

# 4 *Multipole Low Voltage Connectors*



## Key Features

- Wide range of body styles and sizes
- Unsealed, sealed or hermetic
- Signal or power
- Multipole up to 55 contacts
- Up to 30 A
- Standard or inverted polarity
- Solder, crimp or PCB contacts
- Guide mark standard
- Mechanical and color coding



This catalogue covers our standard connector solutions.

For thermocouple connectors, check our online documentation on [www.fischerconnectors.com](http://www.fischerconnectors.com)

For specific requests, hybrids or fiber optic configurations, please contact us.

## How to Order our Products ?

- To find your local Fischer Connectors Office see Catalogue back cover or go to [www.fischerconnectors.com/contacts](http://www.fischerconnectors.com/contacts)
- For General Ordering Information, see page 2-3
- Cable Clamp Set should be ordered separately, see page 4-11
- For details on Options, see page 4-10
- For Accessories, see Section 11
- For Tooling, see Section 12

## Other Fischer Connectors Series with Multipole Low Voltage Contacts

### ■ AluLite™ Series



Aluminium connectors ideal for ultralight or portable applications

**Fischer AluLite™ Series**

### ■ Plastic Series



Plastic connectors ideal for lightweight applications

**Fischer 405 Series  
Fischer 4032 Series**

### ■ Disposable



Low cost, high performance connectors developed for disposable equipments

**Fischer L.U.C™ Series**

### ■ Fischer UltiMate™



High performance connectors specially designed for military land Forces

**Fischer LandForce™ Series**

### **Cable Mounted Plugs**



|                                                         |       |
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| ■ Body Style Selection (S/SC; SOV; SA; SV; SS/SSC; WSO) | 4-3   |
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### **Cable Mounted Receptacles**



|                                       |       |
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### **Panel Mounted Receptacles**



|                                                                                           |       |
|-------------------------------------------------------------------------------------------|-------|
| ■ Body Style Selection<br>(D; DEU/E; DB; DBEU/E; DBP; DBPU/E; DBPLU/E; DG/DGP; DBPC; WDE) | 4-5   |
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### **Panel Mounted Plugs**



|                                            |       |
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| ■ Dimensions                               | 4-6-1 |
| ■ Panel Cut-Outs                           | 4-8   |

### **Panel Mounted Cable Receptacles**

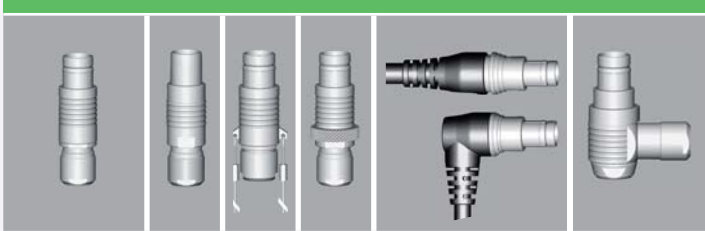


|                                        |       |
|----------------------------------------|-------|
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### **For all Multipole Low Voltage**

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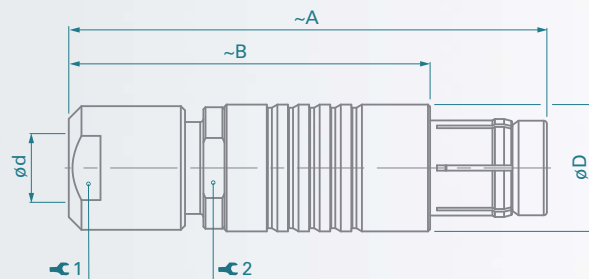
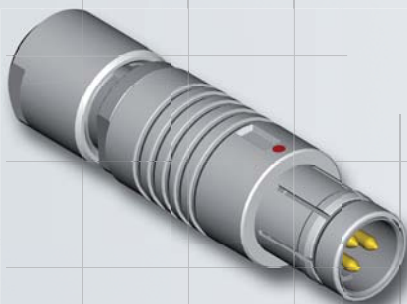
## Cable Mounted Plugs

|                |                    |  |    |     |    |    |    |     |     |                                                                                                                                                          |
|----------------|--------------------|------------------------------------------------------------------------------------|----|-----|----|----|----|-----|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Body Style     |                    | S                                                                                  | SC | SOV | SA | SV | SS | SSC | WSO | Links to Detailed Information                                                                                                                            |
| Protection     | Unsealed (IP50)    | •                                                                                  | •  | •   | •  | •  | •  | •   | •   | Sealed and Hermetic Connectors Page 13-8                                                                                                                 |
|                | Sealed up to IP68  | •                                                                                  | •  | •   | •  | •  | •  | •   | •   |                                                                                                                                                          |
| Locking System | None               |                                                                                    |    | •   |    |    |    |     |     | Plug Locking Systems Page 2-7                                                                                                                            |
|                | Push-Pull          | •                                                                                  |    |     | •  | •  | •  |     | •   |                                                                                                                                                          |
|                | Emergency Release  |                                                                                    | •  |     |    |    |    | •   |     |                                                                                                                                                          |
|                | Lanyard            |                                                                                    |    |     | •  |    |    |     |     |                                                                                                                                                          |
|                | Tamperproof        |                                                                                    |    |     |    | •  |    |     |     |                                                                                                                                                          |
| Contacts       | Crimp              | •                                                                                  | •  | •   | •  | •  | •  | •   | •   | Electrical & Contact Specifications Page 4-9                                                                                                             |
|                | Solder             | •                                                                                  | •  | •   | •  | •  | •  | •   | •   |                                                                                                                                                          |
| Housing Color  | Natural Chrome     | •                                                                                  | •  | •   | •  | •  | •  | •   | •   | Options Page 4-10                                                                                                                                        |
|                | Black Chrome       | •                                                                                  | •  | •   | •  |    | •  | •   | •   |                                                                                                                                                          |
| Design         | Shortened Body     |                                                                                    |    |     |    |    | •  | •   |     | Core Series Overview Page 2-1                                                                                                                            |
|                | Straight           |                                                                                    |    |     |    |    | •  | •   |     |                                                                                                                                                          |
|                | Right Angle        |                                                                                    |    |     |    |    | •  | •   | •   |                                                                                                                                                          |
| Cabling        | Cable Clamp Sets   | •                                                                                  | •  | •   | •  | •  |    |     | •   | Cable Clamp Sets Page 4-11                                                                                                                               |
|                | Overmoldable       |                                                                                    |    |     |    |    | •  | •   |     | Cable Assembly Section 3                                                                                                                                 |
|                | Heat Shrinkable    |                                                                                    |    |     |    |    | •  | •   |     |                                                                                                                                                          |
| Accessories    | Cable Bend Reliefs | •                                                                                  | •  | •   | •  | •  |    |     | •   | Accessories Section 11                                                                                                                                   |
|                | Protective Sleeves | •                                                                                  | •  | •   |    |    |    |     |     |                                                                                                                                                          |
|                | Sealing Caps       | •                                                                                  | •  | •   | •  | •  | •  | •   | •   |                                                                                                                                                          |
| Size           | 102 Series         | •                                                                                  | •  | •   | •  | •  | •  | •   | •   | Dimensions Page 4-3-1<br><br>For more Information Visit:<br><a href="http://www.fischerconnectors.com/technical">www.fischerconnectors.com/technical</a> |
|                | 103 Series         | •                                                                                  | •  | •   | •  | •  | •  | •   | •   |                                                                                                                                                          |
|                | 1031 Series        | •                                                                                  | •  | •   | •  | •  | •  | •   | •   |                                                                                                                                                          |
|                | 104 Series         | •                                                                                  | •  | •   | •  | •  | •  | •   | •   |                                                                                                                                                          |
|                | 105 Series         | •                                                                                  | •  | •   | •  | •  | •  | •   | •   |                                                                                                                                                          |
|                | 106 Series         | •                                                                                  |    |     |    | •  |    |     |     |                                                                                                                                                          |
|                | 107 Series         | •                                                                                  |    |     |    | •  |    |     |     |                                                                                                                                                          |

Plugs mate with receptacles.

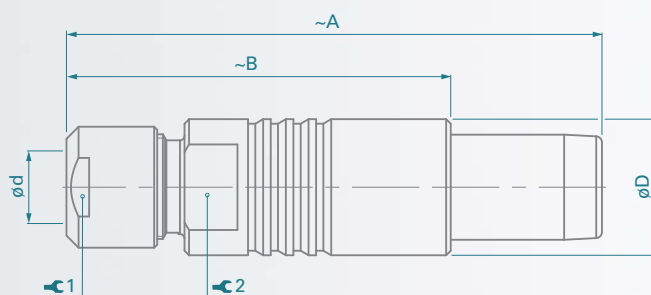
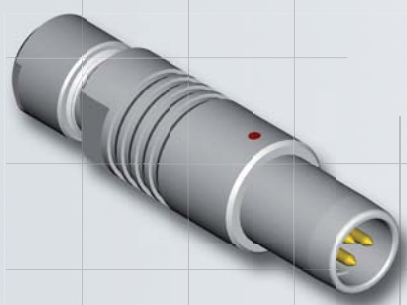
## Cable Mounted Plugs

### ■ S / SC Body Styles



| Series | A   | B  | D  | d max    |        | Y 1 | Torque 1<br>[Nm] | Y 2 |
|--------|-----|----|----|----------|--------|-----|------------------|-----|
|        |     |    |    | Unsealed | Sealed |     |                  |     |
| 102    | 36  | 26 | 9  | 4.7      | 4.3    | 7   | 0.6              | 7   |
| 103    | 46  | 35 | 12 | 6.7      | 6.2    | 10  | 1.0              | 10  |
| 1031   | 48  | 38 | 13 | 7.2      | 6.7    | 12  | 1.5              | 11  |
| 104    | 50  | 38 | 15 | 8.7      | 8.7    | 12  | 2.0              | 13  |
| 105    | 62  | 47 | 18 | 10.7     | 10.7   | 15  | 3.5              | 16  |
| 106    | 80  | 55 | 28 | 19.2     | 19.2   | 22  | 8.0              | -   |
| 107    | 110 | 85 | 34 | 22.7     | 22.7   | 32  | 10.0             | 32  |

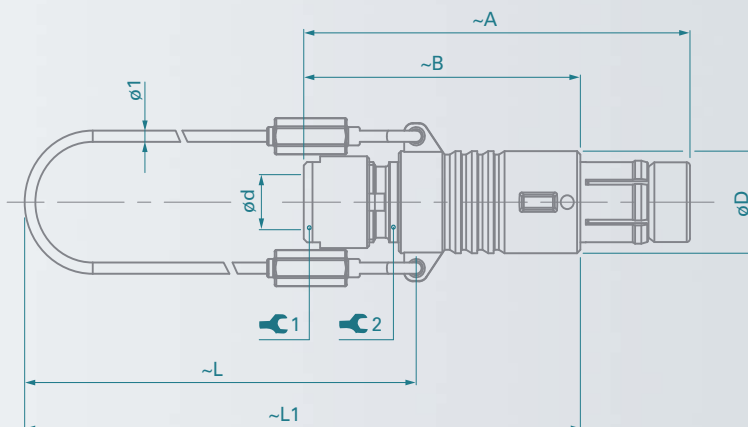
### ■ SOV Body Style



| Series | A                                            | B  | D  | d max    |        | Y 1 | Torque 1<br>[Nm] | Y 2 |
|--------|----------------------------------------------|----|----|----------|--------|-----|------------------|-----|
|        |                                              |    |    | Unsealed | Sealed |     |                  |     |
| 102    | 36                                           | 26 | 9  | 4.7      | 4.3    | 7   | 0.6              | 7   |
| 103    | 46                                           | 35 | 12 | 6.7      | 6.2    | 10  | 1.0              | 10  |
| 1031   | 48                                           | 38 | 13 | 7.2      | 6.7    | 12  | 1.5              | 11  |
| 104    | 50                                           | 38 | 15 | 8.7      | 8.7    | 12  | 2.0              | 13  |
| 105    | 62                                           | 47 | 18 | 10.7     | 10.7   | 15  | 3.5              | 16  |
| 106    | Please contact us for additional information |    |    |          |        |     |                  |     |
| 107    |                                              |    |    |          |        |     |                  |     |

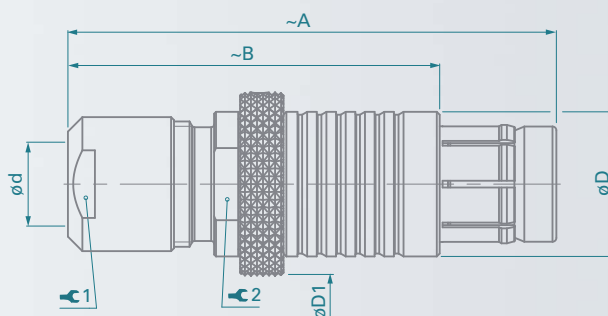
## Cable Mounted Plugs

### ■ SA Body Style



| Series | A                                            | B  | D  | L  | L1 | d max    |        | 1  | Torque 1<br>[Nm] | 2  |
|--------|----------------------------------------------|----|----|----|----|----------|--------|----|------------------|----|
|        |                                              |    |    |    |    | Unsealed | Sealed |    |                  |    |
| 102    | 36                                           | 26 | 9  | 50 | 65 | 4.7      | 4.3    | 7  | 0.6              | 7  |
| 103    | 46                                           | 35 | 12 | 60 | 77 | 6.7      | 6.2    | 10 | 1.0              | 10 |
| 1031   | 48                                           | 38 | 13 | 55 | 75 | 7.2      | 6.7    | 12 | 1.5              | 11 |
| 104    | 50                                           | 38 | 15 | 65 | 84 | 8.7      | 8.7    | 12 | 2.0              | 13 |
| 105    | 62                                           | 47 | 18 | 70 | 94 | 10.7     | 10.7   | 15 | 3.5              | 16 |
| 106    | Please contact us for additional information |    |    |    |    |          |        |    |                  |    |
| 107    |                                              |    |    |    |    |          |        |    |                  |    |

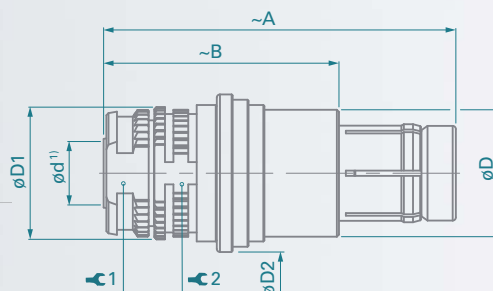
### ■ SV Body Style



| Series | A                                            | B  | D  | D1 | d max    |        |  1 | Torque 1<br>[Nm] |  2 |
|--------|----------------------------------------------|----|----|----|----------|--------|-----------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------|
|        |                                              |    |    |    | Unsealed | Sealed |                                                                                         |                  |                                                                                         |
| 102    | 36                                           | 26 | 9  | 11 | 4.7      | 4.3    | 7                                                                                       | 0.6              | -                                                                                       |
| 103    | 46                                           | 35 | 12 | 13 | 6.7      | 6.2    | 10                                                                                      | 1.0              | -                                                                                       |
| 1031   | Please contact us for additional information |    |    |    |          |        |                                                                                         |                  |                                                                                         |
| 104    | 50                                           | 38 | 15 | 20 | 8.7      | 8.7    | 12                                                                                      | 2.0              | 13                                                                                      |
| 105    | 62                                           | 47 | 18 | 22 | 10.7     | 10.7   | 15                                                                                      | 3.5              | 16                                                                                      |
| 106    | 80                                           | 55 | 30 | 35 | 19.2     | 19.2   | 22                                                                                      | 8.0              | -                                                                                       |
| 107    | 110                                          | 85 | 34 | 38 | 22.7     | 22.7   | 32                                                                                      | 10.0             | 32                                                                                      |

## Cable Mounted Plugs

### ■ SS / SSC Body Styles



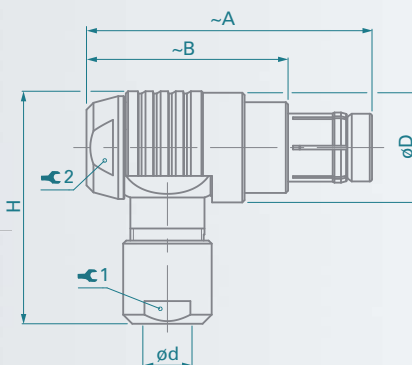
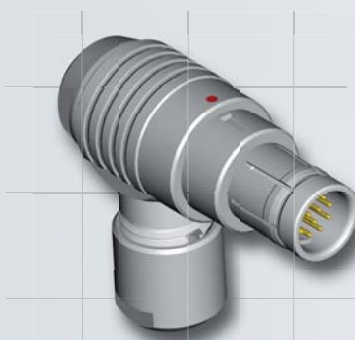
### Cable Assembly: Overmolding Options



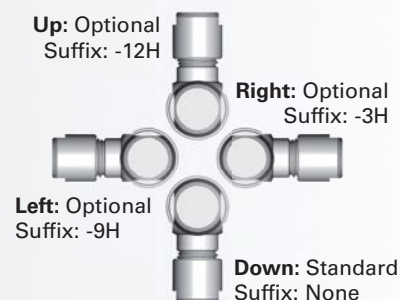
| Series | A                                            | B  | D    | D1   | D2   | d max | Y1 | Torque 1 [Nm] | Y2 |
|--------|----------------------------------------------|----|------|------|------|-------|----|---------------|----|
| 102    | 30                                           | 20 | 9.0  | 9.5  | 12.0 | 3.8   | 7  | 0.6           | 8  |
| 103    | 33                                           | 22 | 12.0 | 12.5 | 15.0 | 6.0   | 10 | 1.0           | 11 |
| 1031   | 33                                           | 23 | 12.4 | 13.0 | 15.5 | 6.2   | 10 | 1.0           | 11 |
| 104    | 38                                           | 26 | 15.0 | 15.3 | 18.0 | 8.0   | 12 | 2.0           | 13 |
| 105    | 44                                           | 29 | 18.0 | 18.4 | 21.2 | 10.0  | 15 | 3.5           | 16 |
| 106    | Please contact us for additional information |    |      |      |      |       |    |               |    |
| 107    |                                              |    |      |      |      |       |    |               |    |

<sup>1)</sup> Max. cable diameter below shield.

### ■ WSO Body Style



### Cable Orientations: View from the back

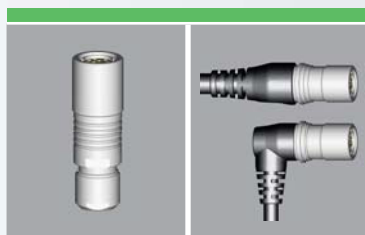


| Series | A                                            | B  | D  | H  | d max    |        | Y1 | Torque 1 [Nm] | Y2 | Torque 2 [Nm] |
|--------|----------------------------------------------|----|----|----|----------|--------|----|---------------|----|---------------|
|        |                                              |    |    |    | Unsealed | Sealed |    |               |    |               |
| 102    | 33                                           | 23 | 12 | 25 | 4.7      | 4.3    | 7  | 0.6           | 8  | 1.0           |
| 103    | 38                                           | 27 | 15 | 31 | 6.7      | 6.2    | 10 | 1.0           | 11 | 1.3           |
| 1031   | 39                                           | 29 | 17 | 33 | 7.2      | 6.7    | 12 | 1.5           | 12 | 2.0           |
| 104    | 45                                           | 32 | 19 | 37 | 8.7      | 8.7    | 12 | 2.0           | 14 | 2.5           |
| 105    | 53                                           | 38 | 23 | 45 | 10.7     | 10.7   | 15 | 3.5           | 17 | 4.5           |
| 106    | Please contact us for additional information |    |    |    |          |        |    |               |    |               |
| 107    |                                              |    |    |    |          |        |    |               |    |               |

WSO is available for different cable orientations.  
When ordering, choose which suffix to use in cable orientations figure.

**Example:** WSO 102 A056 -130 + with standard down cable orientation  
WSO 102 A056 -130 -9H with left cable orientation

## Cable Mounted Receptacles

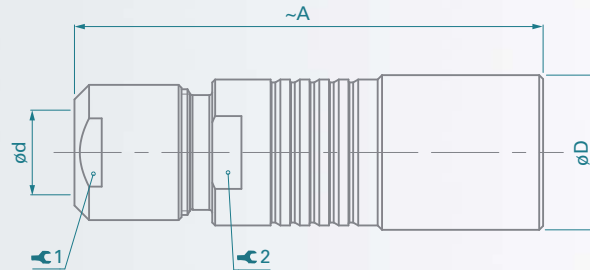


| Body Style  |                    | K | KE | KS | KSE | Links to Detailed Information                                                                                                                            |
|-------------|--------------------|---|----|----|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protection  | Unsealed (IP50)    | ● |    | ●  |     | Sealed and Hermetic Connectors Page 13-8                                                                                                                 |
|             | Sealed up to IP68  |   | ●  |    | ●   |                                                                                                                                                          |
| Contacts    | Crimp              | ● | ●  | ●  | ●   | Electrical & Contact Specifications Page 4-9                                                                                                             |
|             | Solder             | ● | ●  | ●  | ●   |                                                                                                                                                          |
| Housing     | Natural Chrome     | ● | ●  | ●  | ●   | Options Page 4-10<br>Core Series Overview Page 2-1                                                                                                       |
|             | Black Chrome       | ● | ●  | ●  | ●   |                                                                                                                                                          |
|             | Shortened Body     |   |    | ●  | ●   |                                                                                                                                                          |
| Design      | Straight           |   |    | ●  | ●   | Core Series Overview Page 2-1                                                                                                                            |
|             | Right Angle        |   |    | ●  | ●   |                                                                                                                                                          |
| Cabling     | Cable Clamp Sets   | ● | ●  |    |     | Cable Clamp Sets Page 4-11                                                                                                                               |
|             | Overmoldable       |   |    | ●  | ●   | Cable Assembly Section 3                                                                                                                                 |
|             | Heat Shrinkable    |   |    | ●  | ●   |                                                                                                                                                          |
| Accessories | Cable Bend Reliefs | ● | ●  |    |     | Accessories Section 11                                                                                                                                   |
|             | Protective Sleeves | ● | ●  |    |     |                                                                                                                                                          |
|             | Sealing Caps       | ● | ●  | ●  | ●   |                                                                                                                                                          |
| Size        | 102 Series         | ● | ●  | ●  | ●   | Dimensions Page 4-4-1<br><br>For more Information Visit:<br><a href="http://www.fischerconnectors.com/technical">www.fischerconnectors.com/technical</a> |
|             | 103 Series         | ● | ●  | ●  | ●   |                                                                                                                                                          |
|             | 1031 Series        | ● | ●  | ●  | ●   |                                                                                                                                                          |
|             | 104 Series         | ● | ●  | ●  | ●   |                                                                                                                                                          |
|             | 105 Series         | ● | ●  | ●  | ●   |                                                                                                                                                          |
|             | 106 Series         | ● | ●  |    |     |                                                                                                                                                          |
|             | 107 Series         | ● | ●  |    |     |                                                                                                                                                          |

Plugs mate with receptacles.

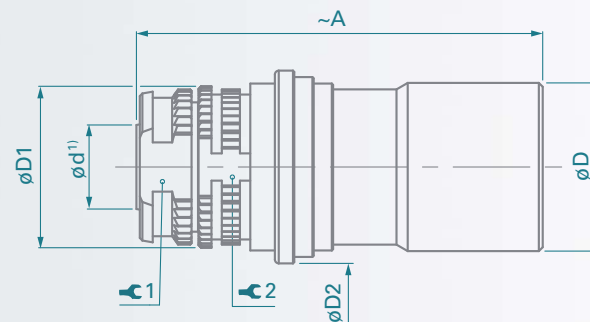
## Cable Mounted Receptacles

### ■ K / KE Body Styles



| Series | A   | D    | d max    |        | 1  | Torque 1<br>[Nm] | 2  |
|--------|-----|------|----------|--------|----|------------------|----|
|        |     |      | Unsealed | Sealed |    |                  |    |
| 102    | 35  | 10   | 4.7      | 4.3    | 7  | 0.6              | 7  |
| 103    | 43  | 13   | 6.7      | 6.2    | 10 | 1.0              | 10 |
| 1031   | 46  | 13.5 | 7.2      | 6.7    | 12 | 1.5              | 11 |
| 104    | 50  | 16   | 8.7      | 8.7    | 12 | 2.0              | 13 |
| 105    | 60  | 19   | 10.7     | 10.7   | 15 | 3.5              | 16 |
| 106    | 79  | 33   | 19.2     | 19.2   | 25 | 8                | 25 |
| 107    | 105 | 36   | 22.7     | 22.7   | 32 | 10               | 32 |

### ■ KS / KSE Body Styles



| Series | A                                            | D    | D1   | D2   | d max | 1  | Torque 1<br>[Nm] | 2  |
|--------|----------------------------------------------|------|------|------|-------|----|------------------|----|
| 102    | 28                                           | 10.0 | 10.0 | 12.0 | 3.8   | 7  | 0.6              | 8  |
| 103    | 32                                           | 13.0 | 13.0 | 15.0 | 6.0   | 10 | 1.0              | 11 |
| 1031   | 31                                           | 13.5 | 13.5 | 15.5 | 6.2   | 10 | 1.0              | 11 |
| 104    | 35                                           | 16.0 | 16.0 | 18.0 | 8.0   | 12 | 2.0              | 13 |
| 105    | 43                                           | 19.0 | 18.0 | 21.2 | 10.0  | 15 | 3.5              | 16 |
| 106    | Please contact us for additional information |      |      |      |       |    |                  |    |
| 107    |                                              |      |      |      |       |    |                  |    |

### Cable Assembly: Overmolding Options



<sup>1)</sup> Max. cable diameter below shield.

All dimensions shown are in millimeters and are for reference only.

Torque [Nm] are recommended values that may be influenced by the characteristics of the cable jacket.

Tests have to be made to evaluate the exact values. To secure the cable clamp nut, we recommend the use of thread locking adhesive.

## Panel Mounted Receptacles

|               |                      |  |  |  |  |  |  |
|---------------|----------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Body Style    |                      | D                                                                                 | DEU                                                                               | DEE                                                                                | DB                                                                                  | DBEU                                                                                | DBP                                                                                 |
| Protection    | Unsealed (IP50)      | ●                                                                                 |                                                                                   |                                                                                    | ●                                                                                   |                                                                                     | ●                                                                                   |
|               | Sealed up to IP68    |                                                                                   | ●                                                                                 | ●                                                                                  |                                                                                     | ●                                                                                   | ●                                                                                   |
|               | Hermetic             |                                                                                   |                                                                                   | ●                                                                                  |                                                                                     | ●                                                                                   |                                                                                     |
| Contacts      | Crimp                | ●                                                                                 |                                                                                   |                                                                                    | ●                                                                                   |                                                                                     | ●                                                                                   |
|               | Solder               | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|               | PCB                  | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| Housing Color | Natural Chrome       | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|               | Black Chrome         | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| Design        | Right Angle          |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
|               | Flush                | ●                                                                                 | ●                                                                                 | ●                                                                                  |                                                                                     |                                                                                     | ●                                                                                   |
|               | Front Projecting     |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|               | Bulkhead Feedthrough |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Assembly      | Front Mounting       | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   |                                                                                     |
|               | Rear Mounting        |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     | ●                                                                                   |
| Accessories   | Sealing Caps         | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|               | Spacers              | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|               | Color-Coded Washers  | ●                                                                                 |                                                                                   |                                                                                    | ●                                                                                   |                                                                                     | ●                                                                                   |
|               | Grounding Washers    | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|               | Locking Washers      | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|               | Decorative Nuts      |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     | ●                                                                                   |
| Size          | 102 Series           | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|               | 103 Series           | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|               | 1031 Series          | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|               | 104 Series           | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|               | 105 Series           | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●                                                                                   | ●                                                                                   | ●                                                                                   |
|               | 106 Series           | ●                                                                                 |                                                                                   | ●                                                                                  |                                                                                     | ●                                                                                   |                                                                                     |
|               | 107 Series           | ●                                                                                 |                                                                                   | ●                                                                                  |                                                                                     | ●                                                                                   |                                                                                     |

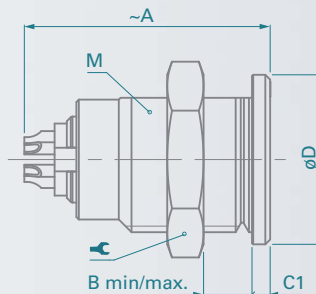
Plugs mate with receptacles.

## Panel Mounted Receptacles

|  |      |  |       |  |  |  |  | Links to Detailed Information                |
|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|
| DBPU                                                                              | DBPE | DBPLU                                                                             | DBPLE | DG                                                                                | DGP                                                                               | DBPC                                                                              | WDE                                                                                |                                              |
|                                                                                   |      |                                                                                   |       | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                    | Sealed and Hermetic Connectors Page 13-8     |
| •                                                                                 | •    | •                                                                                 | •     |                                                                                   |                                                                                   |                                                                                   | •                                                                                  |                                              |
|                                                                                   | •    |                                                                                   | •     |                                                                                   |                                                                                   |                                                                                   | •                                                                                  |                                              |
|                                                                                   |      |                                                                                   |       | •                                                                                 | •                                                                                 |                                                                                   |                                                                                    | Electrical & Contact Specifications Page 4-9 |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 |                                                                                   |                                                                                    |                                              |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                    |                                              |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 | •                                                                                 | •                                                                                  | Options Page 4-10                            |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                    |                                              |
|                                                                                   |      |                                                                                   |       |                                                                                   |                                                                                   | •                                                                                 |                                                                                    |                                              |
| •                                                                                 | •    |                                                                                   |       | •                                                                                 | •                                                                                 | •                                                                                 | •                                                                                  | Core Series Overview Page 2-1                |
|                                                                                   |      | •                                                                                 | •     | •                                                                                 | •                                                                                 |                                                                                   | •                                                                                  |                                              |
|                                                                                   |      |                                                                                   |       |                                                                                   |                                                                                   |                                                                                   | •                                                                                  |                                              |
|                                                                                   |      |                                                                                   |       | •                                                                                 | •                                                                                 |                                                                                   | •                                                                                  | Core Series Overview Page 2-1                |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                    |                                              |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 | •                                                                                 | •                                                                                  |                                              |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 | •                                                                                 | •                                                                                  | Accessories Section 11                       |
|                                                                                   |      |                                                                                   |       | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                    |                                              |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                    |                                              |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                    |                                              |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                    |                                              |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 | •                                                                                 | •                                                                                  |                                              |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 | •                                                                                 | •                                                                                  | Dimensions Page 4-5-2                        |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                    |                                              |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                    |                                              |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 |                                                                                   | •                                                                                  |                                              |
| •                                                                                 | •    | •                                                                                 | •     | •                                                                                 | •                                                                                 |                                                                                   | •                                                                                  |                                              |
|                                                                                   |      |                                                                                   |       | •                                                                                 | •                                                                                 |                                                                                   | •                                                                                  |                                              |
|                                                                                   | •    |                                                                                   |       |                                                                                   |                                                                                   |                                                                                   | •                                                                                  |                                              |

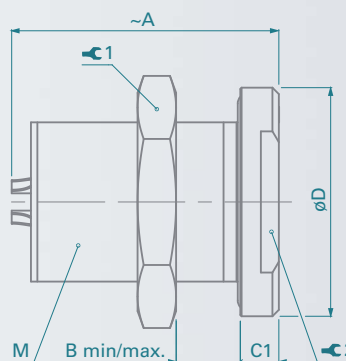
## Panel Mounted Receptacles

### ■ D Body Style



| Series | A  | B    | C1  | D  | M     |  | Torque [Nm] |
|--------|----|------|-----|----|-------|-------------------------------------------------------------------------------------|-------------|
| 102    | 19 | 0/9  | 1.5 | 11 | 9x0.5 | 11                                                                                  | 1.3         |
| 103    | 23 | 0/8  | 1.5 | 14 | 12x1  | 14                                                                                  | 2.5         |
| 1031   | 25 | 0/10 | 2.0 | 16 | 14x1  | 17                                                                                  | 3.0         |
| 104    | 25 | 0/11 | 2.2 | 19 | 15x1  | 17                                                                                  | 4.0         |
| 105    | 32 | 0/15 | 2.0 | 22 | 18x1  | 22                                                                                  | 6.0         |
| 106    | 50 | 0/18 | 3.0 | 37 | 32x1  | TX00.106                                                                            | 15          |
| 107    | 46 | 0/18 | 4.0 | 40 | 35x1  | TX00.107                                                                            | 16          |

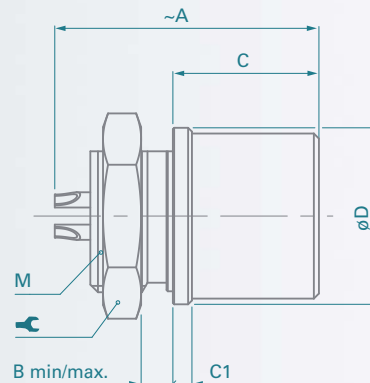
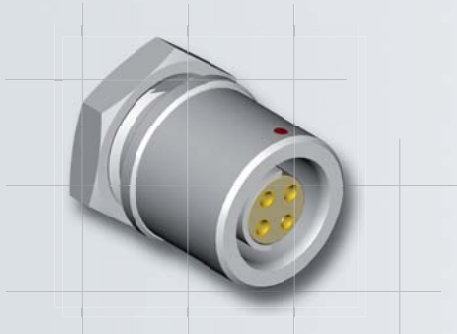
### ■ DEU / DEE Body Styles



| Series | A  | B       | C1  | D  | M     |  1 | Torque 1 [Nm] |  2 |
|--------|----|---------|-----|----|-------|-----------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------|
| 102    | 20 | 8/10    | 2.5 | 14 | 9x0.5 | 11                                                                                      | 1.3           | 11                                                                                      |
| 103    | 23 | 0/12    | 3.0 | 18 | 14x1  | 17                                                                                      | 3.0           | 14                                                                                      |
| 1031   | 25 | 0/12    | 3.0 | 19 | 14x1  | 17                                                                                      | 3.0           | 15                                                                                      |
| 104    | 25 | 0/15    | 4.0 | 22 | 16x1  | 19                                                                                      | 4.5           | 17                                                                                      |
| 105    | 33 | 10.5/18 | 4.0 | 27 | 20x1  | 25                                                                                      | 6.5           | -                                                                                       |
| 106    | 50 | 19/24   | 5.0 | 41 | 32x1  | TX00.106                                                                                | 15            | -                                                                                       |
| 107    | 47 | 19.2/22 | 5.0 | 45 | 35x1  | TX00.107                                                                                | 16            | -                                                                                       |

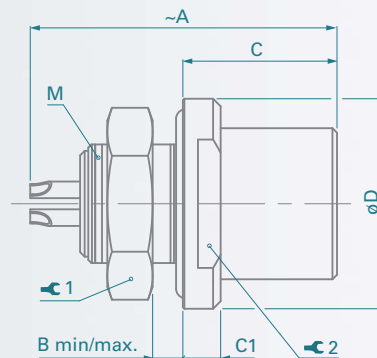
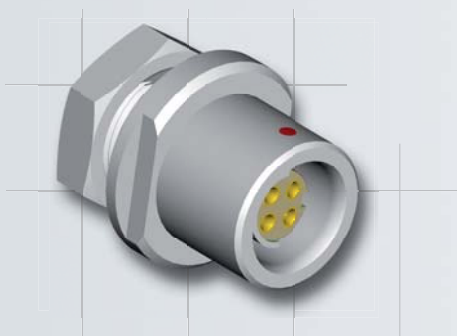
## Panel Mounted Receptacles

### ■ DB Body Style



| Series | A                                            | B<br>min/max. | C    | C1  | D  | M     |  | Torque<br>[Nm] |
|--------|----------------------------------------------|---------------|------|-----|----|-------|-------------------------------------------------------------------------------------|----------------|
| 102    | 18                                           | 0/3           | 11.0 | 1.0 | 11 | 9x0.5 | 11                                                                                  | 1.3            |
| 103    | 21                                           | 0/4           | 11.5 | 1.5 | 14 | 12x1  | 14                                                                                  | 2.5            |
| 1031   | Please contact us for additional information |               |      |     |    |       |                                                                                     |                |
| 104    | 26                                           | 0/3           | 14.5 | 2.5 | 19 | 16x1  | 19                                                                                  | 4.5            |
| 105    | 33                                           | 0/7           | 19.0 | 2.0 | 22 | 18x1  | 22                                                                                  | 6.0            |
| 106    | Please contact us for additional information |               |      |     |    |       |                                                                                     |                |
| 107    |                                              |               |      |     |    |       |                                                                                     |                |

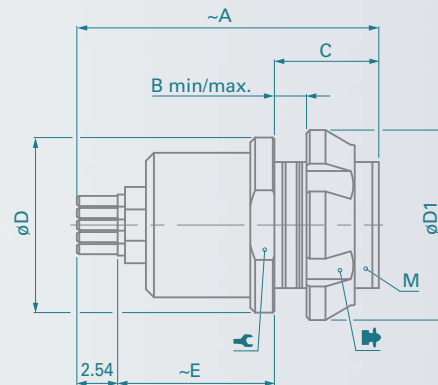
### ■ DBEU / DBEE Body Styles



| Series | A  | B<br>min/max. | C    | C1  | D  | M     |  1 | Torque 1<br>[Nm] |  2 |
|--------|----|---------------|------|-----|----|-------|-----------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------|
| 102    | 20 | 0/3.5         | 10.2 | 2.5 | 14 | 9x0.5 | 11                                                                                      | 1.3              | 11                                                                                      |
| 103    | 23 | 0/4.0         | 13.0 | 3.0 | 18 | 14x1  | 17                                                                                      | 3.0              | 14                                                                                      |
| 1031   | 24 | 0/4.0         | 12.0 | 3.0 | 19 | 14x1  | 17                                                                                      | 3.0              | 15                                                                                      |
| 104    | 30 | 0/3.5         | 16.0 | 4.0 | 22 | 16x1  | 19                                                                                      | 4.5              | 17                                                                                      |
| 105    | 32 | 0/5.0         | 19.0 | 4.0 | 27 | 18x1  | 22                                                                                      | 6.0              | 22                                                                                      |
| 106    | 50 | 0/6.5         | 25.5 | 7.0 | 40 | 32x1  | TX00.106                                                                                | 15               | -                                                                                       |
| 107    | 47 | 0/5.0         | 24.0 | 5.0 | 45 | 35x1  | TX00.107                                                                                | 16               | 38                                                                                      |

## Panel Mounted Receptacles

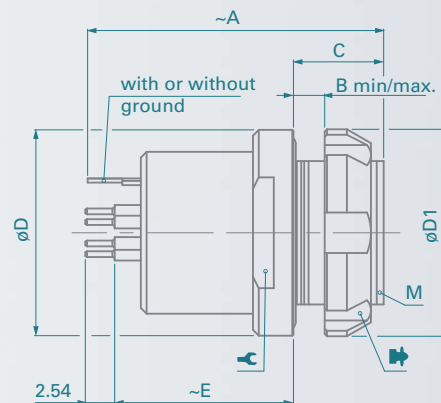
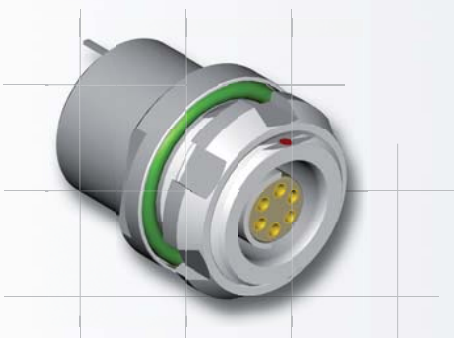
### ■ DBP Body Style



| Series | A                                            | B<br>min/max. | C    | D  | D1 | E    | M     | ⌀  | ⌀ <sup>1)</sup> | Torque<br>[Nm] |
|--------|----------------------------------------------|---------------|------|----|----|------|-------|----|-----------------|----------------|
| 102    | 20                                           | 0/3.5         | 6.5  | 11 | 12 | 10.0 | 9x0.5 | 10 | TC00.000        | 1.3            |
| 103    | 23                                           | 0/4.0         | 8.0  | 14 | 15 | 12.0 | 12x1  | -  | TF00.001        | 2.5            |
| 1031   | 23                                           | 0/3.0         | 7.0  | 16 | 18 | 13.0 | 14x1  | -  | TG00.001        | 3.0            |
| 104    | 26                                           | 0/5.0         | 9.0  | 19 | 19 | 11.5 | 15x1  | -  | TK00.000        | 4.0            |
| 105    | 30                                           | 0/12.0        | 17.0 | 22 | 23 | 10.0 | 18x1  | -  | TP00.011        | 6.0            |
| 106    | Please contact us for additional information |               |      |    |    |      |       |    |                 |                |
| 107    |                                              |               |      |    |    |      |       |    |                 |                |

<sup>1)</sup> Assembly tool for decorative slotted nut, see Tooling Page 12-1 for details.

### ■ DBPU / DBPE Body Styles

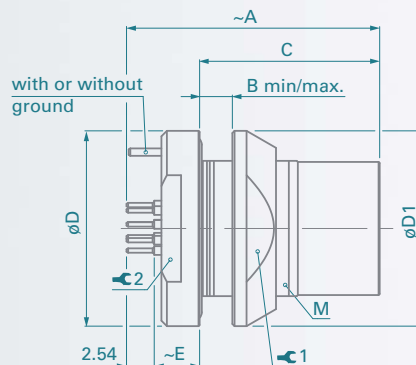


| Series | A                                            | B<br>min/max. | C    | D  | D1 | E    | M     | ⌀  | ⌀ <sup>1)</sup> | Torque<br>[Nm] |
|--------|----------------------------------------------|---------------|------|----|----|------|-------|----|-----------------|----------------|
| 102    | 20                                           | 0/3.5         | 6.5  | 14 | 12 | 13.0 | 9x0.5 | 11 | TC00.000        | 1.3            |
| 103    | 26                                           | 0/3.0         | 7.8  | 18 | 18 | 15.5 | 14x1  | 15 | TG00.001        | 3.0            |
| 1031   | 23                                           | 0/3.0         | 7.0  | 19 | 18 | 13.0 | 14x1  | 15 | TG00.001        | 3.0            |
| 104    | 26                                           | 0/4.0         | 8.0  | 22 | 20 | 15.5 | 16x1  | -  | TK00.002        | 4.5            |
| 105    | 30                                           | 0/5.0         | 10.0 | 27 | 25 | 14.0 | 20x1  | -  | TP00.005        | 6.5            |
| 106    | Please contact us for additional information |               |      |    |    |      |       |    |                 |                |
| 107    |                                              |               |      |    |    |      |       |    |                 |                |

<sup>1)</sup> Assembly tool for decorative slotted nut, see Tooling Page 12-1 for details.

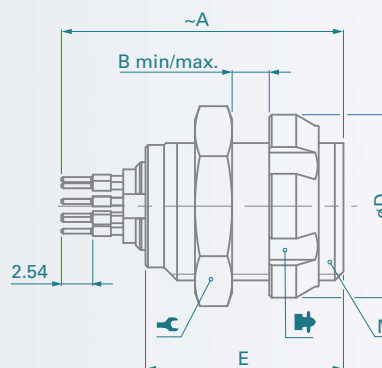
## Panel Mounted Receptacles

### ■ DBPLU / DBPLE Body Styles



| Series | A                                            | B<br>min/max. | C    | D  | D1 | E   | M      | 1  | Torque 1<br>[Nm] | 2  |
|--------|----------------------------------------------|---------------|------|----|----|-----|--------|----|------------------|----|
| 102    | 21                                           | 0/4.5         | 14.2 | 14 | 13 | 3.6 | 10x0.5 | 11 | 1.5              | 11 |
| 103    | 24                                           | 0/5.0         | 16.5 | 18 | 18 | 4.2 | 14x1   | 15 | 3.0              | 15 |
| 1031   | 23                                           | 0/5.5         | 16.0 | 19 | 20 | 4.2 | 15x1   | 17 | 4.0              | 15 |
| 104    | 27                                           | 0/6.5         | 18.5 | 22 | 20 | 5   | 16x1   | 17 | 4.5              | 17 |
| 105    | 31                                           | 0/7.0         | 22.5 | 27 | 25 | 5.5 | 20x1   | 22 | 6.5              | 22 |
| 106    | Please contact us for additional information |               |      |    |    |     |        |    |                  |    |
| 107    |                                              |               |      |    |    |     |        |    |                  |    |

### ■ DG / DGP Body Styles

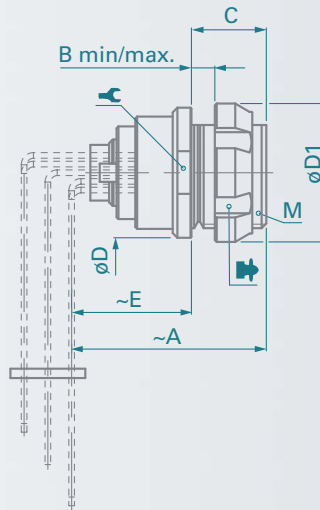


| Series | A                                            | B<br>min/max. | D  | E  | M     | 1  | 1)       | Torque<br>[Nm] |
|--------|----------------------------------------------|---------------|----|----|-------|----|----------|----------------|
| 102    | 20                                           | 0/6           | 12 | 14 | 9x0.5 | 11 | TC00.000 | 1.3            |
| 103    | 23                                           | 0/7           | 15 | 15 | 12x1  | 14 | TF00.001 | 2.5            |
| 1031   | 23                                           | 0/7           | 18 | 18 | 14x1  | 17 | TG00.001 | 3.0            |
| 104    | 26                                           | 0/9           | 19 | 18 | 15x1  | 17 | TK00.000 | 4.0            |
| 105    | 30                                           | 0/15          | 23 | 24 | 18x1  | 22 | TP00.011 | 6.0            |
| 106    | Please contact us for additional information |               |    |    |       |    |          |                |
| 107    |                                              |               |    |    |       |    |          |                |

<sup>1)</sup> Assembly tool for decorative slotted nut, see Tooling Page 12-1 for details.

## Panel Mounted Receptacles

### ■ DBPC Body Style

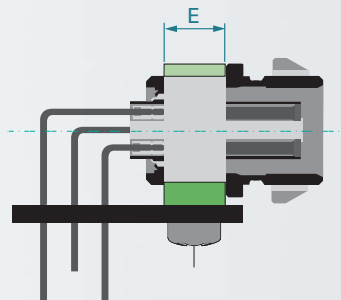
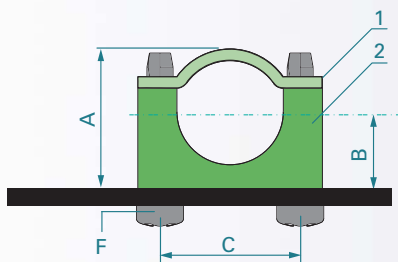


| Series | A    | B     | C   | D  | D1 | E <sup>1)</sup> | M     |  |  <sup>2)</sup> | Torque [Nm] |
|--------|------|-------|-----|----|----|-----------------|-------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------|
| 102    | 20.0 | 0/3.5 | 6.5 | 11 | 12 | 13              | 9x0.5 | 10                                                                                  | TC00.000                                                                                          | 1.3         |
| 103    | 22.0 | 0/4.0 | 8.0 | 14 | 15 | 13              | 12x1  | -                                                                                   | TF00.001                                                                                          | 2.5         |
| 1031   | 21.5 | 0/3.0 | 7.0 | 16 | 18 | 14              | 14x1  | -                                                                                   | TG00.001                                                                                          | 3.0         |

<sup>1)</sup> Please refer to online Dimensional Specifications for precise value and layout dimensions.

<sup>2)</sup> Assembly tool for decorative slotted nut, see Tooling Page 12-1 for details.

### ■ DBPC Mounting Clamp



- Enables mounting directly to PCB with two screws
- Improves grounding of body to the PCB

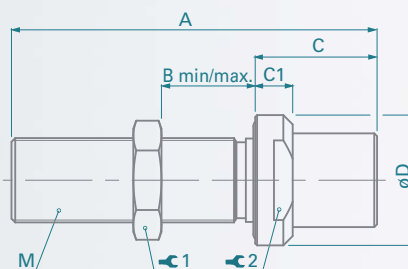
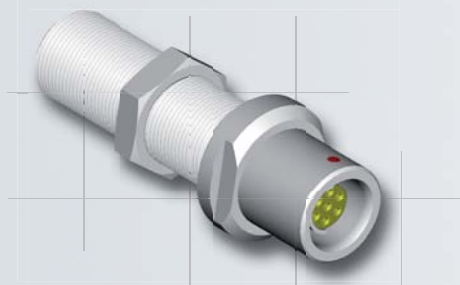
| Series      | A    | B   | C  | E   | F        | Part Number |
|-------------|------|-----|----|-----|----------|-------------|
| 102         | 11.5 | 6.0 | 12 | 3.8 | ø 2.2x13 | 102.1943    |
| 103<br>1031 | 15.2 | 8.2 | 16 | 4.9 | ø 2.9x16 | 103.2253    |

#### Material:

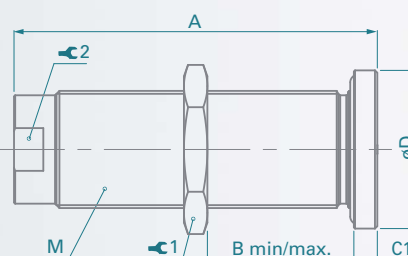
- 1 - Nickel plated brass copper
- 2 - PBT

## Panel Mounted Receptacles

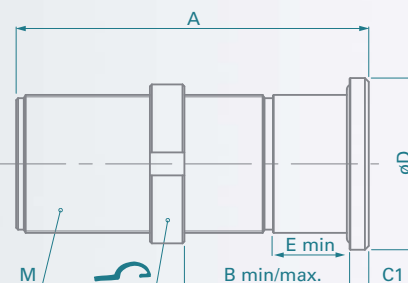
### ■ WDE Body Style for 102, 103 and 104 Series



### ■ WDE Body Style for 105 Series



### ■ WDE Body Style for 106 and 107 Series<sup>1)</sup>



| Series            | A                                            | B<br>min/max | C  | C1 | D  | E min | M     | <br>1<br>2) | Torque 1<br>[Nm] | <br>2 |
|-------------------|----------------------------------------------|--------------|----|----|----|-------|-------|--------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------|
| 102               | 39                                           | 0/23         | 13 | 4  | 14 | -     | 9x0.5 | 11                                                                                               | 1.3              | 11                                                                                         |
| 103               | 40                                           | 0/23         | 14 | 4  | 17 | -     | 12x1  | 14                                                                                               | 2.5              | 14                                                                                         |
| 1031              | Please contact us for additional information |              |    |    |    |       |       |                                                                                                  |                  |                                                                                            |
| 104               | 40                                           | 0/21         | 16 | 4  | 22 | -     | 15x1  | 17                                                                                               | 4.0              | 17                                                                                         |
| 105               | 62                                           | 0/47         | -  | 4  | 27 | -     | 20x1  | 22                                                                                               | 6.5              | -                                                                                          |
| 106 <sup>1)</sup> | 74                                           | 0/39         | -  | 12 | 42 | 30    | 32x1  | TX00.106                                                                                         | 15               | -                                                                                          |
| 107 <sup>1)</sup> | 92                                           | 0/76         | -  | 5  | 45 | 20    | 36x1  | TX00.107                                                                                         | 17               | -                                                                                          |

<sup>1)</sup> Feedthroughs of series 106 and 107 are supplied with slotted nuts. For nuts dimensions see Section 11 Accessories.

<sup>2)</sup> Assembly tool for side slotted nut, see Tooling Page 12-1 for details.

The bulkhead feedthrough connector allows the passing of electrical signals and power through a panel via two cable plugs.

The "AZ" version of the feedthrough accepts a type "A" plug on the flange side and a type "Z" plug on the threaded end, which is typically oriented toward the interior of the chassis.

In the version "ZA" the connections "A" and "Z" are inverted. See A/Z Polarity on Page 4-9-1.

Dimension "B max" specifies the maximum panel thickness. For panels thinner than the unthreaded section "E min", we can provide spacers as shown in Section 11 Accessories.

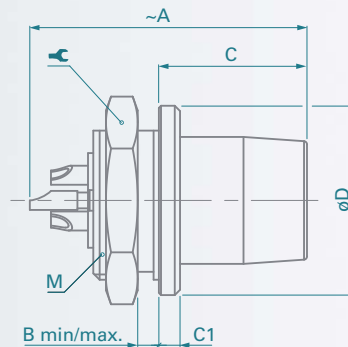
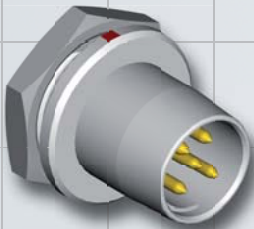
## Panel Mounted Plugs

|               |                     |  |  |  |      |      |                                                                                                                                                          |
|---------------|---------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Body Style    |                     | SF                                                                                | SFU                                                                               | SFE                                                                                | SFPU | SFPE | Links to Detailed Information                                                                                                                            |
| Protection    | Unsealed (IP50)     | ●                                                                                 |                                                                                   |                                                                                    |      |      | Sealed and Hermetic Connectors Page 13-8                                                                                                                 |
|               | Sealed up to IP68   |                                                                                   | ●                                                                                 | ●                                                                                  | ●    | ●    |                                                                                                                                                          |
|               | Hermetic            |                                                                                   |                                                                                   | ●                                                                                  |      | ●    |                                                                                                                                                          |
| Contacts      | Crimp               | ●                                                                                 |                                                                                   |                                                                                    |      |      | Electrical & Contacts Specifications Page 4-9                                                                                                            |
|               | Solder              | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●    | ●    |                                                                                                                                                          |
|               | PCB                 | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●    | ●    |                                                                                                                                                          |
| Housing Color | Natural Chrome      | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●    | ●    | Options Page 4-10                                                                                                                                        |
|               | Black Chrome        | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●    | ●    |                                                                                                                                                          |
| Assembly      | Front Mounting      | ●                                                                                 | ●                                                                                 | ●                                                                                  |      |      | Core Series Overview Page 2-1                                                                                                                            |
|               | Rear Mounting       |                                                                                   |                                                                                   |                                                                                    | ●    | ●    |                                                                                                                                                          |
| Accessories   | Sealing Caps        | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●    | ●    | Accessories Section 11                                                                                                                                   |
|               | Spacers             | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●    | ●    |                                                                                                                                                          |
|               | Color-Coded Washers | ●                                                                                 |                                                                                   |                                                                                    |      |      |                                                                                                                                                          |
|               | Insulating Washers  | ●                                                                                 |                                                                                   |                                                                                    |      |      |                                                                                                                                                          |
|               | Grounding Washers   | ●                                                                                 | ●                                                                                 | ●                                                                                  |      |      |                                                                                                                                                          |
|               | Locking Washers     | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●    | ●    |                                                                                                                                                          |
|               | Decorative Nuts     |                                                                                   |                                                                                   |                                                                                    | ●    | ●    |                                                                                                                                                          |
| Size          | 102 Series          | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●    | ●    | Dimensions Page 4-6-1<br><br>For more Information Visit:<br><a href="http://www.fischerconnectors.com/technical">www.fischerconnectors.com/technical</a> |
|               | 103 Series          | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●    | ●    |                                                                                                                                                          |
|               | 1031 Series         | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●    | ●    |                                                                                                                                                          |
|               | 104 Series          | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●    | ●    |                                                                                                                                                          |
|               | 105 Series          | ●                                                                                 | ●                                                                                 | ●                                                                                  | ●    | ●    |                                                                                                                                                          |
|               | 106 Series          | ●                                                                                 |                                                                                   |                                                                                    |      |      |                                                                                                                                                          |
|               | 107 Series          | ●                                                                                 |                                                                                   |                                                                                    |      |      |                                                                                                                                                          |

Plugs mate with receptacles.

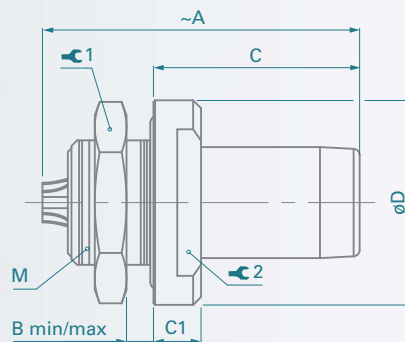
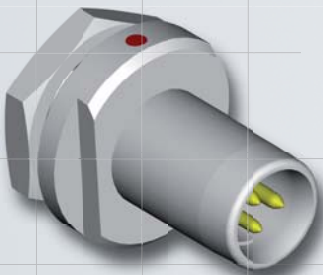
## Panel Mounted Plugs

### ■ SF Body Style



| Series | A    | B<br>min/max. | C    | C1  | D  | M     | ⌀        | Torque<br>[Nm] |
|--------|------|---------------|------|-----|----|-------|----------|----------------|
| 102    | 20.0 | 0/4.0         | 11.0 | 1.0 | 10 | 9x0.5 | 11       | 1.3            |
| 103    | 23.5 | 0/3.0         | 12.5 | 1.5 | 14 | 12x1  | 14       | 2.5            |
| 1031   | 26.0 | 0/4.0         | 12.0 | 2.0 | 16 | 14x1  | 17       | 3.0            |
| 104    | 28.0 | 0/3.0         | 14.0 | 2.0 | 18 | 15x1  | 17       | 4.0            |
| 105    | 30.5 | 0/5.5         | 16.8 | 1.2 | 22 | 16x1  | 19       | 4.5            |
| 106    | 42.5 | 0/5.5         | 27.5 | 2.5 | 34 | 30x1  | TX00.106 | 14             |
| 107    | 50.0 | 6.0           | 28.0 | 3.0 | 36 | 32x1  | TX00.106 | 15             |

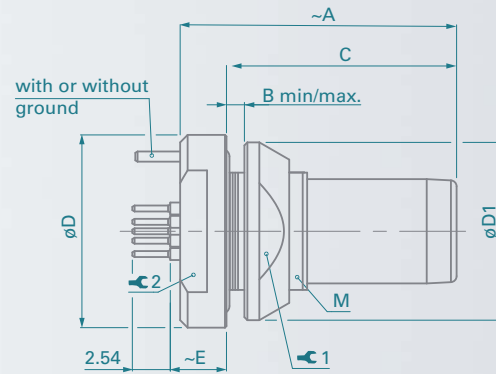
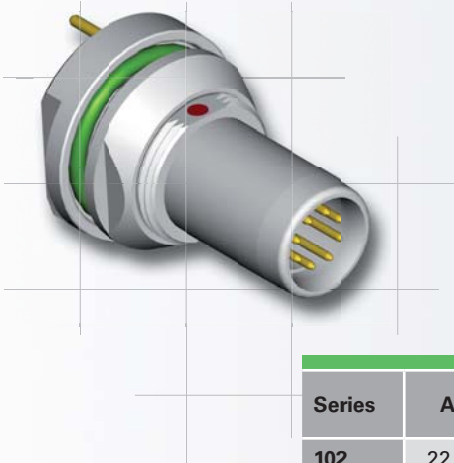
### ■ SFU / SFE Body Styles



| Series | A                                            | B<br>min/max. | C    | C1  | D  | M     | ⌀ 1 | Torque 1<br>[Nm] | ⌀ 2 |
|--------|----------------------------------------------|---------------|------|-----|----|-------|-----|------------------|-----|
| 102    | 21                                           | 0/2.5         | 13   | 3   | 13 | 9x0.5 | 11  | 1.3              | 9   |
| 103    | 26                                           | 0/5.0         | 14   | 3   | 17 | 12x1  | 14  | 2.5              | 12  |
| 1031   | 26.5                                         | 0/4.0         | 13.7 | 3.7 | 19 | 14x1  | 17  | 3.0              | 12  |
| 104    | 28                                           | 0/7.5         | 15   | 3   | 22 | 16x1  | 19  | 4.5              | -   |
| 105    | 32                                           | 0/6.0         | 4    | 4   | 27 | 20x1  | 25  | 6.5              | -   |
| 106    | Please contact us for additional information |               |      |     |    |       |     |                  |     |
| 107    |                                              |               |      |     |    |       |     |                  |     |

## Panel Mounted Plugs

### ■ SFPU / SFPE Body Styles



| Series | A                                            | B<br>min/max. | C    | D  | D1 | E   | M     | 1  | Torque 1<br>[Nm] | 2  |
|--------|----------------------------------------------|---------------|------|----|----|-----|-------|----|------------------|----|
| 102    | 22.0                                         | 0/2.5         | 15.4 | 13 | 12 | 3.8 | 9x0.5 | 10 | 1.3              | 9  |
| 103    | 25.5                                         | 0/4.0         | 18.5 | 17 | 16 | 4.5 | 12x1  | 13 | 2.5              | 12 |
| 1031   | 25.0                                         | 0/4.0         | 18.0 | 19 | 18 | 4.5 | 14x1  | 15 | 3.0              | 15 |
| 104    | 29.0                                         | 0/6.0         | 22.0 | 22 | 20 | 4.2 | 16x1  | 17 | 4.5              | 17 |
| 105    | 32.5                                         | 0/5.0         | 25.0 | 27 | 25 | 5.0 | 20x1  | 22 | 6.5              | 19 |
| 106    | Please contact us for additional information |               |      |    |    |     |       |    |                  |    |
| 107    |                                              |               |      |    |    |     |       |    |                  |    |

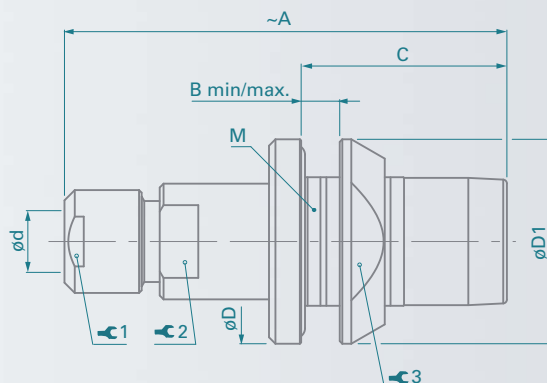
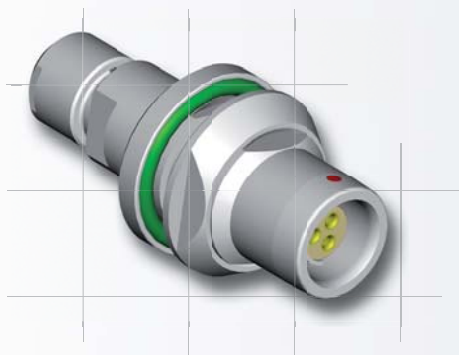
## Panel Mounted Cable Receptacles

|               |                     |  |  |  |                                                                                                                                                          |
|---------------|---------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Body Style    |                     | DKBE                                                                              | DK                                                                                | DKE                                                                               | Links to Detailed Information                                                                                                                            |
| Protection    | Unsealed (IP50)     |                                                                                   | •                                                                                 |                                                                                   | Sealed and Hermetic Connectors Page 13-8                                                                                                                 |
|               | Sealed up to IP68   | •                                                                                 |                                                                                   | •                                                                                 |                                                                                                                                                          |
| Contacts      | Crimp               | •                                                                                 | •                                                                                 | •                                                                                 | Electrical & Contacts Specifications Page 4-9                                                                                                            |
|               | Solder              | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                                                                                          |
| Housing Color | Natural Chrome      | •                                                                                 | •                                                                                 | •                                                                                 | Options Page 4-10                                                                                                                                        |
|               | Black Chrome        | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                                                                                          |
| Design        | Flush               |                                                                                   | •                                                                                 |                                                                                   | Core Series Overview Page 2-1                                                                                                                            |
|               | Front Projecting    | •                                                                                 |                                                                                   | •                                                                                 |                                                                                                                                                          |
| Assembly      | Panel Mounted       | •                                                                                 | •                                                                                 | •                                                                                 | Core Series Overview Page 2-1<br><br>Cable Clamp Sets Page 4-11                                                                                          |
|               | Front Mounting      |                                                                                   | •                                                                                 | •                                                                                 |                                                                                                                                                          |
|               | Rear Mounting       | •                                                                                 |                                                                                   |                                                                                   |                                                                                                                                                          |
|               | Cable Clamp Sets    | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                                                                                          |
| Accessories   | Cable Bend Reliefs  | •                                                                                 | •                                                                                 | •                                                                                 | Accessories Section 11                                                                                                                                   |
|               | Sealing Caps        | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                                                                                          |
|               | Spacers             | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                                                                                          |
|               | Color-Coded Washers | •                                                                                 | •                                                                                 |                                                                                   |                                                                                                                                                          |
|               | Insulating Washers  |                                                                                   |                                                                                   |                                                                                   |                                                                                                                                                          |
|               | Grounding Washers   | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                                                                                          |
|               | Locking Washers     | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                                                                                          |
|               | Decorative Nuts     | •                                                                                 |                                                                                   |                                                                                   |                                                                                                                                                          |
| Size          | 102 Series          | •                                                                                 | •                                                                                 | •                                                                                 | Dimensions Page 4-7-1<br><br>For more Information Visit:<br><a href="http://www.fischerconnectors.com/technical">www.fischerconnectors.com/technical</a> |
|               | 103 Series          | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                                                                                          |
|               | 1031 Series         | •                                                                                 |                                                                                   |                                                                                   |                                                                                                                                                          |
|               | 104 Series          | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                                                                                          |
|               | 105 Series          | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                                                                                          |
|               | 106 Series          | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                                                                                          |
|               | 107 Series          | •                                                                                 | •                                                                                 | •                                                                                 |                                                                                                                                                          |

Plugs mate with receptacles.

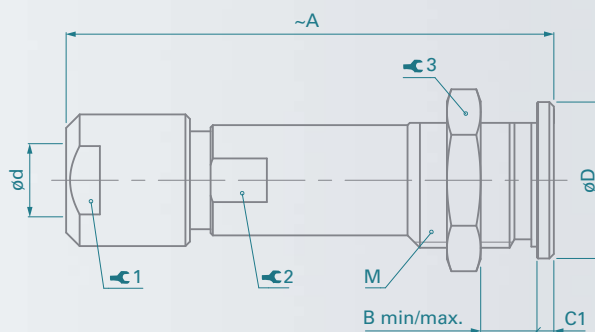
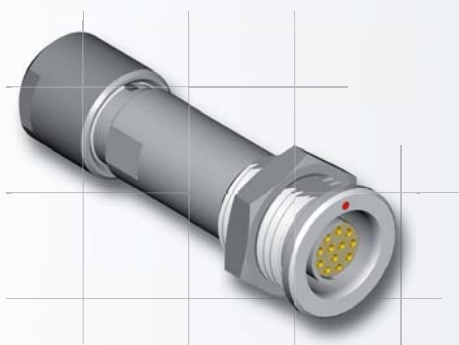
## Panel Mounted Cable Receptacles

### ■ DKBE Body Style



| Series | A   | B min/max. | C    | D  | d max | D1 | M    | 1  | Torque 1 [Nm] | 2  | 3  | Torque 3 [Nm] |
|--------|-----|------------|------|----|-------|----|------|----|---------------|----|----|---------------|
| 102    | 35  | 0/3.5      | 16.0 | 16 | 4.3   | 16 | 12x1 | 7  | 0.6           | 7  | 13 | 2.5           |
| 103    | 43  | 0/4.0      | 19.0 | 19 | 6.2   | 20 | 15x1 | 10 | 1.0           | 10 | 17 | 4.0           |
| 1031   | 46  | 0/4.0      | 18.0 | 21 | 6.7   | 20 | 16x1 | 12 | 1.5           | 11 | 17 | 4.5           |
| 104    | 50  | 0/5.0      | 22.5 | 23 | 8.7   | 23 | 18x1 | 12 | 2.0           | 13 | 20 | 6.0           |
| 105    | 60  | 0/5.0      | 26.0 | 28 | 10.7  | 27 | 22x1 | 15 | 3.5           | 16 | 24 | 8.0           |
| 106    | 101 | 0/6.5      | 32.0 | 41 | 19.2  | 40 | 34x1 | 25 | 8.0           | 25 | 36 | 15            |
| 107    | 105 | 0/8.0      | 34.0 | 45 | 22.7  | 45 | 38x1 | 32 | 10.0          | 30 | 40 | 18            |

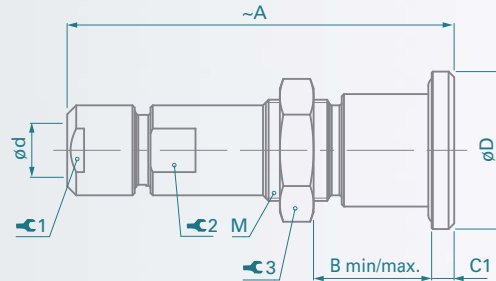
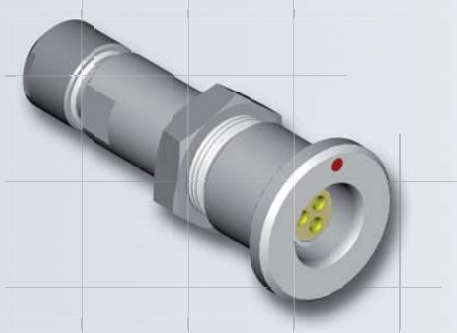
### ■ DK Body Style



| Series | A                                            | B min/max. | C1  | D  | d max | M     | 1  | Torque 1 [Nm] | 2  | 3        | Torque 3 [Nm] |
|--------|----------------------------------------------|------------|-----|----|-------|-------|----|---------------|----|----------|---------------|
| 102    | 35                                           | 0/9        | 1.5 | 11 | 4.7   | 9x0.5 | 7  | 0.6           | -  | 11       | 1.3           |
| 103    | 44                                           | 0/10       | 1.5 | 14 | 6.7   | 12x1  | 10 | 1.0           | 9  | 14       | 2.5           |
| 1031   | Please contact us for additional information |            |     |    |       |       |    |               |    |          |               |
| 104    | 50                                           | 0/11       | 2.0 | 19 | 8.7   | 15x1  | 12 | 2.0           | 12 | 17       | 4.0           |
| 105    | 60                                           | 0/16       | 2.0 | 22 | 10.7  | 18x1  | 15 | 3.5           | 14 | 22       | 6.0           |
| 106    | 80                                           | 0/21       | 3.0 | 37 | 19.2  | 32x1  | 25 | 8.0           | 25 | TX00.106 | 15            |
| 107    | 105                                          | 0/17       | 4.0 | 40 | 22.7  | 35x1  | 32 | 10.0          | 30 | TX00.107 | 16            |

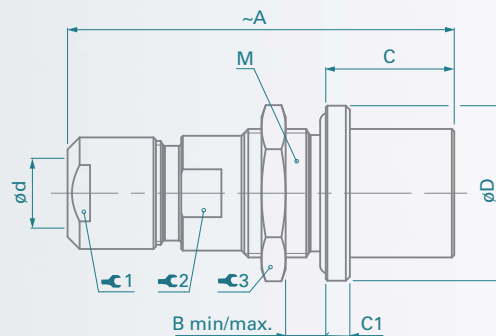
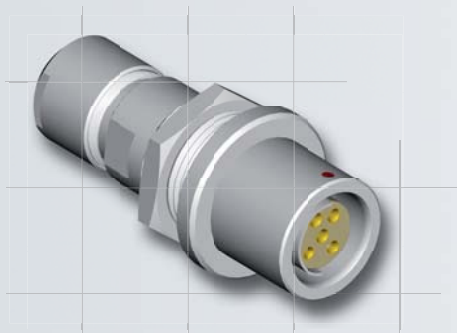
## Panel Mounted Cable Receptacles

### ■ DKE Body Style for 102, 103 and 1031 Series



| Series | A                                            | B<br>min/max. | C | C1 | D  | d max | M     | Y 1 | Torque 1<br>[Nm] | Y 2 | Y 3 | Torque 3<br>[Nm] |
|--------|----------------------------------------------|---------------|---|----|----|-------|-------|-----|------------------|-----|-----|------------------|
| 102    | 35                                           | 9/12          | - | 2  | 14 | 4.3   | 9x0.5 | 7   | 0.6              | 7   | 11  | 1.3              |
| 103    | 45                                           | 9/14          | - | 3  | 17 | 6.2   | 14x1  | 10  | 1.0              | 10  | 17  | 3.0              |
| 1031   | Please contact us for additional information |               |   |    |    |       |       |     |                  |     |     |                  |

### ■ DKE Body Style for 104, 105, 106 and 107 Series

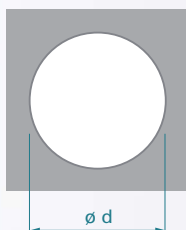


| Series | A   | B<br>min/max. | C    | C1 | D  | d max | M    | Y 1 | Torque 1<br>[Nm] | Y 2 | Y 3      | Torque 3<br>[Nm] |
|--------|-----|---------------|------|----|----|-------|------|-----|------------------|-----|----------|------------------|
| 104    | 50  | 0/8           | 16.0 | 3  | 22 | 8.7   | 16x1 | 12  | 2.0              | 13  | 19       | 4.5              |
| 105    | 61  | 0/9           | 19.0 | 4  | 27 | 10.7  | 20x1 | 15  | 3.5              | 16  | 25       | 6.5              |
| 106    | 85  | 0/9           | 25.5 | 7  | 37 | 19.2  | 30x1 | 25  | 8.0              | 25  | TX00.106 | 14               |
| 107    | 110 | 0/21          | 25.0 | 5  | 45 | 22.7  | 35x1 | 32  | 10.0             | 30  | TX00.107 | 16               |

## Panel Cut-Outs

The dimension of panel cut-outs varies according to the body style and size of the panel mounted connector. Refer to table below for more details.

Check details on dimensional specifications on our web site: [www.fischerconnectors.com/technical](http://www.fischerconnectors.com/technical)



### ■ Panel Mounted Receptacles

| Series | D    | DEU<br>DEE | DB   | DBEU<br>DBEE | DBP  | DBPU<br>DBPE | DBPLU<br>DBPLE | DG<br>DGP | DBPC | WDE  |
|--------|------|------------|------|--------------|------|--------------|----------------|-----------|------|------|
|        | ø d  |            |      |              |      |              |                |           |      |      |
| 102    | 9.1  | 10.1       | 9.1  | 9.1          | 9.1  | 9.1          | 10.1           | 9.1       | 9.1  | 9.1  |
| 103    | 12.1 | 14.1       | 12.1 | 14.1         | 12.1 | 14.1         | 14.1           | 12.1      | 12.1 | 12.1 |
| 1031   | 14.1 | 14.1       | -    | 14.1         | 14.1 | 14.1         | 15.1           | 14.1      | 14.1 | -    |
| 104    | 15.1 | 16.1       | 16.1 | 16.1         | 15.1 | 16.1         | 16.1           | 15.1      | -    | 15.1 |
| 105    | 18.1 | 20.1       | 18.1 | 18.1         | 18.1 | 20.1         | 20.1           | 18.1      | -    | 20.1 |
| 106    | 32.2 | 34.2       | -    | 32.2         | -    | -            | -              | 32.2      | -    | 32.2 |
| 107    | 35.2 | 36.2       | -    | 35.2         | -    | 35.2         | -              | -         | -    | 36.2 |

### ■ Panel Mounted Plugs

| Series | SF   | SFU<br>SFE | SFPU<br>SFPE |
|--------|------|------------|--------------|
|        | ø d  |            |              |
| 102    | 9.1  | 9.1        | 9.1          |
| 103    | 12.1 | 12.1       | 12.1         |
| 1031   | 14.1 | 14.1       | 14.1         |
| 104    | 15.1 | 16.1       | 16.1         |
| 105    | 16.1 | 20.1       | 20.1         |
| 106    | 30.2 | -          | -            |
| 107    | 32.2 | -          | -            |

### ■ Panel Mounted Cable Receptacles

| Series | DK   | DKBE | DKE  |
|--------|------|------|------|
|        | ø d  |      |      |
| 102    | 9.1  | 12.1 | 10.1 |
| 103    | 12.1 | 15.1 | 14.1 |
| 1031   | -    | 16.1 | -    |
| 104    | 15.1 | 18.1 | 16.1 |
| 105    | 18.1 | 22.1 | 20.1 |
| 106    | 32.2 | 34.2 | 30.2 |
| 107    | 35.2 | 38.2 | 35.2 |

**Contents**

**A/Z Polarity**

|                                    |       |
|------------------------------------|-------|
| ■ For all Body Styles (except WDE) | 4-9-1 |
| ■ For WDE Body Style               | 4-9-1 |

**Contact Types**

|                           |       |
|---------------------------|-------|
| ■ Solder Contacts         | 4-9-2 |
| ■ PCB Contacts            | 4-9-2 |
| ■ Crimp Contacts, Tooling | 4-9-3 |

**For Multipole Low Voltage Connectors**



- Contact Configurations
- Wire Size
- Test & Rated Voltages
- Current Rating

|               |        |
|---------------|--------|
| ■ 102 Series  | 4-9-4  |
| ■ 103 Series  | 4-9-5  |
| ■ 1031 Series | 4-9-5  |
| ■ 104 Series  | 4-9-6  |
| ■ 105 Series  | 4-9-8  |
| ■ 106 Series  | 4-9-10 |
| ■ 107 Series  | 4-9-11 |

## A/Z Polarity

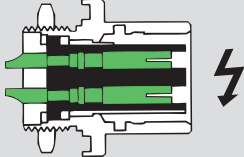
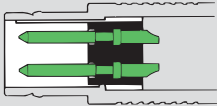
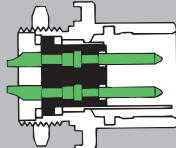
To protect users from contact with dangerous voltages, most Fischer connectors exist in two versions:

■ **Type "A" Standard Polarity:**

The contacts of the receptacle are protected against accidental touch.  
This version is recommended when voltage is present on the receptacle.

■ **Type "Z" Inverted Polarity:**

The contacts of the plug are protected against accidental touch.  
This version is recommended when voltage is present on the plug.

|                               | Receptacle D                                                                        | Plug S                                                                                |
|-------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Type "A"<br>Standard Polarity |    |    |
| Type "Z"<br>Inverted Polarity |  |  |

■ **Important: An "A" type connector can never be mated with a "Z" type connector.**

A plug "S" has the same housing in type "A" as in type "Z", but type "A" comes with unprotected contacts while type "Z" is equipped with touch-protected contacts.

In most cases these are female contacts which are recessed in the insulator.

For the exceptions, see High Voltage Connectors page 5-5 and Mixed High Voltage page 9-5

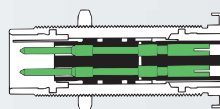
■ **Bulkhead Feedthrough WDE:**

Type "AZ" is the standard version of the WDE.

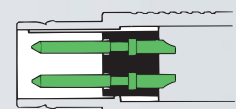
The flange side accepts an "A" type plug, and the threaded side accepts a "Z" type plug.



Type "Z" plug (S)



WDE, type "AZ"



Type "A" plug (S)

The "ZA" version of the WDE accepts a type "Z" plug at the flange side and accepts a type "A" plug at the threaded end.

## **Contact Types**

The Fischer contact designs are highly reliable and are guaranteed up to 10,000 mating cycles.

All standard brass and bronze contacts for use in the Core Series are screw machined, and all are gold plated over a nickel underplate.

The current Fischer design has very low insertion forces, improved contact area, and can be machined and calibrated in one operation.

The classic Fischer design, which has equivalent performance, is still in use on certain connectors.

Most connectors are available with solder, crimp or PCB contacts and each type is optimized for a particular application.

Fischer Connectors manufactures as well connectors with thermocouple contacts.

Please check our online documentation on **[www.fischerconnectors.com](http://www.fischerconnectors.com)**

All contacts and connectors are RoHS compliant.

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### **Solder Contacts**

**Solder contacts are the most versatile contact as they can be produced with any type of contact block material and can accept a wide range of wire sizes.**



- The contacts are pre-installed in the insulator block, and the wires can be terminated with any appropriately sized soldering iron.
- Solder contacts may require operators who are qualified in specialized soldering techniques.

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### **PCB Contacts**

**PCB contacts are available on some Panel Mounted Connectors.**



- These connectors are designed to be mounted directly to a PCB or flex circuit, and can be used in wave solder operations for faster production assembly.
- The pin diameter has been necessarily reduced in the area that will mount to the PCB, and this can affect the current carrying capacity and voltage characteristics of the connector depending on the PCB design and assembly techniques. These requirements should be reviewed during the product design process.
- PCB pins are non standard for Cable Mounted products.

## Contact Types

### Crimp Contacts

Crimp contacts are often used in higher volume applications, and offer the advantage of being able to replace individual contacts if they become damaged.



- Each contact has a selectively annealed area that is deformed during assembly by specialized tooling to assure proper termination of the wire to the contact.
- Special tools are also required to insert the contact into the insulator block. See Section 12 Tooling.
- Teflon insulator blocks are not compatible with crimp contacts, and crimp contacts only accept a limited range of wire sizes.
- Crimp contacts are not available in sealed or hermetic connectors.

### Tooling for Crimp Contacts

| Series                 | Polarity | Contact Diameter (mm) |                        |                     |                        |                     |                        |                     |                        |                     |                        |
|------------------------|----------|-----------------------|------------------------|---------------------|------------------------|---------------------|------------------------|---------------------|------------------------|---------------------|------------------------|
|                        |          | 0.5                   |                        | 0.7                 |                        | 0.9                 |                        | 1.3                 |                        | 1.6                 |                        |
|                        |          | Contact Part Number   | Positioner Part Number | Contact Part Number | Positioner Part Number | Contact Part Number | Positioner Part Number | Contact Part Number | Positioner Part Number | Contact Part Number | Positioner Part Number |
| 102                    | Male     | 200.2113              | TX00.300               | 200.2884            | TX00.304               | 200.2890            | TX00.307               | -                   | -                      | -                   | -                      |
|                        | Female   | 200.2114              | TX00.302               | 200.2885            | TX00.305               | 200.2892            | TX00.309               | -                   | -                      | -                   | -                      |
| 103                    | Male     | 200.2113              | TX00.300               | 200.2884            | TX00.304               | 200.2890            | TX00.307               | 200.2402            | TX00.311               | -                   | -                      |
|                        | Female   | 200.2114              | TX00.302               | 200.2885            | TX00.305               | 200.2892            | TX00.309               | 200.2214            | TX00.312               | -                   | -                      |
| 1031                   | Male     | 200.2172              | TX00.301               | 200.2884            | TX00.304               | 200.2890            | TX00.307               | 200.2402            | TX00.311               | -                   | -                      |
|                        | Female   | 200.2183              | TX00.303               | 200.2885            | TX00.305               | 200.2892            | TX00.309               | 200.2214            | TX00.312               | -                   | -                      |
| 104                    | Male     | 200.2172              | TX00.301               | 200.2884            | TX00.304               | 200.2890            | TX00.307               | 200.2402            | TX00.311               | 200.1653            | TX00.313               |
|                        | Female   | 200.2183              | TX00.303               | 200.2885            | TX00.305               | 200.2892            | TX00.309               | 200.2214            | TX00.312               | 200.1654            | TX00.314               |
| 105                    | Male     | 200.2172              | TX00.301               | 200.2884            | TX00.304               | 200.2891            | TX00.308               | 200.2403            | TX00.338               | 200.1653            | TX00.313               |
|                        | Female   | 200.2412              | TX00.324               | 200.2886            | TX00.306               | 200.2893            | TX00.310               | 200.2214            | TX00.312               | 200.1654            | TX00.314               |
| Crimp Tool Part Number |          | TX00.240              |                        | TX00.240            |                        | TX00.240            |                        | TX00.240            |                        | TX00.242            |                        |

See Section 12 Tooling, Page 12-2 for description of Crimping Tool and Positioner.

## 102 Series

● = Standard ○ = Option

| Type           | Pin Layout                                                                          | Number of Contacts | Contact Termination |       |     | Insulating Material | Contact $\varnothing$ [mm] | Wire Size <sup>2)</sup>                                |                                                                  | Test Voltage [V]<br><i>in mated position</i> |                    |                 |                    | Rated Voltage <sup>4)</sup> r.m.s [V] | Current Rating <sup>3)</sup> [A] |
|----------------|-------------------------------------------------------------------------------------|--------------------|---------------------|-------|-----|---------------------|----------------------------|--------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------|--------------------|-----------------|--------------------|---------------------------------------|----------------------------------|
|                |                                                                                     |                    | AC rms              |       | DC  |                     |                            |                                                        |                                                                  |                                              |                    |                 |                    |                                       |                                  |
|                |                                                                                     |                    | Solder              | Crimp | PCB |                     |                            | Solder Contacts <sup>1)</sup>                          | Crimp Contacts                                                   | Contact to Body                              | Contact to Contact | Contact to Body | Contact to Contact |                                       |                                  |
| 102 A<br>Z 051 |    | 2                  | ●                   | ●     | ●   | PEEK                | 0.9                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.83mm<br>min $\varnothing$ 0.48mm<br>AWG22-26 | 1.3                                          | 1.7                | 1.8             | 2.4                | $\leq 250$                            | 9.2                              |
| 102 A<br>Z 052 |    | 3                  | ●                   |       | ●   | PEEK                | 0.9                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | –                                                                | 1.3                                          | 1.3                | 1.8             | 1.6                | $\leq 250$                            | 8.2                              |
| 102 A<br>Z 053 |    | 4                  | ●                   | ●     | ●   | PEEK                | 0.7                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.62mm<br>min $\varnothing$ 0.38mm<br>AWG24-28 | 1.2                                          | 1.2                | 1.7             | 1.8                | $\leq 200$                            | 5.5                              |
| 102 A<br>Z 054 |    | 5                  | ●                   | ●     | ●   | PEEK                | 0.7                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.62mm<br>min $\varnothing$ 0.38mm<br>AWG24-28 | 0.8                                          | 1.0                | 1.3             | 1.8                | $\leq 160$                            | 5.2                              |
| 102 A<br>Z 056 |  | 7                  | ●                   | ●     | ●   | PEEK                | 0.5                        | max $\varnothing$ 0.43mm<br>AWG26 [1]<br>AWG28 [19/40] | max $\varnothing$ 0.43mm<br>min $\varnothing$ 0.20mm<br>AWG28-32 | 0.8                                          | 1.0                | 1.3             | 1.8                | $\leq 160$                            | 2.0                              |
| 102 A<br>Z 059 |  | 9                  | ●                   |       | ●   | PEEK                | 0.5                        | max $\varnothing$ 0.43mm<br>AWG26 [1]<br>AWG28 [19/40] | –                                                                | 0.8                                          | 1.1                | 1.2             | 1.8                | $\leq 160$                            | 1.7                              |

<sup>1)</sup> Stranding values are in brackets.

<sup>2)</sup> For a given AWG, the diameter of some stranded conductor designs could exceptionally be larger than the hole diameter of the barrel. Testing may be required.

<sup>3)</sup> Recommended max. operating current per contact at 40°C temperature rise measured according to IEC 60512-3-5b.

<sup>4)</sup> Recommended operating voltage at sea level measured according to IEC 60664-1.

This rated voltage is a general purpose guideline where no other electrical safety standard applies. In cases where other standards rule a specific use of the connector, the application-specific safety criteria shall be considered first.

This must be evaluated in the framework of equipment engineering. In cases where other calculation methods are preferred, please use the Test Voltage to determine the operating voltage. See page 13-6 for details.

## 103 and 1031 Series

● = Standard ○ = Option

| Type                                 | Pin Layout                                                                          | Number of Contacts | Contact Termination |       |     | Insulating Material | Contact $\varnothing$ [mm] | Wire Size <sup>2)</sup>                                |                                                                  | Test Voltage <sup>[V]</sup><br><i>in mated position</i> |                    |                 |                    | Rated Voltage <sup>4)</sup> r.m.s <sup>[V]</sup> | Current Rating <sup>3)</sup> [A] |
|--------------------------------------|-------------------------------------------------------------------------------------|--------------------|---------------------|-------|-----|---------------------|----------------------------|--------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------|--------------------|-----------------|--------------------|--------------------------------------------------|----------------------------------|
|                                      |                                                                                     |                    | AC rms              |       | DC  |                     |                            |                                                        |                                                                  |                                                         |                    |                 |                    |                                                  |                                  |
|                                      |                                                                                     |                    | Solder              | Crimp | PCB |                     |                            | Solder Contacts <sup>1)</sup>                          | Crimp Contacts                                                   | Contact to Body                                         | Contact to Contact | Contact to Body | Contact to Contact |                                                  |                                  |
| 103 <sup>A</sup> / <sub>Z</sub> 051  |    | 2                  | ●                   | ●     | ●   | PEEK                | 1.3                        | max $\varnothing$ 1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | max $\varnothing$ 1.18mm<br>min $\varnothing$ 0.58mm<br>AWG18-24 | 1.5                                                     | 2.2                | 2.2             | 3.0                | ≤ 250                                            | 13                               |
| 103 <sup>A</sup> / <sub>Z</sub> 052  |    | 3                  | ●                   |       | ●   | PEEK                | 1.3                        | max $\varnothing$ 1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | –                                                                | 1.2                                                     | 1.5                | 1.8             | 2.0                | ≤ 250                                            | 12                               |
| 103 <sup>A</sup> / <sub>Z</sub> 053  |    | 4                  | ●                   |       | ●   | PEEK                | 0.9                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | –                                                                | 1.2                                                     | 1.6                | 2.0             | 2.4                | ≤ 250                                            | 7.0                              |
| 103 <sup>A</sup> / <sub>Z</sub> 054  |   | 5                  | ●                   | ●     | ●   | PEEK                | 0.9                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.83mm<br>min $\varnothing$ 0.48mm<br>AWG22-26 | 1.1                                                     | 1.4                | 1.9             | 2.2                | ≤ 250                                            | 6.8                              |
| 103 <sup>A</sup> / <sub>Z</sub> 056  |  | 6                  | ●                   | ●     | ●   | PEEK                | 0.7                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.62mm<br>min $\varnothing$ 0.38mm<br>AWG24-28 | 1.0                                                     | 1.3                | 2.0             | 2.0                | ≤ 250                                            | 5.2                              |
| 103 <sup>A</sup> / <sub>Z</sub> 057  |  | 7                  | ●                   | ●     | ●   | PEEK                | 0.7                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.62mm<br>min $\varnothing$ 0.38mm<br>AWG24-28 | 1.0                                                     | 1.3                | 2.0             | 2.0                | ≤ 250                                            | 5.0                              |
| 103 <sup>A</sup> / <sub>Z</sub> 058  |  | 8                  | ●                   | ●     | ●   | PEEK                | 0.7                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.62mm<br>min $\varnothing$ 0.38mm<br>AWG24-28 | 0.8                                                     | 1.1                | 1.4             | 1.9                | ≤ 200                                            | 3.8                              |
| 103 <sup>A</sup> / <sub>Z</sub> 062  |  | 12                 | ●                   | ●     | ●   | PEEK                | 0.5                        | max $\varnothing$ 0.43mm<br>AWG26 [1]<br>AWG28 [19/40] | max $\varnothing$ 0.43mm<br>min $\varnothing$ 0.20mm<br>AWG28-32 | 0.9                                                     | 1.2                | 1.5             | 1.8                | ≤ 200                                            | 2.0                              |
| 1031 <sup>A</sup> / <sub>Z</sub> 010 |  | 10                 | ●                   | ●     | ●   | PEEK                | 0.7                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.62mm<br>min $\varnothing$ 0.38mm<br>AWG24-28 | 1.4                                                     | 1.5                | 2.0             | 2.2                | ≤ 250                                            | 4.5                              |
| 1031 <sup>A</sup> / <sub>Z</sub> 012 |  | 12                 | ●                   | ●     | ●   | PEEK                | 0.7                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.62mm<br>min $\varnothing$ 0.38mm<br>AWG24-28 | 1.4                                                     | 1.5                | 2.0             | 2.2                | ≤ 250                                            | 4.2                              |
| 1031 <sup>A</sup> / <sub>Z</sub> 019 |  | 19                 | ●                   | ●     | ●   | PEEK                | 0.5                        | max $\varnothing$ 0.43mm<br>AWG26 [1]<br>AWG28 [19/40] | max $\varnothing$ 0.43mm<br>min $\varnothing$ 0.20mm<br>AWG28-32 | 1.2                                                     | 0.9                | 2.0             | 1.5                | ≤ 250                                            | 2.5                              |

<sup>1)</sup> Stranding values are in brackets.

<sup>2)</sup> For a given AWG, the diameter of some stranded conductor designs could exceptionally be larger than the hole diameter of the barrel. Testing may be required.

<sup>3)</sup> Recommended max. operating current per contact at 40°C temperature rise measured according to IEC 60512-3-5b.

<sup>4)</sup> Recommended operating voltage at sea level measured according to IEC 60664-1.

This rated voltage is a general purpose guideline where no other electrical safety standard applies. In cases where other standards rule a specific use of the connector, the application-specific safety criteria shall be considered first.

This must be evaluated in the framework of equipment engineering. In cases where other calculation methods are preferred, please use the Test Voltage to determine the operating voltage. See page 13-6 for details.

## 104 Series

● = Standard ○ = Option

| Type           | Pin Layout | Number of Contacts |        | Contact Termination |        |              | Insulating Material | Contact ø [mm]                            | Wire Size <sup>2)</sup>                |                | Test Voltage [V]<br><i>in mated position</i> |                    |                   |                    | Rated Voltage <sup>4)</sup> r.m.s [V] | Current Rating <sup>3)</sup> [A] |
|----------------|------------|--------------------|--------|---------------------|--------|--------------|---------------------|-------------------------------------------|----------------------------------------|----------------|----------------------------------------------|--------------------|-------------------|--------------------|---------------------------------------|----------------------------------|
|                |            |                    |        | AC rms              |        | DC           |                     |                                           |                                        |                |                                              |                    |                   |                    |                                       |                                  |
|                |            |                    |        | Solder              | Crimp  | PCB          |                     |                                           | Solder Contacts <sup>1)</sup>          | Crimp Contacts | Contact to Body                              | Contact to Contact | Contact to Body   | Contact to Contact |                                       |                                  |
| 104 A<br>Z 051 |            | 2                  | ●<br>○ |                     | ●<br>○ | PEEK<br>PTFE | 1.6                 | max ø1.86mm<br>AWG13 [1]<br>AWG14 [7/22]  | –                                      | 1.8            | 2.2                                          | 2.8                | 3.2               | ≤ 500              | 20                                    |                                  |
| 104 A<br>Z 040 |            | 3                  | ○<br>● |                     | ●      | PEEK<br>PBT  | 1.6                 | max ø1.86mm<br>AWG13 [1]<br>AWG14 [7/22]  | max ø1.78mm<br>min ø1.17mm<br>AWG14-18 | 1.6            | 2.0                                          | 2.6                | 3.0               | ≤ 500              | 18                                    |                                  |
| 104 A<br>Z 037 |            | 4                  | ●      | ●                   | ●      | PEEK         | 1.3                 | max ø1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | max ø1.18mm<br>min ø0.58mm<br>AWG18-24 | 1.8            | 2.2                                          | 2.5                | 3.0               | ≤ 500              | 12                                    |                                  |
| 104 A<br>Z 087 |            | 2                  | ●      |                     | ●      | PBT          | 2.3                 | max ø2.48mm<br>AWG11 [1]<br>AWG12 [7/20]  | –                                      | 1.5            | 1.6                                          | 2.2                | 2.5               | ≤ 400              | 28                                    |                                  |
|                |            | 2                  |        |                     |        |              | 0.9                 | max ø0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | –                                      | 2.0            |                                              | 3.0                |                   |                    |                                       |                                  |
| 104 A<br>Z 053 |            | 5                  | ●      |                     | ●      | PEEK         | 1.3                 | max ø1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | –                                      | 1.4            | 1.7                                          | 2.4                | 2.7               | ≤ 320              | 11                                    |                                  |
| 104 A<br>Z 065 |            | 6                  | ●      | ●                   | ●      | PEEK         | 0.9                 | max ø0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max ø0.83mm<br>min ø0.48mm<br>AWG22-26 | 1.7            | 2.0                                          | 2.4                | 2.6               | ≤ 400              | 6.5                                   |                                  |
| 104 A<br>Z 054 |            | 7                  | ●      |                     | ●      | PEEK         | 0.9                 | max ø0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | –                                      | 1.5            | 1.8 <sup>5)</sup>                            | 2.2                | 2.0 <sup>5)</sup> | ≤ 320              | 6.5                                   |                                  |
|                |            |                    |        |                     |        |              |                     |                                           |                                        |                | 2.1                                          |                    | 2.8               |                    |                                       |                                  |

<sup>1)</sup> Stranding values are in brackets.

<sup>2)</sup> For a given AWG, the diameter of some stranded conductor designs could exceptionally be larger than the hole diameter of the barrel. Testing may be required.

<sup>3)</sup> Recommended max. operating current per contact at 40°C temperature rise measured according to IEC 60512-3-5b.

<sup>4)</sup> Recommended operating voltage at sea level measured according to IEC 60664-1.

This rated voltage is a general purpose guideline where no other electrical safety standard applies. In cases where other standards rule a specific use of the connector, the application-specific safety criteria shall be considered first.

This must be evaluated in the framework of equipment engineering. In cases where other calculation methods are preferred, please use the Test Voltage to determine the operating voltage. See page 13-6 for details.

<sup>5)</sup> Test voltages between the contacts with the shortest distance.

## 104 Series

● = Standard ○ = Option

| Type                    | Pin Layout                                                                          | Number of Contacts |   | Contact Termination |       |     | Insulating Material | Contact $\varnothing$ [mm] | Wire Size <sup>2)</sup>                                |                                                                  | Test Voltage [V]<br><i>in mated position</i> |                    |                 |                    | Rated Voltage <sup>4)</sup> r.m.s [V] | Current Rating <sup>3)</sup> [A] |
|-------------------------|-------------------------------------------------------------------------------------|--------------------|---|---------------------|-------|-----|---------------------|----------------------------|--------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------|--------------------|-----------------|--------------------|---------------------------------------|----------------------------------|
|                         |                                                                                     |                    |   | Solder              | Crimp | PCB |                     |                            |                                                        |                                                                  | AC rms                                       |                    | DC              |                    |                                       |                                  |
|                         |                                                                                     |                    |   |                     |       |     |                     |                            | Solder Contacts <sup>1)</sup>                          | Crimp Contacts                                                   | Contact to Body                              | Contact to Contact | Contact to Body | Contact to Contact |                                       |                                  |
| 104 A Z 066             |    | 8                  |   | ●                   | ●     | ●   | PEEK                | 0.9                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.83mm<br>min $\varnothing$ 0.48mm<br>AWG22-26 | 1.5                                          | 1.5                | 2.5             | 2.5                | $\leq$ 320                            | 6.2                              |
| 104 A Z 055             |    | 9                  | 1 | ●                   |       | ●   | PEEK                | 1.3                        | max $\varnothing$ 1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | –                                                                | 2.4                                          | 2.2                | 3.8             | 3.6                | $\leq$ 250                            | 12                               |
|                         |                                                                                     |                    | 8 |                     |       |     |                     | 0.9                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | –                                                                | 1.4                                          | 1.5                | 2.0             | 2.4                |                                       | 6.0                              |
| 104 A Z 056             |   | 11                 |   | ●                   | ●     | ●   | PEEK                | 0.9                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.83mm<br>min $\varnothing$ 0.48mm<br>AWG22-26 | 1.4                                          | 1.5                | 2.1             | 2.2                | $\leq$ 250                            | 5.8                              |
| 104 A Z 086             |  | 16                 |   | ●                   | ●     | ●   | PEEK                | 0.7                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.62mm<br>min $\varnothing$ 0.38mm<br>AWG24-28 | 1.0                                          | 1.5                | 1.6             | 2.2                | $\leq$ 200                            | 4.0                              |
| 104 A Z 092             |  | 19                 |   | ●                   | ●     | ●   | PEEK                | 0.7                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.62mm<br>min $\varnothing$ 0.38mm<br>AWG24-28 | 0.8                                          | 1.2                | 1.2             | 1.8                | $\leq$ 200                            | 3.5                              |
| 104 A 124 <sup>5)</sup> |  | 27                 |   |                     | ●     | ●   | PEEK                | 0.5                        | –                                                      | max $\varnothing$ 0.43mm<br>min $\varnothing$ 0.20mm<br>AWG28-32 | 1.2                                          | 0.5                | 1.8             | 0.5                | $\leq$ 200                            | 2.0                              |

<sup>1)</sup> Stranding values are in brackets.

<sup>2)</sup> For a given AWG, the diameter of some stranded conductor designs could exceptionally be larger than the hole diameter of the barrel. Testing may be required.

<sup>3)</sup> Recommended max. operating current per contact at 40°C temperature rise measured according to IEC 60512-3-5b.

<sup>4)</sup> Recommended operating voltage at sea level measured according to IEC 60664-1.

This rated voltage is a general purpose guideline where no other electrical safety standard applies. In cases where other standards rule a specific use of the connector, the application-specific safety criteria shall be considered first. This must be evaluated in the framework of equipment engineering. In cases where other calculation methods are preferred, please use the Test Voltage to determine the operating voltage. See page 13-6 for details.

<sup>5)</sup> This configuration has different environmental performances due to the use of another sealant material. Please contact us for more information.

## 105 Series

● = Standard ○ = Option

| Type                                | Pin Layout | Number of Contacts |   | Contact Termination |       |     | Insulating Material | Contact ø [mm] | Wire Size <sup>2)</sup>                   |                | Test Voltage [V]<br><i>in mated position</i> |                    |                 |                    | Rated Voltage <sup>4)</sup> r.m.s [V] | Current Rating <sup>3)</sup> [A] |
|-------------------------------------|------------|--------------------|---|---------------------|-------|-----|---------------------|----------------|-------------------------------------------|----------------|----------------------------------------------|--------------------|-----------------|--------------------|---------------------------------------|----------------------------------|
|                                     |            |                    |   | Solder              | Crimp | PCB |                     |                |                                           |                | AC rms                                       |                    | DC              |                    |                                       |                                  |
|                                     |            |                    |   |                     |       |     |                     |                | Solder Contacts <sup>1)</sup>             | Crimp Contacts | Contact to Body                              | Contact to Contact | Contact to Body | Contact to Contact |                                       |                                  |
| 105 $\frac{A}{Z}$ 051               |            | 2                  |   | ●                   |       |     | PEEK                | 2.0            | max ø2.03mm<br>AWG13 [1]<br>AWG14 [7/22]  | –              | 2.5                                          | 3.0                | 4.0             | 4.0                | ≤ 630                                 | 26                               |
| 105 $\frac{A}{Z}$ 087               |            | 2                  |   | ●                   |       |     | PEEK                | 3.0            | max ø3.13mm<br>AWG9 [1]<br>AWG10 [105/30] | –              | 1.2                                          | 1.6                | 2.3             | 3.0                | ≤ 400                                 | 30                               |
| 105 $\frac{A}{Z}$ 052               |            | 3                  |   | ●                   |       |     | PEEK                | 2.0            | max ø2.03mm<br>AWG13 [1]<br>AWG14 [7/22]  | –              | 2.0                                          | 2.5                | 3.0             | 3.5                | ≤ 400                                 | 23                               |
| 105 $\frac{A}{Z}$ 053               |            | 4                  |   | ●                   |       |     | PEEK                | 2.0            | max ø2.03mm<br>AWG13 [1]<br>AWG14 [7/22]  | –              | 1.8                                          | 1.8                | 2.6             | 2.6                | ≤ 320                                 | 20                               |
| 105 $\frac{A}{Z}$ 054 <sup>5)</sup> |            | 7                  | 1 | ●                   |       |     | PEEK                | 2.0            | max ø2.03mm<br>AWG13 [1]<br>AWG14 [7/22]  | –              | 3.0                                          | 2.0                | 4.0             | 3.0                | ≤ 320                                 | 25                               |
|                                     |            |                    | 6 |                     |       |     |                     | 1.3            | max ø1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | –              | 1.8                                          | 1.5                | 2.5             | 2.0                |                                       | 7.0                              |
| 105 $\frac{A}{Z}$ 067               |            | 8                  |   | ●<br>○              |       |     | PEEK<br>PTFE        | 1.3            | max ø1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | –              | 1.7                                          | 2.0                | 2.5             | 2.8                | ≤ 320                                 | 10                               |
| 105 A 124                           |            | 8                  | 2 | ●                   |       |     | PEEK                | 2.3            | max ø2.48mm<br>AWG11 [1]<br>AWG12 [7/20]  | –              | 1.2                                          | 2.2                | 1.8             | 3.2                | ≤ 250                                 | 18.5                             |
|                                     |            |                    | 6 |                     |       |     |                     | 1.3            | max ø1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | –              | 1.2                                          | 1.2                | 1.8             | 1.8                |                                       | 7.5                              |
| 105 $\frac{A}{Z}$ 101 <sup>5)</sup> |            | 9                  | 1 | ●                   | ●     |     | PEEK                | 2.0            | max ø2.03mm<br>AWG13 [1]<br>AWG14 [7/22]  | –              | 3.0                                          | 2.0                | 4.0             | 3.0                | ≤ 320                                 | 25                               |
|                                     |            |                    | 8 |                     |       |     |                     | 1.3            | max ø1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | –              | 1.8                                          | 1.5                | 2.5             | 2.0                |                                       | 5.0                              |

<sup>1)</sup> Stranding values are in brackets.

<sup>2)</sup> For a given AWG, the diameter of some stranded conductor designs could exceptionally be larger than the hole diameter of the barrel. Testing may be required.

<sup>3)</sup> Recommended max. operating current per contact at 40°C temperature rise measured according to IEC 60512-3-5b.

<sup>4)</sup> Recommended operating voltage at sea level measured according to IEC 60664-1.

This rated voltage is a general purpose guideline where no other electrical safety standard applies. In cases where other standards rule a specific use of the connector, the application-specific safety criteria shall be considered first.

This must be evaluated in the framework of equipment engineering. In cases where other calculation methods are preferred, please use the Test Voltage to determine the operating voltage. See page 13-6 for details.

<sup>5)</sup> Contact dia. 2.0 is positioned to make contact first and break last.

## 105 Series

● = Standard ○ = Option

| Type                                            | Pin Layout                                                                          | Number of Contacts |    | Contact Termination |       |     | Insulating Material | Contact $\varnothing$ [mm] | Wire Size <sup>2)</sup>                                |                                                                  | Test Voltage <sup>[V]</sup><br><i>in mated position</i> |                    |                 |                    | Rated Voltage <sup>4)</sup> r.m.s [V] | Current Rating <sup>3)</sup> [A] |
|-------------------------------------------------|-------------------------------------------------------------------------------------|--------------------|----|---------------------|-------|-----|---------------------|----------------------------|--------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------|--------------------|-----------------|--------------------|---------------------------------------|----------------------------------|
|                                                 |                                                                                     |                    |    | AC rms              |       | DC  |                     |                            |                                                        |                                                                  |                                                         |                    |                 |                    |                                       |                                  |
|                                                 |                                                                                     |                    |    | Solder              | Crimp | PCB |                     |                            | Solder Contacts <sup>1)</sup>                          | Crimp Contacts                                                   | Contact to Body                                         | Contact to Contact | Contact to Body | Contact to Contact |                                       |                                  |
| 105 <sup>A</sup> <sub>Z</sub> 062               |    | 10                 |    | ●                   | ●     | ●   | PEEK                | 1.3                        | max $\varnothing$ 1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | max $\varnothing$ 1.18mm<br>min $\varnothing$ 0.58mm<br>AWG18-24 | 1.7                                                     | 2.0                | 2.5             | 2.7                | ≤ 320                                 | 9.0                              |
| 105 <sup>A</sup> <sub>Z</sub> 069               |    | 12                 |    | ●                   |       | ●   | PEEK                | 1.3                        | max $\varnothing$ 1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | -                                                                | 1.4                                                     | 1.5                | 1.8             | 2.0                | ≤ 250                                 | 8.0                              |
| 105 <sup>A</sup> <sub>Z</sub> 104 <sup>5)</sup> |    | 13                 | 3  | ●                   |       | ●   | PEEK                | 1.3                        | max $\varnothing$ 1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | -                                                                | 2.5                                                     | 1.5                | 3.8             | 2.2                | ≤ 320                                 | 14                               |
|                                                 |                                                                                     |                    | 10 |                     |       |     |                     | 0.7                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | -                                                                | 1.3                                                     | 1.5                | 1.8             | 2.2                |                                       | 1.0                              |
| 105 <sup>A</sup> 127                            |  | 13                 | 3  |                     | ●     |     | PEEK                | 1.3                        | -                                                      | max $\varnothing$ 1.18mm<br>min $\varnothing$ 0.58mm<br>AWG18-24 | 3.0                                                     | 2.8                | 4.8             | 3.9                | ≤ 630                                 | 14                               |
|                                                 |                                                                                     |                    | 10 |                     |       |     |                     | 0.7                        | -                                                      | max $\varnothing$ 0.62mm<br>min $\varnothing$ 0.38mm<br>AWG24-28 | 3.1                                                     | 1.1                | 4.7             | 1.9                |                                       | 1.0                              |
| 105 <sup>A</sup> <sub>Z</sub> 058               |  | 15                 |    | ●                   | ●     | ●   | PEEK                | 0.9                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.83mm<br>min $\varnothing$ 0.48mm<br>AWG22-26 | 1.4                                                     | 1.6                | 1.8             | 2.2                | ≤ 250                                 | 5.3                              |
| 105 <sup>A</sup> <sub>Z</sub> 110 <sup>6)</sup> |  | 16                 | 4  | ●                   |       | ●   | PEEK                | 1.6                        | max $\varnothing$ 1.86mm<br>AWG13 [1]<br>AWG14 [7/22]  | -                                                                | 1.6                                                     | 1.3                | 2.8             | 2.1                | ≤ 250                                 | 14                               |
|                                                 |                                                                                     |                    | 12 |                     |       |     |                     | 0.7                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | -                                                                | 1.0                                                     | 1.2                | 1.5             | 2.0                |                                       | 1.0                              |
| 105 <sup>A</sup> <sub>Z</sub> 038               |  | 18                 |    | ●                   | ●     | ●   | PEEK                | 0.9                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.83mm<br>min $\varnothing$ 0.48mm<br>AWG22-26 | 1.4                                                     | 1.6                | 1.8             | 2.2                | ≤ 200                                 | 4.5                              |
| 105 <sup>A</sup> <sub>Z</sub> 093               |  | 24                 |    | ●                   |       | ●   | PBT                 | 0.7                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | -                                                                | 1.2                                                     | 1.5                | 1.5             | 2.0                | ≤ 250                                 | 3.5                              |
| 105 <sup>A</sup> <sub>Z</sub> 102               |  | 27                 |    | ●                   | ●     | ●   | PEEK                | 0.7                        | max $\varnothing$ 0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max $\varnothing$ 0.62mm<br>min $\varnothing$ 0.38mm<br>AWG24-28 | 1.2                                                     | 1.5                | 1.5             | 2.0                | ≤ 250                                 | 3.0                              |

<sup>1)</sup> Stranding values are in brackets.

<sup>2)</sup> For a given AWG, the diameter of some stranded conductor designs could exceptionally be larger than the hole diameter of the barrel. Testing may be required.

<sup>3)</sup> Recommended max. operating current per contact at 40°C temperature rise measured according to IEC 60512-3-5b.

<sup>4)</sup> Recommended operating voltage at sea level measured according to IEC 60664-1.

This rated voltage is a general purpose guideline where no other electrical safety standard applies. In cases where other standards rule a specific use of the connector, the application-specific safety criteria shall be considered first.

This must be evaluated in the framework of equipment engineering. In cases where other calculation methods are preferred, please use the Test Voltage to determine the operating voltage. See page 13-6 for details.

<sup>5)</sup> Contacts dia. 1.3 are positioned to make contact first and break last.

<sup>6)</sup> Contacts dia. 1.6 are positioned to make contact first and break last.

## 106 Series

● = Standard ○ = Option

| Type                                              | Pin Layout                                                                          | Number of Contacts | Contact Termination |       |     | Insulating Material | Contact $\varnothing$ [mm] | Wire Size <sup>2)</sup>                                |                                                         | Test Voltage [V]<br><i>in mated position</i> |                    |                 |                    | Rated Voltage <sup>4)</sup> r.m.s [V] | Current Rating <sup>3)</sup> [A] |
|---------------------------------------------------|-------------------------------------------------------------------------------------|--------------------|---------------------|-------|-----|---------------------|----------------------------|--------------------------------------------------------|---------------------------------------------------------|----------------------------------------------|--------------------|-----------------|--------------------|---------------------------------------|----------------------------------|
|                                                   |                                                                                     |                    | AC rms              |       | DC  |                     |                            |                                                        |                                                         |                                              |                    |                 |                    |                                       |                                  |
|                                                   |                                                                                     |                    | Solder              | Crimp | PCB |                     |                            | Male Solder Contacts <sup>1)</sup>                     | Female Solder Contacts <sup>1)</sup>                    | Contact to Body                              | Contact to Contact | Contact to Body | Contact to Contact |                                       |                                  |
| 106 <sup>A</sup> <sub>Z</sub> 003 <sup>5)</sup>   |    | 3                  | ●<br>○              |       |     | PTFE<br>PEEK        | 2.3                        | max $\varnothing$ 2.13mm<br>AWG12 [1]<br>AWG14 [7/22]  | max $\varnothing$ 2.28mm<br>AWG12 [1]<br>AWG14 [105/34] | 3.5                                          | 5.0                | 6.0             | 6.5                | $\leq$ 1000                           | 26                               |
| 106 <sup>A</sup> <sub>Z</sub> 007 <sup>5)6)</sup> |    | 7                  | ●<br>○              |       |     | PTFE<br>PEEK        | 2.0                        | max $\varnothing$ 2.08mm<br>AWG12 [1]<br>AWG14 [7/22]  | max $\varnothing$ 2.03mm<br>AWG13 [1]<br>AWG14 [7/22]   | 2.5                                          | 3.0                | 4.5             | 4.5                | $\leq$ 800                            | 20                               |
| 106 <sup>A</sup> <sub>Z</sub> 019                 |    | 8                  | ●<br>○              |       |     | PTFE<br>PEEK        | 2.0                        | max $\varnothing$ 2.08mm<br>AWG12 [1]<br>AWG14 [7/22]  | max $\varnothing$ 2.03mm<br>AWG13 [1]<br>AWG14 [7/22]   | 2.2                                          | 2.2                | 4.0             | 3.0                | $\leq$ 630                            | 19                               |
| 106 <sup>A</sup> <sub>Z</sub> 015                 |   | 12                 | ●<br>○              |       |     | PTFE<br>PEEK        | 2.0                        | max $\varnothing$ 2.08mm<br>AWG12 [1]<br>AWG14 [7/22]  | max $\varnothing$ 2.03mm<br>AWG13 [1]<br>AWG14 [7/22]   | 1.8                                          | 2.2                | 2.5             | 3.0                | $\leq$ 500                            | 16                               |
| 106 <sup>A</sup> <sub>Z</sub> 018                 |  | 17                 | ●<br>○              |       |     | PTFE<br>PEEK        | 1.3                        | max $\varnothing$ 1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | max $\varnothing$ 1.23mm<br>AWG17 [1]<br>AWG18 [16/30]  | 1.8                                          | 2.2                | 2.5             | 3.0                | $\leq$ 500                            | 8.0                              |
| 106 <sup>A</sup> <sub>Z</sub> 017                 |  | 24                 | ●<br>○              |       |     | PTFE<br>PEEK        | 1.3                        | max $\varnothing$ 1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | max $\varnothing$ 1.18mm<br>AWG17 [1]<br>AWG18 [16/30]  | 1.8                                          | 1.5                | 2.5             | 2.1                | $\leq$ 400                            | 7.0                              |

<sup>1)</sup> Stranding values are in brackets.

<sup>2)</sup> For a given AWG, the diameter of some stranded conductor designs could exceptionally be larger than the hole diameter of the barrel. Testing may be required.

<sup>3)</sup> Recommended max. operating current per contact at 40°C temperature rise measured according to IEC 60512-3-5b.

<sup>4)</sup> Recommended operating voltage at sea level measured according to IEC 60664-1.

This rated voltage is a general purpose guideline where no other electrical safety standard applies. In cases where other standards rule a specific use of the connector, the application-specific safety criteria shall be considered first.

This must be evaluated in the framework of equipment engineering. In cases where other calculation methods are preferred, please use the Test Voltage to determine the operating voltage. See page 13-6 for details.

<sup>5)</sup> The contact solder cups are specially insulated.

<sup>6)</sup> Contact Number 1 is positioned to make contact first and break last.

## 107 Series

● = Standard ○ = Option

| Type           | Pin Layout                                                                          | Number of Contacts |        | Contact Termination |       |              | Insulating Material | Contact ø [mm]                            | Wire size <sup>2)</sup>                    |                                      | Test Voltage [V]<br><i>in mated position</i> |                    |                 |                    | Rated Voltage <sup>4)</sup> r.m.s [V] | Current Rating <sup>3)</sup> [A] |
|----------------|-------------------------------------------------------------------------------------|--------------------|--------|---------------------|-------|--------------|---------------------|-------------------------------------------|--------------------------------------------|--------------------------------------|----------------------------------------------|--------------------|-----------------|--------------------|---------------------------------------|----------------------------------|
|                |                                                                                     |                    |        | Solder              | Crimp | PCB          |                     |                                           |                                            |                                      | AC rms                                       |                    | DC              |                    |                                       |                                  |
|                |                                                                                     |                    |        |                     |       |              |                     |                                           | Male Solder Contacts <sup>1)</sup>         | Female Solder Contacts <sup>1)</sup> | Contact to Body                              | Contact to Contact | Contact to Body | Contact to Contact |                                       |                                  |
| 107 A<br>Z 013 |    | 4                  | ●      |                     |       | PTFE         | 2.3                 | max ø2.93mm<br>AWG9 [1]<br>AWG10 [37/26]  | max ø2.28mm<br>AWG12 [1]<br>AWG14 [105/34] | 6.5                                  | 7.0                                          | 10                 | 11              | ≤ 1000             | 26                                    |                                  |
| 107 A<br>Z 018 |    | 6                  | ●<br>○ |                     |       | PTFE<br>PEEK | 2.3                 | max ø2.93mm<br>AWG9 [1]<br>AWG10 [37/26]  | max ø2.28mm<br>AWG12 [1]<br>AWG14 [105/34] | 4.5                                  | 4.5                                          | 6.0                | 6.0             | ≤ 800              | 25                                    |                                  |
| 107 A<br>Z 015 |    | 19                 | ●<br>○ |                     |       | PTFE<br>PEEK | 2.0                 | max ø2.08mm<br>AWG12 [1]<br>AWG14 [7/22]  | max ø2.03mm<br>AWG13 [1]<br>AWG14 [7/22]   | 2.0                                  | 2.5                                          | 2.5                | 3.2             | ≤ 500              | 13                                    |                                  |
| 107 A<br>Z 051 |   | 27                 | ●<br>○ |                     |       | PTFE<br>PEEK | 1.3                 | max ø1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | max ø1.18mm<br>AWG17 [1]<br>AWG18 [16/30]  | 2.0                                  | 2.0                                          | 3.0                | 3.2             | ≤ 400              | 7.5                                   |                                  |
| 107 A<br>Z 052 |  | 40                 | ●<br>○ |                     |       | PTFE<br>PEEK | 1.3                 | max ø1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | max ø1.18mm<br>AWG17 [1]<br>AWG18 [16/30]  | 1.8                                  | 1.5                                          | 2.5                | 2.0             | ≤ 320              | 6.5                                   |                                  |
| 107 A<br>Z 023 |  | 55                 | 8      | ●                   |       | PTFE         | 1.3                 | max ø1.18mm<br>AWG17 [1]<br>AWG18 [16/30] | max ø1.18mm<br>AWG17 [1]<br>AWG18 [16/30]  | 2.0                                  | 1.8                                          | 2.8                | 2.5             | ≤ 400              | 7.0                                   |                                  |
|                |                                                                                     |                    | 47     | ○                   |       | PEEK         | 0.9                 | max ø0.79mm<br>AWG21 [1]<br>AWG22 [7/30]  | max ø0.88mm<br>AWG20 [1]<br>AWG22 [19/34]  | 17                                   | 15                                           | 2.5                | 2.1             |                    | 3.0                                   |                                  |

<sup>1)</sup> Stranding values are in brackets.

<sup>2)</sup> For a given AWG, the diameter of some stranded conductor designs could exceptionally be larger than the hole diameter of the barrel. Testing may be required.

<sup>3)</sup> Recommended max. operating current per contact at 40°C temperature rise measured according to IEC 60512-3-5b.

<sup>4)</sup> Recommended operating voltage at sea level measured according to IEC 60664-1.

This rated voltage is a general purpose guideline where no other electrical safety standard applies. In cases where other standards rule a specific use of the connector, the application-specific safety criteria shall be considered first.

This must be evaluated in the framework of equipment engineering. In cases where other calculation methods are preferred, please use the Test Voltage to determine the operating voltage. See page 13-6 for details.

## **Contents**

### **Options Presentation**

|                                               |        |
|-----------------------------------------------|--------|
| ■ Connector Housing Colors.....               | 4-10-1 |
| ■ Cable Bend Reliefs and Clamp Nut Types..... | 4-10-1 |
| ■ Mechanical Coding.....                      | 4-10-2 |

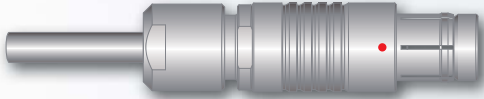
### **Options Part Numbering**

|                                                                         |        |
|-------------------------------------------------------------------------|--------|
| ■ Multipole Low Voltage, High Voltage and Mixed High Voltage Connectors | 4-10-3 |
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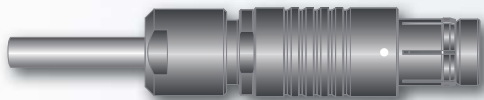
## Housing Colors and Cable Bend Reliefs

### Connector Housing Colors

All the body styles of our Core Product Line are available in two colors:



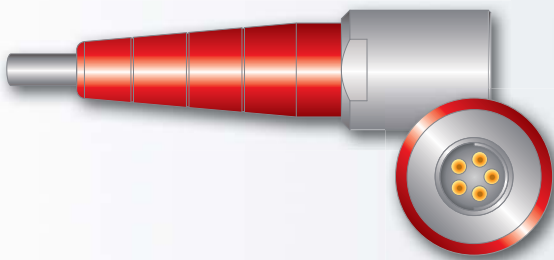
- Natural chrome connector housing with red guide mark.



- Non reflective black chrome housing with white guide mark.

Guide mark is standard for Multipole Low and High Voltage, Mixed Multipole and Mixed Coax Connectors.

Color-coding is achieved by using accessories:



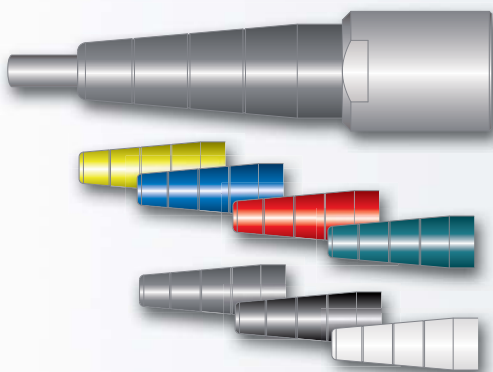
- Cable Bend Reliefs for Cable Connectors.
- Washers for Panel Connectors.

*For detailed information on Cable Bend Reliefs and Washers, See Section 11 Accessories.*

**Our AluLite™ connector Series** – ideal for ultralight product development – features a wide array of housing colors. For more, **download** AluLite™ series catalogue at [www.fischerconnectors.com/catalogues](http://www.fischerconnectors.com/catalogues).

### Cable Bend Reliefs and Clamp Nut Types

A cable bend relief is a useful accessory for connectors mounted with cable clamp sets (S/SC; SOV; SA; SV; WSO; K/KE; DK; DKE; DBKE).



It enables to:

- Prevent cable torsion, enhancing your connections efficiency.
- Color-code your connectors for easy identification.

Cable bend reliefs require special clamp nuts, thus are linked with your selection of options.

*For detailed information on cable bend reliefs and washers, see Section 11 Accessories.*

## Mechanical Coding

### For Easy Connect / Disconnect Operations

Our contact blocks are engineered with arc-shape metal guides, which ensure precise alignment of connectors during the mating process.



This guiding mechanism provides:

- Increased safety and user friendliness by preventing misconnection.
- Easy mating cycles, can be blind-mated.
- Increased equipment life span by optimally protecting the contacts.

### Keying Codes Options

All Multipole body styles are mechanically coded.

Code 1 is the standard, but other codes can be requested (See table below).

|        | Female Block                                                                        | Male Block                                                                            |
|--------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Code 1 |  |  |
| Code 2 |  |  |
| Code 3 |  |  |

Other keying codes are available on request, please contact us.

## Multipole Low Voltage, High Voltage & Mixed Connectors

| 1 | Housing Color<br>Which housing color do you need?                   |                                                                                          | NATURAL CHROME with Red Guide Mark |        |                     |        |                     |
|---|---------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------|--------|---------------------|--------|---------------------|
| 2 | Contact Block Material<br>Which contact block material do you need? |                                                                                          | PTFE                               | PBT    |                     | PEEK   |                     |
| 3 | Contact Type<br>Which contact type do you need?                     |                                                                                          | Solder                             | Solder | Crimp <sup>1)</sup> | Solder | Crimp <sup>1)</sup> |
| 4 | Keying Code<br>Which keying code do you need?                       | Code 1  | -60                                | -80    | -100                | -130   | -150                |
|   |                                                                     | Code 2  | -2060                              | -2080  | -2100               | -230   | -250                |
|   |                                                                     | Code 3  | -3060                              | -3080  | -3100               | -330   | -350                |

<sup>1)</sup> Crimp contacts are not an option for sealed or hermetic connectors.

### Cable Bend Relief

Do you need a cable bend relief, and if yes which color?

| Applicable for                                                                   | Last Digit | Description                                                                                                             |
|----------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------|
| Cable Mounted Plugs & Receptacles using Cable Clamp Sets<br>Except SS/SSC-KS/KSE | 0          | Clamp nut without bend relief                                                                                           |
|                                                                                  | 1          | Clamp nut with white bend relief    |
|                                                                                  | 2          | Clamp nut with black bend relief   |
|                                                                                  | 3          | Clamp nut with green bend relief   |
|                                                                                  | 4          | Clamp nut with blue bend relief    |
|                                                                                  | 5          | Clamp nut with yellow bend relief  |
|                                                                                  | 6          | Clamp nut with red bend relief     |
|                                                                                  | 7          | Clamp nut with grey bend relief    |

### Contact Type for Panel Mounted Connectors

| Applicable for                                      | Last Digit | Description                                                          |
|-----------------------------------------------------|------------|----------------------------------------------------------------------|
| Front Mounted:<br>D-DEU/E-DB-DBEU/E-<br>DG-SF-SFU/E | 0          | Standard: solder contacts                                            |
|                                                     | 9          | With PCB (Printed Circuit Board) contacts instead of solder contacts |
| Rear Mounted:<br>DBP-DBPU/E-DBPLU/E-<br>DGP-SFPU/E  | 0          | Standard: PCB (Printed Circuit Board) contacts                       |
|                                                     | 9          | With solder contacts instead of PCB (Printed Circuit Board) contacts |

### Design and Accessories

| Applicable for | Extensions | Description                                               |
|----------------|------------|-----------------------------------------------------------|
| Receptacles    | N          | Nickel plated body with bright finish                     |
|                | E          | EPDM interface O-ring                                     |
|                | G          | Ground tag if solder contact or Ground pin if PCB contact |
|                | B          | Black Nut                                                 |
|                | D          | Decorative slotted nut                                    |
|                | F          | Decorative nut (with 2 flats)                             |

Other options are available on request, please contact us.

## Multipole Low Voltage, High Voltage & Mixed Connectors

| BLACK CHROME with White Guide Mark |        |                     |        |                     |
|------------------------------------|--------|---------------------|--------|---------------------|
| PTFE                               | PBT    |                     | PEEK   |                     |
| Solder                             | Solder | Crimp <sup>1)</sup> | Solder | Crimp <sup>1)</sup> |
| -70                                | -90    | -110                | -140   | -160                |
| -2070                              | -2090  | -2110               | -240   | -260                |
| -3070                              | -3090  | -3110               | -340   | -360                |

<sup>1)</sup> Crimp contacts are not an option for sealed or hermetic connectors.

### Examples

#### Plugs

##### **S 102 A056 - 130+**

Natural chrome housing color with PEEK contact block, solder contacts, keying code 1, clamp nut without bend relief and without cable clamp set (To be ordered separately)

##### **S 102 A056 - 232+**

Natural chrome housing color with PEEK contact block, solder contacts, keying code 2, clamp nut with black bend relief, without cable clamp set

##### **SS 102 A056 - 260**

Black chrome housing color with PEEK contact block, crimp contacts, keying code 2

#### Receptacles

##### **D 102 A056 - 130**

Natural chrome housing color with PEEK contact block, solder contacts, keying code 1

##### **D 102 A056 - 260**

Black chrome housing color with PEEK contact block, crimp contacts, keying code 2

##### **DBPU 102 A056 - 130G**

Natural chrome housing color with PEEK contact block, PCB contacts, keying code 1 and ground pin

##### **DBPU 102 A056 - 130NBE**

Nickel plated body with PEEK contact block, solder contacts, keying code 1, with black nut and EPDM interface O-ring

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### Dimensions *S/SC; SOV; SA; SV; K/KE; DK; DKE and DKBE; Body Styles*

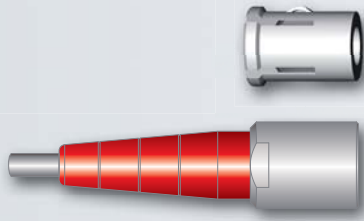
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### Dimensions *WSO Body Style*

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## Introduction

To guarantee excellent cable retention and strain relief, Fischer Connectors provides robust and high quality cable clamp sets:



- Collet style clamp system retaining cable over large jacket surface area.
- Protection of small diameters and delicate conductors.
- Can be combined with cable bend reliefs for optimal performance. See Accessories, page 11-2.

Cable clamp sets are suitable for all cable mounted connectors, except SS/SSC and KS/KSE. For these specific body styles, see Section 3 Cable Assembly for overmolding or heat shrinking techniques.

## Range Overview: S, U and E Cable Clamp Sets

Fischer Connectors offers three types of cable clamps sets. The table below will help you select the one corresponding to your needs.

| Cable Clamp Set   | Do you need the interface between the cable and the connector to be sealed? |        | Do you need the connector to be terminated to the cable shield? |          |
|-------------------|-----------------------------------------------------------------------------|--------|-----------------------------------------------------------------|----------|
|                   | Unsealed                                                                    | Sealed | Unshielded                                                      | Shielded |
| S - Shielded      | ●                                                                           |        |                                                                 | ●        |
| U - Unshielded    | ●                                                                           |        | ●                                                               |          |
| E - Environmental |                                                                             | ●      | ●                                                               | ●        |

For 106 and 107 connector series, only S and E cable clamp sets are available. See page 4-11-7 and 4-11-8 for details.

## Part Numbering

| Below Cable Clamp Sets Should be Ordered Separately |       |
|-----------------------------------------------------|-------|
| Multipole Low Voltage                               | Triax |
| S 102 A056-130 +                                    |       |
| <b>Examples</b><br>Connector ordering line          |       |
| S 102 A056-130 +                                    |       |
| Clamp Set ordering line                             |       |
| E3 102.5/2.0                                        |       |

See following pages for Cable Clamp Set selection.

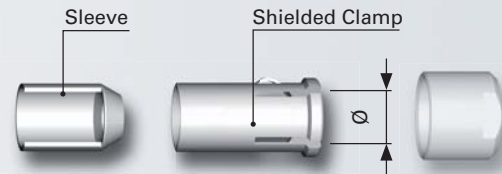
| Below Cable Clamp Sets are Included with Connector                                                                      |                   |
|-------------------------------------------------------------------------------------------------------------------------|-------------------|
| Coax Low Voltage                                                                                                        | Coax High Voltage |
| Shielded (S) or Environmental (E) Cable Clamp Set diameter should be added to the connector part number separated by ø. |                   |
| <b>Examples</b><br>For S - Shielded Clamp Sets                                                                          |                   |
| K 103 A002-600 ø6.2                                                                                                     |                   |
| For E - Environmental Clamp Sets                                                                                        |                   |
| KE 103 A002-600 ø6.2                                                                                                    |                   |

See following pages for S or E Cable Clamp Set selection.

## 102 Series

### ■ S - Shielded

Shielded cable clamp with sleeve.

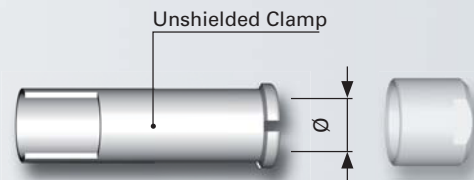


| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> |
|------------------|----------|-------------------------------|
| 1.5 - 2.1        | 2.1      | E32 102.1/2.1 + A             |
| 2.1 - 2.6        | 2.6      | E32 102.1/2.6 + A             |
| 2.6 - 3.1        | 3.1      | E32 102.1/3.1 + A             |
| 3.1 - 3.6        | 3.6      | E32 102.1/3.6 + A             |

| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> |
|------------------|----------|-------------------------------|
| 3.6 - 4.1        | 4.1      | E32 102.1/4.1 + A             |
| 4.1 - 4.3        | 4.3      | E32 102.1/4.3 + A             |
| 4.3 - 4.7        | 4.7      | 102.248 + A                   |

### ■ U - Unshielded

Unshielded, one-piece cable clamp.

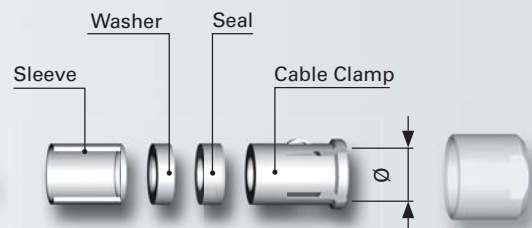


| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> |
|------------------|----------|-------------------------------|
| 1.4 - 2.0        | 2.0      | E3 102.5/2.0                  |
| 2.0 - 2.7        | 2.7      | E3 102.5/2.7                  |
| 2.7 - 3.5        | 3.5      | E3 102.5/3.5                  |

| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> |
|------------------|----------|-------------------------------|
| 3.5 - 4.2        | 4.2      | E3 102.5/4.2                  |
| 4.2 - 4.7        | 4.7      | E3 102.5/4.7                  |

### ■ E - Environmental

Environmentally sealed clamp for use with shielded or unshielded cables.



| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> |
|------------------|----------|-------------------------------|
| 1.5 - 2.1        | 2.1      | E31 102.2/2.1 + B             |
| 2.1 - 2.6        | 2.6      | E31 102.2/2.6 + B             |
| 2.6 - 3.1        | 3.1      | E31 102.2/3.1 + B             |

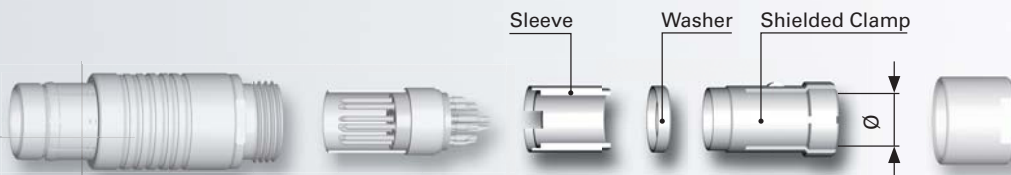
| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> |
|------------------|----------|-------------------------------|
| 3.1 - 3.6        | 3.6      | E31 102.2/3.6 + B             |
| 3.6 - 4.1        | 4.1      | E31 102.2/4.1 + B             |
| 4.1 - 4.3        | 4.3      | E31 102.2/4.3 + B             |

<sup>1)</sup> For ordering information see Page 4-11-1.

## 103 Series

### ■ S - Shielded

Shielded cable clamp with washer and sleeve.



| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> PEEK or PBT Insulator |
|------------------|----------|-----------------------------------------------------|
| 1.7 - 2.2        | 2.2      | E31 103.1/2.2 +B                                    |
| 2.2 - 2.7        | 2.7      | E31 103.1/2.7 +B                                    |
| 2.7 - 3.2        | 3.2      | E31 103.1/3.2 +B                                    |
| 3.2 - 3.7        | 3.7      | E31 103.1/3.7 +B                                    |
| 3.7 - 4.2        | 4.2      | E31 103.1/4.2 +B                                    |

| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> PEEK or PBT Insulator |
|------------------|----------|-----------------------------------------------------|
| 4.2 - 4.7        | 4.7      | E31 103.1/4.7 +B                                    |
| 4.7 - 5.2        | 5.2      | E31 103.1/5.2 +B                                    |
| 5.2 - 5.7        | 5.7      | E31 103.1/5.7 +B                                    |
| 5.7 - 6.2        | 6.2      | E31 103.1/6.2 +B                                    |
| 6.2 - 6.7        | 6.7      | E31 103.1/6.7 +B                                    |

### ■ U - Unshielded

Unshielded, one-piece cable clamp.

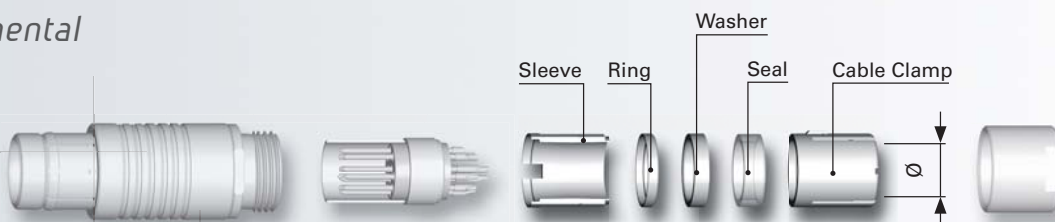


| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> PEEK or PBT Insulator |
|------------------|----------|-----------------------------------------------------|
| 2.2 - 3.2        | 3.2      | E3 103.6/3.2                                        |
| 3.2 - 4.2        | 4.2      | E3 103.6/4.2                                        |
| 4.2 - 4.7        | 4.7      | E3 103.6/4.7                                        |
| 4.7 - 5.2        | 5.2      | E3 103.6/5.2                                        |

| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> PEEK or PBT Insulator |
|------------------|----------|-----------------------------------------------------|
| 5.2 - 5.7        | 5.7      | E3 103.6/5.7                                        |
| 5.7 - 6.2        | 6.2      | E3 103.6/6.2                                        |
| 6.2 - 6.7        | 6.7      | E3 103.6/6.7                                        |

### ■ E - Environmental

Environmentally sealed clamp for use with shielded or unshielded cables.



| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> PEEK or PBT Insulator |
|------------------|----------|-----------------------------------------------------|
| 1.7 - 2.2        | 2.2      | E31 103.2/2.2 + B                                   |
| 2.2 - 2.7        | 2.7      | E31 103.2/2.7 + B                                   |
| 2.7 - 3.2        | 3.2      | E31 103.2/3.2 + B                                   |
| 3.2 - 3.7        | 3.7      | E31 103.2/3.7 + B                                   |
| 3.7 - 4.2        | 4.2      | E31 103.2/4.2 + B                                   |

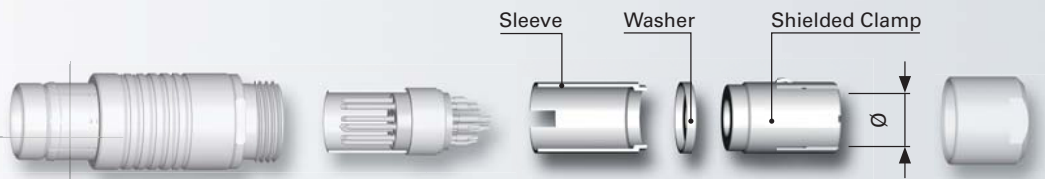
| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> PEEK or PBT Insulator |
|------------------|----------|-----------------------------------------------------|
| 4.2 - 4.7        | 4.7      | E31 103.2/4.7 + B                                   |
| 4.7 - 5.2        | 5.2      | E31 103.2/5.2 + B                                   |
| 5.2 - 5.7        | 5.7      | E31 103.2/5.7 + B                                   |
| 5.7 - 6.2        | 6.2      | E31 103.2/6.2 + B                                   |

<sup>1)</sup> For ordering information see Page 4-11-1.

## 1031 Series

### ■ S - Shielded

Shielded cable clamp with washer and sleeve.



| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> |
|------------------|----------|-------------------------------|
| 2.2 - 2.7        | 2.7      | E3 1031.1/2.7                 |
| 2.7 - 3.2        | 3.2      | E3 1031.1/3.2                 |
| 3.2 - 3.7        | 3.7      | E3 1031.1/3.7                 |
| 3.7 - 4.2        | 4.2      | E3 1031.1/4.2                 |
| 4.2 - 4.7        | 4.7      | E3 1031.1/4.7                 |

| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> |
|------------------|----------|-------------------------------|
| 4.7 - 5.2        | 5.2      | E3 1031.1/5.2                 |
| 5.2 - 5.7        | 5.7      | E3 1031.1/5.7                 |
| 5.7 - 6.2        | 6.2      | E3 1031.1/6.2                 |
| 6.2 - 6.7        | 6.7      | E3 1031.1/6.7                 |
| 6.7 - 7.2        | 7.2      | E3 1031.1/7.2                 |

### ■ U - Unshielded

Unshielded, one-piece cable clamp.

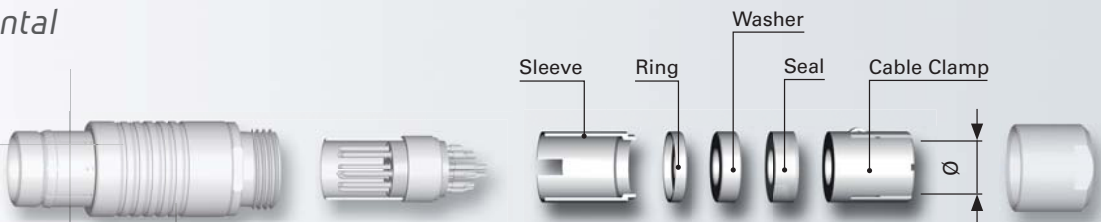


| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> |
|------------------|----------|-------------------------------|
| 2.2 - 2.7        | 2.7      | E3 1031.6/2.7                 |
| 2.7 - 3.2        | 3.2      | E3 1031.6/3.2                 |
| 3.2 - 3.7        | 3.7      | E3 1031.6/3.7                 |
| 3.7 - 4.2        | 4.2      | E3 1031.6/4.2                 |
| 4.2 - 4.7        | 4.7      | E3 1031.6/4.7                 |

| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> |
|------------------|----------|-------------------------------|
| 4.7 - 5.2        | 5.2      | E3 1031.6/5.2                 |
| 5.2 - 5.7        | 5.7      | E3 1031.6/5.7                 |
| 5.7 - 6.2        | 6.2      | E3 1031.6/6.2                 |
| 6.2 - 6.7        | 6.7      | E3 1031.6/6.7                 |
| 6.7 - 7.2        | 7.2      | E3 1031.6/7.2                 |

### ■ E - Environmental

Environmentally sealed clamp for use with shielded or unshielded cables.



| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> |
|------------------|----------|-------------------------------|
| 2.2 - 2.7        | 2.7      | E3 1031.2/2.7                 |
| 2.7 - 3.2        | 3.2      | E3 1031.2/3.2                 |
| 3.2 - 3.7        | 3.7      | E3 1031.2/3.7                 |
| 3.7 - 4.2        | 4.2      | E3 1031.2/4.2                 |
| 4.2 - 4.7        | 4.7      | E3 1031.2/4.7                 |

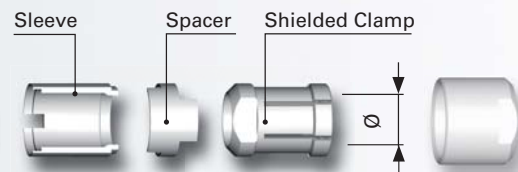
| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> |
|------------------|----------|-------------------------------|
| 4.7 - 5.2        | 5.2      | E3 1031.2/5.2                 |
| 5.2 - 5.7        | 5.7      | E3 1031.2/5.7                 |
| 5.7 - 6.2        | 6.2      | E3 1031.2/6.2                 |
| 6.2 - 6.7        | 6.7      | E3 1031.2/6.7                 |

<sup>1)</sup> For ordering information see Page 4-11-1.

## 104 Series

### ■ S - Shielded

Shielded cable clamp with spacer and sleeve.

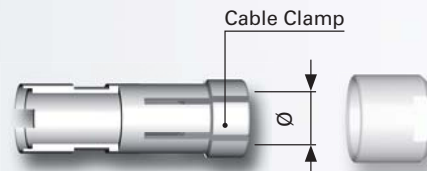


| Cable dia.<br>Range | Collet<br>Ø | Cable Clamp Set <sup>1)</sup><br>PEEK or PBT Insulator |                  |
|---------------------|-------------|--------------------------------------------------------|------------------|
|                     |             | Plug                                                   | Receptacle       |
| 2.9 - 4.0           | 4.0         | E3 104.3/4.0 + B                                       | E3 104.4/4.0 + C |
| 4.0 - 4.7           | 4.7         | E3 104.3/4.7 + B                                       | E3 104.4/4.7 + C |
| 4.7 - 5.7           | 5.7         | E3 104.3/5.7 + B                                       | E3 104.4/5.7 + C |

| Cable dia.<br>Range | Collet<br>Ø | Cable Clamp Set <sup>1)</sup><br>PEEK or PBT Insulator |                  |
|---------------------|-------------|--------------------------------------------------------|------------------|
|                     |             | Plug                                                   | Receptacle       |
| 5.7 - 6.7           | 6.7         | E3 104.3/6.7 + B                                       | E3 104.4/6.7 + C |
| 6.7 - 7.7           | 7.7         | E3 104.3/7.7 + B                                       | E3 104.4/7.7 + C |
| 7.7 - 8.7           | 8.7         | E3 104.3/8.7 + B                                       | E3 104.4/8.7 + C |
| 8.7 - 9.1           | 9.1         | E3 104.3/9.1 + B                                       | E3 104.4/9.1 + C |

### ■ U - Unshielded

Unshielded, one-piece cable clamp.

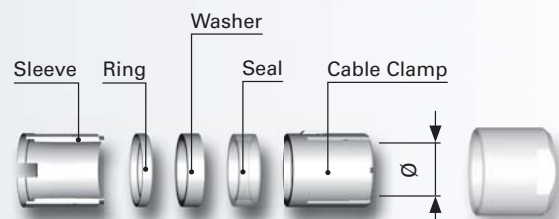


| Cable dia.<br>Range | Collet<br>Ø | Cable Clamp Set <sup>1)</sup><br>PEEK or PBT Insulator |
|---------------------|-------------|--------------------------------------------------------|
| 3.2 - 4.2           | 4.2         | E3 104.6/4.2                                           |
| 4.2 - 4.7           | 4.7         | E3 104.6/4.7                                           |
| 4.7 - 5.7           | 5.7         | E3 104.6/5.7                                           |
| 5.7 - 6.7           | 6.7         | E3 104.6/6.7                                           |

| Cable dia.<br>Range | Collet<br>Ø | Cable Clamp Set <sup>1)</sup><br>PEEK or PBT Insulator |
|---------------------|-------------|--------------------------------------------------------|
| 6.7 - 7.7           | 7.7         | E3 104.6/7.7                                           |
| 7.7 - 8.2           | 8.2         | E3 104.6/8.2                                           |
| 8.2 - 8.7           | 8.7         | E3 104.6/8.7                                           |

### ■ E - Environmental

Environmentally sealed clamp for use with shielded or unshielded cables.



| Cable dia.<br>Range | Collet<br>Ø | Cable Clamp Set <sup>1)</sup><br>PEEK or PBT Insulator |                  |
|---------------------|-------------|--------------------------------------------------------|------------------|
|                     |             | Plug                                                   | Receptacle       |
| 2.9 - 4.0           | 4.0         | E3 104.2/4.0 + B                                       | E3 104.2/4.0 + C |
| 4.0 - 4.7           | 4.7         | E3 104.2/4.7 + B                                       | E3 104.2/4.7 + C |
| 4.7 - 5.7           | 5.7         | E3 104.2/5.7 + B                                       | E3 104.2/5.7 + C |

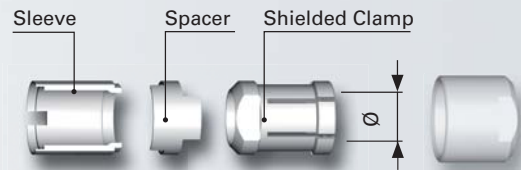
| Cable dia.<br>Range | Collet<br>Ø | Cable Clamp Set <sup>1)</sup><br>PEEK or PBT Insulator |                  |
|---------------------|-------------|--------------------------------------------------------|------------------|
|                     |             | Plug                                                   | Receptacle       |
| 5.7 - 6.7           | 6.7         | E3 104.2/6.7 + B                                       | E3 104.2/6.7 + C |
| 6.7 - 7.7           | 7.7         | E3 104.2/7.7 + B                                       | E3 104.2/7.7 + C |
| 7.7 - 8.7           | 8.7         | E3 104.2/8.7 + B                                       | E3 104.2/8.7 + C |

<sup>1)</sup> For ordering information see Page 4-11-1.

## 105 Series

### ■ S - Shielded

Shielded cable clamp  
with spacer and sleeve.

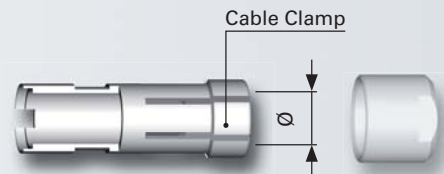


| Cable dia.<br>Range | Collet Ø | Cable Clamp Set <sup>1)</sup><br>PEEK or PBT Insulator |
|---------------------|----------|--------------------------------------------------------|
| 3.2 - 4.2           | 4.2      | E3 105.1/4.2 + B                                       |
| 4.2 - 5.2           | 5.2      | E3 105.1/5.2 + B                                       |
| 5.2 - 6.2           | 6.2      | E3 105.1/6.2 + B                                       |
| 6.2 - 7.2           | 7.2      | E3 105.1/7.2 + B                                       |

| Cable dia.<br>Range | Collet Ø | Cable Clamp Set <sup>1)</sup><br>PEEK or PBT Insulator |
|---------------------|----------|--------------------------------------------------------|
| 7.2 - 8.2           | 8.2      | E3 105.1/8.2 + B                                       |
| 8.2 - 9.2           | 9.2      | E3 105.1/9.2 + B                                       |
| 9.2 - 10.0          | 10.0     | E3 105.1/10.0 + B                                      |
| 10.0 - 10.7         | 10.7     | E3 105.1/10.7 + B                                      |

### ■ U - Unshielded

Unshielded, one-piece  
cable clamp.

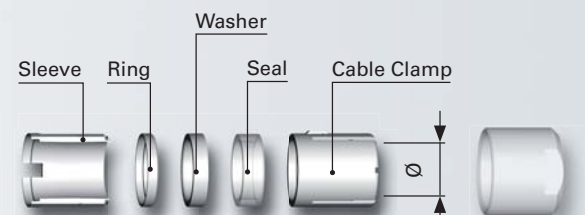


| Cable dia.<br>Range | Collet Ø | Cable Clamp Set <sup>1)</sup><br>PEEK or PBT Insulator |
|---------------------|----------|--------------------------------------------------------|
| 2.5 - 3.5           | 3.5      | E3 105.6/3.5                                           |
| 3.5 - 4.5           | 4.5      | E3 105.6/4.5                                           |
| 4.5 - 5.5           | 5.5      | E3 105.6/5.5                                           |
| 5.5 - 6.5           | 6.5      | E3 105.6/6.5                                           |

| Cable dia.<br>Range | Collet Ø | Cable Clamp Set <sup>1)</sup><br>PEEK or PBT Insulator |
|---------------------|----------|--------------------------------------------------------|
| 6.5 - 7.5           | 7.5      | E3 105.6/7.5                                           |
| 7.5 - 8.5           | 8.5      | E3 105.6/8.5                                           |
| 8.5 - 9.5           | 9.5      | E3 105.6/9.5                                           |
| 9.5 - 10.5          | 10.5     | E3 105.6/10.5                                          |

### ■ E - Environmental

Environmentally  
sealed clamp  
for use with shielded  
or unshielded cables.



| Cable dia.<br>Range | Collet Ø | Cable Clamp Set <sup>1)</sup><br>PEEK or PBT Insulator |
|---------------------|----------|--------------------------------------------------------|
| 3.2 - 4.2           | 4.2      | E31 105.2/4.2 + B                                      |
| 4.2 - 5.2           | 5.2      | E31 105.2/5.2 + B                                      |
| 5.2 - 6.2           | 6.2      | E31 105.2/6.2 + B                                      |
| 6.2 - 7.2           | 7.2      | E31 105.2/7.2 + B                                      |

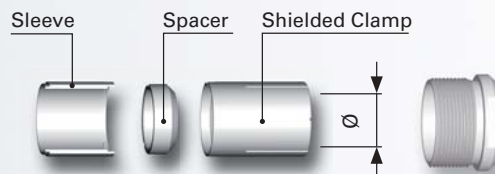
| Cable dia.<br>Range | Collet Ø | Cable Clamp Set <sup>1)</sup><br>PEEK or PBT Insulator |
|---------------------|----------|--------------------------------------------------------|
| 7.2 - 8.2           | 8.2      | E31 105.2/8.2 + B                                      |
| 8.2 - 9.2           | 9.2      | E31 105.2/9.2 + B                                      |
| 9.2 - 10.0          | 10.0     | E31 105.2/10.0 + B                                     |
| 10.0 - 10.7         | 10.7     | E31 105.2/10.7 + B                                     |

<sup>1)</sup> For ordering information see Page 4-11-1.

## 106 Series

### ■ S - Shielded

Shielded cable clamp with spacer and sleeve.



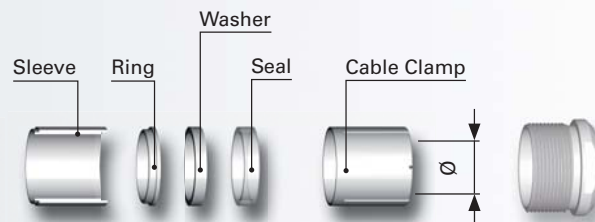
| Cable dia.<br>Range | Collet<br>Ø | Cable Clamp Set <sup>1)</sup><br>PTFE Insulator |               |
|---------------------|-------------|-------------------------------------------------|---------------|
|                     |             | Plug                                            | Receptacle    |
| 4.2 - 5.2           | 5.2         | E3 106.1/5.2                                    | E3 106.3/5.2  |
| 5.2 - 6.2           | 6.2         | E3 106.1/6.2                                    | E3 106.3/6.2  |
| 6.2 - 7.2           | 7.2         | E3 106.1/7.2                                    | E3 106.3/7.2  |
| 7.2 - 8.2           | 8.2         | E3 106.1/8.2                                    | E3 106.3/8.2  |
| 8.2 - 9.2           | 9.2         | E3 106.1/9.2                                    | E3 106.3/9.2  |
| 9.2 - 10.2          | 10.2        | E3 106.1/10.2                                   | E3 106.3/10.2 |
| 10.2 - 11.2         | 11.2        | E3 106.1/11.2                                   | E3 106.3/11.2 |
| 11.2 - 12.2         | 12.2        | E3 106.1/12.2                                   | E3 106.3/12.2 |

Shielded cable clamps with washers and sleeves.

| Cable dia.<br>Range | Collet<br>Ø | Cable Clamp Set <sup>1)</sup><br>PTFE Insulator |               |
|---------------------|-------------|-------------------------------------------------|---------------|
|                     |             | Plug                                            | Receptacle    |
| 12.2 - 13.2         | 13.2        | E3 106.1/13.2                                   | E3 106.3/13.2 |
| 13.2 - 14.2         | 14.2        | E3 106.1/14.2                                   | E3 106.3/14.2 |
| 14.2 - 15.2         | 15.2        | E3 106.1/15.2                                   | E3 106.3/15.2 |
| 15.2 - 16.2         | 16.2        | E3 106.1/16.2                                   | E3 106.3/16.2 |
| 16.2 - 17.2         | 17.2        | E3 106.1/17.2                                   | E3 106.3/17.2 |
| 17.2 - 18.2         | 18.2        | E3 106.1/18.2                                   | E3 106.3/18.2 |
| 18.2 - 19.2         | 19.2        | E3 106.1/19.2                                   | E3 106.3/19.2 |

### ■ E - Environmental

Environmentally sealed clamp for use with shielded or unshielded cables.



| Cable dia.<br>Range | Collet<br>Ø | Cable Clamp Set <sup>1)</sup><br>PTFE Insulator |               |
|---------------------|-------------|-------------------------------------------------|---------------|
|                     |             | Plug                                            | Receptacle    |
| 4.2 - 5.2           | 5.2         | E3 106.2/5.2                                    | E3 106.4/5.2  |
| 5.2 - 6.2           | 6.2         | E3 106.2/6.2                                    | E3 106.4/6.2  |
| 6.2 - 7.2           | 7.2         | E3 106.2/7.2                                    | E3 106.4/7.2  |
| 7.2 - 8.2           | 8.2         | E3 106.2/8.2                                    | E3 106.4/8.2  |
| 8.2 - 9.2           | 9.2         | E3 106.2/9.2                                    | E3 106.4/9.2  |
| 9.2 - 10.2          | 10.2        | E3 106.2/10.2                                   | E3 106.4/10.2 |
| 10.2 - 11.2         | 11.2        | E3 106.2/11.2                                   | E3 106.4/11.2 |
| 11.2 - 12.2         | 12.2        | E3 106.2/12.2                                   | E3 106.4/12.2 |

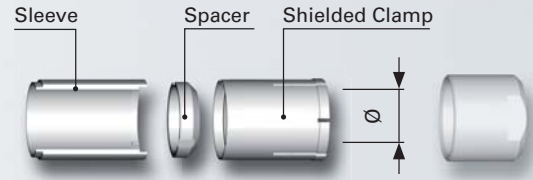
| Cable dia.<br>Range | Collet<br>Ø | Cable Clamp Set <sup>1)</sup><br>PTFE Insulator |               |
|---------------------|-------------|-------------------------------------------------|---------------|
|                     |             | Plug                                            | Receptacle    |
| 12.2 - 13.2         | 13.2        | E3 106.2/13.2                                   | E3 106.4/13.2 |
| 13.2 - 14.2         | 14.2        | E3 106.2/14.2                                   | E3 106.4/14.2 |
| 14.2 - 15.2         | 15.2        | E3 106.2/15.2                                   | E3 106.4/15.2 |
| 15.2 - 16.2         | 16.2        | E3 106.2/16.2                                   | E3 106.4/16.2 |
| 16.2 - 17.2         | 17.2        | E3 106.2/17.2                                   | E3 106.4/17.2 |
| 17.2 - 18.2         | 18.2        | E3 106.2/18.2                                   | E3 106.4/18.2 |
| 18.2 - 19.2         | 19.2        | E3 106.2/19.2                                   | E3 106.4/19.2 |

<sup>1)</sup> For ordering information see Page 4-11-1.

## 107 Series

### ■ S - Shielded

Shielded cable clamp with spacer and sleeve.

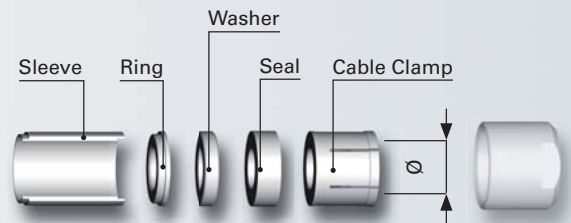


| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> PTFE insulator |
|------------------|----------|----------------------------------------------|
| 5.7 - 7.2        | 7.2      | E3 107.1/7.2                                 |
| 7.2 - 8.2        | 8.2      | E3 107.1/8.2                                 |
| 8.2 - 9.2        | 9.2      | E3 107.1/9.2                                 |
| 9.2 - 10.2       | 10.2     | E3 107.1/10.2                                |
| 10.2 - 11.2      | 11.2     | E3 107.1/11.2                                |
| 11.2 - 12.2      | 12.2     | E3 107.1/12.2                                |
| 12.2 - 13.2      | 13.2     | E3 107.1/13.2                                |
| 13.2 - 14.2      | 14.2     | E3 107.1/14.2                                |

| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> PTFE insulator |
|------------------|----------|----------------------------------------------|
| 14.2 - 15.2      | 15.2     | E3 107.1/15.2                                |
| 15.2 - 16.2      | 16.2     | E3 107.1/16.2                                |
| 16.2 - 17.2      | 17.2     | E3 107.1/17.2                                |
| 17.2 - 18.2      | 18.2     | E3 107.1/18.2                                |
| 18.2 - 19.2      | 19.2     | E3 107.1/19.2                                |
| 19.2 - 20.2      | 20.2     | E3 107.1/20.2                                |
| 20.2 - 21.2      | 21.2     | E3 107.1/21.2                                |
| 21.2 - 22.7      | 22.7     | E3 107.1/22.7                                |

### ■ E - Environmental

Environmentally sealed clamp for use with shielded or unshielded cables.



| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> PTFE insulator |
|------------------|----------|----------------------------------------------|
| 5.7 - 7.2        | 7.2      | E3 107.2/7.2                                 |
| 7.2 - 8.2        | 8.2      | E3 107.2/8.2                                 |
| 8.2 - 9.2        | 9.2      | E3 107.2/9.2                                 |
| 9.2 - 10.2       | 10.2     | E3 107.2/10.2                                |
| 10.2 - 11.2      | 11.2     | E3 107.2/11.2                                |
| 11.2 - 12.2      | 12.2     | E3 107.2/12.2                                |
| 12.2 - 13.2      | 13.2     | E3 107.2/13.2                                |
| 13.2 - 14.2      | 14.2     | E3 107.2/14.2                                |

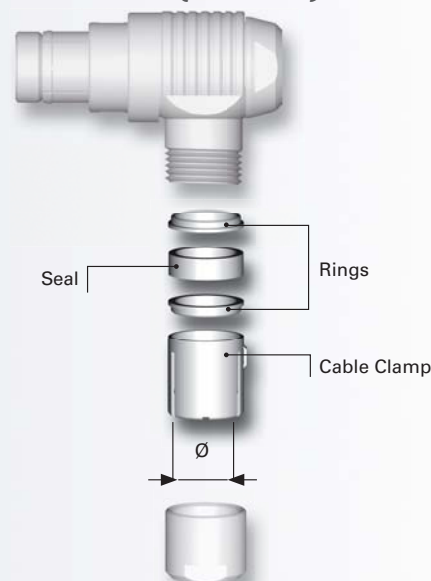
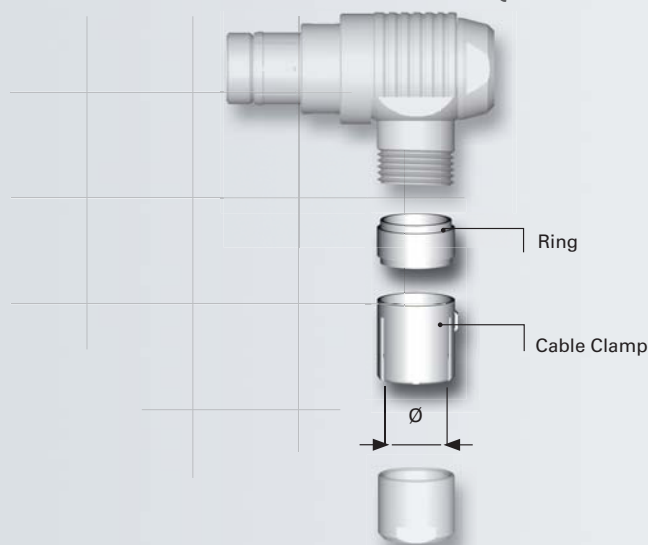
| Cable dia. Range | Collet Ø | Cable Clamp Set <sup>1)</sup> PTFE insulator |
|------------------|----------|----------------------------------------------|
| 14.2 - 15.2      | 15.2     | E3 107.2/15.2                                |
| 15.2 - 16.2      | 16.2     | E3 107.2/16.2                                |
| 16.2 - 17.2      | 17.2     | E3 107.2/17.2                                |
| 17.2 - 18.2      | 18.2     | E3 107.2/18.2                                |
| 18.2 - 19.2      | 19.2     | E3 107.2/19.2                                |
| 19.2 - 20.2      | 20.2     | E3 107.2/20.2                                |
| 20.2 - 21.2      | 21.2     | E3 107.2/21.2                                |
| 21.2 - 22.7      | 22.7     | E3 107.2/22.7                                |

<sup>1)</sup> For ordering information see Page 4-11-1.

## WSO 102, 103, 1031, 104 and 105 Series

■ **S-Shielded or U-Unshielded (Unsealed)**

■ **E-Environmental (Sealed)**



| Series     | Cable dia. Range | Clamp Ø | Cable Clamp Set <sup>1)</sup> |               |
|------------|------------------|---------|-------------------------------|---------------|
|            |                  |         | Unsealed                      | Sealed        |
| <b>102</b> | 1.5 - 2.1        | 2.1     | E3 102.12/2.1                 | E3 102.13/2.1 |
|            | 2.1 - 2.6        | 2.6     | E3 102.12/2.6                 | E3 102.13/2.6 |
|            | 2.6 - 3.1        | 3.1     | E3 102.12/3.1                 | E3 102.13/3.1 |
|            | 3.1 - 3.6        | 3.6     | E3 102.12/3.6                 | E3 102.13/3.6 |
|            | 3.6 - 4.1        | 4.1     | E3 102.12/4.1                 | E3 102.13/4.1 |
|            | 4.1 - 4.3        | 4.3     | E3 102.12/4.3                 | E3 102.13/4.3 |
|            | 4.3 - 4.7        | 4.7     | E3 102.12/4.7                 | -             |
| <b>103</b> | 1.7 - 2.2        | 2.2     | E3 103.12/2.2                 | E3 103.13/2.2 |
|            | 2.2 - 2.7        | 2.7     | E3 103.12/2.7                 | E3 103.13/2.7 |
|            | 2.7 - 3.2        | 3.2     | E3 103.12/3.2                 | E3 103.13/3.2 |
|            | 3.2 - 3.7        | 3.7     | E3 103.12/3.7                 | E3 103.13/3.7 |
|            | 3.7 - 4.2        | 4.2     | E3 103.12/4.2                 | E3 103.13/4.2 |
|            | 4.2 - 4.7        | 4.7     | E3 103.12/4.7                 | E3 103.13/4.7 |
|            | 4.7 - 5.2        | 5.2     | E3 103.12/5.2                 | E3 103.13/5.2 |
|            | 5.2 - 5.7        | 5.7     | E3 103.12/5.7                 | E3 103.13/5.7 |
|            | 5.7 - 6.2        | 6.2     | E3 103.12/6.2                 | E3 103.13/6.2 |
|            | 6.2 - 6.7        | 6.7     | E3 103.12/6.7                 | -             |

| Series      | Cable dia. Range | Clamp Ø | Cable Clamp Set <sup>1)</sup> |                |
|-------------|------------------|---------|-------------------------------|----------------|
|             |                  |         | Unsealed                      | Sealed         |
| <b>1031</b> | 2.2 - 2.7        | 2.7     | E3 1031.12/2.7                | E3 1031.13/2.7 |
|             | 2.7 - 3.2        | 3.2     | E3 1031.12/3.2                | E3 1031.13/3.2 |
|             | 3.2 - 3.7        | 3.7     | E3 1031.12/3.7                | E3 1031.13/3.7 |
|             | 3.7 - 4.2        | 4.2     | E3 1031.12/4.2                | E3 1031.13/4.2 |
|             | 4.2 - 4.7        | 4.7     | E3 1031.12/4.7                | E3 1031.13/4.7 |
|             | 4.7 - 5.2        | 5.2     | E3 1031.12/5.2                | E3 1031.13/5.2 |
|             | 5.2 - 5.7        | 5.7     | E3 1031.12/5.7                | E3 1031.13/5.7 |
|             | 5.7 - 6.2        | 6.2     | E3 1031.12/6.2                | E3 1031.13/6.2 |
|             | 6.2 - 6.7        | 6.7     | E3 1031.12/6.7                | E3 1031.13/6.7 |
|             | 6.7 - 7.2        | 7.2     | E3 1031.12/7.2                | -              |
| <b>104</b>  | 2.9 - 4.0        | 4.0     | E3 104.12/4.0                 | E3 104.13/4.0  |
|             | 4.0 - 4.7        | 4.7     | E3 104.12/4.7                 | E3 104.13/4.7  |
|             | 4.7 - 5.7        | 5.7     | E3 104.12/5.7                 | E3 104.13/5.7  |
|             | 5.7 - 6.7        | 6.7     | E3 104.12/6.7                 | E3 104.13/6.7  |
|             | 6.7 - 7.7        | 7.7     | E3 104.12/7.7                 | E3 104.13/7.7  |
|             | 7.7 - 8.7        | 8.7     | E3 104.12/8.7                 | E3 104.13/8.7  |
| <b>105</b>  | 3.2 - 4.2        | 4.2     | E3 105.12/4.2                 | E3 105.13/4.2  |
|             | 4.2 - 5.2        | 5.2     | E3 105.12/5.2                 | E3 105.13/5.2  |
|             | 5.2 - 6.2        | 6.2     | E3 105.12/6.2                 | E3 105.13/6.2  |
|             | 6.2 - 7.2        | 7.2     | E3 105.12/7.2                 | E3 105.13/7.2  |
|             | 7.2 - 8.2        | 8.2     | E3 105.12/8.2                 | E3 105.13/8.2  |
|             | 8.2 - 9.2        | 9.2     | E3 105.12/9.2                 | E3 105.13/9.2  |
|             | 9.2 - 10.0       | 10.0    | E3 105.12/10.0                | E3 105.13/10.0 |
|             | 10.0 - 10.7      | 10.7    | E3 105.12/10.7                | E3 105.13/10.7 |

<sup>1)</sup> For ordering information see Page 4-11-1

