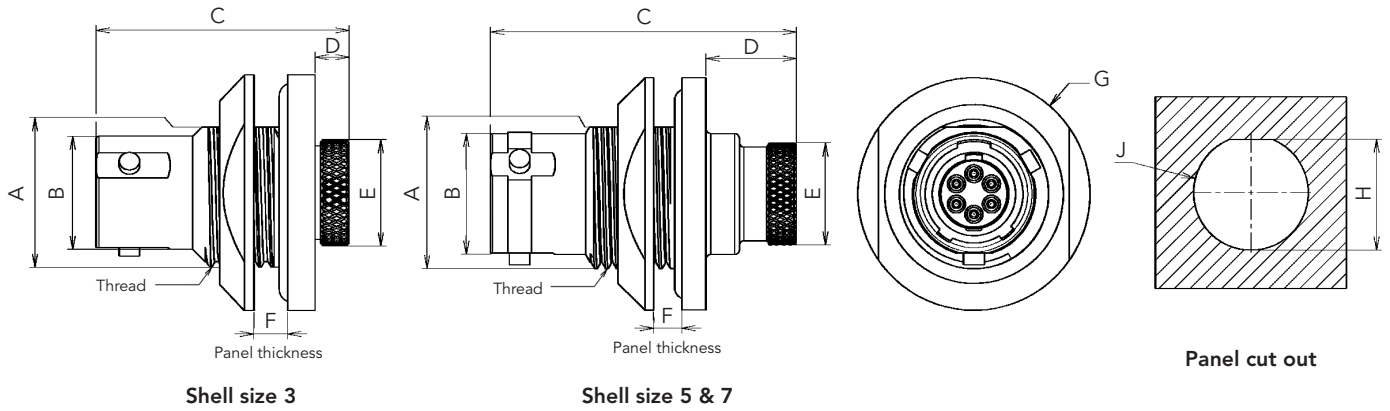
Shell size 5 & 7

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.

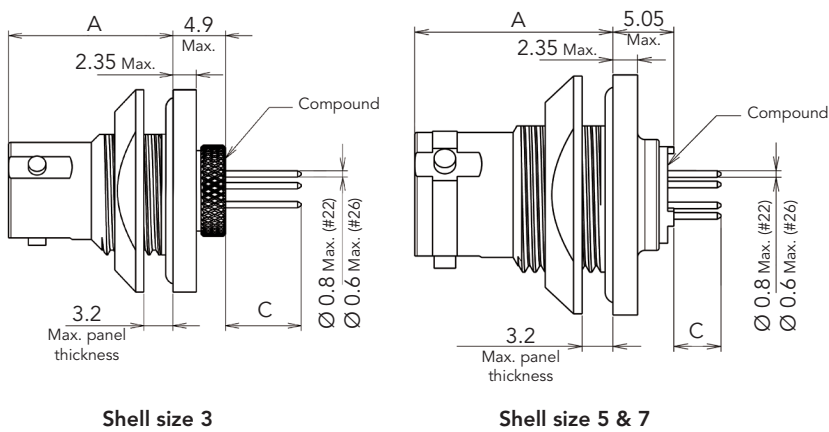
Note: All dimensions are in millimeters (mm)

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 <sup>+0.1</sup>	12 <sup>±0.1</sup>
	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 <sup>+0.1</sup>	12 <sup>±0.1</sup>
5	1/2"28 UNEF 2A	11.7	10.5	25.9	7.7	8.55	1 to 3.2	19.5	13 <sup>+0.1</sup>	13.5 <sup>+0.1</sup>	
7	9/16"24 UNEF 2A	13.4	11.6	33.55	10.4	10.3	1 to 3.2	20.8	14.4 <sup>+0.1</sup>	15.2 <sup>±0.1</sup>	

Jam nut receptacle with PC tail contacts - Shell type 97

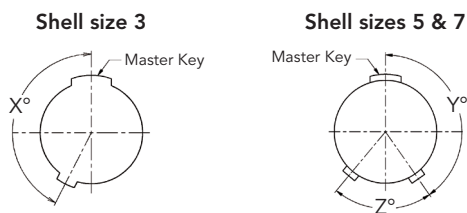


Layout	A Max.	Short PC tail C		Long PC tail L	
		C Min.	C Max.	C Min.	C Max.
03-05	14.4	6.15	7.04	10.65	11.54
03-35	15.7	4.8	5.7	9.3	10.19
05-06	16.4	3.54	4.52	7.99	9.02
05-35	16.4	3.42	4.33	7.92	8.83
07-09	21.3	4.05	5.07	7.60	8.57
07-35	21.3	3.79	4.93	7.29	8.43

Shell design vary according to shell size.

Note: All dimensions are in millimeters (mm)

## 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

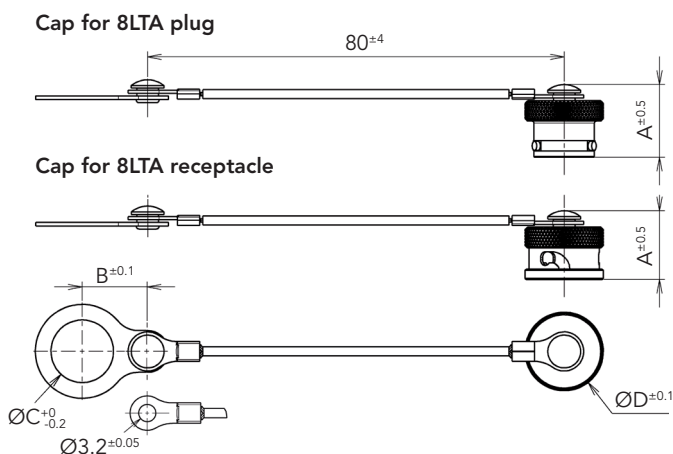
## Aluminum caps

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

## Gaskets

Shell size	Part number	
	Square flange	Oval flange
3	8LTA0G03	8LTA2G03
5	8LTA0G05	8LTA2G05
7	8LTA0G07	8LTA2G07

## Dimensions



Shell size	A Plug	A Recep.	B	C	D
03	14.1	12.1	13.5	11.5	10.4
05	13.7	13.9	14.5	13	13.4
07	14	13.1	15.5	14.5	15.05

Note: for other lanyard length please consult us.

Note: All dimensions are in millimeters (mm)

For further information contact us at [technical.emear@souriau.com](mailto:technical.emear@souriau.com) (Europe - Asia - Africa)  
[technical.americas@souriau.com](mailto:technical.americas@souriau.com) (North America)  
 or visit our web site [www.souriau.com](http://www.souriau.com)