

## Limit switch box SRBG

**FESTO**



## Key features

### Function

Limit switch boxes SRBG are the compact solution when it comes to electrical feedback signals and monitoring the position of process valves which are actuated with pneumatic quarter turn actuators. They can be mounted directly without other accessories on quarter turn actuators with a mounting interface to VDI/VDE 3845. Direct mounting means that they require minimal space.

### Innovative

- Direct mounting on quarter turn actuators to VDI/VDE 3845
- No adjustment is necessary when mounting the sensor
- LED on-site indication of the switching status, supply voltage and solenoid valve output
- For clockwise and anticlockwise rotating actuators with 90° and 180° rotation

### Flexible

- SRBG-...-M12 with space-saving sensor connection via M12 plug
- SRBG-...-C2 with clamped terminal connection for sensor and solenoid valve so that the sensor and solenoid valve can be connected to the same power supply if required
- Extensive range of switching outputs for virtually all applications
- AS-Interface versions for easy and cost-effective networking of sensors and solenoid valves
- Intrinsically safe Ex ia version for use in potentially explosive areas

### Design

- Inductive double sensor
- Compact plastic housing
- PNP, NAMUR, 2-wire DC, AS-Interface switching outputs
- Direct mounting on quarter turn actuators to VDI/VDE 3845
- M12 plug or clamped terminal connection
- LED on-site status display
- IP67
- cULus Listed, General Purpose
- Intrinsically safe Ex ia version
- SIL 2 to IEC 61508



**SIL certified**  
according IEC 61508

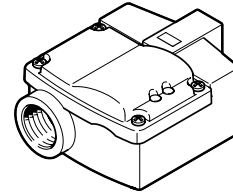
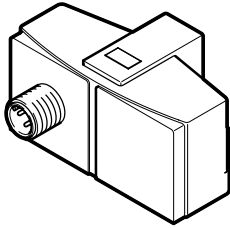


Product range overview

Product range overview

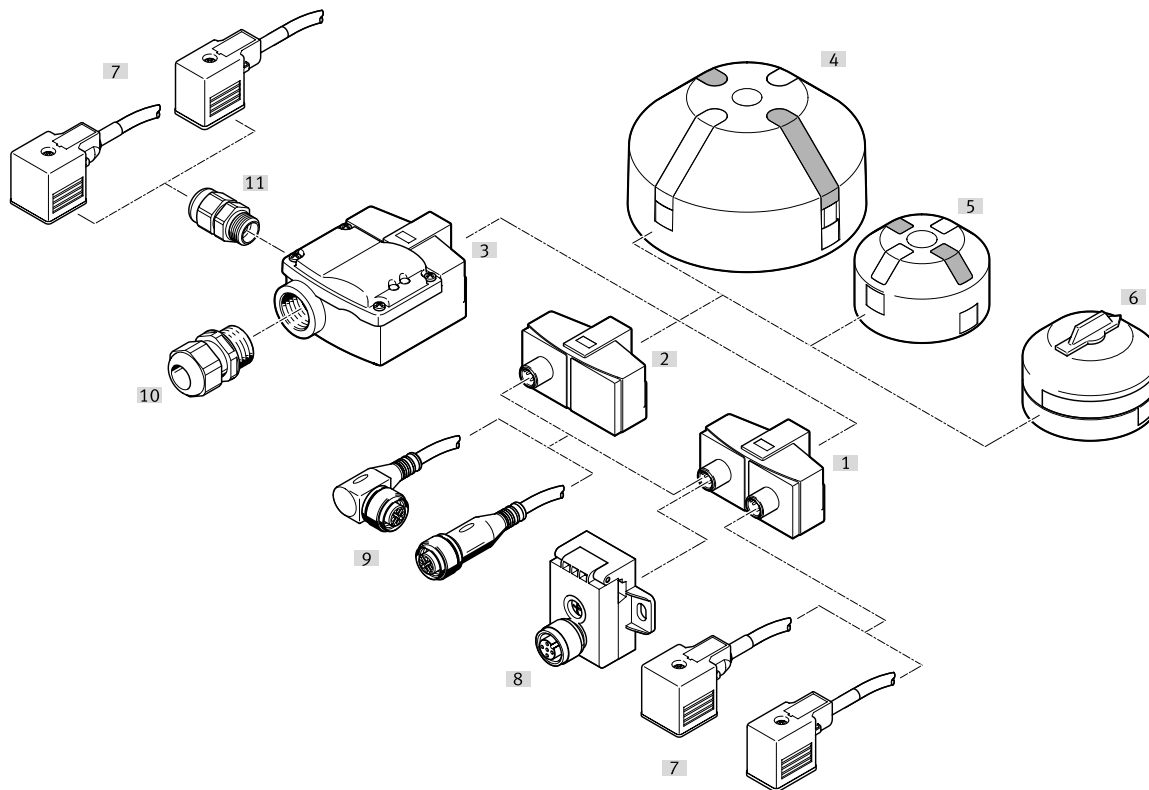
Variant SRBG-...-M12

Variant SRBG-...-C2



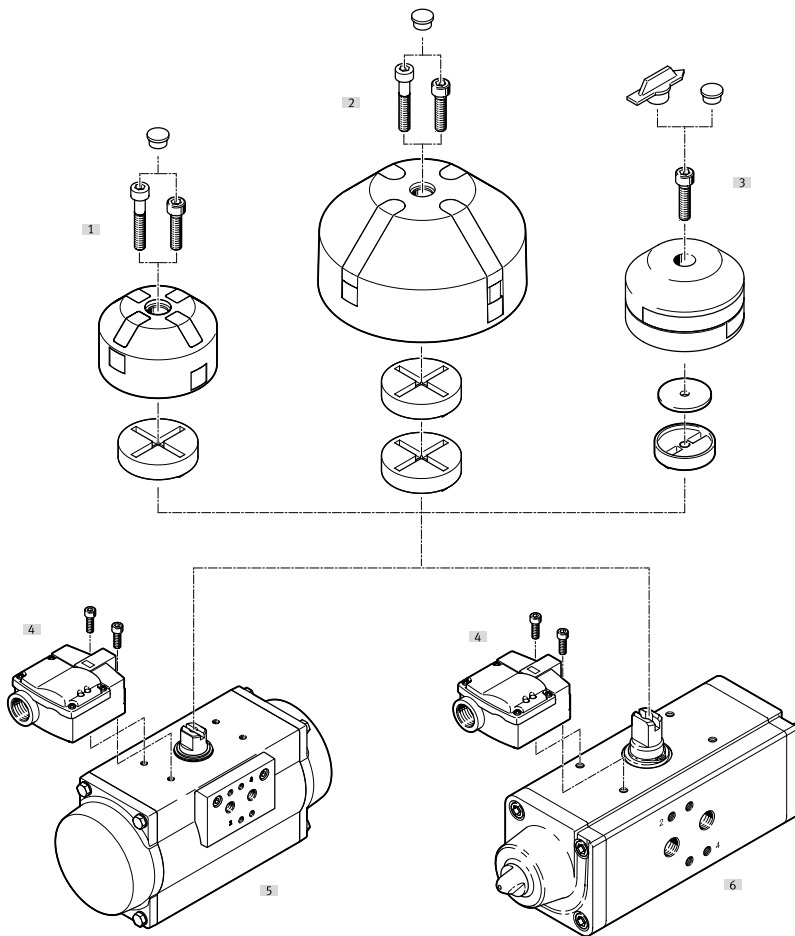
| Electrical connection       | Type                       | Operating voltage range<br>[V] | Switching output    | Switching element function | Pin allocation | → Page |
|-----------------------------|----------------------------|--------------------------------|---------------------|----------------------------|----------------|--------|
| M12 plug                    | SRBG-C1-N-1-P-M12          | 10 ... 30                      | PNP                 | N/O                        |                | 7      |
|                             | SRBG-C1-N-1-ZU-M12         | 6 ... 60                       | Contactless, 2-wire | N/O                        |                |        |
|                             | SRBG-C1-N-20N-ZC-M12-EX5   | 8.2                            | NAMUR               | N/C                        |                |        |
|                             | SRBG-C1-N-1-AS-M12-M12     | 26.5 ... 31.6                  | AS-Interface        | Programmable               |                |        |
| Clamped terminal connection | SRBG-C1-N-1-P-C2-C2        | 10 ... 30                      | PNP                 | N/O                        |                | 11     |
|                             | SRBG-C1-N-1-ZU-C2-C2       | 6 ... 60                       | Contactless, 2-wire | N/O                        |                |        |
|                             | SRBG-C1-N-20N-ZC-C2-C2-EX5 | 8.2                            | NAMUR               | N/C                        |                |        |

Peripherals overview



| Accessories                           | Brief description   | → Page/Internet |
|---------------------------------------|---|-----------------|
| [1] Limit switch box SRBG-...-M12-M12 | • With M12 plug connection and AS-Interface with extended addressing options  | 7               |
| [2] Limit switch box SRBG-...-M12     | • With M12 plug connection  | 7               |
| [3] Limit switch box SRBG-...-C2-C2   | • With clamped terminal connection for sensor and solenoid valve  | 11              |
| [4] Position indicator SASF-...-A56   | • Position indicator with 4 actuating elements fixed at an offset of 90°<br>• For mounting hole pattern 30 x 130 mm, shaft height 30 mm and 50 mm | 14              |
| [5] Position indicator SASF-...-A34   | • Position indicator with 4 actuating elements fixed at an offset of 90°<br>• For mounting hole pattern 30 x 80 mm, shaft height 20 mm and 30 mm  | 14              |
| [6] Position indicator SASF-...-A20   | • Setting range of swivel angle 0 ...360°<br>• Adjustable actuating lugs  | 14              |
| [7] Connecting cables NEBV-...        | Connecting cables for connecting a solenoid valve to SRBG-...-C2 or SRBG-...-M12-M12  | 18              |
| [8] AS-Interface components           | AS-Interface components for bus connection of SRBG-C1-N-1-AS-M12-M12  | 20              |
| [9] Connecting cables NEBU-M12        | Connecting cable for system connection SRBG   | 18              |
| [10] Cable connector NETC-P-M20-...   | • Polymer cable connector M20x1.5<br>• Black<br>• Blue  | 18              |
| [11] Cable connector NETC-P-M12-...   | • Polymer cable connector M12x1.5<br>• Black<br>• Blue  | 18              |

Peripherals overview



|                                    | Description   | → Page/Internet |
|------------------------------------|---|-----------------|
| [1] Position indicator SASF...-A34 | Included in the scope of delivery:<br>• Screws M6x16 and M6x25, sealing plug, spacer<br>• 3x black identification stoppers and 3x yellow identification stoppers  | 14              |
| [2] Position indicator SASF...-A56 | Included in the scope of delivery:<br>• Screws M6x25 and M6x35, sealing plug, spacers<br>• 3x black identification stoppers and 3x yellow identification stoppers | 14              |
| [3] Position indicator SASF...-A20 | Included in the scope of delivery:<br>• Screws M6x25, identification stopper and sealing plug, spacers<br>• 2x yellow stick-on marking spots                      | 14              |
| [4] Limit switch box SRBG          | • M12 plug or clamped terminal connection<br>• Direct mounting on quarter turn actuators to VDI/VDE 3845  | 7               |
| [5] Quarter turn actuators DFPD    | • Size 10 ... 2300 → see "Combination options", swivel angle 0 ... 180°<br>• NAMUR plug pattern to VDE/VDI 3845   | dfpd            |
| [6] Quarter turn actuators DAPS    | • Size 8 ... 8000 → see "Combination options", swivel angle 0 ... 180°<br>• NAMUR plug pattern to VDE/VDI 3845  | daps            |

| Combination options |         |               |                 |                 |
|---------------------|---------|---------------|-----------------|-----------------|
| Function            | Drives  | Sizes         | SASF-S2-B-F-A34 | SASF-S2-B-F-A56 |
| Double-acting       | DFPD    | 10 ... 480    | ■               | -               |
|                     | DAPS    | 0008 ... 1920 | ■               | -               |
|                     | DAPS    | 2880 ... 8000 | -               | ■               |
|                     | DAPS-CR | 0120 ... 0480 | ■               | -               |
| Single-acting       | DFPD    | 20 ... 480    | ■               | -               |
|                     | DAPS    | 0015 ... 0960 | ■               | -               |
|                     | DAPS    | 1440 ... 4000 | -               | ■               |
|                     | DAPS-CR | 0060 ... 0240 | ■               | -               |

## Type codes

|             |                             |  |
|-------------|-----------------------------|--|
| 001         | Series                      |  |
| <b>SRBG</b> | Sensor box                  |  |
| 002         | Design type                 |  |
| <b>C1</b>   | Double sensor               |  |
| 003         | Sensor principle            |  |
| <b>N</b>    | Proximity sensor, inductive |  |
| 004         | Nominal operating voltage   |  |
| <b>1</b>    | 24 V DC                     |  |
| <b>20N</b>  | 8.2 V DC (NAMUR)            |  |

|            |                              |  |
|------------|------------------------------|--|
| 005        | Electrical output 1          |  |
| <b>P</b>   | PNP                          |  |
| <b>ZC</b>  | 2-wire N/C contact           |  |
| <b>ZU</b>  | 2-wire N/O contact           |  |
| <b>AS</b>  | AS-Interface                 |  |
| 006        | Electrical connection        |  |
| <b>C2</b>  | Screw terminal               |  |
| <b>M12</b> | Plug M12, A-coded            |  |
| 007        | Electrical connection, valve |  |
|            | None                         |  |
| <b>C2</b>  | Screw terminal               |  |
| <b>M12</b> | Plug M12, A-coded            |  |
| 008        | EU certification             |  |
|            | None                         |  |
| <b>EX5</b> | II 1G                        |  |

## Data sheet

- Compact housing with M12 plug connection
- Direct mounting on quarter turn actuators to VDI/VDE 3845
- PNP, NAMUR, 2-wire DC, AS-Interface switching outputs
- AS-Interface version as A/B slave with extended addressing options for up to 62 slaves
- cULus Listed, General Purpose
- Intrinsically safe version to ATEX and SIL 2 to IEC 61508



| General technical data |              |     |              |              |
|------------------------|--------------|-----|--------------|--------------|
| Type SRBG-...          | -P           | -ZU | -ZC          | -AS          |
| Based on standard      | VDI/VDE 3845 |     |              |              |
|                        | EN 60947-5-2 |     | EN 60947-5-6 | EN 60947-5-2 |
| Mounting position      | Any          |     |              |              |

| Electrical characteristic data       |                                |                     |       |                              |
|--------------------------------------|--------------------------------|---------------------|-------|------------------------------|
| Type SRBG-...                        | -P                             | -ZU                 | -ZC   | -AS                          |
| Measuring principle                  | Inductive                      |                     |       |                              |
| Switching output                     | PNP                            | Contactless, 2-wire | NAMUR | AS-Interface                 |
| Switching element function           | N/O                            |                     | N/C   | N/C or N/O, switchable       |
| Max. switching frequency [Hz]        | 500                            |                     | 3000  | 100                          |
| Max. switching output voltage [V DC] | -                              |                     |       | 26.4                         |
| Operating voltage range [V DC]       | 10 ... 30                      | 6 ... 60            | 8.2   | 26.5 ... 31.6                |
| Max. output current DC [mA]          | 100                            |                     | 3     | 100                          |
| Max. switching capacity DC [W]       | -                              |                     |       | 2.5                          |
| Voltage drop [V]                     | ≤ 3                            | ≤ 6                 | -     |                              |
| No-load supply current [mA]          | ≤ 25                           | -                   |       | ≤ 35                         |
| Residual current [mA]                | 0 ... 0.5                      | 0 ... 1             | -     |                              |
| Minimum load current [mA]            | -                              |                     | 4     | -                            |
| Reverse polarity protection          | For all electrical connections |                     |       | -                            |
| Short circuit current rating         | Pulsed                         | -                   | Yes   | -                            |
| AS-Interface                         |                                |                     |       |                              |
| Protocol                             | -                              |                     |       | AS-Interface                 |
| Protocol version                     | -                              |                     |       | V3.0                         |
| Addressing range                     | -                              |                     |       | 1A ... 31A (0)<br>1B ... 31B |
| Product identification               | -                              |                     |       | IO code: D                   |
|                                      | -                              |                     |       | ID code: A                   |
|                                      | -                              |                     |       | ID1 code: 7<br>ID2 code: E   |

| Display/operation           |            |     |     |   |
|-----------------------------|------------|-----|-----|---|
| Type SRBG-...               | -P         | -ZU | -ZC | -AS   |
| Ready status indication     | Green LED  | -   |     | Green LED                                   |
| Switching status indication | Yellow LED |     |     |   |
| Status indication           | -          |     |     | Yellow LED = valve switching status         |
|                             | -          |     |     | LED red = wire break/short circuit at valve |

## Data sheet

| Electromechanics              |       |     |     |        |
|-------------------------------|-------|-----|-----|--------|
| Type SRBG-...                 | -P    | -ZU | -ZC | -AS    |
| Electrical connection, input  | Plug  |     |     |        |
|                               | M12x1 |     |     |        |
|                               | 4-pin |     |     |        |
| Electrical connection, output | -     |     |     | Socket |
|                               | -     |     |     | M12x1  |
|                               | -     |     |     | 4-pin  |

| Operating and environmental conditions               |  |   |                      |             |
|--|--|---|----------------------|-------------|
| Type SRBG-...  | -P   | -ZU   | -ZC                  | -AS         |
| Ambient temperature [°C]                             | -25 ... +70  |   | -25 ... +100         | -25 ... +70 |
| Storage temperature [°C]                             | -25 ... +70  |   | -40 ... +100         | -25 ... +70 |
| Degree of protection                                 | IP67   |   |                      |             |
| Shock resistance                                     | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27                |   |                      |             |
| Vibration resistance                                 | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 |   |                      |             |
| Pollution degree                                     | 3  |   |                      |             |
| Certification  | c UL us (OL)   |   |                      |             |
|  | RCM  |   |                      |             |
| KC mark  | KC EMC   |   | -                    | KC EMC      |
| CE marking   | To EU EMC Directive <sup>1)</sup>  |   |                      |             |
|  | -  | To EU Explosion Protection Directive (ATEX) |                      | -           |
| ATEX category for gas                                | -  | To EU RoHS Directive                        |                      | -           |
| Type of ignition protection for gas                  | -  | II 1G                                       |                      | -           |
| ATEX category for dust                               | -  | Ex ia IIC T6 Ga                             |                      | -           |
| Type of ignition protection for dust                 | -  | II 1D                                       |                      | -           |
| Explosion protection certification outside the EU    | -  | Ex ia IIIC T200 135°C Da                    |                      | -           |
| Explosion-proof ambient temperature                  | -  | EPL Da (IEC-Ex)                             |                      | -           |
|  | -  | EPL Ga (IEC Ex)                             |                      | -           |
| Explosion-proof ambient temperature                  | -  | See ATEX certificate <sup>2)</sup>          |                      | -           |
|  | -  | See IECEx certificate <sup>2)</sup>         |                      | -           |
| Safety integrity level (SIL)                         | -  | -25°C ≤ Ta ≤ +100°C                         |                      | -           |
| Effective internal inductance Li μH                  | -  | SIL 2                                       |                      | -           |
| Effective internal capacitance Ci nF                 | -  | 100   |                      | -           |
| Max. input parameters for intrinsically safe circuit | -  | 100   |                      | -           |
|  | -  | See IECEx certificate <sup>2)</sup>         |                      | -           |
| Certificate issuing authority                        | -  | See ATEX certificate <sup>2)</sup>          |                      | -           |
|  | -  | 2020960305001335                            | IECEx TUN 18.0003X   | -           |
|  | -  |   | TÜV 16 ATEX 174269 X | -           |

1) For information about the area of use, see the EC declaration of conformity at: [www.festo.com/catalogue/...](http://www.festo.com/catalogue/...) → Support/Downloads.

If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

2) Additional information: [www.festo.com/catalogue/...](http://www.festo.com/catalogue/...) → Support/Downloads.

| Materials         |  |
|-------------------|--|
| Housing           | PBT  |
| Screws            | High-alloy stainless steel                   |
| Note on materials | RoHS-compliant                               |
|                   | Contains paint-wetting impairment substances |

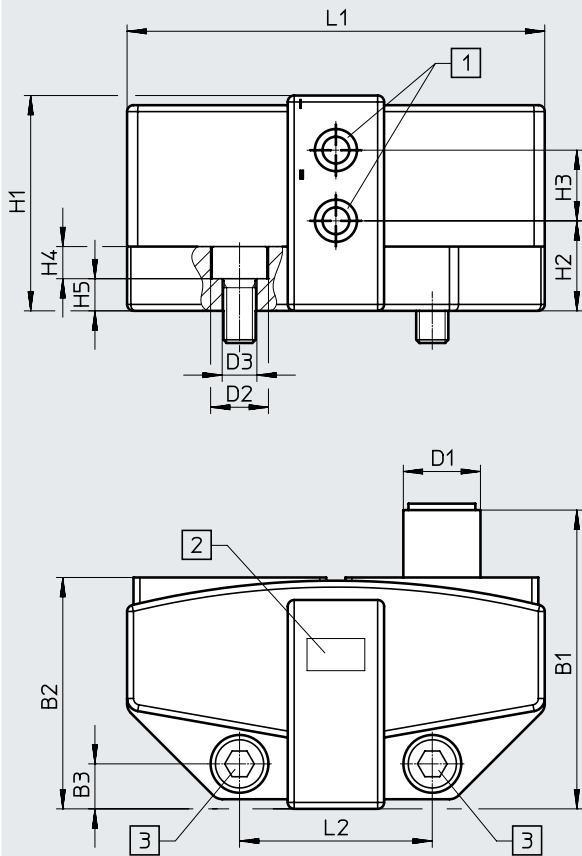


Data sheet

Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

SRBG-...-M12



- [1] Sensor detection field I and II
- [2] LED display
- [3] Screw M5x10

| Type                     | B1   | B2 | B3 | D1    | D2<br>∅ | D3<br>∅ |
|--------------------------|------|----|----|-------|---------|---------|
| SRBG-C1-N-1-P-M12        | 46.5 | 36 | 7  | M12x1 | 9       | 5.4     |
| SRBG-C1-N-1-ZU-M12       |      |    |    |       |         |         |
| SRBG-C1-N-20N-ZC-M12-EX5 |      |    |    |       |         |         |

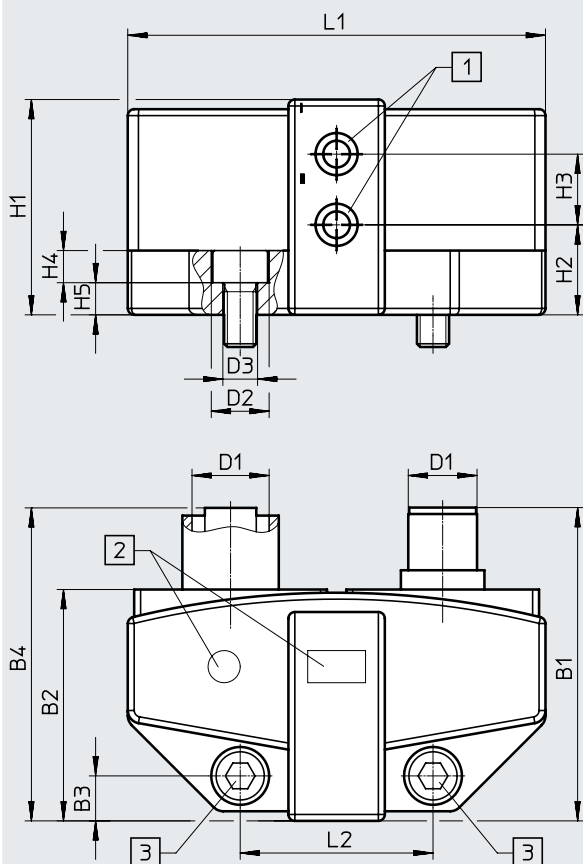
| Type                     | H1   | H2 | H3 | H4 | H5 | L1 | L2 |
|--------------------------|------|----|----|----|----|----|----|
| SRBG-C1-N-1-P-M12        | 33.5 | 14 | 11 | 5  | 3  | 65 | 30 |
| SRBG-C1-N-1-ZU-M12       |      |    |    |    |    |    |    |
| SRBG-C1-N-20N-ZC-M12-EX5 |      |    |    |    |    |    |    |

Data sheet

Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

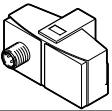
SRBG-...-M12-M12



- [1] Sensor detection field I and II
- [2] LED display
- [3] Screw M5x10

| Type                   | B1 | B2 | B3 | B4 | D1    | D2<br>∅ | D3<br>∅ |
|------------------------|----|----|----|----|-------|---------|---------|
| SRBG-C1-N-1-AS-M12-M12 | 48 | 36 | 7  | 51 | M12x1 | 9       | 5.4     |

| Type                   | H1   | H2 | H3 | H4 | H5 | L1 | L2 |
|------------------------|------|----|----|----|----|----|----|
| SRBG-C1-N-1-AS-M12-M12 | 33.5 | 14 | 11 | 5  | 3  | 65 | 30 |

| Ordering data  |   | Brief description | Dimensions [mm] | Weight [g] | Part no.                 | Type |
|--|---|-------------------|-----------------|------------|--------------------------|------|
|  | Limit switch boxes with M12 plug connection | 65 x 45, H: 35    | 70              | 3568055    | SRBG-C1-N-1-P-M12        |      |
|  |   |                   |                 | 3568056    | SRBG-C1-N-1-ZU-M12       |      |
|  |   |                   |                 | 3568057    | SRBG-C1-N-20N-ZC-M12-EX5 |      |
|  |   |                   |                 | 3567908    | SRBG-C1-N-1-AS-M12-M12   |      |

## Data sheet

- Compact housing with clamped terminal connection for sensor and solenoid valve
- Direct mounting on quarter turn actuators to VDI/VDE 3845
- PNP, NAMUR, 2-wire DC switching outputs
- cULus Listed, General Purpose
- Intrinsically safe version to ATEX and SIL 2 to IEC 61508



| General technical data |              |     |              |
|------------------------|--------------|-----|--------------|
| Type SRBG-...          | -P           | -ZU | -ZC          |
| Based on standard      | VDI/VDE 3845 |     |              |
|                        | EN 60947-5-2 |     | EN 60947-5-6 |
| Mounting position      | Any          |     |              |

| Electrical characteristic data |                                |                     |       |
|--------------------------------|--------------------------------|---------------------|-------|
| Type SRBG-...                  | -P                             | -ZU                 | -ZC   |
| Measuring principle            | Inductive                      |                     |       |
| Switching output               | PNP                            | Contactless, 2-wire | NAMUR |
| Switching element function     | N/O                            |                     | N/C   |
| Max. switching frequency [Hz]  | 500                            |                     | 3000  |
| Operating voltage range [V DC] | 10 ... 30                      | 6 ... 60            | 8.2   |
| Max. output current DC [mA]    | 100                            |                     | 3     |
| Voltage drop [V]               | ≤ 3                            | ≤ 6                 | -     |
| No-load supply current [mA]    | ≤ 25                           |                     | -     |
| Residual current [mA]          | 0 ... 0.5                      | 0 ... 1             | -     |
| Minimum load current [mA]      | -                              | 4                   | -     |
| Reverse polarity protection    | For all electrical connections |                     |       |
| Short circuit current rating   | Pulsed                         | -                   | Yes   |

| Display/operation           |                                     |     |     |
|-----------------------------|-------------------------------------|-----|-----|
| Type SRBG-...               | -P                                  | -ZU | -ZC |
| Ready status indication     | Green LED                           |     | -   |
| Switching status indication | Yellow LED                          |     |     |
| Status indication           | Yellow LED = valve switching status |     |     |

## Data sheet

| <b>Electromechanics</b>  |  |     |   |
|--|--|-----|---|
| Type SRBG-...  | -P   | -ZU | -ZC   |
| Electrical connection, input                                   | Spring-loaded terminal   |     |   |
| Electrical connection, output                                  | Spring-loaded terminal   |     |   |
| Cable connector  | M20x1.5  |     |   |
|  | M12x1.5  |     |   |
| Connectable nominal conductor cross section [mm <sup>2</sup> ] | 0.2 ... 2.5  |     |   |
| <b>Operating and environmental conditions</b>                  |  |     |   |
| Type SRBG-...  | -P   | -ZU | -ZC   |
| Ambient temperature [°C]                                       | -25 ... +70  |     | -25 ... +100                                |
| Storage temperature [°C]                                       | -25 ... +70  |     | -40 ... +100                                |
| Degree of protection   | IP67   |     |   |
| Shock resistance   | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27                |     |   |
| Vibration resistance   | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 |     |   |
| Pollution degree   | 3  |     |   |
| Certification  | c UL us (OL)   |     |   |
|  | RCM  |     |   |
| KC mark  | KC EMC   |     | -   |
| CE marking   | To EU EMC Directive <sup>1)</sup>  |     |   |
|  | -  |     | To EU Explosion Protection Directive (ATEX) |
| ATEX category for gas  | -  |     | II 1G                                       |
| Type of ignition protection for gas                            | -  |     | Ex ia IIC T6 Ga                             |
| Explosion-proof ambient temperature                            | -  |     | -25°C ≤ Ta ≤ +86°C                          |
| Safety integrity level (SIL)                                   | -  |     | SIL 2                                       |
| Explosion protection certification outside the EU              | -  |     | EPL Ga (IEC Ex)                             |
| Explosion-proof ambient temperature                            | -  |     | See ATEX certificate <sup>2)</sup>          |
|  | -  |     | See IECEx certificate <sup>2)</sup>         |
| Explosion-proof ambient temperature                            | -  |     | -25°C ≤ Ta ≤ +100°C                         |
| Safety integrity level (SIL)                                   | -  |     | SIL 2                                       |
| Effective internal inductance Li μH                            | -  |     | 100   |
| Effective internal capacitance Ci nF                           | -  |     | 100   |
| Max. input parameters for intrinsically safe circuit           | -  |     | See IECEx certificate <sup>2)</sup>         |
|  | -  |     | See ATEX certificate <sup>2)</sup>          |
| Certificate issuing authority                                  | -  |     | IECEx TUN 18.0003X                          |
|  | -  |     | TÜV 16 ATEX 174269 X                        |

1) For information about the area of use, see the EC declaration of conformity at: [www.festo.com/catalogue/...](http://www.festo.com/catalogue/...) → Support/Downloads.

If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

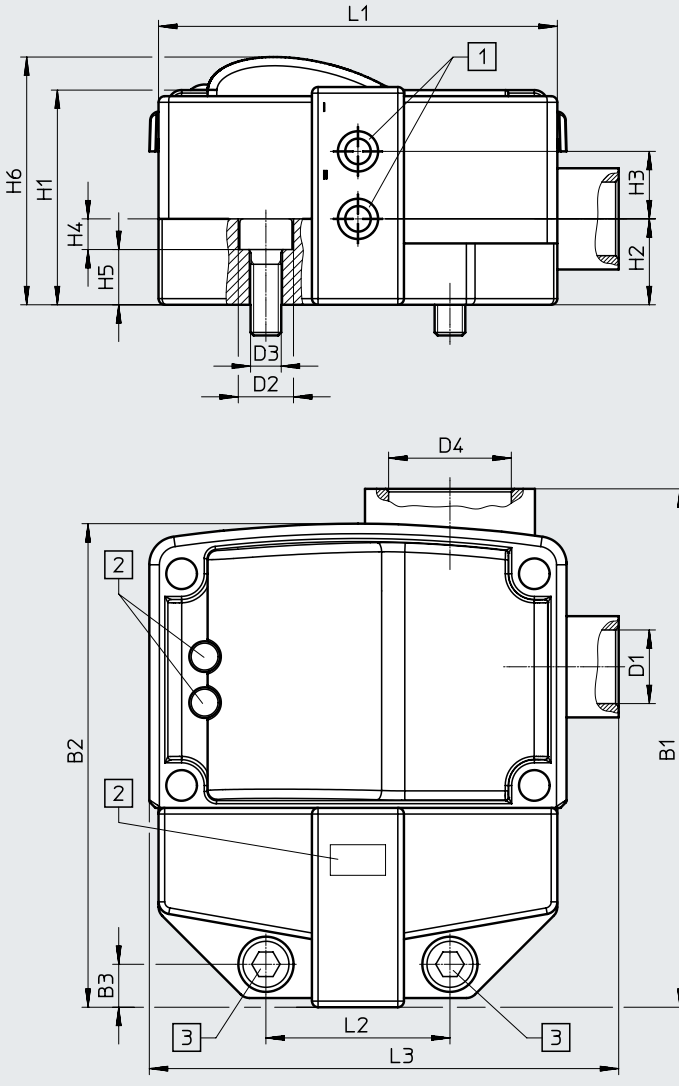
2) Additional information: [www.festo.com/catalogue/...](http://www.festo.com/catalogue/...) → Support/Downloads.

| <b>Materials</b>  |  |
|-------------------|--|
| Housing           | PBT  |
| Screws            | High-alloy stainless steel                   |
| Note on materials | RoHS-compliant                               |
|                   | Contains paint-wetting impairment substances |

Data sheet

Dimensions


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- [1] Sensor detection field I and II
- [2] LED display
- [3] Screw M5x10

| Type                       | B1   | B2   | B3 | D1      | D2<br>∅ | D3<br>∅ | D4      | H1 |
|----------------------------|------|------|----|---------|---------|---------|---------|----|
| SRBG-C1-N-1-P-C2-C2        | 84.5 | 78.8 | 7  | M12x1.5 | 9       | 5.4     | M20x1.5 | 35 |
| SRBG-C1-N-1-ZU-C2-C2       |      |      |    |         |         |         |         |    |
| SRBG-C1-N-20N-ZC-C2-C2-EX5 |      |      |    |         |         |         |         |    |

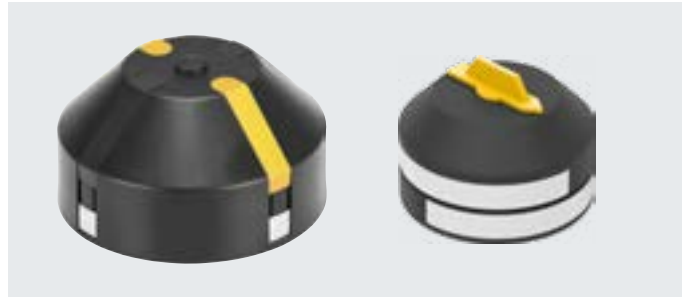
| Type                       | H2 | H3 | H4 | H5 | H6 | L1 | L2 | L2   |
|----------------------------|----|----|----|----|----|----|----|------|
| SRBG-C1-N-1-P-C2-C2        | 14 | 11 | 5  | 5  | 40 | 65 | 30 | 76.5 |
| SRBG-C1-N-1-ZU-C2-C2       |    |    |    |    |    |    |    |      |
| SRBG-C1-N-20N-ZC-C2-C2-EX5 |    |    |    |    |    |    |    |      |

| Ordering data   |   | Brief description | Dimensions [mm] | Weight [g] | Part no.                   | Type |
|---|---|-------------------|-----------------|------------|----------------------------|------|
|  | Limit switch boxes with clamped terminal connection | 65 x 90, H: 40    | 170             | 3568165    | SRBG-C1-N-1-P-C2-C2        |      |
|   |   |                   |                 | 3568166    | SRBG-C1-N-1-ZU-C2-C2       |      |
|   |   |                   |                 | 3568167    | SRBG-C1-N-20N-ZC-C2-C2-EX5 |      |

## Accessories

### Position indicators SASF

- For mounting on drive shaft of standard actuators to VDI/VDE 3845
- Four fixed actuating lugs offset by 90°
- For clockwise and anticlockwise rotating actuators with 90° and 180° rotation
- Made from conductive plastic material, which prevents static discharge and is suitable for use in ATEX zones
- Two position indicators suitable for all quarter turn actuator sizes



| General technical data              |                           |           |            |
|-------------------------------------|---------------------------|-----------|------------|
| Type SASF-...                       | -A20                      | -A34      | -A56       |
| Dimensions W x L x H                | Ø 65 x 48.5               | Ø 65 x 40 | Ø 115 x 62 |
| Type of mounting                    | To VDI/VDE 3845           |           |            |
| Housing colour                      | Black                     |           |            |
| Setting range of swivel angle [deg] | 0 ... 360                 | 0 ... 90  |            |
| Additional functions                | Adjustable actuating lugs | -         |            |

| Operating and environmental conditions |  |      |      |
|--|--|------|------|
| Type SASF-...                          | -A20   | -A34 | -A56 |
| Ambient temperature [°C]               | -25 ... +70  |      |      |
| Shock resistance                       | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27                |      |      |
| Vibration resistance                   | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 |      |      |

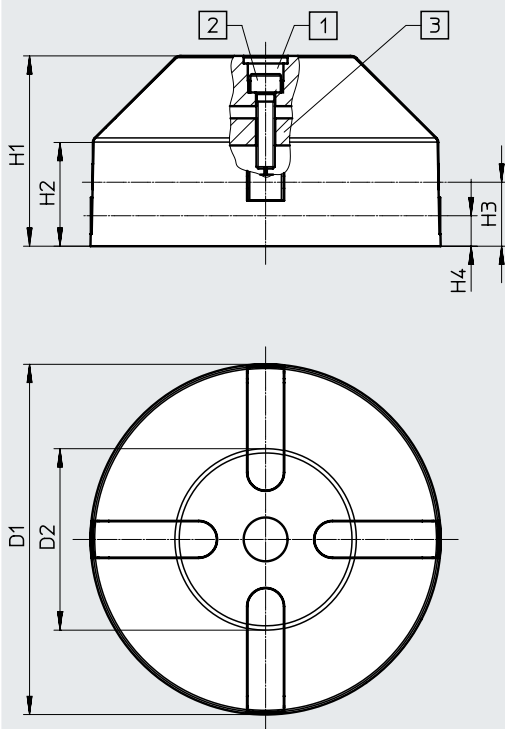
- 1) For information about the area of use, see the EC declaration of conformity at: [www.festo.com/catalogue/...](http://www.festo.com/catalogue/...) → Support/Downloads.  
If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

| Materials         |  |
|-------------------|--|
| Housing           | PA   |
|                   | PP   |
|                   | High-alloy stainless steel                   |
| Spacer            | PA   |
| Screws            | High-alloy stainless steel                   |
| Note on materials | RoHS-compliant                               |
|                   | Contains paint-wetting impairment substances |

## Accessories

### Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

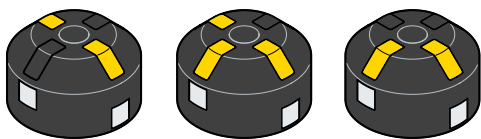


- [1] Sealing plug
- [2] Screw DIN 912 M6x25
- [3] Spacer

| Type           | D1<br>ø | D2<br>ø | H1   | H2   | H3   | H4  |
|----------------|---------|---------|------|------|------|-----|
| SASFS2-B-F-A34 | 65      | 41.9    | 38.5 | 26.5 | 18.5 | 7.5 |
| SASFS2-B-F-A56 | 115     | 59      | 62.5 | 34   | 21   | 10  |

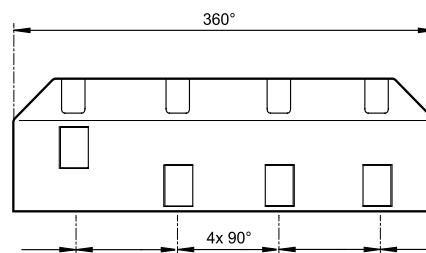
### Sensing range

SASF...-A34



Included in the scope of delivery:

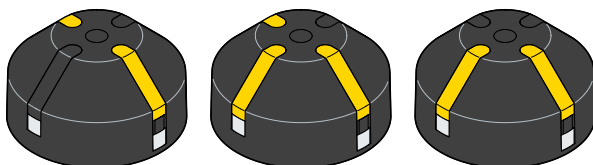
- 3x black identification stoppers
- 3x yellow identification stoppers



Lateral surface, shown unrolled:

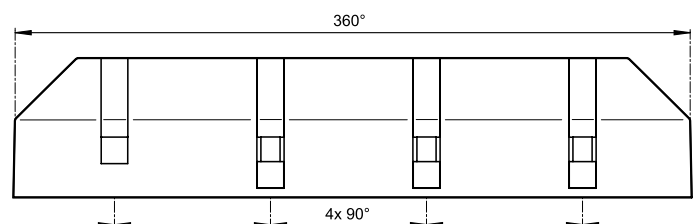
- 4 actuating lugs, offset by 90° to one another
- Actuating lugs cannot be adjusted

SASF...-A56



Included in the scope of delivery:

- 3x black identification stoppers
- 3x yellow identification stoppers



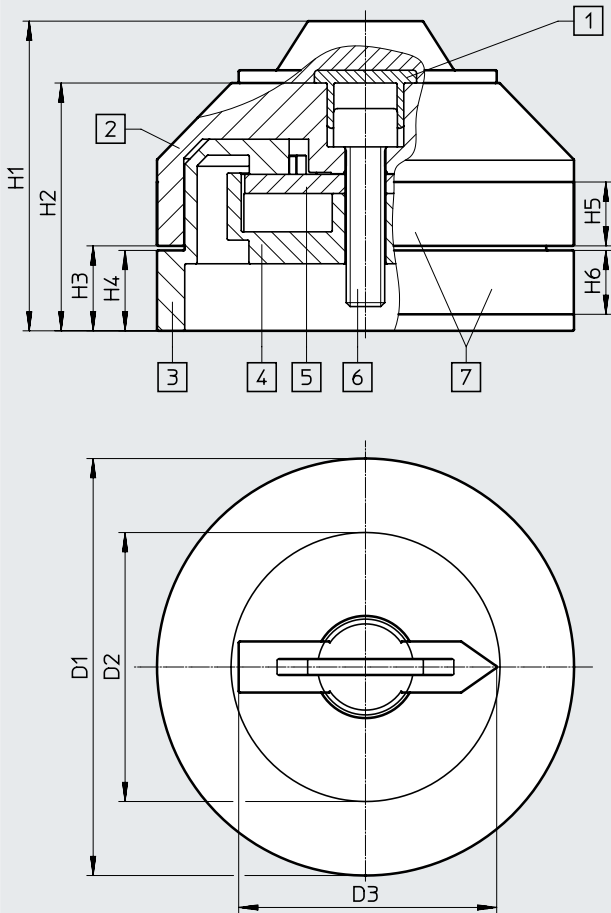
Lateral surface, shown unrolled:

- 4 actuating lugs, offset by 90° to one another
- 3 of the actuating lugs are height-adjustable (tool required)

Accessories

Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

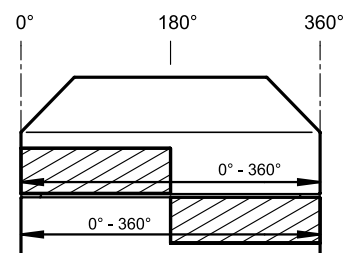


- [1] Sealing plug
- [2] Upper level
- [3] Lower level
- [4] Spacer disc
- [5] Rubber washer
- [6] Screw M6x25
- [7] Actuating lugs

| Type            | D1<br>∅ | D2<br>∅ | D3<br>∅ | H1   | H2   | H3   | H4   | H5 | H6 |
|-----------------|---------|---------|---------|------|------|------|------|----|----|
| SASF-S2-B-V-A20 | 65      | 42      | 40.4    | 48.5 | 38.8 | 13.3 | 12.6 | 10 | 10 |

Sensing range

SASF...-A20






- Upper and lower level infinitely adjustable

Included in the scope of delivery:

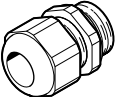
- 2x yellow stick-on marking spots

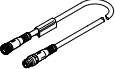





## Accessories

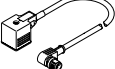
| Ordering data – Position indicator  |   |                      |                                     |                           |            |                |                        |
|---|---|----------------------|-------------------------------------|---------------------------|------------|----------------|------------------------|
|   | Description   | Dimensions W x L x H | Setting range of swivel angle [deg] | Additional functions      | Weight [g] | Part no.       | Type                   |
|  | Mounting on drive shaft of standard actuators to VDI/VDE 3845 | Ø 65 x 48.5          | 0 ... 360                           | Adjustable actuating lugs | 96         | <b>8140395</b> | <b>SASF-S2-B-V-A20</b> |
|  |   | Ø 65 x 40            | 0 ... 90                            | –                         | 55         | <b>4046082</b> | <b>SASF-S2-B-F-A34</b> |
|  |   | Ø 115 x 62           | 0 ... 90                            | –                         | 140        | <b>4077125</b> | <b>SASF-S2-B-F-A56</b> |

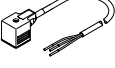
## Accessories

| Ordering data  |                           | Colour | Part no. | Type           |
|--|---------------------------|--------|----------|----------------|
| Cable connectors NETC  |                           |        |          |                |
|  | M20x1.5 made from polymer | Black  | 4464895  | NETC-P-M20     |
|  |                           | Blue   | 4197362  | NETC-P-M20-EX4 |
|  | M12x1.5 made from polymer | Black  | 4197367  | NETC-P-M12     |
|  |                           | Blue   | 4197366  | NETC-P-M12-EX4 |

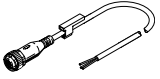
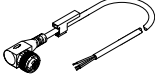
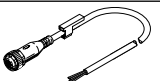
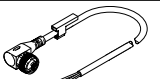
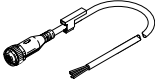
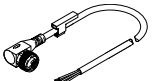

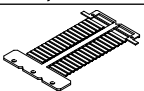


| Ordering data  |                            | Cable characteristic | Cable length [m]                                  | Outlet direction                                  | Special features | Product weight [g] | Part no.                  | Type                       |
|--|----------------------------|----------------------|---|---|------------------|--------------------|---------------------------|----------------------------|
| Socket, 5-pin, M12 – Plug, 4-pin, M12  |                            |                      |   |   |                  |                    |                           |                            |
|  | Standard                   | 0.5                  | Straight – straight                               | –   |                  | 36                 | 8000208                   | NEBU-M12G5-K-0.5-M12G4     |
|  |                            |                      |   |   |                  |                    |                           |                            |
| Socket, 5-pin, M12 – Plug, 5-pin, M12  |                            |                      |   |   |                  |                    |                           |                            |
|  | Standard                   | 0.5                  | Straight – angled                                 | –   |                  | 37                 | 8003617                   | NEBU-M12G5-K-0.5-M12W5     |
|  |                            |                      | Angled – angled                                   | –   |                  | 38                 | 570733                    | NEBU-M12W5-K-0.5-M12W5     |
|  |                            | 2                    | Straight – angled                                 | –   |                  | 77                 | 8003618                   | NEBU-M12G5-K-2-M12W5       |
|  |                            |                      | Angled – angled                                   | –   |                  | 78                 | 570734                    | NEBU-M12W5-K-2-M12W5       |
|  | Suitable for energy chains | 5                    | Straight – straight                               | Nominal conductor cross section 1 mm <sup>2</sup> |                  | 434                | 574321                    | NEBU-M12G5-E-5-Q8N-M12G5   |
|  |                            | 7.5                  | Straight – straight                               | Nominal conductor cross section 1 mm <sup>2</sup> |                  | 635                | 574322                    | NEBU-M12G5-E-7.5-Q8N-M12G5 |
|  | 10                         | Straight – straight  | Nominal conductor cross section 1 mm <sup>2</sup> |   | 835              | 574323             | NEBU-M12G5-E-10-Q8N-M12G5 |                            |

| Ordering data  |                               | Electrical connection |                         | Cable length [m] | Protective circuit | Part no. | Type                 |
|--|-------------------------------|-----------------------|-------------------------|------------------|--------------------|----------|----------------------|
|  |                               | On left               | On right                |                  |                    |          |                      |
| Connecting cables NEBU   |                               |                       |                         |                  |                    |          |                      |
|  | Straight socket, M12x1, 5-pin |                       | Cable, open end, 4-wire | 2.5              | –                  | 550326   | NEBU-M12G5-K-2.5-LE4 |
|  |                               |                       |                         | 5                |                    | 541328   | NEBU-M12G5-K-5-LE4   |
|  |                               |                       |                         | 7                |                    | 8003134  | NEBU-M12G5-K-7-LE4   |
|  | Angled socket, M12x1, 5-pin   |                       | Cable, open end, 4-wire | 2.5              |                    | 550325   | NEBU-M12W5-K-2.5-LE4 |
|  |                               |                       |                         | 5                |                    | 541329   | NEBU-M12W5-K-5-LE4   |
|  |                               |                       |                         | 10               |                    | 569841   | NEBU-M12W5-K-10-LE4  |

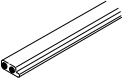



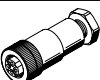
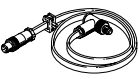

| Connecting cables NEBV for valve connection for limit switch boxes with AS-Interface |   |         |                            |     |  |         |                            |                            |                            |
|--|---|---------|----------------------------|-----|--|---------|----------------------------|----------------------------|----------------------------|
|    | Angled socket, plug pattern type A, EN 175301-803 |         |                            | 0.3 | Yes  | 3679771 | NEBV-A1W3F-P-K-0.3-N-M12W3 |                            |                            |
|  |   |         |                            |     | No   | 3579461 | NEBV-A1W3-K-0.3-N-M12W3    |                            |                            |
|  |   |         |                            |     | 0.6  | Yes     | 3679772                    | NEBV-A1W3F-P-K-0.6-N-M12W3 |                            |
|  |   |         |                            |     |  | No      | 3579462                    | NEBV-A1W3-K-0.6-N-M12W3    |                            |
|  |   |         |                            |     | Angled socket, connection pattern type B, to industry standard 11 mm | 0.3     | Yes                        | 3679773                    | NEBV-B2W3F-P-K-0.3-N-M12W3 |
|  |   |         |                            |     |  |         | No                         | 3579463                    | NEBV-B2W3-K-0.3-N-M12W3    |
| 0.6  | Yes   | 3679774 | NEBV-B2W3F-P-K-0.6-N-M12W3 |     |  |         |                            |                            |                            |
|  | No  | 3579464 | NEBV-B2W3-K-0.6-N-M12W3    |     |  |         |                            |                            |                            |

| Connecting cables NEBV for valve connection for limit switch boxes with clamped terminal connection |   |  |  |     |  |         |                          |                          |
|---|---|--|--|-----|--|---------|--------------------------|--------------------------|
|                   | Angled socket, plug pattern type A, EN 175301-803 |  |  | 0.6 | Yes  | 3679776 | NEBV-A1W3F-P-K-0.6-N-LE3 |                          |
|   |   |  |  |     | No   | 3579466 | NEBV-A1W3-K-0.6-N-LE3    |                          |
|   |   |  |  |     | Angled socket, connection pattern type B, to industry standard 11 mm | Yes     | 3679778                  | NEBV-B2W3F-P-K-0.6-N-LE3 |
|   |   |  |  |     |  | No      | 3579468                  | NEBV-B2W3-K-0.6-N-LE3    |

## Accessories

| Ordering data   |   |              |                                  | Cable length<br>[m] | Part no.             | Type             |                      |
|---|---|--------------|----------------------------------|---------------------|----------------------|------------------|----------------------|
| <b>Open cable end, 3-wire</b>   |   |              |                                  |                     |                      |                  |                      |
|    | Cable outlet straight                                     |              | 2.5                              | 8066670             | NEBB-M12G5-P-2.5-LE3 |                  |                      |
|   |   |              | 5                                | 8066671             | NEBB-M12G5-P-5-LE3   |                  |                      |
|   |   |              | 10                               | 8066672             | NEBB-M12G5-P-10-LE3  |                  |                      |
|    | Cable outlet angled                                       |              | 2.5                              | 8066679             | NEBB-M12W5-P-2.5-LE3 |                  |                      |
|   |   |              | 5                                | 8066680             | NEBB-M12W5-P-5-LE3   |                  |                      |
|   |   |              | 10                               | 8066681             | NEBB-M12W5-P-10-LE3  |                  |                      |
| <b>Open cable end, 4-wire</b>   |   |              |                                  |                     |                      |                  |                      |
|    | Cable outlet straight                                     |              | 2.5                              | 8066673             | NEBB-M12G5-P-2.5-LE4 |                  |                      |
|   |   |              | 5                                | 8066674             | NEBB-M12G5-P-5-LE4   |                  |                      |
|   |   |              | 10                               | 8066675             | NEBB-M12G5-P-10-LE4  |                  |                      |
|    | Cable outlet angled                                       |              | 2.5                              | 8066682             | NEBB-M12W5-P-2.5-LE4 |                  |                      |
|   |   |              | 5                                | 8066683             | NEBB-M12W5-P-5-LE4   |                  |                      |
|   |   |              | 10                               | 8066684             | NEBB-M12W5-P-10-LE4  |                  |                      |
| <b>Open cable end, 5-wire</b>   |   |              |                                  |                     |                      |                  |                      |
|    | Cable outlet straight                                     |              | 2.5                              | 8066676             | NEBB-M12G5-P-2.5-LE5 |                  |                      |
|   |   |              | 5                                | 8066677             | NEBB-M12G5-P-5-LE5   |                  |                      |
|   |   |              | 10                               | 8066678             | NEBB-M12G5-P-10-LE5  |                  |                      |
|   | Cable outlet angled                                       |              | 2.5                              | 8066685             | NEBB-M12W5-P-2.5-LE5 |                  |                      |
|   |   |              | 5                                | 8066686             | NEBB-M12W5-P-5-LE5   |                  |                      |
|   |   |              | 10                               | 8066687             | NEBB-M12W5-P-10-LE5  |                  |                      |
| <b>Ordering data</b>  |   |              |                                  |                     |                      |                  |                      |
| Electrical connection   |   |              |                                  | Cable length        | Weight               | Part no.         | Type                 |
| Connection 1  |   | Connection 2 |                                  | [m]                 | [g]                  |                  |                      |
| Socket, straight design   | 5-pin   | Open end     | 5-wire                           | 5                   | 276                  | 8030962          | NEBS-M12G5-ES-5-LE5  |
|   |   |              |                                  | 10                  | 528                  | 8030963          | NEBS-M12G5-ES-10-LE5 |
|   |   |              |                                  | 15                  | 828                  | 8097576          | NEBS-M12G5-ES-15-LE5 |
| <b>Ordering data – Accessories</b>  |   |              |                                  |                     |                      |                  |                      |
| Designation   |   |              |                                  |                     | Part no.             | Type             |                      |
| <b>Plug connector</b>   |   |              |                                  |                     |                      |                  |                      |
|  | Plug connectors for self-assembly                         |              |                                  |                     | –                    | → Internet: necu |                      |
|   |   |              |                                  |                     | –                    | → Internet: sea  |                      |
| <b>Inscription labels</b>   |   |              |                                  |                     |                      |                  |                      |
|  | Inscription labels 23 mm for holder, pack of 34, in frame |              |                                  |                     | 541598               | ASLR-L-423       |                      |
| <b>Inscription label holder</b>   |   |              |                                  |                     |                      |                  |                      |
|  | For identifying connecting cables                         |              | For cable diameter 4.2 ... 56 mm |                     | 8143238              | NEAU-LH-4        |                      |
| <b>Cover cap</b>  |   |              |                                  |                     |                      |                  |                      |
|  | For sealing unused connections                            |              | For connection M8x1              |                     | 177672               | ISK-M8           |                      |
|   |   |              | For connection M12x1             |                     | 165592               | ISK-M12          |                      |

## Accessories

| Ordering data   | Description  | Part no.       | Type                  |
|---|--|----------------|-----------------------|
| <b>AS-Interface components</b>  |  |                |                       |
|   | Flat cable for AS-Interface components, yellow, cable length 100 m   | <b>18940</b>   | <b>KASI-1.5-Y-100</b> |
|   | Flat cable for AS-Interface components, black, cable length 100 m  | <b>18941</b>   | <b>KASI-1.5-Z-100</b> |
|   | Cable cap for flat cable (pack of 50)  | <b>18787</b>   | <b>ASI-KK-FK</b>      |
|   | Cable sleeve (pack of 20)  | <b>165593</b>  | <b>ASI-KT-FK</b>      |
|   | Cable distributor for flat cables, rotatable cables  | <b>18786</b>   | <b>ASI-KVT-FK</b>     |
|   | Cable distributor for flat cables, symmetrical cables  | <b>18797</b>   | <b>ASI-KVT-FK-S</b>   |
|   | Straight socket, 4-pin, screw terminal for connecting AS-Interface stations to the AS-Interface bus system | <b>18789</b>   | <b>ASI-SD-PG-M12</b>  |
| <b>Other</b>  |  |                |                       |
|   | Addressing cable for addressing device   | <b>18960</b>   | <b>KASI-ADR</b>       |
|  | Primary switched mode, modular power supply, 24 V DC power supply 5 A, 10 A                                | <b>2247681</b> | <b>CACN-3A-1-5</b>    |
|   |  | <b>2247682</b> | <b>CACN-3A-1-10</b>   |