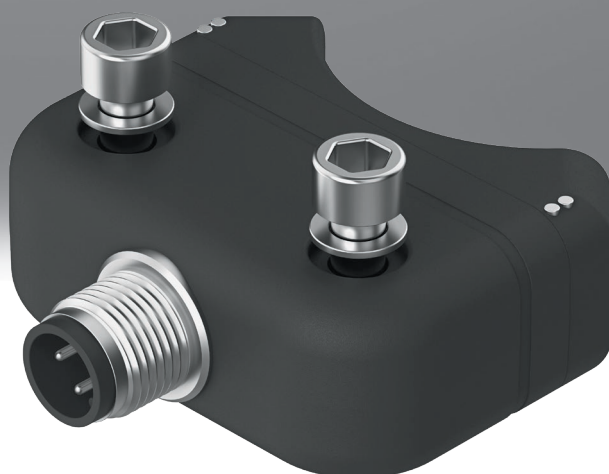


## Limit switch boxes SRBI

**FESTO**



Key features

Function

Limit switch boxes SRBI are the most 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 port pattern to VDI/VDE 3845.

Direct mounting means that they require minimal space.

Design

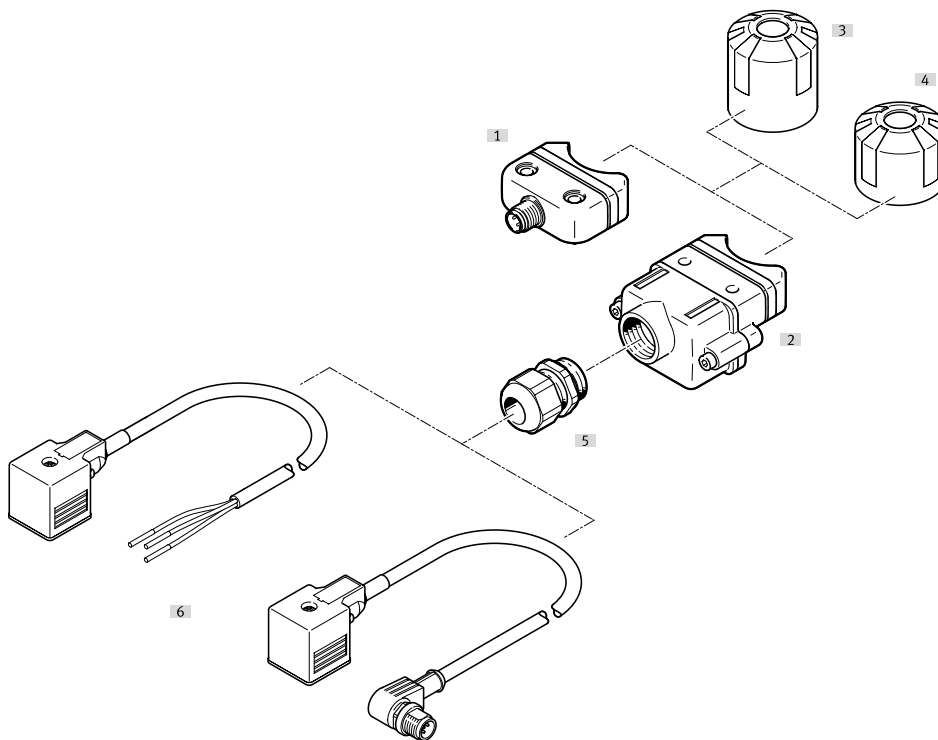
- Direct mounting on quarter turn actuators to VDI/VDE 3845
  - LED indicator for ready status, switching status and position status
  - For clockwise and anticlockwise rotating actuators with up to 90° rotation
- Compact polymer housing
  - M12 plug, A-coded or screw terminal
  - c UL us - Recognized (OL)



Product range overview

| Electrical connection, input | Type              | Operating voltage range<br>[V DC] | Switching output | Switching element function | Pin allocation |
|------------------------------|-------------------|-----------------------------------|------------------|----------------------------|----------------|
| M12 plug, A-coded            | SRBI-C2-N-1-P-M12 | 10 ... 30                         | PNP              | N/O                        |                |
| Screw terminal               | SRBI-C2-N-1-P-C2  | 10 ... 30                         | PNP              | N/O                        |                |

## Peripherals overview



| Accessories                               | Description                                                                                                                                                                                           | → Page/Internet |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| [1] Limit switch box<br>SRBI-...-M12      | <ul style="list-style-type: none"> <li>Electrical connection input M12 plug, A-coded</li> </ul>                                                                                                       | 5               |
| [2] Limit switch box<br>SRBI-...-C2       | <ul style="list-style-type: none"> <li>Electrical connection input screw terminal</li> </ul>                                                                                                          | 5               |
| [3] Position indicator<br>SASF-S3-B-F-A30 | <ul style="list-style-type: none"> <li>Dimensions <math>\varnothing 40 \times 43</math></li> <li>Connection for positioner and position sensor conforms to standard VDI/VDE 3845 size AA 2</li> </ul> | 9               |
| [4] Position indicator<br>SASF-S3-B-F-A20 | <ul style="list-style-type: none"> <li>Dimensions <math>\varnothing 40 \times 32</math></li> <li>Connection for positioner and position sensor conforms to standard VDI/VDE 3845 size AA 1</li> </ul> | 9               |
| [5] Cable connector<br>NETC-P-...         | <ul style="list-style-type: none"> <li>M20x1.5 made from polymer</li> <li>Colour: black</li> </ul>                                                                                                    | 10              |
| [6] Connecting cables<br>NEBV-...         | <ul style="list-style-type: none"> <li>Connecting cables for connecting a solenoid valve to SRBI-...-M12 or SRBI-...-C2</li> </ul>                                                                    | 10              |

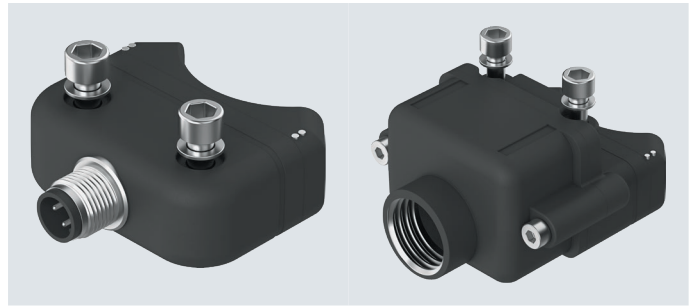
Type codes

|      |                             |  |
|------|-----------------------------|--|
| 001  | Series                      |  |
| SRBI | Limit switch box            |  |
| 002  | Design type                 |  |
| C2   | Dual sensor, compact        |  |
| 003  | Sensor principle            |  |
| N    | Proximity sensor, inductive |  |

|     |                           |  |
|-----|---------------------------|--|
| 004 | Nominal operating voltage |  |
| 1   | 24 V DC                   |  |
| 005 | Electrical output 1       |  |
| P   | PNP                       |  |
| 006 | Electrical connection     |  |
| C2  | Screw terminal            |  |
| M12 | Plug M12, A-coded         |  |

## Data sheet

- Compact housing with M12 plug, A-coded or screw terminal
- Direct mounting on quarter turn actuators to VDI/VDE 3845
- Switching output PNP



### General technical data

|                              |                            |                |
|------------------------------|----------------------------|----------------|
| Electrical connection, input | Plug, M12x1, 4-pin         | Screw terminal |
| Based on standard            | EN 60947-5-2, VDI/VDE 3845 |                |
| Mounting position            | Any                        |                |
| Design                       | Rectangular                |                |
| Product weight               | 48 g                       | 98 g           |

### Electrical characteristic data

|                              |                                |                |
|------------------------------|--------------------------------|----------------|
| Electrical connection, input | Plug, M12x1, 4-pin             | Screw terminal |
| Measuring principle          | Inductive                      |                |
| Switching output             | PNP                            |                |
| Switching element function   | N/O                            |                |
| Max. switching frequency     | 1000 Hz                        |                |
| Operating voltage range DC   | 10 ... 30 V                    |                |
| Max. output current DC       | 200 mA                         |                |
| Voltage drop                 | 2.5 V                          |                |
| No-load supply current       | 22.5 mA                        |                |
| Residual current             | 0 ... 0.5 mA                   |                |
| Reverse polarity protection  | For all electrical connections |                |
| Short circuit current rating | Pulsed                         |                |

### Display/operation

|                              |                                                                         |                |
|------------------------------|-------------------------------------------------------------------------|----------------|
| Electrical connection, input | Plug, M12x1, 4-pin                                                      | Screw terminal |
| Ready status indication      | Green LED                                                               |                |
| Switching status indication  | Yellow LED                                                              |                |
| Status indication            | Yellow LED = valve switching status, green LED = power supply indicator |                |

## Data sheet

| Electromechanics                            |                    |                             |
|---------------------------------------------|--------------------|-----------------------------|
| Electrical connection, input                | Plug, M12x1, 4-pin | Screw terminal              |
| Electrical connection, output               | –                  | Screw terminal              |
| Cable diameter                              | –                  | 1.5 ... 2.5 mm              |
| Connectable nominal conductor cross section | –                  | 0.2 ... 2.5 mm <sup>2</sup> |
| Cable connector                             | –                  | M20x1.5                     |

| Operating and environmental conditions |                                                                                  |
|----------------------------------------|----------------------------------------------------------------------------------|
| Ambient temperature                    | -25 ... 70°C                                                                     |
| Storage temperature                    | -40 ... 85°C                                                                     |
| 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 <sup>1)</sup>            | RCM, c UL us - Recognized (OL)                                                   |
| KC mark                                | KC EMC                                                                           |
| Certificate issuing authority          | UL E232949                                                                       |

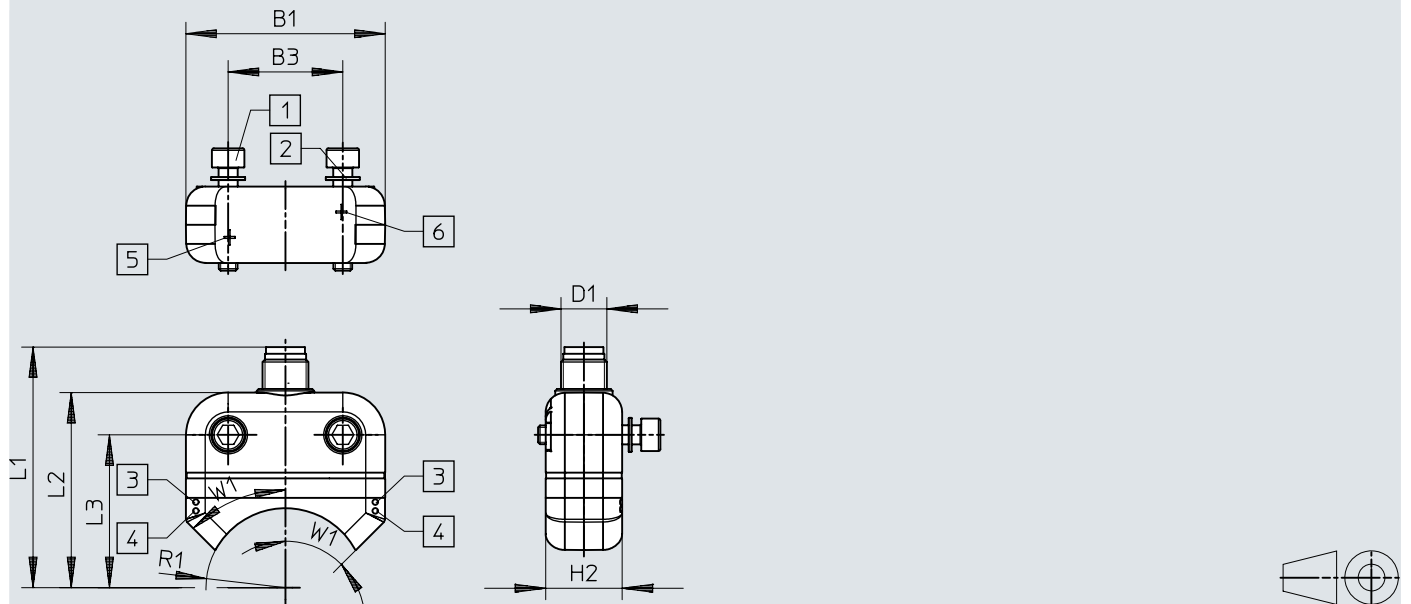
1) Additional information: [www.festo.com/catalogue/...](http://www.festo.com/catalogue/...) → Support/Downloads.

| Materials          |                                                              |
|--------------------|--------------------------------------------------------------|
| Housing material   | PBT                                                          |
| Material of screws | High-alloy stainless steel                                   |
| Note on materials  | Contains paint-wetting impairment substances, RoHS-compliant |

## Data sheet

### Dimensions

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



- [1] Screw M5x25
- [2] Washer 10x5.3
- [3] Green LED
- [4] Yellow LED
- [5] Inductive sensor target position 1
- [6] Inductive sensor target position 2

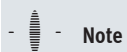
|              | B1   | B3 | D1  | H2 | L1 | L2   | L3 | R1   | W1  |
|--------------|------|----|-----|----|----|------|----|------|-----|
| SRBI-...-M12 | 52.2 | 30 | M12 | 20 | 63 | 51.1 | 40 | 20.8 | 45° |

### Circuitry to DIN EN 61076-2-101

View of M12 plug, A-coded

|  | Pin | Wire colour <sup>1)</sup> |
|--|-----|---------------------------|
|  | 1   | BN                        |
|  | 2   | WH                        |
|  | 3   | BU                        |
|  | 4   | BK                        |

1) To EN 60947-5-2



#### Note

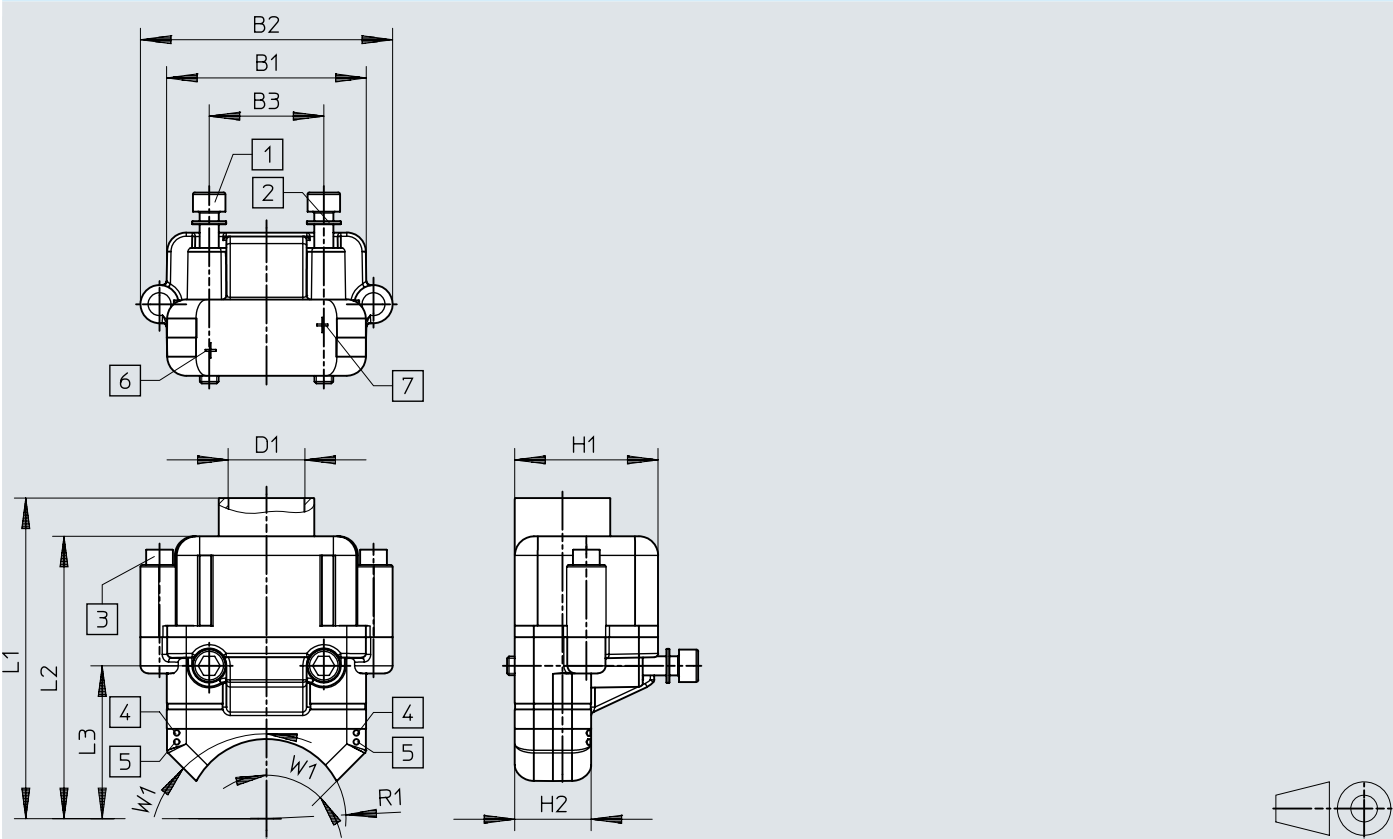
Pin allocation

→ page 2

Data sheet

Dimensions

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



- [1] Screw M5x40

[2] Washer 10x5.3

[3] Screw M4x25

[4] Green LED

[5] Yellow LED

[6] Inductive sensor target position 1

[7] Inductive sensor target position 2

|             | B1   | B2 | B3 | D1      | H1   | H2 | L1   | L2   | L3 | R1   | W1  |
|-------------|------|----|----|---------|------|----|------|------|----|------|-----|
| SRBI-...-C2 | 52.2 | 66 | 30 | M20x1.5 | 37.5 | 20 | 83.9 | 73.9 | 40 | 20.8 | 45° |

Note

Pin allocation

→ page 2

| Ordering data | Description                                             | Part no. | Type              |
|---------------|---------------------------------------------------------|----------|-------------------|
|               | Electrical connection input plug, M12x1, 4-pin, A-coded | 8140399  | SRBI-C2-N-1-P-M12 |
|               | Electrical connection input screw terminal              | 8140400  | SRBI-C2-N-1-P-C2  |



## Accessories

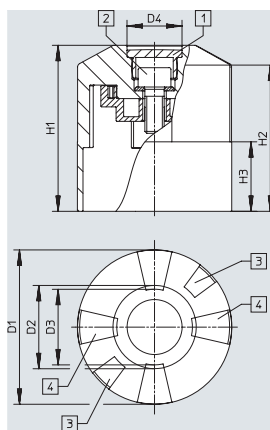
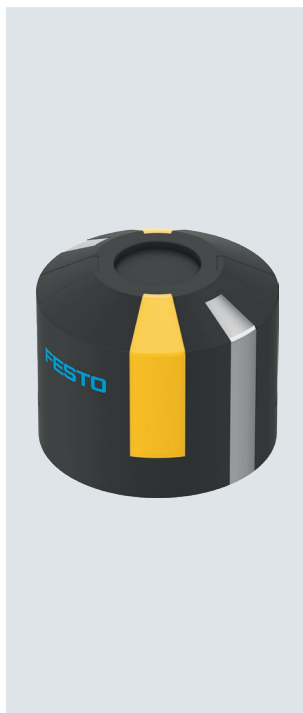
### Position indicators SASF

Materials:

PP and high-alloy stainless steel

RoHS-compliant

Contains paint-wetting impairment substances



- [1] Sealing plug
- [2] Screws (M5 and M6) and washer included in scope of delivery
- [3] Actuating lug (2x)
- [4] Identification stopper – yellow (2x)
- [5] Identification stopper – black (2x)

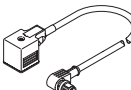
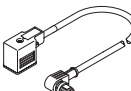
#### Dimensions and ordering data

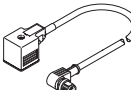
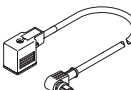
| H1 | H2 | H3 | D1<br>Ø | D2<br>Ø | D3<br>Ø | D4<br>Ø | Product weight<br>[g] | Part no. | Type            |
|----|----|----|---------|---------|---------|---------|-----------------------|----------|-----------------|
| 33 | 28 | 8  | 40      | 21.6    | 19.6    | 14.3    | 24                    | 8140396  | SASF-S3-B-F-A20 |
| 43 | 38 | 18 | 40      | 21.6    | 19.6    | 14.3    | 26                    | 8140397  | SASF-S3-B-F-A30 |

## Accessories

| Ordering data – Cable connectors                                                 |                           |  |        |          |            |  |
|----------------------------------------------------------------------------------|---------------------------|--|--------|----------|------------|--|
|                                                                                  | Description               |  | Colour | Part no. | Type       |  |
| Cable connectors NETC                                                            |                           |  |        |          |            |  |
|  | M20x1.5 made from polymer |  | Black  | 4464895  | NETC-P-M20 |  |
|                                                                                  |                           |  |        |          |            |  |

| Ordering data – NEBU                                                             |                      |                  |                  |                    |          |                      |
|----------------------------------------------------------------------------------|----------------------|------------------|------------------|--------------------|----------|----------------------|
|                                                                                  | Cable characteristic | Cable length [m] | Outlet direction | Product weight [g] | Part no. | Type                 |
| Socket, 5-pin, M12 – Open cable end, 4-wire                                      |                      |                  |                  |                    |          |                      |
|  | Standard             | 2.5              | Straight         | 77                 | ★ 550326 | NEBU-M12G5-K-2.5-LE4 |
|                                                                                  |                      |                  | Angled           | 78                 | 550325   | NEBU-M12W5-K-2.5-LE4 |
|                                                                                  |                      | 5                | Straight         | 143                | ★ 541328 | NEBU-M12G5-K-5-LE4   |
|                                                                                  |                      |                  |                  | –                  | 164259   | SIM-M12-4GD-5-PU     |
|                                                                                  |                      |                  | Angled           | 144                | 541329   | NEBU-M12W5-K-5-LE4   |
|                                                                                  |                      |                  |                  | –                  | 164258   | SIM-M12-4WD-5-PU     |
|                                                                                  |                      | 7                | Straight         | 197                | 8003134  | NEBU-M12G5-K-7-LE4   |
|                                                                                  |                      | 10               | Angled           | 278                | 569841   | NEBU-M12W5-K-10-LE4  |

| Ordering data – NEBV                                                                       |                                                                |                  |                    |          |                            |  |
|--------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------|--------------------|----------|----------------------------|--|
|                                                                                            | Electrical connection                                          | Cable length [m] | Protective circuit | Part no. | Type                       |  |
| Connecting cables NEBV for valve connection for limit switch attachments 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, plug 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 screw terminal |                                                                |     |    |         |                       |  |
|      | Angled socket, plug pattern type A, EN 175301-803              | 0.6 | No | 3579466 | NEBV-A1W3-K-0.6-N-LE3 |  |
|      | Angled socket, plug pattern type B, to industry standard 11 mm | 0.6 | No | 3579468 | NEBV-B2W3-K-0.6-N-LE3 |  |

| Ordering data – NEBS    |       |              |              |        |          |                      |
|-------------------------|-------|--------------|--------------|--------|----------|----------------------|
| 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              |
|                         |       |              |              | 10     | 528      | 8030963              |
|                         |       |              |              | 15     | 828      | 8097576              |
|                         |       |              |              |        |          | NEBS-M12G5-ES-5-LE5  |
|                         |       |              |              |        |          | NEBS-M12G5-ES-10-LE5 |
|                         |       |              |              |        |          | NEBS-M12G5-ES-15-LE5 |

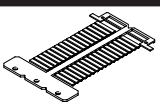
## Accessories

## Ordering data – Inscription label holder

|                                                                                   | Length | Width  | Height  | For cable diameter | Part no.       | Type             | ST <sup>1)</sup> |
|-----------------------------------------------------------------------------------|--------|--------|---------|--------------------|----------------|------------------|------------------|
|  | 23 mm  | 5.4 mm | 12.1 mm | 4.2 ... 5.6 mm     | <b>8143238</b> | <b>NEAU-LH-4</b> | <b>100</b>       |

1) Pack size

## Ordering data – Inscription labels

|                                                                                   | Use                                             | Size    | Part no.      | Type              | PU <sup>1)</sup> |
|-----------------------------------------------------------------------------------|-------------------------------------------------|---------|---------------|-------------------|------------------|
|  | Inscription label for insertion in label holder | 23x4 mm | <b>541598</b> | <b>ASLR-L-423</b> | <b>30</b>        |

1) Packaging unit