



# DEUTSCH FDBA/HDBA Series Standard UTE 93422

HE302, HE303, NFL54130 and EN3646

Rugged Bayonet Connector Designed for  
Aerospace and Harsh Environment



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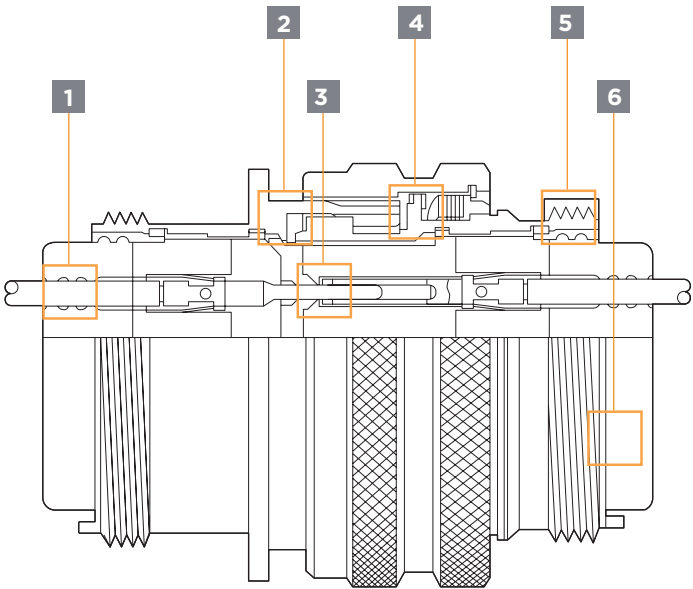
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# FDBA/HDBA Series

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### Introduction



1. Triple wire sealing.
2. Interfacial seal ensured by compression of insert and static/dynamic seal.
3. Contacts individual sealing at coupling stage by compression of elastomer conical risers on hard insert.
4. Anti-friction washers for constant mating force.
5. Insert to shell sealing with potting.
6. Connector rear part fitted with a teeth anti-rotation system assuming an effective tightening and clamping.

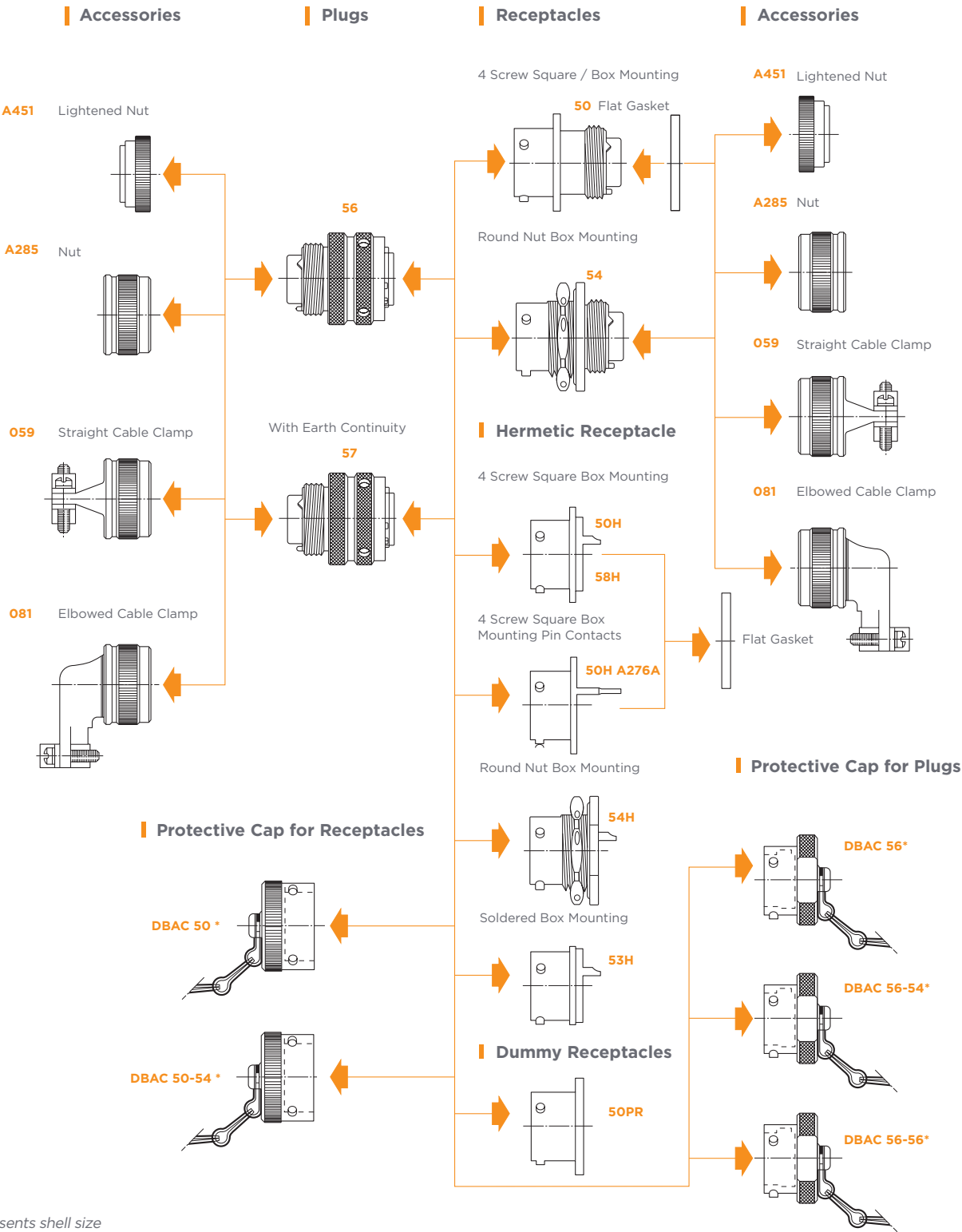
1. Bayonet coupling
2. Black Anodize, Nickel or Cadmium plated Aluminium shells. Hermetics are Nickel plated steel. Other plating options are available based on request.
3. Silicone elastomer and thermosetting resin insert. Silicone elastomer and sintered glass for hermetic.
4. RoHS (Restriction of Hazardous Substances)/REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) Compliant Black EN plating version option available in Aluminium shell.
5. Gain in weight (25%) and overall dimension (23%) compared to NAS 1599 connectors. Gain in weight (50%) for aluminium hermetic version compared to steel and stainless steel hermetic version.
6. Crimping contacts size 20, 16 and 12.
7. Solder contacts hermetic shells.
8. Contacts for printed circuit available in sealed and hermetic shells.
9. Back silicone insert on each wire to accept the new generation of aeronautic cables.
10. 9 sizes of shells and 27 arrangements available.

**TE Components . . . TE Technology . . . TE Know-how . . .**  
AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem  
SEACON | Rochester | DEUTSCH

Empower Engineers to Solve Problems, Moving the World Forward.



### Synoptic



\* represents shell size



# Technical Characteristics

## MECHANICAL

- **Shell:**  
**Material:** Sealed version: Aluminium alloy  
Hermetic version: Stainless Steel  
**Plating:** Black Anodize, Nickel, Cadmium or REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals)/RoHS (Restriction of Hazardous Substances) Compliant Black EN.
- **Insert:**  
**Material:** Sealed version: Thermosetting, elastomer  
Hermetic version: Sintered glass insert
- **Fluid Resistance:** (in accordance with BES/SST/ELC/321/Prod. and MIL-C-26482). Skydrol oil, JP5 fuel, Engine Oils and Hydraulic Fluids
- **Pressure Resistance:**  
Hermetic version: Up to 70 bars. Consult us for other pressure requirements
- **Contacts:**  
**Material and Plating:** Sealed version: Copper alloy – Gold over nickel  
Hermetic version: Ferrous alloy - Gold over nickel - Solder type<sup>+1.3</sup><sub>0</sub>  
**Contact Retention:** Sealed version<sup>+1.3</sup><sub>0</sub>
  - Size 20 - 9 <sup>+1.3</sup><sub>-0</sub> daN
  - Size 16 - 11 daN
  - Size 12 - 11 daN
- **Vibrations:** In accordance with MIL-STD 202 method 204, condition B
- **Physical Shocks:**  
**Sealed Version:** 100g 11 ms in the 3 axes  
**Hermetic Version:** 50g in the 3 axes
- **Durability:** 500 full coupling and uncoupling cycles
- **Shielding:** 5mΩ (FDBA 57 version)

## ENVIRONMENTAL CONDITIONS

- **Service Temperature:** – 55°C to + 200°C
- **Thermal Shocks:**  
**Sealed and Steel/Stainless Steel and Hermetic Version:** 10 cycles from – 55°C to + 200°C  
**Aluminium Hermetic Version:** 10 cycles from – 55°C to + 200°C  
1 cycle 10 H/200°C
- **Sealing:**  
**Sealed Version:** (in accordance with MIL-C-26482).  
Maximum leakage ≤16 cm<sup>3</sup>/h under 2.1 bars
- **Air Leakage:**  
**Hermetic Version:** ≤ 1.10–6 mbar.l/s under 1 bar vaccum.
- **Salt Spray:**  
**Hermetic Version:** Nickel - 48 hours  
Black Anodized-96 Hrs  
Stainless Steel/Cadmium-500 hrs



## ELECTRICAL

- **Withstanding Voltage:**  
**At sea level:**
  - Service 1 - 1500 V eff. 50Hz
  - Service 2 - 2300 V eff. 50Hz
- **Service Voltage:**  
**Sealed Version:**
  - Service 1 - 500 V eff. 50Hz
  - Service 2 - 750 V eff. 50Hz**Hermetic Version:** 500 V eff. 50 Hz
- **Insulation Resistance:**  
**Sealed Version:** ≤ to 5000 MΩ to 25°C and 60% HR  
**Hermetic Version:** ≥ to 5000 MΩ to 25°C and 60% HR
- **Contacts Maximum Current:**  
**Sealed and Aluminium Hermetic Version:**
  - Size 20 : 7.5 A max.
  - Size 16 : 13 A max.
  - Size 12 : 23 A max.**Stainless Steel and Steel Hermetic Version:**
  - Size 20 : 5 A max.
  - Size 16 : 10 A max.
  - Size 12 : 17 A max.
- **Contact Resistance:**  
**Sealed and Aluminium Hermetic Version:**
  - Size 20 : 3 mΩ under max intensity
  - Size 16 : 2 mΩ under max intensity
  - Size 12 : 1.5 mΩ under max intensity**Stainless Steel and Steel Hermetic Version:**
  - Size 20 : 21 mΩ under max intensity
  - Size 16 : 14 mΩ under max intensity
  - Size 12 : 11 mΩ under max intensity
- **Allowed Wires Section:**  
**Sealed Version:**
  - Size 20 : 0.21 to 0.60 mm<sup>2</sup>
  - Size 16 : 0.60 to 1.34 mm<sup>2</sup>
  - Size 12 : 1.91 to 3.18 mm<sup>2</sup>**Hermetic Version:**
  - Size 20 : 0.21 to 0.93 mm<sup>2</sup>
  - Size 16 : 0.60 to 0.91 mm<sup>2</sup>
  - Size 12 : 1.91 to 3.18 mm<sup>2</sup>
- **Diameter Over Insulation Sheath:**  
**Sealed Version:**
  - Size 20 : 0.71 to 2.11 mm
  - Size 16 : 1.20 to 2.62 mm
  - Size 12 : 1.93 to 4.01 mm



Part Numbering System

DEUTSCH PART NUMBERING SYSTEM

|                                                               |      |    |   |    |   |    |   |   |   |   |     |
|---------------------------------------------------------------|------|----|---|----|---|----|---|---|---|---|-----|
| Example of order :                                            | FDBA | *4 | H | ** | - | ** | P | N | - | K | *** |
| CONNECTOR TYPE                                                |      |    |   |    |   |    |   |   |   |   |     |
| Standard and hermetic                                         |      |    |   |    |   |    |   |   |   |   |     |
| Aluminium hermetic version                                    |      |    |   |    |   |    |   |   |   |   |     |
| VERSION                                                       |      |    |   |    |   |    |   |   |   |   |     |
| 5 Standard                                                    |      |    |   |    |   |    |   |   |   |   |     |
| 6 Stainless steel nickel plating                              |      |    |   |    |   |    |   |   |   |   |     |
| 7 Passivated stainless steel                                  |      |    |   |    |   |    |   |   |   |   |     |
| SHELL TYPE                                                    |      |    |   |    |   |    |   |   |   |   |     |
| *0 Square flange receptacle                                   |      |    |   |    |   |    |   |   |   |   |     |
| *3 Solder receptacle. hermetic only                           |      |    |   |    |   |    |   |   |   |   |     |
| *4 Jam-nut mounting receptacle                                |      |    |   |    |   |    |   |   |   |   |     |
| *6 Plug                                                       |      |    |   |    |   |    |   |   |   |   |     |
| *7 Plug with RFI (RADIO FREQUENCY INTERFERENCE) fingers       |      |    |   |    |   |    |   |   |   |   |     |
| *8 Large square flange. hermetic only                         |      |    |   |    |   |    |   |   |   |   |     |
| * Stainless steel. consult us                                 |      |    |   |    |   |    |   |   |   |   |     |
| VERSION                                                       |      |    |   |    |   |    |   |   |   |   |     |
| H Hermetic                                                    |      |    |   |    |   |    |   |   |   |   |     |
| Without index Sealed                                          |      |    |   |    |   |    |   |   |   |   |     |
| SHELL SIZE                                                    |      |    |   |    |   |    |   |   |   |   |     |
| 08-10-12-14-16-18-20-22-24                                    |      |    |   |    |   |    |   |   |   |   |     |
| ARRANGEMENTS                                                  |      |    |   |    |   |    |   |   |   |   |     |
| (See page 7)                                                  |      |    |   |    |   |    |   |   |   |   |     |
| CONTACT TYPE                                                  |      |    |   |    |   |    |   |   |   |   |     |
| P Male contact                                                |      |    |   |    |   |    |   |   |   |   |     |
| S Female contact                                              |      |    |   |    |   |    |   |   |   |   |     |
| INSERT CLOCKING POSITION                                      |      |    |   |    |   |    |   |   |   |   |     |
| N Normal                                                      |      |    |   |    |   |    |   |   |   |   |     |
| W-X-Y-Z Others                                                |      |    |   |    |   |    |   |   |   |   |     |
| INDEX                                                         |      |    |   |    |   |    |   |   |   |   |     |
| Connector evolution                                           |      |    |   |    |   |    |   |   |   |   |     |
| SPECIAL MODIFICATIONS                                         |      |    |   |    |   |    |   |   |   |   |     |
| 059 Straight cable clamp                                      |      |    |   |    |   |    |   |   |   |   |     |
| 081 Elbowed Cable Clamp                                       |      |    |   |    |   |    |   |   |   |   |     |
| 090 Delivery without contact                                  |      |    |   |    |   |    |   |   |   |   |     |
| A246 Size 20 contact in accordance with ASNE                  |      |    |   |    |   |    |   |   |   |   |     |
| A499 Nickel version connector                                 |      |    |   |    |   |    |   |   |   |   |     |
| A838 Olive drab cadmium                                       |      |    |   |    |   |    |   |   |   |   |     |
| B246 Hybrid arrangement size 20 & 16. in accordance with ASNE |      |    |   |    |   |    |   |   |   |   |     |
| A377 PC tail connector                                        |      |    |   |    |   |    |   |   |   |   |     |

For other PC tail options, consult TE Connectivity representative



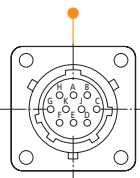
EN3646 PART NUMBERING SYSTEM

|                                                                                     |        |   |   |    |   |    |   |   |   |
|-------------------------------------------------------------------------------------|--------|---|---|----|---|----|---|---|---|
| Example of order :                                                                  | EN3646 | * | * | 10 | - | 06 | - | M | N |
| CONNECTOR TYPE                                                                      |        |   |   |    |   |    |   |   |   |
| CONNECTOR MODEL                                                                     |        |   |   |    |   |    |   |   |   |
| A Black anodized aluminium                                                          |        |   |   |    |   |    |   |   |   |
| RS Nickel-plated aluminium alloy. plug with ground-ing-spring-system Screening ring |        |   |   |    |   |    |   |   |   |
| WS with grounding-spring-system screening ring                                      |        |   |   |    |   |    |   |   |   |
| Y Hermetic receptacle. in passivated stainless steel                                |        |   |   |    |   |    |   |   |   |
| SHELL TYPE                                                                          |        |   |   |    |   |    |   |   |   |
| 0 Sealed or hermetic square flange receptacle                                       |        |   |   |    |   |    |   |   |   |
| 6 Plug                                                                              |        |   |   |    |   |    |   |   |   |
| 7 Sealed or hermetic Jam nut mounting receptacle                                    |        |   |   |    |   |    |   |   |   |
| SHELL SIZE                                                                          |        |   |   |    |   |    |   |   |   |
| 08-10-12-14-16-18-20-22-24                                                          |        |   |   |    |   |    |   |   |   |
| ARRANGEMENTS                                                                        |        |   |   |    |   |    |   |   |   |
| (See page 10)                                                                       |        |   |   |    |   |    |   |   |   |
| CONTACT TYPE                                                                        |        |   |   |    |   |    |   |   |   |
| M Male standard contact                                                             |        |   |   |    |   |    |   |   |   |
| F Female standard contact                                                           |        |   |   |    |   |    |   |   |   |
| A Male contact undelivered                                                          |        |   |   |    |   |    |   |   |   |
| B Female contact undelivered                                                        |        |   |   |    |   |    |   |   |   |
| C Special male contact size 20                                                      |        |   |   |    |   |    |   |   |   |
| D Special female contact size 20                                                    |        |   |   |    |   |    |   |   |   |
| INSERT CLOCKING POSITION                                                            |        |   |   |    |   |    |   |   |   |
| N Normal                                                                            |        |   |   |    |   |    |   |   |   |
| W-X-Y-Z Others                                                                      |        |   |   |    |   |    |   |   |   |

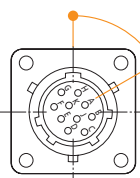


Key Orientation

Male front face view



Normal clocking position



Normal clocking position

Clocking position is normal when the insert vertical axis is intermingled with the shell keyway axis. An unkeying can be performed between 2 connectors of same layout by angular displacement of one of the inserts in its shell.

This insert rotation is made in the clockwise for pin layouts and in the counter clockwise for socket layouts. Angular displacements on the hereafter table give clocking positions W - X - Y - or Z (see table).

| Arrangements | Clocking position in degrees |     |     |     | Contacts sizes |    |    |   | Service Voltage<br>(see page 7) |
|--------------|------------------------------|-----|-----|-----|----------------|----|----|---|---------------------------------|
|              | W                            | X   | Y   | Z   | 20             | 16 | 12 | 8 |                                 |
| 8-3A / 8-98  | 60                           | 210 | -   | -   | 3              | -  | -  | - | 1                               |
| 8-33         | 90                           | -   | -   | -   | 3              | -  | -  | - | 1                               |
| 8 E1*        | -                            | -   | -   | -   | -              | -  | -  | 1 |                                 |
| 10-6         | 90                           | -   | -   | -   | 6              | -  | -  | - | 1                               |
| 12-3         | -                            | -   | 180 | -   | -              | 3  | -  | - | 2                               |
| 12-8         | 90                           | 112 | 203 | 292 | 8              | -  | -  | - | 1                               |
| 12-10        | 60                           | 155 | 270 | 295 | 10             | -  | -  | - | 1                               |
| 14-4         | 45                           | -   | -   | -   | -              | -  | 4  | - | 1                               |
| 14-5         | 40                           | 92  | 184 | 273 | -              | 5  | -  | - | 2                               |
| 14-12        | 43                           | 90  | -   | -   | 8              | 4  | -  | - | 1                               |
| 14-15        | 17                           | 110 | 155 | 234 | 14             | 1  | -  | - | 1                               |
| 14-19        | 30                           | 165 | 315 | -   | 19             | -  | -  | - | 1                               |
| 16-8         | 54                           | 152 | 180 | 331 | -              | 8  | -  | - | 2                               |
| 16-21        | -                            | -   | -   | -   | 16             | 5  | -  | - | 1                               |
| 16-26        | 60                           | -   | 275 | 338 | 26             | -  | -  | - | 1                               |
| 18-11        | 62                           | 119 | 241 | 340 | -              | 11 | -  | - | 1                               |
| 18-32        | 85                           | 138 | 222 | 265 | 32             | -  | -  | - | 1                               |
| 20-16        | 238                          | 318 | 333 | 347 | -              | 16 | -  | - | 2                               |
| 20-39        | 63                           | 144 | 252 | 333 | 37             | 2  | -  | - | 1                               |
| 20-41        | 45                           | 126 | 225 | -   | 41             | -  | -  | - | 1                               |
| 22-12        | -                            | -   | -   | 6   | -              | -  | 12 | - | 1                               |
| 22-21        | 16                           | 135 | 175 | 349 | -              | 21 | -  | - | 2                               |
| 22-41        | 39                           | 135 | 264 | -   | 27             | 14 | -  | - | 1                               |
| 22-55        | 30                           | 142 | 226 | 314 | 55             | -  | -  | - | 1                               |
| 24-19        | 30                           | 165 | 315 | -   | -              | -  | 19 | - | 2                               |
| 24-31        | 90                           | 225 | 255 | -   | -              | 31 | -  | - | 1                               |
| 24-61        | 90                           | 180 | 270 | 324 | 61             | -  | -  | - | 1                               |

\* 8 E1 arrangement used only with coax, twinax, triax, quadrax, and optical contacts.



Arrangements

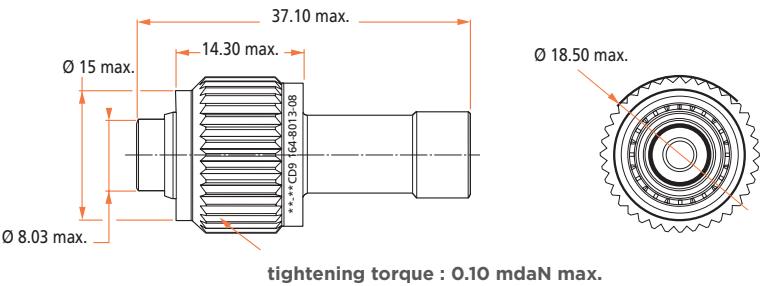
MALE INSERT VIEWED FROM FRONT FACE.

|                                                           |  |                                                            |  |                                     |  |
|-----------------------------------------------------------|--|------------------------------------------------------------|--|-------------------------------------|--|
| <b>8-3A/8-98</b><br>3 contacts size 20                    |  | <b>8-33</b><br>3 contacts size 20                          |  | <b>8 E1</b><br>1 contact Quadrax    |  |
| <b>10-6</b><br>6 contacts size 20                         |  | <b>12-3</b><br>3 contacts size 16                          |  | <b>12-8</b><br>8 contacts size 20   |  |
| <b>12-10</b><br>10 contacts size 20                       |  | <b>14-4</b><br>4 contacts size 12                          |  | <b>14-5</b><br>5 contacts size 16   |  |
| <b>14-12</b><br>8 contacts size 20<br>4 contacts size 16  |  | <b>14-15</b><br>14 contacts size 20<br>1 contacts size 16  |  | <b>14-19</b><br>19 contacts size 20 |  |
| <b>16-8</b><br>8 contacts size 16                         |  | <b>16-21</b><br>16 contacts size 20<br>5 contacts size 16  |  | <b>16-26</b><br>26 contacts size 20 |  |
| <b>18-11</b><br>11 contacts size 16                       |  | <b>18-32</b><br>32 contacts size 20                        |  | <b>20-16</b><br>16 contacts size 16 |  |
| <b>20-39</b><br>37 contacts size 20<br>2 contacts size 16 |  | <b>20-41</b><br>41 contacts size 20                        |  | <b>22-12</b><br>12 contacts size 12 |  |
| <b>22-21</b><br>21 contacts size 16                       |  | <b>22-41</b><br>27 contacts size 20<br>14 contacts size 16 |  | <b>22-55</b><br>55 contacts size 20 |  |
| <b>24-19</b><br>19 contacts size 12                       |  | <b>24-31</b><br>31 contacts size 16                        |  | <b>24-61</b><br>61 contacts size 20 |  |

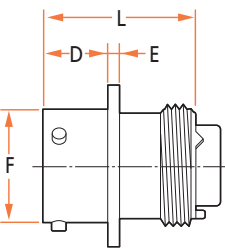


Receptacles

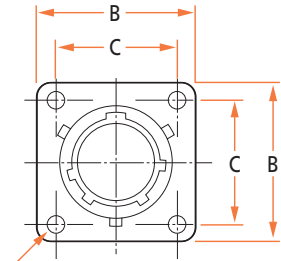
Rear Accessory 164-8013-\*\* for Receptacle FDBA 50-8 E1 PN 090



SQUARE FLANGE  
Without Nut FDBA 50



Sealed version



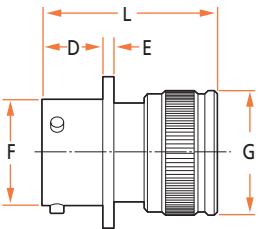
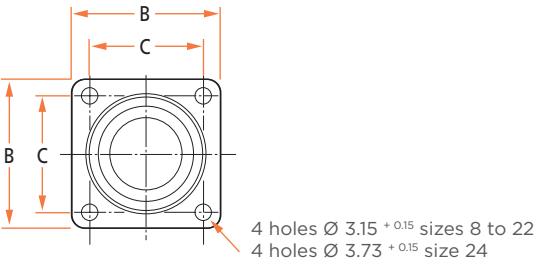
4 holes Ø 3.15 + 0.15 sizes 8 to 22  
4 holes Ø 3.73 + 0.15 size 24

| Size     | 08    | 10    | 12    | 14    | 16    | 18    | 20    | 22    | 24    |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| B max.   | 21.00 | 24.25 | 26.60 | 29.00 | 31.30 | 33.70 | 36.85 | 39.95 | 43.15 |
| C ± 0.1  | 15.08 | 18.26 | 20.62 | 23.02 | 24.58 | 26.98 | 29.36 | 31.76 | 34.92 |
| D ± 0.15 | 11.13 | 11.13 | 11.13 | 11.13 | 11.13 | 11.13 | 14.85 | 14.85 | 15.70 |
| E max.   | 1.45  | 1.45  | 1.45  | 1.45  | 1.45  | 1.45  | 2.25  | 2.25  | 2.25  |
| F max.   | 12.03 | 15.01 | 19.07 | 22.24 | 25.42 | 28.60 | 31.77 | 34.94 | 38.12 |
| L max.   | 25.50 | 25.50 | 25.50 | 25.50 | 25.50 | 25.50 | 27.95 | 27.95 | 27.95 |

Dimensions in mm



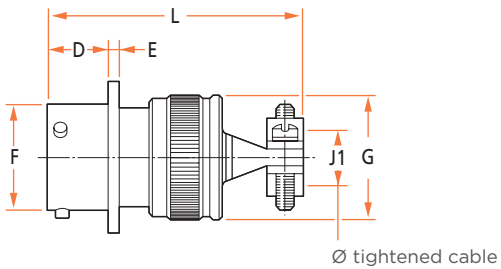
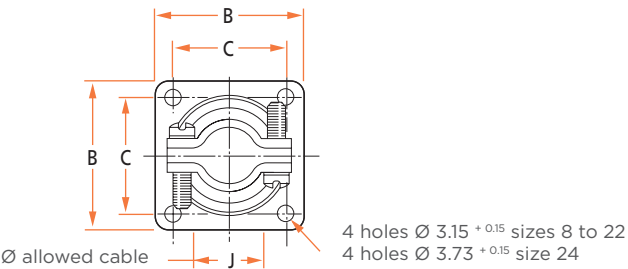
With Nut FDBA 50-\*\*-A285



| Size                                  | 08       | 10       | 12       | 14       | 16       | 18       | 20       | 22       | 24       |
|---------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| B max.                                | 21.00    | 24.25    | 26.60    | 29.00    | 31.30    | 33.70    | 36.85    | 39.95    | 43.15    |
| C ± 0.1                               | 15.08    | 18.26    | 20.62    | 23.02    | 24.58    | 26.98    | 29.36    | 31.76    | 34.92    |
| D ± 0.15                              | 11.13    | 11.13    | 11.13    | 11.13    | 11.13    | 11.13    | 14.85    | 14.85    | 15.70    |
| E max.                                | 1.45     | 1.45     | 1.45     | 1.45     | 1.45     | 1.45     | 2.25     | 2.25     | 2.25     |
| F max.                                | 12.03    | 15.01    | 19.07    | 22.24    | 25.42    | 28.60    | 31.77    | 34.94    | 38.12    |
| G max.                                | 15.65    | 18.65    | 21.80    | 25.00    | 28.25    | 30.95    | 34.15    | 37.30    | 40.45    |
| L max.                                | 31.45    | 31.45    | 31.45    | 31.45    | 31.45    | 31.45    | 33.85    | 33.85    | 33.85    |
| Max. rear accessory tightening torque | 0.35 daN | 0.40 daN | 0.50 daN | 0.60 daN | 0.65 daN | 0.70 daN | 0.75 daN | 0.80 daN | 0.90 daN |

Dimensions in mm

With Straight Cable Clamp FDBA 50-\*\* 059

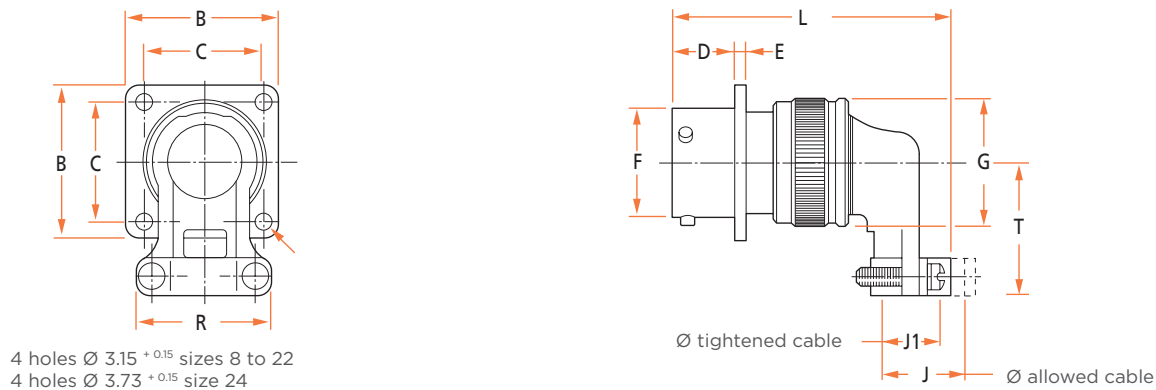


| Size                                  | 08       | 10       | 12       | 14       | 16       | 18       | 20       | 22       | 24       |
|---------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| B max.                                | 21.00    | 24.25    | 26.60    | 29.00    | 31.30    | 33.70    | 36.85    | 39.95    | 43.15    |
| C ± 0.1                               | 15.08    | 18.26    | 20.62    | 23.02    | 24.58    | 26.98    | 29.36    | 31.76    | 34.92    |
| D ± 0.15                              | 11.13    | 11.13    | 11.13    | 11.13    | 11.13    | 11.13    | 14.85    | 14.85    | 15.70    |
| E max.                                | 1.45     | 1.45     | 1.45     | 1.45     | 1.45     | 1.45     | 2.25     | 2.25     | 2.25     |
| F max.                                | 12.03    | 15.01    | 19.07    | 22.24    | 25.42    | 28.60    | 31.77    | 34.94    | 38.12    |
| G max.                                | 15.65    | 18.65    | 21.80    | 25.00    | 28.25    | 30.95    | 34.15    | 37.30    | 40.45    |
| J1 max.                               | 5.15     | 7.25     | 10.55    | 12.05    | 15.85    | 17.95    | 21.05    | 24.25    | 27.45    |
| J max.                                | 6.80     | 7.95     | 12.75    | 14.60    | 17.80    | 19.80    | 23.00    | 26.10    | 28.80    |
| L max.                                | 40.40    | 40.40    | 40.40    | 46.40    | 46.40    | 46.40    | 48.85    | 48.85    | 48.85    |
| Max. rear accessory tightening torque | 0.35 daN | 0.40 daN | 0.50 daN | 0.60 daN | 0.65 daN | 0.70 daN | 0.75 daN | 0.80 daN | 0.90 daN |

Dimensions in mm



With Elbowed Cable Clamp FDBA 50-\*\* 081

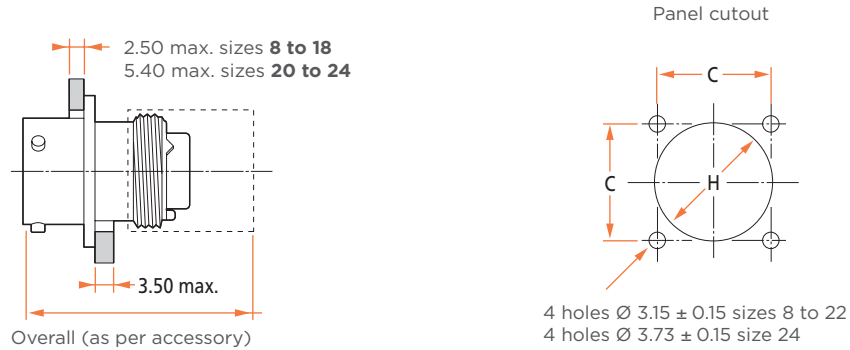


| Size                                  | 08       | 10       | 12       | 14       | 16       | 18       | 20       | 22       | 24       |
|---------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| B max.                                | 21.00    | 24.25    | 26.60    | 29.00    | 31.30    | 33.70    | 36.85    | 39.95    | 43.15    |
| C ± 0.1                               | 15.08    | 18.26    | 20.62    | 23.02    | 24.58    | 26.98    | 29.36    | 31.76    | 34.92    |
| D ± 0.15                              | 11.13    | 11.13    | 11.13    | 11.13    | 11.13    | 11.13    | 14.85    | 14.85    | 15.70    |
| E max.                                | 1.45     | 1.45     | 1.45     | 1.45     | 1.45     | 1.45     | 2.25     | 2.25     | 2.25     |
| F max.                                | 12.03    | 15.01    | 19.07    | 22.24    | 25.42    | 28.60    | 31.77    | 34.94    | 38.12    |
| G max.                                | 15.65    | 18.65    | 21.80    | 25.00    | 28.25    | 30.95    | 34.15    | 37.30    | 40.45    |
| J1 max.                               | 5.15     | 7.25     | 10.55    | 12.05    | 15.85    | 17.95    | 21.05    | 24.25    | 27.45    |
| J max.                                | 6.80     | 7.95     | 12.75    | 14.60    | 17.80    | 19.80    | 23.00    | 26.10    | 28.80    |
| L max.                                | 43.80    | 46.15    | 49.60    | 51.85    | 55.25    | 58.70    | 64.50    | 67.60    | 70.70    |
| R max.                                | 17.40    | 20.20    | 23.60    | 25.50    | 29.70    | 32.60    | 36.00    | 39.20    | 42.80    |
| T max.                                | 20.70    | 22.00    | 23.80    | 25.30    | 26.80    | 28.30    | 29.90    | 31.60    | 33.20    |
| Max. rear accessory tightening torque | 0.35 daN | 0.40 daN | 0.50 daN | 0.60 daN | 0.65 daN | 0.70 daN | 0.75 daN | 0.80 daN | 0.90 daN |

Dimensions in mm



Mounting Styles



| Size        | 08    | 10    | 12    | 14    | 16    | 18    | 20    | 22    | 24    |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C ± 0.1     | 15.08 | 18.26 | 20.62 | 23.02 | 24.58 | 26.98 | 29.36 | 31.76 | 34.92 |
| H +0 / -0.2 | 16.05 | 19.00 | 22.25 | 25.40 | 28.60 | 31.75 | 34.90 | 38.10 | 41.30 |

Dimensions in mm

SINGLE HOLE MOUNTING

Without Nut FDBA 54



| Size                                  | 08       | 10    | 12       | 14       | 16       | 18       | 20       | 22       | 24       |
|---------------------------------------|----------|-------|----------|----------|----------|----------|----------|----------|----------|
| A max.                                | 23.30    | 26.60 | 30.40    | 33.80    | 37.00    | 40.15    | 45.20    | 48.35    | 51.55    |
| D ± 0.1                               | 11.13    | 11.13 | 11.13    | 11.13    | 11.13    | 11.13    | 14.85    | 14.85    | 15.70    |
| F max.                                | 12.03    | 15.01 | 19.07    | 22.24    | 25.42    | 28.60    | 31.77    | 34.94    | 38.12    |
| L max.                                | 25.50    | 25.50 | 25.50    | 25.50    | 25.50    | 25.50    | 27.95    | 27.95    | 27.95    |
| M max.                                | 19.20    | 22.37 | 27.12    | 30.30    | 33.47    | 36.67    | 39.82    | 43.02    | 46.17    |
| Max. rear accessory tightening torque | 0.75 daN | 1 daN | 1.30 daN | 1.50 daN | 1.80 daN | 2.10 daN | 2.30 daN | 2.60 daN | 2.90 daN |

Dimensions in mm



With Nut FDBA 54-\*\*-A285

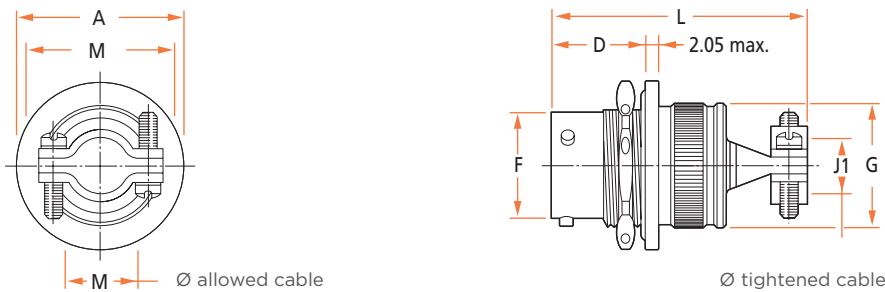


| Size                                                  | 08       | 10       | 12       | 14       | 16       | 18       | 20       | 22       | 24       |
|-------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| A max.                                                | 23.30    | 26.60    | 30.40    | 33.80    | 37.00    | 40.15    | 45.20    | 48.35    | 51.55    |
| D ± 0.1                                               | 11.13    | 11.13    | 11.13    | 11.13    | 11.13    | 11.13    | 14.85    | 14.85    | 15.70    |
| F max.                                                | 12.03    | 15.01    | 19.07    | 22.24    | 25.42    | 28.60    | 31.77    | 34.94    | 38.12    |
| G max.                                                | 15.65    | 18.65    | 21.80    | 25.00    | 28.25    | 30.95    | 34.15    | 37.30    | 40.45    |
| L max.                                                | 31.45    | 31.45    | 31.45    | 31.45    | 31.45    | 31.45    | 33.85    | 33.85    | 33.85    |
| M max.                                                | 19.20    | 22.37    | 27.12    | 30.30    | 33.47    | 36.67    | 39.82    | 43.02    | 46.17    |
| Max. lightened nut jam nut mounting tightening torque | 0.75 daN | 1 daN    | 1.30 daN | 1.50 daN | 1.80 daN | 2.10 daN | 2.30 daN | 2.60 daN | 2.90 daN |
| Max. rear accessory tightening torque                 | 0.35 daN | 0.40 daN | 0.50 daN | 0.60 daN | 0.65 daN | 0.70 daN | 0.75 daN | 0.80 daN | 0.90 daN |

Dimensions in mm



With Straight Cable Clamp FDBA 54-\*\* 059

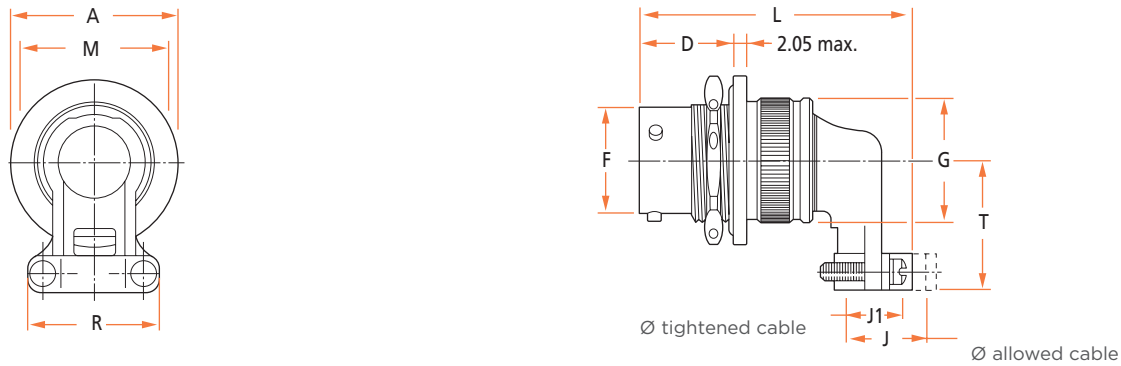


| Size                                                  | 08       | 10       | 12       | 14       | 16       | 18       | 20       | 22       | 24       |
|-------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| A max.                                                | 23.30    | 26.60    | 30.40    | 33.80    | 37.00    | 40.15    | 45.20    | 48.35    | 51.55    |
| D ± 0.1                                               | 11.13    | 11.13    | 11.13    | 11.13    | 11.13    | 11.13    | 14.85    | 14.85    | 15.70    |
| F max.                                                | 12.03    | 15.01    | 19.07    | 22.24    | 25.42    | 28.60    | 31.77    | 34.94    | 38.12    |
| G max.                                                | 15.65    | 18.65    | 21.80    | 25.00    | 28.25    | 30.95    | 34.15    | 37.30    | 40.45    |
| J1 max.                                               | 5.15     | 7.25     | 10.55    | 12.05    | 15.85    | 17.95    | 21.05    | 24.25    | 27.45    |
| L max.                                                | 40.40    | 40.40    | 40.40    | 46.40    | 46.40    | 46.40    | 48.85    | 48.85    | 48.85    |
| M max.                                                | 19.20    | 22.37    | 27.12    | 30.30    | 33.47    | 36.67    | 39.82    | 43.02    | 46.17    |
| Max. lightened nut jam nut mounting tightening torque | 0.75 daN | 1 daN    | 1.30 daN | 1.50 daN | 1.80 daN | 2.10 daN | 2.30 daN | 2.60 daN | 2.90 daN |
| Max. rear accessory tightening torque                 | 0.35 daN | 0.40 daN | 0.50 daN | 0.60 daN | 0.65 daN | 0.70 daN | 0.75 daN | 0.80 daN | 0.90 daN |

Dimensions in mm



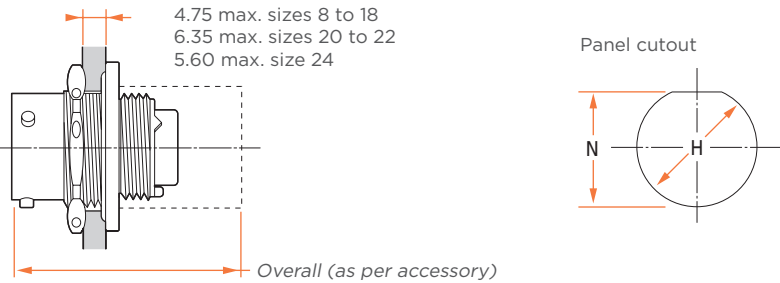
With Elbowed Cable Clamp FDBA 54-\*\*-081



| Size                                                        | 08       | 10       | 12       | 14       | 16       | 18       | 20       | 22       | 24       |
|-------------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| A max.                                                      | 23.30    | 26.60    | 30.40    | 33.80    | 37.00    | 40.15    | 45.20    | 48.35    | 51.55    |
| D ± 0.1                                                     | 11.13    | 11.13    | 11.13    | 11.13    | 11.13    | 11.13    | 14.85    | 14.85    | 15.70    |
| F max.                                                      | 12.03    | 15.01    | 19.07    | 22.24    | 25.42    | 28.60    | 31.77    | 34.94    | 38.12    |
| G max.                                                      | 15.65    | 18.65    | 21.80    | 25.00    | 28.25    | 30.95    | 34.15    | 37.30    | 40.45    |
| J1 max.                                                     | 5.15     | 7.25     | 10.55    | 12.05    | 15.85    | 17.95    | 21.05    | 24.25    | 27.45    |
| J max.                                                      | 6.80     | 7.95     | 12.75    | 14.60    | 17.80    | 19.80    | 23.00    | 26.10    | 28.80    |
| L max.                                                      | 43.80    | 46.15    | 49.60    | 51.85    | 55.25    | 58.70    | 64.50    | 67.60    | 70.70    |
| R max.                                                      | 17.40    | 20.20    | 23.60    | 25.50    | 29.70    | 32.60    | 36.00    | 39.20    | 42.80    |
| T max.                                                      | 20.70    | 22.00    | 23.80    | 25.30    | 26.80    | 28.30    | 29.90    | 31.60    | 33.20    |
| Max. lightened nut<br>jam nut mounting<br>tightening torque | 0.75 daN | 1 daN    | 1.30 daN | 1.50 daN | 1.80 daN | 2.10 daN | 2.30 daN | 2.60 daN | 2.90 daN |
| Max. rear accessory<br>tightening torque                    | 0.35 daN | 0.40 daN | 0.50 daN | 0.60 daN | 0.65 daN | 0.70 daN | 0.75 daN | 0.80 daN | 0.90 daN |

Dimensions in mm

Mounting Styles

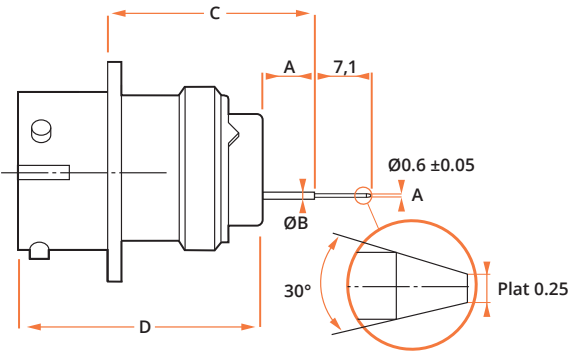


| Size        | 08    | 10    | 12    | 14    | 16    | 18    | 20    | 22    | 24    |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| H +0 / -0.2 | 14.70 | 17.85 | 22.60 | 25.75 | 28.95 | 32.10 | 35.30 | 38.45 | 41.65 |
| N +0 / -0.2 | 13.85 | 17.05 | 21.15 | 24.30 | 27.45 | 30.65 | 33.80 | 37.00 | 40.15 |

Dimensions in mm



FDBA 50-\*\*-A377 / FDBA 54-\*\*-A377



| Size | 08 - 18    | 20 - 22     | 24          |
|------|------------|-------------|-------------|
| A    | 8.51 ±0.8  | 7.42 ±0.45  | 7.42 ±0.45  |
| C    | 26.75 ±0.8 | 24.58 ±0.45 | 23.76 ±0.46 |
| D    | 29.36 ±0.3 | 32.01 ±0.3  | 32.01 ±0.3  |

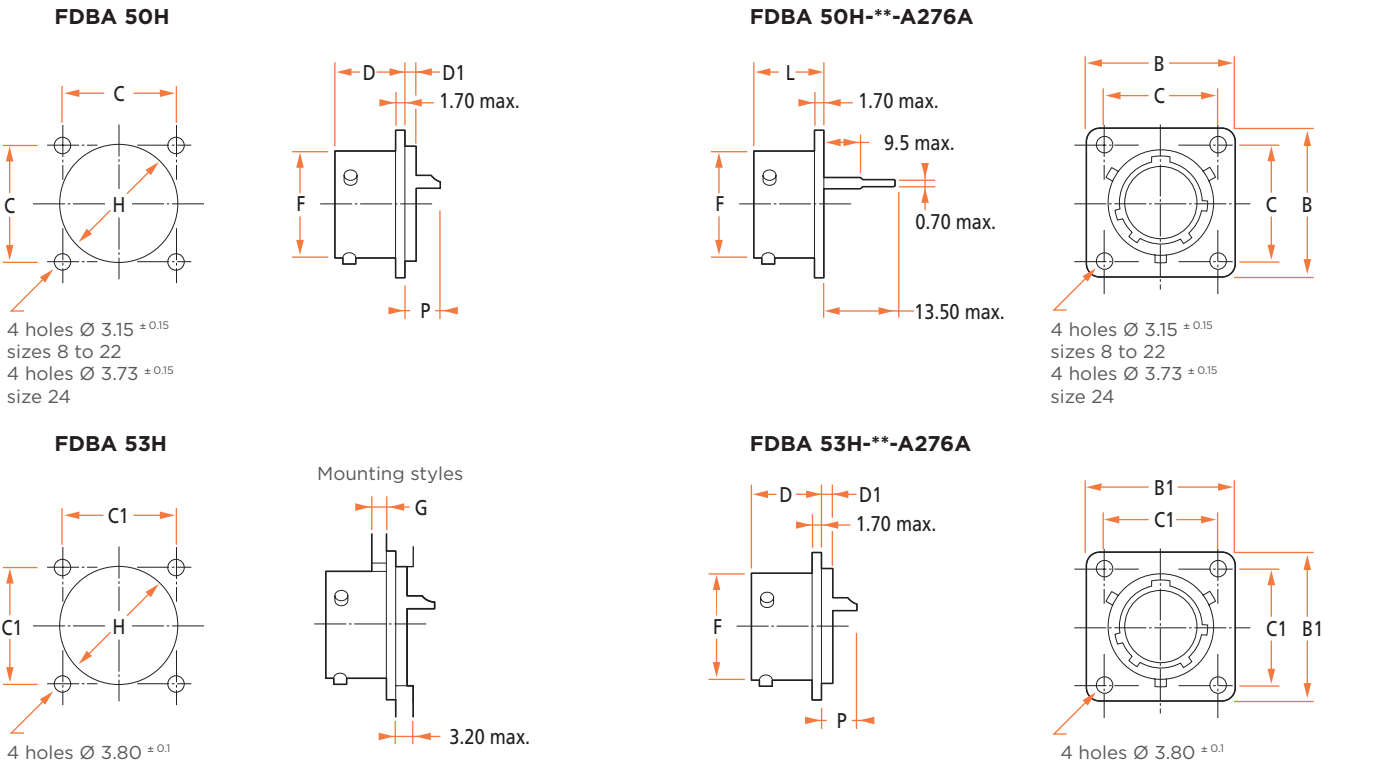
| Contacts | Size        | #20         | #16         |
|----------|-------------|-------------|-------------|
|          | ØB          | 1.2         | 1.5         |
|          | ref. PIN    | 006 0063 20 | 006 0063 16 |
|          | ref. SOCKET | 006 0064 20 | 006 0064 16 |

Dimensions in mm



Hermetic Receptacles

SQUARE FLANGE

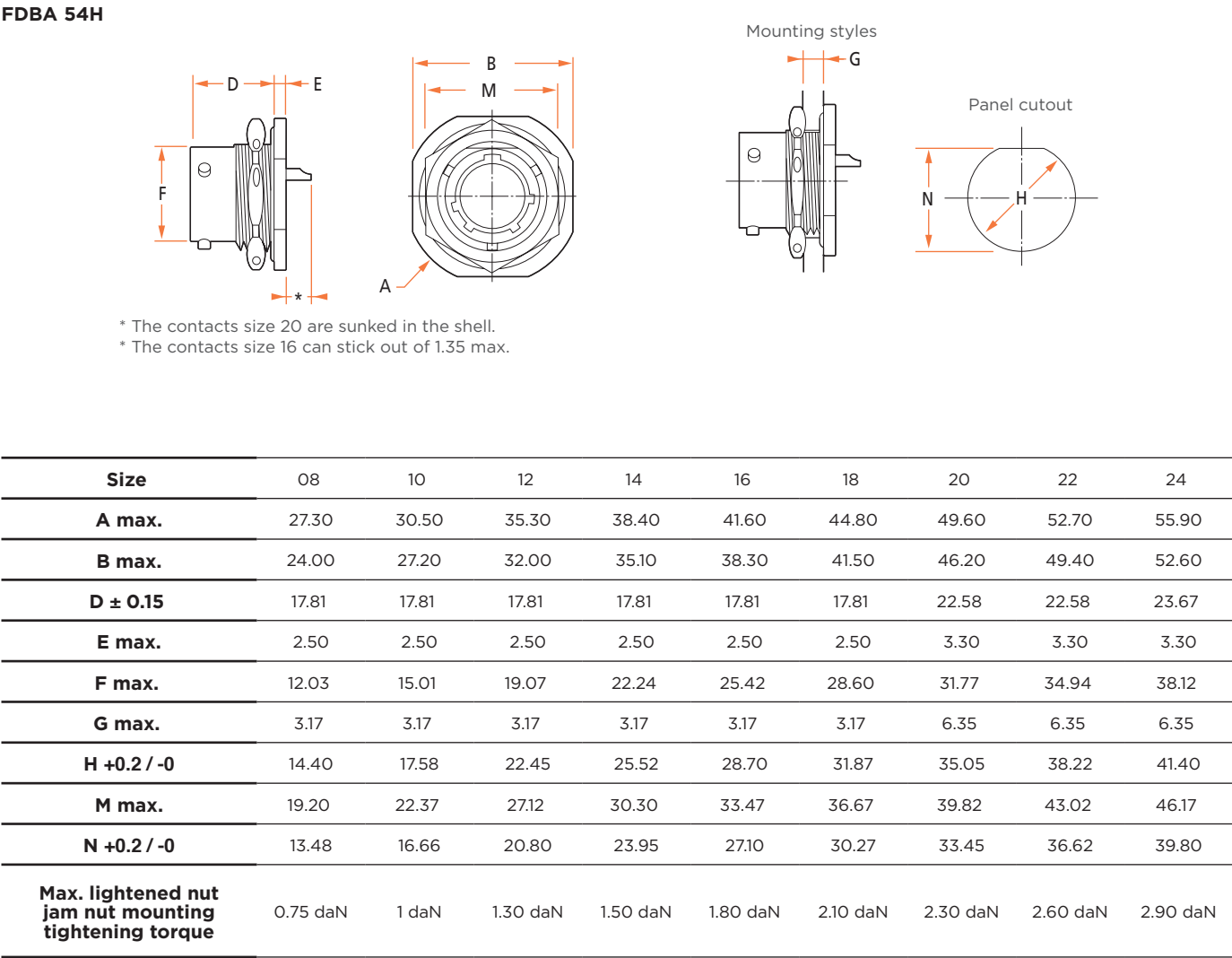


| Size            | 08    | 10    | 12    | 14    | 16    | 18    | 20    | 22    | 24    |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| B max.          | 21.00 | 24.25 | 26.60 | 29.00 | 31.30 | 33.70 | 36.85 | 39.95 | 43.15 |
| B1 max.         | 26.50 | 29.10 | 32.25 | 34.65 | 37.00 | 39.05 | 43.00 | 44.95 | 48.15 |
| C ± 0.1         | 15.08 | 18.26 | 20.62 | 23.02 | 24.58 | 26.98 | 29.36 | 31.76 | 34.92 |
| C1 ± 0.1        | 18.10 | 20.62 | 23.82 | 26.18 | 28.57 | 30.55 | 32.94 | 34.92 | 38.10 |
| D ± 0.15        | 12.65 | 12.65 | 12.62 | 12.65 | 12.65 | 12.65 | 14.09 | 14.09 | 14.93 |
| D1 max.         | 1.55  | 1.55  | 1.55  | 1.55  | 1.55  | 1.55  | 2.25  | 2.25  | 2.25  |
| F max.          | 12.03 | 15.01 | 19.07 | 22.24 | 25.42 | 28.60 | 31.77 | 34.94 | 38.12 |
| G max.          | 2.50  | 2.50  | 2.50  | 2.50  | 2.50  | 2.50  | 5.40  | 5.40  | 5.40  |
| H +0 / -0.2     | 16.05 | 19.00 | 22.25 | 25.40 | 28.60 | 31.75 | 34.90 | 38.10 | 41.30 |
| L max.          | 13.75 | 13.75 | 13.75 | 13.75 | 13.75 | 13.75 | 15.35 | 15.35 | 15.35 |
| P max.<br>Sizes | 20    | 6.85  | 6.85  | 6.85  | 6.85  | 6.85  | 7.10  | 7.10  | 6.25  |
|                 | 16    | 8.95  | 8.95  | 8.95  | 8.95  | 8.95  | 9.20  | 9.20  | 8.35  |

Dimensions in mm



SINGLE HOLE MOUNTING

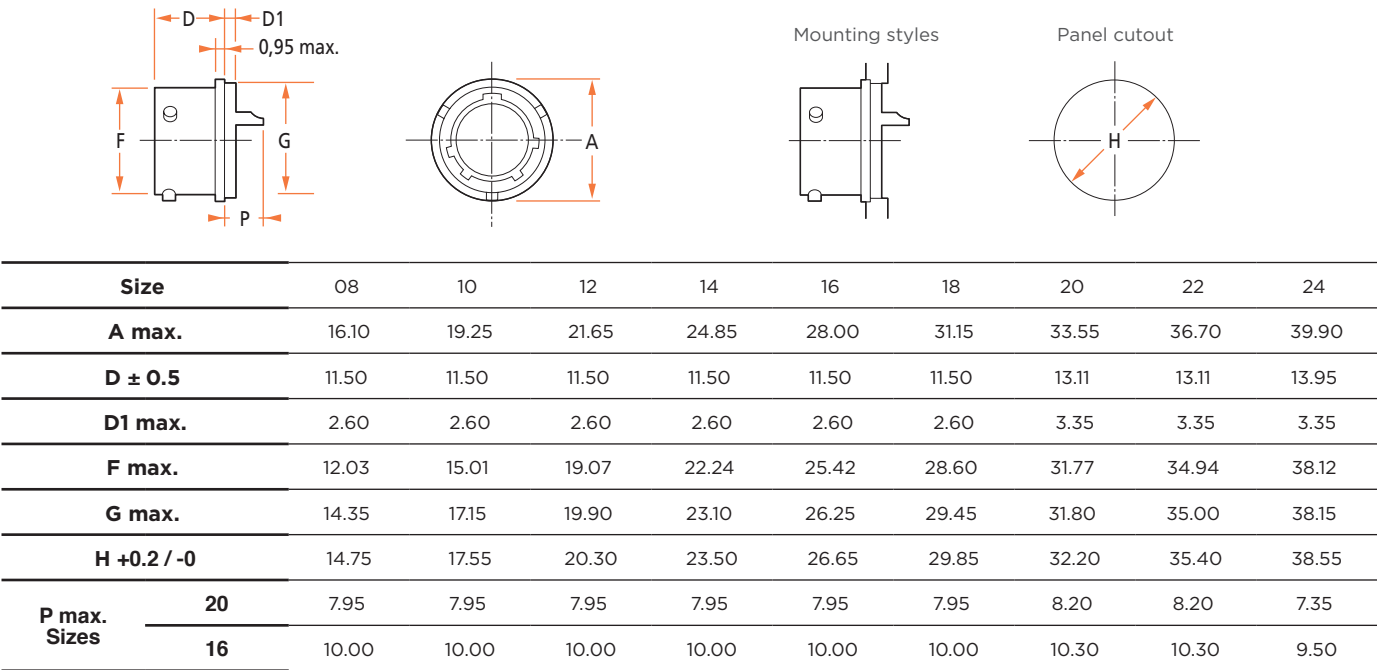


Dimensions in mm



SOLDER FLANGE

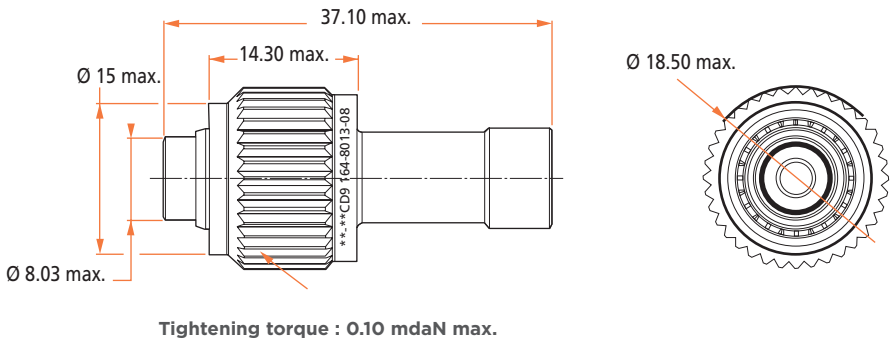
FDBA 53H



Dimensions in mm

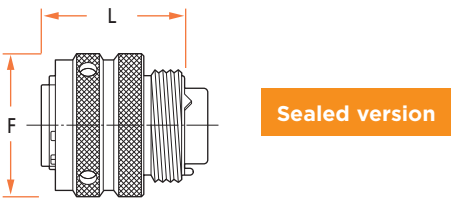
Plugs

Rear Accessory 164-8013-\*\* for Plug FDBA 56-8 E1 SN 090



Without Nut FDBA 56 / FDBA 57-\*\*-A499

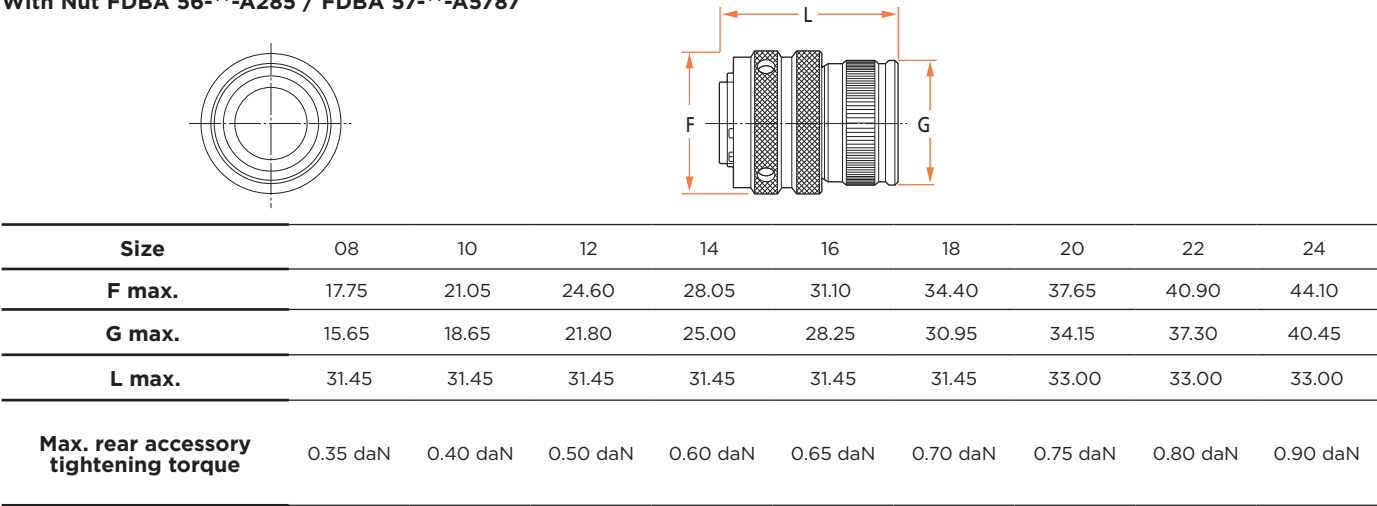
Shell type 57 with RFI fingers must be ordered in accordance with part numbering system with the modification A499 (nickel version connector).



| Size   | 08    | 10    | 12    | 14    | 16    | 18    | 20    | 22    | 24    |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| F max. | 17.75 | 21.05 | 24.60 | 28.05 | 31.10 | 34.40 | 37.65 | 40.90 | 44.10 |
| L max. | 25.55 | 25.55 | 25.55 | 25.55 | 25.55 | 25.55 | 27.10 | 27.10 | 27.10 |

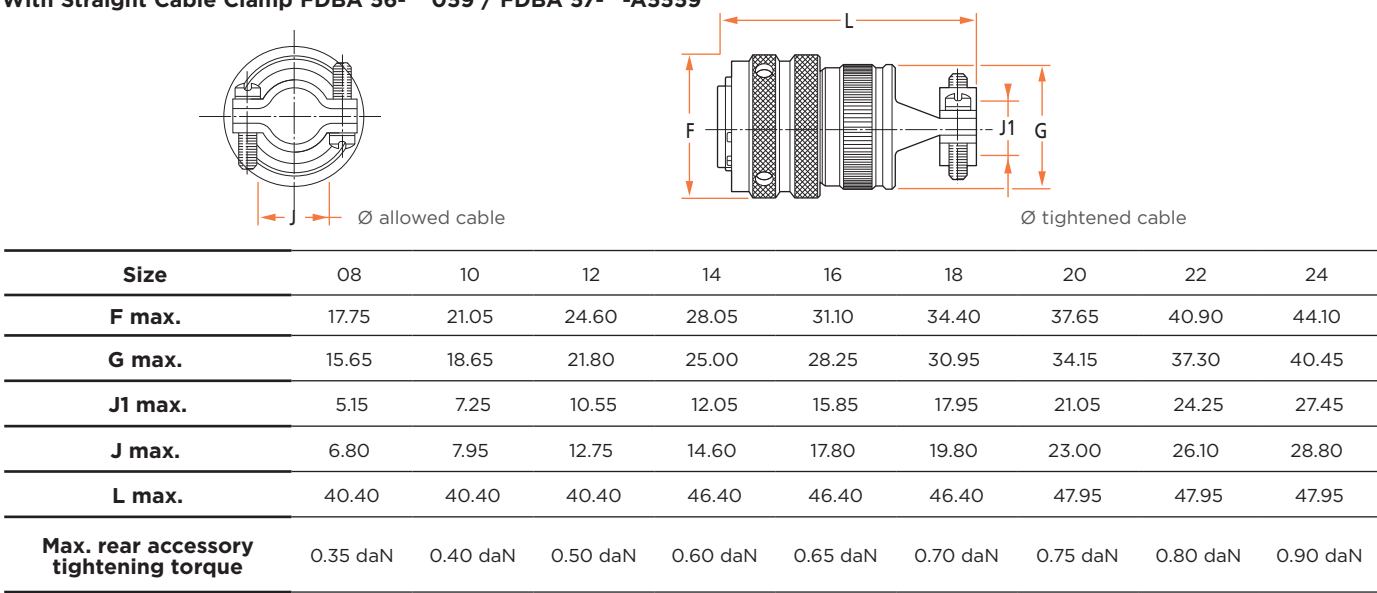
Dimensions in mm

With Nut FDBA 56-\*\*-A285 / FDBA 57-\*\*-A5787



Dimensions in mm

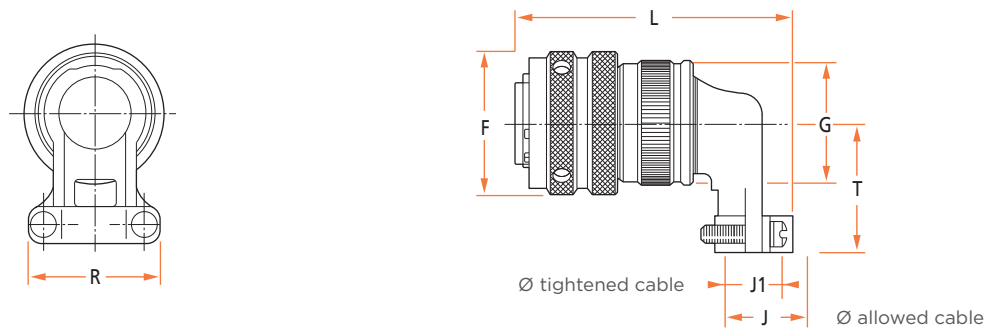
With Straight Cable Clamp FDBA 56-\*\* 059 / FDBA 57-\*\*-A5559



Dimensions in mm



With Elbowed Cable Clamp FDBA 56-\*\* 059 / FDBA 57-\*\*-A5560



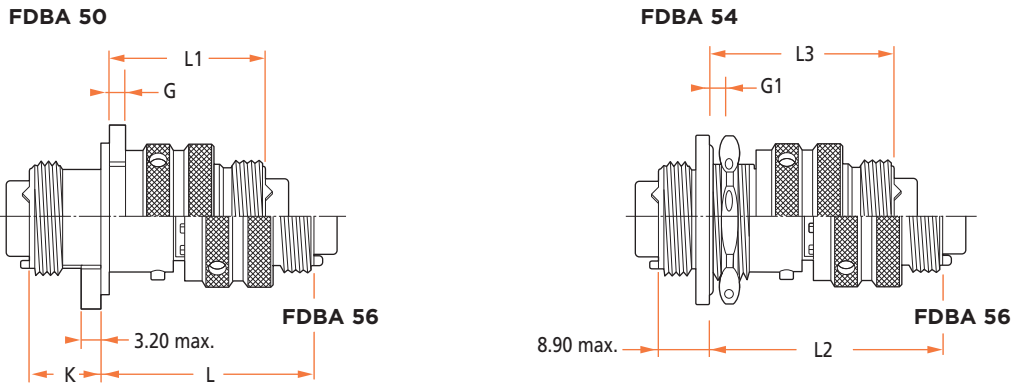
| Size                                  | 08       | 10       | 12       | 14       | 16       | 18       | 20       | 22       | 24       |
|---------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| F max.                                | 17.75    | 21.05    | 24.60    | 28.05    | 31.10    | 34.40    | 37.65    | 40.90    | 44.10    |
| G max.                                | 15.65    | 18.65    | 21.80    | 25.00    | 28.25    | 30.95    | 34.15    | 37.30    | 40.45    |
| J1 max.                               | 5.15     | 7.25     | 10.55    | 12.05    | 15.85    | 17.95    | 21.05    | 24.25    | 27.45    |
| J max.                                | 6.80     | 7.95     | 12.75    | 14.60    | 17.80    | 19.80    | 23.00    | 26.10    | 28.80    |
| L max.                                | 43.85    | 46.20    | 49.65    | 51.90    | 55.30    | 58.75    | 63.65    | 66.975   | 69.85    |
| R max.                                | 17.40    | 20.20    | 23.60    | 25.50    | 29.70    | 32.60    | 36.00    | 39.20    | 42.80    |
| T max.                                | 20.70    | 22.00    | 23.80    | 25.30    | 26.80    | 28.30    | 29.90    | 31.60    | 33.20    |
| Max. rear accessory tightening torque | 0.35 daN | 0.40 daN | 0.50 daN | 0.60 daN | 0.65 daN | 0.70 daN | 0.75 daN | 0.80 daN | 0.90 daN |

Dimensions in mm



Mating and Unmating Dimensions

Square Flange



| Size    | 08 - 18 | 20 - 22 | 24    |
|---------|---------|---------|-------|
| K max.  | 13.30   | 11.15   | 10.30 |
| L max.  | 38.25   | 44.30   | 45.15 |
| L1 max. | 28.65   | 32.30   | 33.15 |
| L2 max. | 42.45   | 46.35   | 46.35 |
| L3 max. | 34.20   | 36.55   | 36.55 |
| G max.  | 2.50    | 5.40    | 5.40  |
| G1 max. | 4.75    | 6.35    | 5.60  |

Dimensions in mm

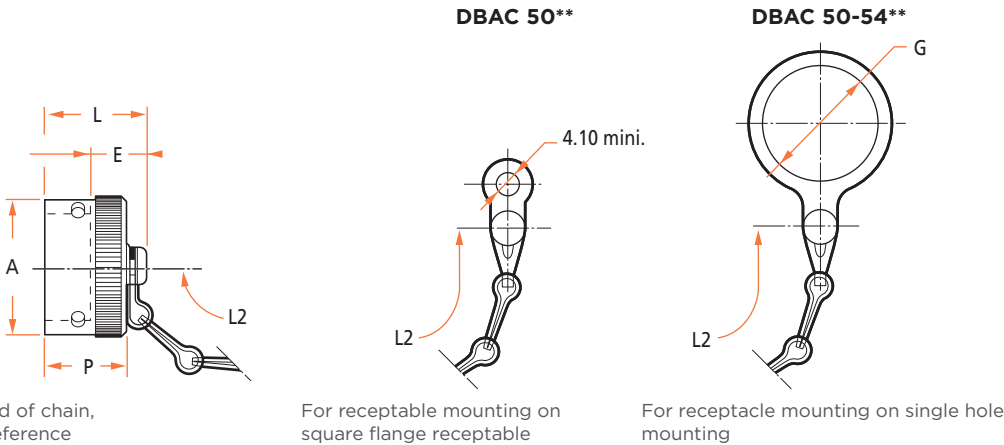




Protective Covers

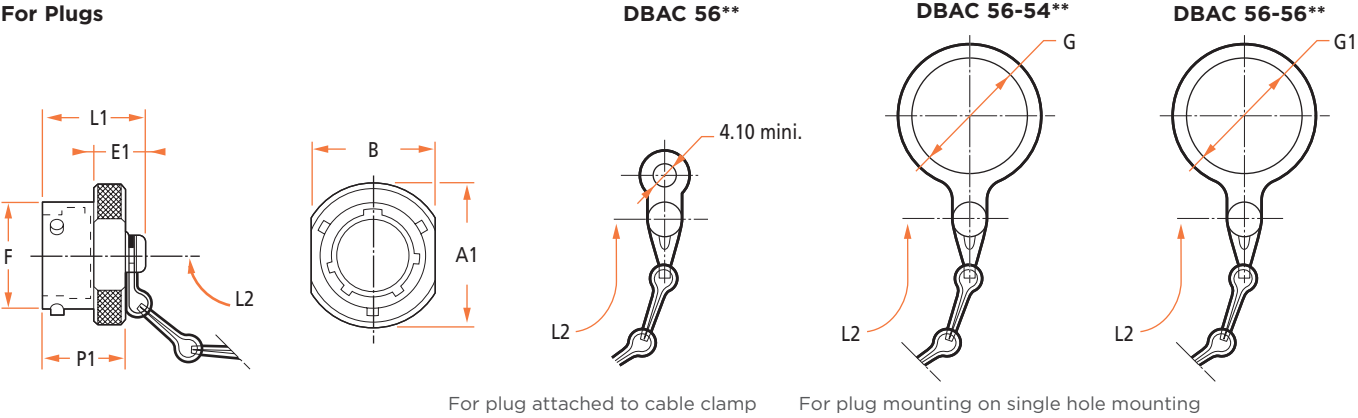
For Receptacles

Overall length after mating



Note : For nylon wire option instead of chain, add MOD A190 at the end of the reference

For Plugs

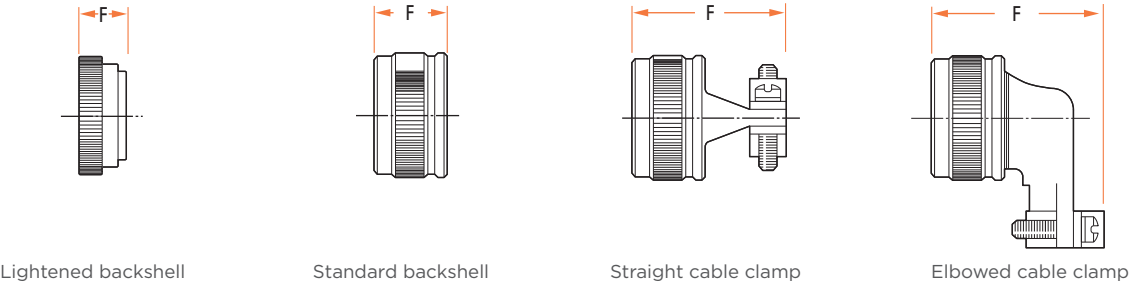


| Size    | 08    | 10    | 12    | 14    | 16    | 18    | 20     | 22     | 24     |
|---------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| A max.  | 16.60 | 19.70 | 24.60 | 27.80 | 30.90 | 34.10 | 37.30  | 40.50  | 44.10  |
| A1 max. | 18.30 | 21.50 | 25.40 | 28.60 | 31.80 | 34.90 | 38.10  | 41.30  | 44.50  |
| B max.  | 16.10 | 18.10 | 22.10 | 24.10 | 27.10 | 30.10 | 33.10  | 36.10  | 41.10  |
| E max.  | 10.15 | 10.15 | 10.15 | 10.15 | 10.15 | 10.15 | 10.15  | 10.15  | 10.30  |
| E1 max. | 9.60  | 9.60  | 9.60  | 9.60  | 9.60  | 9.60  | 9.60   | 9.60   | 10.45  |
| F max.  | 12.03 | 15.01 | 19.07 | 22.24 | 25.42 | 28.60 | 31.77  | 34.94  | 38.12  |
| G mini  | 14.60 | 17.70 | 22.50 | 25.70 | 28.90 | 32.00 | 35.20  | 38.40  | 41.60  |
| G1 max. | 12.45 | 15.70 | 18.85 | 22.10 | 25.50 | 27.35 | 30.40  | 33.30  | 36.80  |
| L max.  | 17.85 | 17.85 | 17.85 | 17.85 | 17.85 | 17.85 | 17.85  | 17.85  | 18.85  |
| L1 max. | 18.65 | 18.65 | 18.65 | 18.65 | 18.65 | 18.65 | 20.25  | 20.25  | 20.10  |
| L2 max. | 79.00 | 79.00 | 95.00 | 95.00 | 95.00 | 95.00 | 111.00 | 111.00 | 111.00 |
| P max.  | 14.20 | 14.20 | 14.20 | 14.20 | 14.20 | 14.20 | 14.20  | 14.20  | 15.20  |
| P1 max. | 14.40 | 14.40 | 14.40 | 14.40 | 14.40 | 14.40 | 16.00  | 16.00  | 16.80  |

Dimensions in mm  
\*\* reference to the shell size of the connector



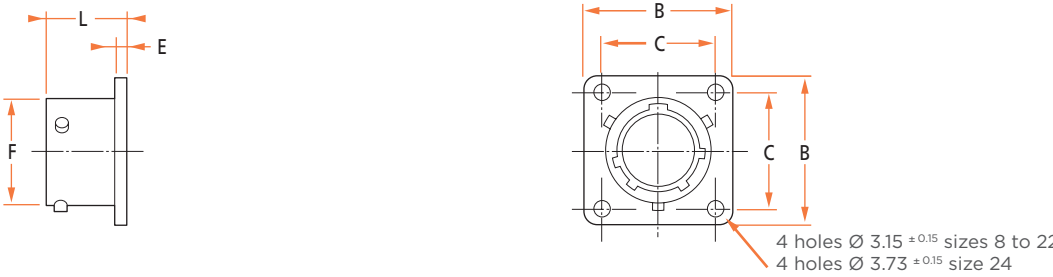
Accessories



| Size | Part number | F max. | Part number | F max. | Part number | F max. | Part number | F max. |
|------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|
| 08   | 004-0003-08 | 7.10   | 006-0909-08 | 14.00  | 006-0910-08 | 22.25  | 006-0908-08 | 25.70  |
| 10   | 004-0003-10 | 7.10   | 006-0909-10 | 14.00  | 006-0910-10 | 22.25  | 006-0908-10 | 28.05  |
| 12   | 004-0003-12 | 7.10   | 006-0909-12 | 14.00  | 006-0910-12 | 28.25  | 006-0908-12 | 31.50  |
| 14   | 004-0003-14 | 7.10   | 006-0909-14 | 14.00  | 006-0910-14 | 28.25  | 006-0908-14 | 33.75  |
| 16   | 004-0003-16 | 7.10   | 006-0909-16 | 14.00  | 006-0910-16 | 28.25  | 006-0908-16 | 37.15  |
| 18   | 004-0003-18 | 7.10   | 006-0909-18 | 14.00  | 006-0910-18 | 28.25  | 006-0908-18 | 40.60  |
| 20   | 004-0003-20 | 7.10   | 006-0909-20 | 14.00  | 006-0910-20 | 28.25  | 006-0908-20 | 43.95  |
| 22   | 004-0003-22 | 7.10   | 006-0909-22 | 14.00  | 006-0910-22 | 28.25  | 006-0908-22 | 47.05  |
| 24   | 004-0003-24 | 7.10   | 006-0909-24 | 14.00  | 006-0910-24 | 28.25  | 006-0908-24 | 50.55  |

Dimensions in mm

Dummy Receptacle for Plugs



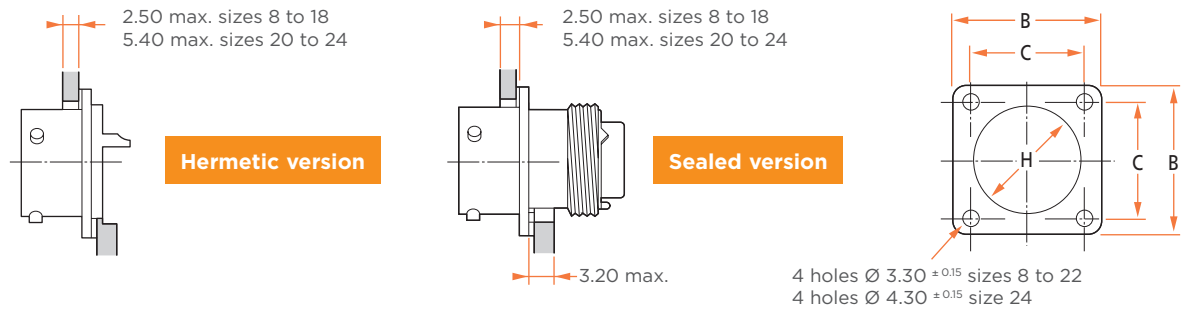
| Size | Part number  | B max. | C ± 0.1 | E max. | F max. | L max. |
|------|--------------|--------|---------|--------|--------|--------|
| 8    | DBA 50 PR 8  | 21.00  | 15.08   | 1.95   | 12.03  | 14.70  |
| 10   | DBA 50 PR 10 | 24.20  | 18.26   | 1.95   | 15.01  | 14.70  |
| 12   | DBA 50 PR 12 | 26.55  | 20.62   | 1.95   | 19.07  | 14.70  |
| 14   | DBA 50 PR 14 | 28.95  | 23.02   | 1.95   | 22.24  | 14.70  |
| 16   | DBA 50 PR 16 | 31.30  | 24.58   | 1.95   | 25.42  | 14.70  |
| 18   | DBA 50 PR 18 | 33.70  | 26.98   | 1.95   | 28.60  | 14.70  |
| 20   | DBA 50 PR 20 | 36.85  | 29.36   | 2.55   | 31.77  | 17.20  |
| 22   | DBA 50 PR 22 | 39.95  | 31.76   | 2.55   | 34.94  | 17.20  |
| 24   | DBA 50 PR 24 | 43.15  | 34.92   | 2.55   | 38.12  | 17.20  |

Dimensions in mm



Panel Seal

For Square Flange Receptacle



| Front flange mounting<br>Hermetic version sealed version |                  |        | Rear flange mounting |         |        |                  |                      |                    |      |
|----------------------------------------------------------|------------------|--------|----------------------|---------|--------|------------------|----------------------|--------------------|------|
|                                                          |                  |        |                      |         |        |                  | For hermetic version | For sealed version |      |
| Size                                                     | Part number      | H max. | B max.               | C ± 0.1 | H max. | Part number      | H max.               | Part number        | Size |
| 08                                                       | 108-0003-08 B756 | 12.50  | 21.10                | 15.10   | 14.90  | 108-0005-08 B756 | 13.20                | 108-0001-08 B756   | 08   |
| 10                                                       | 108-0003-10 B756 | 15.40  | 24.30                | 18.30   | 17.50  | 108-0005-10 B756 | 16.40                | 108-0001-10 B756   | 10   |
| 12                                                       | 108-0001-12 B756 | 19.50  | 26.70                | 20.60   | 20.30  | 108-0005-12 B756 | 19.50                | 108-0001-12 B756   | 12   |
| 14                                                       | 108-0001-14 B756 | 22.70  | 29.10                | 23.00   | 23.50  | 108-0005-14 B756 | 22.70                | 108-0001-14 B756   | 14   |
| 16                                                       | 108-0001-16 B756 | 25.90  | 31.30                | 24.60   | 26.70  | 108-0005-16 B756 | 25.90                | 108-0001-16 B756   | 16   |
| 18                                                       | 108-0003-18 B756 | 29.10  | 33.70                | 27.00   | 29.90  | 108-0005-18 B756 | 27.50                | 108-0001-18 B756   | 18   |
| 20                                                       | 108-0003-20 B756 | 32.30  | 36.90                | 29.40   | 32.30  | 108-0003-20 B756 | 30.60                | 108-0001-20 B756   | 20   |
| 22                                                       | 108-0003-22 B756 | 35.40  | 40.10                | 31.75   | 35.40  | 108-0003-22 B756 | 33.50                | 108-0001-22 B756   | 22   |
| 24                                                       | 108-0003-24 B756 | 38.60  | 43.30                | 34.90   | 38.60  | 108-0003-24 B756 | 37.00                | 108-0001-24 B756   | 24   |

Dimensions in mm



The panel seal gasket is not supplied along with the connector by default

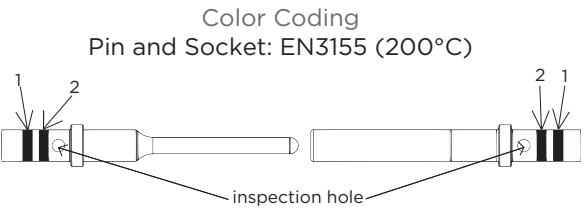


Contacts

EN3155 COLOR CODING

Band 1 defines the conductor section, and band 2 defines the active area size.  
If the conductor section and the active area have the same size, then the contact can be identified by a single color band.

Contacts references containing an “A” suffix indicate a “selective gold plating” for temperatures up to 200°C (i.e.006-0937-20 A).



Color Coding  
Pin and Socket: EN3155 (Thermocouple)

| Size   | 24    | 23     | 22    | 20  | 16   | 12     | 10    | 8   | 4    | 0      |
|--------|-------|--------|-------|-----|------|--------|-------|-----|------|--------|
| Band 1 | black | purple | green | red | blue | yellow | white | red | blue | yellow |

| AWG    | 26-30 | 24-28 | 22-26 | 22-28 | 20-24 | 18-22  | 18-24 | 16-20 | 14-18  | 14-20 | 12-14  | 10-12 |
|--------|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|--------|-------|
| Band 2 | white | grey  | green | black | red   | purple | brown | blue  | orange | white | yellow | brown |

Contact material :

By default our contacts are manufactured in copper alloy.  
Type K Contacts are defined as below :  
**Kp** = 90% nickel and 10% chromium ;  
**Kn** = 95 % nickel, 2% aluminium and 3 % others



SIGNAL AND POWER CONTACTS

| Active area / Mating Size | Part No.             | Former Syst. Part No. | MIL Ref. | EN Ref.         | Type | Color Bands |             | Marking yellow or black | Contact Material | Barrel   |
|---------------------------|----------------------|-----------------------|----------|-----------------|------|-------------|-------------|-------------------------|------------------|----------|
|                           |                      |                       |          |                 |      | AS39029     | EN3155      |                         |                  |          |
| 20                        | <b>006-0937-20 A</b> | 004-0139-20           | -        | EN3155-018M2020 | P    | -           | Red         | -                       | -                | standard |
|                           | <b>006-0912-20 A</b> | 004-0140-20           |          | EN3155-019F2020 | S    | -           |             |                         |                  |          |
| 20                        | 006-0044-20 A*       | 004-0141-20           | -        | EN3155-018M2018 | P    | -           | Brown-Red   | -                       | -                | enlarged |
|                           | 006-0055-20 A*       | 004-0142-20           |          | EN3155-018F2018 | S    | -           |             |                         |                  |          |
| 20                        | 006-0972-20 A        | 0641-24-2059C         | -        | -               | P    | -           | Black-Red   | -                       | -                | reduced  |
|                           | 006-0973-20 A        | 0603-21-2059C         |          |                 | S    |             |             |                         |                  |          |
| 20                        | 006-1060-20          | -                     | -        | -               | P    | -           | -           | -                       | Co               | enlarged |
|                           | 006-1062-20          | -                     |          |                 | S    |             |             |                         |                  |          |
| 20                        | 025-0404-20          | -                     | -        | -               | P    | -           | Purple-Red  | Yellow                  | Kp               | enlarged |
|                           | 025-0405-20          | -                     |          |                 | S    |             | Purple-Red  | -                       |                  |          |
| 20                        | 025-0402-20          | -                     | -        | -               | P    | -           | Purple-Red  | Black                   | Kn               | enlarged |
|                           | 025-0403-20          | -                     |          |                 | S    |             | Purple-Red  | -                       |                  |          |
| 20                        | 025-0406-20          | -                     | -        | -               | P    | -           | Purple-Red  | -                       | Co               | enlarged |
|                           | 025-0407-20          | -                     |          |                 | S    |             |             |                         |                  |          |
| 16                        | <b>006-0937-16 A</b> | 004-0139-16           | -        | EN3155-018M1616 | P    | -           | Blue-Blue   | -                       | -                | standard |
|                           | <b>006-0912-16 A</b> | 004-0140-16           |          | EN3155-019F1616 | S    |             |             |                         |                  |          |
| 16                        | 006-1102-16 A        | 004-0141-16           | -        | EN3155-018M1614 | P    | -           | White-Blue  | -                       | -                | enlarged |
|                           | 006-1104-16 A        | 004-0142-16           |          | EN3155-019F1614 | S    |             |             |                         |                  |          |
| 16                        | 006-1168-16 A        | 109026-16A            | -        | -               | P    | -           | Red-Blue    | -                       | -                | reduced  |
|                           | 006-1169-16 A        | 109027-16A            |          |                 | S    |             |             |                         |                  |          |
| 16                        | 025-0870-16          | -                     | -        | -               | P    | -           | White-Blue  | -                       | -                | reduced  |
|                           | 025-0871-16          | -                     |          |                 | S    |             |             |                         |                  |          |
| 12                        | <b>006-0937-12 A</b> | 004-0139-12           | -        | EN3155-018M1212 | P    | -           | Yellow      | -                       | -                | standard |
|                           | <b>006-0912-12 A</b> | 004-0140-12           |          | EN3155-019F1212 | S    |             |             |                         |                  |          |
| 12                        | 006-1157-12 A        | 109028 A              | -        | -               | P    | -           | Blue-Yellow | -                       | -                | reduced  |
|                           | 006-1159-12 A        | 109029 A              |          |                 | S    |             |             |                         |                  |          |

Standard Contacts Supplied With Connector.

\* Contacts supplied with mod A246 and B246 (in accordance with ASNE 052/053/054).

QUADRAX CONTACTS

| Crimping contacts |      |      |                  | Tools                      |  |
|-------------------|------|------|------------------|----------------------------|--|
| Part number       | Type | Size | For contacts     | For body                   |  |
| 187-0108-08       | P    | 8    | M22520/2-01-K709 | M22520/5-01 / M22520/5-45B |  |
| 187-0109-08       | S    | 8    | M22520/2-01-K709 | M22520/5-01 / M22520/5-45B |  |



| Wire Range |              | Sealing plug         | Crimp Tool  |              | Positioner  |              | Insertion/Extraction Tool |
|------------|--------------|----------------------|-------------|--------------|-------------|--------------|---------------------------|
| AWG        | mm²          | Ref.                 | Part No.    | MIL Part No. | Part No.    | MIL Part No. |                           |
| 20-24      | 0.25 - 0.6   | 006-0893-20 (red)    | 057-0461-11 | M22520/1-01  | 057-0462-21 | M22520/1-02  | M15570-20<br>006-0902-20  |
| 18-24      | 0.25 - 1     | 006-0893-20 (red)    | 057-0461-11 | M22520/1-01  | 057-0462-21 | M22520/1-02  | M15570-20<br>006-0902-20  |
| 26-30      | 0.055 - 0.15 | 006-0893-20 (red)    | 057-0463-12 | M22520/2-01  | 057-0464-32 | M22520/2-02  | M15570-20<br>006-0902-20  |
| 20-24      | 0.25 - 0.6   | 006-0893-16 (blue)   | 057-0461-11 | M22520/1-01  | 057-0462-21 | M22520/1-02  | M15570-20<br>006-0902-20  |
| 18-22      | 0.4 - 1      | 006-0893-20 (red)    | 057-0461-11 | M22520/1-01  | 057-0462-21 | M22520/1-02  | M15570-20<br>006-0902-20  |
| 18-22      | 0.4 - 1      | 006-0893-20 (red)    | 057-0461-11 | M22520/1-01  | 057-0462-21 | M22520/1-02  | M15570-20<br>006-0902-20  |
| 18-22      | 0.4 - 1      | 006-0893-20 (red)    | 057-0461-11 | M22520/1-01  | 057-0462-21 | M22520/1-02  | M15570-20<br>006-0902-20  |
| 16-20      | 0.6 - 1.2    | 006-0893-16 (blue)   | 057-0461-11 | M22520/1-01  | 057-0462-21 | M22520/1-02  | M15570-16<br>006-0902-16  |
| 14-18      | 1 - 2        | 006-0893-16 (blue)   | 057-0461-11 | M22520/1-01  | 057-0462-21 | M22520/1-02  | M15570-16<br>006-0902-16  |
| 20-24      | 0.25 - 0.6   | 006-0893-16 (blue)   | 057-0461-11 | M22520/1-01  | 057-0462-21 | M22520/1-02  | M15570-16<br>006-0902-16  |
| 26-30      | 0.055 - 0.15 | 006-0893-16 (blue)   | 057-0463-12 | M22520/2-01  | 057-0464-32 | M22520/2-02  | M15570-16<br>006-0902-16  |
| 12-16      | 1.2 - 3      | 006-0892-12 (yellow) | 057-0461-11 | M22520/1-01  | 057-0462-21 | M22520/1-02  | M15570-12<br>006-0902-12  |
| 16-20      | 0.6 - 1.2    | 006-0892-12 (yellow) | 057-0461-11 | M22520/1-01  | 057-0462-21 | M22520/1-02  | M15570-12<br>006-0902-12  |

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