

# M5 to M12 circular plug-in connectors

## Sensor/actuator device plug-in connectors

A comprehensive range of M5, M8, and M12 flush-type plug-in connectors and panel feed-throughs has emerged as a result of the various requirements for sensor/actuator device connection technology in industrial environments. Customer-specific developments enable optimum adaptation to individual device concepts.

## Sensor/actuator plug-in connectors for assembly

Safe and efficient assembly is of utmost importance in field wiring. The 5 selection options of the connection technology enable precise adaptation to the respective application or requirements in the field. The plug-in connectors for assembly are available in various versions, unshielded and EMC-compliant.

## Sensor/actuator device plug-in connectors

|                                    |     |
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## Sensor/actuator plug-in connectors for assembly

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## M12 power plug-in connectors

|                                                          |     |
|----------------------------------------------------------|-----|
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## Accessories

|                 |     |
|-----------------|-----|
| Pin assignments | 298 |
|-----------------|-----|

### M5, front/rear mounting

Flat nut recommended for housing wall thicknesses < 2.5 mm.



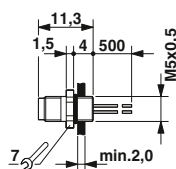
**Front mounting,  
with 0.5 m long litz wires**



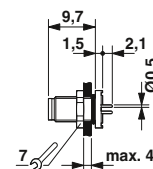
**Rear mounting, one-piece, straight,  
for wave soldering processes**



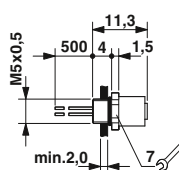
|                                             | Technical data   |               |                  |           | Technical data  |           |                 |           |             |
|---------------------------------------------|------------------|---------------|------------------|-----------|-----------------|-----------|-----------------|-----------|-------------|
|                                             | 3-pos.           |               | 4-pos.           |           | 3-pos.          |           | 4-pos.          |           |             |
| General data                                |                  |               |                  |           |                 |           |                 |           |             |
| M5 circular plug-in connector according to: | IEC 61076-2-105  |               | IEC 61076-2-105  |           | IEC 61076-2-105 |           | IEC 61076-2-105 |           |             |
| Pollution degree                            | 3                |               | 3                |           | 3               |           | 3               |           |             |
| Degree of protection                        | IP67             |               | IP67             |           | IP67            |           | IP67            |           |             |
| Connection method                           | Individual wires |               | Individual wires |           | Solder pins     |           | Solder pins     |           |             |
| Electrical data                             |                  |               |                  |           |                 |           |                 |           |             |
| Rated voltage                               | 60 V             |               | 60 V             |           | 60 V            |           | 60 V            |           |             |
| Rated current                               | 1 A              |               | 1 A              |           | 1 A             |           | 1 A             |           |             |
| Volume resistance                           | ≤ 3 mΩ           |               | ≤ 3 mΩ           |           | ≤ 3 mΩ          |           | ≤ 3 mΩ          |           |             |
| Material data                               |                  |               |                  |           |                 |           |                 |           |             |
| Material contact / contact surface          | CuSn / Au        |               | CuSn / Au        |           | CuSn / Au       |           | CuSn / Au       |           |             |
| Contact carrier material                    | PA 66            |               | PA 66            |           | PA 66           |           | PA 66           |           |             |
| Inflammability class according to UL 94     | HB               |               | HB               |           | HB              |           | HB              |           |             |
| Cable type                                  | TPE litz wire    |               | TPE litz wire    |           | -               |           | -               |           |             |
| Temperature data                            |                  |               |                  |           |                 |           |                 |           |             |
| Plug / socket                               | [°C]             |               | -25 ... 85       |           | -25 ... 80      |           | -25 ... 85      |           |             |
|                                             |                  |               |                  |           |                 |           |                 |           |             |
| Ordering data                               |                  |               |                  |           |                 |           |                 |           |             |
| Description                                 |                  | Coding        |                  | Order No. | Pcs. / Pkt.     | Order No. | Pcs. / Pkt.     | Order No. | Pcs. / Pkt. |
|                                             |                  |               |                  | 3-pos.    | 4-pos.          | 3-pos.    | 4-pos.          | 3-pos.    | 4-pos.      |
| Device plug-in connectors                   |                  |               |                  |           |                 |           |                 |           |             |
| Socket                                      | A - standard     | 1530605       | 1                | 1530618   | 1               | 1530647   | 20              | 1530650   | 20          |
| Plug                                        | A - standard     | 1530582       | 1                | 1530595   | 1               | 1530621   | 20              | 1530634   | 20          |
|                                             |                  |               |                  |           |                 |           |                 |           |             |
| Accessories                                 |                  |               |                  |           |                 |           |                 |           |             |
| Flat nut, with:                             |                  |               |                  |           |                 |           |                 |           |             |
| M5 thread                                   |                  | SACC-E-MU-M 5 |                  |           | 1535901         | 100       |                 |           |             |



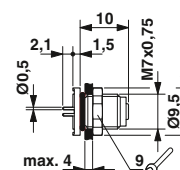
### M5 flush-type plug



**M5 flush-type plug, one-piece**



**M5 flush-type socket**



**M5 flush-type socket, one-piece**

# M5 to M12 circular plug-in connectors

## M5/M8 sensor/actuator device plug-in connectors

**M8, front mounting,  
with 0.5 m long litz wires**



M8, 3, 4, 5-pos.



M8, 6, 8-pos.



| Technical data                              |                  |                  |                  |
|---------------------------------------------|------------------|------------------|------------------|
| 3-pos.                                      | 4-pos.           | 5-pos.           |                  |
| General data                                |                  |                  |                  |
| M8 circular plug-in connector according to: | IEC 61076-2-104  | IEC 61076-2-104  | IEC 61076-2-104  |
| Pollution degree                            | 3                | 3                | 3                |
| Degree of protection                        | IP67             | IP67             | IP67             |
| Connection method                           | Individual wires | Individual wires | Individual wires |
| Electrical data                             |                  |                  |                  |
| Rated voltage                               | 60 V             | 30 V             | 30 V             |
| Rated current                               | 4 A              | 4 A              | 3 A              |
| Volume resistance                           | ≤ 3 mΩ           | ≤ 3 mΩ           | ≤ 3 mΩ           |
| Material data                               |                  |                  |                  |
| Material contact / contact surface          | Cu alloy / Au    | Cu alloy / Au    | Cu alloy / Au    |
| Contact carrier material                    | PA 66            | PA 66            | PA 66            |
| Inflammability class according to UL 94     | HB               | HB               | HB               |
| Cable type                                  | TPE litz wire    | TPE litz wire    | PVC litz wire    |
| Temperature data                            |                  |                  |                  |
| Plug / socket                               | -25 ... 85       | -25 ... 85       | -25 ... 85       |



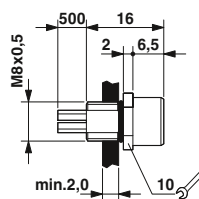
| Technical data                              |                  |                  |       |
|---------------------------------------------|------------------|------------------|-------|
| 6-pos.                                      | 8-pos.           |                  |       |
| General data                                |                  |                  |       |
| M8 circular plug-in connector according to: | IEC 61076-2-104  | IEC 61076-2-104  | -     |
| Pollution degree                            | 3                | 3                | -     |
| Degree of protection                        | IP67             | IP67             | -     |
| Connection method                           | Individual wires | Individual wires | -     |
| Electrical data                             |                  |                  |       |
| Rated voltage                               | 30 V             | 30 V             | -     |
| Rated current                               | 2 A              | 1.5 A            | -     |
| Volume resistance                           | ≤ 3 mΩ           | ≤ 3 mΩ           | -     |
| Material data                               |                  |                  |       |
| Material contact / contact surface          | Cu alloy / Au    | Cu alloy / Au    | - / - |
| Contact carrier material                    | PA 66            | PA 66            | -     |
| Inflammability class according to UL 94     | HB               | HB               | -     |
| Cable type                                  | TPE litz wire    | PVC litz wire    | -     |
| Temperature data                            |                  |                  |       |
| Plug / socket                               | -25 ... 85       | -25 ... 85       | -     |

| Ordering data |             |           |             |           |             |
|---------------|-------------|-----------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 3-pos.        |             | 4-pos.    |             | 5-pos.    |             |
| 1500350       | 1           | 1500363   | 1           |           |             |
| 1500334       | 1           | 1500347   | 1           |           |             |
|               |             |           |             | 1424233   | 1           |
|               |             |           |             | 1424234   | 1           |

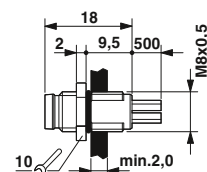
| Ordering data |             |           |             |           |             |
|---------------|-------------|-----------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 6-pos.        |             | 8-pos.    |             |           |             |
| 1542677       | 1           | 1424231   | 1           |           |             |
| 1542664       | 1           | 1424232   | 1           |           |             |

| Accessories   |         |     |  |
|---------------|---------|-----|--|
| SACC-E-MU-M 8 | 1504071 | 100 |  |

| Accessories   |         |     |  |
|---------------|---------|-----|--|
| SACC-E-MU-M 8 | 1504071 | 100 |  |



M8 flush-type socket



M8 flush-type plug

M5 to M12 circular plug-in connectors

M5/M8 sensor/actuator device plug-in connectors

M8, rear mounting, one-piece, straight, for wave soldering processes



M8, 3, 4-pos.



M8, 6, 8-pos.



| Technical data                              |                 |
|---------------------------------------------|-----------------|
| General data                                |                 |
| M8 circular plug-in connector according to: | IEC 61076-2-104 |
| Pollution degree                            | 3               |
| Degree of protection                        | IP67            |
| Connection method                           | Solder pins     |
| Electrical data                             |                 |
| Rated voltage                               | 60 V            |
| Rated current                               | 4 A             |
| Volume resistance                           | ≤ 3 mΩ          |
| Material data                               |                 |
| Material contact / contact surface          | CuSn / Au       |
| Contact carrier material                    | PA 66           |
| Inflammability class according to UL 94     | HB              |
| Temperature data                            |                 |
| Plug / socket                               | -25 ... 85 [°C] |

| Technical data  |                 |
|-----------------|-----------------|
| 3-pos.          | 4-pos.          |
| IEC 61076-2-104 | IEC 61076-2-104 |
| 3               | 3               |
| IP67            | IP67            |
| Solder pins     | Solder pins     |
| 60 V            | 30 V            |
| 4 A             | 4 A             |
| ≤ 3 mΩ          | ≤ 3 mΩ          |
| CuSn / Au       | CuSn / Au       |
| PA 66           | PA 66           |
| HB              | HB              |
| -25 ... 85      | -25 ... 85      |

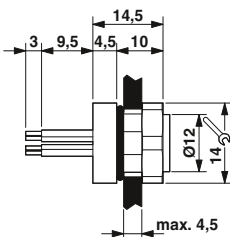
| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 3-pos.        |             | 4-pos.    |             |
| 1694363       | 20          | 1694376   | 20          |
| 1694334       | 20          | 1694347   | 20          |



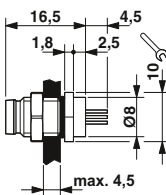
| Technical data  |                 |
|-----------------|-----------------|
| 6-pos.          | 8-pos.          |
| IEC 61076-2-104 | IEC 61076-2-104 |
| 3               | 3               |
| IP67            | IP67            |
| Solder pins     | Solder pins     |
| 30 V            | 30 V            |
| 1.5 A           | 1.5 A           |
| ≤ 3 mΩ          | ≤ 3 mΩ          |
| CuSn / Au       | CuSn / Au       |
| PA 66           | PA 66           |
| HB              | HB              |
| -25 ... 85      | -25 ... 85      |

| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 6-pos.        |             | 8-pos.    |             |
| 1436534       | 20          | 1424237   | 20          |
| 1436521       | 20          | 1424238   | 20          |

| Description               | Coding       |
|---------------------------|--------------|
| Device plug-in connectors |              |
| Socket                    | A - standard |
| Plug                      | A - standard |



M8 flush-type socket



M8 flush-type plug

# M5 to M12 circular plug-in connectors

## M5/M8 sensor/actuator device plug-in connectors

**M8, rear mounting,  
with 0.5 m long litz wires**



3, 4-pos.



6, 8-pos.



| Technical data                              |                  |                  |
|---------------------------------------------|------------------|------------------|
|                                             | 3-pos.           | 4-pos.           |
| General data                                |                  |                  |
| M8 circular plug-in connector according to: | IEC 61076-2-104  | IEC 61076-2-104  |
| Pollution degree                            | 3                | 3                |
| Degree of protection                        | IP67             | IP67             |
| Connection method                           | Individual wires | Individual wires |
| Electrical data                             |                  |                  |
| Rated voltage                               | 60 V             | 30 V             |
| Rated current                               | 4 A              | 4 A              |
| Volume resistance                           | ≤ 3 mΩ           | ≤ 3 mΩ           |
| Material data                               |                  |                  |
| Material contact / contact surface          | Cu alloy / Au    | Cu alloy / Au    |
| Contact carrier material                    | PUR / PA66       | PUR / PA66       |
| Inflammability class according to UL 94     | HB               | HB               |
| Cable type                                  | TPE litz wire    | TPE litz wire    |
| Temperature data                            |                  |                  |
| Plug / socket                               | [-25 ... 85 °C]  | [-25 ... 85 °C]  |
| Cable, fixed installation                   | [-25 ... 90 °C]  | [-25 ... 90 °C]  |

| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 3-pos.        |             | 4-pos.    |             |
| 1453478       | 1           | 1453481   | 1           |
| 1456080       | 1           | 1456093   | 1           |
| 1453449       | 1           | 1453452   | 1           |

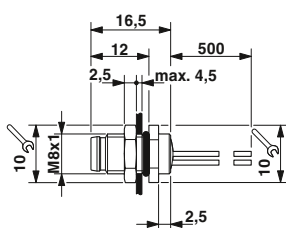
| Accessories                  |               |             |
|------------------------------|---------------|-------------|
| Flat nut, with:<br>M8 thread | SACC-E-MU-M 8 | 1504071 100 |



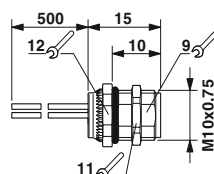
| Technical data                              |                  |                  |
|---------------------------------------------|------------------|------------------|
|                                             | 6-pos.           | 8-pos.           |
| General data                                |                  |                  |
| M8 circular plug-in connector according to: | IEC 61076-2-104  | IEC 61076-2-104  |
| Pollution degree                            | 3                | 3                |
| Degree of protection                        | IP67             | IP67             |
| Connection method                           | Individual wires | Individual wires |
| Electrical data                             |                  |                  |
| Rated voltage                               | 30 V             | 30 V             |
| Rated current                               | 2 A              | 1.5 A            |
| Volume resistance                           | ≤ 3 mΩ           | ≤ 3 mΩ           |
| Material data                               |                  |                  |
| Material contact / contact surface          | Cu alloy / Au    | Cu alloy / Au    |
| Contact carrier material                    | PUR / PA66       | PUR / PA66       |
| Inflammability class according to UL 94     | HB               | HB               |
| Cable type                                  | TPE litz wire    | PVC litz wire    |
| Temperature data                            |                  |                  |
| Plug / socket                               | [-25 ... 85 °C]  | [-25 ... 85 °C]  |
| Cable, fixed installation                   | [-25 ... 90 °C]  | [-25 ... 85 °C]  |

| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 6-pos.        |             | 8-pos.    |             |
| 1453494       | 1           | 1424230   | 1           |
| 1456103       | 1           | 1424229   | 1           |
| 1453465       | 1           |           |             |

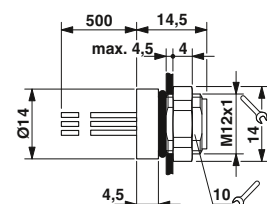
| Accessories                  |               |             |
|------------------------------|---------------|-------------|
| Flat nut, with:<br>M8 thread | SACC-E-MU-M 8 | 1504071 100 |



M8 flush-type plug, M8 fastening thread



M8 flush-type socket, M10 fastening thread



M8 flush-type socket, M12 fastening thread

## M5 to M12 circular plug-in connectors

### M5/M8 sensor/actuator device plug-in connectors

**M8, rear mounting, two-piece,  
for wave soldering processes, shielded**

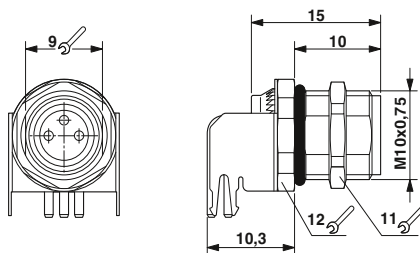


Angled, 3, 4-pos.

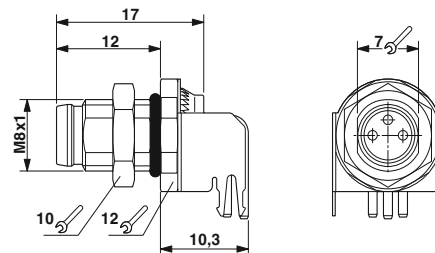


Angled, 5, 6-pos.

|                                             |              | Technical data  |                 | Technical data  |                 |
|---------------------------------------------|--------------|-----------------|-----------------|-----------------|-----------------|
|                                             |              | 3-pos.          | 4-pos.          | 5-pos.          | 6-pos.          |
| General data                                |              |                 |                 |                 |                 |
| M8 circular plug-in connector according to: |              | IEC 61076-2-104 | IEC 61076-2-104 | IEC 61076-2-104 | IEC 61076-2-104 |
| Pollution degree                            |              | 3               | 3               | 3               | 3               |
| Degree of protection                        |              | IP67            | IP67            | IP67            | IP67            |
| Connection method                           |              | Solder pins     | Solder pins     | Solder pins     | Solder pins     |
| Electrical data                             |              |                 |                 |                 |                 |
| Rated voltage                               |              | 30 V            | 30 V            | 30 V            | 30 V            |
| Rated current                               |              | 4 A             | 4 A             | 3 A             | 1.5 A           |
| Volume resistance                           |              | ≤ 3 mΩ          | ≤ 3 mΩ          | ≤ 3 mΩ          | ≤ 3 mΩ          |
| Material data                               |              |                 |                 |                 |                 |
| Material contact / contact surface          |              | Cu alloy / Au   | Cu alloy / Au   | Cu alloy / Au   | Cu alloy / Au   |
| Contact carrier material                    |              | PA 66           | PA 66           | PA 66           | PA 66           |
| Inflammability class according to UL 94     |              | HB              | HB              | HB              | HB              |
| Temperature data                            |              |                 |                 |                 |                 |
| Plug / socket                               |              | -25 ... 85      | -25 ... 85      | -25 ... 85      | -25 ... 85      |
|                                             |              | [°C]            |                 |                 |                 |
|                                             |              | Ordering data   |                 | Ordering data   |                 |
|                                             |              | Order No.       | Pcs. / Pkt.     | Order No.       | Pcs. / Pkt.     |
|                                             |              | 3-pos.          | 4-pos.          | 5-pos.          | 6-pos.          |
| <b>Device plug-in connectors</b>            |              |                 |                 |                 |                 |
| Socket                                      | A - standard | 1456145         | 20              | 1456158         | 20              |
| Plug                                        | A - standard | 1456035         | 20              | 1456048         | 20              |
| Socket                                      | B - inverse  |                 |                 | 1424239         | 20              |
| Plug                                        | B - inverse  |                 |                 | 1424240         | 20              |
|                                             |              |                 |                 | 1424243         | 20              |
|                                             |              |                 |                 | 1424244         | 20              |



M8 flush-type socket, angled



M8 flush-type plug, angled

## M5 to M12 circular plug-in connectors

### M5/M8 sensor/actuator device plug-in connectors

**M8, rear mounting, two-piece,  
for wave soldering processes, shielded**



Straight, 3, 4, 5-pos.



Straight, 6, 8-pos.



| Technical data                              |                          |                          |                          |
|---------------------------------------------|--------------------------|--------------------------|--------------------------|
| 3-pos.                                      | 4-pos.                   | 5-pos.                   |                          |
| General data                                |                          |                          |                          |
| M8 circular plug-in connector according to: | IEC 61076-2-104          | IEC 61076-2-104          | IEC 61076-2-104          |
| Pollution degree                            | 3                        | 3                        | 3                        |
| Degree of protection                        | IP67                     | IP67                     | IP67                     |
| Connection method                           | Solder pins              | Solder pins              | Solder pins              |
| Electrical data                             |                          |                          |                          |
| Rated voltage                               | 60 V                     | 30 V                     | 30 V                     |
| Rated current                               | 4 A                      | 4 A                      | 3 A                      |
| Volume resistance                           | $\leq 3 \text{ m}\Omega$ | $\leq 3 \text{ m}\Omega$ | $\leq 3 \text{ m}\Omega$ |
| Material data                               |                          |                          |                          |
| Material contact / contact surface          | Cu alloy / Au            | Cu alloy / Au            | Cu alloy / Au            |
| Contact carrier material                    | PA 66                    | PA 66                    | PA 66                    |
| Inflammability class according to UL 94     | HB                       | HB                       | HB                       |
| Temperature data                            |                          |                          |                          |
| Plug / socket                               | -25 ... 85               | -25 ... 85               | -25 ... 85               |

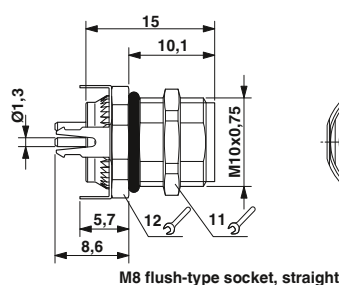
| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 3-pos.        |             | 4-pos.    |             |
| 1456116       | 20          | 1456129   | 20          |
| 1455997       | 20          | 1456019   | 20          |
|               |             | 1424241   | 20          |
|               |             | 1424242   | 20          |



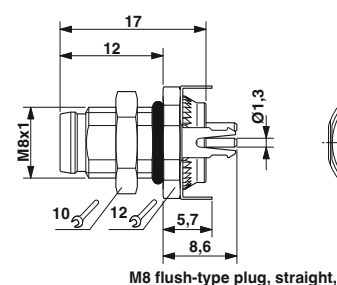
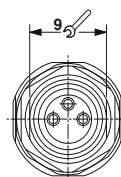
| Technical data           |                          |       |   |
|--------------------------|--------------------------|-------|---|
| 6-pos.                   | 8-pos.                   |       |   |
| General data             |                          |       |   |
| IEC 61076-2-104          | IEC 61076-2-104          | -     | - |
| 3                        | 3                        | -     | - |
| IP67                     | IP67                     | -     | - |
| Solder pins              | Solder pins              | -     | - |
| Electrical data          |                          |       |   |
| 30 V                     | 30 V                     | -     | - |
| 1.5 A                    | 1.5 A                    | -     | - |
| $\leq 3 \text{ m}\Omega$ | $\leq 3 \text{ m}\Omega$ | -     | - |
| Material data            |                          |       |   |
| Cu alloy / Au            | Cu alloy / Au            | - / - | - |
| PA 66                    | PA 66                    | -     | - |
| HB                       | HB                       | -     | - |
| Temperature data         |                          |       |   |
| -25 ... 85               | -25 ... 85               | -     | - |

| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 6-pos.        |             | 8-pos.    |             |
| 1456132       | 20          | 1424235   | 20          |
| 1456022       | 20          | 1424236   | 20          |

| Description                      | Coding       |
|----------------------------------|--------------|
| <b>Device plug-in connectors</b> |              |
| Socket                           | A - standard |
| Plug                             | A - standard |
| Socket                           | B - inverse  |
| Plug                             | B - inverse  |



M8 flush-type socket, straight



M8 flush-type plug, straight,

M5 to M12 circular plug-in connectors

M5/M8 sensor/actuator device plug-in connectors

M8, rear mounting, two-piece,  
for wave soldering processes,  
unshielded



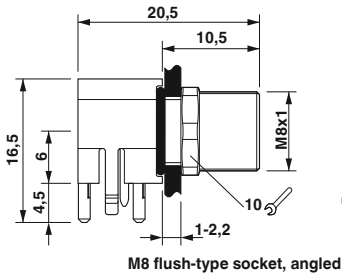
Angled, 3, 4-pos.



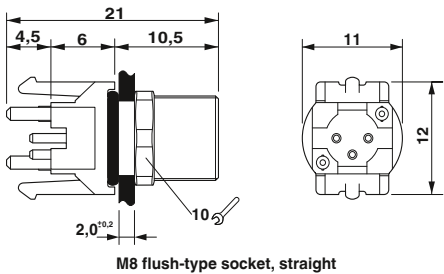
Straight, 3, 4-pos.



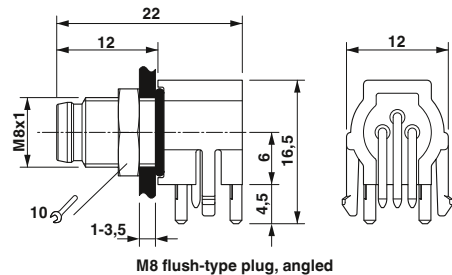
| Technical data                              |  |                 | Technical data                              |  |                 |
|---------------------------------------------|--|-----------------|---------------------------------------------|--|-----------------|
| 3-pos.                                      |  | 4-pos.          | 3-pos.                                      |  | 4-pos.          |
| General data                                |  |                 | General data                                |  |                 |
| M8 circular plug-in connector according to: |  | IEC 61076-2-104 | M8 circular plug-in connector according to: |  | IEC 61076-2-104 |
| Pollution degree                            |  | 3               | Pollution degree                            |  | 3               |
| Degree of protection                        |  | IP67            | Degree of protection                        |  | IP67            |
| Connection method                           |  | Solder pins     | Connection method                           |  | Solder pins     |
| Electrical data                             |  |                 | Electrical data                             |  |                 |
| Rated voltage                               |  | 60 V            | Rated voltage                               |  | 30 V            |
| Rated current                               |  | 4 A             | Rated current                               |  | 4 A             |
| Volume resistance                           |  | ≤ 3 mΩ          | Volume resistance                           |  | ≤ 3 mΩ          |
| Material data                               |  |                 | Material data                               |  |                 |
| Material contact / contact surface          |  | CuSn / Au       | Material contact / contact surface          |  | CuSn / Au       |
| Contact carrier material                    |  | PA 66           | Contact carrier material                    |  | PA 66           |
| Inflammability class according to UL 94     |  | HB              | Inflammability class according to UL 94     |  | HB              |
| Temperature data                            |  |                 | Temperature data                            |  |                 |
| Plug / socket                               |  | -25 ... 85      | Plug / socket                               |  | -25 ... 85      |
|                                             |  | [°C]            |                                             |  |                 |
| Ordering data                               |  |                 | Ordering data                               |  |                 |
| Order No.                                   |  | Pcs. / Pkt.     | Order No.                                   |  | Pcs. / Pkt.     |
| 3-pos.                                      |  |                 | 3-pos.                                      |  |                 |
| Device plug-in connectors                   |  |                 | Device plug-in connectors                   |  |                 |
| Socket                                      |  | A - standard    | Socket                                      |  | A - standard    |
| Plug                                        |  | A - standard    | Plug                                        |  | A - standard    |
| 1524788                                     |  | 20              | 1524776                                     |  | 20              |
| 1440070                                     |  | 20              | 1524789                                     |  | 20              |
| 1526169                                     |  | 20              | 1440096                                     |  | 20              |



M8 flush-type socket, angled



M8 flush-type socket, straight



M8 flush-type plug, angled



## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, front mounting

**Pg9 fastening thread,  
with 0.5 m long litz wires**



4, 5, 8-pos.



Can be positioned, 4, 5, 8-pos.



| Technical data                               |                  |                  |                  |
|----------------------------------------------|------------------|------------------|------------------|
|                                              | 4-pos.           | 5-pos.           | 8-pos.           |
| General data                                 |                  |                  |                  |
| M12 circular plug-in connector according to: | IEC 61076-2-101  | IEC 61076-2-101  | IEC 61076-2-101  |
| Pollution degree                             | 3                | 3                | 3                |
| Degree of protection                         | IP67             | IP67             | IP67             |
| Connection method                            | Individual wires | Individual wires | Individual wires |
| Electrical data                              |                  |                  |                  |
| Rated voltage                                | 250 V            | 60 V             | 30 V             |
| Rated current                                | 4 A              | 4 A              | 2 A              |
| Volume resistance                            | ≤ 3 mΩ           | ≤ 3 mΩ           | ≤ 3 mΩ           |
| Material data                                |                  |                  |                  |
| Material contact / contact surface           | CuZn / Ni/Au     | CuZn / Ni/Au     | CuZn / Ni/Au     |
| Contact carrier material                     | PA66             | PA66             | PA66             |
| Inflammability class according to UL 94      | V0               | V0               | V0               |
| Cable type                                   | TPE litz wire    | TPE litz wire    | TPE litz wire    |
| Temperature data                             |                  |                  |                  |
| Plug / socket                                | -25 ... 85       | -25 ... 85       | -25 ... 85       |

| Ordering data |             |           |             |           |             |
|---------------|-------------|-----------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 4-pos.        |             | 5-pos.    |             | 8-pos.    |             |
| 1693788       | 1           | 1671098   | 1           | 1513758   | 1           |
| 1693762       | 1           | 1671111   | 1           | 1513774   | 1           |

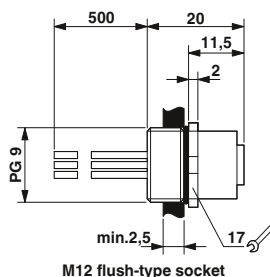
| Accessories                   |               |         |     |
|-------------------------------|---------------|---------|-----|
| Flat nut, with:<br>Pg9 thread | SACC-E-MU-PG9 | 1504084 | 100 |



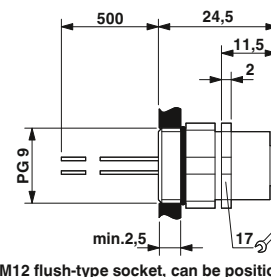
| Technical data                               |                  |                  |                  |
|----------------------------------------------|------------------|------------------|------------------|
|                                              | 4-pos.           | 5-pos.           | 8-pos.           |
| General data                                 |                  |                  |                  |
| M12 circular plug-in connector according to: | IEC 61076-2-101  | IEC 61076-2-101  | IEC 61076-2-101  |
| Pollution degree                             | 3                | 3                | 3                |
| Degree of protection                         | IP67             | IP67             | IP67             |
| Connection method                            | Individual wires | Individual wires | Individual wires |
| Electrical data                              |                  |                  |                  |
| Rated voltage                                | 250 V            | 60 V             | 30 V             |
| Rated current                                | 4 A              | 4 A              | 2 A              |
| Volume resistance                            | ≤ 3 mΩ           | ≤ 3 mΩ           | ≤ 3 mΩ           |
| Material data                                |                  |                  |                  |
| Material contact / contact surface           | CuZn / Ni/Au     | CuZn / Ni/Au     | CuZn / Ni/Au     |
| Contact carrier material                     | PA66             | PA66             | PA66             |
| Inflammability class according to UL 94      | V0               | V0               | V0               |
| Cable type                                   | TPE litz wire    | TPE litz wire    | TPE litz wire    |
| Temperature data                             |                  |                  |                  |
| Plug / socket                                | -25 ... 85       | -25 ... 85       | -25 ... 85       |

| Ordering data |             |           |             |           |             |
|---------------|-------------|-----------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 4-pos.        |             | 5-pos.    |             | 8-pos.    |             |
| 1693791       | 1           | 1671108   | 1           | 1513761   | 1           |
| 1693775       | 1           | 1671124   | 1           | 1513787   | 1           |
|               |             | 1515044   | 1           |           |             |
|               |             | 1515057   | 1           |           |             |

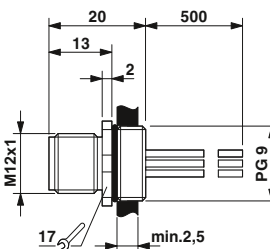
| Accessories                   |  |  |  |
|-------------------------------|--|--|--|
| Flat nut, with:<br>Pg9 thread |  |  |  |



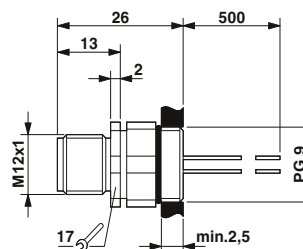
M12 flush-type socket



M12 flush-type socket, can be positioned



M12 flush-type plug



M12 flush-type plug, can be positioned

## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, front mounting

**M16 fastening thread,  
with 0.5 m long litz wires**



4, 5, 8-pos.



12, 17-pos.



| Technical data                               |                  |                  |                  |
|----------------------------------------------|------------------|------------------|------------------|
| 4-pos.                                       | 5-pos.           | 8-pos.           |                  |
| General data                                 |                  |                  |                  |
| M12 circular plug-in connector according to: | IEC 61076-2-101  | IEC 61076-2-101  | IEC 61076-2-101  |
| Pollution degree                             | 3                | 3                | 3                |
| Degree of protection                         | IP67             | IP67             | IP67             |
| Connection method                            | Individual wires | Individual wires | Individual wires |
| Electrical data                              |                  |                  |                  |
| Rated voltage                                | 250 V            | 60 V             | 30 V             |
| Rated current                                | 4 A              | 4 A              | 2 A              |
| Volume resistance                            | ≤ 3 mΩ           | ≤ 3 mΩ           | ≤ 3 mΩ           |
| Material data                                |                  |                  |                  |
| Material contact / contact surface           | CuZn / Ni/Au     | CuZn / Ni/Au     | CuZn / Ni/Au     |
| Contact carrier material                     | PA 66            | PA 66            | PA 66            |
| Inflammability class according to UL 94      | V0               | V0               | V0               |
| Cable type                                   | TPE litz wire    | TPE litz wire    | TPE litz wire    |
| Temperature data                             |                  |                  |                  |
| Plug / socket                                | -25 ... 85       | -25 ... 85       | -25 ... 85       |

| Ordering data |             |           |             |           |             |
|---------------|-------------|-----------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 4-pos.        |             | 5-pos.    |             | 8-pos.    |             |
| 1523434       | 1           | 1520039   | 1           | 1523476   | 1           |
| 1523450       | 1           | 1520055   | 1           | 1523492   | 1           |
| 1535202       | 1           |           |             |           |             |
| 1551558       | 1           |           |             |           |             |
|               |             | 1520000   | 1           |           |             |
|               |             | 1520013   | 1           |           |             |

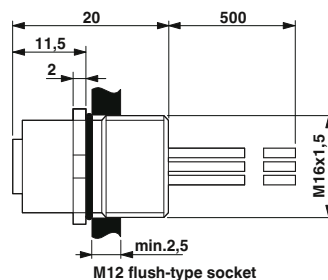
| Accessories   |         |     |
|---------------|---------|-----|
| SACC-E-MU-M16 | 1504097 | 100 |



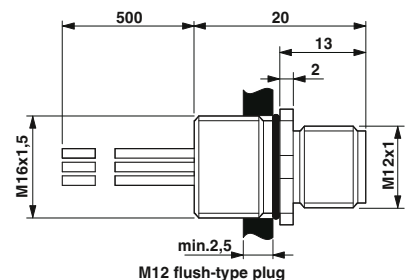
| Technical data                               |                  |                  |       |
|----------------------------------------------|------------------|------------------|-------|
| 12-pos.                                      | 17-pos.          |                  |       |
| General data                                 |                  |                  |       |
| M12 circular plug-in connector according to: | IEC 61076-2-101  | IEC 61076-2-101  | -     |
| Pollution degree                             | 3                | 3                | -     |
| Degree of protection                         | IP67             | IP67             | -     |
| Connection method                            | Individual wires | Individual wires | -     |
| Electrical data                              |                  |                  |       |
| Rated voltage                                | 30 V             | 30 V             | -     |
| Rated current                                | 1.5 A            | 1.5 A            | -     |
| Volume resistance                            | ≤ 3 mΩ           | ≤ 3 mΩ           | -     |
| Material data                                |                  |                  |       |
| Material contact / contact surface           | CuZn / Ni/Au     | CuZn / Ni/Au     | - / - |
| Contact carrier material                     | PA 66            | PA 66            | -     |
| Inflammability class according to UL 94      | V0               | V0               | -     |
| Cable type                                   | TPE litz wire    | TPE litz wire    | -     |
| Temperature data                             |                  |                  |       |
| Plug / socket                                | -25 ... 85       | -25 ... 85       | -     |

| Ordering data |             |           |             |           |             |
|---------------|-------------|-----------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 12-pos.       |             | 17-pos.   |             |           |             |
| 1556252       | 1           | 1556294   | 1           |           |             |
| 1556265       | 1           | 1556304   | 1           |           |             |

| Accessories   |         |     |
|---------------|---------|-----|
| SACC-E-MU-M16 | 1504097 | 100 |



M12 flush-type socket



M12 flush-type plug



**M20 fastening thread,  
with 0.5 m long litz wires**

– Housing material: brass, nickel-plated

**N**



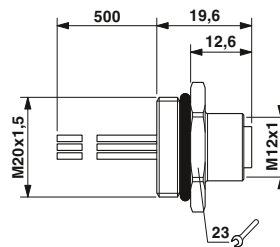
4, 5, 8-pos.

#### Technical data

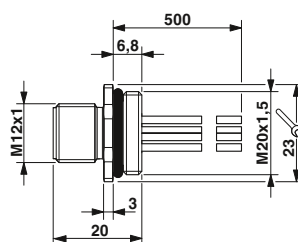
|                                              | 4-pos.                   | 5-pos.                   | 8-pos.                   |
|----------------------------------------------|--------------------------|--------------------------|--------------------------|
| General data                                 |                          |                          |                          |
| M12 circular plug-in connector according to: | IEC 61076-2-101          | IEC 61076-2-101          | IEC 61076-2-101          |
| Pollution degree                             | 3                        | 3                        | 3                        |
| Degree of protection                         | IP67/IP69K               | IP67/IP69K               | IP67/IP69K               |
| Connection method                            | Individual wires         | Individual wires         | Individual wires         |
| Electrical data                              |                          |                          |                          |
| Rated voltage                                | 250 V                    | 60 V                     | 30 V                     |
| Rated current                                | 4 A                      | 4 A                      | 2 A                      |
| Volume resistance                            | $\leq 3 \text{ m}\Omega$ | $\leq 3 \text{ m}\Omega$ | $\leq 3 \text{ m}\Omega$ |
| Material data                                |                          |                          |                          |
| Material contact / contact surface           | CuZn / Au                | CuZn / Au                | CuZn / Au                |
| Contact carrier material                     | PA 66                    | PA 66                    | PA 66                    |
| Inflammability class according to UL 94      | V0                       | V0                       | V0                       |
| Cable type                                   | TPE litz wire            | TPE litz wire            | TPE litz wire            |
| Temperature data                             |                          |                          |                          |
| Plug / socket                                | [°C]                     | [°C]                     | [°C]                     |
| Cable, fixed installation                    | -25 ... 85               | -25 ... 85               | -25 ... 85               |
|                                              | -25 ... 90               | -25 ... 90               | -25 ... 90               |

#### Ordering data

| Description                      | Coding       | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|----------------------------------|--------------|-----------|-------------|-----------|-------------|-----------|-------------|
|                                  |              | 4-pos.    |             | 5-pos.    |             | 8-pos.    |             |
| <b>Device plug-in connectors</b> |              |           |             |           |             |           |             |
| Socket                           | A - standard | 1408436   | 1           | 1408454   | 1           | 1408453   | 1           |
| Plug                             | A - standard | 1408451   | 1           | 1408446   | 1           | 1408442   | 1           |



M12 flush-type socket



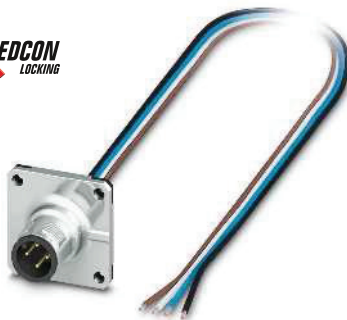
M12 flush-type plug

## M5 to M12 circular plug-in connectors

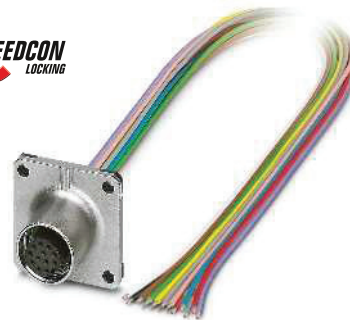
### M12 sensor/actuator device plug-in connectors, front mounting

One-piece, 20 mm square flange,  
with 0.5 m long litz wires

- 4 x fixing hole, 3.2 mm
- With form seal for M3 screws



4, 5, 8-pos.



12, 17-pos.



#### Technical data

| General data                                 |                   |
|----------------------------------------------|-------------------|
| M12 circular plug-in connector according to: | IEC 61076-2-101   |
| Pollution degree                             | 3                 |
| Degree of protection                         | IP67              |
| Connection method                            | Individual wires  |
| Electrical data                              |                   |
| Rated voltage                                | 250 V             |
| Rated current                                | 4 A               |
| Volume resistance                            | ≤ 3 mΩ            |
| Material data                                |                   |
| Material contact / contact surface           | CuZn / Ni/Au      |
| Contact carrier material                     | PA 66             |
| Inflammability class according to UL 94      | V0                |
| Cable type                                   | TPE litz wire     |
| Temperature data                             |                   |
| Plug / socket                                | [-25 ... 85] [°C] |

| 4-pos.           | 5-pos.           | 8-pos.           |
|------------------|------------------|------------------|
| IEC 61076-2-101  | IEC 61076-2-101  | IEC 61076-2-101  |
| 3                | 3                | 3                |
| IP67             | IP67             | IP67             |
| Individual wires | Individual wires | Individual wires |
| 250 V            | 60 V             | 30 V             |
| 4 A              | 4 A              | 2 A              |
| ≤ 3 mΩ           | ≤ 3 mΩ           | ≤ 3 mΩ           |
| CuZn / Ni/Au     | CuZn / Ni/Au     | CuZn / Ni/Au     |
| PA 66            | PA 66            | PA 66            |
| V0               | V0               | V0               |
| TPE litz wire    | TPE litz wire    | TPE litz wire    |
| -25 ... 85       | -25 ... 85       | -25 ... 85       |



#### Technical data

| 12-pos.          | 17-pos.          |       |
|------------------|------------------|-------|
| IEC 61076-2-101  | IEC 61076-2-101  | -     |
| 3                | 3                | -     |
| IP67             | IP67             | -     |
| Individual wires | Individual wires | -     |
| 30 V             | 30 V             | -     |
| 1.5 A            | 1.5 A            | -     |
| ≤ 3 mΩ           | ≤ 3 mΩ           | -     |
| CuZn / Ni/Au     | CuZn / Ni/Au     | - / - |
| PA 66            | PA 66            | -     |
| V0               | V0               | -     |
| TPE litz wire    | TPE litz wire    | -     |
| -25 ... 85       | -25 ... 85       | -     |

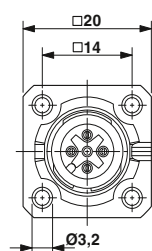
#### Ordering data

| Description                      | Coding       |
|----------------------------------|--------------|
| <b>Device plug-in connectors</b> |              |
| Socket                           | A - standard |
| Plug                             | A - standard |
| Socket                           | D - data     |
| Plug                             | D - data     |
| Socket                           | B - inverse  |
| Plug                             | B - inverse  |

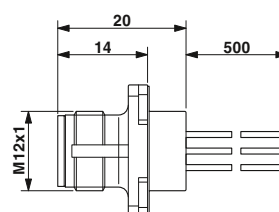
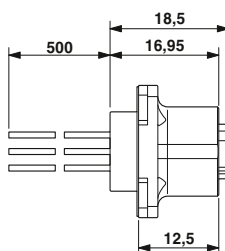
| Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|-----------|-------------|-----------|-------------|-----------|-------------|
| 4-pos.    |             | 5-pos.    |             | 8-pos.    |             |
| 1419797   | 1           | 1441655   | 1           | 1441697   | 1           |
| 1419784   | 1           | 1441642   | 1           | 1441684   | 1           |
| 1441639   | 1           |           |             |           |             |
| 1441626   | 1           |           |             |           |             |
|           |             | 1441671   | 1           |           |             |
|           |             | 1441668   | 1           |           |             |

#### Ordering data

| Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|-----------|-------------|-----------|-------------|-----------|-------------|
| 12-pos.   |             | 17-pos.   |             |           |             |
| 1441710   | 1           | 1441736   | 1           |           |             |
| 1441707   | 1           | 1441723   | 1           |           |             |



M12 flush-type socket, square flange



M12 flush-type plug, square flange

## M5 to M12 circular plug-in connectors

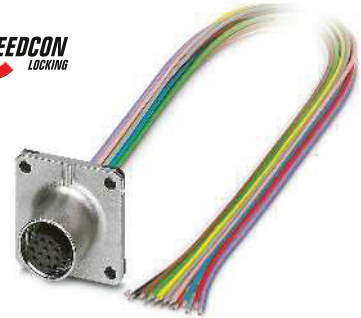
### M12 sensor/actuator device plug-in connectors, front mounting

One-piece, 25 mm square flange,  
with 0.5 m long litz wires

- 4 x fixing hole, 2.7 mm
- With form seal for M2.5 screws



4, 5, 8-pos.



12, 17-pos.



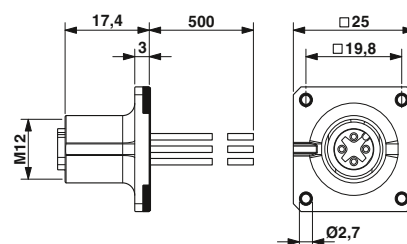
| Technical data                               |                  |                  |
|----------------------------------------------|------------------|------------------|
| 4-pos.                                       | 5-pos.           | 8-pos.           |
| General data                                 |                  |                  |
| M12 circular plug-in connector according to: | IEC 61076-2-101  | IEC 61076-2-101  |
| Pollution degree                             | 3                | 3                |
| Degree of protection                         | IP67             | IP67             |
| Connection method                            | Individual wires | Individual wires |
| Electrical data                              |                  |                  |
| Rated voltage                                | 250 V            | 60 V             |
| Rated current                                | 4 A              | 4 A              |
| Volume resistance                            | ≤ 3 mΩ           | ≤ 3 mΩ           |
| Material data                                |                  |                  |
| Material contact / contact surface           | CuZn / Ni/Au     | CuZn / Ni/Au     |
| Contact carrier material                     | PA 66            | PA 66            |
| Inflammability class according to UL 94      | V0               | V0               |
| Cable type                                   | TPE litz wire    | TPE litz wire    |
| Temperature data                             |                  |                  |
| Plug / socket                                | -25 ... 85       | -25 ... 85       |



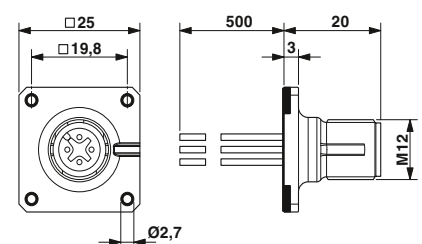
| Technical data                               |                  |                  |
|----------------------------------------------|------------------|------------------|
| 12-pos.                                      | 17-pos.          |                  |
| General data                                 |                  |                  |
| M12 circular plug-in connector according to: | IEC 61076-2-101  | IEC 61076-2-101  |
| Pollution degree                             | 3                | 3                |
| Degree of protection                         | IP67             | IP67             |
| Connection method                            | Individual wires | Individual wires |
| Electrical data                              |                  |                  |
| Rated voltage                                | 30 V             | 30 V             |
| Rated current                                | 1.5 A            | 1.5 A            |
| Volume resistance                            | ≤ 3 mΩ           | ≤ 3 mΩ           |
| Material data                                |                  |                  |
| Material contact / contact surface           | CuZn / Ni/Au     | CuZn / Ni/Au     |
| Contact carrier material                     | PA 66            | PA 66            |
| Inflammability class according to UL 94      | V0               | V0               |
| Cable type                                   | TPE litz wire    | TPE litz wire    |
| Temperature data                             |                  |                  |
| Plug / socket                                | -25 ... 85       | -25 ... 85       |

| Ordering data             |              |             |   |           |   |
|---------------------------|--------------|-------------|---|-----------|---|
| Order No.                 |              | Pcs. / Pkt. |   | Order No. |   |
| 4-pos.                    |              | 5-pos.      |   | 8-pos.    |   |
| Device plug-in connectors |              |             |   |           |   |
| Socket                    | A - standard | 1420003     | 1 | 1440986   | 1 |
| Plug                      | A - standard | 1419991     | 1 | 1440973   | 1 |
| Socket                    | D - data     | 1440960     | 1 | 1441574   | 1 |
| Plug                      | D - data     | 1440957     | 1 | 1441561   | 1 |
| Socket                    | B - inverse  |             |   | 1441558   | 1 |
| Plug                      | B - inverse  |             |   | 1440999   | 1 |

| Ordering data             |              |             |   |           |   |
|---------------------------|--------------|-------------|---|-----------|---|
| Order No.                 |              | Pcs. / Pkt. |   | Order No. |   |
| 12-pos.                   |              | 17-pos.     |   | Order No. |   |
| Device plug-in connectors |              |             |   |           |   |
| Socket                    | A - standard | 1441590     | 1 | 1441613   | 1 |
| Plug                      | A - standard | 1441587     | 1 | 1441600   | 1 |



M12 flush-type socket, square flange



M12 flush-type plug, square flange

## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, front mounting

**Modular, 25 mm square flange,  
pre-assembled**



**Flange housing,  
housing bore holes 3.2 mm**



#### Technical data

| General data                                 |                                 |       |       |
|----------------------------------------------|---------------------------------|-------|-------|
| M12 circular plug-in connector according to: | IEC 61076-2-101                 | -     | -     |
| Pollution degree                             | -                               | -     | -     |
| Degree of protection                         | -                               | -     | -     |
| Connection method                            | -                               | -     | -     |
| Electrical data                              |                                 |       |       |
| Rated voltage                                | -                               | -     | -     |
| Rated current                                | -                               | -     | -     |
| Volume resistance                            | -                               | -     | -     |
| Material data                                |                                 |       |       |
| Material contact / contact surface           | - / -                           | - / - | - / - |
| Contact carrier material                     | -                               | -     | -     |
| Cable gland material                         | Zinc die-cast,<br>nickel-plated | -     | -     |
| Inflammability class according to UL 94      | -                               | -     | -     |
| Cable type                                   | -                               | -     | -     |
| Temperature data                             |                                 |       |       |
| Plug / socket                                | [-25 ... 85                     | -     | -     |
| Cable, fixed installation                    | [-25 ... 85                     | -     | -     |

#### Ordering data

| Description                                                                                    | Coding       | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|------------------------------------------------------------------------------------------------|--------------|-----------|-------------|-----------|-------------|-----------|-------------|
| <b>Square flange housing, with O-ring</b>                                                      |              | 1419959   | 10          |           |             |           |             |
| <b>Assembled contact carrier and insulating body, with 0.5 m litz wires and crimp contacts</b> |              |           |             |           |             |           |             |
| Plug                                                                                           | A - standard |           |             |           |             |           |             |
| Plug                                                                                           | D - data     |           |             |           |             |           |             |
| Plug                                                                                           | B - inverse  |           |             |           |             |           |             |



**With 0.5 m long litz wires,  
assembled contact carrier  
and insulating body**

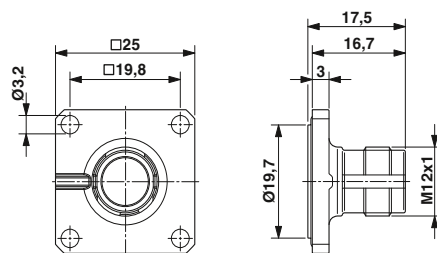


#### Technical data

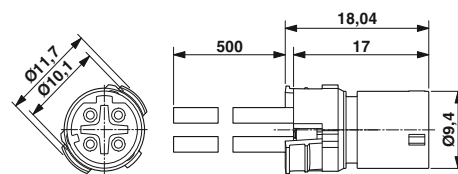
| 4-pos.          | 5-pos.          | 8-pos.          |
|-----------------|-----------------|-----------------|
| IEC 61076-2-101 | IEC 61076-2-101 | IEC 61076-2-101 |
| 3               | 3               | 3               |
| IP67            | IP67            | IP67            |
| Crimp contacts  | Crimp contacts  | Crimp contacts  |
| 250 V           | 60 V            | 30 V            |
| 4 A             | 4 A             | 2 A             |
| ≤ 3 mΩ          | ≤ 3 mΩ          | ≤ 3 mΩ          |
| CuZn / Au       | CuZn / Au       | CuZn / Au       |
| PA 66           | PA 66           | PA 66           |
| -               | -               | -               |
| V0              | V0              | V0              |
| TPE litz wire   | TPE litz wire   | TPE litz wire   |
| -25 ... 85      | -25 ... 85      | -25 ... 85      |
| -25 ... 85      | -25 ... 85      | -25 ... 85      |

#### Ordering data

| Order No.     | Pcs. / Pkt. | Order No.     | Pcs. / Pkt. | Order No.     | Pcs. / Pkt. |
|---------------|-------------|---------------|-------------|---------------|-------------|
| <b>4-pos.</b> |             | <b>5-pos.</b> |             | <b>8-pos.</b> |             |
| 1440805       | 1           | 1440818       | 1           | 1457827       | 1           |
| 1440821       | 1           | 1440759       | 1           |               |             |



**M12 square flange housing**



**M12 contact carrier, with litz wires**

# M5 to M12 circular plug-in connectors

## M12 sensor/actuator device plug-in connectors, front mounting

Modular, 25 mm square flange,  
for free assembly



Flange housing,  
housing bore holes 3.2 mm



Contact carriers  
and insulating bodies for assembly



| Technical data                               |                              |   |   |
|----------------------------------------------|------------------------------|---|---|
| General data                                 |                              |   |   |
| M12 circular plug-in connector according to: | IEC 61076-2-101              | - | - |
| Pollution degree                             | -                            | - | - |
| Degree of protection                         | -                            | - | - |
| Connection method                            | -                            | - | - |
| Electrical data                              |                              |   |   |
| Rated voltage                                | -                            | - | - |
| Rated current                                | -                            | - | - |
| Volume resistance                            | -                            | - | - |
| Material data                                |                              |   |   |
| Contact carrier material                     | -                            | - | - |
| Cable gland material                         | Zinc die-cast, nickel-plated | - | - |
| Inflammability class according to UL 94      | -                            | - | - |
| Temperature data                             |                              |   |   |
| Plug / socket                                | -25 ... 85                   | - | - |

| Ordering data                          |              |           |             |           |             |
|----------------------------------------|--------------|-----------|-------------|-----------|-------------|
| Description                            | Coding       | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| Square flange housing, with O-ring     |              | 1419959   | 10          |           |             |
| Contact carriers and insulating bodies |              |           |             |           |             |
| Plug                                   | A - standard |           |             |           |             |
| Plug                                   | D - data     |           |             |           |             |
| Plug                                   | B - inverse  |           |             |           |             |

Square flange housing, with O-ring

Contact carriers and insulating bodies

Plug A - standard  
Plug D - data  
Plug B - inverse

**Crimp contacts**, for 4 and 5-pos. contact carriers, contact material: CuZn, surface: gold-plated, connection cross section: 0.08 mm<sup>2</sup> ... 0.34 mm<sup>2</sup>

Contact Ø: 1.0 mm

**Crimp contacts**, for 8-pos. contact carriers, contact material: CuZn, surface: gold-plated, connection cross section: 0.08 mm<sup>2</sup> ... 0.34 mm<sup>2</sup>  
Contact Ø: 0.8 mm

Crimping pliers



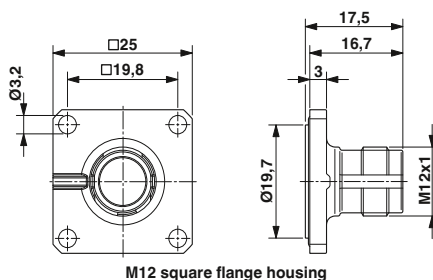
| Technical data  |                 |                 |  |
|-----------------|-----------------|-----------------|--|
| 4-pos.          | 5-pos.          | 8-pos.          |  |
| IEC 61076-2-101 | IEC 61076-2-101 | IEC 61076-2-101 |  |
| 3               | 3               | 3               |  |
| IP67            | IP67            | IP67            |  |
| Crimp contacts  | Crimp contacts  | Crimp contacts  |  |
| 250 V           | 60 V            | 30 V            |  |
| 4 A             | 4 A             | 2 A             |  |
| ≤ 3 mΩ          | ≤ 3 mΩ          | ≤ 3 mΩ          |  |
| PA 66           | PA 66           | PA 66           |  |
| -               | -               | -               |  |
| V0              | V0              | V0              |  |
| -25 ... 85      | -25 ... 85      | -25 ... 85      |  |

| Ordering data |             |           |             |           |             |
|---------------|-------------|-----------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 4-pos.        |             | 5-pos.    |             | 8-pos.    |             |
| 1440931       | 10          | 1419988   | 10          | 1440928   | 10          |
| 1440944       | 10          | 1440915   | 10          |           |             |

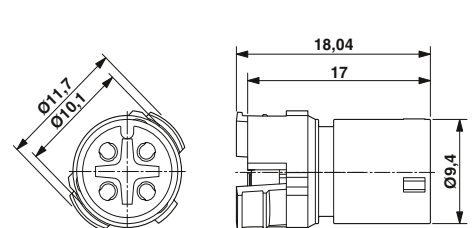
|         |     |         |     |         |     |
|---------|-----|---------|-----|---------|-----|
| 1452356 | 100 | 1452356 | 100 |         |     |
|         |     |         |     | 1452372 | 100 |

| Accessories |  |  |
|-------------|--|--|
|             |  |  |

| Accessories    |         |   |
|----------------|---------|---|
| CRIMPFOX-TC MP | 1212510 | 1 |



M12 square flange housing



M12 contact carrier



## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, front mounting

Contact carrier, plastic,  
with solder cups or with litz wires



Solder connection, 5, 8-pos.



With 0.5 m long litz wires, 5, 8-pos.



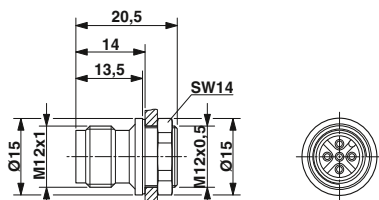
| Technical data                               |  |                  |  |
|----------------------------------------------|--|------------------|--|
| 5-pos.                                       |  | 8-pos.           |  |
| General data                                 |  | General data     |  |
| M12 circular plug-in connector according to: |  | IEC 61076-2-101  |  |
| Pollution degree                             |  | 3                |  |
| Degree of protection                         |  | IP67             |  |
| Connection method                            |  | Solder cup       |  |
| Electrical data                              |  | Electrical data  |  |
| Rated voltage                                |  | 60 V             |  |
| Rated current                                |  | 4 A              |  |
| Volume resistance                            |  | ≤ 3 mΩ           |  |
| Material data                                |  | Material data    |  |
| Material contact / contact surface           |  | CuZn / Au        |  |
| Contact carrier material                     |  | PA 66            |  |
| Inflammability class according to UL 94      |  | HB               |  |
| Cable type                                   |  | -                |  |
| Temperature data                             |  | Temperature data |  |
| Plug / socket                                |  | -25 ... 85       |  |
| Cable, fixed installation                    |  | -                |  |

| Ordering data                                      |  |              |  |
|----------------------------------------------------|--|--------------|--|
| Order No.                                          |  | Pcs. / Pkt.  |  |
| 5-pos.                                             |  | 8-pos.       |  |
| Flush-type plug-in connector, M16 fastening thread |  | 1436398 20   |  |
| Plug                                               |  | A - standard |  |
| Flush-type plug-in connector, M12 fastening thread |  | 1436408 20   |  |
| Plug                                               |  | A - standard |  |

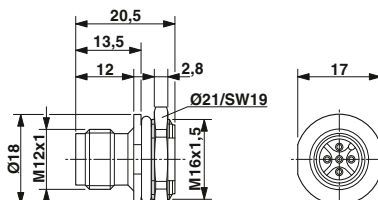


| Technical data                               |  |                  |  |
|----------------------------------------------|--|------------------|--|
| 5-pos.                                       |  | 8-pos.           |  |
| General data                                 |  | General data     |  |
| M12 circular plug-in connector according to: |  | IEC 61076-2-101  |  |
| Pollution degree                             |  | 3                |  |
| Degree of protection                         |  | IP67             |  |
| Connection method                            |  | Individual wires |  |
| Electrical data                              |  | Electrical data  |  |
| Rated voltage                                |  | 60 V             |  |
| Rated current                                |  | 4 A              |  |
| Volume resistance                            |  | ≤ 3 mΩ           |  |
| Material data                                |  | Material data    |  |
| Material contact / contact surface           |  | CuZn / Au        |  |
| Contact carrier material                     |  | PA 66            |  |
| Inflammability class according to UL 94      |  | HB               |  |
| Cable type                                   |  | TPE litz wire    |  |
| Temperature data                             |  | Temperature data |  |
| Plug / socket                                |  | -25 ... 85       |  |
| Cable, fixed installation                    |  | -25 ... 90       |  |

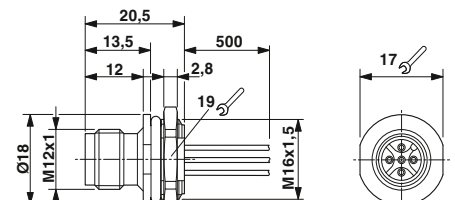
| Ordering data                                      |  |              |  |
|----------------------------------------------------|--|--------------|--|
| Order No.                                          |  | Pcs. / Pkt.  |  |
| 5-pos.                                             |  | 8-pos.       |  |
| Flush-type plug-in connector, M16 fastening thread |  | 1436411 1    |  |
| Plug                                               |  | A - standard |  |
| Flush-type plug-in connector, M12 fastening thread |  | 1436424 1    |  |
| Plug                                               |  | A - standard |  |



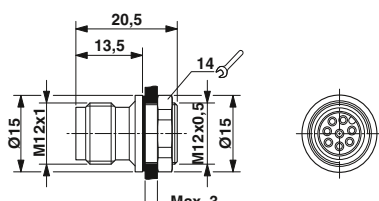
M12 pin, M12 fastening thread, solder cups



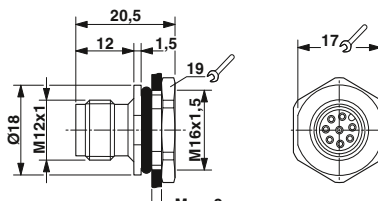
M12 pin, M16 fastening thread, solder cups



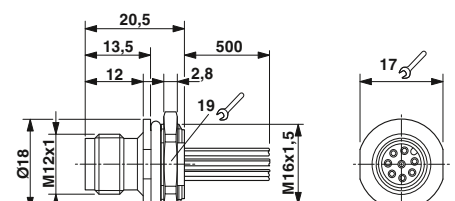
M12 pin, M16 fastening thread



M12 pin, M12 fastening thread, solder cups



M12 pin, M16 fastening thread, solder cups



M12 pin, M16 fastening thread

## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, rear mounting

Pg9 fastening thread,  
with 0.5 m long litz wires



4, 5, 8-pos.



12, 17-pos.



| Technical data                               |                  |                  |                  |
|----------------------------------------------|------------------|------------------|------------------|
|                                              | 4-pos.           | 5-pos.           | 8-pos.           |
| General data                                 |                  |                  |                  |
| M12 circular plug-in connector according to: | IEC 61076-2-101  | IEC 61076-2-101  | IEC 61076-2-101  |
| Pollution degree                             | 3                | 3                | 3                |
| Degree of protection                         | IP67             | IP67             | IP67             |
| Connection method                            | Individual wires | Individual wires | Individual wires |
| Electrical data                              |                  |                  |                  |
| Rated voltage                                | 250 V            | 60 V             | 30 V             |
| Rated current                                | 4 A              | 4 A              | 2 A              |
| Volume resistance                            | ≤ 3 mΩ           | ≤ 3 mΩ           | ≤ 3 mΩ           |
| Material data                                |                  |                  |                  |
| Material contact / contact surface           | CuZn / Au        | CuZn / Au        | CuZn / Au        |
| Contact carrier material                     | PA 66            | PA 66            | PA 66            |
| Inflammability class according to UL 94      | V0               | V0               | V0               |
| Cable type                                   | TPE litz wire    | TPE litz wire    | TPE litz wire    |
| Temperature data                             |                  |                  |                  |
| Plug / socket [°C]                           | -25 ... 85       | -25 ... 85       | -25 ... 85       |
| Cable, fixed installation [°C]               | -25 ... 85       | -25 ... 85       | -25 ... 85       |

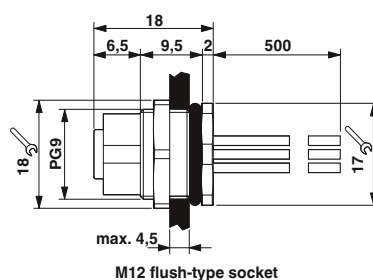


| Technical data                               |                  |                  |       |
|----------------------------------------------|------------------|------------------|-------|
|                                              | 12-pos.          | 17-pos.          |       |
| General data                                 |                  |                  |       |
| M12 circular plug-in connector according to: | IEC 61076-2-101  | IEC 61076-2-101  | -     |
| Pollution degree                             | 3                | 3                | -     |
| Degree of protection                         | IP67             | IP67             | -     |
| Connection method                            | Individual wires | Individual wires | -     |
| Electrical data                              |                  |                  |       |
| Rated voltage                                | 30 V             | 30 V             | -     |
| Rated current                                | 1.5 A            | 1.5 A            | -     |
| Volume resistance                            | ≤ 3 mΩ           | ≤ 3 mΩ           | -     |
| Material data                                |                  |                  |       |
| Material contact / contact surface           | CuZn / Au        | CuZn / Au        | - / - |
| Contact carrier material                     | PA 66            | PA 66            | -     |
| Inflammability class according to UL 94      | V0               | V0               | -     |
| Cable type                                   | TPE litz wire    | TPE litz wire    | -     |
| Temperature data                             |                  |                  |       |
| Plug / socket [°C]                           | -25 ... 85       | -25 ... 85       | -     |
| Cable, fixed installation [°C]               | -25 ... 85       | -25 ... 85       | -     |

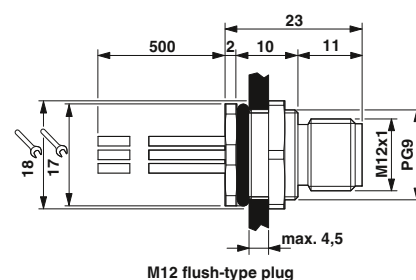
| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 4-pos.        |             | 5-pos.    |             |
| 1556621       | 1           | 1542729   | 1           |
| 1556618       | 1           | 1542703   | 1           |
| 1551529       | 1           |           |             |
| 1551532       | 1           |           |             |
|               |             | 1543676   | 1           |
|               |             | 1543663   | 1           |

| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 12-pos.       |             | 17-pos.   |             |
| 1430446       | 1           | 1430462   | 1           |
| 1430459       | 1           | 1430475   | 1           |

| Description                      | Coding       |
|----------------------------------|--------------|
| <b>Device plug-in connectors</b> |              |
| Socket                           | A - standard |
| Plug                             | A - standard |
| Socket                           | D - data     |
| Plug                             | D - data     |
| Socket                           | B - inverse  |
| Plug                             | B - inverse  |



M12 flush-type socket



M12 flush-type plug

## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, rear mounting

**M12 fastening thread,  
with 0.5 m long litz wires**



4, 5, 8-pos.



12, 17-pos.



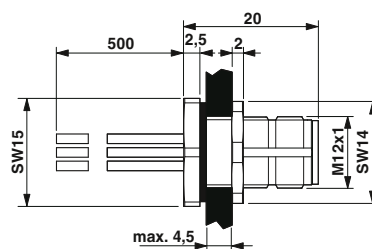
| Technical data                               |                  |                  |                  |
|----------------------------------------------|------------------|------------------|------------------|
| 4-pos.                                       | 5-pos.           | 8-pos.           |                  |
| General data                                 |                  |                  |                  |
| M12 circular plug-in connector according to: | IEC 61076-2-101  | IEC 61076-2-101  | IEC 61076-2-101  |
| Pollution degree                             | 3                | 3                | 3                |
| Degree of protection                         | IP67             | IP67             | IP67             |
| Connection method                            | Individual wires | Individual wires | Individual wires |
| Electrical data                              |                  |                  |                  |
| Rated voltage                                | 250 V            | 60 V             | 30 V             |
| Rated current                                | 4 A              | 4 A              | 2 A              |
| Volume resistance                            | ≤ 3 mΩ           | ≤ 3 mΩ           | ≤ 3 mΩ           |
| Material data                                |                  |                  |                  |
| Material contact / contact surface           | CuZn / Au        | CuZn / Au        | CuZn / Au        |
| Contact carrier material                     | PA 66            | PA 66            | PA 66            |
| Inflammability class according to UL 94      | V0               | V0               | V0               |
| Cable type                                   | TPE litz wire    | TPE litz wire    | TPE litz wire    |
| Temperature data                             |                  |                  |                  |
| Plug / socket [°C]                           | -25 ... 85       | -25 ... 85       | -25 ... 85       |
| Cable, fixed installation [°C]               | -25 ... 85       | -25 ... 85       | -25 ... 85       |

| Ordering data |             |           |             |           |             |
|---------------|-------------|-----------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 4-pos.        |             | 5-pos.    |             | 8-pos.    |             |
| 1551875       | 1           | 1551888   | 1           | 1551914   | 1           |
| 1551901       | 1           |           |             |           |             |
|               |             | 1551891   | 1           |           |             |



| Technical data                               |                  |                  |       |
|----------------------------------------------|------------------|------------------|-------|
| 12-pos.                                      | 17-pos.          |                  |       |
| General data                                 |                  |                  |       |
| M12 circular plug-in connector according to: | IEC 61076-2-101  | IEC 61076-2-101  | -     |
| Pollution degree                             | 3                | 3                | -     |
| Degree of protection                         | IP67             | IP67             | -     |
| Connection method                            | Individual wires | Individual wires | -     |
| Electrical data                              |                  |                  |       |
| Rated voltage                                | 30 V             | 30 V             | -     |
| Rated current                                | 1.5 A            | 1.5 A            | -     |
| Volume resistance                            | ≤ 3 mΩ           | ≤ 3 mΩ           | -     |
| Material data                                |                  |                  |       |
| Material contact / contact surface           | CuZn / Au        | CuZn / Au        | - / - |
| Contact carrier material                     | PA 66            | PA 66            | -     |
| Inflammability class according to UL 94      | V0               | V0               | -     |
| Cable type                                   | TPE litz wire    | TPE litz wire    | -     |
| Temperature data                             |                  |                  |       |
| Plug / socket [°C]                           | -25 ... 85       | -25 ... 85       | -     |
| Cable, fixed installation [°C]               | -25 ... 85       | -25 ... 85       | -     |

| Ordering data |             |           |             |           |             |
|---------------|-------------|-----------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 12-pos.       |             | 17-pos.   |             |           |             |
| 1437122       | 1           | 1437135   | 1           |           |             |



M12 flush-type plug, M12 fastening thread

## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, rear mounting

**M16 fastening thread,  
with 0.5 m long litz wires**



4, 5, 8-pos.



12, 17-pos.



| Technical data                               |                  |                  |                  |
|----------------------------------------------|------------------|------------------|------------------|
|                                              | 4-pos.           | 5-pos.           | 8-pos.           |
| General data                                 |                  |                  |                  |
| M12 circular plug-in connector According to: | IEC 61076-2-101  | IEC 61076-2-101  | IEC 61076-2-101  |
| Pollution degree                             | 3                | 3                | 3                |
| Degree of protection                         | IP67             | IP67             | IP67             |
| Connection method                            | Individual wires | Individual wires | Individual wires |
| Electrical data                              |                  |                  |                  |
| Rated voltage                                | 250 V            | 60 V             | 30 V             |
| Rated current                                | 4 A              | 4 A              | 2 A              |
| Volume resistance                            | ≤ 3 mΩ           | ≤ 3 mΩ           | ≤ 3 mΩ           |
| Material data                                |                  |                  |                  |
| Material contact / contact surface           | CuZn / Au        | CuZn / Au        | CuZn / Au        |
| Contact carrier material                     | PA 66            | PA 66            | PA 66            |
| Inflammability class according to UL 94      | V0               | V0               | V0               |
| Cable type                                   | TPE litz wire    | TPE litz wire    | TPE litz wire    |
| Temperature data                             |                  |                  |                  |
| Plug / socket [°C]                           | -25 ... 85       | -25 ... 85       | -25 ... 85       |
| Cable, fixed installation [°C]               | -25 ... 85       | -25 ... 85       | -25 ... 85       |

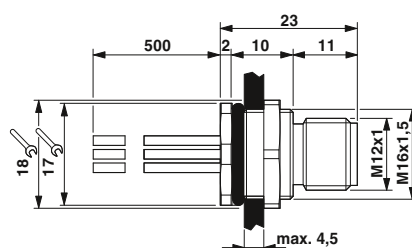


| Technical data                               |                  |                  |       |
|----------------------------------------------|------------------|------------------|-------|
|                                              | 12-pos.          | 17-pos.          |       |
| General data                                 |                  |                  |       |
| M12 circular plug-in connector According to: | IEC 61076-2-101  | IEC 61076-2-101  | -     |
| Pollution degree                             | 3                | 3                | -     |
| Degree of protection                         | IP67             | IP67             | -     |
| Connection method                            | Individual wires | Individual wires | -     |
| Electrical data                              |                  |                  |       |
| Rated voltage                                | 30 V             | 30 V             | -     |
| Rated current                                | 1.5 A            | 1.5 A            | -     |
| Volume resistance                            | ≤ 3 mΩ           | ≤ 3 mΩ           | -     |
| Material data                                |                  |                  |       |
| Material contact / contact surface           | CuZn / Au        | CuZn / Au        | - / - |
| Contact carrier material                     | PA 66            | PA 66            | -     |
| Inflammability class according to UL 94      | V0               | V0               | -     |
| Cable type                                   | TPE litz wire    | TPE litz wire    | -     |
| Temperature data                             |                  |                  |       |
| Plug / socket [°C]                           | -25 ... 85       | -25 ... 85       | -     |
| Cable, fixed installation [°C]               | -25 ... 85       | -25 ... 85       | -     |

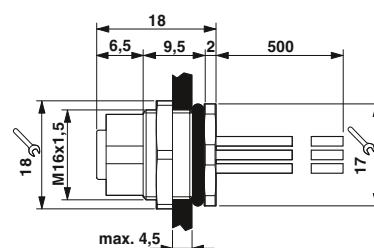
| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 4-pos.        |             | 5-pos.    |             |
| 1419632       | 1           | 1419658   | 1           |
| 1419629       | 1           | 1419645   | 1           |
| 1419616       | 1           |           |             |
| 1419603       | 1           |           |             |
|               |             | 1419674   | 1           |
|               |             | 1419661   | 1           |

| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 12-pos.       |             | 17-pos.   |             |
| 1419713       | 1           | 1419739   | 1           |
| 1419700       | 1           | 1419726   | 1           |

| Description                      | Coding       |
|----------------------------------|--------------|
| <b>Device plug-in connectors</b> |              |
| Socket                           | A - standard |
| Plug                             | A - standard |
| Socket                           | D - data     |
| Plug                             | D - data     |
| Socket                           | B - inverse  |
| Plug                             | B - inverse  |



M12 flush-type plug



M12 flush-type socket

## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, rear mounting

**M16 fastening thread,  
with assembled cable, shielded**

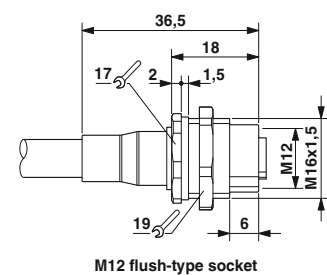
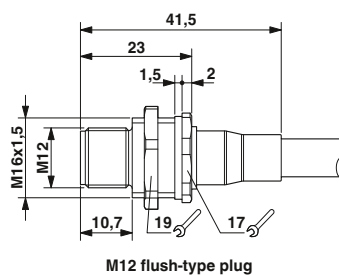


PUR cable, 4, 5, 8-pos., shielded



PVC cable, 12, 17-pos., shielded

|                                              |     | Technical data         |   |                        |             |                        |             | Technical data  |             |                 |             |           |             |
|----------------------------------------------|-----|------------------------|---|------------------------|-------------|------------------------|-------------|-----------------|-------------|-----------------|-------------|-----------|-------------|
|                                              |     | 4-pos.                 |   | 5-pos.                 |             | 8-pos.                 |             | 12-pos.         |             | 17-pos.         |             |           |             |
| General data                                 |     |                        |   |                        |             |                        |             |                 |             |                 |             |           |             |
| M12 circular plug-in connector according to: |     | IEC 61076-2-101        |   | IEC 61076-2-101        |             | IEC 61076-2-101        |             | IEC 61076-2-101 |             | IEC 61076-2-101 |             | -         |             |
| Pollution degree                             |     | 3                      |   | 3                      |             | 3                      |             | 3               |             | 3               |             | -         |             |
| Degree of protection                         |     | IP67                   |   | IP67                   |             | IP67                   |             | IP67            |             | IP67            |             | -         |             |
| Connection method                            |     | Free cable end         |   | Free cable end         |             | Free cable end         |             | Free cable end  |             | Free cable end  |             | -         |             |
| Electrical data                              |     |                        |   |                        |             |                        |             |                 |             |                 |             |           |             |
| Rated voltage                                |     | 60 V                   |   | 60 V                   |             | 30 V                   |             | 30 V            |             | 30 V            |             | -         |             |
| Rated current                                |     | 4 A                    |   | 4 A                    |             | 2 A                    |             | 1.5 A           |             | 1.5 A           |             | -         |             |
| Volume resistance                            |     | ≤ 3 mΩ                 |   | ≤ 3 mΩ                 |             | ≤ 3 mΩ                 |             | ≤ 3 mΩ          |             | ≤ 3 mΩ          |             | -         |             |
| Material data                                |     |                        |   |                        |             |                        |             |                 |             |                 |             |           |             |
| Material contact / contact surface           |     | CuZn / Au              |   | CuZn / Au              |             | CuZn / Au              |             | CuZn / Au       |             | CuZn / Au       |             | - / -     |             |
| Contact carrier material                     |     | PA 66                  |   | PA 66                  |             | PA 66                  |             | PA 66           |             | PA 66           |             | -         |             |
| Inflammability class according to UL 94      |     | V0                     |   | V0                     |             | V0                     |             | V0              |             | V0              |             | -         |             |
| Cable type                                   |     | PUR halogen-free black |   | PUR halogen-free black |             | PUR halogen-free black |             | PVC black       |             | PVC black       |             | -         |             |
| Temperature data                             |     |                        |   |                        |             |                        |             |                 |             |                 |             |           |             |
| Plug / socket                                |     | [°C]                   |   | -25 ... 85             |             | -25 ... 85             |             | -25 ... 85      |             | -25 ... 85      |             | -         |             |
| Cable, fixed installation                    |     | [°C]                   |   | -30 ... 85             |             | -30 ... 85             |             | -30 ... 85      |             | -30 ... 85      |             | -         |             |
|                                              |     | Ordering data          |   |                        |             |                        |             | Ordering data   |             |                 |             |           |             |
| Description                                  |     | Cable length           |   | Order No.              | Pcs. / Pkt. | Order No.              | Pcs. / Pkt. | Order No.       | Pcs. / Pkt. | Order No.       | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|                                              |     |                        |   | 4-pos.                 |             | 5-pos.                 |             | 8-pos.          |             | 12-pos.         |             | 17-pos.   |             |
| Flush-type plug-in connector, A-coded        |     |                        |   |                        |             |                        |             |                 |             |                 |             |           |             |
| Socket                                       | 1 m | 1419302                | 1 | 1419328                | 1           | 1419357                | 1           | 1442188         | 1           | 1442269         | 1           |           |             |
| Plug                                         | 1 m | 1419399                | 1 | 1419409                | 1           | 1419425                | 1           | 1442227         | 1           | 1442308         | 1           |           |             |
| Socket                                       | 2 m | 1419315                | 1 | 1419331                | 1           | 1419344                | 1           | 1442191         | 1           | 1442272         | 1           |           |             |
| Plug                                         | 2 m | 1419386                | 1 | 1419412                | 1           | 1419438                | 1           | 1442230         | 1           | 1442311         | 1           |           |             |



## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, rear mounting

**Pg9 fastening thread, one-piece, for wave soldering processes**



Straight, 4, 5, 8-pos.



Straight, 12, 17-pos.



| Technical data  |                 |                 |
|-----------------|-----------------|-----------------|
| 4-pos.          | 5-pos.          | 8-pos.          |
| IEC 61076-2-101 | IEC 61076-2-101 | IEC 61076-2-101 |
| 3               | 3               | 3               |
| IP67            | IP67            | IP67            |
| Solder pins     | Solder pins     | Solder pins     |
| 250 V           | 60 V            | 30 V            |
| 4 A             | 4 A             | 2 A             |
| ≤ 3 mΩ          | ≤ 3 mΩ          | ≤ 3 mΩ          |
| CuZn / Au       | CuZn / Au       | CuZn / Au       |
| PA 66           | PA 66           | PA 66           |
| V0              | V0              | V0              |
| -25 ... 85      | -25 ... 85      | -25 ... 85      |

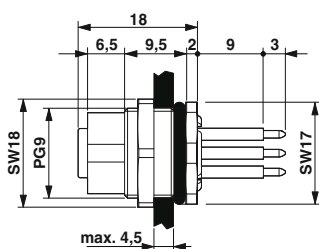
| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 4-pos.        | 5-pos.      | 8-pos.    |
| 1553462       | 20          | 1542761   |
| 1553459       | 20          | 1542745   |
| 1551503       | 20          | 1542758   |
| 1551516       | 20          |           |
|               | 1543650     | 20        |
|               | 1543647     | 20        |
|               | 1552285     | 20        |
|               | 1552311     | 20        |
| 1552272       | 20          | 1408770   |
| 1552308       | 20          |           |
|               | 1552298     | 20        |
|               | 1552324     | 20        |



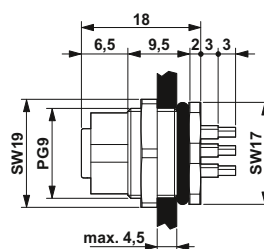
| Technical data  |                 |       |
|-----------------|-----------------|-------|
| 12-pos.         | 17-pos.         |       |
| IEC 61076-2-101 | IEC 61076-2-101 | -     |
| 3               | 3               | -     |
| IP67            | IP67            | -     |
| Solder pins     | Solder pins     | -     |
| 30 V            | 30 V            | -     |
| 1.5 A           | 1.5 A           | -     |
| ≤ 3 mΩ          | ≤ 3 mΩ          | -     |
| CuZn / Au       | CuZn / Au       | - / - |
| PA 66           | PA 66           | -     |
| V0              | V0              | -     |
| -25 ... 85      | -25 ... 85      | -     |

| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 12-pos.       | 17-pos.     |           |
| 1559929       | 20          | 1559958   |
| 1559932       | 20          | 1559961   |
|               |             |           |
|               |             |           |
|               |             |           |
|               |             |           |
|               |             |           |
|               |             |           |
|               |             |           |
|               |             |           |

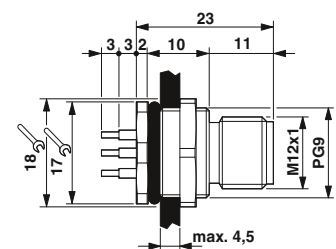
| Description                                               | Coding       |
|-----------------------------------------------------------|--------------|
| <b>Device plug-in connector, solder pin length: 6 mm</b>  |              |
| Socket                                                    | A - standard |
| Plug                                                      | A - standard |
| Socket                                                    | D - data     |
| Plug                                                      | D - data     |
| Socket                                                    | B - inverse  |
| Plug                                                      | B - inverse  |
| <b>Device plug-in connector, solder pin length: 12 mm</b> |              |
| Socket                                                    | A - standard |
| Plug                                                      | A - standard |
| Socket                                                    | D - data     |
| Plug                                                      | D - data     |
| Socket                                                    | B - inverse  |
| Plug                                                      | B - inverse  |



M12 flush-type socket, contact length: 12 mm



M12 flush-type socket, contact length: 6 mm



M12 flush-type plug, contact length: 6 mm

**Pg9 fastening thread, one-piece, for wave soldering processes, shielded**



**Ethernet**



Straight, 4, 5, 8-pos.



Straight, 12, 17-pos.



| Technical data                               |                 |                 |                 |
|----------------------------------------------|-----------------|-----------------|-----------------|
| 4-pos.                                       | 5-pos.          | 8-pos.          |                 |
| General data                                 |                 |                 |                 |
| M12 circular plug-in connector according to: | IEC 61076-2-101 | IEC 61076-2-101 | IEC 61076-2-101 |
| Pollution degree                             | 3               | 3               | 3               |
| Degree of protection                         | IP67            | IP67            | IP67            |
| Connection method                            | Solder pins     | Solder pins     | Solder pins     |
| Electrical data                              |                 |                 |                 |
| Rated voltage                                | 250 V           | 60 V            | 30 V            |
| Rated current                                | 4 A             | 4 A             | 2 A             |
| Volume resistance                            | ≤ 3 mΩ          | ≤ 3 mΩ          | ≤ 3 mΩ          |
| Material data                                |                 |                 |                 |
| Material contact / contact surface           | CuZn / Au       | CuZn / Au       | CuZn / Au       |
| Contact carrier material                     | PA 66           | PA 66           | PA 66           |
| Inflammability class according to UL 94      | V0              | V0              | V0              |
| Temperature data                             |                 |                 |                 |
| Plug / socket                                | -25 ... 85      | -25 ... 85      | -25 ... 85      |

| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 4-pos.        |             | 5-pos.    |             |

|           |             |           |             |           |             |
|-----------|-------------|-----------|-------------|-----------|-------------|
| Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 1556841   | 20          | 1553019   | 20          | 1553860   | 20          |
|           |             | 1553048   | 20          | 1553873   | 20          |
| 1553006   | 20          |           |             |           |             |
| 1553035   | 20          |           |             |           |             |
|           |             | 1553022   | 20          |           |             |
|           |             | 1553051   | 20          |           |             |
| 1558522   | 20          | 1558548   | 20          | 1408771   | 20          |
| 1558535   | 20          | 1558551   | 20          |           |             |
| 1558506   | 20          |           |             |           |             |
| 1558519   | 20          |           |             |           |             |
|           |             | 1558564   | 20          |           |             |
|           |             | 1558577   | 20          |           |             |



| Technical data   |                 |       |   |
|------------------|-----------------|-------|---|
| 12-pos.          | 17-pos.         |       |   |
| General data     |                 |       |   |
| IEC 61076-2-101  | IEC 61076-2-101 | -     | - |
| 3                | 3               | -     | - |
| IP67             | IP67            | -     | - |
| Solder pins      | Solder pins     | -     | - |
| Electrical data  |                 |       |   |
| 30 V             | 30 V            | -     | - |
| 1.5 A            | 1.5 A           | -     | - |
| ≤ 3 mΩ           | ≤ 3 mΩ          | -     | - |
| Material data    |                 |       |   |
| CuZn / Au        | CuZn / Au       | - / - | - |
| PA 66            | PA 66           | -     | - |
| V0               | V0              | -     | - |
| Temperature data |                 |       |   |
| -25 ... 85       | -25 ... 85      | -     | - |

| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 12-pos.       |             | 17-pos.   |             |

|           |             |           |             |           |             |
|-----------|-------------|-----------|-------------|-----------|-------------|
| Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 1436770   | 20          | 1436806   | 20          |           |             |
| 1436783   | 20          | 1436819   | 20          |           |             |
|           |             |           |             |           |             |
|           |             |           |             |           |             |
|           |             |           |             |           |             |
|           |             |           |             |           |             |
|           |             |           |             |           |             |
|           |             |           |             |           |             |
|           |             |           |             |           |             |
|           |             |           |             |           |             |

| Description | Coding |
|-------------|--------|
|-------------|--------|

**Device plug-in connector, solder pin length: 6 mm**

|        |              |
|--------|--------------|
| Socket | A - standard |
| Plug   | A - standard |
| Socket | D - data     |
| Plug   | D - data     |
| Socket | B - inverse  |
| Plug   | B - inverse  |

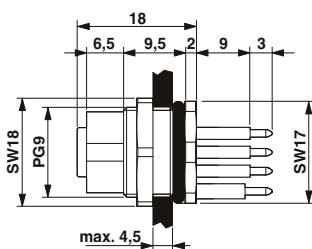
**Device plug-in connector, solder pin length: 12 mm**

|        |              |
|--------|--------------|
| Socket | A - standard |
| Plug   | A - standard |
| Socket | D - data     |
| Plug   | D - data     |
| Socket | B - inverse  |
| Plug   | B - inverse  |

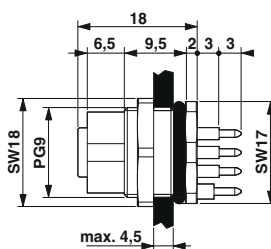
**EMC hexagonal nuts with fine toothing, for all flush-type plug-in connectors with:**  
**Pg9 fastening thread**

| Accessories        |         |    |
|--------------------|---------|----|
| SACC-PG9-KD-NUT-SH | 1440177 | 10 |

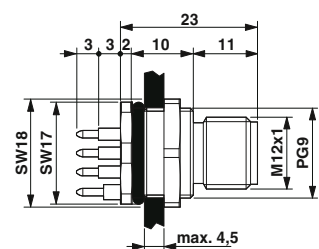
| Accessories        |         |    |
|--------------------|---------|----|
| SACC-PG9-KD-NUT-SH | 1440177 | 10 |



M12 flush-type socket, contact length: 12 mm



M12 flush-type socket, contact length: 6 mm



M12 flush-type plug, contact length: 6 mm

## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, rear mounting

M12 fastening thread, one-piece,  
for wave soldering processes



Straight, 4, 5, 8-pos.



Straight, 12, 17-pos.



| Technical data           |                          |                          |
|--------------------------|--------------------------|--------------------------|
| 4-pos.                   | 5-pos.                   | 8-pos.                   |
| IEC 61076-2-101          | IEC 61076-2-101          | IEC 61076-2-101          |
| 3                        | 3                        | 3                        |
| IP67                     | IP67                     | IP67                     |
| Solder pins              | Solder pins              | Solder pins              |
| 250 V                    | 60 V                     | 30 V                     |
| 4 A                      | 4 A                      | 2 A                      |
| $\leq 3 \text{ m}\Omega$ | $\leq 3 \text{ m}\Omega$ | $\leq 3 \text{ m}\Omega$ |
| CuZn / Au                | CuZn / Au                | CuZn / Au                |
| PA 66                    | PA 66                    | PA 66                    |
| V0                       | V0                       | V0                       |
| -25 ... 85               | -25 ... 85               | -25 ... 85               |

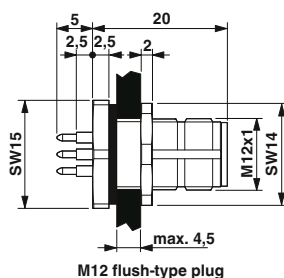
| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 4-pos.        | 5-pos.      | 8-pos.    |
| 1551820       | 20          | 1551833   |
| 1551859       | 20          | 1551862   |
|               |             | 1551846   |



| Technical data           |                          |       |
|--------------------------|--------------------------|-------|
| 12-pos.                  | 17-pos.                  |       |
| IEC 61076-2-101          | IEC 61076-2-101          | -     |
| 3                        | 3                        | -     |
| IP67                     | IP67                     | -     |
| Solder pins              | Solder pins              | -     |
| 30 V                     | 30 V                     | -     |
| 1.5 A                    | 1.5 A                    | -     |
| $\leq 3 \text{ m}\Omega$ | $\leq 3 \text{ m}\Omega$ | -     |
| CuZn / Au                | CuZn / Au                | - / - |
| PA 66                    | PA 66                    | -     |
| V0                       | V0                       | -     |
| -25 ... 85               | -25 ... 85               | -     |

| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 12-pos.       | 17-pos.     |           |
| 1559945       | 20          | 1559974   |

| Description               | Coding       |
|---------------------------|--------------|
| Device plug-in connectors |              |
| Plug                      | A - standard |
| Plug                      | D - data     |
| Plug                      | B - inverse  |



M12 flush-type plug

**M12 fastening thread, one-piece,  
for wave soldering processes, shielded**



**Straight, 4, 5, 8-pos.**



**Straight, 12, 17-pos.**



| Technical data                               |                 |                 |
|----------------------------------------------|-----------------|-----------------|
| 4-pos.                                       | 5-pos.          | 8-pos.          |
| General data                                 |                 |                 |
| M12 circular plug-in connector according to: | IEC 61076-2-101 | IEC 61076-2-101 |
| Pollution degree                             | 3               | 3               |
| Degree of protection                         | IP67            | IP67            |
| Connection method                            | Solder pins     | Solder pins     |
| Electrical data                              |                 |                 |
| Rated voltage                                | 250 V           | 60 V            |
| Rated current                                | 4 A             | 4 A             |
| Volume resistance                            | ≤ 3 mΩ          | ≤ 3 mΩ          |
| Material data                                |                 |                 |
| Material contact / contact surface           | CuZn / Au       | CuZn / Au       |
| Contact carrier material                     | PA 66           | PA 66           |
| Inflammability class according to UL 94      | V0              | V0              |
| Temperature data                             |                 |                 |
| Plug / socket                                | -25 ... 85      | -25 ... 85      |

| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 4-pos.        | 5-pos.      | 8-pos.    |
| 1552955       | 20          | 1552968   |
| 1552984       | 20          | 1552997   |
|               |             | 1552971   |

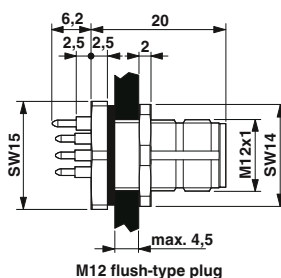
| Accessories        |         |    |
|--------------------|---------|----|
| SACC-M12-KD-NUT-SH | 1440151 | 10 |



| Technical data                               |                 |                 |
|----------------------------------------------|-----------------|-----------------|
| 12-pos.                                      | 17-pos.         |                 |
| General data                                 |                 |                 |
| M12 circular plug-in connector according to: | IEC 61076-2-101 | IEC 61076-2-101 |
| Pollution degree                             | 3               | 3               |
| Degree of protection                         | IP67            | IP67            |
| Connection method                            | Solder pins     | Solder pins     |
| Electrical data                              |                 |                 |
| Rated voltage                                | 30 V            | 30 V            |
| Rated current                                | 1.5 A           | 1.5 A           |
| Volume resistance                            | ≤ 3 mΩ          | ≤ 3 mΩ          |
| Material data                                |                 |                 |
| Material contact / contact surface           | CuZn / Au       | CuZn / Au       |
| Contact carrier material                     | PA 66           | PA 66           |
| Inflammability class according to UL 94      | V0              | V0              |
| Temperature data                             |                 |                 |
| Plug / socket                                | -25 ... 85      | -25 ... 85      |

| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 12-pos.       | 17-pos.     |           |
| 1437106       | 20          | 1437119   |

| Accessories        |         |    |
|--------------------|---------|----|
| SACC-M12-KD-NUT-SH | 1440151 | 10 |



**M12 flush-type plug**

## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, rear mounting

M16 fastening thread, one-piece,  
for wave soldering processes



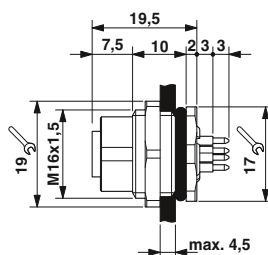
Straight, 4, 5, 8-pos.



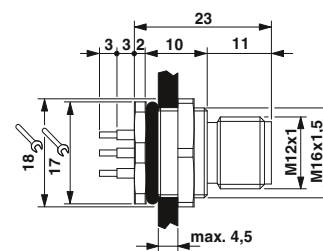
Straight, 12, 17-pos.



| Technical data                               |                 |                 | Technical data  |                 |                 |
|----------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                              | 4-pos.          | 5-pos.          | 8-pos.          | 12-pos.         | 17-pos.         |
| General data                                 |                 |                 |                 |                 |                 |
| M12 circular plug-in connector according to: | IEC 61076-2-101 | IEC 61076-2-101 | IEC 61076-2-101 | IEC 61076-2-101 | IEC 61076-2-101 |
| Pollution degree                             | 3               | 3               | 3               | 3               | 3               |
| Degree of protection                         | IP67            | IP67            | IP67            | IP67            | IP67            |
| Connection method                            | Solder pins     | Solder pins     | Solder pins     | Solder pins     | Solder pins     |
| Electrical data                              |                 |                 |                 |                 |                 |
| Rated voltage                                | 250 V           | 60 V            | 30 V            | 30 V            | 30 V            |
| Rated current                                | 4 A             | 4 A             | 2 A             | 1.5 A           | 1.5 A           |
| Volume resistance                            | ≤ 3 mΩ          | ≤ 3 mΩ          | ≤ 3 mΩ          | ≤ 3 mΩ          | ≤ 3 mΩ          |
| Material data                                |                 |                 |                 |                 |                 |
| Material contact / contact surface           | CuZn / Au       | CuZn / Au       | CuZn / Au       | CuZn / Au       | CuZn / Au       |
| Contact carrier material                     | PA 66           | PA 66           | PA 66           | PA 66           | PA 66           |
| Inflammability class according to UL 94      | V0              | V0              | V0              | V0              | V0              |
| Temperature data                             |                 |                 |                 |                 |                 |
| Plug / socket                                | -25 ... 85      | -25 ... 85      | -25 ... 85      | -25 ... 85      | -25 ... 85      |
|                                              | [°C]            |                 |                 |                 |                 |
| Ordering data                                |                 |                 | Ordering data   |                 |                 |
| Description                                  | Coding          | Order No.       | Pcs. / Pkt.     | Order No.       | Pcs. / Pkt.     |
| Device plug-in connectors                    |                 | 4-pos.          | 5-pos.          | 8-pos.          | 12-pos.         |
| Socket                                       | A - standard    | 1419755         | 20              | 1441778         | 20              |
| Plug                                         | A - standard    | 1419742         | 20              | 1441765         | 20              |
| Socket                                       | D - data        | 1441752         | 20              | 1441804         | 20              |
| Plug                                         | D - data        | 1441749         | 20              |                 |                 |
| Socket                                       | B - inverse     |                 | 1441794         | 20              |                 |
| Plug                                         | B - inverse     |                 | 1441781         | 20              |                 |



M12 flush-type socket



M12 flush-type plug

## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, rear mounting

**M16 fastening thread, one-piece, for wave soldering processes, shielded**



Straight, 4, 5, 8-pos.



Straight, 12, 17-pos.



| Technical data                               |                 |                 |                 |
|----------------------------------------------|-----------------|-----------------|-----------------|
| 4-pos.                                       | 5-pos.          | 8-pos.          |                 |
| General data                                 |                 |                 |                 |
| M12 circular plug-in connector according to: | IEC 61076-2-101 | IEC 61076-2-101 | IEC 61076-2-101 |
| Pollution degree                             | 3               | 3               | 3               |
| Degree of protection                         | IP67            | IP67            | IP67            |
| Connection method                            | Solder pins     | Solder pins     | Solder pins     |
| Electrical data                              |                 |                 |                 |
| Rated voltage                                | 250 V           | 60 V            | 30 V            |
| Rated current                                | 4 A             | 4 A             | 2 A             |
| Volume resistance                            | ≤ 3 mΩ          | ≤ 3 mΩ          | ≤ 3 mΩ          |
| Material data                                |                 |                 |                 |
| Material contact / contact surface           | CuZn / Au       | CuZn / Au       | CuZn / Au       |
| Contact carrier material                     | PA 66           | PA 66           | PA 66           |
| Inflammability class according to UL 94      | V0              | V0              | V0              |
| Temperature data                             |                 |                 |                 |
| Plug / socket                                | -25 ... 85      | -25 ... 85      | -25 ... 85      |

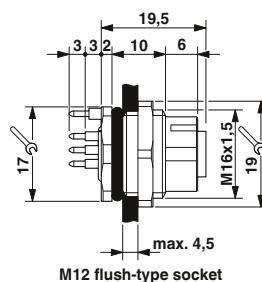
| Ordering data |             |           |             |           |             |
|---------------|-------------|-----------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 4-pos.        |             | 5-pos.    |             | 8-pos.    |             |
| 1419771       | 20          | 1441891   | 20          | 1441930   | 20          |
| 1419768       | 20          | 1441888   | 20          | 1441927   | 20          |
| 1441875       | 20          |           |             |           |             |
| 1441862       | 20          |           |             |           |             |
|               |             | 1441914   | 20          |           |             |
|               |             | 1441901   | 20          |           |             |

| Accessories        |         |    |
|--------------------|---------|----|
| SACC-M16-KD-NUT-SH | 1440164 | 10 |

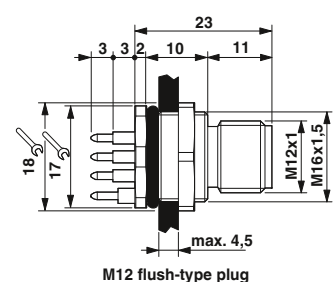
| Technical data                               |                 |                 |       |
|----------------------------------------------|-----------------|-----------------|-------|
| 12-pos.                                      | 17-pos.         |                 |       |
| General data                                 |                 |                 |       |
| M12 circular plug-in connector according to: | IEC 61076-2-101 | IEC 61076-2-101 | -     |
| Pollution degree                             | 3               | 3               | -     |
| Degree of protection                         | IP67            | IP67            | -     |
| Connection method                            | Solder pins     | Solder pins     | -     |
| Electrical data                              |                 |                 |       |
| Rated voltage                                | 30 V            | 30 V            | -     |
| Rated current                                | 1.5 A           | 1.5 A           | -     |
| Volume resistance                            | ≤ 3 mΩ          | ≤ 3 mΩ          | -     |
| Material data                                |                 |                 |       |
| Material contact / contact surface           | CuZn / Au       | CuZn / Au       | - / - |
| Contact carrier material                     | PA 66           | PA 66           | -     |
| Inflammability class according to UL 94      | V0              | V0              | -     |
| Temperature data                             |                 |                 |       |
| Plug / socket                                | -25 ... 85      | -25 ... 85      | -     |

| Ordering data |             |           |             |           |             |
|---------------|-------------|-----------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 12-pos.       |             | 17-pos.   |             |           |             |
| 1441956       | 20          | 1441972   | 20          |           |             |
| 1441943       | 20          | 1441969   | 20          |           |             |

| Accessories        |         |    |
|--------------------|---------|----|
| SACC-M16-KD-NUT-SH | 1440164 | 10 |



M12 flush-type socket



M12 flush-type plug

## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, rear mounting

Contact carrier, two-piece, angled,  
for wave soldering processes



Angled, 4, 5, 8-pos.



Angled, shielded, 4, 5, 8-pos.



| Technical data                               |                 |                 |                 |
|----------------------------------------------|-----------------|-----------------|-----------------|
|                                              | 4-pos.          | 5-pos.          | 8-pos.          |
| General data                                 |                 |                 |                 |
| M12 circular plug-in connector according to: | IEC 61076-2-101 | IEC 61076-2-101 | IEC 61076-2-101 |
| Pollution degree                             | 3               | 3               | 3               |
| Degree of protection                         | IP67            | IP67            | IP67            |
| Connection method                            | Solder pins     | Solder pins     | Solder pins     |
| Electrical data                              |                 |                 |                 |
| Rated voltage                                | 250 V           | 60 V            | 30 V            |
| Rated current                                | 4 A             | 4 A             | 2 A             |
| Volume resistance                            | ≤ 3 mΩ          | ≤ 3 mΩ          | ≤ 3 mΩ          |
| Material data                                |                 |                 |                 |
| Material contact / contact surface           | CuZn / Au       | CuZn / Au       | CuZn / Au       |
| Contact carrier material                     | PA 66           | PA 66           | PA 66           |
| Inflammability class according to UL 94      | V0              | V0              | V0              |
| Temperature data                             |                 |                 |                 |
| Plug / socket                                | -25 ... 85      | -25 ... 85      | -25 ... 85      |

| Ordering data |             |           |             |           |             |
|---------------|-------------|-----------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 4-pos.        |             | 5-pos.    |             | 8-pos.    |             |

| Description            | Coding       |
|------------------------|--------------|
| <b>Contact carrier</b> |              |
| Socket                 | A - standard |
| Plug                   | A - standard |
| Socket                 | D - data     |
| Plug                   | D - data     |
| Socket                 | B - inverse  |
| Plug                   | B - inverse  |

|         |    |         |    |         |    |
|---------|----|---------|----|---------|----|
| 1436628 | 20 | 1436644 | 20 | 1436990 | 20 |
| 1436660 | 20 | 1436686 | 20 | 1436987 | 20 |

| Accessories          |  |
|----------------------|--|
| See page 258 onwards |  |

**Housing screw connections**, SPEEDCON screw versions and press-in versions, for all two-piece THR and wave soldering contact carriers

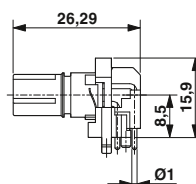


| Technical data   |                 |                 |                 |
|------------------|-----------------|-----------------|-----------------|
|                  | 4-pos.          | 5-pos.          | 8-pos.          |
| General data     |                 |                 |                 |
| IEC 61076-2-101  | IEC 61076-2-101 | IEC 61076-2-101 | IEC 61076-2-101 |
| 3                | 3               | 3               | 3               |
| IP67             | IP67            | IP67            | IP67            |
| Solder pins      | Solder pins     | Solder pins     | Solder pins     |
| Electrical data  |                 |                 |                 |
| 250 V            | 60 V            | 30 V            |                 |
| 4 A              | 4 A             | 2 A             |                 |
| ≤ 3 mΩ           | ≤ 3 mΩ          | ≤ 3 mΩ          |                 |
| Material data    |                 |                 |                 |
| CuZn / Au        | CuZn / Au       | CuZn / Au       |                 |
| PA 66            | PA 66           | PA 66           |                 |
| V0               | V0              | V0              |                 |
| Temperature data |                 |                 |                 |
| -25 ... 85       | -25 ... 85      | -25 ... 85      |                 |

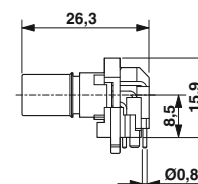
| Ordering data |             |           |             |           |             |
|---------------|-------------|-----------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 4-pos.        |             | 5-pos.    |             | 8-pos.    |             |

|         |    |         |    |         |    |
|---------|----|---------|----|---------|----|
| 1432444 | 20 | 1432431 | 20 | 1437009 | 20 |
| 1439887 | 20 | 1439890 | 20 | 1437038 | 20 |
| 1432457 | 20 |         |    |         |    |
| 1436673 | 20 |         |    |         |    |
|         |    | 1432512 | 20 |         |    |
|         |    | 1436699 | 20 |         |    |

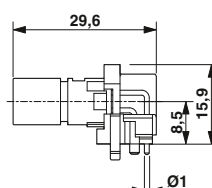
| Accessories          |  |
|----------------------|--|
| See page 258 onwards |  |



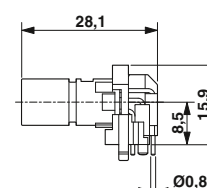
M12 socket contact carrier, angled, 4, 5-pos.



M12 socket contact carrier, angled, 8-pos.



M12 pin contact carrier, angled, 4, 5-pos.



M12 pin contact carrier, angled, 8-pos.

### M12 sensor/actuator device plug-in connectors, rear mounting

**Contact carrier, two-piece, angled,  
for wave soldering processes**

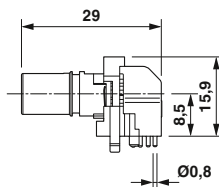


**Angled, 12, 17-pos.**

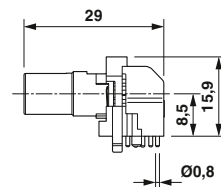


**Angled, shielded, 12, 17-pos.**

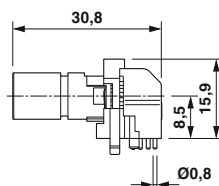
|                                                                                                                                     |              | Technical data       |                 |            | Technical data       |                 |             |           |             |
|-------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------|-----------------|------------|----------------------|-----------------|-------------|-----------|-------------|
|                                                                                                                                     |              | 12-pos.              | 17-pos.         |            | 12-pos.              | 17-pos.         |             |           |             |
| General data                                                                                                                        |              |                      |                 |            |                      |                 |             |           |             |
| M12 circular plug-in connector according to:                                                                                        |              | IEC 61076-2-101      | IEC 61076-2-101 | -          | IEC 61076-2-101      | IEC 61076-2-101 | -           |           |             |
| Pollution degree                                                                                                                    |              | 3                    | 3               | -          | 3                    | 3               | -           |           |             |
| Degree of protection                                                                                                                |              | IP67                 | IP67            | -          | IP67                 | IP67            | -           |           |             |
| Connection method                                                                                                                   |              | Solder pins          | Solder pins     | -          | Solder pins          | Solder pins     | -           |           |             |
| Electrical data                                                                                                                     |              |                      |                 |            |                      |                 |             |           |             |
| Rated voltage                                                                                                                       |              | 30 V                 | 30 V            | -          | 30 V                 | 30 V            | -           |           |             |
| Rated current                                                                                                                       |              | 1.5 A                | 1.5 A           | -          | 1.5 A                | 1.5 A           | -           |           |             |
| Volume resistance                                                                                                                   |              | ≤ 3 mΩ               | ≤ 3 mΩ          | -          | ≤ 3 mΩ               | ≤ 3 mΩ          | -           |           |             |
| Material data                                                                                                                       |              |                      |                 |            |                      |                 |             |           |             |
| Material contact / contact surface                                                                                                  |              | CuZn / Au            | CuZn / Au       | - / -      | CuZn / Au            | CuZn / Au       | - / -       |           |             |
| Contact carrier material                                                                                                            |              | PA6T                 | PA6T            | -          | PA6T                 | PA6T            | -           |           |             |
| Inflammability class according to UL 94                                                                                             |              | V0                   | V0              | -          | V0                   | V0              | -           |           |             |
| Temperature data                                                                                                                    |              |                      |                 |            |                      |                 |             |           |             |
| Plug / socket                                                                                                                       |              | [°C]                 | -25 ... 85      | -25 ... 85 | -                    | -25 ... 85      | -25 ... 85  | -         |             |
|                                                                                                                                     |              | Ordering data        |                 |            | Ordering data        |                 |             |           |             |
| Description                                                                                                                         | Coding       | Order No.            | Pcs. / Pkt.     | Order No.  | Pcs. / Pkt.          | Order No.       | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|                                                                                                                                     |              | 12-pos.              |                 | 17-pos.    |                      | 12-pos.         |             | 17-pos.   |             |
| Device plug-in connectors                                                                                                           |              |                      |                 |            |                      |                 |             |           |             |
| Socket                                                                                                                              | A - standard | 1424195              | 20              | 1424197    | 20                   | 1424199         | 20          | 1424201   | 20          |
| Plug                                                                                                                                | A - standard | 1424194              | 20              | 1424196    | 20                   | 1424198         | 20          | 1424200   | 20          |
|                                                                                                                                     |              | Accessories          |                 |            | Accessories          |                 |             |           |             |
| Housing screw connections, SPEEDCON screw versions and press-in versions, for all two-piece THR and wave soldering contact carriers |              | See page 258 onwards |                 |            | See page 258 onwards |                 |             |           |             |



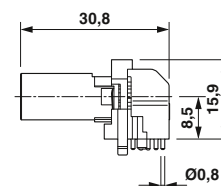
**M12 socket contact carrier, angled, 12-pos.**



**M12 socket contact carrier, angled, 17-pos.**



**M12 pin contact carrier, angled, 12-pos.**



**M12 pin contact carrier, angled, 17-pos.**

M5 to M12 circular plug-in connectors

M12 sensor/actuator device plug-in connectors, rear mounting

Contact carrier, two-piece,  
for wave soldering processes



Straight, 5-pos.



Straight, shielded, 4, 5-pos.



| Technical data                               |                 |       |       |
|----------------------------------------------|-----------------|-------|-------|
| 5-pos.                                       |                 |       |       |
| General data                                 |                 |       |       |
| M12 circular plug-in connector according to: | IEC 61076-2-101 | -     | -     |
| Pollution degree                             | 3               | -     | -     |
| Degree of protection                         | IP67            | -     | -     |
| Connection method                            | Solder pins     | -     | -     |
| Electrical data                              |                 |       |       |
| Rated voltage                                | 60 V            | -     | -     |
| Rated current                                | 4 A             | -     | -     |
| Volume resistance                            | ≤ 3 mΩ          | -     | -     |
| Material data                                |                 |       |       |
| Material contact / contact surface           | CuZn / Au       | - / - | - / - |
| Contact carrier material                     | PA 66           | -     | -     |
| Inflammability class according to UL 94      | V0              | -     | -     |
| Temperature data                             |                 |       |       |
| Plug / socket                                | -25 ... 85      | -     | -     |
|                                              | [°C]            |       |       |

| Ordering data   |  |              |  |
|-----------------|--|--------------|--|
| 5-pos.          |  |              |  |
| Order No.       |  | Pcs. / Pkt.  |  |
| 1551464         |  | 20           |  |
| Contact carrier |  |              |  |
| Socket          |  | A - standard |  |
| Socket          |  | D - data     |  |
| Socket          |  | B - inverse  |  |

Housing screw connections, SPEEDCON screw versions and press-in versions, for all two-piece THR and wave soldering contact carriers

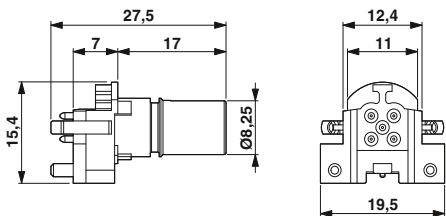
See page 258 onwards



| Technical data                               |                 |                 |       |
|----------------------------------------------|-----------------|-----------------|-------|
| 4-pos.                                       |                 | 5-pos.          |       |
| General data                                 |                 |                 |       |
| M12 circular plug-in connector according to: | IEC 61076-2-101 | IEC 61076-2-101 | -     |
| Pollution degree                             | 3               | 3               | -     |
| Degree of protection                         | IP67            | IP67            | -     |
| Connection method                            | Solder pins     | Solder pins     | -     |
| Electrical data                              |                 |                 |       |
| Rated voltage                                | 250 V           | 60 V            | -     |
| Rated current                                | 4 A             | 4 A             | -     |
| Volume resistance                            | ≤ 3 mΩ          | ≤ 3 mΩ          | -     |
| Material data                                |                 |                 |       |
| Material contact / contact surface           | CuZn / Au       | CuZn / Au       | - / - |
| Contact carrier material                     | PA 66           | PA 66           | -     |
| Inflammability class according to UL 94      | V0              | V0              | -     |
| Temperature data                             |                 |                 |       |
| Plug / socket                                | -25 ... 85      | -25 ... 85      | -     |

| Ordering data |  |             |    |
|---------------|--|-------------|----|
| 4-pos.        |  | 5-pos.      |    |
| Order No.     |  | Pcs. / Pkt. |    |
| 1551480       |  | 20          |    |
|               |  | 1551477     | 20 |

See page 258 onwards



M12 socket contact carrier, straight, 4, 5-pos.



## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, rear mounting

Two-piece, for reflow processes,  
tray packaging, tape-on-reel packing



Straight, 4, 5, 8-pos.



Straight, 12, 17-pos.



| Technical data        |                       |                       |
|-----------------------|-----------------------|-----------------------|
| 4-pos.                | 5-pos.                | 8-pos.                |
| IEC 61076-2-101       | IEC 61076-2-101       | IEC 61076-2-101       |
| 3                     | 3                     | 3                     |
| IP67                  | IP67                  | IP67                  |
| THR solder connection | THR solder connection | THR solder connection |
| 250 V                 | 60 V                  | 30 V                  |
| 4 A                   | 4 A                   | 2 A                   |
| ≤ 3 mΩ                | ≤ 3 mΩ                | ≤ 3 mΩ                |
| CuZn / Au             | CuZn / Au             | CuZn / Au             |
| PPA                   | PPA                   | PPA                   |
| V0                    | V0                    | V0                    |
| -25 ... 85            | -25 ... 85            | -25 ... 85            |

| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 4-pos.        | 5-pos.      | 8-pos.    |
| 1439942       | 60          | 1551448   |
| 1437164       | 60          | 1552227   |
| 1457610       | 100         | 1457649   |
| 1457490       | 100         | 1457526   |

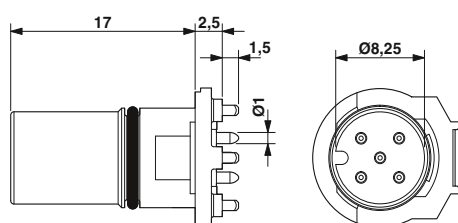
| Accessories          |  |  |
|----------------------|--|--|
| See page 258 onwards |  |  |



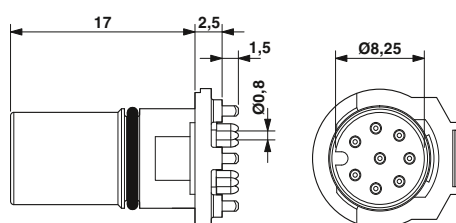
| Technical data        |                       |       |
|-----------------------|-----------------------|-------|
| 12-pos.               | 17-pos.               |       |
| IEC 61076-2-101       | IEC 61076-2-101       | -     |
| 3                     | 3                     | -     |
| IP67                  | IP67                  | -     |
| THR solder connection | THR solder connection | -     |
| 30 V                  | 30 V                  | -     |
| 1.5 A                 | 1.5 A                 | -     |
| ≤ 3 mΩ                | ≤ 3 mΩ                | -     |
| CuZn / Au             | CuZn / Au             | - / - |
| PPA                   | PPA                   | -     |
| V0                    | V0                    | -     |
| -25 ... 85            | -25 ... 85            | -     |

| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 12-pos.       | 17-pos.     |           |
| 1441970       | 60          | 1441998   |
| 1441985       | 60          | 1442007   |
| 1457694       | 100         | 1457717   |
| 1457571       | 100         | 1457597   |

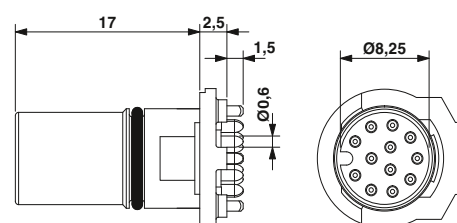
| Accessories          |  |  |
|----------------------|--|--|
| See page 258 onwards |  |  |



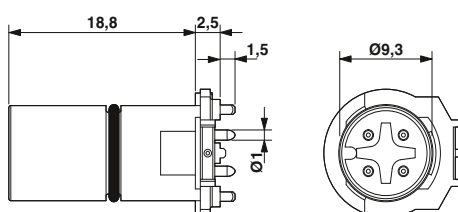
M12 socket contact carrier, straight, 4, 5-pos.



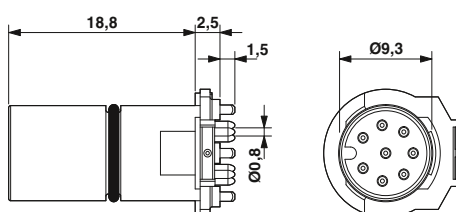
M12 socket contact carrier, straight, 8-pos.



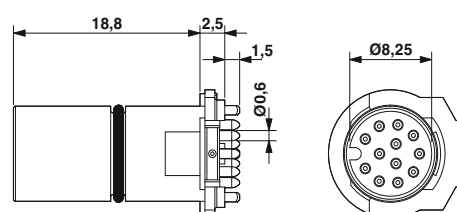
M12 socket contact carrier, straight, 12, 17-pos.



M12 plug contact carrier, straight, 4, 5-pos.



M12 plug contact carrier, straight, 8-pos.



M12 plug contact carrier, straight, 12, 17-pos.

### M12 sensor/actuator device plug-in connectors, rear mounting



**RL**

| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 12-pos.       |             | 17-pos.   |             |
| 1442052       | 60          | 1442078   | 60          |
| 1442065       | 60          | 1442081   | 60          |
| 1457704       | 100         | 1457720   | 100         |
| 1457584       | 100         | 1457607   | 100         |

|                      |
|----------------------|
| <b>Accessories</b>   |
| See page 258 onwards |

## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, rear mounting

#### Housing screw connections, screw versions

- For two-piece M12 device plug-in connectors



With O-ring



With flat gasket

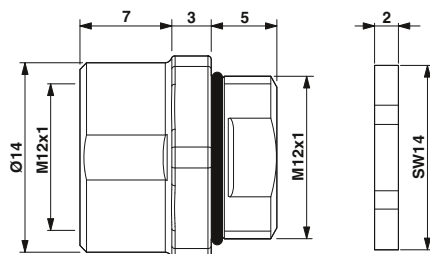


| Technical data                |           |             |
|-------------------------------|-----------|-------------|
| Zinc die-cast (nickel-plated) |           |             |
| -25 °C ... 85 °C              |           |             |
| Ordering data                 |           |             |
| Type                          | Order No. | Pcs. / Pkt. |
| SACC-M12-SCO NUT              | 1552243   | 60          |
| SACC-M12-SCO PLUG             | 1551493   | 60          |

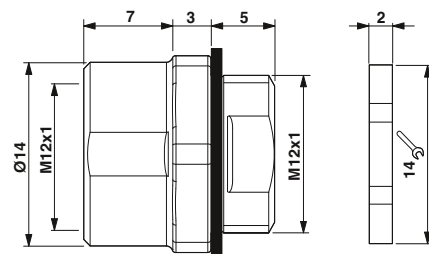


| Technical data                |           |             |
|-------------------------------|-----------|-------------|
| Zinc die-cast (nickel-plated) |           |             |
| -25 °C ... 85 °C              |           |             |
| Ordering data                 |           |             |
| Type                          | Order No. | Pcs. / Pkt. |
| SACC-M12-SCO NUT L 90         | 1432460   | 10          |
| SACC-M12-SCO PLUG L90         | 1436709   | 10          |

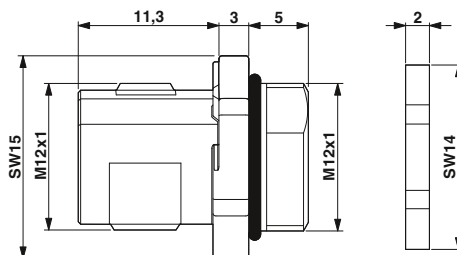
|                                 |                                                                                                                     |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Material data                   |                                                                                                                     |
| Material                        |                                                                                                                     |
| Temperature data                |                                                                                                                     |
| Ambient temperature (operation) |                                                                                                                     |
| Description                     | <b>Housing screw connections, SPEEDCON screw versions for all two-piece THR and wave soldering contact carriers</b> |
| Socket                          |                                                                                                                     |
| Plug                            |                                                                                                                     |



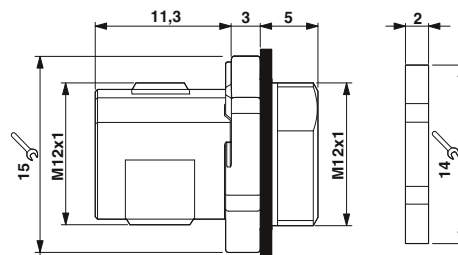
Socket housing screw connection, with O-ring



Socket housing screw connection, with flat gasket



Pin housing screw connection, with O-ring



Pin housing screw connection, with flat gasket

### Housing screw connections, press-in versions

- For two-piece M12 device plug-in connectors



M12 socket



M12 pin



#### Technical data

|                                 |
|---------------------------------|
| Material data                   |
| Material                        |
| Temperature data                |
| Ambient temperature (operation) |

CuZn (nickel-plated)  
-25 °C ... 85 °C

#### Ordering data

|                                                                                             |
|---------------------------------------------------------------------------------------------|
| Description                                                                                 |
| <b>Housing screw connection</b> , for all two-piece THR and wave soldering contact carriers |
| Socket                                                                                      |
| Plug                                                                                        |

| Type               | Order No. | Pcs. / Pkt. |
|--------------------|-----------|-------------|
| SACC-M12 NUT PRESS | 1437889   | 10          |

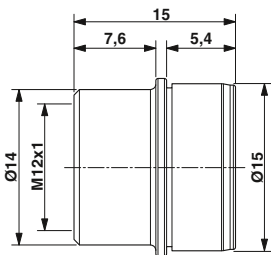


#### Technical data

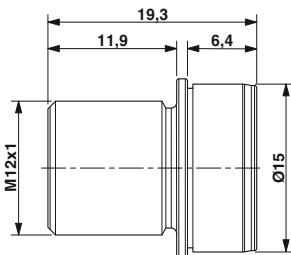
CuZn (nickel-plated)  
-25 °C ... 85 °C

#### Ordering data

| Type                | Order No. | Pcs. / Pkt. |
|---------------------|-----------|-------------|
| SACC-M12 PLUG PRESS | 1437892   | 10          |



Socket housing screw connection



Pin housing screw connection



# M12 flush-type plug-in connector, solder connection


CAT6<sub>A</sub>, X-coded

## Ethernet



CAT5e, Y-coded

|                                                                                                                                                                                                      |  | Technical data                        |                | Technical data                               |                                       |                |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------|----------------|----------------------------------------------|---------------------------------------|----------------|-------------|
|                                                                                                                                                                                                      |  | SACC-DSI-FSX-8CON...                  |                | VS-08-DSIV-L180-HYB SCO                      |                                       |                |             |
| Electrical data                                                                                                                                                                                      |  |                                       |                |                                              |                                       |                |             |
| Nominal voltage U <sub>N</sub>                                                                                                                                                                       |  | 48 V                                  |                | 30 V (Data)                                  |                                       |                |             |
| Rated current                                                                                                                                                                                        |  | 0.5 A                                 |                | 0.5 A (Data) / 6 A (Power)                   |                                       |                |             |
| Transmission characteristics (category)                                                                                                                                                              |  | CAT6 <sub>A</sub>                     |                | CAT5 (IEC 11801:2002), CAT5e (TIA 568B:2001) |                                       |                |             |
| Contact material                                                                                                                                                                                     |  | CuZn                                  |                | CuZn                                         |                                       |                |             |
| Material of grip body                                                                                                                                                                                |  | Zinc die-cast, nickel-plated          |                | Zinc die-cast, nickel-plated                 |                                       |                |             |
| Inflammability class according to UL 94                                                                                                                                                              |  | V0                                    |                | V0                                           |                                       |                |             |
| No. of pos.                                                                                                                                                                                          |  | 8                                     |                | 8                                            |                                       |                |             |
| Insertion/withdrawal cycles                                                                                                                                                                          |  | ≥ 100                                 |                | ≥ 100                                        |                                       |                |             |
| Temperature data                                                                                                                                                                                     |  |                                       |                |                                              |                                       |                |             |
| Plug / socket                                                                                                                                                                                        |  | [°C]                                  |                | -40 ... 85                                   |                                       |                |             |
|                                                                                                                                                                                                      |  |                                       |                |                                              |                                       |                |             |
|                                                                                                                                                                                                      |  | Ordering data                         |                | Ordering data                                |                                       |                |             |
| Description                                                                                                                                                                                          |  | Type                                  | Order No.      | Pcs. / Pkt.                                  | Type                                  | Order No.      | Pcs. / Pkt. |
| <b>Flush-type socket</b> , CAT6 <sub>A</sub> , Ethernet, one-piece, 8-pos., M12 SPEEDCON, with straight solder connection, rear/screw mounting with:<br>M16 fastening thread<br>Pg9 fastening thread |  | <b>SACC-DSI-FSX-8CON-M16-L180 SCO</b> | <b>1424177</b> | 20                                           |                                       |                |             |
| <b>Hybrid flush-type plug-in connector for the reflow soldering process</b> , with straight solder connection, 4 x power contacts, 4 x signal contacts, rear mounting, SPEEDCON                      |  | <b>SACC-DSI-FSX-8CON-PG9-L180 SCO</b> | <b>1404741</b> | 20                                           |                                       |                |             |
| Socket                                                                                                                                                                                               |  |                                       |                |                                              | <b>VS-08-DSIV-L180-HYB SCO</b>        | <b>1456666</b> | 20          |
| <b>Hybrid flush-type plug-in connector for the wave soldering process</b> , with straight solder connection, 4 x power contacts, 4 x signal contacts, rear mounting, SPEEDCON                        |  |                                       |                |                                              |                                       |                |             |
| Socket                                                                                                                                                                                               |  |                                       |                |                                              | <b>SACC-DSI-FSY-8CON-M16-L180 SCO</b> | <b>1407503</b> | 20          |
| <b>Contact carrier, two-piece</b> , CAT6 <sub>A</sub> , Ethernet, 8-pos., rear mounting, with angled solder connection                                                                               |  |                                       |                |                                              |                                       |                |             |
| <b>Hybrid contact carrier, two-piece</b> , Ethernet, 8-pos., rear/screw mounting, with angled solder connection                                                                                      |  | <b>SACC-CI-M12FSX-8CON-L90</b>        | <b>1424180</b> | 20                                           |                                       |                |             |
|                                                                                                                                                                                                      |  |                                       |                |                                              | <b>SACC-CI-M12FSY-8CON-L90</b>        | <b>1424193</b> | 20          |
|                                                                                                                                                                                                      |  | Accessories                           |                | Accessories                                  |                                       |                |             |
| <b>Housing screw connection</b> , SPEEDCON, for all two-piece THR and wave soldering contact carriers                                                                                                |  | See page 258 onwards                  |                | See page 258 onwards                         |                                       |                |             |

## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, rear mounting

**M12, two-piece,  
for wave soldering processes**

#### Ethernet

**PROFI  
NET**



Straight, 4, 5, 8-pos.



Straight, shielded, 5-pos.



#### Technical data

|                                              |                   |
|----------------------------------------------|-------------------|
| General data                                 |                   |
| M12 circular plug-in connector according to: | IEC 61076-2-101   |
| Pollution degree                             | 3                 |
| Degree of protection                         | IP67              |
| Connection method                            | Solder pins       |
| Electrical data                              |                   |
| Rated voltage                                | 250 V             |
| Rated current                                | 4 A               |
| Volume resistance                            | ≤ 3 mΩ            |
| Material data                                |                   |
| Material contact / contact surface           | CuZn / Au         |
| Contact carrier material                     | PA 66             |
| Inflammability class according to UL 94      | HB                |
| Temperature data                             |                   |
| Plug / socket                                | [-25 ... 85] [°C] |

| 4-pos.          | 5-pos.          | 8-pos.          |
|-----------------|-----------------|-----------------|
| IEC 61076-2-101 | IEC 61076-2-101 | IEC 61076-2-101 |
| 3               | 3               | 3               |
| IP67            | IP67            | IP67            |
| Solder pins     | Solder pins     | Solder pins     |
| 250 V           | 60 V            | 30 V            |
| 4 A             | 4 A             | 2 A             |
| ≤ 3 mΩ          | ≤ 3 mΩ          | ≤ 3 mΩ          |
| CuZn / Au       | CuZn / Au       | CuZn / Au       |
| PA 66           | PA 66           | PA 66           |
| HB              | HB              | HB              |
| -25 ... 85      | -25 ... 85      | -25 ... 85      |



#### Technical data

| 5-pos.          |       |       |
|-----------------|-------|-------|
| IEC 61076-2-101 | -     | -     |
| 3               | -     | -     |
| IP67            | -     | -     |
| Solder pins     | -     | -     |
| 60 V            | -     | -     |
| 4 A             | -     | -     |
| ≤ 3 mΩ          | -     | -     |
| CuZn / Au       | - / - | - / - |
| PA 66           | -     | -     |
| HB              | -     | -     |
| -25 ... 85      | -     | -     |

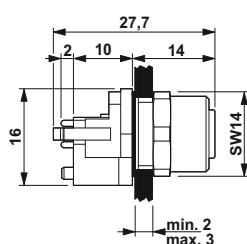
#### Ordering data

| Description                            | Coding       |
|----------------------------------------|--------------|
| Flush-type plug-in connector, straight |              |
| Socket                                 | A - standard |
| Plug                                   | A - standard |
| Socket                                 | D - data     |
| Socket                                 | B - inverse  |
| Plug                                   | B - inverse  |

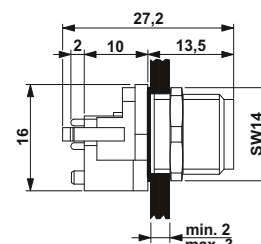
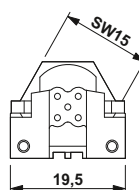
| Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|-----------|-------------|-----------|-------------|-----------|-------------|
| 4-pos.    |             | 5-pos.    |             | 8-pos.    |             |
|           |             | 1694237   | 10          | 1556854   | 10          |
|           |             | 1694211   | 10          |           |             |
| 1534627   | 10          | 1515934   | 10          |           |             |
|           |             | 1514883   | 10          |           |             |

#### Ordering data

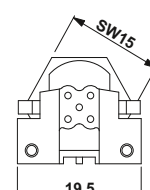
| Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|-----------|-------------|-----------|-------------|-----------|-------------|
| 5-pos.    |             |           |             |           |             |
| 1437193   | 10          |           |             |           |             |
| 1437180   | 10          |           |             |           |             |
| 1437203   | 10          |           |             |           |             |



M12 flush-type socket, straight,



M12 flush-type plug, straight,



### Pg9 fastening thread, plastic



Solder connection, 5, 8-pos.



With 0.5 m long litz wires, 5, 8-pos.



#### Technical data

|                                              |           |
|----------------------------------------------|-----------|
| General data                                 |           |
| M12 circular plug-in connector according to: |           |
| Pollution degree                             | 3         |
| Degree of protection                         | IP67      |
| Electrical data                              |           |
| Rated voltage                                | 60 V      |
| Rated current                                | 4 A       |
| Volume resistance                            | ≤ 3 mΩ    |
| Material data                                |           |
| Material contact / contact surface           | CuZn / Au |
| Contact carrier material                     | PA 66     |
| Inflammability class according to UL 94      | HB        |
| Temperature data                             |           |
| Plug / socket                                | [°C]      |
| Cable, fixed installation                    | [°C]      |

| 5-pos.          | 8-pos.          |
|-----------------|-----------------|
| IEC 61076-2-101 | IEC 61076-2-101 |
| 3               | 3               |
| IP67            | IP67            |
| 60 V            | 30 V            |
| 4 A             | 2 A             |
| ≤ 3 mΩ          | ≤ 3 mΩ          |
| CuZn / Au       | CuZn / Au       |
| PA 66           | PA 66           |
| HB              | HB              |
| -25 ... 85      | -25 ... 85      |
| -               | -               |



#### Technical data

| 5-pos.          | 8-pos.          |
|-----------------|-----------------|
| IEC 61076-2-101 | IEC 61076-2-101 |
| 3               | 3               |
| IP67            | IP67            |
| 60 V            | 30 V            |
| 4 A             | 2 A             |
| ≤ 3 mΩ          | ≤ 3 mΩ          |
| CuZn / Au       | CuZn / Au       |
| PA 66           | PA 66           |
| HB              | HB              |
| -25 ... 85      | -25 ... 85      |
| -25 ... 85      | -25 ... 85      |

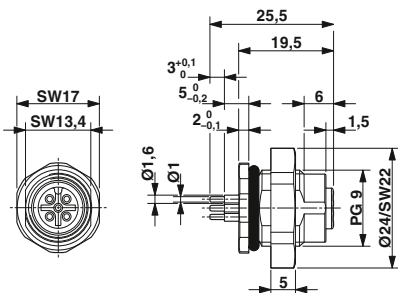
#### Ordering data

| Description                                    | Coding       |
|------------------------------------------------|--------------|
| Flush-type plug-in connector, with solder pins |              |
| Socket                                         | A - standard |
| Flush-type plug-in connector, with solder cups |              |
| Socket                                         | A - standard |
| Flush-type plug-in connector, with litz wires  |              |
| Socket                                         | A - standard |

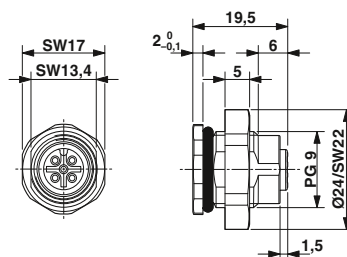
| Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|-----------|-------------|-----------|-------------|
| 5-pos.    |             | 8-pos.    |             |
| 1436330   | 20          | 1436343   | 20          |
| 1436314   | 20          | 1436327   | 20          |

#### Ordering data

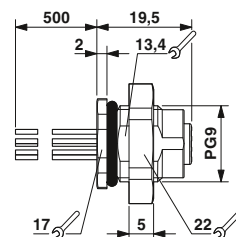
| Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|-----------|-------------|-----------|-------------|
| 5-pos.    |             | 8-pos.    |             |
| 1436356   | 1           | 1436369   | 1           |



M12, Pg9 fastening thread, solder pins



M12 socket, Pg9 fastening thread, solder cups



M12 socket, Pg9 fastening thread, with litz wires

M5 to M12 circular plug-in connectors

M12 sensor/actuator device plug-in connectors, rear mounting

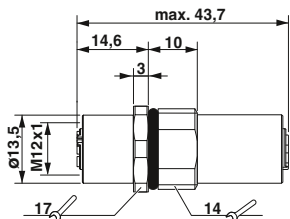
Control cabinet feed-through



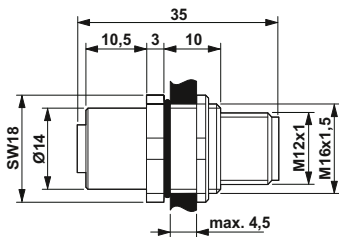
4, 5, 8-pos.

|                                                    |  | Technical data  |  |                 |  |                 |  |
|----------------------------------------------------|--|-----------------|--|-----------------|--|-----------------|--|
|                                                    |  | 4-pos.          |  | 5-pos.          |  | 8-pos.          |  |
| General data                                       |  |                 |  |                 |  |                 |  |
| M12 circular plug-in connector according to:       |  | IEC 61076-2-101 |  | IEC 61076-2-101 |  | IEC 61076-2-101 |  |
| Pollution degree                                   |  | 3               |  | 3               |  | 3               |  |
| Degree of protection                               |  | IP67            |  | IP67            |  | IP67            |  |
| Electrical data                                    |  |                 |  |                 |  |                 |  |
| Rated voltage                                      |  | 60 V            |  | 24 V            |  | 24 V            |  |
| Rated current                                      |  | 4 A             |  | 4 A             |  | 1.5 A           |  |
| Volume resistance                                  |  | ≤ 3 mΩ          |  | ≤ 3 mΩ          |  | ≤ 3 mΩ          |  |
| Material data                                      |  |                 |  |                 |  |                 |  |
| Contact material                                   |  | CuZn            |  | CuZn            |  | CuZn            |  |
| Contact surface material                           |  | Au              |  | Au              |  | Au              |  |
| Contact carrier material                           |  | PA 66           |  | PA 66           |  | PA 66           |  |
| Inflammability class according to UL 94            |  | HB              |  | HB              |  | HB              |  |
| Temperature data                                   |  |                 |  |                 |  |                 |  |
| Plug / socket                                      |  | [°C]            |  | -25 ... 85      |  | -25 ... 85      |  |
|                                                    |  |                 |  |                 |  |                 |  |
|                                                    |  | Ordering data   |  |                 |  |                 |  |
|                                                    |  |                 |  |                 |  |                 |  |
| Description                                        |  | Coding          |  | Order No.       |  | Pcs. / Pkt.     |  |
|                                                    |  |                 |  | Order No.       |  | Pcs. / Pkt.     |  |
|                                                    |  |                 |  | Order No.       |  | Pcs. / Pkt.     |  |
|                                                    |  | 4-pos.          |  | 5-pos.          |  | 8-pos.          |  |
| Control cabinet feed-through, M16 fastening thread |  |                 |  |                 |  |                 |  |
| Plug on socket                                     |  | A - standard    |  | 1551671         |  | 1               |  |
| Plug on socket                                     |  | B - inverse     |  | 1551684         |  | 1               |  |
| Socket to socket                                   |  | D - data        |  | 1424326         |  | 1               |  |

Control cabinet feed-through, socket to socket on both sides



Control cabinet feed-through, socket to pin on both sides



## M5 to M12 circular plug-in connectors

### 7/8" sensor/actuator device plug-in connectors, front mounting

**Front mounting,  
Pg13.5 fastening thread,  
with 0.5 m long litz wires**

#### Notes:

Flat nut recommended for housing wall thicknesses < 2.5 mm.



3, 4-pos.



5-pos.



#### Technical data

|                                         | 3-pos.           | 4-pos.           |
|-----------------------------------------|------------------|------------------|
| General data                            |                  |                  |
| Pollution degree                        | 3                | 3                |
| Degree of protection                    | IP67             | IP67             |
| Connection method                       | Individual wires | Individual wires |
| Electrical data                         |                  |                  |
| Rated voltage                           | 250 V            | 250 V            |
| Rated current                           | 12 A             | 9 A              |
| Volume resistance                       | ≤ 5 mΩ           | ≤ 5 mΩ           |
| Surge voltage category                  | II               | II               |
| Material data                           |                  |                  |
| Material contact / contact surface      | CuZn / Au        | CuZn / Au        |
| Contact carrier material                | PUR              | PUR              |
| Inflammability class according to UL 94 | HB               | HB               |
| Cable type                              | PVC litz wire    | PVC litz wire    |
| Temperature data                        |                  |                  |
| Plug / socket                           | [°C]             | [°C]             |
| Cable, fixed installation               | -40 ... 85       | -40 ... 85       |

#### Ordering data

| Description                      | Coding       | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|----------------------------------|--------------|-----------|-------------|-----------|-------------|
|                                  |              |           |             |           |             |
| <b>Device plug-in connectors</b> |              |           |             |           |             |
| Socket                           | A - standard | 1521407   | 1           | 1521423   | 1           |
| Plug                             | A - standard | 1521410   | 1           | 1521436   | 1           |

#### Accessories

|                                          |  |                  |         |     |
|------------------------------------------|--|------------------|---------|-----|
| <b>Flat nut, with:<br/>Pg13.5 thread</b> |  | SACC-E-MU-PG13,5 | 1539143 | 100 |
|------------------------------------------|--|------------------|---------|-----|



#### Technical data

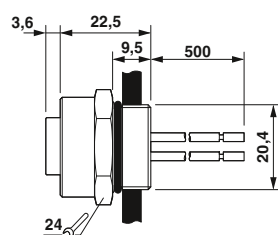
|                                         | 5-pos.           |       |
|-----------------------------------------|------------------|-------|
| General data                            |                  |       |
| Pollution degree                        | 3                | -     |
| Degree of protection                    | IP67             | -     |
| Connection method                       | Individual wires | -     |
| Electrical data                         |                  |       |
| Rated voltage                           | 250 V            | -     |
| Rated current                           | 9 A              | -     |
| Volume resistance                       | ≤ 5 mΩ           | -     |
| Surge voltage category                  | II               | -     |
| Material data                           |                  |       |
| Material contact / contact surface      | CuZn / Au        | - / - |
| Contact carrier material                | PUR              | -     |
| Inflammability class according to UL 94 | HB               | -     |
| Cable type                              | PVC litz wire    | -     |
| Temperature data                        |                  |       |
| Plug / socket                           | -40 ... 85       | -     |
| Cable, fixed installation               | -40 ... 85       | -     |

#### Ordering data

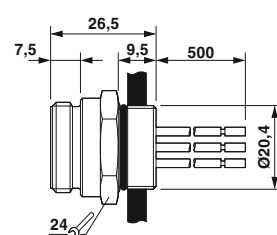
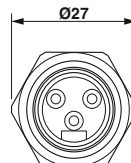
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|---------------|-------------|-----------|-------------|
|               |             |           |             |
| <b>5-pos.</b> |             |           |             |
| 1521449       | 1           |           |             |
| 1521452       | 1           |           |             |

#### Accessories

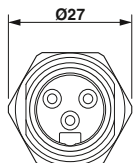
|                         |         |     |
|-------------------------|---------|-----|
| <b>SACC-E-MU-PG13,5</b> | 1539143 | 100 |
|-------------------------|---------|-----|



7/8" flush-type socket



7/8" flush-type plug



M5 to M12 circular plug-in connectors

7/8" sensor/actuator device plug-in connectors, rear mounting

7/8", with 1.0 m long litz wires



3, 4, 5-pos.



3, 4, 5-pos.



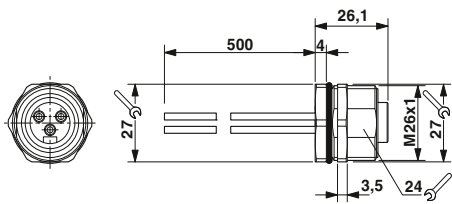
| Technical data                          |                  |                  |                  |
|-----------------------------------------|------------------|------------------|------------------|
|                                         | 3-pos.           | 4-pos.           | 5-pos.           |
| General data                            |                  |                  |                  |
| Pollution degree                        | 3                | 3                | 3                |
| Degree of protection                    | IP67             | IP67             | IP67             |
| Connection method                       | Individual wires | Individual wires | Individual wires |
| Electrical data                         |                  |                  |                  |
| Rated voltage                           | 250 V            | 250 V            | 250 V            |
| Rated current                           | 12 A             | 9 A              | 9 A              |
| Volume resistance                       | ≤ 5 mΩ           | ≤ 5 mΩ           | ≤ 5 mΩ           |
| Surge voltage category                  | II               | II               | II               |
| Material data                           |                  |                  |                  |
| Contact material                        | CuZn             | CuZn             | CuZn             |
| Contact surface material                | Au               | Au               | Au               |
| Contact carrier material                | PUR              | PUR              | PUR              |
| Inflammability class according to UL 94 | HB               | HB               | HB               |
| Temperature data                        |                  |                  |                  |
| Plug / socket                           | [°C]             | [°C]             | [°C]             |
| Cable, fixed installation               | -40 ... 85       | -40 ... 85       | -40 ... 85       |

| Ordering data |             |           |             |           |             |
|---------------|-------------|-----------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 3-pos.        |             | 4-pos.    |             | 5-pos.    |             |
| 1453782       | 1           | 1453795   | 1           | 1453805   | 1           |
|               |             |           |             |           |             |

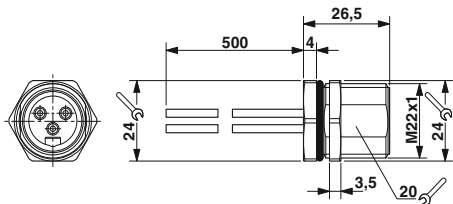


| Technical data                          |                  |                  |                  |
|-----------------------------------------|------------------|------------------|------------------|
|                                         | 3-pos.           | 4-pos.           | 5-pos.           |
| General data                            |                  |                  |                  |
| Pollution degree                        | 3                | 3                | 3                |
| Degree of protection                    | IP67             | IP67             | IP67             |
| Connection method                       | Individual wires | Individual wires | Individual wires |
| Electrical data                         |                  |                  |                  |
| Rated voltage                           | 250 V            | 250 V            | 250 V            |
| Rated current                           | 12 A             | 9 A              | 9 A              |
| Volume resistance                       | ≤ 5 mΩ           | ≤ 5 mΩ           | ≤ 5 mΩ           |
| Surge voltage category                  | II               | II               | II               |
| Material data                           |                  |                  |                  |
| Contact material                        | CuZn             | CuZn             | CuZn             |
| Contact surface material                | Au               | Au               | Au               |
| Contact carrier material                | PUR              | PUR              | PUR              |
| Inflammability class according to UL 94 | HB               | HB               | HB               |
| Temperature data                        |                  |                  |                  |
| Plug / socket                           | -40 ... 85       | -40 ... 85       | -40 ... 85       |
| Cable, fixed installation               | -40 ... 85       | -40 ... 85       | -40 ... 85       |

| Ordering data |  |             |  |           |  |             |  |           |  |             |  |
|---------------|--|-------------|--|-----------|--|-------------|--|-----------|--|-------------|--|
| Order No.     |  | Pcs. / Pkt. |  | Order No. |  | Pcs. / Pkt. |  | Order No. |  | Pcs. / Pkt. |  |
| 3-pos.        |  | 4-pos.      |  | 5-pos.    |  |             |  |           |  |             |  |
| 1453753       |  | 1           |  | 1453766   |  | 1           |  | 1453799   |  | 1           |  |



7/8" flush-type socket



7/8" flush-type plug

# M5 to M12 circular plug-in connectors

## 7/8" sensor/actuator device plug-in connectors, rear mounting

7/8" rear mounting,  
for wave soldering processes



3, 4, 5-pos.



3, 4, 5-pos.



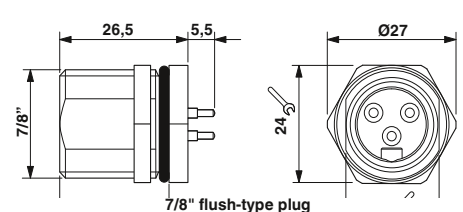
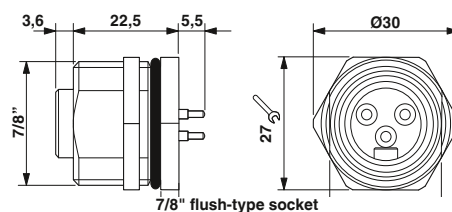
| Technical data                          |             |             |             |
|-----------------------------------------|-------------|-------------|-------------|
|                                         | 3-pos.      | 4-pos.      | 5-pos.      |
| General data                            |             |             |             |
| Pollution degree                        | 3           | 3           | 3           |
| Degree of protection                    | IP67        | IP67        | IP67        |
| Connection method                       | Solder pins | Solder pins | Solder pins |
| Electrical data                         |             |             |             |
| Rated voltage                           | 250 V       | 250 V       | 250 V       |
| Rated current                           | 12 A        | 9 A         | 9 A         |
| Volume resistance                       | ≤ 5 mΩ      | ≤ 5 mΩ      | ≤ 5 mΩ      |
| Surge voltage category                  | II          | II          | II          |
| Material data                           |             |             |             |
| Contact material                        | CuZn        | CuZn        | CuZn        |
| Contact surface material                | Au          | Au          | Au          |
| Contact carrier material                | PUR         | PUR         | PUR         |
| Inflammability class according to UL 94 | HB          | HB          | HB          |
| Temperature data                        |             |             |             |
| Plug / socket                           | -40 ... 85  | -40 ... 85  | -40 ... 85  |

| Ordering data                                       |              |           |             |           |             |
|-----------------------------------------------------|--------------|-----------|-------------|-----------|-------------|
| Description                                         | Coding       | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 3-pos.                                              |              |           |             |           |             |
| 4-pos.                                              |              |           |             |           |             |
| 5-pos.                                              |              |           |             |           |             |
| Socket                                              | A - standard | 1457830   | 1           | 1457843   | 1           |
| Flush-type plug-in connector, 7/8" fastening thread |              |           |             |           |             |
| Plug                                                | A - standard |           |             |           |             |



| Technical data                          |             |             |             |
|-----------------------------------------|-------------|-------------|-------------|
|                                         | 3-pos.      | 4-pos.      | 5-pos.      |
| General data                            |             |             |             |
| Pollution degree                        | 3           | 3           | 3           |
| Degree of protection                    | IP67        | IP67        | IP67        |
| Connection method                       | Solder pins | Solder pins | Solder pins |
| Electrical data                         |             |             |             |
| Rated voltage                           | 250 V       | 250 V       | 250 V       |
| Rated current                           | 12 A        | 9 A         | 9 A         |
| Volume resistance                       | ≤ 5 mΩ      | ≤ 5 mΩ      | ≤ 5 mΩ      |
| Surge voltage category                  | II          | II          | II          |
| Material data                           |             |             |             |
| Contact material                        | CuZn        | CuZn        | CuZn        |
| Contact surface material                | Au          | Au          | Au          |
| Contact carrier material                | PUR         | PUR         | PUR         |
| Inflammability class according to UL 94 | HB          | HB          | HB          |
| Temperature data                        |             |             |             |
| Plug / socket                           | -40 ... 85  | -40 ... 85  | -40 ... 85  |

| Ordering data                                       |              |           |             |           |             |
|-----------------------------------------------------|--------------|-----------|-------------|-----------|-------------|
| Description                                         | Coding       | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 3-pos.                                              |              |           |             |           |             |
| 4-pos.                                              |              |           |             |           |             |
| 5-pos.                                              |              |           |             |           |             |
| Socket                                              | A - standard | 1457830   | 1           | 1457843   | 1           |
| Flush-type plug-in connector, 7/8" fastening thread |              |           |             |           |             |
| Plug                                                | A - standard |           |             |           |             |



## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, stainless steel versions

**Front mounting,  
Pg9/M16 fastening thread,  
with 0.5 m long litz wires**

– Housing material, stainless steel 1.4404



4, 5, 8-pos.



Can be positioned, 4, 5, 8-pos.



| Technical data                                         |                                                        |                                                        |
|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|
| 4-pos.                                                 | 5-pos.                                                 | 8-pos.                                                 |
| IEC 61076-2-101<br>3<br>IP67/IP69K<br>Individual wires | IEC 61076-2-101<br>3<br>IP67/IP69K<br>Individual wires | IEC 61076-2-101<br>3<br>IP67/IP69K<br>Individual wires |
| 250 V<br>4 A<br>≤ 3 mΩ                                 | 60 V<br>4 A<br>≤ 3 mΩ                                  | 30 V<br>2 A<br>≤ 3 mΩ                                  |
| CuZn / Au<br>PA66 GF<br>V0<br>TPE litz wire            | CuZn / Au<br>PA66 GF<br>V0<br>TPE litz wire            | CuZn / Au<br>PA66 GF<br>V0<br>TPE litz wire            |
| -25 ... 85                                             | -25 ... 85                                             | -25 ... 85                                             |

| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 4-pos.        | 5-pos.      | 8-pos.    |

|                                              |
|----------------------------------------------|
| General data                                 |
| M12 circular plug-in connector according to: |
| Pollution degree                             |
| Degree of protection                         |
| Connection method                            |
| Electrical data                              |
| Rated voltage                                |
| Rated current                                |
| Volume resistance                            |
| Material data                                |
| Material contact / contact surface           |
| Contact carrier material                     |
| Inflammability class according to UL 94      |
| Cable type                                   |
| Temperature data                             |
| Plug / socket                                |



| Technical data                                         |                                                        |                                                        |
|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|
| 4-pos.                                                 | 5-pos.                                                 | 8-pos.                                                 |
| IEC 61076-2-101<br>3<br>IP67/IP69K<br>Individual wires | IEC 61076-2-101<br>3<br>IP67/IP69K<br>Individual wires | IEC 61076-2-101<br>3<br>IP67/IP69K<br>Individual wires |
| 250 V<br>4 A<br>≤ 3 mΩ                                 | 60 V<br>4 A<br>≤ 3 mΩ                                  | 30 V<br>2 A<br>≤ 3 mΩ                                  |
| CuZn / Au<br>PA66 GF<br>V0<br>TPE litz wire            | CuZn / Au<br>PA66 GF<br>V0<br>TPE litz wire            | CuZn / Au<br>PA66 GF<br>V0<br>TPE litz wire            |
| -25 ... 85                                             | -25 ... 85                                             | -25 ... 85                                             |

| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 4-pos.        | 5-pos.      | 8-pos.    |

**Device plug-in connector, Pg9 fastening thread**

|        |              |
|--------|--------------|
| Socket | A - standard |
| Plug   | A - standard |

|         |   |         |   |         |   |
|---------|---|---------|---|---------|---|
| 1555448 | 1 | 1699863 | 1 | 1554607 | 1 |
| 1554555 | 1 | 1554568 | 1 | 1554571 | 1 |

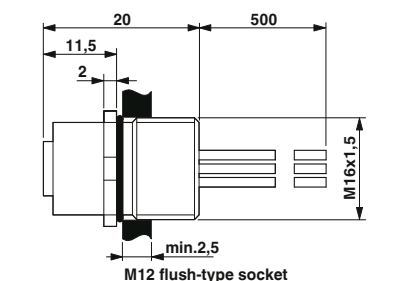
|         |   |         |   |         |   |
|---------|---|---------|---|---------|---|
| 1554649 | 1 | 1554652 | 1 | 1554665 | 1 |
| 1554610 | 1 | 1554623 | 1 | 1554636 | 1 |

**Device plug-in connector, M16 fastening thread**

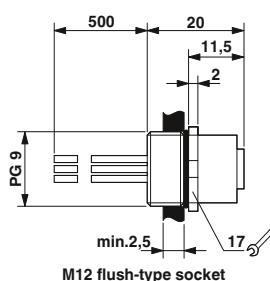
|        |              |
|--------|--------------|
| Socket | A - standard |
| Plug   | A - standard |

|         |   |         |   |         |   |
|---------|---|---------|---|---------|---|
| 1458855 | 1 | 1458871 | 1 | 1458842 | 1 |
| 1405233 | 1 | 1458868 | 1 | 1405221 | 1 |

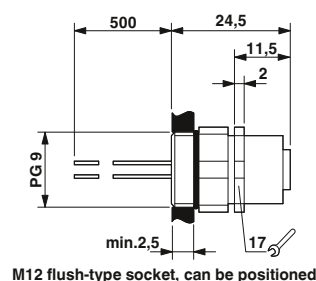
|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |



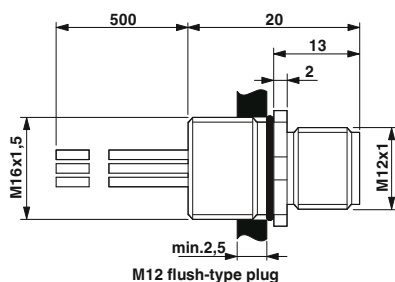
M12 flush-type socket



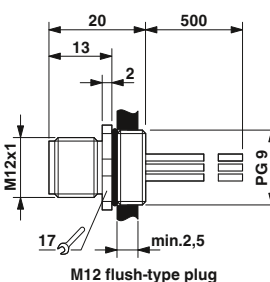
M12 flush-type socket



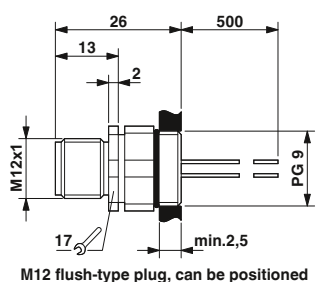
M12 flush-type socket, can be positioned



M12 flush-type plug



M12 flush-type plug



M12 flush-type plug, can be positioned

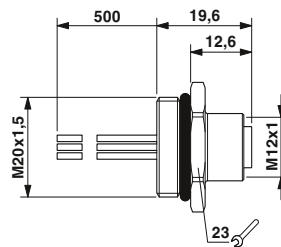
Front mounting,  
M20 fastening thread,  
with 0.5 m long litz wires

– Housing material, stainless steel 1.4404

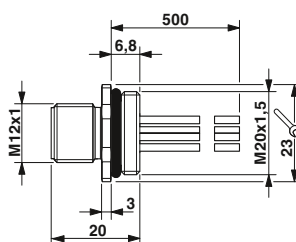


4, 5, 8-pos.

|                                              |  | Technical data   |  |                  |             |                  |             |
|----------------------------------------------|--|------------------|--|------------------|-------------|------------------|-------------|
|                                              |  | 4-pos.           |  | 5-pos.           |             | 8-pos.           |             |
| General data                                 |  | IEC 61076-2-101  |  | IEC 61076-2-101  |             | IEC 61076-2-101  |             |
| M12 circular plug-in connector according to: |  | 3                |  | 3                |             | 3                |             |
| Pollution degree                             |  | IP67/IP69K       |  | IP67/IP69K       |             | IP67/IP69K       |             |
| Degree of protection                         |  | Individual wires |  | Individual wires |             | Individual wires |             |
| Connection method                            |  |                  |  |                  |             |                  |             |
| Electrical data                              |  | 250 V            |  | 60 V             |             | 30 V             |             |
| Rated voltage                                |  | 4 A              |  | 4 A              |             | 2 A              |             |
| Rated current                                |  | ≤ 3 mΩ           |  | ≤ 3 mΩ           |             | ≤ 3 mΩ           |             |
| Volume resistance                            |  |                  |  |                  |             |                  |             |
| Material data                                |  | CuZn / Au        |  | CuZn / Au        |             | CuZn / Au        |             |
| Material contact / contact surface           |  | PA 66            |  | PA 66            |             | PA 66            |             |
| Contact carrier material                     |  | V0               |  | V0               |             | V0               |             |
| Inflammability class according to UL 94      |  | TPE litz wire    |  | TPE litz wire    |             | TPE litz wire    |             |
| Cable type                                   |  |                  |  |                  |             |                  |             |
| Temperature data                             |  |                  |  |                  |             |                  |             |
| Plug / socket                                |  | -25 ... 85       |  | -25 ... 85       |             | -25 ... 85       |             |
| [°C]                                         |  |                  |  |                  |             |                  |             |
|                                              |  | Ordering data    |  |                  |             |                  |             |
| Description                                  |  | Coding           |  | Order No.        | Pcs. / Pkt. | Order No.        | Pcs. / Pkt. |
|                                              |  |                  |  | Order No.        | Pcs. / Pkt. | Order No.        | Pcs. / Pkt. |
|                                              |  |                  |  | Order No.        | Pcs. / Pkt. | Order No.        | Pcs. / Pkt. |
| Device plug-in connectors                    |  |                  |  |                  |             |                  |             |
| Socket                                       |  | A - standard     |  | 1408416          | 1           | 1452071          | 1           |
| Plug                                         |  | A - standard     |  | 1408415          | 1           | 1452068          | 1           |
| Socket                                       |  | B - inverse      |  |                  |             | 1452097          | 1           |
| Plug                                         |  | B - inverse      |  |                  |             | 1452084          | 1           |



M12 flush-type socket



M12 flush-type plug

## M5 to M12 circular plug-in connectors

### M12 sensor/actuator device plug-in connectors, stainless steel versions

#### Device plug-in connector, rear mounting

– Housing material, stainless steel 1.4404



With 0.5 m long litz wires, 4, 5, 8-pos.



For wave soldering processes, 4, 5, 8-pos.



#### Technical data

| General data                                 |      |
|----------------------------------------------|------|
| M12 circular plug-in connector according to: |      |
| Pollution degree                             |      |
| Degree of protection                         |      |
| Connection method                            |      |
| Electrical data                              |      |
| Rated voltage                                |      |
| Rated current                                |      |
| Volume resistance                            |      |
| Material data                                |      |
| Material contact / contact surface           |      |
| Contact carrier material                     |      |
| Inflammability class according to UL 94      |      |
| Cable type                                   |      |
| Temperature data                             |      |
| Plug / socket                                | [°C] |

| 4-pos.           | 5-pos.           | 8-pos.           |
|------------------|------------------|------------------|
| IEC 61076-2-101  | IEC 61076-2-101  | IEC 61076-2-101  |
| 3                | 3                | 3                |
| IP67/IP69K       | IP67/IP69K       | IP67/IP69K       |
| Individual wires | Individual wires | Individual wires |
| 250 V            | 60 V             | 30 V             |
| 4 A              | 4 A              | 2 A              |
| ≤ 3 mΩ           | ≤ 3 mΩ           | ≤ 3 mΩ           |
| CuZn / Au        | CuZn / Au        | CuZn / Au        |
| PA 66            | PA 66            | PA 66            |
| V0               | V0               | V0               |
| TPE litz wire    | TPE litz wire    | TPE litz wire    |
| -25 ... 85       | -25 ... 85       | -25 ... 85       |

#### Ordering data

| Description                      | Coding       |
|----------------------------------|--------------|
| <b>Device plug-in connectors</b> |              |
| Socket                           | A - standard |
| Plug                             | A - standard |

| Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|-----------|-------------|-----------|-------------|-----------|-------------|
| 4-pos.    |             | 5-pos.    |             | 8-pos.    |             |
| 1405240   | 1           | 1554717   | 1           | 1554720   | 1           |
| 1405239   | 1           | 1554681   | 1           | 1554694   | 1           |

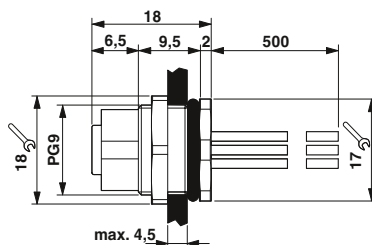


#### Technical data

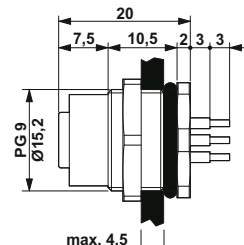
| 4-pos.          | 5-pos.          | 8-pos.          |
|-----------------|-----------------|-----------------|
| IEC 61076-2-101 | IEC 61076-2-101 | IEC 61076-2-101 |
| 3               | 3               | 3               |
| IP67/IP69K      | IP67/IP69K      | IP67/IP69K      |
| Solder pins     | Solder pins     | Solder pins     |
| 250 V           | 60 V            | 30 V            |
| 4 A             | 4 A             | 2 A             |
| ≤ 3 mΩ          | ≤ 3 mΩ          | ≤ 3 mΩ          |
| CuZn / Au       | CuZn / Au       | CuZn / Au       |
| PA 66           | PA 66           | PA 66           |
| V0              | V0              | V0              |
| -               | -               | -               |
| -25 ... 85      | -25 ... 85      | -25 ... 85      |

#### Ordering data

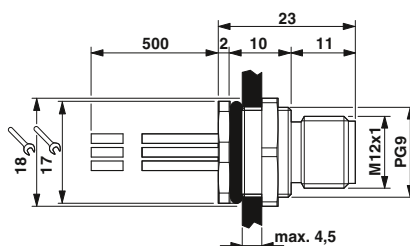
| Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|-----------|-------------|-----------|-------------|-----------|-------------|
| 4-pos.    |             | 5-pos.    |             | 8-pos.    |             |
| 1404974   | 20          | 1554733   | 20          | 1529797   | 20          |
| 1404979   | 20          | 1554746   | 20          | 1529807   | 20          |



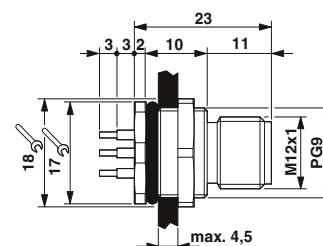
M12 flush-type socket



M12 flush-type socket



M12 flush-type plug



M12 flush-type plug



## M5 to M12 circular plug-in connectors

### Sensor/actuator plug-in connectors for assembly

#### M8, insulation displacement connection



0.08 mm² - 0.25 mm², 3, 4-pos.



0.25 mm² - 0.5 mm², 3, 4-pos.



#### Technical data

|                                             |  | 3-pos.                             | 4-pos. |
|---------------------------------------------|--|------------------------------------|--------|
| General data                                |  | IEC 61076-2-104                    |        |
| M8 circular plug-in connector according to: |  | 3                                  |        |
| Pollution degree                            |  | IP65/67                            |        |
| Degree of protection                        |  | Insulation displacement connection |        |
| Connection method                           |  | 2.5 mm ... 5 mm ± 0.2 mm           |        |
| Cable diameter                              |  |                                    |        |
| Electrical data                             |  |                                    |        |
| Rated voltage                               |  | 60 V                               | 30 V   |
| Rated current                               |  | 4 A                                |        |
| Volume resistance                           |  | ≤ 5 mΩ                             |        |
| Insulation resistance                       |  | ≥ 100 MΩ                           |        |
| Material data                               |  |                                    |        |
| Material contact / contact surface          |  | CuSn / Ni/Au                       |        |
| Contact carrier material                    |  | TPU GF                             |        |
| Inflammability class according to UL 94     |  | HB                                 |        |
| Temperature data                            |  |                                    |        |
| Plug / socket                               |  | -25 ... 80                         |        |

[°C]

#### Ordering data

| Description              |
|--------------------------|
| <b>Plug-in connector</b> |
| Socket, straight         |
| Plug, straight           |

| Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|-----------|-------------|-----------|-------------|
| 3-pos.    |             | 4-pos.    |             |
| 1441040   | 1           | 1441053   | 1           |
| 1441008   | 1           | 1441011   | 1           |



#### Technical data

|                                             |  | 3-pos.                             | 4-pos. |
|---------------------------------------------|--|------------------------------------|--------|
| General data                                |  | IEC 61076-2-104                    |        |
| M8 circular plug-in connector according to: |  | 3                                  |        |
| Pollution degree                            |  | IP65/67                            |        |
| Degree of protection                        |  | Insulation displacement connection |        |
| Connection method                           |  | 2.5 mm ... 5 mm ± 0.2 mm           |        |
| Cable diameter                              |  |                                    |        |
| Electrical data                             |  |                                    |        |
| Rated voltage                               |  | 60 V                               | 30 V   |
| Rated current                               |  | 4 A                                |        |
| Volume resistance                           |  | ≤ 5 mΩ                             |        |
| Insulation resistance                       |  | ≥ 100 MΩ                           |        |
| Material data                               |  |                                    |        |
| Material contact / contact surface          |  | CuSn / Ni/Au                       |        |
| Contact carrier material                    |  | TPU GF                             |        |
| Inflammability class according to UL 94     |  | HB                                 |        |
| Temperature data                            |  |                                    |        |
| Plug / socket                               |  | -25 ... 80                         |        |

#### Ordering data

| Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|-----------|-------------|-----------|-------------|
| 3-pos.    |             | 4-pos.    |             |
| 1441066   | 1           | 1441079   | 1           |
| 1441024   | 1           | 1441037   | 1           |

# M5 to M12 circular plug-in connectors

## Sensor/actuator plug-in connectors for assembly

### M8, screw connections



Unshielded, 3, 4-pos.



Shielded, 3, 4-pos.



| Technical data                               |        |
|----------------------------------------------|--------|
| 3-pos.                                       | 4-pos. |
| IEC 61076-2-104                              |        |
| 3                                            |        |
| IP67                                         |        |
| Screw connection                             |        |
| 3.5 mm ... 5 mm                              |        |
| 0.14 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> |        |
| 60 V                                         | 30 V   |
| 4 A                                          |        |
| ≤ 3 mΩ                                       |        |
| ≥ 100 MΩ                                     |        |
| CuZn / Au                                    |        |
| PA                                           |        |
| HB                                           |        |
| -40 ... 85                                   |        |

| Ordering data |   |             |   |
|---------------|---|-------------|---|
| Order No.     |   | Pcs. / Pkt. |   |
| 3-pos.        |   | 4-pos.      |   |
| 1506888       | 1 | 1506891     | 1 |
| 1501252       | 1 | 1501265     | 1 |
| 1407582       | 1 | 1407584     | 1 |
| 1407583       | 1 | 1407585     | 1 |

| Accessories                                   |  |             |  |
|-----------------------------------------------|--|-------------|--|
| Pressure screw and seal, for cable diameters: |  | Pcs. / Pkt. |  |
| 2.5 mm ... 3.5 mm                             |  | 5           |  |



| Technical data                               |        |
|----------------------------------------------|--------|
| 3-pos.                                       | 4-pos. |
| IEC 61076-2-104                              |        |
| 3                                            |        |
| IP67                                         |        |
| Screw connection                             |        |
| 3.5 mm ... 5.5 mm                            |        |
| 0.14 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> |        |
| 60 V                                         | 30 V   |
| 4 A                                          |        |
| ≤ 3 mΩ                                       |        |
| ≥ 100 MΩ                                     |        |
| CuSn / Au                                    |        |
| PUR / PA66                                   |        |
| HB                                           |        |
| -40 ... 85                                   |        |

| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 3-pos.        |             | 4-pos.    |             |
| 1542907       | 1           | 1542910   | 1           |
| 1542884       | 1           | 1542897   | 1           |

| Accessories                                   |  |             |  |
|-----------------------------------------------|--|-------------|--|
| Pressure screw and seal, for cable diameters: |  | Pcs. / Pkt. |  |
| 2.5 mm ... 3.5 mm                             |  | 5           |  |

## M5 to M12 circular plug-in connectors

### Sensor/actuator plug-in connectors for assembly

#### M8, solder connection



Unshielded, 3, 4-pos.



Shielded, 3, 4-pos.



#### Technical data

|                                             | 3-pos.                | 4-pos. |
|---------------------------------------------|-----------------------|--------|
| General data                                |                       |        |
| M8 circular plug-in connector according to: | IEC 61076-2-104       |        |
| Pollution degree                            | 3                     |        |
| Degree of protection                        | IP67                  |        |
| Connection method                           | Solder connection     |        |
| Cable diameter                              | 3.5 mm ... 5 mm       |        |
| Connection cross section [mm²]              | 0.08 mm² ... 0.25 mm² |        |
| Electrical data                             |                       |        |
| Rated voltage                               | 60 V                  | 30 V   |
| Rated current                               | 4 A                   |        |
| Volume resistance                           | ≤ 3 mΩ                |        |
| Insulation resistance                       | ≥ 100 MΩ              |        |
| Material data                               |                       |        |
| Material contact / contact surface          | CuSn / Au             |        |
| Contact carrier material                    | PUR / PA66            |        |
| Inflammability class according to UL 94     | V0                    |        |
| Temperature data                            |                       |        |
| Plug / socket                               | -40 ... 85            |        |

[°C]

#### Ordering data

| Description              | 3-pos.    |             | 4-pos.    |             |
|--------------------------|-----------|-------------|-----------|-------------|
|                          | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| <b>Plug-in connector</b> |           |             |           |             |
| Socket, angled           | 1529399   | 1           | 1513444   | 1           |
| Plug, angled             | 1699902   | 1           | 1554209   | 1           |
| Socket, straight         | 1681172   | 1           | 1681185   | 1           |
| Plug, straight           | 1681156   | 1           | 1681169   | 1           |

#### Accessories

|                                                      |                      |         |   |
|------------------------------------------------------|----------------------|---------|---|
| <b>Pressure screw and seal, for cable diameters:</b> |                      |         |   |
| 2.5 mm ... 3.5 mm                                    | SACC-M 8-SET/2,2-3,5 | 1436945 | 5 |



#### Technical data

|                                             | 3-pos.                | 4-pos. |
|---------------------------------------------|-----------------------|--------|
| General data                                |                       |        |
| M8 circular plug-in connector according to: | IEC 61076-2-104       |        |
| Pollution degree                            | 3                     |        |
| Degree of protection                        | IP67                  |        |
| Connection method                           | Solder connection     |        |
| Cable diameter                              | 3.5 mm ... 5 mm       |        |
| Connection cross section [mm²]              | 0.08 mm² ... 0.25 mm² |        |
| Electrical data                             |                       |        |
| Rated voltage                               | 60 V                  | 30 V   |
| Rated current                               | 4 A                   |        |
| Volume resistance                           | ≤ 3 mΩ                |        |
| Insulation resistance                       | ≥ 100 MΩ              |        |
| Material data                               |                       |        |
| Material contact / contact surface          | CuSn / Au             |        |
| Contact carrier material                    | PUR / PA66            |        |
| Inflammability class according to UL 94     | HB                    |        |
| Temperature data                            |                       |        |
| Plug / socket                               | -40 ... 85            |        |

#### Ordering data

| Description              | 3-pos.    |             | 4-pos.    |             |
|--------------------------|-----------|-------------|-----------|-------------|
|                          | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| <b>Plug-in connector</b> |           |             |           |             |
| Socket, angled           | 1436479   | 1           | 1436482   | 1           |
| Plug, angled             | 1436453   | 1           | 1436466   | 1           |
| Socket, straight         | 1506927   | 1           | 1506930   | 1           |
| Plug, straight           | 1506901   | 1           | 1506914   | 1           |

#### Accessories

|                                                      |  |  |  |
|------------------------------------------------------|--|--|--|
| <b>Pressure screw and seal, for cable diameters:</b> |  |  |  |
| 2.5 mm ... 3.5 mm                                    |  |  |  |

# M5 to M12 circular plug-in connectors

## Sensor/actuator plug-in connectors for assembly

### M12, solder and Piercecon® connection



Solder connection, 12-pos.



Piercecon® connection, 12, 17-pos.



|                                              |  | Technical data    |         |                            |         | Technical data |         |             |         |   |
|----------------------------------------------|--|-------------------|---------|----------------------------|---------|----------------|---------|-------------|---------|---|
|                                              |  | Unshielded        |         | Shielded                   |         | 12-pos.        |         | 17-pos.     |         |   |
| General data                                 |  |                   |         |                            |         |                |         |             |         |   |
| M12 circular plug-in connector according to: |  | IEC 61076-2-101   |         | IEC 61076-2-101            |         |                |         |             |         |   |
| Pollution degree                             |  | 3                 |         | 3                          |         |                |         |             |         |   |
| Degree of protection                         |  | IP67              |         | IP67                       |         |                |         |             |         |   |
| Connection method                            |  | Solder connection |         | Piercecon® fast connection |         |                |         |             |         |   |
| Cable diameter                               |  | 6 mm ... 8 mm     |         | 5.4 mm ... 8.2 mm          |         |                |         |             |         |   |
| Electrical data                              |  |                   |         |                            |         |                |         |             |         |   |
| Rated voltage                                |  | 30 V              |         | 30 V                       |         |                |         |             |         |   |
| Rated current                                |  | 1 A               |         | 1.5 A                      |         |                |         |             |         |   |
| Volume resistance                            |  | ≤ 3 mΩ            |         | ≤ 5 mΩ                     |         |                |         |             |         |   |
| Insulation resistance                        |  | > 10 GΩ           |         | ≥ 100 MΩ                   |         |                |         |             |         |   |
| Material data                                |  |                   |         |                            |         |                |         |             |         |   |
| Material contact / contact surface           |  | CuSn / Au         |         | CuZn / Ni/Au               |         |                |         |             |         |   |
| Contact carrier material                     |  | PA                |         | PA                         |         |                |         |             |         |   |
| Inflammability class according to UL 94      |  | -                 |         | V0                         |         |                |         |             |         |   |
| Temperature data                             |  |                   |         |                            |         |                |         |             |         |   |
| Plug / socket                                |  | -25 ... 85        |         | -25 ... 85                 |         |                |         |             |         |   |
|                                              |  | Ordering data     |         |                            |         | Ordering data  |         |             |         |   |
| Description                                  |  | Order No.         |         | Pcs. / Pkt.                |         | Order No.      |         | Pcs. / Pkt. |         |   |
| Coding                                       |  | Order No.         |         | Pcs. / Pkt.                |         | Order No.      |         | Pcs. / Pkt. |         |   |
|                                              |  | Unshielded        |         | Shielded                   |         | 12-pos.        |         | 17-pos.     |         |   |
| Plug-in connector                            |  |                   |         |                            |         |                |         |             |         |   |
| Socket, straight                             |  | A - standard      | 1404420 | 1                          | 1404411 | 1              | 1559631 | 1           | 1559644 | 1 |
| Plug, straight                               |  | A - standard      | 1404419 | 1                          | 1404410 | 1              | 1559592 | 1           | 1559602 | 1 |
| Socket, angled                               |  | A - standard      | 1404423 | 1                          | 1404413 | 1              |         |             |         |   |
| Plug, angled                                 |  | A - standard      | 1404421 | 1                          | 1404412 | 1              |         |             |         |   |

## M5 to M12 circular plug-in connectors

### Sensor/actuator plug-in connectors for assembly

#### M12 plug-in connector, for assembly

##### Ethernet



M12 plug-in connector, 10 Gbps, Piercecon® connection

##### Ethernet



M12 plug-in connector, 100 Mbps, screw connection



##### Technical data

VS-08-M12...-10G-P SCO

|                                         |
|-----------------------------------------|
| Electrical data                         |
| Nominal voltage $U_N$                   |
| Rated current                           |
| Transmission characteristics (category) |
| Material contact / contact surface      |
| Material of grip body                   |
| Inflammability class according to UL 94 |
| No. of pos.                             |
| Connection method                       |
| Connection cross section AWG            |
| Insertion/withdrawal cycles             |
| Temperature data                        |
| Ambient temperature (operation)         |

|                              |
|------------------------------|
| 48 V                         |
| 0.5 A                        |
| CAT6 <sub>A</sub>            |
| CuSn / Ni/Au                 |
| Zinc die-cast, nickel-plated |
| V0                           |
| 8                            |
| Piercecon®                   |
| 26                           |
| ≥ 100                        |

-40 °C ... 85 °C

##### Ordering data

| Type                  | Order No. | Pcs. / Pkt. |
|-----------------------|-----------|-------------|
| VS-08-M12MS-10G-P SCO | 1417430   | 1           |
| VS-08-M12MR-10G-P SCO | 1417443   | 1           |

##### Accessories

|                      |         |   |
|----------------------|---------|---|
| VS-CABLE-STRIP-VARIO | 1657407 | 1 |
|----------------------|---------|---|

##### Technical data

SACC-M12MSD-4CON-...-SH

|                                              |
|----------------------------------------------|
| 60 V                                         |
| 4 A                                          |
| CAT5 (IEC 11801:2002), CAT5e (TIA 568B:2001) |
| CuZn / Au                                    |
| Zinc die-cast, nickel-plated                 |
| HB                                           |
| 4                                            |
| Screw connection                             |
| 24 ... 18                                    |
| ≥ 100                                        |

-40 °C ... 85 °C

##### Ordering data

| Type                     | Order No. | Pcs. / Pkt. |
|--------------------------|-----------|-------------|
| SACC-M12MSD-4CON-PG 7-SH | 1521258   | 1           |
| SACC-M12MSD-4CON-PG 9-SH | 1521261   | 1           |

##### Accessories

|                      |         |   |
|----------------------|---------|---|
| VS-CABLE-STRIP-VARIO | 1657407 | 1 |
|----------------------|---------|---|

##### Description

**Plug-in connector**, CAT6<sub>A</sub>, plug, 8-pos., shielded, X-coded, **cable diameter: 4 mm ... 8 mm**

Straight  
Angled

**Plug-in connector**, Pg7 screw connection, 4-pos., D-coded, **cable diameter: 4 mm ... 6 mm**

Plug, straight

**Plug-in connector**, Pg9 screw connection, 4-pos., D-coded, **cable diameter: 4 mm ... 8 mm**

Plug, straight

**Stripping tool**, for multiple-stage repositioning of shielded conductors



## M5 to M12 circular plug-in connectors

### Sensor/actuator plug-in connectors for assembly

#### M12, insulation displacement connection



0.14 mm² ... 0.34 mm²



0.34 mm² ... 0.75 mm²



#### Technical data

|                                    |
|------------------------------------|
| <b>4-pos.</b>                      |
| IEC 61076-2-101                    |
| 3                                  |
| IP65/67                            |
| Insulation displacement connection |
| 3.5 mm ... 6 mm                    |
| 125 V                              |
| 4 A                                |
| ≤ 5 mΩ                             |
| ≥ 100 MΩ                           |

|                                              |
|----------------------------------------------|
| General data                                 |
| M12 circular plug-in connector according to: |
| Pollution degree                             |
| Degree of protection                         |
| Connection method                            |
| Cable diameter                               |
| Electrical data                              |
| Rated voltage                                |
| Rated current                                |
| Volume resistance                            |
| Insulation resistance                        |
| Material data                                |
| Material contact / contact surface           |
| Contact carrier material                     |
| Inflammability class according to UL 94      |
| Temperature data                             |
| Plug / socket                                |

[°C]

#### Ordering data

| Type                                                  | Order No.    | Pcs. / Pkt. |
|-------------------------------------------------------|--------------|-------------|
| <b>Plug-in connector</b> , with plastic knurl         |              |             |
| Socket, straight                                      | A - standard |             |
| Plug, straight                                        | A - standard |             |
| <b>Plug-in connector</b> , with metal knurl, SPEEDCON |              |             |
| Socket, straight                                      | A - standard |             |
| Plug, straight                                        | A - standard |             |
| <b>Plug-in connector</b> , with metal knurl           |              |             |
| Socket, straight                                      | A - standard |             |
| Plug, straight                                        | A - standard |             |
| <b>Plug-in connector</b> , with stainless steel knurl |              |             |
| Socket, straight                                      | A - standard |             |
| Plug, straight                                        | A - standard |             |



#### Technical data

|                                    |
|------------------------------------|
| <b>4-pos.</b>                      |
| IEC 61076-2-101                    |
| 3                                  |
| IP65/67                            |
| Insulation displacement connection |
| 4 mm ... 8 mm                      |
| 250 V                              |
| 4 A                                |
| ≤ 5 mΩ                             |
| ≥ 100 MΩ                           |

|              |
|--------------|
| CuSn / Ni/Au |
| TPU          |
| V0           |

-25 ... 80

#### Ordering data

| Type                                                  | Order No.    | Pcs. / Pkt. |
|-------------------------------------------------------|--------------|-------------|
| <b>Plug-in connector</b> , with plastic knurl         |              |             |
| Socket, straight                                      | A - standard |             |
| Plug, straight                                        | A - standard |             |
| <b>Plug-in connector</b> , with metal knurl, SPEEDCON |              |             |
| Socket, straight                                      | A - standard |             |
| Plug, straight                                        | A - standard |             |
| <b>Plug-in connector</b> , with metal knurl           |              |             |
| Socket, straight                                      | A - standard |             |
| Plug, straight                                        | A - standard |             |
| <b>Plug-in connector</b> , with stainless steel knurl |              |             |
| Socket, straight                                      | A - standard |             |
| Plug, straight                                        | A - standard |             |

## M5 to M12 circular plug-in connectors

### Sensor/actuator plug-in connectors for assembly

#### M12, spring-cage connections



Unshielded, 4, 5-pos.



Shielded, 4, 5-pos.



| Technical data                               |        |
|----------------------------------------------|--------|
| 4-pos.                                       | 5-pos. |
| General data                                 |        |
| M12 circular plug-in connector according to: |        |
| IEC 61076-2-101                              |        |
| 3                                            |        |
| Degree of protection                         |        |
| IP67                                         |        |
| Connection method                            |        |
| Spring-cage conn.                            |        |
| Cable diameter                               |        |
| 4 mm ... 8 mm                                |        |
| Connection cross section [mm <sup>2</sup> ]  |        |
| 0.14 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> |        |
| Electrical data                              |        |
| Rated voltage                                |        |
| 250 V                                        | 60 V   |
| Rated current                                |        |
| 4 A                                          |        |
| Volume resistance                            |        |
| ≤ 8 mΩ                                       |        |
| Insulation resistance                        |        |
| ≥ 100 MΩ                                     |        |
| Material data                                |        |
| Material contact / contact surface           |        |
| CuSn / Ni/Au                                 |        |
| Contact carrier material                     |        |
| TPU                                          |        |
| Inflammability class according to UL 94      |        |
| V0                                           |        |
| Temperature data                             |        |
| Plug / socket                                |        |
| -40 ... 85                                   |        |

| Ordering data                                                                    |              |           |             |
|----------------------------------------------------------------------------------|--------------|-----------|-------------|
| 4-pos.                                                                           |              | 5-pos.    |             |
| Description                                                                      | Coding       | Order No. | Pcs. / Pkt. |
| <b>Plug-in connector</b> , terminal marking: standard color coding and numbering |              |           |             |
| Socket, angled                                                                   | A - standard | 1432622   | 1           |
| Plug, angled                                                                     | A - standard | 1432606   | 1           |
| Socket, straight                                                                 | A - standard | 1432619   | 1           |
| Plug, straight                                                                   | A - standard | 1432635   | 1           |



| Technical data                               |        |
|----------------------------------------------|--------|
| 4-pos.                                       | 5-pos. |
| General data                                 |        |
| M12 circular plug-in connector according to: |        |
| IEC 61076-2-101                              |        |
| 3                                            |        |
| Degree of protection                         |        |
| IP67                                         |        |
| Connection method                            |        |
| Spring-cage conn.                            |        |
| Cable diameter                               |        |
| 4 mm ... 8 mm                                |        |
| Connection cross section [mm <sup>2</sup> ]  |        |
| 0.14 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> |        |
| Electrical data                              |        |
| Rated voltage                                |        |
| 60 V                                         |        |
| Rated current                                |        |
| 4 A                                          |        |
| Volume resistance                            |        |
| ≤ 8 mΩ                                       |        |
| Insulation resistance                        |        |
| ≥ 100 MΩ                                     |        |
| Material data                                |        |
| Material contact / contact surface           |        |
| CuSn / Ni/Au                                 |        |
| Contact carrier material                     |        |
| TPU                                          |        |
| Inflammability class according to UL 94      |        |
| V0                                           |        |
| Temperature data                             |        |
| Plug / socket                                |        |
| -40 ... 85                                   |        |

| Ordering data                                                                    |              |           |             |
|----------------------------------------------------------------------------------|--------------|-----------|-------------|
| 4-pos.                                                                           |              | 5-pos.    |             |
| Description                                                                      | Coding       | Order No. | Pcs. / Pkt. |
| <b>Plug-in connector</b> , terminal marking: standard color coding and numbering |              |           |             |
| Socket, angled                                                                   | A - standard | 1432758   | 1           |
| Plug, angled                                                                     | A - standard | 1432732   | 1           |
| Socket, straight                                                                 | A - standard | 1432745   | 1           |
| Plug, straight                                                                   | A - standard | 1432729   | 1           |

## M5 to M12 circular plug-in connectors

### Sensor/actuator plug-in connectors for assembly

#### M12, screw connections



Plastic knurl, 4, 5-pos.



Metal knurl, SPEEDCON, 4, 5-pos.



| Technical data                               |        |  |
|----------------------------------------------|--------|--|
| 4-pos.                                       | 5-pos. |  |
| General data                                 |        |  |
| M12 circular plug-in connector according to: |        |  |
| Pollution degree                             |        |  |
| Degree of protection                         |        |  |
| Connection method                            |        |  |
| Connection cross section [mm²]               |        |  |
| Electrical data                              |        |  |
| Rated voltage                                |        |  |
| Rated current                                |        |  |
| Volume resistance                            |        |  |
| Insulation resistance                        |        |  |
| Material data                                |        |  |
| Material contact / contact surface           |        |  |
| Contact carrier material                     |        |  |
| Inflammability class according to UL 94      |        |  |
| Temperature data                             |        |  |
| Plug / socket                                |        |  |

| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 4-pos.        | 5-pos.      |           |
| 1681130       | 1           | 1662308   |
| 1681091       | 1           | 1662269   |
| 1681114       | 1           | 1662298   |
| 1681088       | 1           | 1662256   |
|               |             | 1500790   |
|               |             | 1513431   |
|               |             | 1500787   |
|               |             | 1500774   |

| Accessories          |             |           |
|----------------------|-------------|-----------|
| Order No.            | Pcs. / Pkt. | Order No. |
| SACC-M12-SET/2,5-3,5 | 1436505     | 5         |



| Technical data                               |        |  |
|----------------------------------------------|--------|--|
| 4-pos.                                       | 5-pos. |  |
| General data                                 |        |  |
| M12 circular plug-in connector according to: |        |  |
| Pollution degree                             |        |  |
| Degree of protection                         |        |  |
| Connection method                            |        |  |
| Connection cross section [mm²]               |        |  |
| Electrical data                              |        |  |
| Rated voltage                                |        |  |
| Rated current                                |        |  |
| Volume resistance                            |        |  |
| Insulation resistance                        |        |  |
| Material data                                |        |  |
| Material contact / contact surface           |        |  |
| Contact carrier material                     |        |  |
| Inflammability class according to UL 94      |        |  |
| Temperature data                             |        |  |
| Plug / socket                                |        |  |

| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 4-pos.        | 5-pos.      |           |
| 1543058       | 1           | 1543061   |
| 1542981       | 1           | 1542994   |
| 1543029       | 1           | 1543032   |
| 1542952       | 1           | 1542965   |
|               |             | 1543414   |
|               |             | 1543003   |
|               |             | 1543045   |
|               |             | 1542978   |

| Accessories          |             |           |
|----------------------|-------------|-----------|
| Order No.            | Pcs. / Pkt. | Order No. |
| SACC-M12-SET/2,5-3,5 | 1436505     | 5         |

| Description                                                                                                                                                            | Coding       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Plug-in connector, with Pg7 screw connection, cable diameter: 4 mm ... 6 mm</b>                                                                                     |              |
| Socket, angled                                                                                                                                                         | A - standard |
| Plug, angled                                                                                                                                                           | A - standard |
| Socket, straight                                                                                                                                                       | A - standard |
| Plug, straight                                                                                                                                                         | A - standard |
| <b>Plug-in connector, with Pg9 screw connection, cable diameter: 6 mm ... 8 mm</b>                                                                                     |              |
| Socket, angled                                                                                                                                                         | A - standard |
| Plug, angled                                                                                                                                                           | A - standard |
| Socket, straight                                                                                                                                                       | A - standard |
| Plug, straight                                                                                                                                                         | A - standard |
| <b>Power plug-in connector, with Pg11 screw connection, cable diameter: 8 mm ... 10 mm, rated current: up to 8 A (5th pos. max. 2 A) with 1.5 mm² wires/litz wires</b> |              |
| Socket, straight                                                                                                                                                       | A - standard |
| Plug, straight                                                                                                                                                         | A - standard |

# M5 to M12 circular plug-in connectors

## Sensor/actuator plug-in connectors for assembly



Metal knurl, 4, 5, 8-pos.



Metal knurl, 4, 5-pos., with SKINTOP® screw connection



Stainless steel knurl, 4, 5-pos.



| Technical data        |                      |           |
|-----------------------|----------------------|-----------|
| 4-pos.                | 5-pos.               | 8-pos.    |
| IEC 61076-2-101       |                      |           |
| 3                     |                      |           |
| IP67                  |                      |           |
| Screw connection      |                      |           |
| 0.25 mm² ... 0.75 mm² | 0.25 mm² ... 0.5 mm² |           |
| 250 V                 | 60 V                 | 30 V      |
| 4 A                   |                      | 2 A       |
| ≤ 8 mΩ                |                      | ≤ 3 mΩ    |
|                       | ≥ 100 MΩ             |           |
| CuZn / CuSnZn         |                      | CuZn / Au |
| PA 66                 |                      |           |
| HB                    |                      |           |
| -40 ... 85            |                      |           |

| Technical data        |         |       |
|-----------------------|---------|-------|
| 4-pos.                | 5-pos.  |       |
| IEC 61076-2-101       |         |       |
| 3                     |         |       |
| IP67                  |         |       |
| Screw connection      |         |       |
| 0.25 mm² ... 0.75 mm² | - ... - |       |
| 250 V                 | 125 V   | -     |
| 4 A                   |         | -     |
| ≤ 8 mΩ                |         | -     |
| ≥ 100 MΩ              |         | -     |
| CuZn / CuSnZn         |         | - / - |
| PA 66                 |         | -     |
| HB                    |         | -     |
| -20 ... 80            |         |       |

| Technical data        |         |       |
|-----------------------|---------|-------|
| 4-pos.                | 5-pos.  |       |
| IEC 61076-2-101       |         |       |
| 3                     |         |       |
| IP67/IP69K            |         |       |
| Screw connection      |         |       |
| 0.25 mm² ... 0.75 mm² | - ... - |       |
| 250 V                 | 60 V    | -     |
| 4 A                   |         | -     |
| ≤ 3 mΩ                |         | -     |
| ≥ 100 MΩ              |         | -     |
| CuZn / Au             |         | - / - |
| PA 66                 |         | -     |
| V0                    |         | -     |
| -40 ... 85            |         |       |

| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 4-pos.        | 5-pos.      | 8-pos.    |
| 1681143       | 1           | 1662984   |
| 1681101       | 1           | 1663129   |
| 1681127       | 1           | 1662968   |
| 1662528       | 1           | 1663116   |
|               | 1681499     | 1         |
|               | 1681473     | 1         |
|               | 1681486     | 1         |
|               | 1681460     | 1         |
|               |             | 1513347   |
|               |             | 1513334   |

| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 4-pos.        | 5-pos.      |           |
| 1430381       | 1           | 1559000   |
| 1556870       | 1           | 1456466   |
|               | 1556812     | 1         |
|               | 1561742     | 1         |
|               | 1556838     | 1         |
|               | 1556825     | 1         |

| Ordering data |             |           |
|---------------|-------------|-----------|
| Order No.     | Pcs. / Pkt. | Order No. |
| 4-pos.        | 5-pos.      |           |
| 1553284       | 1           | 1553297   |
| 1553200       | 1           | 1553213   |
| 1553242       | 1           | 1553255   |
| 1553161       | 1           | 1553187   |
|               | 1553307     | 1         |
| 1553226       | 1           | 1553239   |
| 1553268       | 1           | 1553271   |
| 1553174       | 1           | 1553190   |

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|---------|---|---------|---|
| 1404416 | 1 | 1404418 | 1 |
| 1404415 | 1 | 1404417 | 1 |

| Accessories          |         |   |
|----------------------|---------|---|
| SACC-M12-SET/2,5-3,5 | 1436505 | 5 |

| Accessories |  |  |
|-------------|--|--|
|             |  |  |

| Accessories |  |  |
|-------------|--|--|
|             |  |  |

## M5 to M12 circular plug-in connectors

### Sensor/actuator plug-in connectors for assembly

#### M12, screw connection, shielded



Zinc die-cast housing, 4, 5, 8-pos.



Stainless steel housing, 5-pos.



|                                              | Technical data |                       |        |
|----------------------------------------------|----------------|-----------------------|--------|
|                                              | 4-pos.         | 5-pos.                | 8-pos. |
| General data                                 |                |                       |        |
| M12 circular plug-in connector according to: |                | IEC 61076-2-101       |        |
| Pollution degree                             |                | 3                     |        |
| Degree of protection                         |                | IP67                  |        |
| Connection method                            |                | Screw connection      |        |
| Connection cross section [mm²]               |                | 0.25 mm² ... 0.75 mm² |        |
| Electrical data                              |                |                       |        |
| Rated voltage                                | 60 V           |                       | 30 V   |
| Rated current                                | 4 A            |                       | 2 A    |
| Volume resistance                            |                | ≤ 3 mΩ                |        |
| Insulation resistance                        |                | ≥ 100 MΩ              |        |
| Material data                                |                |                       |        |
| Material contact / contact surface           |                | CuZn / Au             |        |
| Contact carrier material                     |                | PA 66                 |        |
| Inflammability class according to UL 94      |                | HB                    |        |
| Temperature data                             |                |                       |        |
| Plug / socket [°C]                           |                | -40 ... 85            |        |



|                       | Technical data |         |
|-----------------------|----------------|---------|
|                       | 5-pos.         |         |
| General data          |                |         |
| IEC 61076-2-101       |                | -       |
| 3                     |                | -       |
| IP67/IP69K            |                | -       |
| Screw connection      |                | -       |
| 0.25 mm² ... 0.75 mm² |                | - ... - |
| Electrical data       |                |         |
| 60 V                  |                | -       |
| 4 A                   |                | -       |
| ≤ 3 mΩ                |                | -       |
| ≥ 100 MΩ              |                | -       |
| Material data         |                |         |
| CuZn / Au             |                | - / -   |
| PA 66                 |                | -       |
| V0                    |                | -       |
| Temperature data      |                |         |
| -40 ... 85            |                | -       |

|                                                                                        |              | Ordering data |             |           |             |           |             |
|----------------------------------------------------------------------------------------|--------------|---------------|-------------|-----------|-------------|-----------|-------------|
| Description                                                                            | Coding       | Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|                                                                                        |              | 4-pos.        |             | 5-pos.    |             | 8-pos.    |             |
| <b>Plug-in connector, with Pg7 screw connection, cable diameter: 4 mm ... 6 mm</b>     |              |               |             |           |             |           |             |
| Plug, angled                                                                           | A - standard | 1694279       | 1           | 1693429   | 1           |           |             |
| Socket, straight                                                                       | A - standard | 1694295       | 1           | 1694305   | 1           |           |             |
| Plug, straight                                                                         | A - standard | 1693830       | 1           | 1693416   | 1           |           |             |
| <b>Plug-in connector, with Pg9 screw connection, cable diameter: 6 mm ... 8 mm</b>     |              |               |             |           |             |           |             |
| Socket, angled                                                                         | A - standard |               |             | 1430433   | 1           |           |             |
| Plug, angled                                                                           | A - standard |               |             | 1694282   | 1           |           |             |
| Socket, straight                                                                       | A - standard | 1515170       | 1           | 1694318   | 1           | 1511860   | 1           |
| Plug, straight                                                                         | A - standard | 1501540       | 1           | 1694266   | 1           | 1511857   | 1           |
| <b>Plug-in connector, with Pg9 screw connection, cable diameter: 6 mm ... 8.5 mm</b>   |              |               |             |           |             |           |             |
| Socket, straight                                                                       | A - standard |               |             | 1508365   | 1           |           |             |
| Plug, straight                                                                         | A - standard |               |             | 1508352   | 1           |           |             |
| <b>Plug-in connector, with M16 screw connection, cable diameter: 3 mm ... 5.5 mm</b>   |              |               |             |           |             |           |             |
| Socket, straight                                                                       | A - standard |               |             |           |             |           |             |
| Plug, straight                                                                         | A - standard |               |             |           |             |           |             |
| <b>Plug-in connector, with M16 screw connection, cable diameter: 5.5 mm ... 8.6 mm</b> |              |               |             |           |             |           |             |
| Socket, straight                                                                       | A - standard |               |             |           |             |           |             |
| Plug, straight                                                                         | A - standard |               |             |           |             |           |             |

| Ordering data |             |           |             |
|---------------|-------------|-----------|-------------|
| Order No.     | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 5-pos.        |             |           |             |
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## M5 to M12 circular plug-in connectors

### Sensor/actuator plug-in connectors for assembly

#### M12, power plug-in connector, screw connection



Metal knurl, 3-pos. + PE, S-coded



Metal knurl, 4-pos., T-coded

|                                         | Technical data            |           |             | Technical data            |           |             |
|-----------------------------------------|---------------------------|-----------|-------------|---------------------------|-----------|-------------|
|                                         | 3-pos. + PE               |           |             | 4-pos.                    |           |             |
| General data                            |                           |           |             |                           |           |             |
| Pollution degree                        | 3                         |           |             | 3                         |           |             |
| Degree of protection                    | IP67                      |           |             | IP67                      |           |             |
| Connection method                       | Screw connection          |           |             | Screw connection          |           |             |
| Connection cross section [mm²]          | 0.75 mm² ... 1.5 mm²      |           |             | 0.75 mm² ... 1.5 mm²      |           |             |
| Electrical data                         |                           |           |             |                           |           |             |
| Rated voltage                           | 630 V                     |           |             | 60 V                      |           |             |
| Rated current                           | 12 A                      |           |             | 12 A                      |           |             |
| Volume resistance                       | ≤ 3 mΩ                    |           |             | ≤ 3 mΩ                    |           |             |
| Insulation resistance                   | > 10 GΩ                   |           |             | > 10 GΩ                   |           |             |
| Material data                           |                           |           |             |                           |           |             |
| Material contact / contact surface      | CuZn / Au                 |           |             | CuZn / Au                 |           |             |
| Contact carrier material                | PA 46                     |           |             | PA 46                     |           |             |
| Inflammability class according to UL 94 | V0                        |           |             | V0                        |           |             |
| Temperature data                        |                           |           |             |                           |           |             |
| Plug / socket                           | [°C] -40 ... 85           |           |             | -40 ... 85                |           |             |
| Ordering data                           |                           |           |             |                           |           |             |
| Description                             | Type                      | Order No. | Pcs. / Pkt. | Type                      | Order No. | Pcs. / Pkt. |
|                                         |                           |           |             |                           |           |             |
|                                         | SACC-M12FSS-3PECON-PG11-M | 1404642   | 1           | SACC-M12FST-3PECON-PG11-M | 1404644   | 1           |
|                                         | SACC-M12MSS-3PECON-PG11-M | 1404641   | 1           | SACC-M12MST-3PECON-PG11-M | 1404643   | 1           |

## M5 to M12 circular plug-in connectors

### Sensor/actuator plug-in connectors for assembly

#### M12, DUO plug-in connector, screw connection

##### Notes:

SPEEDCON and plastic knurls without key areas.



Metal knurl, 4, 5-pos.



SPEEDCON metal knurl/plastic knurl, 5 pos.



##### Technical data

|                                              | 4-pos.                                        | 5-pos. |
|----------------------------------------------|-----------------------------------------------|--------|
| General data                                 |                                               |        |
| M12 circular plug-in connector according to: | IEC 61076-2-101                               |        |
| Pollution degree                             | 3                                             |        |
| Degree of protection                         | IP67                                          |        |
| Connection method                            | Screw connection                              |        |
| Connection cross section [mm <sup>2</sup> ]  | 0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> |        |
| Electrical data                              |                                               |        |
| Rated voltage                                | 250 V                                         | 60 V   |
| Rated current                                | 4 A                                           |        |
| Volume resistance                            | ≤ 8 mΩ                                        |        |
| Insulation resistance                        | ≥ 100 MΩ                                      |        |
| Material data                                |                                               |        |
| Material contact / contact surface           | CuZn / CuSnZn                                 |        |
| Contact carrier material                     | PA 66                                         |        |
| Inflammability class according to UL 94      | V0                                            |        |
| Temperature data                             |                                               |        |
| Plug / socket                                | -40 ... 85                                    |        |

##### Ordering data

| Description                                                                                   | Coding       |
|-----------------------------------------------------------------------------------------------|--------------|
| <b>Plug-in connector, with Pg11 DUO screw connection, cable diameter: 2 x 3 mm ... 5.2 mm</b> |              |
| Socket, straight                                                                              | A - standard |
| Plug, straight                                                                                | A - standard |
| Plug, angled                                                                                  | A - standard |

| Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
|-----------|-------------|-----------|-------------|
| 4-pos.    |             | 5-pos.    |             |
| 1507052   | 1           | 1662748   | 1           |



##### Technical data

|                                             | Metal knurl, SPEEDCON, 5-pos.                 | Plastic knurl, 5-pos. |
|---------------------------------------------|-----------------------------------------------|-----------------------|
| General data                                |                                               |                       |
| IEC 61076-2-101                             |                                               |                       |
| Pollution degree                            | 3                                             |                       |
| Degree of protection                        | IP67                                          |                       |
| Connection method                           | Screw connection                              |                       |
| Connection cross section [mm <sup>2</sup> ] | 0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> |                       |
| Electrical data                             |                                               |                       |
| Rated voltage                               | 60 V                                          |                       |
| Rated current                               | 4 A                                           |                       |
| Volume resistance                           | ≤ 8 mΩ                                        |                       |
| Insulation resistance                       | ≥ 100 MΩ                                      |                       |
| Material data                               |                                               |                       |
| Material contact / contact surface          | CuZn / CuSnZn                                 |                       |
| Contact carrier material                    | PA 66                                         |                       |
| Inflammability class according to UL 94     | V0                                            |                       |
| Temperature data                            |                                               |                       |
| Plug / socket                               | -40 ... 85                                    | -25 ... 85            |

##### Ordering data

| Order No.                     | Pcs. / Pkt. | Order No.             | Pcs. / Pkt. |
|-------------------------------|-------------|-----------------------|-------------|
| Metal knurl, SPEEDCON, 5-pos. |             | Plastic knurl, 5-pos. |             |
| 1543016                       | 1           | 1694596               | 1           |
|                               |             | 1662285               | 1           |
|                               |             | 1531044               | 1           |

# M5 to M12 circular plug-in connectors

## Sensor/actuator plug-in connectors for assembly

7/8", screw connection



Connection cross section:  
1.5 mm<sup>2</sup>, 3, 4, 5-pos.



Connection cross section:  
2.5 mm<sup>2</sup>, 5-pos.



| Technical data                          |                                              |        |  |
|-----------------------------------------|----------------------------------------------|--------|--|
| 3-pos.                                  | 4-pos.                                       | 5-pos. |  |
| General data                            |                                              |        |  |
| Pollution degree                        | 3                                            |        |  |
| Degree of protection                    | IP67                                         |        |  |
| Connection method                       | Screw connection                             |        |  |
| Connection cross section                | 0.34 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |        |  |
| Connection cross section AWG            | 22 ... 16                                    |        |  |
| Electrical data                         |                                              |        |  |
| Rated voltage                           | 250 V                                        |        |  |
| Rated current                           | 12 A                                         | 9 A    |  |
| Volume resistance                       | ≤ 5 mΩ                                       |        |  |
| Insulation resistance                   | ≥ 100 MΩ                                     |        |  |
| Material data                           |                                              |        |  |
| Material contact / contact surface      | CuZn / Au                                    |        |  |
| Contact carrier material                | PUR / PA66                                   |        |  |
| Inflammability class according to UL 94 | HB                                           |        |  |
| Temperature data                        |                                              |        |  |
| Plug / socket                           | -25 ... 85                                   |        |  |



| Technical data                          |                                              |         |   |
|-----------------------------------------|----------------------------------------------|---------|---|
| 5-pos.                                  |                                              |         |   |
| General data                            |                                              |         |   |
| Pollution degree                        | 3                                            | -       |   |
| Degree of protection                    | IP67                                         | -       |   |
| Connection method                       | Screw connection                             | -       |   |
| Connection cross section                | 0.34 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> | - ... - | - |
| Connection cross section AWG            | 22 ... 14                                    | - ... - | - |
| Electrical data                         |                                              |         |   |
| Rated voltage                           | 250 V                                        | -       |   |
| Rated current                           | 9 A                                          | -       |   |
| Volume resistance                       | ≤ 5 mΩ                                       | -       |   |
| Insulation resistance                   | ≥ 100 MΩ                                     | -       |   |
| Material data                           |                                              |         |   |
| Material contact / contact surface      | CuZn / Au                                    | - / -   |   |
| Contact carrier material                | PUR / PA66                                   | -       |   |
| Inflammability class according to UL 94 | HB                                           | -       |   |
| Temperature data                        |                                              |         |   |
| Plug / socket                           | -25 ... 85                                   | -       |   |

| Ordering data                                                                    |             |           |             |           |             |
|----------------------------------------------------------------------------------|-------------|-----------|-------------|-----------|-------------|
| Order No.                                                                        | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 3-pos.                                                                           |             | 4-pos.    |             | 5-pos.    |             |
| Plug-in connector, with Pg9 screw connection, cable diameter: 6 mm ... 8 mm      |             |           |             |           |             |
| Socket, angled                                                                   | 1521478 1   | 1521494 1 | 1521517 1   |           |             |
| Plug, angled                                                                     | 1521465 1   | 1521481 1 | 1521504 1   |           |             |
| Socket, straight                                                                 | 1521300 1   | 1521342 1 | 1521384 1   |           |             |
| Plug, straight                                                                   | 1521287 1   | 1521326 1 | 1521668 1   |           |             |
| Plug-in connector, with Pg11 screw connection, cable diameter: 8 mm ... 10 mm    |             |           |             |           |             |
| Socket, angled                                                                   |             |           | 1456297 1   |           |             |
| Plug, angled                                                                     |             |           | 1456242 1   |           |             |
| Socket, straight                                                                 |             |           | 1456271 1   |           |             |
| Plug, straight                                                                   |             |           | 1456226 1   |           |             |
| Plug-in connector, with Pg13.5 screw connection, cable diameter: 10 mm ... 12 mm |             |           |             |           |             |
| Socket, angled                                                                   |             |           | 1456307 1   |           |             |
| Plug, angled                                                                     |             |           | 1456255 1   |           |             |
| Socket, straight                                                                 | 1521313 1   | 1521355 1 | 1521397 1   |           |             |
| Plug, straight                                                                   | 1521290 1   | 1521339 1 | 1521371 1   |           |             |
| Plug-in connector, with Pg16 screw connection, cable diameter: 12 mm ... 14 mm   |             |           |             |           |             |
| Socket, straight                                                                 |             |           | 1559071 1   | 1456268 1 |             |
| Plug, straight                                                                   |             |           | 1559039 1   | 1456239 1 |             |

| Ordering data                                                                    |             |           |             |           |             |
|----------------------------------------------------------------------------------|-------------|-----------|-------------|-----------|-------------|
| Order No.                                                                        | Pcs. / Pkt. | Order No. | Pcs. / Pkt. | Order No. | Pcs. / Pkt. |
| 5-pos.                                                                           |             |           |             |           |             |
| Plug-in connector, with Pg9 screw connection, cable diameter: 6 mm ... 8 mm      |             |           |             |           |             |
| Socket, angled                                                                   |             |           |             |           |             |
| Plug, angled                                                                     |             |           |             |           |             |
| Socket, straight                                                                 |             |           |             |           |             |
| Plug, straight                                                                   |             |           |             |           |             |
| Plug-in connector, with Pg11 screw connection, cable diameter: 8 mm ... 10 mm    |             |           |             |           |             |
| Socket, angled                                                                   |             |           |             |           |             |
| Plug, angled                                                                     |             |           |             |           |             |
| Socket, straight                                                                 |             |           |             |           |             |
| Plug, straight                                                                   |             |           |             |           |             |
| Plug-in connector, with Pg13.5 screw connection, cable diameter: 10 mm ... 12 mm |             |           |             |           |             |
| Socket, angled                                                                   |             |           |             |           |             |
| Plug, angled                                                                     |             |           |             |           |             |
| Socket, straight                                                                 |             |           |             |           |             |
| Plug, straight                                                                   |             |           |             |           |             |
| Plug-in connector, with Pg16 screw connection, cable diameter: 12 mm ... 14 mm   |             |           |             |           |             |
| Socket, straight                                                                 |             |           |             |           |             |
| Plug, straight                                                                   |             |           |             |           |             |

## M5 to M12 circular plug-in connectors

### M12 power plug-in connectors

#### M12 power flush-type plug-in connectors, with 0.5 m long litz wires



S-coded, 3-pos. + PE



T-coded, 4-pos.

|                                                    | Technical data   |             |                  |             |  | Technical data   |             |                  |             |
|----------------------------------------------------|------------------|-------------|------------------|-------------|--|------------------|-------------|------------------|-------------|
|                                                    | Front mounting   |             | Rear mounting    |             |  | Front mounting   |             | Rear mounting    |             |
| General data                                       |                  |             |                  |             |  |                  |             |                  |             |
| Pollution degree                                   | 3                |             | 3                |             |  | 3                |             | 3                |             |
| Degree of protection                               | IP67             |             | IP67             |             |  | IP67             |             | IP67             |             |
| Connection method                                  | Individual wires |             | Individual wires |             |  | Individual wires |             | Individual wires |             |
| Electrical data                                    |                  |             |                  |             |  |                  |             |                  |             |
| Rated voltage                                      | 630 V            |             | 630 V            |             |  | 60 V             |             | 60 V             |             |
| Rated current                                      | 12 A             |             | 12 A             |             |  | 12 A             |             | 12 A             |             |
| Volume resistance                                  | ≤ 3 mΩ           |             | ≤ 3 mΩ           |             |  | ≤ 3 mΩ           |             | ≤ 3 mΩ           |             |
| Insulation resistance                              | ≥ 100 MΩ         |             | ≥ 100 MΩ         |             |  | ≥ 100 MΩ         |             | ≥ 100 MΩ         |             |
| Surge voltage category                             | III              |             | III              |             |  | III              |             | III              |             |
| Material data                                      |                  |             |                  |             |  |                  |             |                  |             |
| Material contact / contact surface                 | CuZn / Au        |             | CuZn / Au        |             |  | CuZn / Au        |             | CuZn / Au        |             |
| Contact carrier material                           | PA6              |             | PA6              |             |  | PA6              |             | PA6              |             |
| Cable type                                         | PP litz wire     |             | PP litz wire     |             |  | PP litz wire     |             | PP litz wire     |             |
| Temperature data                                   |                  |             |                  |             |  |                  |             |                  |             |
| Plug / socket                                      | [°C]             |             | -25 ... 85       |             |  | -25 ... 85       |             | -25 ... 85       |             |
| Cable, fixed installation                          | [°C]             |             | -40 ... 90       |             |  | -40 ... 90       |             | -40 ... 90       |             |
|                                                    | Ordering data    |             |                  |             |  | Ordering data    |             |                  |             |
| Description                                        | Order No.        | Pcs. / Pkt. | Order No.        | Pcs. / Pkt. |  | Order No.        | Pcs. / Pkt. | Order No.        | Pcs. / Pkt. |
|                                                    | Front mounting   |             | Rear mounting    |             |  | Front mounting   |             | Rear mounting    |             |
| Flush-type plug-in connector, M16 fastening thread |                  |             |                  |             |  |                  |             |                  |             |
| Socket                                             | 1424137          | 1           | 1424133          | 1           |  | 1424138          | 1           | 1424134          | 1           |
| Plug                                               | 1424139          | 1           | 1424132          | 1           |  | 1424140          | 1           | 1424136          | 1           |
|                                                    | Accessories      |             |                  |             |  | Accessories      |             |                  |             |
| Flat nut, with:<br>M16 thread                      | SACC-E-MU-M16    |             | 1504097          | 100         |  | SACC-E-MU-M16    |             | 1504097          | 100         |

**M12 power flush-type plug-in connectors, modular, 25 mm square flange, pre-assembled**



Flange housing, 2.7 mm housing bore holes



Pre-assembled contact carrier and insulating body with 0.5 m long litz wires

|                                                                                         | Technical data               |             | Technical data       |                  |
|-----------------------------------------------------------------------------------------|------------------------------|-------------|----------------------|------------------|
|                                                                                         |                              |             | S-coded, 3-pos. + PE | T-coded, 4-pos.  |
| General data                                                                            |                              |             |                      |                  |
| Pollution degree                                                                        | -                            | -           | 3                    | 3                |
| Degree of protection                                                                    | -                            | -           | IP67                 | IP67             |
| Connection method                                                                       | -                            | -           | Individual wires     | Individual wires |
| Electrical data                                                                         |                              |             |                      |                  |
| Rated voltage                                                                           | -                            | -           | 630 V                | 60 V             |
| Rated current                                                                           | -                            | -           | 12 A                 | 12 A             |
| Volume resistance                                                                       | -                            | -           | ≤ 3 mΩ               | ≤ 3 mΩ           |
| Surge voltage category                                                                  | -                            | -           | III                  | III              |
| Material data                                                                           |                              |             |                      |                  |
| Material contact / contact surface                                                      | - / -                        | - / -       | CuZn / Au            | CuZn / Au        |
| Contact carrier material                                                                | -                            | -           | PA6                  | PA6              |
| Cable gland material                                                                    | Zinc die-cast, nickel-plated | -           | -                    | -                |
| Cable type                                                                              | -                            | -           | PP litz wire         | PP litz wire     |
| Temperature data                                                                        |                              |             |                      |                  |
| Plug / socket                                                                           | [°C]                         | -40 ... 85  | -25 ... 85           | -25 ... 85       |
| Cable, fixed installation                                                               | [°C]                         | -           | -40 ... 90           | -40 ... 90       |
|                                                                                         | Ordering data                |             | Ordering data        |                  |
|                                                                                         | Order No.                    | Pcs. / Pkt. | Order No.            | Pcs. / Pkt.      |
| S-coded, 3-pos. + PE                                                                    |                              |             |                      |                  |
| T-coded, 4-pos.                                                                         |                              |             |                      |                  |
| Square flange housing, with flat gasket                                                 |                              |             |                      |                  |
|                                                                                         | 1424131                      | 10          |                      |                  |
| Assembled contact carrier and insulating body, with 0.5 m litz wires and crimp contacts |                              |             |                      |                  |
| Plug                                                                                    |                              |             | 1424129              | 1                |
|                                                                                         |                              |             | 1424130              | 1                |

M5 to M12 circular plug-in connectors

M12 power plug-in connectors

M12, power device plug-in connector, two-piece, for reflow processes, rear mounting

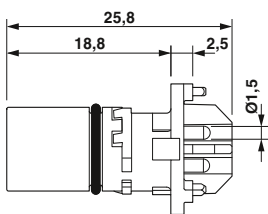


S-coded, 3-pos. + PE

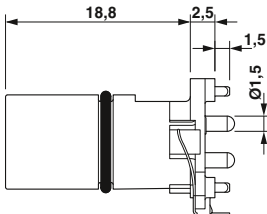


T-coded, 4-pos.

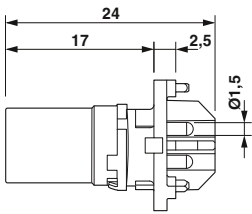
|                                                                                                                                     | Technical data        |                       | Technical data        |                       |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                                                                                                                     | Plug                  | Socket                | Plug                  | Socket                |
| General data                                                                                                                        |                       |                       |                       |                       |
| Pollution degree                                                                                                                    | 3                     | 3                     | 3                     | 3                     |
| Degree of protection                                                                                                                | IP67                  | IP67                  | IP67                  | IP67                  |
| Connection method                                                                                                                   | THR solder connection | THR solder connection | THR solder connection | THR solder connection |
| Electrical data                                                                                                                     |                       |                       |                       |                       |
| Rated voltage                                                                                                                       | 630 V                 | 630 V                 | 60 V                  | 60 V                  |
| Rated current                                                                                                                       | 12 A                  | 12 A                  | 12 A                  | 12 A                  |
| Volume resistance                                                                                                                   | ≤ 3 mΩ                | ≤ 3 mΩ                | ≤ 3 mΩ                | ≤ 3 mΩ                |
| Surge voltage category                                                                                                              | III                   | III                   | III                   | III                   |
| Material data                                                                                                                       |                       |                       |                       |                       |
| Material contact / contact surface                                                                                                  | CuZn / Au             | CuZn / Au             | CuZn / Au             | CuZn / Au             |
| Contact carrier material                                                                                                            | PA4T                  | PA4T                  | PA4T                  | PA4T                  |
| Inflammability class according to UL 94                                                                                             | V0                    | V0                    | V0                    | V0                    |
| Temperature data                                                                                                                    |                       |                       |                       |                       |
| Plug / socket                                                                                                                       | [°C]<br>-40 ... 85    | -40 ... 85            | -40 ... 85            | -40 ... 85            |
|                                                                                                                                     | Ordering data         |                       | Ordering data         |                       |
| Description                                                                                                                         | Order No.             | Pcs. / Pkt.           | Order No.             | Pcs. / Pkt.           |
|                                                                                                                                     | Plug                  | Socket                | Plug                  | Socket                |
| Contact carrier, for reflow processes                                                                                               | 1406410               | 20                    | 1406409               | 20                    |
| Contact carrier, shielded, for reflow processes                                                                                     |                       |                       | 1406396               | 60                    |
|                                                                                                                                     |                       |                       | 1406411               | 60                    |
|                                                                                                                                     |                       |                       | 1406397               | 60                    |
|                                                                                                                                     |                       |                       | 1406412               | 60                    |
|                                                                                                                                     | Accessories           |                       | Accessories           |                       |
| Housing screw connections, SPEEDCON screw versions and press-in versions, for all two-piece THR and wave soldering contact carriers | See page 258 onwards  |                       | See page 258 onwards  |                       |



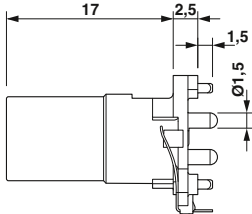
M12 flush-type plug



M12 flush-type plug



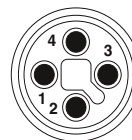
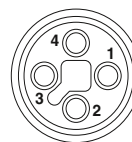
M12 flush-type socket



M12 flush-type socket



|                                                                                                     |  |  | Technical data                   |                |             | Technical data                   |                |             |
|-----------------------------------------------------------------------------------------------------|--|--|----------------------------------|----------------|-------------|----------------------------------|----------------|-------------|
| General data                                                                                        |  |  |                                  |                |             |                                  |                |             |
| Pollution degree                                                                                    |  |  | 3                                |                |             | 3                                |                |             |
| Degree of protection                                                                                |  |  | IP67                             |                |             | IP67                             |                |             |
| Connection method                                                                                   |  |  | Screw connection                 |                |             | Screw connection                 |                |             |
| Cable diameter                                                                                      |  |  | 8 mm ... 10 mm                   |                |             | 8 mm ... 10 mm                   |                |             |
| Connection cross section [mm²]                                                                      |  |  | 0.75 mm² ... 1.5 mm²             |                |             | 0.75 mm² ... 1.5 mm²             |                |             |
| Electrical data                                                                                     |  |  |                                  |                |             |                                  |                |             |
| Rated voltage                                                                                       |  |  | 630 V                            |                |             | 60 V                             |                |             |
| Rated current                                                                                       |  |  | 12 A                             |                |             | 12 A                             |                |             |
| Volume resistance                                                                                   |  |  | ≤ 3 mΩ                           |                |             | ≤ 3 mΩ                           |                |             |
| Surge voltage category                                                                              |  |  | III                              |                |             | III                              |                |             |
| Material data                                                                                       |  |  |                                  |                |             |                                  |                |             |
| Material contact / contact surface                                                                  |  |  | CuZn / Au                        |                |             | CuZn / Au                        |                |             |
| Contact carrier material                                                                            |  |  | PA 46                            |                |             | PA 46                            |                |             |
| Temperature data                                                                                    |  |  |                                  |                |             |                                  |                |             |
| Plug / socket [°C]                                                                                  |  |  | -40 ... 85                       |                |             | -40 ... 85                       |                |             |
|                                                                                                     |  |  | Ordering data                    |                |             | Ordering data                    |                |             |
| Description                                                                                         |  |  | Type                             | Order No.      | Pcs. / Pkt. | Type                             | Order No.      | Pcs. / Pkt. |
| <b>Plug-in connector</b> , with <b>Pg11</b> screw connection, <b>cable diameter: 8 mm ... 10 mm</b> |  |  |                                  |                |             |                                  |                |             |
| Socket, straight                                                                                    |  |  | <b>SACC-M12FSS-3PECON-PG11-M</b> | <b>1404642</b> | <b>1</b>    | <b>SACC-M12FST-3PECON-PG11-M</b> | <b>1404644</b> | <b>1</b>    |
| Plug, straight                                                                                      |  |  | <b>SACC-M12MSS-3PECON-PG11-M</b> | <b>1404641</b> | <b>1</b>    | <b>SACC-M12MST-3PECON-PG11-M</b> | <b>1404643</b> | <b>1</b>    |

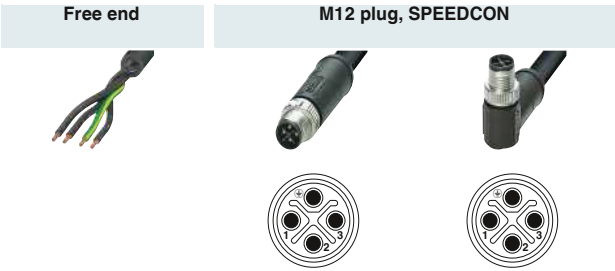


**Pin assignment of M12 plug, 4-pos., T-coded,  
view of plug side**

M5 to M12 circular plug-in connectors

M12 power plug-in connectors

M12-SPEEDCON power cable, 3-pos.+PE, S-coded, unshielded



| Ordering data                  |           | Ordering data |           | Ordering data |           |
|--------------------------------|-----------|---------------|-----------|---------------|-----------|
| Free end                       | Order No. | Order No.     | Order No. | Order No.     | Order No. |
|                                |           | 1 m           | 1408835   | 1 m           | 1408839   |
|                                |           | 2 m           | 1408836   | 2 m           | 1408840   |
|                                |           | 5 m           | 1408837   | 5 m           | 1408841   |
|                                |           | 10 m          | 1408838   | 10 m          | 1408842   |
| M12 socket, SPEEDCON, straight |           |               |           |               |           |
|                                | 1 m       | 1408843       |           |               |           |
|                                | 2 m       | 1408844       |           |               |           |
|                                | 5 m       | 1408845       |           |               |           |
|                                | 10 m      | 1408846       |           |               |           |
| M12 socket, SPEEDCON, angled   |           |               |           |               |           |
|                                | 1 m       | 1408848       |           |               |           |
|                                | 2 m       | 1408852       |           |               |           |
|                                | 5 m       | 1408853       |           |               |           |
|                                | 10 m      | 1408854       |           |               |           |

| Cable description         | Cable type | Color coding |   | Pin assignment |
|---------------------------|------------|--------------|---|----------------|
| PUR, halogen-free - black | PUR        | BK1          | 1 | 1              |
|                           |            | BK2          | 2 | 2              |
|                           |            | BK3          | 3 | 3              |
|                           |            | GNYE         |   | PE             |

| Technical data               |      |                                             |
|------------------------------|------|---------------------------------------------|
| M12                          |      |                                             |
| Rated voltage                | [V]  | 630                                         |
| Rated current                | [A]  | 12                                          |
| Volume resistance            |      | ≤ 3 mΩ                                      |
| Material contact M12         |      | CuZn                                        |
| Material contact surface M12 |      | Au                                          |
| Material handle M12          |      | TPU, hardly inflammable, self-extinguishing |
| Material, knurls             |      | Zinc die-cast, nickel-plated                |
| Degree of protection         |      | IP65 / IP67                                 |
| Temperature data             |      |                                             |
| Plug / socket                | [°C] | -25 ... 85                                  |

**M12-SPEEDCON power cable,  
3-pos.+PE, S-coded,  
shielded**

Free end



M12 plug, SPEEDCON,  
360° shielded



Ordering data

Ordering data

Ordering data

Free end

Order No.

Order No.

Order No.



1.5 m  
3 m  
5 m  
10 m

1424104  
1424105  
1424245  
1424107

1.5 m  
3 m  
5 m  
10 m

1424108  
1424109  
1424110  
1424111

M12 socket, SPEEDCON, straight, 360° shielded



1.5 m  
3 m  
5 m  
10 m

1424096  
1424097  
1424098  
1424099

M12 socket, SPEEDCON, angled, 360° shielded



1.5 m  
3 m  
5 m  
10 m

1424100  
1424101  
1424102  
1424103

Cable description

Cable type

Color coding

Pin assignment

PUR, halogen-free - orange

PUR

BK1  
BK2  
BK3  
GNYE

1  
2  
3

1  
2  
3  
PE

Technical data

M12

Rated voltage

[V]

630

Rated current

[A]

12

Volume resistance

≤ 3 mΩ

Material contact M12

CuZn

Material contact surface M12

Au

Material handle M12

TPU, hardly inflammable,  
self-extinguishing

Material, knurls

Zinc die-cast, nickel-plated

Degree of protection

IP65 / IP67

Temperature data

Plug / socket

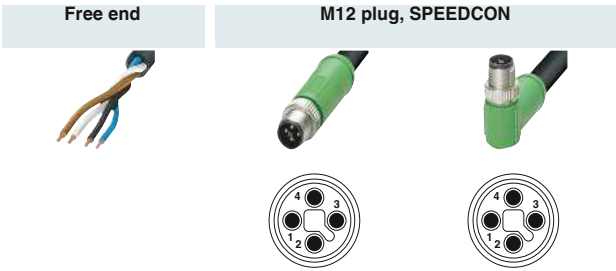
[°C]

-25 ... 85

M5 to M12 circular plug-in connectors

M12 power plug-in connectors

M12-SPEEDCON power cable, 4-pos., T-coded, unshielded



| Ordering data                  |           | Ordering data |           | Ordering data |           |
|--------------------------------|-----------|---------------|-----------|---------------|-----------|
| Free end                       | Order No. | Order No.     | Order No. | Order No.     | Order No. |
|                                |           | 1 m           | 1408812   | 1 m           | 1408816   |
|                                |           | 2 m           | 1408813   | 2 m           | 1408819   |
|                                |           | 5 m           | 1408814   | 5 m           | 1408820   |
|                                |           | 10 m          | 1408815   | 10 m          | 1408822   |
| M12 socket, SPEEDCON, straight |           |               |           |               |           |
|                                | 1 m       | 1408823       | 1 m       | 1408808       |           |
|                                | 2 m       | 1408824       | 2 m       | 1408809       |           |
|                                | 5 m       | 1408825       | 5 m       | 1408810       |           |
|                                | 10 m      | 1408826       | 10 m      | 1408811       |           |
| M12 socket, SPEEDCON, angled   |           |               |           |               |           |
|                                | 1 m       | 1408827       |           |               |           |
|                                | 2 m       | 1408828       |           |               |           |
|                                | 5 m       | 1408829       |           |               |           |
|                                | 10 m      | 1408830       |           |               |           |

| Cable description         | Cable type | Color coding | Pin assignment |
|---------------------------|------------|--------------|----------------|
| PUR, halogen-free - black | PUR        | BN           | 1              |
|                           |            | WH           | 2              |
|                           |            | BK           | 4              |
|                           |            | BU           | 3              |

|                              |      | Technical data                              |
|------------------------------|------|---------------------------------------------|
|                              |      | M12                                         |
| Rated voltage                | [V]  | 60                                          |
| Rated current                | [A]  | 12                                          |
| Volume resistance            |      | ≤ 3 mΩ                                      |
| Material contact M12         |      | CuZn                                        |
| Material contact surface M12 |      | Au                                          |
| Material handle M12          |      | TPU, hardly inflammable, self-extinguishing |
| Material, knurls             |      | Zinc die-cast, nickel-plated                |
| Degree of protection         |      | IP65 / IP67                                 |
| Temperature data             |      |                                             |
| Plug / socket                | [°C] | -25 ... 85                                  |

**M12-SPEEDCON power cable,  
4-pos., T-coded, shielded**

Free end



M12 plug, SPEEDCON  
360° shielded



Ordering data

Ordering data

Ordering data

Free end

Order No.

Order No.

Order No.



1.5 m  
3 m  
5 m  
10 m

1424120  
1424121  
1424122  
1424123

1.5 m  
3 m  
5 m  
10 m

1424124  
1424125  
1424126  
1424127

M12 socket, SPEEDCON, straight, 360° shielded



1.5 m  
3 m  
5 m  
10 m

1424112  
1424113  
1424114  
1424115

M12 socket, SPEEDCON, angled, 360° shielded



1.5 m  
3 m  
5 m  
10 m

1424116  
1424117  
1424118  
1424128

Cable description

Cable type

Color coding

Pin assignment

PUR, halogen-free - black

PUR

BN  
WH  
BK  
BU

1  
2  
4  
3

Technical data

M12

Rated voltage

[V]

60

Rated current

[A]

12

Volume resistance

≤ 3 mΩ

Material contact M12

CuZn

Material contact surface M12

Au

Material handle M12

TPU, hardly inflammable,

self-extinguishing

Material, knurls

Zinc die-cast, nickel-plated

Degree of protection

IP65 / IP67

Temperature data

Plug / socket

[°C]

-25 ... 85

## M5 to M12 circular plug-in connectors

### Accessories

#### Sealing elements

During transport or in the field, unoccupied plug-in connections must be protected or closed. The screw plugs, sealing caps and closing caps made of plastic or metal are suitable for this purpose. IP65/IP67 protection as well as IP69K protection is thereby achieved.



| Description                                                                                                                                                              | Ordering data                    |                |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------|-------------|
|                                                                                                                                                                          | Type                             | Order No.      | Pcs. / Pkt. |
| <b>M5 screw plug</b> ①<br>For unoccupied M5 sockets of the sensor/actuator cables, boxes and flush-type plug-in connectors                                               | <b>PROT-M5</b>                   | <b>1533288</b> | 10          |
| <b>M8 screw plug</b> ②<br>For unoccupied M8 sockets of the sensor/actuator cables, boxes and flush-type plug-in connectors                                               | <b>PROT-M8</b>                   | <b>1682540</b> | 5           |
| <b>M12 screw plug</b> ③<br>For the unused M12 sockets of the sensor/actuator cables, boxes and flush-type plug-in connectors                                             | <b>PROT-M12</b>                  | <b>1680539</b> | 5           |
| <b>M12 screw plug with SPEEDCON quick locking</b> ④<br>For unoccupied M12 sockets of the sensor/actuator cables, boxes and flush-type plug-in connectors                 | <b>PROT-MS SCO</b>               | <b>1553129</b> | 5           |
| <b>M12 sealing cap</b> ⑤<br>For unoccupied M12 plugs of the sensor/actuator cables, flush-type plug-in connectors and I/O devices in the field                           | <b>PROT-M12 FS</b>               | <b>1560251</b> | 5           |
| <b>M12 screw plug, metal</b> ⑥<br>For unoccupied M12 sockets of the shielded sensor/actuator cables, boxes and flush-type plug-in connectors                             | <b>PROT-M12 SH</b>               | <b>1503302</b> | 5           |
| <b>M12 sealing cap, metal</b> ⑦<br>For unoccupied M12 plugs of the sensor/actuator cables, flush-type plug-in connectors and I/O devices in the field                    | <b>PROT-M12 FS-M</b>             | <b>1430488</b> | 10          |
| <b>M12 screw plug, stainless steel</b> ⑧<br>For unused M12 sockets of the sensor/actuator cables, boxes, and flush-type plug-in connectors in the food and outdoor range | <b>PROT-M12 FB</b>               | <b>1555538</b> | 5           |
| <b>Closing cap</b> ⑨<br>For Pg9/ Pg11, to close unoccupied connections                                                                                                   | <b>Q-PROT 9/11</b>               | <b>1670235</b> | 10          |
| <b>M16 locking screw</b> ⑩<br>With flat nut for oval housing cutouts                                                                                                     | <b>SACC-M16-SEALING PLUG SET</b> | <b>1453368</b> | 10          |

### Sealing elements with holding band or fixing chain

All IP67 interfaces can be closed tightly using the screw plugs and sealing caps in sizes M8, M12 and 7/8". The holding bands are fastened on the cable or the housing and are thus held captive.

The M12 metal protective cap with fixing chain is suitable for all pin versions. It is used in harsh industrial environments or for EMC applications.



| Description                                                                                          | Ordering data                 |           |             |
|------------------------------------------------------------------------------------------------------|-------------------------------|-----------|-------------|
|                                                                                                      | Type                          | Order No. | Pcs. / Pkt. |
| <b>Screw plug</b> made from <b>plastic</b> with retaining strap, for sealing unused <b>sockets</b> ① |                               |           |             |
| M8 for SAC cables                                                                                    | PROT-M 8 MS-PA-CHAIN          | 1430860   | 10          |
| M8 with 3 mm fastening eye                                                                           | PROT-M 8 MS-PA-CHAIN-EYE-DM3  | 1441105   | 10          |
| M8 with 12 mm fastening eye                                                                          | PROT-M 8 MS-PA-CHAIN-EYE      | 1441095   | 10          |
| M12 for SAC cables                                                                                   | PROT-M12 MS-PA-CHAIN          | 1430899   | 5           |
| M12 with 15 mm fastening eye                                                                         | PROT-M12 MS-PA-CHAIN-EYE-DM14 | 1456200   | 5           |
| 7/8" for SAC cables                                                                                  | PROT-MINMS-PA-CHAIN           | 1430925   | 10          |
| <b>Plastic sealing cap</b> with holding band, for closing unoccupied <b>connectors</b> ②             |                               |           |             |
| M8 for SAC cables                                                                                    | PROT-M 8 FS-PA-CHAIN          | 1430857   | 10          |
| M8 with 8 mm fastening eye                                                                           | PROT-M 8 FS-PA-CHAIN-EYE      | 1441082   | 10          |
| M12 for SAC cables                                                                                   | PROT-M12 FS-PA-CHAIN          | 1430873   | 5           |
| M12 with 12 mm fastening eye                                                                         | PROT-M12 FS-PA-CHAIN-EYE-DM12 | 1456187   | 5           |
| M12 with 15 mm fastening eye                                                                         | PROT-M12 FS-PA-CHAIN-EYE-DM14 | 1456190   | 5           |
| 7/8" for SAC cables                                                                                  | PROT-MINFS-PA-CHAIN           | 1430912   | 10          |
| <b>Metal sealing cap</b> with fixing chain, for closing unoccupied <b>connectors</b> ③               |                               |           |             |
| M12 with 16 mm fastening eye                                                                         | PROT-M12 FS-M-CHAIN           | 1430491   | 10          |

## M5 to M12 circular plug-in connectors

### Accessories

#### Accessories for flush-type plug-in connectors

Special fixing nuts are available for EMC-compliant installation of M12 flush-type plug-in connectors on coated or varnished housing surfaces. When tightened, these cut through the surface coating, thus establishing contact between the housing and the connector.

Alternatively, flat gaskets can be used as the seal between the housing panel and the device plug. Flat gaskets are recommended for thin panels, as the housing cutouts do not have to be chamfered.



| Description                                                                                | Ordering data             |                |             |
|--------------------------------------------------------------------------------------------|---------------------------|----------------|-------------|
|                                                                                            | Type                      | Order No.      | Pcs. / Pkt. |
| <b>EMC hexagonal nuts</b> with fine tooting, for all flush-type plug-in connectors with: ① |                           |                |             |
| M12 fastening thread                                                                       | <b>SACC-M12-KD-NUT-SH</b> | <b>1440151</b> | 10          |
| <b>EMC hexagonal nuts</b> with fine tooting, for all flush-type plug-in connectors with: ② |                           |                |             |
| M16 fastening thread                                                                       | <b>SACC-M16-KD-NUT-SH</b> | <b>1440164</b> | 10          |
| Pg9 fastening thread                                                                       | <b>SACC-PG9-KD-NUT-SH</b> | <b>1440177</b> | 10          |
| <b>Flat gasket</b> for all flush-type plug-in connectors with: ③                           |                           |                |             |
| M16 fastening thread                                                                       | <b>SACC-M16-SEAL CLM</b>  | <b>1430394</b> | 10          |
| Pg9 fastening thread                                                                       | <b>SACC-PG9-SEAL CLM</b>  | <b>1556320</b> | 10          |

## Assembly tools for sensor/actuator cables

To achieve tight plug-in connections, we recommend using assembly tools. M12 and 7/8" circular plug-in connectors can be assembled using a torque screwdriver and plug attachment.

The benefits of the plug attachment become particularly clear when connecting the connectors to the distributor boxes. Thanks to the open design, it enables quick adjustment and installation even when space is at a premium.

The version for M12 connectors with hexagonal stainless steel knurl is also made from stainless steel. This prevents the connector knurls from being contaminated by corrosive materials.

For greater flexibility, screwdrivers with adjustable torque are also available. When used in conjunction with the adapter insert, they can also be used to accommodate the available plug attachments.



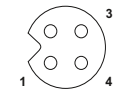
| Ordering data                                                                                                                                                      |                                       |                               |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------|-------------|
| Description                                                                                                                                                        | Type                                  | Order No.                     | Pcs. / Pkt. |
| <b>Torque screwdriver</b> ①<br>With a preset torque of 0.8 Nm and a 4 mm hexagonal drive                                                                           | TSD 08 SAC                            | 1212597                       | 1           |
| <b>Nut</b> ②<br>For assembling 7/8" plug-in connectors, with 4 mm hexagonal drive                                                                                  | SAC BIT MIN-D25                       | 1212512                       | 1           |
| <b>Torque screwdriver</b> ③<br>With preset torque of 0.4 Nm and 4 mm hexagonal drive                                                                               | TSD 04 SAC                            | 1208429                       | 1           |
| <b>Nut</b> ④<br>For mounting M12 plug-in connectors with hexagonal stainless steel knurl, wrench size 14, with 4 mm hexagonal drive                                | SAC BIT M12-W14                       | 1212513                       | 1           |
| <b>Torque screwdriver</b> , accuracy according to standard EN ISO 6789 ⑤<br>Adjustable from 0.3 - 1.2 Nm<br>Adjustable from 1.2 - 3 Nm<br>Adjustable from 3 - 6 Nm | TSD-M 1,2NM<br>TSD-M 3NM<br>TSD-M 6NM | 1212224<br>1212225<br>1212226 | 1<br>1<br>1 |
| <b>Adapter insert</b> ⑥<br>For torque screwdrivers with adjustable torque, for accommodating plug attachments with 4 mm hexagonal drive                            | TSD-M SAC-BIT ADAPTER                 | 1212600                       | 1           |

# M5 to M12 circular plug-in connectors

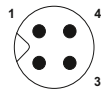
## Pin assignments

### M5 flush-type plug-in connectors

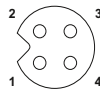
#### Pin assignments



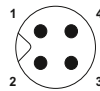
Socket, 3-pos.



Plug, 3-pos.



Socket, 4-pos.



Plug, 4-pos.

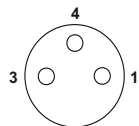
#### Litz wire colors

| Pin | Wire color |  |        |  |
|-----|------------|--|--------|--|
|     | 3-pos.     |  | 4-pos. |  |
| 1   | BN         |  | BN     |  |
| 2   | –          |  | WH     |  |
| 3   | BU         |  | BU     |  |
| 4   | BK         |  | BK     |  |

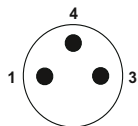
Assignment: M5 flush-type plugs/sockets

### M8 flush-type plug-in connectors

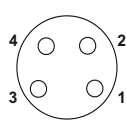
#### Pin assignments



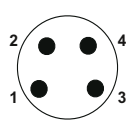
Socket, 3-pos.



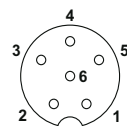
Plug, 3-pos.



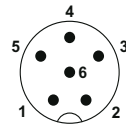
Socket, 4-pos.



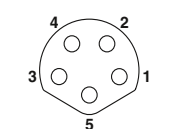
Plug, 4-pos.



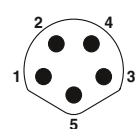
Socket, 6-pos.



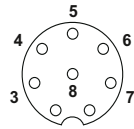
Plug, 6-pos.



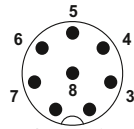
Socket, 5-pos.,  
DeviceNet™, B-coded



Plug, 5-pos.,  
DeviceNet™, B-coded



Socket, 8-pos.



Plug, 8-pos.

#### Litz wire colors

| Pin | Wire color |  |        |  |        |  |        |  |
|-----|------------|--|--------|--|--------|--|--------|--|
|     | 3-pos.     |  | 4-pos. |  | 6-pos. |  | 8-pos. |  |
| 1   | BN         |  | BN     |  | BN     |  | WH     |  |
| 2   | –          |  | WH     |  | WH     |  | BN     |  |
| 3   | BU         |  | BU     |  | BU     |  | GN     |  |
| 4   | BK         |  | BK     |  | BK     |  | YE     |  |
| 5   | –          |  | –      |  | GY     |  | GY     |  |
| 6   | –          |  | –      |  | PK     |  | PK     |  |
| 7   | –          |  | –      |  | –      |  | BU     |  |
| 8   | –          |  | –      |  | –      |  | RD     |  |

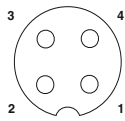
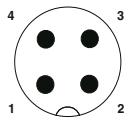
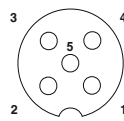
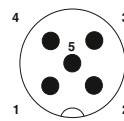
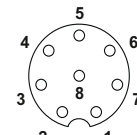
Assignment: M8 flush-type plugs/sockets

| Pin | Wire color | Signal<br>DeviceNet™ |
|-----|------------|----------------------|
| 1   | Shield     | Drain                |
| 2   | RD         | V+                   |
| 4   | BK         | V–                   |
| 3   | WH         | CAN_H                |
| 5   | BU         | CAN_L                |

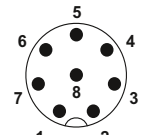
Assignment: CANopen®/DeviceNet™

## M12 flush-type plug-in connectors

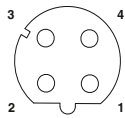
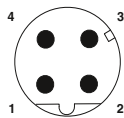
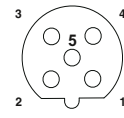
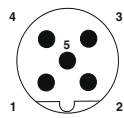
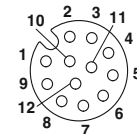
## Pin assignments

Socket, 4-pos.,  
A-codedPlug, 4-pos.,  
A-codedSocket, 5-pos.,  
A-codedPlug, 5-pos.,  
A-coded

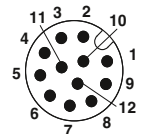
Socket, 8-pos.



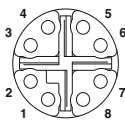
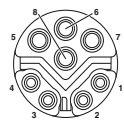
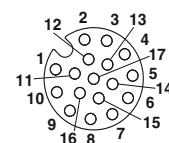
Plug, 8-pos.

Socket, 4-pos.,  
D-codedPlug, 4-pos.,  
D-codedSocket, 5-pos.,  
B-codedPlug, 5-pos.,  
B-coded

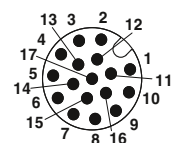
Socket, 12-pos.



Plug, 12-pos.

Socket, 8-pos.,  
X-codedSocket, 8-pos.,  
Y-coded

Socket, 17-pos.



Plug, 17-pos.

## Litz wire colors

| Pin | 4-pos.,<br>A-coded | 4-pos.,<br>D-coded |
|-----|--------------------|--------------------|
| 1   | BN                 | YE                 |
| 2   | WH                 | WH                 |
| 3   | BU                 | OG                 |
| 4   | BK                 | BU                 |
| –   | –                  | –                  |

Assignment: M12 flush-type plugs/sockets

| Pin | 5-pos.,<br>A-coded | 5-pos.,<br>B-coded |
|-----|--------------------|--------------------|
| 1   | BN                 | BN                 |
| 2   | WH                 | WH                 |
| 3   | BU                 | BU                 |
| 4   | BK                 | BK                 |
| 5   | GY                 | GY                 |

Assignment: M12 flush-type plugs/sockets

| Pin | 8-pos. | 12-pos. |
|-----|--------|---------|
| 1   | WH     | BN      |
| 2   | BN     | BU      |
| 3   | GN     | WH      |
| 4   | YE     | GN      |
| 5   | GY     | PK      |
| 6   | PK     | YE      |
| 7   | BU     | BK      |
| 8   | RD     | GY      |
| 9   | –      | RD      |
| 10  | –      | VT      |
| 11  | –      | GYPK    |
| 12  | –      | RDBU    |

Assignment: M12 flush-type plugs/sockets

| Pin | Wire color       | Signal<br>PROFIBUS |
|-----|------------------|--------------------|
| 1   | –                | –                  |
| 2   | GN               | A cable            |
| 3   | –                | –                  |
| 4   | RD               | B cable            |
| 5   | Filler litz wire | –                  |

Shield on housing

Assignment: PROFIBUS

| Pin | Wire color | Signal<br>CANopen® |
|-----|------------|--------------------|
| 1   | Shield     | –                  |
| 2   | RD         | –                  |
| 3   | BK         | CAN_GND            |
| 4   | WH         | CAN_H              |
| 5   | BU         | CAN_L              |

Shield on housing

Assignment: CANopen®

| Pin | Wire color | Signal<br>DeviceNet™ |
|-----|------------|----------------------|
| 1   | Shield     | Drain                |
| 2   | RD         | V+                   |
| 3   | BK         | V-                   |
| 4   | WH         | CAN_H                |
| 5   | BU         | CAN_L                |

Shield on housing

Assignment: DeviceNet™

| Pin | Wire color | Signal<br>Ethernet |
|-----|------------|--------------------|
| 1   | WHOG       | TD+                |
| 2   | WHGN       | RD+                |
| 3   | OG         | TD-                |
| 4   | GN         | RD-                |

Shield on housing

Assignment: Ethernet

| Pin | Wire color | Signal<br>INTERBUS |
|-----|------------|--------------------|
| 1   | YE         | DO                 |
| 2   | GN         | DI                 |
| 3   | GY         | DI                 |
| 4   | PK         | DI                 |
| 5   | BN         | COM                |
| –   | WH         | NC                 |

Shield on housing

Assignment: INTERBUS

| Pin | Wire color | Signal<br>Ethernet |
|-----|------------|--------------------|
| 1   | WH         | D1+                |
| 2   | OG         | D1-                |
| 3   | WH         | D2+                |
| 4   | GN         | D2-                |
| 5   | WH         | D4+                |
| 6   | BN         | D4-                |
| 7   | WH         | D3-                |
| 8   | BU         | D3+                |

Assignment: Ethernet CAT6<sub>A</sub>

| Pin | 17-pos. |
|-----|---------|
| 1   | BN      |
| 2   | BU      |
| 3   | WH      |
| 4   | GN      |
| 5   | PK      |
| 6   | YE      |
| 7   | BK      |
| 8   | GY      |
| 9   | RD      |
| 10  | VT      |
| 11  | GYPK    |
| 12  | RDBU    |
| 13  | WHGN    |
| 14  | BNGN    |
| 15  | WHYE    |
| 16  | YEBN    |
| 17  | WHGY    |

Assignment: M12 flush-type plugs/sockets

# M5 to M12 circular plug-in connectors

## Pin assignments

### M12 power flush-type plug-in connectors

#### Pin assignments



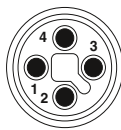
Socket, S-coded, 3+PE



Plug, A-coded, 3+PE



Socket, T-coded, 4-pos.



Plug, T-coded, 4-pos.

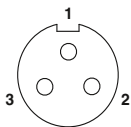
#### Litz wire colors

| Pin | 3+PE, S-cod. | Pin | 4-pos, T-cod. |
|-----|--------------|-----|---------------|
| 1   | BK1          | 1   | BN            |
| 2   | BK2          | 2   | WH            |
| 3   | BK3          | 3   | BU            |
| PE  | GNYE         | 4   | BK            |

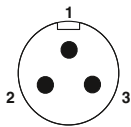
Assignment: M12 flush-type plugs/sockets

### 7/8" flush-type plug-in connectors

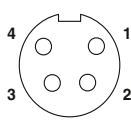
#### Pin assignments



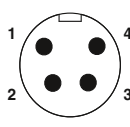
Socket, 3-pos.



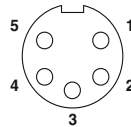
Plug, 3-pos.



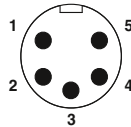
Socket, 4-pos.



Plug, 4-pos.



Socket, 5-pos.



Plug, 5-pos.

#### Litz wire colors

| Pin | 3-pos. | 4-pos. | 5-pos. |
|-----|--------|--------|--------|
| 1   | BK     | BK     | BK     |
| 2   | BN     | BU     | BU     |
| 3   | BU     | BN     | GNYE   |
| 4   | –      | WH     | BN     |
| 5   | –      | –      | WH     |

Assignment: 7/8" flush-type plugs/sockets

## THR processing notes

### Information for THR processing

|                                |                                |
|--------------------------------|--------------------------------|
| PCB thickness                  | Max. 1.6 mm                    |
| Residual ring                  | Recommended: 0.5 mm            |
| Overprinting on soldering mold | Residual ring diameter: 0.2 mm |
| Soldering mold thickness       | 150 µm                         |
| Soldering profile              | IEC 61760-3                    |

### Further information

|                  |          |
|------------------|----------|
| RoHS conformance | Attained |
|------------------|----------|



