

## 8D - D38999 Aluminium Series



## MIL-DTL 38999 Serie III Aluminium Series

# 8D - D38999 Aluminum Serie



## Connector part numbers

| Basic Series                                                                                                                                                                                                                                                                                                                                                                                   | 8D | 0 | - | 11 | W | 35 | P | N | ** |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|---|----|---|----|---|---|----|
| <b>Shell style:</b><br>0: Square flange receptacle<br>1: In line receptacle<br>7: Jam nut receptacle<br>5: Plug with RFI shielding.                                                                                                                                                                                                                                                            |    |   |   |    |   |    |   |   |    |
| <b>Type:</b><br>-: Connectors with standard crimp contacts.<br>L: Receptacle with long spill (male and female size #22D, #20).<br>C: Receptacle with short spill (male and female #22D, #20, #16).<br>S: Receptacle with specific spill (male et female #22D)<br>W: Receptacle with male contacts #22D for wire wrap (3 wraps)<br>T: Receptacle with male contacts #20 for wire wrap (2 wraps) |    |   |   |    |   |    |   |   |    |
| <b>Shell size:</b> 09 - 11 - 13 - 15 - 17 - 19 - 21 - 23 - 25                                                                                                                                                                                                                                                                                                                                  |    |   |   |    |   |    |   |   |    |
| <b>Plating:</b><br>W: Olive drab cadmium<br>F: Nickel<br>ZC: Green zinc cobalt<br>Z: Black zinc nickel                                                                                                                                                                                                                                                                                         |    |   |   |    |   |    |   |   |    |
| <b>Contact layout:</b> See page 8 to 11                                                                                                                                                                                                                                                                                                                                                        |    |   |   |    |   |    |   |   |    |
| <b>Contact type:</b><br>P: Pin.            A: Connector supplied less pin contact or with specific contacts (connector marking: A + orientation).<br>S: Socket.        B: Connector supplied less socket contact or with specific contacts (connector marking: B + orientation).                                                                                                               |    |   |   |    |   |    |   |   |    |
| <b>Orientation:</b> N, A, B, C, D & E (see page 58)                                                                                                                                                                                                                                                                                                                                            |    |   |   |    |   |    |   |   |    |
| <b>Specification:</b><br>046: Tinned straight spills<br>251: Connector provided with power contacts (layouts with contact #8)<br>022: Fuel tank<br>L: For P or S contact type only, connectors delivered without contacts, connectors marking P or S plus orientation.                                                                                                                         |    |   |   |    |   |    |   |   |    |

## MIL-DTL-38999 part numbers\*

| Basic Series                                                                                                                                                                                                                                                                     | D38999 | 20 | W | B | 35 | P | N | L |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|---|---|----|---|---|---|
| <b>Shell style:</b><br>20: Square flange receptacle<br>24: Jam nut receptacle<br>26: Plug with RFI shielding.                                                                                                                                                                    |        |    |   |   |    |   |   |   |
| <b>Plating:</b><br>W: Olive drab cadmium<br>F: Nickel                                                                                                                                                                                                                            |        |    |   |   |    |   |   |   |
| <b>Shell size:</b> A - B - C - D - E - F - G - H - J                                                                                                                                                                                                                             |        |    |   |   |    |   |   |   |
| <b>Contact layout:</b> See page 11 for layout according to MIL-DTL-38999                                                                                                                                                                                                         |        |    |   |   |    |   |   |   |
| <b>Contact type:</b><br>P: Pin.            A: Connector supplied less pin contact or with specific contacts (connector marking: A + orientation).<br>S: Socket.        B: Connector supplied less socket contact or with specific contacts (connector marking: B + orientation). |        |    |   |   |    |   |   |   |
| <b>Orientation:</b> N, A, B, C, D & E (see page 58)                                                                                                                                                                                                                              |        |    |   |   |    |   |   |   |
| L: For P or S contact type only, connector delivered without contacts, connector marking P or S (without L)                                                                                                                                                                      |        |    |   |   |    |   |   |   |

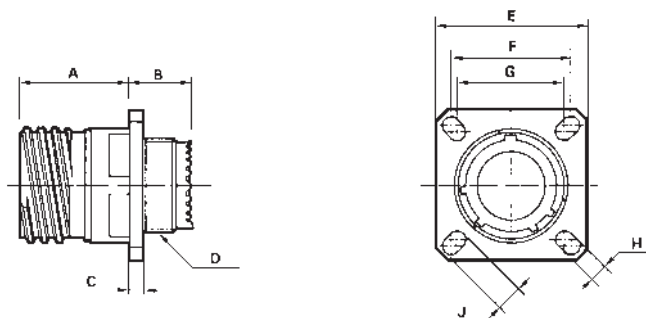
\* Note: To place an order of MIL connectors delivered without MIL removable crimp contacts and keep P or S plus orientation marking, it must be specify clearly on the order (by adding a suffix L at the end of the P/N or specified in comment).

# 8D - D38999 Aluminium Series



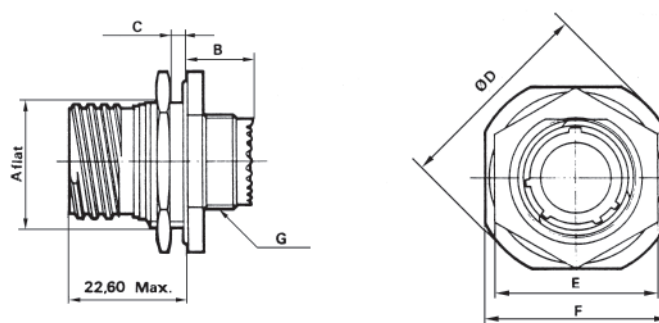
## Dimensions

### Receptacle type 0



| Shell size | A Max. | B Max. | C Max. | D thread   | E $\pm 0,30$ | F     | G     | H $\pm 0,20$ | J $\pm 0,20$ |
|------------|--------|--------|--------|------------|--------------|-------|-------|--------------|--------------|
| 09 (A)     | 20.90  | 10.60  | 2.50   | M12 x 1-6g | 23.80        | 18.26 | 15.09 | 3.25         | 5.49         |
| 11 (B)     | 20.90  | 10.60  | 2.50   | M15 x 1-6g | 26.20        | 20.62 | 18.26 | 3.25         | 4.93         |
| 13 (C)     | 20.90  | 10.60  | 2.50   | M18 x 1-6g | 28.60        | 23.01 | 20.62 | 3.25         | 4.93         |
| 15 (D)     | 20.90  | 10.60  | 2.50   | M22 x 1-6g | 31.00        | 24.61 | 23.01 | 3.25         | 4.93         |
| 17 (E)     | 20.90  | 10.60  | 2.50   | M25 x 1-6g | 33.30        | 26.97 | 24.61 | 3.25         | 4.93         |
| 19 (F)     | 20.90  | 10.60  | 2.50   | M28 x 1-6g | 36.50        | 29.36 | 26.97 | 3.25         | 4.93         |
| 21 (G)     | 20.10  | 11.40  | 3.20   | M31 x 1-6g | 39.70        | 31.75 | 29.36 | 3.25         | 4.93         |
| 23 (H)     | 20.10  | 11.40  | 3.20   | M34 x 1-6g | 42.90        | 34.93 | 31.75 | 3.91         | 6.15         |
| 25 (J)     | 20.10  | 11.40  | 3.20   | M37 x 1-6g | 46.00        | 38.10 | 34.93 | 3.91         | 6.15         |

### Receptacle type 7

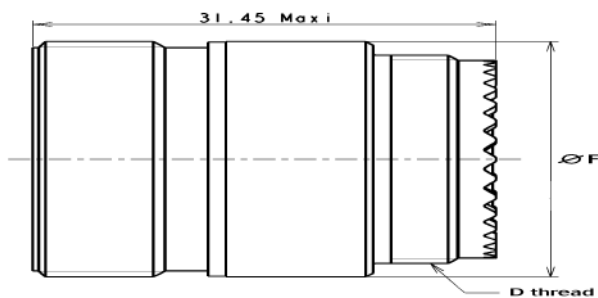


| Shell size | A + 0,10 - 0,15 | B Max. | C Max. | D Max. | E Max. | F $\pm 0,40$ | G thread   |
|------------|-----------------|--------|--------|--------|--------|--------------|------------|
| 09 (A)     | 16.53           | 9.90   | 3.20   | 30.50  | 23.00  | 27.00        | M12 x 1-6g |
| 11 (B)     | 19.07           | 9.90   | 3.20   | 35.20  | 26.00  | 31.80        | M15 x 1-6g |
| 13 (C)     | 23.82           | 9.90   | 3.20   | 38.40  | 31.00  | 34.90        | M18 x 1-6g |
| 15 (D)     | 26.97           | 9.90   | 3.20   | 41.60  | 34.00  | 38.10        | M22 x 1-6g |
| 17 (E)     | 30.15           | 9.90   | 3.20   | 44.80  | 37.00  | 41.30        | M25 x 1-6g |
| 19 (F)     | 33.32           | 9.90   | 3.50   | 49.50  | 41.00  | 46.00        | M28 x 1-6g |
| 21 (G)     | 36.50           | 9.90   | 3.50   | 52.70  | 46.00  | 49.20        | M31 x 1-6g |
| 23 (H)     | 39.67           | 9.90   | 3.50   | 55.90  | 47.00  | 52.40        | M34 x 1-6g |
| 25 (J)     | 42.85           | 9.90   | 3.50   | 59.00  | 52.00  | 55.60        | M37 x 1-6g |

# 8D - D38999 Aluminium Series

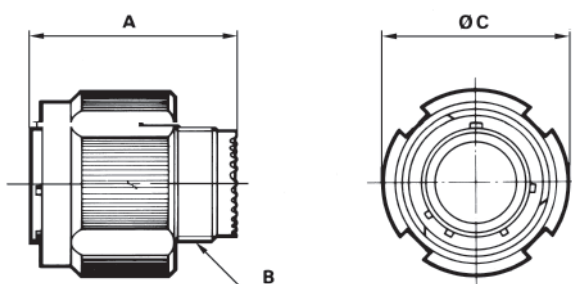


## In line receptacle type 1



| Shell size | D thread   | Ø F   |
|------------|------------|-------|
| 09 (A)     | M12 x 1-6g | 15.90 |
| 11 (B)     | M15 x 1-6g | 19.05 |
| 13 (C)     | M18 x 1-6g | 22.25 |
| 15 (D)     | M22 x 1-6g | 25.40 |
| 17 (E)     | M25 x 1-6g | 30.15 |
| 19 (F)     | M28 x 1-6g | 31.75 |
| 21 (G)     | M31 x 1-6g | 34.75 |
| 23 (H)     | M34 x 1-6g | 37.10 |
| 25 (J)     | M37 x 1-6g | 41.30 |

## Plug type 5



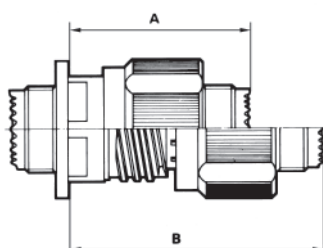
| Shell size | A Max. | B thread   | C Max. |
|------------|--------|------------|--------|
| 09 (A)     | 31.00  | M12 x 1-6g | 21.80  |
| 11 (B)     | 31.00  | M15 x 1-6g | 25.00  |
| 13 (C)     | 31.00  | M18 x 1-6g | 29.40  |
| 15 (D)     | 31.00  | M22 x 1-6g | 32.50  |
| 17 (E)     | 31.00  | M25 x 1-6g | 35.70  |
| 19 (F)     | 31.00  | M28 x 1-6g | 38.50  |
| 21 (G)     | 31.00  | M31 x 1-6g | 41.70  |
| 23 (H)     | 31.00  | M34 x 1-6g | 44.90  |
| 25 (J)     | 31.00  | M37 x 1-6g | 48.00  |

## Maximum coupling torque on panel for jam nut receptacle (type 7)

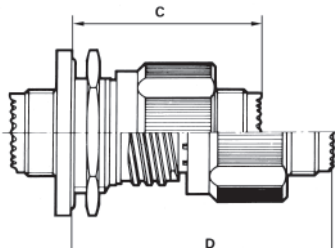
| Shell                 | 09 (A) | 11 (B) | 13 (C) | 15 (D) | 17 (E) | 19 (F) | 21 (G) | 23 (H) | 25 (J) |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Coupling torque (N.m) | 6      | 8      | 10     | 13     | 20     | 23     | 25     | 26     | 28     |

## Mated connectors dimensions

Type 0 with plug



Type 7 with plug



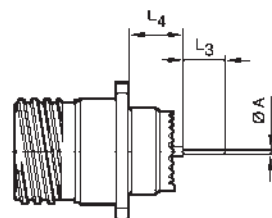
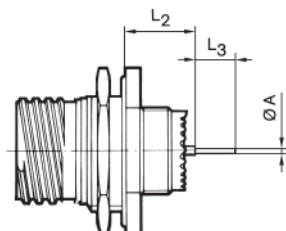
| Shell size | A Max. | B Max. | C Max. | D Max. |
|------------|--------|--------|--------|--------|
| 09 (A)     | 37.00  | 52.30  | 38.30  | 53.60  |
| 11 (B)     | 37.00  | 52.30  | 38.30  | 53.60  |
| 13 (C)     | 37.00  | 52.30  | 38.50  | 53.80  |
| 15 (D)     | 37.00  | 52.30  | 38.50  | 53.80  |
| 17 (E)     | 37.00  | 52.30  | 38.50  | 53.80  |
| 19 (F)     | 37.00  | 52.30  | 38.50  | 53.80  |
| 21 (G)     | 36.00  | 51.30  | 38.50  | 53.80  |
| 23 (H)     | 36.00  | 51.30  | 38.50  | 53.80  |
| 25 (J)     | 36.00  | 51.30  | 38.50  | 53.80  |

Dimensions in millimeters

# 8D - D38999 Aluminium Series



## Receptacle with straight spill contacts



|    |      | Shell size   |              |            | 09<br>(A) | 11<br>(B) | 13<br>(C) | 15<br>(D) | 17<br>(E) | 19<br>(F) | 21<br>(G) | 23<br>(H) | 25<br>(J) |
|----|------|--------------|--------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|    |      | Contact size | Contact type | Spill type |           |           |           |           |           |           |           |           |           |
| A  |      | # 22D        | M & F        | L & C      | 0.70      |           |           |           |           |           |           |           |           |
|    |      | # 22D        | M & F        | S          | 0.50      |           |           |           |           |           |           |           |           |
|    |      | # 20         | M & F        | C          | 0.70      |           |           |           |           |           |           |           |           |
|    |      | # 16         | M & F        | C          | 1.15      |           |           |           |           |           |           |           |           |
| L2 | Min. | # 22D        | M            | L & C      | 10.52     | 10.34     |           |           |           |           |           |           |           |
|    | Max. | # 22D        | M            | L & C      | 11.46     | 11.28     |           |           |           |           |           |           |           |
|    | Min. | # 22D        | F            | L & C      | 10.19     | 10.01     |           |           |           |           |           |           |           |
|    | Max. | # 22D        | F            | L & C      | 11.46     | 11.28     |           |           |           |           |           |           |           |
|    | Min. | # 22D        | M            | S          | 10.19     | 10.01     |           |           |           |           |           |           |           |
|    | Max. | # 22D        | M            | S          | 11.46     | 11.28     |           |           |           |           |           |           |           |
|    | Min. | # 22D        | F            | S          | 10.69     | 10.51     |           |           |           |           |           |           |           |
|    | Max. | # 22D        | F            | S          | 11.63     | 11.45     |           |           |           |           |           |           |           |
|    | Min. | # 20         | M            | C          | 10.36     | 10.18     |           |           |           |           |           |           |           |
|    | Max. | # 20         | M            | C          | 11.63     | 11.45     |           |           |           |           |           |           |           |
|    | Min. | # 20         | F            | C          | 10.69     | 10.51     |           |           |           |           |           |           |           |
|    | Max. | # 20         | F            | C          | 11.63     | 11.45     |           |           |           |           |           |           |           |
|    | Min. | # 16         | M            | C          | 10.69     | 10.51     |           |           |           |           |           |           |           |
|    | Max. | # 16         | M            | C          | 11.63     | 11.45     |           |           |           |           |           |           |           |
|    | Min. | # 16         | F            | C          | 10.69     | 10.51     |           |           |           |           |           |           |           |
|    | Max. | # 16         | F            | C          | 11.63     | 11.45     |           |           |           |           |           |           |           |
| L3 |      | # 22D        | M & F        | L          | 8.50      |           |           |           |           |           |           |           |           |
|    |      | # 22D        | M & F        | C          | 4.00      |           |           |           |           |           |           |           |           |
|    |      | # 22D        | M & F        | S          | 5.10      |           |           |           |           |           |           |           |           |
|    |      | # 20         | M & F        | C          | 5.10      |           |           |           |           |           |           |           |           |
|    |      | # 16         | M & F        | C          | 5.10      |           |           |           |           |           |           |           |           |
| L4 | Min. | # 22D        | M            | L & C      | 9.48      |           |           |           |           |           |           |           |           |
|    | Max. | # 22D        | M            | L & C      | 10.58     |           |           |           |           |           |           | 10.69     |           |
|    | Min. | # 22D        | F            | L & C      | 9.15      |           |           |           |           |           |           | 9.26      |           |
|    | Max. | # 22D        | F            | L & C      | 10.58     |           |           |           |           |           |           | 10.69     |           |
|    | Min. | # 22D        | M            | S          | 9.65      |           |           |           |           |           |           | 9.76      |           |
|    | Max. | # 22D        | M            | S          | 10.75     |           |           |           |           |           |           | 10.86     |           |
|    | Min. | # 22D        | F            | S          | 9.15      |           |           |           |           |           |           | 9.26      |           |
|    | Max. | # 22D        | F            | S          | 10.75     |           |           |           |           |           |           | 10.86     |           |
|    | Min. | # 20         | M            | C          | 9.65      |           |           |           |           |           |           | 9.76      |           |
|    | Max. | # 20         | M            | C          | 10.75     |           |           |           |           |           |           | 10.86     |           |
|    | Min. | # 20         | F            | C          | 9.65      |           |           |           |           |           |           | 9.76      |           |
|    | Max. | # 20         | F            | C          | 10.75     |           |           |           |           |           |           | 10.86     |           |
|    | Min. | # 16         | M            | C          | 9.65      |           |           |           |           |           |           | 9.76      |           |
|    | Max. | # 16         | M            | C          | 10.75     |           |           |           |           |           |           | 10.86     |           |
|    | Min. | # 16         | F            | C          | 9.65      |           |           |           |           |           |           | 9.76      |           |
|    | Max. | # 16         | F            | C          | 10.75     |           |           |           |           |           |           | 10.86     |           |

**M** : Male contact

**F** : Female contact

**L** : Long spill

**C** : Short spill

**S** : Specific spill

Dimensions in millimeters

# 8D - D38999 Aluminium Series



## Souriau backshells part numbers

| Basic series                        |     |     |     |     |     |     |     |     | 8D | 102 | B | 02 |  |  |  |  |
|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|---|----|--|--|--|--|
| Shell style:                        |     |     |     |     |     |     |     |     |    |     |   |    |  |  |  |  |
| 09                                  | 11  | 13  | 15  | 17  | 19  | 21  | 23  | 25  |    |     |   |    |  |  |  |  |
| 101                                 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 |    |     |   |    |  |  |  |  |
| Plating:                            |     |     |     |     |     |     |     |     |    |     |   |    |  |  |  |  |
| B: Olive drab cadmium               |     |     |     |     |     |     |     |     |    |     |   |    |  |  |  |  |
| F: Nickel                           |     |     |     |     |     |     |     |     |    |     |   |    |  |  |  |  |
| Backshell type:                     |     |     |     |     |     |     |     |     |    |     |   |    |  |  |  |  |
| 02: Straight cable clamp            |     |     |     |     |     |     |     |     |    |     |   |    |  |  |  |  |
| 03: 90° cable clamp                 |     |     |     |     |     |     |     |     |    |     |   |    |  |  |  |  |
| 13: Backshell for heat shrink boots |     |     |     |     |     |     |     |     |    |     |   |    |  |  |  |  |

## Cross reference table

| Backshell type                                   | AS85049 Standard | SOURIAU part numbers |
|--------------------------------------------------|------------------|----------------------|
| Straight cable clamp                             | M85049/38-**-x   | 8D101x02             |
| 90° cable clamp                                  | M85049/39-**-x   | 8D101x03             |
| Backshell for heat shrink boots                  | M85049/69-**-x   | 8D101x13             |
| Backshell for screen termination and cable clamp | M85049/19**x**   | N/A                  |

x: Plating    \*\*: Shell size (See page 19 to 21)

# 8D - D38999 Aluminium Series



## Standard backshells part numbers

### Straight cable clamp (M85049/38)

**Basic series** M85049 38 - 11 W

**Backshell type:**

38: Straight cable clamp

**Nut type:**

:- Without self-locking

S: With self-locking

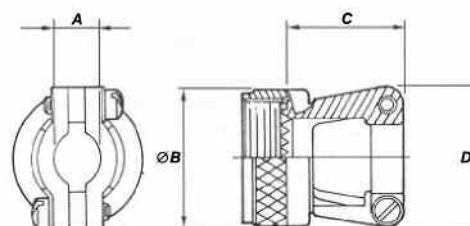
**Shell size:**

09 - 11 - 13 - 15 - 17 - 19 - 21 - 23 - 25

**Plating (See table 3):**

A and W for 38 type

W and N for 38S type



See table 1 for dimensions

### 90° cable clamp (M85049/39)

**Basic series** M85049 39 - 11 W

**Backshell type:**

39: 90° cable clamp

**Nut type:**

:- Without self-locking

S: With self-locking

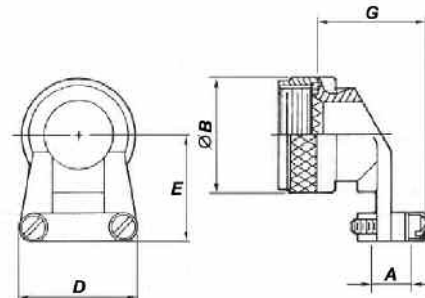
**Shell size:**

09 - 11 - 13 - 15 - 17 - 19 - 21 - 23 - 25

**Plating (See table 3):**

A and W for 39 type

W and N for 39S type



See table 1 for dimensions

Table 1

| Shell size | Min   | A<br>Max. | ØB<br>Max. | C<br>Max. | D<br>Max. | E     | G     |
|------------|-------|-----------|------------|-----------|-----------|-------|-------|
| 09         | 2.50  | 5.90      | 21.80      | 23.10     | 21.60     | 25.40 | 25.70 |
| 11         | 3.90  |           | 25.00      |           | 22.90     | 27.90 |       |
| 13         | 4.80  | 8.30      | 29.40      | 25.70     | 27.90     |       | 30.70 |
| 15         | 6.60  | 11.60     | 32.50      | 26.90     | 29.20     | 31.80 | 32.00 |
| 17         | 7.20  | 15.60     | 35.70      | 29.50     | 33.00     | 33.00 | 35.80 |
| 19         | 8.30  | 16.10     | 38.50      | 35.80     | 38.10     | 34.30 | 38.40 |
| 21         | 8.70  | 17.70     | 41.70      | 38.40     | 40.60     | 40.60 | 42.20 |
| 23         | 9.70  | 20.90     | 44.90      | 42.20     | 43.20     | 44.50 | 44.70 |
| 25         | 10.60 | 21.70     | 48.00      | 44.70     | 45.70     | 47.00 | 48.50 |

Dimensions in millimeters

# 8D - D38999 Aluminium Series



## Backshell for heat shrink boots (M85049/69)

**Basic series**      **M85049**    **69**    **11**    **A**    **D**

**Backshell type:**

**69:** Straight backshell for heat shrink boot

**Shell size:**

09 - 11 - 13 - 15 - 17 - 19 - 21 - 23 - 25

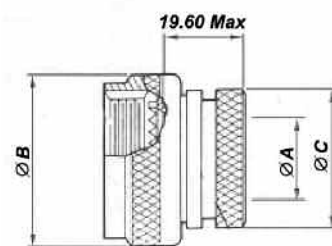
**Plating:**

**A:** see table 3

**Option:**

**Nothing:** Without drain hole

**D:** With drain hole



See table 2 for dimensions

**Table 2**

| Shell size | ØB<br>Max. | ØA<br>Max. | ØC<br>Max. |
|------------|------------|------------|------------|
| <b>09</b>  | 19.10      | 6.35       | 13.55      |
| <b>11</b>  | 21.60      | 9.50       | 15.40      |
| <b>13</b>  | 25.40      | 12.70      | 19.70      |
| <b>15</b>  | 29.20      | 15.90      | 21.30      |
| <b>17</b>  | 31.80      | 19.00      | 24.50      |
| <b>19</b>  | 35.60      | 20.60      | 26.50      |
| <b>21</b>  | 39.40      | 23.80      | 30.90      |
| <b>23</b>  | 41.90      | 27.00      | 34.40      |
| <b>25</b>  | 47.00      | 30.20      | 36.65      |

Dimensions in millimeters

**Table 3**

| Plating     | Description                    | Salt spray |
|-------------|--------------------------------|------------|
| <b>A</b>    | Black anodise                  | 500 Hrs    |
| <b>N, F</b> | Nickel                         | 48 Hrs     |
| <b>W, B</b> | Olive drab cadmium over nickel | 500 Hrs    |

# 8D - D38999 Aluminium Series



## Backshell for screen termination and cable clamp (M85049/19)

### Basic Series

M85049/ 19 11 W 03

#### Shell style:

19: Backshell for screen termination and cable clamp

#### Shell size:

09 - 11 - 13 - 15 - 17 - 19 - 21 - 23 - 25

#### Plating:

W: Olive drab cadmium

N: Nickel

#### Clamp size indicator:

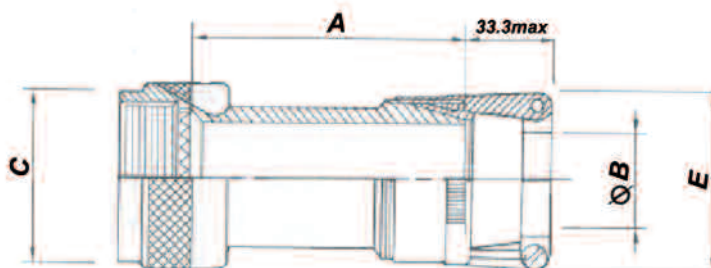
See table 4 and 5

Table 4

| Shell size | A<br>Max. | C<br>Max. | Clamp indicator<br>base on shell size |
|------------|-----------|-----------|---------------------------------------|
| 09         |           | 19.10     | 01 - 02                               |
| 11         |           | 21.60     | 01 - 02 - 03                          |
| 13         |           | 25.40     | 02 - 03 - 04                          |
| 15         |           | 27.90     | 02 - 03 - 04 - 05                     |
| 17         | 38.10     | 31.80     | 02 - 03 - 04 - 05 - 06                |
| 19         |           | 35.60     | 03 - 04 - 05 - 06 - 07                |
| 21         |           | 38.10     | 03 - 04 - 05 - 06 - 07 - 08           |
| 23         |           | 41.90     | 03 - 04 - 05 - 06 - 07 - 09           |
| 25         |           | 44.50     | 04 - 05 - 06 - 07 - 08 - 10           |

Table 5

| Clamp size indicator | Min.  | B<br>Max. | E     |
|----------------------|-------|-----------|-------|
| 01                   | 1.60  | 3.20      | 20.30 |
| 02                   | 3.20  | 6.35      | 25.40 |
| 03                   | 6.35  | 9.50      | 27.90 |
| 04                   | 7.90  | 12.70     | 30.50 |
| 05                   | 11.10 | 15.90     | 31.80 |
| 06                   | 14.30 | 19.00     | 35.60 |
| 07                   | 17.45 | 22.20     | 38.10 |
| 08                   | 20.60 | 24.40     | 41.90 |
| 09                   | 23.80 | 28.60     | 44.50 |
| 10                   | 27.00 | 31.75     | 48.30 |



See table 4 & 5 for dimensions

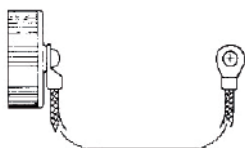
# 8D - D38999 Aluminium Series



## Caps

### Caps for receptacle (D38999/33 - S2453)

With stainless steel rope and eyelet



| Shell size | Part numbers    |                     |
|------------|-----------------|---------------------|
|            | Plating **      | Olive green plating |
| 9          | S2453-09W-**-** | D38999/33 W 09 R    |
| 11         | S2453-11W-**-** | D38999/33 W 11 R    |
| 13         | S2453-13W-**-** | D38999/33 W 13 R    |
| 15         | S2453-15W-**-** | D38999/33 W 15 R    |
| 17         | S2453-17W-**-** | D38999/33 W 17 R    |
| 19         | S2453-19W-**-** | D38999/33 W 19 R    |
| 21         | S2453-21W-**-** | D38999/33 W 21 R    |
| 23         | S2453-23W-**-** | D38999/33 W 23 R    |
| 25         | S2453-25W-**-** | D38999/33 W 25 R    |

With stainless steel rope and ring



| Shell size | Part numbers   |                     |
|------------|----------------|---------------------|
|            | Plating **     | Olive green plating |
| 9          | S2453-09W-**-1 | D38999/33 W 09 N    |
| 11         | S2453-11W-**-1 | D38999/33 W 11 N    |
| 13         | S2453-13W-**-1 | D38999/33 W 13 N    |
| 15         | S2453-15W-**-1 | D38999/33 W 15 N    |
| 17         | S2453-17W-**-1 | D38999/33 W 17 N    |
| 19         | S2453-19W-**-1 | D38999/33 W 19 N    |
| 21         | S2453-21W-**-1 | D38999/33 W 21 N    |
| 23         | S2453-23W-**-1 | D38999/33 W 23 N    |
| 25         | S2453-25W-**-1 | D38999/33 W 25 N    |

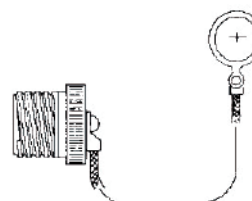
### Caps for plug (D38999/32 - S2454)

With stainless steel rope and eyelet



| Shell size | Part numbers   |                     |
|------------|----------------|---------------------|
|            | Plating **     | Olive green plating |
| 9          | S2454-09F-**-S | D38999/32 W 09 R    |
| 11         | S2454-11F-**-S | D38999/32 W 11 R    |
| 13         | S2454-13F-**-S | D38999/32 W 13 R    |
| 15         | S2454-15F-**-S | D38999/32 W 15 R    |
| 17         | S2454-17F-**-S | D38999/32 W 17 R    |
| 19         | S2454-19F-**-S | D38999/32 W 19 R    |
| 21         | S2454-21F-**-S | D38999/32 W 21 R    |
| 23         | S2454-23F-**-S | D38999/32 W 23 R    |
| 25         | S2454-25F-**-S | D38999/32 W 25 R    |

With stainless steel rope and ring



| Shell size | Part numbers   |                     |
|------------|----------------|---------------------|
|            | Plating **     | Olive green plating |
| 9          | S2454-09W-**-S | D38999/32 W 09 N    |
| 11         | S2454-11W-**-S | D38999/32 W 11 N    |
| 13         | S2454-13W-**-S | D38999/32 W 13 N    |
| 15         | S2454-15W-**-S | D38999/32 W 15 N    |
| 17         | S2454-17W-**-S | D38999/32 W 17 N    |
| 19         | S2454-19W-**-S | D38999/32 W 19 N    |
| 21         | S2454-21W-**-S | D38999/32 W 21 N    |
| 23         | S2454-23W-**-S | D38999/32 W 23 N    |
| 25         | S2454-25W-**-S | D38999/32 W 25 N    |

Plating - 34: Olive green cadmium - Plating - 12: Nickel. Note: caps available with nylon ropes. Consult us.

# 8D - D38999 Aluminium Series



## Connectors weight

|         | With contacts    |        |                        |        |                        |        | Without contact  |        |                        |        |                        |        |
|---------|------------------|--------|------------------------|--------|------------------------|--------|------------------|--------|------------------------|--------|------------------------|--------|
|         | Plug<br>(type 5) |        | Receptacle<br>(type 0) |        | Receptacle<br>(type 7) |        | Plug<br>(type 5) |        | Receptacle<br>(type 0) |        | Receptacle<br>(type 7) |        |
|         | Male             | Female | Male                   | Female | Male                   | Female | Male             | Female | Male                   | Female | Male                   | Female |
| 09 – 35 | 11.47            | 13.05  | 9.15                   | 10.73  | 13.91                  | 15.49  | 11.05            | 11.55  | 8.73                   | 9.23   | 13.49                  | 13.99  |
| 09 – 98 | 11.47            | 12.77  | 9.15                   | 10.45  | 13.91                  | 15.21  | 11.05            | 11.57  | 8.73                   | 9.25   | 13.49                  | 14.01  |
| 11 – 01 | 14.98            | 17.92  | 12.01                  | 14.95  | 18.17                  | 21.11  | 14.32            | 16.32  | 11.35                  | 13.35  | 17.51                  | 19.51  |
| 11 – 02 | 14.61            | 17.15  | 11.64                  | 14.18  | 17.80                  | 20.34  | 13.99            | 15.59  | 11.02                  | 12.62  | 17.18                  | 18.78  |
| 11 – 04 | 14.80            | 17.86  | 11.83                  | 14.89  | 17.99                  | 21.05  | 14.24            | 16.26  | 11.27                  | 13.29  | 17.43                  | 19.45  |
| 11 – 05 | 14.83            | 18.04  | 11.86                  | 15.07  | 19.48                  | 21.23  | 14.13            | 16.04  | 11.16                  | 13.07  | 17.32                  | 19.23  |
| 11 – 22 | 14.47            | 16.89  | 11.50                  | 13.92  | 17.66                  | 20.08  | 14.19            | 15.89  | 11.22                  | 12.92  | 17.38                  | 19.08  |
| 11 – 35 | 14.73            | 18.20  | 11.76                  | 15.23  | 17.68                  | 21.39  | 13.82            | 14.95  | 10.85                  | 11.98  | 17.01                  | 18.14  |
| 11 – 80 | 18.30            | 21.90  | 15.30                  | 18.90  | 21.50                  | 28.39  | 13.80            | 14.90  | 10.80                  | 11.90  | 17.00                  | 18.10  |
| 11 – 98 | 14.70            | 17.46  | 11.73                  | 14.49  | 17.89                  | 20.65  | 13.86            | 15.06  | 10.89                  | 12.09  | 17.05                  | 18.25  |
| 11 – 99 | 14.87            | 18.09  | 11.90                  | 15.12  | 18.06                  | 21.28  | 13.89            | 15.29  | 10.92                  | 12.32  | 17.08                  | 18.48  |
| 13 – 04 | 21.04            | 24.82  | 15.71                  | 19.49  | 24.14                  | 27.92  | 19.80            | 21.70  | 14.47                  | 16.37  | 22.90                  | 24.80  |
| 13 – 08 | 21.42            | 26.60  | 16.09                  | 21.27  | 24.52                  | 29.70  | 20.30            | 23.40  | 14.97                  | 18.07  | 23.40                  | 26.50  |
| 13 – 26 | 21.79            | 27.44  | 16.46                  | 22.11  | 24.89                  | 30.54  | 20.05            | 22.74  | 14.72                  | 17.41  | 23.15                  | 25.84  |
| 13 – 35 | 21.22            | 26.99  | 15.89                  | 21.66  | 24.32                  | 30.09  | 19.68            | 21.49  | 14.35                  | 16.16  | 22.78                  | 24.59  |
| 13 – 98 | 21.08            | 25.70  | 15.75                  | 20.37  | 24.18                  | 28.80  | 19.68            | 21.70  | 14.35                  | 16.37  | 22.78                  | 24.80  |
| 15 – 05 | 26.04            | 31.38  | 19.54                  | 24.88  | 29.62                  | 34.96  | 24.49            | 27.48  | 17.99                  | 20.98  | 28.07                  | 31.06  |
| 15 – 15 | 26.84            | 34.00  | 20.34                  | 27.50  | 30.42                  | 37.58  | 24.57            | 27.62  | 18.07                  | 21.12  | 28.15                  | 31.20  |
| 15 – 18 | 27.05            | 35.93  | 20.55                  | 29.43  | 30.63                  | 39.51  | 24.53            | 28.73  | 18.03                  | 22.23  | 28.11                  | 32.31  |
| 15 – 19 | 26.58            | 34.31  | 20.08                  | 27.81  | 30.16                  | 37.89  | 23.92            | 26.71  | 17.42                  | 20.21  | 27.50                  | 30.29  |
| 15 – 35 | 26.68            | 35.92  | 20.18                  | 29.42  | 30.26                  | 39.50  | 24.09            | 26.67  | 17.59                  | 20.17  | 27.67                  | 30.25  |
| 15 – 97 | 26.51            | 33.56  | 20.01                  | 27.06  | 30.09                  | 37.14  | 24.15            | 27.24  | 17.65                  | 20.74  | 27.73                  | 30.82  |
| 17 – 02 | 32.96            | 46.30  | 31.26                  | 44.60  | 42.06                  | 55.40  | 25.80            | 29.80  | 24.10                  | 28.10  | 34.90                  | 38.90  |
| 17 – 06 | 29.90            | 39.50  | 28.21                  | 37.81  | 39.00                  | 48.60  | 25.94            | 29.90  | 24.25                  | 28.21  | 35.04                  | 39.00  |
| 17 – 08 | 28.89            | 37.62  | 27.20                  | 35.93  | 37.99                  | 46.72  | 26.41            | 31.38  | 24.72                  | 29.69  | 35.51                  | 40.48  |
| 17 – 26 | 29.47            | 40.26  | 27.78                  | 38.57  | 38.57                  | 49.36  | 25.83            | 29.86  | 24.14                  | 28.17  | 34.93                  | 38.96  |
| 17 – 35 | 29.71            | 43.26  | 28.02                  | 41.57  | 38.81                  | 52.36  | 25.86            | 29.51  | 24.17                  | 27.82  | 34.96                  | 38.61  |
| 17 – 75 | 35.31            | 46.60  | 33.62                  | 44.91  | 44.41                  | 55.70  | 26.31            | 32.60  | 24.62                  | 30.91  | 35.41                  | 41.70  |
| 17 – 99 | 29.52            | 40.08  | 27.83                  | 38.39  | 38.62                  | 49.18  | 25.96            | 30.12  | 24.27                  | 28.43  | 35.06                  | 39.22  |
| 19 – 11 | 37.77            | 51.36  | 31.07                  | 44.66  | 44.62                  | 58.21  | 34.36            | 42.78  | 27.66                  | 46.43  | 30.86                  | 49.63  |
| 19 – 32 | 36.98            | 50.38  | 30.28                  | 43.68  | 43.83                  | 57.23  | 32.50            | 37.58  | 25.80                  | 41.23  | 29.00                  | 44.43  |
| 19 – 35 | 37.29            | 53.74  | 30.59                  | 47.04  | 44.14                  | 44.09  | 32.67            | 37.24  | 25.97                  | 40.89  | 29.17                  | 44.09  |
| 21 – 11 | 45.51            | 65.35  | 39.31                  | 59.15  | 53.19                  | 73.03  | 38.25            | 47.75  | 32.05                  | 51.93  | 35.55                  | 55.43  |
| 21 – 16 | 42.61            | 57.89  | 36.41                  | 51.69  | 50.29                  | 65.57  | 37.65            | 45.41  | 31.45                  | 49.59  | 34.95                  | 53.09  |
| 21 – 35 | 42.89            | 63.55  | 36.69                  | 57.35  | 50.57                  | 71.23  | 37.36            | 43.80  | 31.16                  | 47.98  | 34.66                  | 51.48  |
| 21 – 39 | 44.27            | 64.60  | 38.07                  | 58.40  | 51.95                  | 72.28  | 38.47            | 48.24  | 32.27                  | 52.42  | 35.77                  | 55.92  |
| 21 – 41 | 42.81            | 60.18  | 36.61                  | 64.36  | 50.49                  | 67.86  | 37.07            | 43.78  | 30.87                  | 47.96  | 34.37                  | 51.46  |
| 21 – 48 | 49.59            | 49.93  | 43.39                  | 43.73  | 55.27                  | 57.61  | 36.48            | 43.38  | 30.28                  | 37.18  | 44.16                  | 51.06  |
| 21 – 75 | 54.48            | 71.38  | 48.28                  | 65.18  | 62.16                  | 79.06  | 36.48            | 43.38  | 30.28                  | 37.18  | 44.16                  | 51.06  |
| 23 – 21 | 50.49            | 73.74  | 44.19                  | 67.44  | 59.23                  | 82.48  | 43.98            | 57.36  | 37.68                  | 62.20  | 41.58                  | 66.10  |
| 23 – 35 | 48.85            | 75.00  | 42.55                  | 68.70  | 57.59                  | 83.74  | 41.85            | 50.00  | 35.55                  | 54.84  | 39.45                  | 58.74  |
| 23 – 53 | 48.91            | 71.10  | 42.61                  | 64.80  | 57.65                  | 79.84  | 41.49            | 49.90  | 35.19                  | 54.74  | 39.09                  | 58.64  |
| 23 – 55 | 49.66            | 72.73  | 43.36                  | 66.43  | 58.40                  | 81.47  | 41.96            | 50.73  | 35.66                  | 55.57  | 39.56                  | 59.47  |
| 25 – 07 | 61.89            | 90.70  | 55.73                  | 85.10  | 71.15                  | 99.10  | 46.41            | 56.20  | 40.25                  | 61.26  | 44.45                  | 65.46  |
| 25 – 11 | 54.48            | 71.38  | 48.28                  | 65.18  | 62.16                  | 79.06  | 36.48            | 43.38  | 30.28                  | 37.18  | 44.16                  | 51.06  |
| 25 – 19 | 59.76            | 91.77  | 53.60                  | 85.61  | 69.02                  | 101.03 | 47.22            | 61.37  | 41.06                  | 66.43  | 45.26                  | 70.63  |
| 25 – 24 | 59.26            | 90.62  | 53.10                  | 84.46  | 68.52                  | 99.88  | 47.62            | 62.06  | 41.46                  | 67.12  | 45.66                  | 71.32  |
| 25 – 29 | 57.58            | 86.55  | 51.42                  | 80.39  | 66.84                  | 95.81  | 48.59            | 63.93  | 42.43                  | 68.99  | 46.63                  | 73.19  |
| 25 – 35 | 55.37            | 88.20  | 49.21                  | 82.04  | 64.63                  | 97.46  | 46.41            | 56.20  | 40.25                  | 61.26  | 44.45                  | 65.46  |
| 25 – 37 | 57.57            | 89.86  | 51.41                  | 59.36  | 66.83                  | 90.06  | 46.10            | 61.00  | 39.94                  | 60.50  | 55.36                  | 61.20  |
| 25 – 44 | 52.80            | 67.61  | 46.53                  | 65.39  | 62.05                  | 83.39  | 44.40            | 59.22  | 38.14                  | 57.00  | 53.66                  | 75.00  |
| 25 – 43 | 57.62            | 88.30  | 51.46                  | 82.14  | 66.88                  | 97.56  | 48.20            | 63.50  | 42.04                  | 68.56  | 46.24                  | 72.76  |
| 25 – 46 | 59.92            | 83.76  | 53.76                  | 77.60  | 69.18                  | 93.02  | 45.28            | 55.44  | 39.12                  | 60.50  | 43.32                  | 64.70  |
| 25 – 61 | 54.67            | 81.42  | 48.51                  | 75.26  | 63.93                  | 90.68  | 46.13            | 57.02  | 39.97                  | 62.08  | 44.17                  | 66.28  |
| 25 – 08 | 81.00            | 112.83 | 74.84                  | 106.67 | 90.26                  | 122.09 | 45.00            | 56.83  | 38.84                  | 61.69  | 43.04                  | 66.09  |
| 25 – 20 | 66.02            | 96.24  | 59.86                  | 90.08  | 75.28                  | 105.50 | 44.45            | 54.70  | 38.29                  | 59.76  | 42.49                  | 63.96  |
| 25 – 04 | 58.42            | 88.27  | 52.26                  | 82.11  | 67.68                  | 97.53  | 49.22            | 62.83  | 43.06                  | 67.89  | 47.26                  | 72.09  |

Weight in gram