

38999 Series II

8T Series



38999 Bayonet Low Profile Connector

With the increasing requirement for compacity and EMI shielding, SOURIAU has more than doubled its 8T range.

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).



High reliability ■ EMI shielding.
Excellent shock vibration & fluid resistance.
QPL approved.

High density connector ■ From 1 to 128 contacts.



Description

- Low profile / Not scoop proof
- Bayonet locking system
- 11 shell types, 43 layouts
- High density connector from 1 to 128 contacts
- An excellent shock vibration and fluid resistance solution
- QPL qualified
- Standards:
 - MIL-C 38999 Series II
 - NFC 93422 HE 309
 - VG 96912 Series II
 - PAN 6433-1
 - BS 9522 N 003

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 (with EMI ring):**
 - 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


Space saving

Shell size comparison 8T / 8LT



30% shorter

8T
38999 Series II
Example: 8T15



8LT
38999 Series I
Example: 8LT15


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

Box solutions


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

Shell types


Plugs




8T5
MS27484T
With grounding ring



8T6
MS27473T
Without grounding ring



8T15
MS27484E
With grounding ring




8T16
MS27473E
Without grounding ring

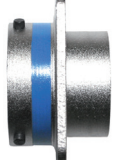
Receptacles

Square flange receptacle


Front mounting



8T0
MS27472T




8T4
MS27499E

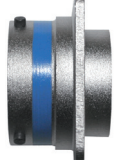


8T10
MS27472E

Rear mounting




8T3
MS27497T




8T2
MS27508E

In line receptacle



8T1

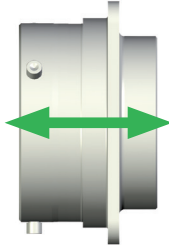
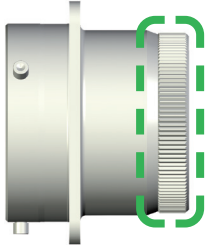
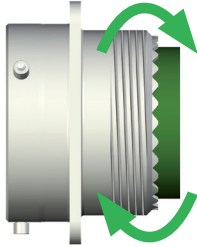

Jam nut receptacle



8T7
MS27474T

Features by shell types

From your need ...

										
Short grommet		Integrated backshell		With accessory 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										

Ordering information

HE309 Series - Part numbers

Basic Series	HE309	03	T	10	35	P	N	6	L
Shell type:									
03: Square flange receptacle with thread for back fitting									
05: Square flange receptacle without thread for back fitting									
06: Plug without RFI shielding									
07: Jam nut receptacle									
T: Sealed									
Shell size: 08; 10; 12; 14; 16; 18; 20; 22; 24									
Contact layout: See pages 7 and 8									
Contact type:									
P: Pin									
S: Socket									
Orientation: N, A, B, C & D									
Plating:									
6: Nickel									
7: Olive drab cadmium									
8: Hard anodized									
Specification									
-: Connector delivered with contacts									
L: Connector delivered without contacts									

Souriau - Part numbers

Basic Series	8T	0	-	14	B	35	P	N		
Shell type:										
0: Square flange receptacle (front mount with accessory threads)										
1: In line receptacle (with accessory threads)+										
2: Square flange receptacle (rear mount without accessory threads)										
3: Square flange receptacle (rear mount with accessory threads)										
4: Square flange receptacle (front mount without accessory threads)										
5: Plug with RFI shielding										
6: Plug without RFI shielding										
7: Jam nut receptacle (with accessory threads)										
10: Square flange receptacle (front mount, rear knurling)										
15: Plug with RFI shielding (rear knurling)										
16: Plug without RFI shielding (rear knurling)										
Contact style:										
-: Connectors with standard crimp contacts										
L: Receptacle with long PC tail										
C: Receptacle with short PC tail										
P: Receptacle with solder cup										
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 pages 7 and 8										
Contact type:										
P: Pin A: Connector supplied less pin contact or with specific contacts (connector marking : A + orientation)										
S: Socket B: Female connector without contact or with special contacts (connector marking : B + orientation)										
Orientation: N, A, B, C & D										
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-DTL-38999 Series II - Part numbers

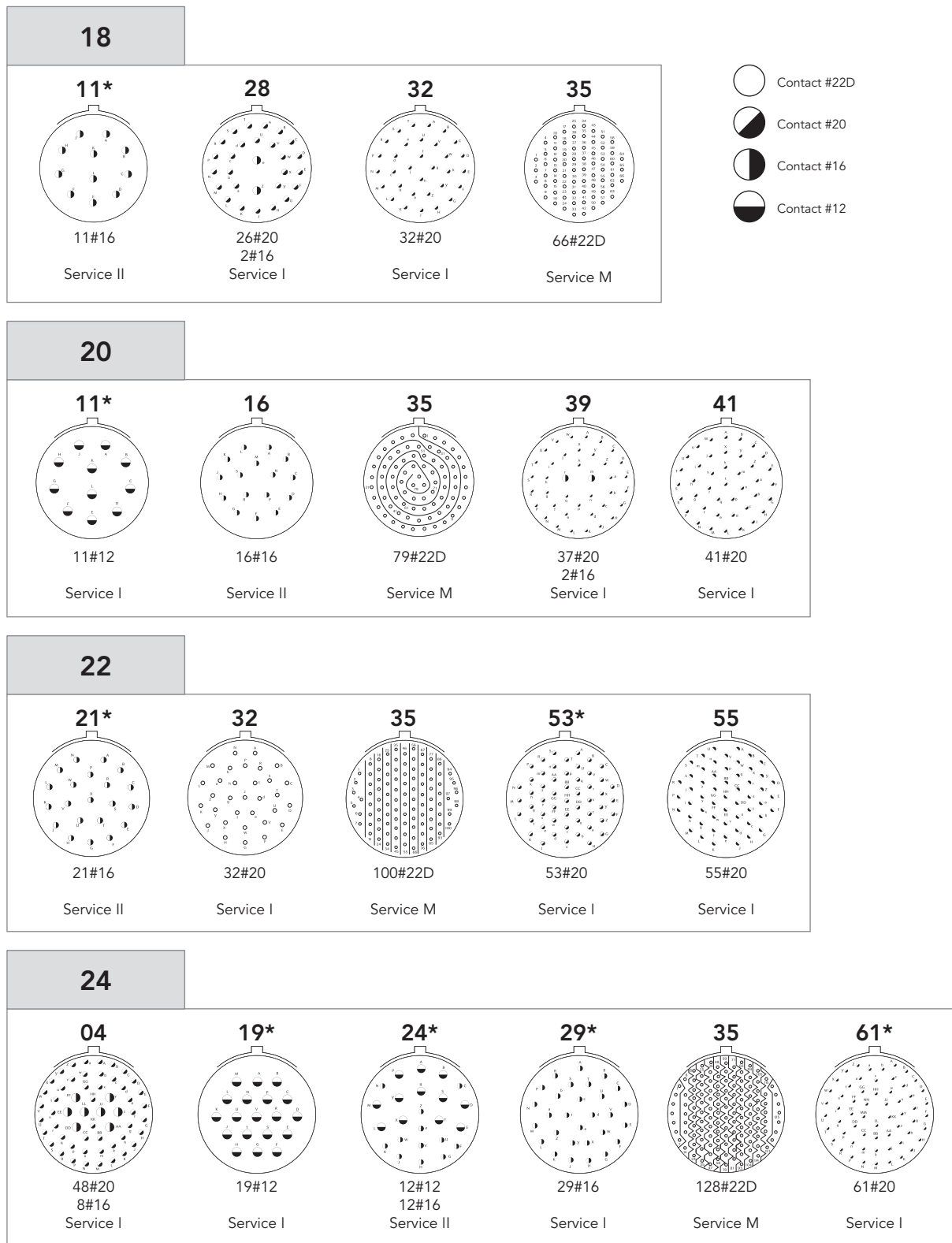
Basic Series	MS	27497T	14	B	35	P	N			
Shell type & Class:										
27472T: Square flange receptacle (front mount with accessory threads)										
27508E: Square flange receptacle (rear mount without accessory threads)										
27497T: Square flange receptacle (rear mount with accessory threads)										
27499E: Square flange receptacle (front mount without accessory threads)										
27484T: Plug with RFI shielding										
27473T: Plug without RFI shielding										
27474T: Jam nut receptacle (with accessory 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 pages 7 and 8										
Contact type:										
P: Pin A: Connector supplied less pin contact or with specific contacts (connector marking : A + orientation)										
S: Socket B: Female connector without contact or with special contacts (connector marking : B + orientation)										
Orientation: N, A, B, C & D										
L: For P and S contact type only, connector delivered without contacts, connector marking P or S (without L)										

Contact layouts

08		10				
<p>35</p> <p>6#22D</p> <p>Service M</p>	<p>98</p> <p>3#20</p> <p>Service I</p>	<p>05*</p> <p>5#20</p> <p>Service I</p>	<p>35</p> <p>13#22D</p> <p>Service M</p>	<p>98</p> <p>6#20</p> <p>Service I</p>	<p>99</p> <p>7#20</p> <p>Service I</p>	
12						
<p>03</p> <p>3#16</p> <p>Service I</p>	<p>04*</p> <p>4#16</p> <p>Service I</p>	<p>08**</p> <p>8#20</p> <p>Service I</p>	<p>26*</p> <p>6#22D 2#12</p> <p>Service M</p>	<p>35</p> <p>22#22D</p> <p>Service M</p>	<p>98</p> <p>10#20</p> <p>Service I</p>	
14						
<p>05*</p> <p>5#16</p> <p>Service II</p>	<p>15*</p> <p>14#20 1#16</p> <p>Service I</p>	<p>18*</p> <p>18#20</p> <p>Service I</p>	<p>19*</p> <p>19#20</p> <p>Service I</p>	<p>35</p> <p>37#22D</p> <p>Service M</p>	<p>97*</p> <p>8#20 4#16</p> <p>Service I</p>	
16						
<p>06</p> <p>6#12 or 6#12 Coax</p> <p>Service I</p>	<p>08*</p> <p>8#16</p> <p>Service II</p>	<p>26*</p> <p>26#20</p> <p>Service I</p>	<p>35</p> <p>55#22D</p> <p>Service M</p>	<p>99</p> <p>2#16 21#20</p> <p>Service I</p>		

* 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.



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

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