

## Pressure sensors SDE1, with display

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## Pressure sensors SDE1, with display

Product range overview

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| Method of measurement                       | Operating voltage<br>[V DC] | Measured variable                                       | Pressure measuring range<br>[bar]                           | Pneumatic connection                                                                    | Type of mounting                                                                     | Electrical output |             |
|---------------------------------------------|-----------------------------|---------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------|-------------|
|                                             |                             |                                                         |                                                             |                                                                                         |                                                                                      | Digital           | Analogue    |
| Piezoresistive pressure sensor with display | 15 ... 30                   | Relative pressure<br>Differential and relative pressure | -1 ... 0,<br>-1 ... +1,<br>0 ... 2,<br>0 ... 6,<br>0 ... 10 | Male thread R1/8,<br>R1/4<br>Female thread G1/8<br>Push-in fitting for tubing O.D. 4 mm | On service unit,<br>via H-rail,<br>via wall/surface bracket,<br>front panel mounting | PNP               | –           |
|                                             |                             |                                                         |                                                             |                                                                                         |                                                                                      | 2x PNP            | –           |
|                                             |                             |                                                         |                                                             |                                                                                         |                                                                                      | PNP               | 0 ... 10 V  |
|                                             |                             |                                                         |                                                             |                                                                                         |                                                                                      | PNP               | 4 ... 20 mA |
|                                             |                             |                                                         |                                                             |                                                                                         |                                                                                      | 2x PNP            | 4 ... 20 mA |
|                                             |                             |                                                         |                                                             |                                                                                         |                                                                                      | NPN               | –           |
|                                             |                             |                                                         |                                                             |                                                                                         |                                                                                      | 2x NPN            | –           |
|                                             |                             |                                                         |                                                             |                                                                                         |                                                                                      | NPN               | 0 ... 10 V  |
|                                             |                             |                                                         |                                                             |                                                                                         |                                                                                      | NPN               | 4 ... 20 mA |

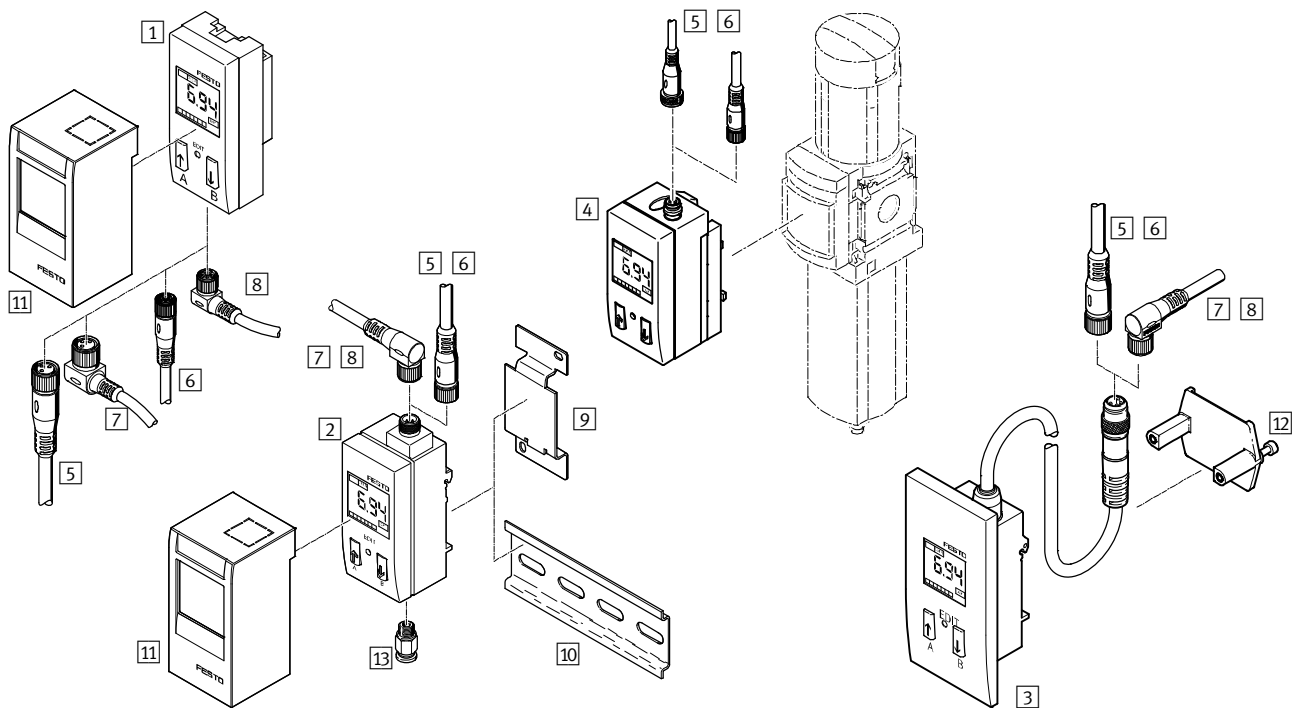
### Variants

- LCD display with backlighting (optimised operation)
- Illuminated LCD display (optimised reading)
- Electrical output PNP, 2x PNP, NPN, 2x NPN, 0 ... 10 V analogue, 4 ... 20 mA analogue and combinations thereof
- Electrical connection with plug M8x1 or M12x1
- Connecting cable

# Pressure sensors SDE1, with display

Peripherals overview

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| Mounting attachments and accessories               | → Page/Internet |
|----------------------------------------------------|-----------------|
| 1 Pressure sensor<br>SDE1-...-R18, SDE1-...-R14    | 5               |
| 2 Pressure sensor<br>SDE1-...-H18, SDE1-...-W18    | 5               |
| 3 Pressure sensor<br>SDE1-...-FQ4                  | 5               |
| 4 Pressure sensor<br>SDE1-...-MS...                | 5               |
| 5 Connecting cable<br>NEBU-M12G...                 | 14              |
| 6 Connecting cable, straight socket<br>NEBU-M8G... | 14              |
| 7 Connecting cable, angled socket<br>NEBU-M12W...  | 14              |

| Mounting attachments and accessories                                       | → Page/Internet |
|----------------------------------------------------------------------------|-----------------|
| 8 Connecting cable<br>NEBU-M8W... with angled socket                       | 14              |
| 9 Adapter plate<br>SDE1-...-W-...                                          | 14              |
| 10 Mounting rail<br>to DIN EN 60715                                        | nrh             |
| 11 Protective cover<br>SDE1-SH                                             | 14              |
| 12 Clamping plate (included in the scope of delivery<br>with SDE1-...-FQ4) | -               |
| 13 Push-in fitting<br>QS-1/8                                               | 14              |

# Pressure sensors SDE1, with display

Type codes

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SDE1 - D10 - G2 - W18 - L - P1 - M12 - G5

## Function

|      |                              |
|------|------------------------------|
| SDE1 | Pressure sensor with display |
|------|------------------------------|

## Pressure measuring range

|     |               |
|-----|---------------|
| V1  | -1 ... 0 bar  |
| B2  | -1 ... +1 bar |
| D2  | 0 ... 2 bar   |
| D6  | 0 ... 6 bar   |
| D10 | 0 ... 10 bar  |

## Absolute accuracy

|    |             |
|----|-------------|
| G2 | Accuracy 2% |
|----|-------------|

## Pneumatic connection and mounting

### Measured variable: relative pressure

|     |                                               |
|-----|-----------------------------------------------|
| R18 | Male thread R1/8, mounting on service unit    |
| R14 | Male thread R1/4, mounting on service unit    |
| MS4 | Direct connection to MS4 series service units |
| MS6 | Direct connection to MS6 series service units |
| H18 | Female thread G1/8, H-rail mounting           |
| W18 | Female thread G1/8, wall or surface mounting  |

### Measured variable: differential pressure and relative pressure

|     |                                                  |
|-----|--------------------------------------------------|
| FQ4 | Push-in connector QS-4, front panel mounting     |
| HQ4 | Push-in connector QS-4, DIN H-rail mounting      |
| WQ4 | Push-in connector QS-4, wall or surface mounting |

## Display and setting

|   |                                                     |
|---|-----------------------------------------------------|
| C | LCD display with backlighting (optimised operation) |
| L | Illuminated LCD display (optimised reading)         |

## Electrical output

|    |                                                  |
|----|--------------------------------------------------|
| P1 | 1 switching output PNP                           |
| P2 | 2 switching outputs PNP                          |
| PU | 1 switching output PNP and 0 ... 10 V analogue   |
| PI | 1 switching output PNP and 4 ... 20 mA analogue  |
| 2I | 2 switching outputs PNP and 4 ... 20 mA analogue |
| N1 | 1 switching output NPN                           |
| N2 | 2 switching outputs NPN                          |
| NU | 1 switching output NPN and 0 ... 10 V analogue   |
| NI | 1 switching output NPN and 4 ... 20 mA analogue  |

## Electrical connection

|     |            |
|-----|------------|
| M8  | Plug M8x1  |
| M12 | Plug M12x1 |

## Electric accessories

### Connecting cable, straight plug socket

|    |            |
|----|------------|
| G  | 2.5 m long |
| G5 | 5 m long   |

### Connecting cable, angled plug socket

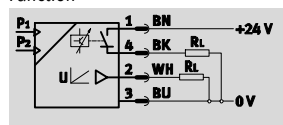
|    |            |
|----|------------|
| W  | 2.5 m long |
| W5 | 5 m long   |

# Pressure sensors SDE1, with display

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Technical data

Function<sup>1)</sup>



1) e.g. with 1 switching output PNP and 0 ... 10 V analogue

- Voltage  
15 ... 30 V DC

- Pressure  
-1 ... +10 bar

- Temperature range  
0 ... 50 °C



| General technical data                                |                                           |        |       |       |       |
|-------------------------------------------------------|-------------------------------------------|--------|-------|-------|-------|
| SDE1-...                                              | -R...                                     | -MS... | -H... | -W... | -F... |
| Certification                                         | cULus recognized (OL)<br>RCM trademark    |        |       |       | -     |
| CE mark (see declaration of conformity) <sup>1)</sup> | To EU EMC Directive                       |        |       |       |       |
| Note on materials                                     | Free of copper and PTFE<br>RoHS-compliant |        |       |       |       |

1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: [www.festo.com/sp](http://www.festo.com/sp) → Certificates.  
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

| Input signal/measuring element |                                                                                                        |          |         |         |          |
|--------------------------------|--------------------------------------------------------------------------------------------------------|----------|---------|---------|----------|
| SDE1                           | -B2                                                                                                    | -V1      | -D2     | -D6     | -D10     |
| Measured variable              | Relative pressure<br>Differential pressure <sup>2)</sup>                                               |          |         |         |          |
| Method of measurement          | Piezoresistive pressure sensor with display                                                            |          |         |         |          |
| Operating medium               | Compressed air in accordance with ISO 8573-1:2010 [7:4:4]                                              |          |         |         |          |
| Note on operating/pilot medium | Operation with lubricated medium possible (in which case lubricated operation will always be required) |          |         |         |          |
| Pressure measuring range [bar] | -1 ... +1                                                                                              | 0 ... -1 | 0 ... 2 | 0 ... 6 | 0 ... 10 |
| Temperature of medium [°C]     | 0 ... 50                                                                                               |          |         |         |          |
| Ambient temperature [°C]       | 0 ... 50                                                                                               |          |         |         |          |

2) Versions with push-in connector QS-4

| Output, general           |     |   |
|---------------------------|-----|---|
| Accuracy FS <sup>3)</sup> | [%] | 2 |

3) % FS = % of the measuring range (full scale)

| Switching output                       |                     |
|----------------------------------------|---------------------|
| Switching output                       | PNP<br>NPN          |
| Switching function                     | Freely programmable |
| Switching element function             | Switchable          |
| Reproducibility of switching value [%] | 0.3                 |
| Max. output current [mA]               | 150                 |

| Analogue output |                      |
|-----------------|----------------------|
| Analogue output | [V]<br>[mA]          |
|                 | 0 ... 10<br>4 ... 20 |

| Output, additional data          |        |
|----------------------------------|--------|
| Protection against short circuit | Pulsed |

# Pressure sensors SDE1, with display



Technical data

| Electronic components       |     |                                |
|-----------------------------|-----|--------------------------------|
| Operating voltage range DC  | [V] | 15 ... 30                      |
| Reverse polarity protection |     | For all electrical connections |

| Electromechanical components |                  |                   |
|------------------------------|------------------|-------------------|
| SDE1-...                     | -M8              | -M12              |
| Electrical connection        | Plug M8x1, 3-pin | Plug M12x1, 3-pin |
|                              | Plug M8x1, 4-pin | Plug M12x1, 4-pin |
|                              | –                | Plug M12x1, 5-pin |
|                              | Round design     |                   |
|                              | To EN 60947-5-2  |                   |

| Mechanical components |                          |
|-----------------------|--------------------------|
| Type of mounting      | Via H-rail               |
|                       | Via wall/surface bracket |
|                       | On service unit          |
|                       | Front panel mounting     |
| Pneumatic connection  | R1/8                     |
|                       | R1/4                     |
|                       | G1/8                     |
|                       | QS-4                     |
| Housing materials     | PA, POM-reinforced       |

– † – Note: This product conforms to ISO 1179-1 and to ISO 228-1

| Display/operation             |                      |
|-------------------------------|----------------------|
| Display type                  | Back illuminated LCD |
|                               | Illuminated LCD      |
| Setting options               | Teach-in             |
| Threshold value setting range | [%] 2 ... 99.8       |
| Hysteresis setting range      | [%] 0 ... 90         |

| Immissions/emissions                         |      |
|----------------------------------------------|------|
| Protection class                             | IP65 |
| Corrosion resistance class CRC <sup>4)</sup> | 2    |

4) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

# Pressure sensors SDE1, with display

Technical data

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| Electrical outputs <sup>1)</sup>                 |  | Pin allocations                                                                             |  |
|--------------------------------------------------|--|---------------------------------------------------------------------------------------------|--|
| 1 switching output PNP                           |  |                                                                                             |  |
| Variant P1 with plug M8                          |  | 1 = +24 V<br>3 = 0 V<br>4 = Output A                                                        |  |
| Variant P1 with plug M12                         |  | 1 = +24 V<br>3 = 0 V<br>4 = Output A                                                        |  |
| 2 switching outputs PNP                          |  |                                                                                             |  |
| Variant P2 with plug M8                          |  | 1 = +24 V<br>2 = Output B<br>3 = 0 V<br>4 = Output A                                        |  |
| Variant P2 with plug M12                         |  | 1 = +24 V<br>2 = Output A<br>3 = 0 V<br>4 = Output B                                        |  |
| 1 switching output PNP and 0 ... 10 V analogue   |  |                                                                                             |  |
| Variant PU with plug M8                          |  | 1 = +24 V<br>2 = Output B (0 ... 10 V analogue)<br>3 = 0 V<br>4 = Output A                  |  |
| Variant PU with plug M12                         |  | 1 = +24 V<br>2 = Output A<br>3 = 0 V<br>4 = Output B (0 ... 10 V analogue)                  |  |
| 1 switching output PNP and 4 ... 20 mA analogue  |  |                                                                                             |  |
| Variant PI with plug M8                          |  | 1 = +24 V<br>2 = Output B (4 ... 20 mA analogue)<br>3 = 0 V<br>4 = Output A                 |  |
| Variant PI with plug M12                         |  | 1 = +24 V<br>2 = Output A<br>3 = 0 V<br>4 = Output B (4 ... 20 mA analogue)                 |  |
| 2 switching outputs PNP and 4 ... 20 mA analogue |  |                                                                                             |  |
| Variant 2I with plug M12                         |  | 1 = +24 V<br>2 = Output B<br>3 = 0 V<br>4 = Output A<br>5 = Output C (4 ... 20 mA analogue) |  |

1) Core colours indicated apply when using connecting cable NEBU.

# Pressure sensors SDE1, with display

Technical data

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| Electrical outputs <sup>1)</sup>                |  | Pin allocations                                                             |  |
|-------------------------------------------------|--|-----------------------------------------------------------------------------|--|
| 1 switching output NPN                          |  |                                                                             |  |
| Variant N1 with plug M8                         |  | 1 = +24 V<br>3 = 0 V<br>4 = Output A                                        |  |
| Variant N1 with plug M12                        |  | 1 = +24 V<br>3 = 0 V<br>4 = Output A                                        |  |
| 2 switching outputs NPN                         |  |                                                                             |  |
| Variant N2 with plug M8                         |  | 1 = +24 V<br>2 = Output B<br>3 = 0 V<br>4 = Output A                        |  |
| Variant N2 with plug M12                        |  | 1 = +24 V<br>2 = Output A<br>3 = 0 V<br>4 = Output B                        |  |
| 1 switching output NPN and 0 ... 10 V analogue  |  |                                                                             |  |
| Variant NU with plug M8                         |  | 1 = +24 V<br>2 = Output B (0 ... 10 V analogue)<br>3 = 0 V<br>4 = Output A  |  |
| Variant NU with plug M12                        |  | 1 = +24 V<br>2 = Output A<br>3 = 0 V<br>4 = Output B (0 ... 10 V analogue)  |  |
| 1 switching output NPN and 4 ... 20 mA analogue |  |                                                                             |  |
| Variant NI with plug M8                         |  | 1 = +24 V<br>2 = Output B (4 ... 20 mA analogue)<br>3 = 0 V<br>4 = Output A |  |
| Variant NI with plug M12                        |  | 1 = +24 V<br>2 = Output A<br>3 = 0 V<br>4 = Output B (4 ... 20 mA analogue) |  |

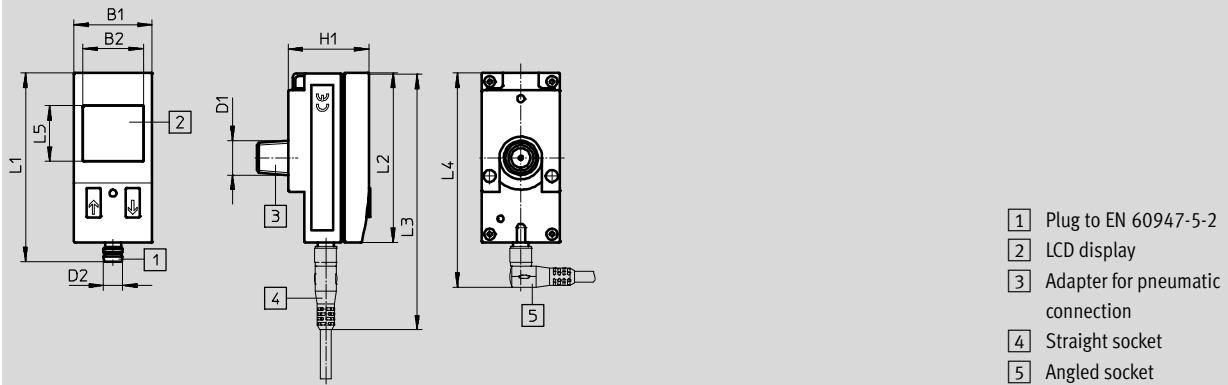
1) Core colours indicated apply when using connecting cable NEBU.

# Pressure sensors SDE1, with display

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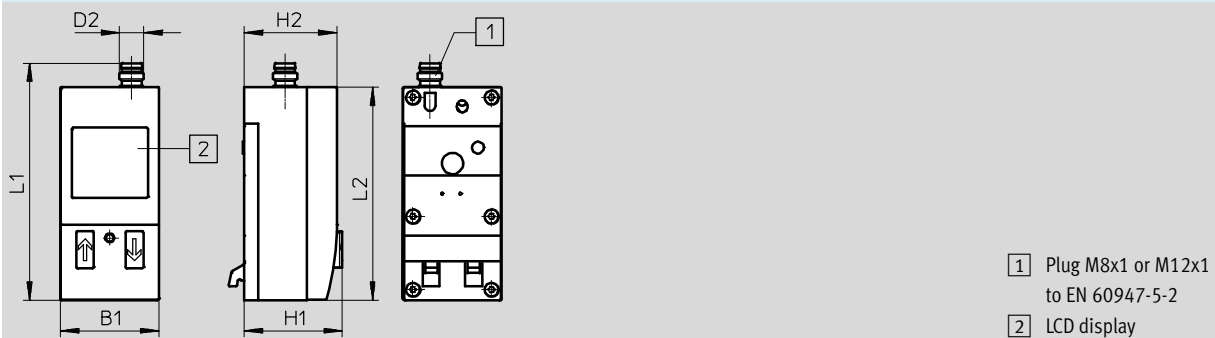
Technical data

## Dimensions – Mounting via male thread R1/8 or R1/4



| Type             | B1   | B2 | D1   | D2  | H1 | L1 | L2 | L3  | L4  | L5 |
|------------------|------|----|------|-----|----|----|----|-----|-----|----|
| SDE1-...-R18-M8  | 32.3 | 25 | R1/8 | M8  | 33 | 78 | 70 | 107 | 89  | 23 |
| SDE1-...-R14-M8  |      |    | R1/4 |     |    |    |    |     |     |    |
| SDE1-...-R18-M12 | 32.3 | 25 | R1/8 | M12 | 33 | 87 | 70 | 125 | 103 | 23 |
| SDE1-...-R14-M12 |      |    | R1/4 |     |    |    |    |     |     |    |

## Dimensions – Direct connection to MS4/6 series service units



| Type                | B1   | D2  | H1   | H2   | L1 | L2 |
|---------------------|------|-----|------|------|----|----|
| SDE1-...-MS-...-M8  | 32.3 | M8  | 32.1 | 30.4 | 78 | 70 |
| SDE1-...-MS-...-M12 |      | M12 |      | 32.3 | 87 |    |

# Pressure sensors SDE1, with display

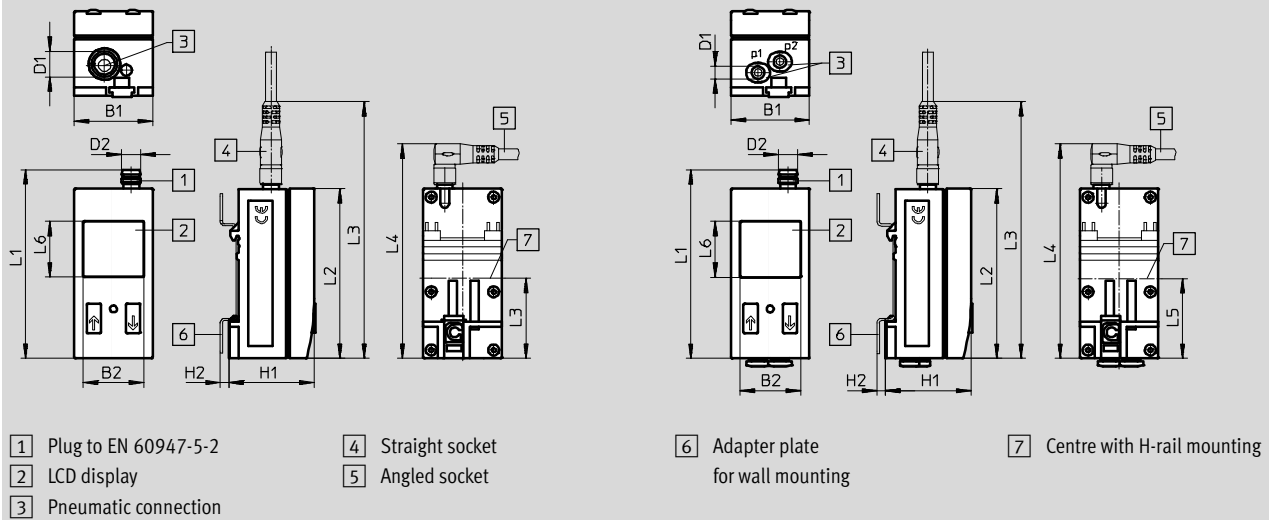
Technical data

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## Dimensions – H-rail, wall or surface mounting

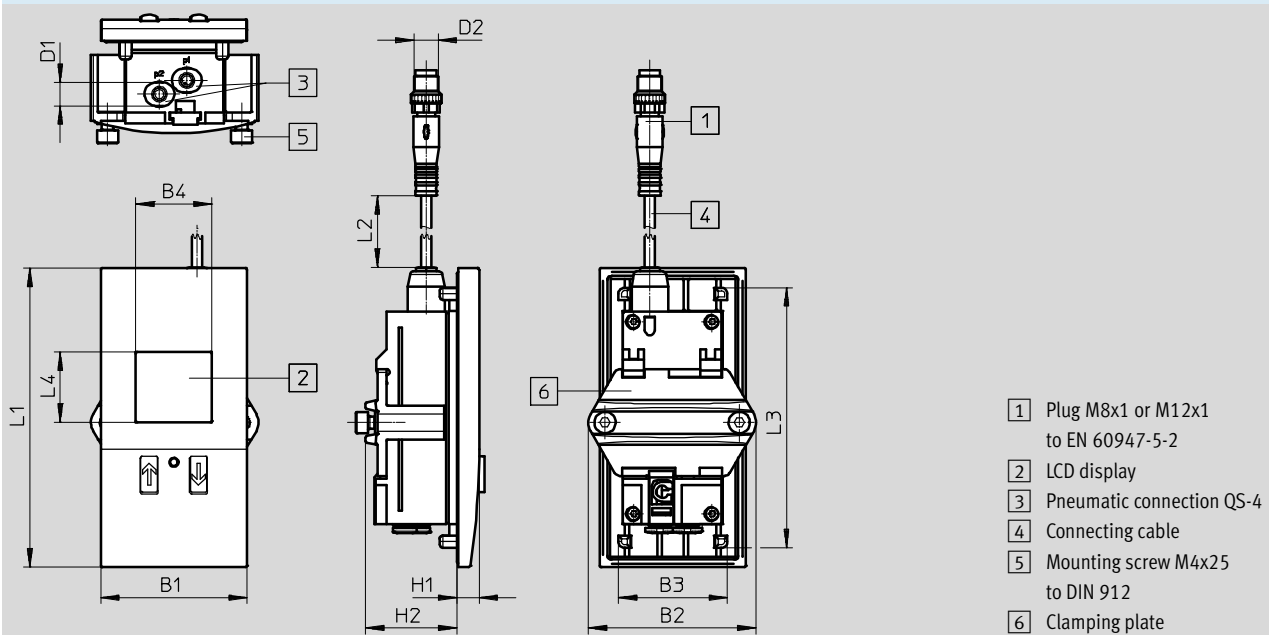
Pneumatic connection G1/8

Pneumatic connection QS-4



| Type                 | B1   | B2 | D1   | D2  | H1   | H2  | L1 | L2 | L3  | L4  | L5 | L6 |
|----------------------|------|----|------|-----|------|-----|----|----|-----|-----|----|----|
| SDE1-...-H18-...-M8  | 32.3 | 25 | G1/8 | M8  | 35.2 | 3.6 | 78 | 70 | 107 | 89  | 33 | 23 |
| SDE1-...-W18-...-M8  |      |    |      |     |      |     |    |    |     |     |    |    |
| SDE1-...-H18-...-M12 | 32.3 | 25 | G1/8 | M12 | 35.2 | 3.6 | 87 | 70 | 125 | 103 | 33 | 23 |
| SDE1-...-W18-...-M12 |      |    |      |     |      |     |    |    |     |     |    |    |
| SDE1-...-HQ4-...-M8  | 32.3 | 25 | QS-4 | M8  | 35.2 | 3.6 | 78 | 70 | 107 | 89  | 33 | 23 |
| SDE1-...-WQ4-...-M8  |      |    |      |     |      |     |    |    |     |     |    |    |

## Dimensions – Panel mounting

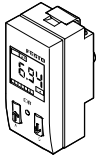
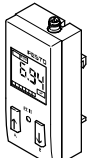
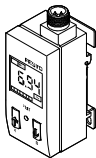


| Type             | B1 | B2 | B3   | B4 | D1   | D2    | H1 | H2 | L1 | L2  | L3   | L4 |
|------------------|----|----|------|----|------|-------|----|----|----|-----|------|----|
| SDE1-...-FQ4-M8  | 48 | 55 | 35.8 | 25 | QS-4 | M8x1  | 8  | 30 | 98 | 320 | 85.3 | 23 |
| SDE1-...-FQ4-M12 |    |    |      |    |      | M12x1 |    |    |    |     |      |    |

# Pressure sensors SDE1, with display

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Technical data

| Ordering data – Measured variable: relative pressure                               |                                                     |                                                                                     |                                                                |                       |                   |                   |                          |                         |
|------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------|-------------------|-------------------|--------------------------|-------------------------|
| Version                                                                            | Pressure measuring range [bar]                      | Switching output                                                                    | Analogue output                                                | Electrical connection | Display type      | Part No.          | Type                     |                         |
|   | Male thread R1/8, mounting on D series service unit |                                                                                     |                                                                |                       |                   |                   |                          |                         |
|                                                                                    | 0 ... 10                                            | PNP                                                                                 | –                                                              | Plug M8x1, 3-pin      | LCD <sup>1)</sup> | 192026            | SDE1-D10-G2-R18-C-P1-M8  |                         |
|                                                                                    |                                                     |                                                                                     |                                                                |                       | Illuminated LCD   | 529970            | SDE1-D10-G2-R18-L-P1-M8  |                         |
|                                                                                    |                                                     |                                                                                     |                                                                | Plug M12x1, 3-pin     | Illuminated LCD   | 534064            | SDE1-D10-G2-R18-L-P1-M12 |                         |
|                                                                                    |                                                     | 2x PNP                                                                              | –                                                              |                       | Plug M8x1, 4-pin  | LCD <sup>1)</sup> | 192027                   | SDE1-D10-G2-R18-C-P2-M8 |
|                                                                                    |                                                     |                                                                                     |                                                                | LCD <sup>1)</sup>     |                   | 529958            | SDE1-D10-G2-R18-C-PU-M8  |                         |
|                                                                                    |                                                     | PNP                                                                                 | 0 ... 10 V                                                     | Plug M8x1, 4-pin      | LCD <sup>1)</sup> | 529972            | SDE1-D10-G2-R18-L-PU-M8  |                         |
|                                                                                    | Illuminated LCD                                     |                                                                                     |                                                                |                       |                   |                   |                          |                         |
|                                                                                    | Male thread R1/4, mounting on D series service unit |                                                                                     |                                                                |                       |                   |                   |                          |                         |
|                                                                                    | 0 ... 10                                            | PNP                                                                                 | –                                                              | Plug M8x1, 3-pin      | LCD <sup>1)</sup> | 192028            | SDE1-D10-G2-R14-C-P1-M8  |                         |
|                                                                                    |                                                     |                                                                                     |                                                                |                       | Illuminated LCD   | 529967            | SDE1-D10-G2-R14-L-P1-M8  |                         |
|                                                                                    |                                                     |                                                                                     |                                                                | Plug M12x1, 3-pin     | Illuminated LCD   | 534157            | SDE1-D10-G2-R14-L-P1-M12 |                         |
|                                                                                    |                                                     | 2x PNP                                                                              | –                                                              |                       | Plug M8x1, 4-pin  | LCD <sup>1)</sup> | 192029                   | SDE1-D10-G2-R14-C-P2-M8 |
|                                                                                    |                                                     |                                                                                     |                                                                | Illuminated LCD       |                   | 529968            | SDE1-D10-G2-R14-L-P2-M8  |                         |
|                                                                                    |                                                     | PNP                                                                                 | 0 ... 10 V                                                     | Plug M8x1, 4-pin      | LCD <sup>1)</sup> | 529957            | SDE1-D10-G2-R14-C-PU-M8  |                         |
|                                                                                    |                                                     |                                                                                     |                                                                |                       | Illuminated LCD   | 529969            | SDE1-D10-G2-R14-L-PU-M8  |                         |
|                                                                                    |                                                     |                                                                                     |                                                                |                       |                   |                   |                          |                         |
|  | Female thread G1/8, H-rail mounting                 |                                                                                     |                                                                |                       |                   |                   |                          |                         |
|                                                                                    | 0 ... –1                                            | PNP                                                                                 | –                                                              | Plug M8x1, 3-pin      | LCD <sup>1)</sup> | 192034            | SDE1-V1-G2-H18-C-P1-M8   |                         |
|                                                                                    |                                                     |                                                                                     |                                                                |                       | Illuminated LCD   | 529973            | SDE1-V1-G2-H18-L-P1-M8   |                         |
|                                                                                    |                                                     |                                                                                     |                                                                | 2x PNP                | –                 | Plug M8x1, 4-pin  | LCD <sup>1)</sup>        | 192035                  |
|                                                                                    |                                                     | Illuminated LCD                                                                     | 529974                                                         |                       |                   |                   | SDE1-V1-G2-H18-L-P2-M8   |                         |
|                                                                                    |                                                     | PNP                                                                                 | 0 ... 10 V                                                     | Plug M8x1, 4-pin      | LCD <sup>1)</sup> | 529959            | SDE1-V1-G2-H18-C-PU-M8   |                         |
|                                                                                    |                                                     |                                                                                     |                                                                |                       | Illuminated LCD   | 529975            | SDE1-V1-G2-H18-L-PU-M8   |                         |
|                                                                                    | 0 ... 10                                            | PNP                                                                                 | –                                                              | Plug M8x1, 3-pin      | LCD <sup>1)</sup> | 192030            | SDE1-D10-G2-H18-C-P1-M8  |                         |
|                                                                                    |                                                     |                                                                                     |                                                                |                       | Illuminated LCD   | 529961            | SDE1-D10-G2-H18-L-P1-M8  |                         |
|                                                                                    |                                                     |                                                                                     |                                                                | 2x PNP                | –                 | Plug M8x1, 4-pin  | LCD <sup>1)</sup>        | 192031                  |
|                                                                                    |                                                     | Illuminated LCD                                                                     | 529962                                                         |                       |                   |                   | SDE1-D10-G2-H18-L-P2-M8  |                         |
|                                                                                    |                                                     | PNP                                                                                 | 0 ... 10 V                                                     | Plug M8x1, 4-pin      | LCD <sup>1)</sup> | 529955            | SDE1-D10-G2-H18-C-PU-M8  |                         |
|                                                                                    |                                                     |                                                                                     |                                                                |                       | Illuminated LCD   | 529963            | SDE1-D10-G2-H18-L-PU-M8  |                         |
|                                                                                    |                                                     |                                                                                     |                                                                |                       |                   |                   |                          |                         |
|                                                                                    |                                                     |  | Female thread G1/8, for wall or surface mounting <sup>2)</sup> |                       |                   |                   |                          |                         |
|                                                                                    | 0 ... –1                                            |                                                                                     | PNP                                                            | –                     | Plug M12x1, 3-pin | Illuminated LCD   | 534065                   | SDE1-V1-G2-W18-L-P1-M12 |
|                                                                                    |                                                     |                                                                                     | PNP                                                            | 4 ... 20 mA           | Plug M8x1, 4-pin  |                   | 537022                   | SDE1-V1-G2-W18-L-PI-M8  |
| Plug M12x1, 4-pin                                                                  |                                                     |                                                                                     |                                                                |                       | 537023            |                   | SDE1-V1-G2-W18-L-PI-M12  |                         |
| 0 ... 2                                                                            | PNP                                                 |                                                                                     | –                                                              | Plug M8x1, 3-pin      | 537024            |                   | SDE1-D2-G2-W18-L-P1-M8   |                         |
|                                                                                    | 2x PNP                                              |                                                                                     | –                                                              | Plug M8x1, 4-pin      | 537025            |                   | SDE1-D2-G2-W18-L-P2-M8   |                         |
| 0 ... 6                                                                            |                                                     |                                                                                     |                                                                | PNP                   | –                 |                   | Plug M8x1, 3-pin         | 537026                  |
|                                                                                    | 2x PNP                                              |                                                                                     | –                                                              | Plug M8x1, 4-pin      | 537027            |                   | SDE1-D6-G2-W18-L-P2-M8   |                         |
| 0 ... 10                                                                           | PNP                                                 |                                                                                     | –                                                              | Plug M12x1, 3-pin     | 534063            |                   | SDE1-D10-G2-W18-L-P1-M12 |                         |
|                                                                                    |                                                     |                                                                                     |                                                                | 0 ... 10 V            | Plug M8x1, 4-pin  |                   | 530900                   | SDE1-D10-G2-W18-L-PU-M8 |
|                                                                                    | 2x PNP                                              |                                                                                     | 4 ... 20 mA                                                    | Plug M12x1, 5-pin     | 534062            |                   | SDE1-D10-G2-W18-L-2I-M12 |                         |
|                                                                                    |                                                     |                                                                                     |                                                                | Plug M8x1, 4-pin      | 537020            |                   | SDE1-D10-G2-W18-L-PI-M8  |                         |
|                                                                                    | PNP                                                 |                                                                                     | 4 ... 20 mA                                                    | Plug M12x1, 4-pin     | 537021            |                   | SDE1-D10-G2-W18-L-PI-M12 |                         |

1) Back illuminated

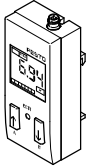
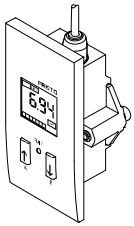
2) Adapter plate SDE1-...-W... included in the scope of delivery.

 Note  
Additional variants and accessories can be configured and ordered through the SDE1 modular system → 13.

# Pressure sensors SDE1, with display

FESTO

Technical data

| Ordering data – Measured variable: differential pressure and relative pressure     |                                                              |                  |                 |                       |                   |          |                          |
|------------------------------------------------------------------------------------|--------------------------------------------------------------|------------------|-----------------|-----------------------|-------------------|----------|--------------------------|
| Version                                                                            | Pressure measuring range [bar]                               | Switching output | Analogue output | Electrical connection | Display type      | Part No. | Type                     |
|   | Push-in connector QS-4, for H-rail mounting                  |                  |                 |                       |                   |          |                          |
|                                                                                    | 0 ... -1                                                     | PNP              | –               | Plug M8x1, 3-pin      | LCD <sup>1)</sup> | 192036   | SDE1-V1-G2-HQ4-C-P1-M8   |
|                                                                                    |                                                              |                  |                 |                       | Illuminated LCD   | 529976   | SDE1-V1-G2-HQ4-L-P1-M8   |
|                                                                                    | 0 ... 10                                                     | 2x PNP           | –               | Plug M8x1, 4-pin      | LCD <sup>1)</sup> | 192037   | SDE1-V1-G2-HQ4-C-P2-M8   |
|                                                                                    |                                                              |                  |                 |                       | Illuminated LCD   | 529977   | SDE1-V1-G2-HQ4-L-P2-M8   |
|                                                                                    |                                                              | PNP              | –               | Plug M8x1, 3-pin      | LCD <sup>1)</sup> | 192032   | SDE1-D10-G2-HQ4-C-P1-M8  |
|                                                                                    |                                                              |                  |                 |                       | Illuminated LCD   | 529964   | SDE1-D10-G2-HQ4-L-P1-M8  |
|                                                                                    |                                                              | 2x PNP           | –               | Plug M8x1, 4-pin      | LCD <sup>1)</sup> | 192033   | SDE1-D10-G2-HQ4-C-P2-M8  |
|                                                                                    |                                                              |                  |                 |                       | Illuminated LCD   | 529965   | SDE1-D10-G2-HQ4-L-P2-M8  |
|                                                                                    |                                                              | PNP              | 0 ... 10 V      | Plug M8x1, 4-pin      | LCD <sup>1)</sup> | 529956   | SDE1-D10-G2-HQ4-C-PU-M8  |
|  | Push-in connector QS-4, for H-rail, wall or surface mounting |                  |                 |                       |                   |          |                          |
|                                                                                    | 0 ... 2                                                      | 2x PNP           | –               | Plug M8x1, 4-pin      | LCD <sup>1)</sup> | 535581   | SDE1-D2-G2-WQ4-C-P2-M8   |
|                                                                                    | Push-in connector QS-4, for front panel mounting             |                  |                 |                       |                   |          |                          |
|                                                                                    | 0 ... 10                                                     | PNP              | –               | Plug M8x1, 3-pin      | Illuminated LCD   | 537028   | SDE1-D10-G2-FQ4-L-P1-M8  |
|                                                                                    |                                                              |                  |                 | Plug M12x1, 3-pin     |                   | 537030   | SDE1-D10-G2-FQ4-L-P1-M12 |
|                                                                                    |                                                              | 2x PNP           | –               | Plug M8x1, 4-pin      |                   | 537029   | SDE1-D10-G2-FQ4-L-P2-M8  |
|                                                                                    |                                                              |                  |                 | Plug M12x1, 4-pin     |                   | 537031   | SDE1-D10-G2-FQ4-L-P2-M12 |

1) Back illuminated

 Note  
Additional variants and accessories can be configured and ordered through the SDE1 modular system  
➔ 13.

# Pressure sensors SDE1, with display

Modular product system

**FESTO**

| M Mandatory data        |          |                     |                   |                                             |                     |                                |                       | O Options                |
|-------------------------|----------|---------------------|-------------------|---------------------------------------------|---------------------|--------------------------------|-----------------------|--------------------------|
| Module No.              | Function | Pressure range      | Absolute accuracy | Pneumatic connection and mounting           | Display and setting | Electrical output              | Electrical connection | Accessories: plug socket |
| 192766                  | SDE1     | B2, V1, D2, D6, D10 | G2                | R18, R14, MS4, MS6, H18, W18, HQ4, WQ4, FQ4 | C, L                | P1, P2, PU, PI, N1, N2, NU, NI | M8, M12               | G, W, G5, W5             |
| <b>Ordering example</b> |          |                     |                   |                                             |                     |                                |                       |                          |
| 192766                  | SDE1     | - D6                | - G2              | - W18                                       | - L                 | - P2                           | - M12                 | - W5                     |

| Ordering table |                                   |                                                                  |  |  | Condi-<br>tions | Code | Enter<br>code |
|----------------|-----------------------------------|------------------------------------------------------------------|--|--|-----------------|------|---------------|
| M              | Module No.                        | 192766                                                           |  |  |                 |      | 192766        |
|                | Function                          | Pressure sensor                                                  |  |  |                 | SDE1 | SDE1          |
|                | Pressure range                    | Pressure range -1 ... 1 bar                                      |  |  |                 | -B2  |               |
|                |                                   | Pressure range 0 ... -1 bar                                      |  |  |                 | -V1  |               |
|                |                                   | Pressure range 0 ... 2 bar                                       |  |  |                 | -D2  |               |
|                |                                   | Pressure range 0 ... 6 bar                                       |  |  |                 | -D6  |               |
|                |                                   | Pressure range 0 ... 10 bar                                      |  |  |                 | -D10 |               |
|                | Absolute accuracy                 | Accuracy 2%                                                      |  |  |                 | -G2  | -G2           |
|                | Pneumatic connection and mounting | Mounting R1/8 (service units)                                    |  |  |                 | -R18 |               |
|                |                                   | Mounting R1/4 (service units)                                    |  |  |                 | -R14 |               |
|                |                                   | Direct connection on MS4 series service units                    |  |  |                 | -MS4 |               |
|                |                                   | Direct connection on MS6 series service units                    |  |  |                 | -MS6 |               |
|                |                                   | Relative pressure with G1/8 connection for H-rail mounting       |  |  |                 | -H18 |               |
|                |                                   | Relative pressure with G1/8 connection for wall/surface mounting |  |  |                 | -W18 |               |
|                |                                   | H-rail mounting, 4 mm push-in connector                          |  |  |                 | -HQ4 |               |
|                |                                   | Wall mounting, 4 mm push-in connector                            |  |  |                 | -WQ4 |               |
|                | Display and setting               | LCD display (optimised operation)                                |  |  |                 | -C   |               |
|                |                                   | Illuminated LCD (optimised reading)                              |  |  |                 | -L   |               |
|                | Electrical output                 | 1 switch (PNP)                                                   |  |  |                 | -P1  |               |
|                |                                   | 2 switches (PNP)                                                 |  |  |                 | -P2  |               |
|                |                                   | 1 switch (PNP) and 0 ... 10 V analogue                           |  |  |                 | -PU  |               |
|                |                                   | 1 switch (PNP) and 4 ... 20 mA analogue                          |  |  |                 | -PI  |               |
|                |                                   | 1 switch (NPN)                                                   |  |  |                 | -N1  |               |
|                |                                   | 2 switches (NPN)                                                 |  |  |                 | -N2  |               |
|                |                                   | 1 switch (NPN) and 0 ... 10 V analogue                           |  |  |                 | -NU  |               |
|                |                                   | 1 switch (NPN) and 4 ... 20 mA analogue                          |  |  |                 | -NI  |               |
|                | Electrical connection             | Plug M8                                                          |  |  |                 | -M8  |               |
|                |                                   | Plug M12                                                         |  |  |                 | -M12 |               |
| O              | Accessories                       |                                                                  |  |  |                 | -    | -             |
|                | Electric accessories              | Connecting cable, straight plug socket, 2.5 m                    |  |  | 1               | G    |               |
|                |                                   | Connecting cable, angled plug socket, 2.5 m                      |  |  | 1               | W    |               |
|                |                                   | Connecting cable, straight plug socket, 5 m                      |  |  |                 | G5   |               |
|                |                                   | Connecting cable, angled plug socket, 5 m                        |  |  |                 | W5   |               |

1 G, W Not with electrical connection M12 in combination with electrical output P2, PU, PI, N2, NU, NI.

## Transfer order code

192766 SDE1 - - G2 - - - - -

## Pressure sensors SDE1, with display

Accessories

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| Ordering data – Connecting cables                                                 |                 |                  |          | Technical data ➔ Internet: nebu |  |
|-----------------------------------------------------------------------------------|-----------------|------------------|----------|---------------------------------|--|
|                                                                                   | Number of wires | Cable length [m] | Part No. | Type                            |  |
| M8x1, straight socket                                                             |                 |                  |          |                                 |  |
|  | 3               | 2.5              | 541333   | NEBU-M8G3-K-2.5-LE3             |  |
|                                                                                   |                 | 5                | 541334   | NEBU-M8G3-K-5-LE3               |  |
|                                                                                   | 4               | 2.5              | 541342   | NEBU-M8G4-K-2.5-LE4             |  |
|                                                                                   |                 | 5                | 541343   | NEBU-M8G4-K-5-LE4               |  |
| M8x1, angled socket                                                               |                 |                  |          |                                 |  |
|  | 3               | 2.5              | 541338   | NEBU-M8W3-K-2.5-LE3             |  |
|                                                                                   |                 | 5                | 541341   | NEBU-M8W3-K-5-LE3               |  |
|                                                                                   | 4               | 2.5              | 541344   | NEBU-M8W4-K-2.5-LE4             |  |
|                                                                                   |                 | 5                | 541345   | NEBU-M8W4-K-5-LE4               |  |

| Ordering data – Connecting cables                                                 |                 |                  |          | Technical data ➔ Internet: nebu |  |
|-----------------------------------------------------------------------------------|-----------------|------------------|----------|---------------------------------|--|
|                                                                                   | Number of wires | Cable length [m] | Part No. | Type                            |  |
| M12x1, straight socket                                                            |                 |                  |          |                                 |  |
|  | 3               | 2.5              | 541363   | NEBU-M12G5-K-2.5-LE3            |  |
|                                                                                   |                 | 5                | 541364   | NEBU-M12G5-K-5-LE3              |  |
|                                                                                   | 4               | 2.5              | 550326   | NEBU-M12G5-K-2.5-LE4            |  |
|                                                                                   |                 | 5                | 541328   | NEBU-M12G5-K-5-LE4              |  |
|                                                                                   | 5               | 2.5              | 541330   | NEBU-M12G5-K-2.5-LE5            |  |
|                                                                                   |                 | 5                | 541331   | NEBU-M12G5-K-5-LE5              |  |
|                                                                                   |                 |                  |          |                                 |  |
| M12x1, angled socket                                                              |                 |                  |          |                                 |  |
|  | 3               | 2.5              | 541367   | NEBU-M12W5-K-2.5-LE3            |  |
|                                                                                   |                 | 5                | 541370   | NEBU-M12W5-K-5-LE3              |  |
|                                                                                   | 4               | 2.5              | 550325   | NEBU-M12W5-K-2.5-LE4            |  |
|                                                                                   |                 | 5                | 541329   | NEBU-M12W5-K-5-LE4              |  |

| Ordering data – Accessories                                                         |          |                |
|-------------------------------------------------------------------------------------|----------|----------------|
|                                                                                     | Part No. | Type           |
| Adapter plate                                                                       |          |                |
|  | 194297   | SDE1-...-W-... |
| Protective cover                                                                    |          |                |
|  | 537074   | SDE1-SH        |

| Ordering data – Push-in fittings                                                    |                      |          |           | Technical data → Internet: qs |  |
|-------------------------------------------------------------------------------------|----------------------|----------|-----------|-------------------------------|--|
|                                                                                     | For tubing O.D. [mm] | Part No. | Type      |                               |  |
|  | 4                    | 186095   | QS-G1/8-4 |                               |  |
|                                                                                     | 6                    | 186096   | QS-G1/8-6 |                               |  |
|                                                                                     | 8                    | 186098   | QS-G1/8-8 |                               |  |