



Miniature Product with a Bayonet Release

Space saving with scoop proof connector for harsh applications.

- A compact solution** ✓ Diameter up to 45% smaller than size 9 (D38999).
Up to 50% 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.
- 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 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
 - 3 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
 - 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)
 - Composite (size 7)
- **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**

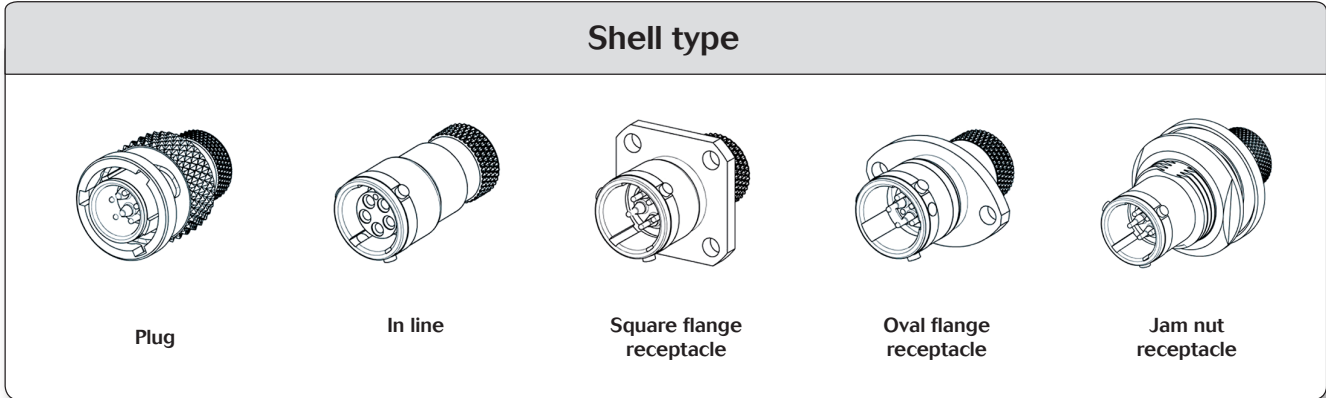
| Shell size | All versions |
|------------|--------------|
| 03 | < 250 mΩ |
| 05 | |
| 07 | |
- **EMI:**
 - 55dB @ 1GHz

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

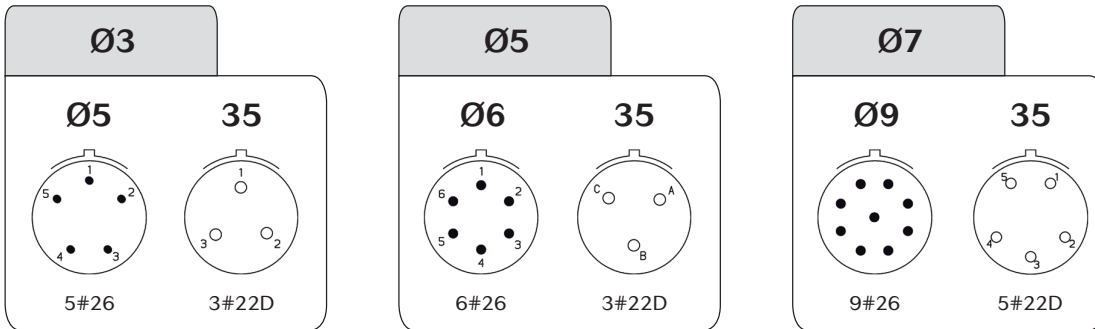
Resistance to fluids

- **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



Ordering information

| | | | | | | | |
|-----------------------------------|------|---|----|---|----|---|---|
| Basic Series | 8LTA | Ø | Ø3 | W | Ø5 | P | N |
| Shell type: | | | | | | | |
| Ø: Square flange receptacle | | | | | | | |
| 1: In line receptacle | | | | | | | |
| 2: Oval flange receptacle | | | | | | | |
| 6: Plug without EMI ring | | | | | | | |
| 7: Jam nut receptacle | | | | | | | |
| Shell size: Ø3 - Ø5 - Ø7 | | | | | | | |
| Plating : | | | | | | | |
| Z: Black zinc nickel | | | | | | | |
| F: Nickel | | | | | | | |
| W: Olive drab cadmium | | | | | | | |
| Contact layouts: See above | | | | | | | |
| Contact type: | | | | | | | |
| P: Pin | | | | | | | |
| S: Socket | | | | | | | |
| Orientation: | | | | | | | |
| N, A, B, C, D, E | | | | | | | |

Note: Ø = Zero

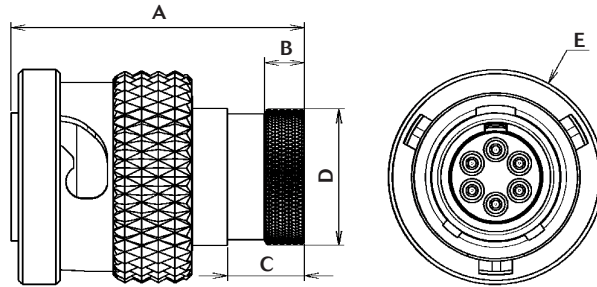
micr 38999

8LTA Bayonet Coupling



Dimensions

Plug - Shell type 6



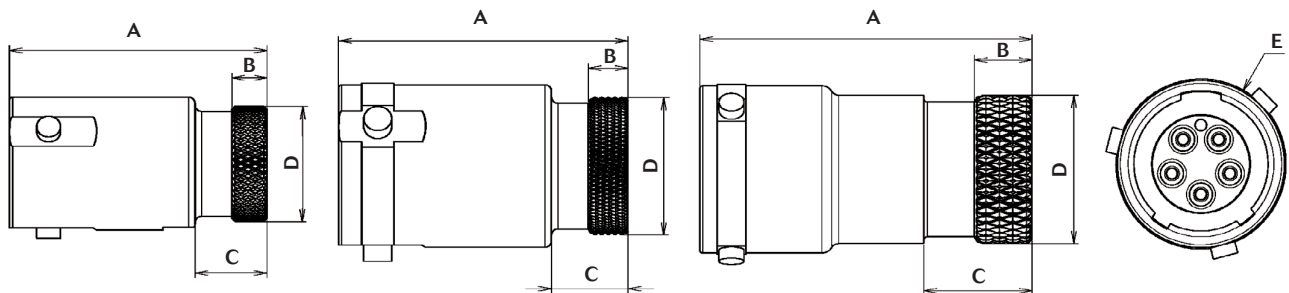
| Shell size | | A Max | B Max | C Max | Ø D Max | Ø E Max |
|------------|------|-------|-----------------------|-------|---------|---------|
| 3 | 3-05 | 16.2 | 2.2 ^{±0.15} | 4.6 | 7.2 | 10.5 |
| | 3-35 | 17.5 | 2.2 ^{±0.15} | 5.9 | 7.2 | 10.5 |
| 05 | | 18.4 | 2.5 ^{±0.15} | 4.9 | 8.55 | 13.5 |
| 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

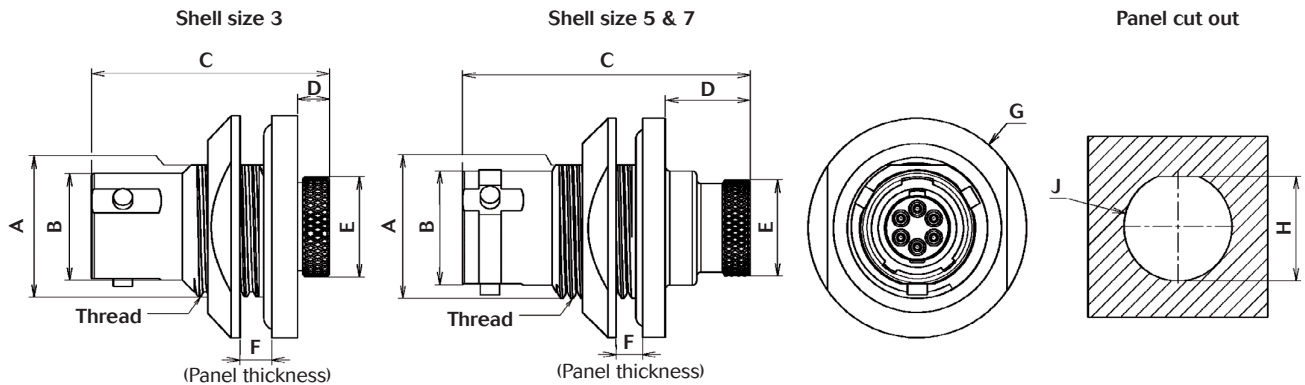


| Shell size | | A Max | B Max | C Max | Ø D Max | Ø E Max |
|------------|------|-------|----------------------|-------|---------|---------|
| 3 | 3-05 | 16.2 | 2.2 ^{±0.15} | 4.6 | 7.2 | 8.3 |
| | 3-35 | 17.5 | 2.2 ^{±0.15} | 5.9 | 7.2 | 8.3 |
| 5 | | 18.2 | 2.5 ^{±0.15} | 4.9 | 8.55 | 10.15 |
| 7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

Note: All dimensions are in mm.

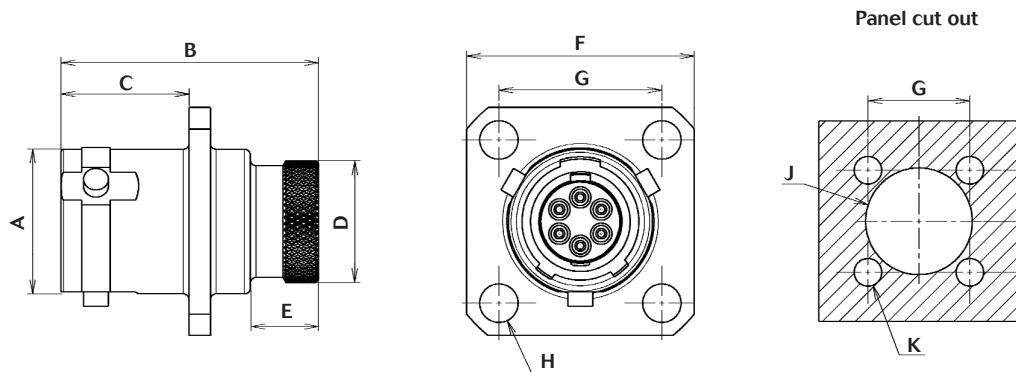


Jam nut receptacle - Shell type 7



| 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 ^{±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} | |

Square flange receptacle - Shell type 0

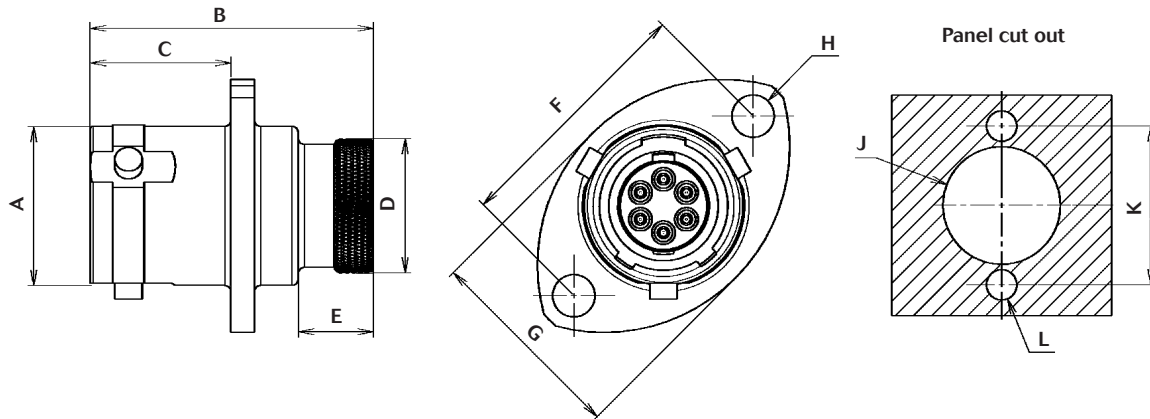


| Shell size | Ø A Max | B Max | C Max | Ø D Max | E Max | F Max | G Max | Ø H Max | Ø J Max | Ø K Max | |
|------------|---------|-------|-------|---------|-------|-------|-------|---------------------|---------------------|---------------------|---------------------|
| 3 | 3-05 | 8.3 | 16.2 | 8.7 | 7.2 | 4.6 | 15.5 | 10.8 | 2.7 ^{±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 | 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 | 2.7 ^{±0.1} | 13 ^{±0.1} | 3.1 ^{±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 | |

Note: All dimensions are in mm.

Connector weights

Weight

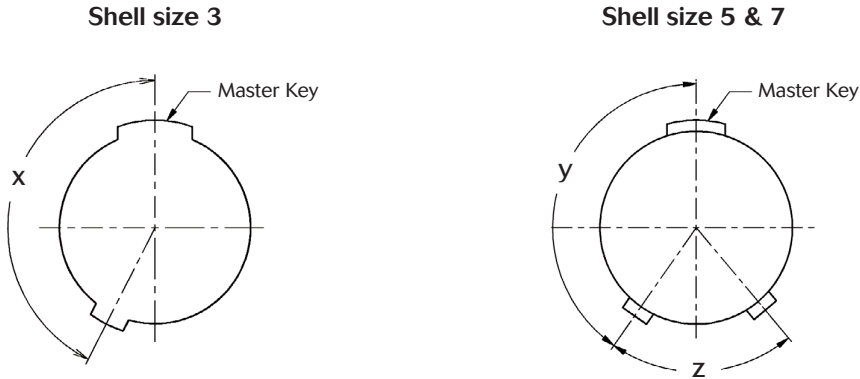
Aluminum version (in gram ±10 %)

| Shell size & layout | Plug | | Square flange receptacle | |
|---------------------|------------------|---------------|--------------------------|---------------|
| | Without contacts | With contacts | Without contacts | With 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 |

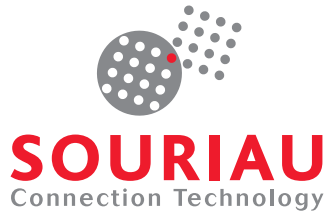


Orientations

Orientation - All shell types



| 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 |



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 or visit our web sites www.souriau.com & www.micro38999.com