

38999 Series II 8T Connectors



38999 Bayonet Circular Connector For More Compacity

With the increasing requirement for low profile and EMI shielding, Souriau has more than doubled its 8T range.

PDF.Support

A wide range

RoHS plating available (black zinc nickel)
11 different shells available
43 layouts available (from size 8 to 24)

Lower profile design

Lightweight
Space saving (30% shorter compared to 8LT)

**30%
SHORTER**

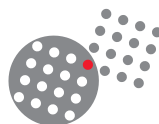


High reliability

EMI shielding
Excellent shock vibration & fluid resistance
QPL approved

High density connector

From 1 to 128 contacts



SOURIAU
Connection Technology

38999 Series II 8T Connectors



Description

- Low profile
- Bayonet locking system
- 11 shell types
- 43 layouts
- High density connector from 1 to 128 contacts
- An excellent shock vibration and fluid resistance
- QPL qualified
- Standards:
 - MIL-C 38999 Series II
 - NFC 93422 HE 309
 - VG 96912 series II
 - PAN 6433-1
 - BS 9522 N 003

Applications

- Civil and military aerospace
- Communications equipments
- Ballistic missiles & weapon systems
- Medical instrumentation

Technical Features

Mechanical

- **Shell:** Aluminum alloy
- **Plating:**
 - Black zinc nickel (Z)
 - Nickel (F)
 - Olive green cadmium (B)
 - Hard anodized (C)
- **Insulator:** Thermoplastic
- **Grommet and seal:** Silicone elastomer
- **Contact:** Copper alloy
- **Plating:** Gold over nickel
- **Endurance:**
 - 500 mating cycles

- **Shock:** 300g, 3ms duration
- **Vibration:**
 - Random 100 to 1000Hz - 1g2/Hz
- **Contact retention (mini force in N):**
 - Size 22D: 44N Size 16: 110N
 - Size 20: 67N Size 12: 110N

Electrical

- **Test voltage (Vrms):**

Service	Sea level	at 21 000 m
M	1300	800
I	1800	1000
II	2300	1000

- **Contact resistance:**
 - Size 22D: 14.6mΩ
 - Size 20: 7.3mΩ
 - Size 16: 3.8mΩ
- **Insulation resistance:**
 - ≥ 5000MΩ (at 500Vdc)
- **Contact rating:**
 - Size 22D: 5A Size 16: 13A
 - Size 20: 7.5A Size 12: 23A
- **Shell continuity:**
 - Black zinc nickel plating: 2.5mΩ
 - Olive green plating: 2.5mΩ
 - Nickel plating: 1mΩ

Environmental

- **Temperature range:**
 - Zinc nickel plating (Z): -65°C + 175°C
 - Cadmium plating (B): -65°C + 175°C
 - Nickel plating (F): -65°C + 200°C
 - Hard anodized (C): -65°C + 200°C
- **Sealing (mated connectors):**
 - Differential pressure 1 bar
 - Leakage ≤ 8cm³/h
- **Salt spray to:**
 - MIL-STD 1344 method 1001:
 - 500 hours (plating B & Z)
 - 48 hours (plating F & C)
 - NFC 93422: 48 hours (plating F & C)
- **Damp heat:**
 - MIL-C 38999: 10 cycles (24 hours)
 - NFC 93422: 56 days
- **Resistance to fluids:**
 - To MIL-L 38999:
 - MIL-L 7808, MIL-L 23699, MIL-H 5606,
 - MIL-A 8243, MIL-L 25769, MIL-G 3056,
 - MIL-T 5624 (JP5); hydraulic fluids; solvents
 - To NFC 93422:
 - F 46, F 54, O/180, H 515, H 542, XH 45

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Space saving: shell size comparison 8T / 8LT

**30%
SHORTER**



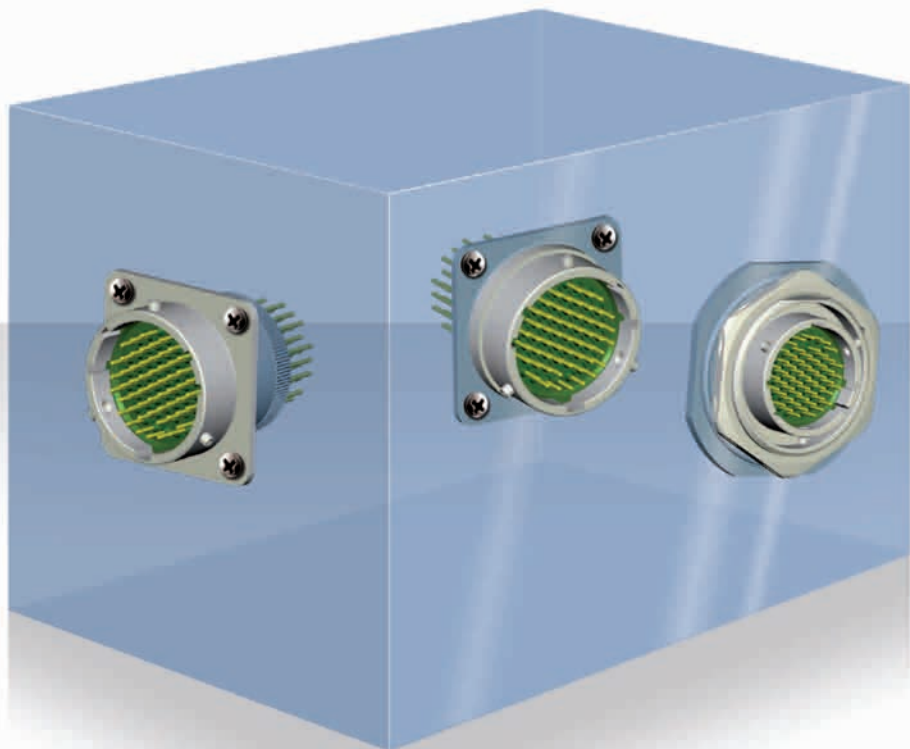
8T
38999 Series II
Example: 8T 15



8LT
38999 Series I
Example: 8LT 15

8T shorter for all shell types compared to 8LT !

Box solutions



- Rear mounting
- Front mounting
- Integrated backshell
- Jam nut

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Shell types

Plugs



8T5
MS27484T
With grounding ring



8T6
MS27473T
Without grounding ring



8T15
MS27484E
With grounding ring



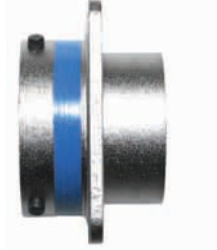
8T16
MS27473E
Without grounding ring

Receptacles

Front mounting



8T0
MS27472T



8T4
MS27499E



8T10
MS27472E

In line receptacle



8T1

Rear mounting



8T3
MS27497T



8T2
MS27508E

Jam nut receptacle



8T7
MS27474T

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Features by shell types

From your need ...

Short grommet		Integrated backshell		With accessories threads							
↓		↓		↓		↓		↓		↓	
Receptacle		Plug		Receptacle	Plug		Receptacle				
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
Square flange + Rear mounting	Square flange + Front mounting	With grounding ring	Without grounding ring	Square flange + Front mounting	With grounding ring	Without grounding ring	Square flange + Front mounting	Square flange + Rear mounting	In line	Jam nut	
8T2	8T4	8T15	8T16	8T10	8T5	8T6	8T0	8T3	8T1	8T7	

... to our solution !

A versatile range available !

38999 Series II

8T Connectors



Ordering information

Souriau - Part numbers

Basic Series	8T	0	14	B	35	P	N
Shell type: 0: Square flange receptacle (front mount with accessories threads) 1: In line receptacle (with accessories threads) 2: Square flange receptacle (rear mount without accessories threads) 3: Square flange receptacle (rear mount with accessories threads) 4: Square flange receptacle (front mount without accessories threads) 5: Plug with RFI shielding 6: Plug without RFI shielding 7: Jam nut receptacle (with accessories threads) 10: Square flange receptacle (front mount, rear knurling) 15: Plug with RFI shielding (rear knurling) 16: Plug without RFI shielding (rear knurling)							
Type: None: Connectors with standard crimp contacts L: Receptacle with long spill (male and female size #22D) C: Receptacle with short spill (male and female size #22D, #20, #16) P: Receptacle with solder cup (male size #22D)							
Shell size: 08 - 10 - 12 - 14 - 16 - 18 - 20 - 22 - 24							
Plating: Z: Black zinc nickel F: Nickel B: Olive drab cadmium C: Hard anodized							
Contact layout: See tables p. 7 & 8							
Contact type: P: Pin S: Socket A: Connector supplied less pin contact or with specific contacts (connector marking : A + orientation) B: Female connector without contact or with special contacts (connector marking : B + orientation)							
Orientation: N, A, B, C, D & E							
Special custom: None: Standard plastic cap M: Antistatic plastic cap							
L: For P and S contact type only, connector delivered without contacts, connector marking P or S (without L)							

MIL-C-38999 Series II

Basic Series	MS	27497T	14	B	35	P	N
Shell type & Class: 27472T: Square flange receptacle (front mount with accessories threads) 27508E: Square flange receptacle (rear mount without accessories threads) 27497T: Square flange receptacle (rear mount with accessories threads) 27499E: Square flange receptacle (front mount without accessories threads) 27484T: Plug with RFI shielding 27473T: Plug without RFI shielding 27474T: Jam nut receptacle (with accessories threads) 27472E: Square flange receptacle (front mount, rear knurling) 27484E: Plug with RFI shielding (rear knurling) 27473E: Plug without RFI shielding (rear knurling)							
Shell size: 08 - 10 - 12 - 14 - 16 - 18 - 20 - 22 - 24							
Plating: Z: Black zinc nickel B: Olive drab cadmium F: Nickel							
Contact layout: See tables p. 7 & 8							
Contact type: P: Pin S: Socket A: Connector supplied less pin contact or with specific contacts (connector marking : A + orientation) B: Female connector without contact or with special contacts (connector marking : B + orientation)							
Orientation: N, A, B, C, D & E							
Special custom: None: Standard plastic cap M: Antistatic plastic cap							
L: For P and S contact type only, connector delivered without contacts, connector marking P or S (without L)							

Note : connectors supplied with standard contacts

38999 Series II 8T Connectors



Contact layouts

08

<p>35</p> <p>6#22D Service M</p>	<p>98</p> <p>3#20 Service I</p>
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10

<p>05*</p> <p>5#20 Service I</p>	<p>35</p> <p>13#22D Service M</p>	<p>98</p> <p>6#20 Service I</p>	<p>99</p> <p>7#20 Service I</p>
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12

<p>03</p> <p>3#16 Service I</p>	<p>04*</p> <p>4#16 Service I</p>	<p>08**</p> <p>8#20 Service I</p>	<p>26*</p> <p>6#22D 2#12 Service M</p>	<p>35</p> <p>22#22D Service M</p>	<p>98</p> <p>10#20 Service I</p>
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14

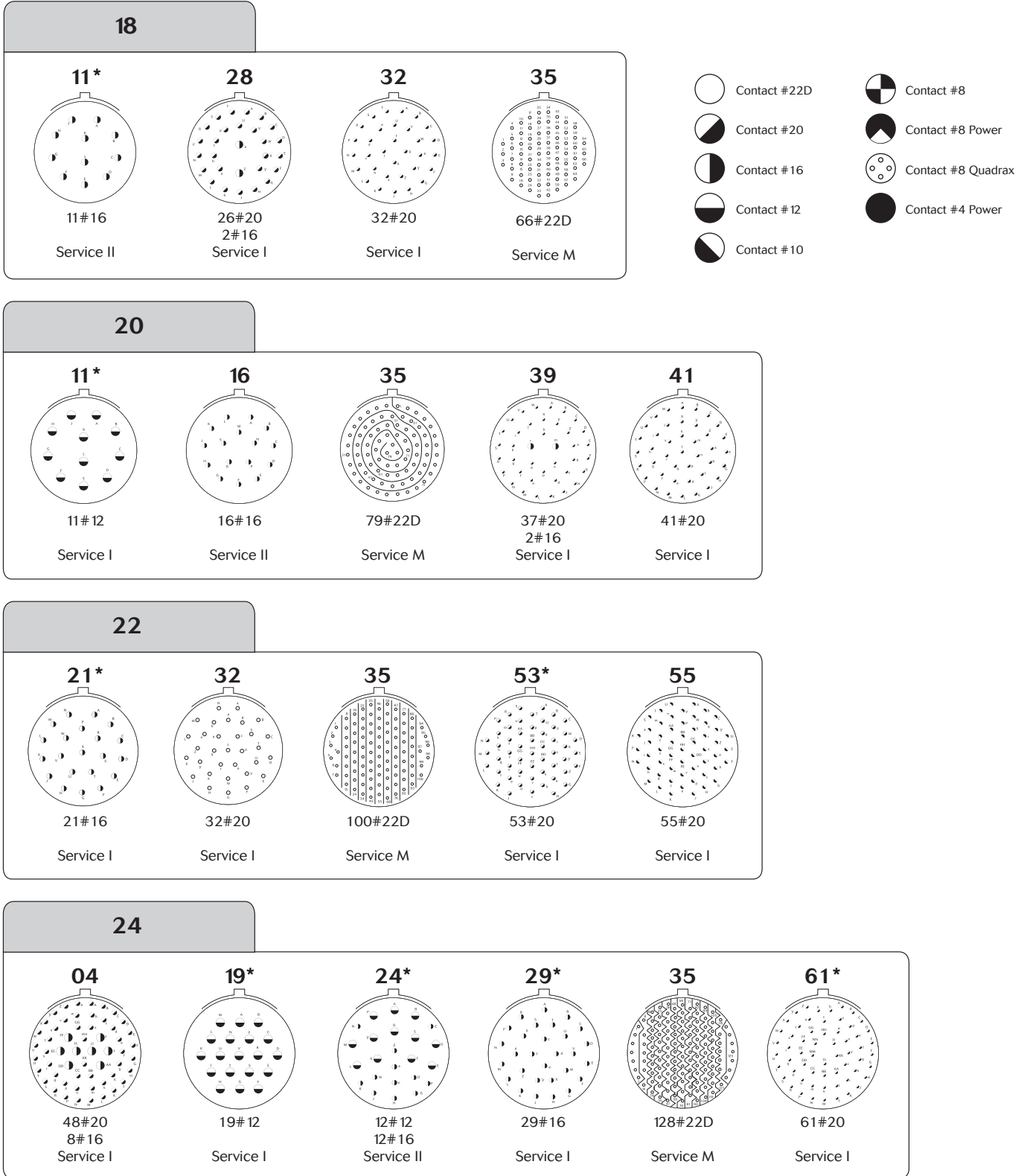
<p>05*</p> <p>5#16 Service II</p>	<p>15*</p> <p>14#20 1#16 Service I</p>	<p>18*</p> <p>18#20 Service I</p>	<p>19*</p> <p>19#20 Service I</p>	<p>35</p> <p>37#22D Service M</p>	<p>97*</p> <p>8#20 4#16 Service I</p>
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16

<p>06</p> <p>6#12 or 6#12 Coax Service I</p>	<p>08*</p> <p>8#16 Service II</p>	<p>26*</p> <p>26#20 Service I</p>	<p>35</p> <p>55#22D Service M</p>	<p>99</p> <p>2#16 21#20 Service I</p>
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* Layout not available on 8T2 & 8T4 (short grommet). On demand only, please consult us.
 ** Layout not available on 8T2 & 8T4 (short grommet) / Layout available on other types (long grommet) but only with male insert. For female version or short grommet, please consult us.

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* Layout not available on 8T2 & 8T4 (short grommet). On demand only, please consult us.

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