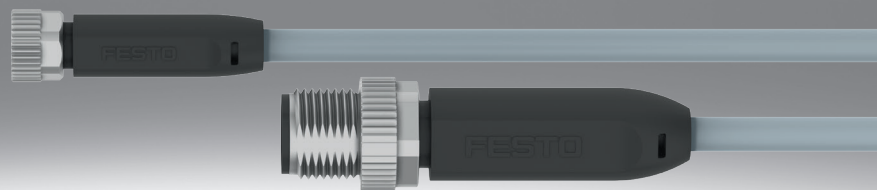


## Connecting cable NEBA

**FESTO**



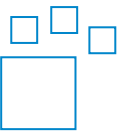
### Characteristics

#### At a glance

Powerful universal connecting cables for applications that are in constant motion or under vibration load with the following technical features:

- One cable quality for different types of installation (static, energy chain, robotics) and suitable for harsh environments as well as applications that are in constant motion or subject to vibration
- Electrical connection complies with EN 61076-2-101 or EN 61076-2-104
- Meets the safety requirements of IEC 61010-1 and IEC 61010-2-202 for electrical equipment for measurement, control and laboratory devices
- High degree of protection, IP65, IP68, IP69k
- Resistant to abrasion and adhesion-free
- Resistant to oil, coolants, lubricants, hydrolysis, microbes, ultraviolet light and ozone
- Flame-retardant, self-extinguishing
- Screw-type lock with longitudinal knurl and hexagon for easier assembly, or diameter 8 mm with snap-locking

#### Ordering data - modular system



Configurable product

This product and all its product options can be ordered online via the configurator.

## Type code

|             |   |  |
|-------------|---|--|
| <b>001</b>  | <b>Series</b>   |  |
| <b>NEBA</b> | Connecting cable  |  |
| <b>002</b>  | <b>Connection technology left, field device side</b>            |  |
| <b>LE</b>   | Open end  |  |
| <b>M8</b>   | Socket M8x1 A-coded, EN 61076-2-104                             |  |
| <b>M8C</b>  | Socket diameter 8 mm with snap-locking, A-coded, EN 61076-2-104 |  |
| <b>M12</b>  | Socket M12x1 A-coded, EN 61076-2-101                            |  |
| <b>003</b>  | <b>Cable outlet left</b>  |  |
|             | None  |  |
| <b>G</b>    | Straight  |  |
| <b>W</b>    | Angled  |  |
| <b>004</b>  | <b>Number of pins/wires on the left</b>                         |  |
| <b>3</b>    | 3   |  |
| <b>4</b>    | 4   |  |
| <b>5</b>    | 5   |  |
| <b>005</b>  | <b>Display</b>  |  |
|             | None  |  |
| <b>N</b>    | LED switching state, NPN  |  |
| <b>P</b>    | LED switching state, PNP  |  |
| <b>006</b>  | <b>Cable characteristic</b>                                     |  |
| <b>U</b>    | Suitable for energy chains/robot applications                   |  |

|            |   |  |
|------------|---|--|
| <b>007</b> | <b>Cable length</b>                                 |  |
|            | ...m  |  |
| <b>0.5</b> | 0.5 m   |  |
| <b>1</b>   | 1 m   |  |
| <b>1.5</b> | 1.5 m   |  |
| <b>2</b>   | 2 m   |  |
| <b>2.5</b> | 2.5 m   |  |
| <b>5</b>   | 5 m   |  |
| <b>10</b>  | 10 m  |  |
| <b>20</b>  | 20 m  |  |
| <b>008</b> | <b>Cable identification</b>                         |  |
| <b>N</b>   | Without label holder                                |  |
| <b>009</b> | <b>Connection technology right, controller side</b> |  |
| <b>LE</b>  | Open end  |  |
| <b>M8</b>  | Plug M8x1 A-coded, EN 61076-2-104                   |  |
| <b>M12</b> | Plug M12x1 A-coded, EN 61076-2-101                  |  |
| <b>010</b> | <b>Cable outlet right</b>                           |  |
|            | None  |  |
| <b>G</b>   | Straight  |  |
| <b>W</b>   | Angled  |  |
| <b>011</b> | <b>Number of pins/wires on the right</b>            |  |
| <b>3</b>   | 3   |  |
| <b>4</b>   | 4   |  |
| <b>5</b>   | 5   |  |

## Datasheet

**Technical data – Electrical connection 1**

|  |  |   |  |  |
|--|--|---|--|--|
| Electrical connection 1, connector system            | M12x1, A-coded to EN 61076-2-101   | M8x1, A-coded, to EN 61076-2-104  | Open end   | Diameter 8 mm, A-coded to EN 61076-2-104 |
| Electrical connection 1, function                    | Field device side  |   |  |  |
| Electrical connection 1, connection type             | Socket   |   | Cable  | Socket                                   |
| Electrical connection 1, cable outlet                | Straight, Angled   |   | –  | Straight, Angled                         |
| Electrical connection 1, design                      | Round  |   | –  | Round                                    |
| Electrical connection 1, number of connections/cores | 5  | 3 ... 4   | 3 ... 5  | 3  |
| Electrical connection 1, used connections/cores      | 3 ... 5  | 3 ... 4   | 3 ... 5  | 3  |
| Electrical connection 1, type of mounting            | Screw-type lock with 13 mm hexagon and longitudinal knurl, Rotatable   | Screw-type lock with hexagon A/F 9 mm and longitudinal knurl, Rotatable | –  | Snap-locking                             |
| Electrical connection 1, terminal allocation         | Pin 1 = BN, Pin 2 = WH, Pin 3 = BU, Pin 4 = BK, Pin 5 = GY   | Pin 1 = BN, Pin 2 = WH, Pin 3 = BU, Pin 4 = BK                          | Pin 1 = BN, Pin 2 = WH, Pin 3 = BU, Pin 4 = BK, Pin 5 = GY | Pin 1 = BN, Pin 3 = BU, Pin 4 = BK       |
| Electrical connection 1, display                     | None<br>Status indicator LED green<br>Switching status indication, yellow LED for PNP N/O contact<br>Switching status indication, yellow LED for NPN N/O contact |   | None   |  |
| Frequency of connection                              | 100  |   |  |  |

**Technical data – Electrical connection 2**

|  |  |   |  |
|--|--|---|--|
| Electrical connection 2, connector system            | M12x1, A-coded to EN 61076-2-101                                     | M8x1, A-coded to EN 61076-2-104   | Open end   |
| Electrical connection 2, function                    | Controller side  |   |  |
| Electrical connection 2, connection type             | Plugs  |   | Cable  |
| Electrical connection 2, design                      | Round  |   | –  |
| Electrical connection 2, number of connections/cores | 3 ... 5  | 3 ... 4   | 3 ... 5  |
| Electrical connection 2, used connections/cores      | 3 ... 5  | 3 ... 4   | 3 ... 5  |
| Electrical connection 2, type of mounting            | Screw-type lock with 13 mm hexagon and longitudinal knurl, Rotatable | Screw-type lock with hexagon A/F 9 mm and longitudinal knurl, Rotatable | –  |
| Electrical connection 2, terminal allocation         | Pin 1 = BN, Pin 2 = WH, Pin 3 = BU, Pin 4 = BK, Pin 5 = GY           | Pin 1 = BN, Pin 2 = WH, Pin 3 = BU, Pin 4 = BK                          | Pin 1 = BN, Pin 2 = WH, Pin 3 = BU, Pin 4 = BK, Pin 5 = GY |
| Electrical connection 2, display                     | None   |   |  |
| Frequency of connection                              | 100  |   |  |

**Technical data – Electrical, with switching status indication**

|                              |             |
|------------------------------|-------------|
| Operational voltage range DC | 10 ... 30 V |
| Immunity to surge            | 0.8 kV      |
| Current rating at 40° C      | 4 A         |
| Overvoltage category         | II          |
| Pollution degree             | 3           |

## Datasheet

| Technical data – Electrical, without switching status indication |                              |   |            |
|--|------------------------------|---|------------|
| Electrical connection 2, number of connections/cores             | 3                            | 4 | 5          |
| Operational voltage range DC                                     | 0 ... 250 V                  |   | 0 ... 60 V |
| Note on operational voltage range DC                             | 0 - 30 V for UL applications |   |            |
| Operational voltage range AC                                     | 0 ... 250 V                  |   | 0 ... 48 V |
| Note on operational voltage range AC                             | 0 - 30 V for UL applications |   |            |
| Immunity to surge  | 1.5 ... 2.5 kV               |   | 1.5 kV     |
| Current rating at 40° C  | 4 A                          |   |            |
| Overvoltage category   | II                           |   |            |
| Pollution degree   | 3                            |   |            |

| Technical data – Cable                               |   |                          |                          |
|--|---|--------------------------|--------------------------|
| Electrical connection 2, number of connections/cores | 3   | 4                        | 5                        |
| Cable diameter                                       | 3.8 mm  | 4.5 mm                   |                          |
| Cable characteristic                                 | Suitable for energy chains/robot applications, Abrasion-resistant, Low adhesion, Flame-retardant and self-extinguishing   |                          |                          |
| Bending radius, fixed cable                          | ≥12 mm  | ≥14 mm                   |                          |
| Bending radius, moving cable                         | ≥39 mm  | ≥46 mm                   |                          |
| Test conditions cable                                | Test conditions on request<br>Torsional resistance: > 300,000 cycles, ± 270°/0.1 m<br>Bending fatigue strength: > 50000 cycles, bending radius 5 mm<br>Energy chain: > 5 million cycles, bending radius 28 mm |                          |                          |
| Notes on test conditions cable                       | Tested at 23°C  |                          |                          |
| Cable structure                                      | 3 x 0.25 mm <sup>2</sup>  | 4 x 0.25 mm <sup>2</sup> | 5 x 0.25 mm <sup>2</sup> |
| Nominal cross section conductor                      | 0.25 mm <sup>2</sup>  |                          |                          |
| Special characteristics                              | UV resistant, Hydrolysis-resistant, Resistant to cooling lubricants, Resistant to microbes, Oil resistant, Ozone-resistant  |                          |                          |
| Wire ends  | Sheath removed, Cut off bluntly   |                          |                          |
| Cable designation                                    | Without inscription label holder  |                          |                          |

| Materials  |  |
|--|--|
| Material housing                                   | TPE-U(PUR)   |
| Housing colour                                     | Black  |
| Material cable sheath                              | TPE-U(PUR)   |
| Cable sheath colour                                | grey   |
| Material insulating sheath                         | PP   |
| Material screw-type lock                           | Die-cast zinc, nickel-plated   |
| Material seals                                     | FPM  |
| Material electrical contact                        | Gold-plated copper alloy   |
| Note on materials                                  | CFC-free, RoHS-compliant, Cadmium-free, Free of halogen, Free of phosphoric acid ester   |
| Special characteristics                            | UV resistant, Hydrolysis-resistant, Resistant to cooling lubricants, Resistant to microbes, Oil resistant, Ozone-resistant   |
| LABS (PWIS) conformity                             | VDMA24364-B2-L   |
| Suitability for the production of Li-ion batteries | Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils, Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils |
| Cleanroom class                                    | Class 4 according to ISO 14644-1   |

Datasheet

**Operating and environmental conditions, with switching status indication**

|  |  |
|--|--|
| Ambient temperature  | -40 ... 85°C   |
| Note on ambient temperature                                      | -40 - 50°C for UL applications, Note derating  |
| Ambient temperature with moving cable                            | -20 ... 85°C   |
| Note on the ambient temperature with flexible cable installation | -20 - 50°C for UL applications   |
| Storage temperature  | -25 ... 55°C   |
| Note on storage temperature                                      | Temporarily during transport in packaging -40 ... 85°C   |
| Corrosion resistance class CRC <sup>1)</sup>                     | 1 - Low corrosion stress   |
| Relative air humidity  | Max. 93% at 40 °C  |
| Nominal altitude of use  | <= 2000 m NHN  |
| CE mark (see declaration of conformity) <sup>2)</sup>            | In accordance with EU RoHS Directive   |
| CE marking (see declaration of conformity) <sup>3)</sup>         | To UK RoHS instructions  |
| Approval   | c UL us listed (OL)  |
| Certificate issuing authority                                    | UL E253748   |
| Note on degree of protection                                     | In assembled state   |
| Outdoor applications   | Application areas with direct exposure to outdoor climatic influences Class D1 based on IEC 60654-1  |
| Instructions on use  | Meets the requirements of IEC 61010-1 and 61010-2-202, in particular for electrically operated valves from Festo., Only energy-limited circuits with a maximum current of 4 A at a max. open circuit voltage of 30 V DC are permissible for supplying electrically actuated valves from Festo. |
| Intended use   | The connecting cable connects field devices (sensors, actuators) with controllers.   |

1) More information: [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

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

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

**Operating and environmental conditions, without switching status indication**

|  |  |                                      |          |  |
|--|--|--------------------------------------|----------|--|
| Electrical connection 1, connector system                        | M12x1, A-coded to EN 61076-2-101   | M8x1, A-coded, to EN 61076-2-104     | Open end | Diameter 8 mm, A-coded to EN 61076-2-104 |
| Electrical connection 2, number of connections/cores             | 3  | 4                                    | 5        | 3  |
| Ambient temperature  | -40 ... 85°C   |                                      |          |  |
| Note on ambient temperature                                      | -40 - 50°C for UL applications, Note derating  |                                      |          |  |
| Ambient temperature with moving cable                            | -20 ... 85°C   |                                      |          |  |
| Note on the ambient temperature with flexible cable installation | -20 - 50°C for UL applications   |                                      |          |  |
| Storage temperature  | -25 ... 55°C   |                                      |          |  |
| Corrosion resistance class CRC <sup>1)</sup>                     | 1 - Low corrosion stress   |                                      |          |  |
| Relative air humidity  | Max. 93% at 40 °C  |                                      |          |  |
| Nominal altitude of use  | <= 2000 m NHN  |                                      |          |  |
| CE mark (see declaration of conformity) <sup>2)</sup>            | To EU Low Voltage Directive<br>In accordance with EU RoHS Directive  | In accordance with EU RoHS Directive |          |  |
| CE marking (see declaration of conformity) <sup>3)</sup>         | To UK RoHS instructions<br>To UK regulations for electrical equipment  | To UK RoHS instructions              |          |  |
| Approval   | c UL us listed (OL)  |                                      |          |  |
| Certificate issuing authority                                    | UL E253748   |                                      |          |  |
| Degree of protection   | IP65, IP68, IP69K  |                                      |          |  |
| Note on degree of protection                                     | In assembled state   |                                      |          |  |
| Outdoor applications   | Application areas with direct exposure to outdoor climatic influences Class D1 based on IEC 60654-1  |                                      |          |  |
| Instructions on use  | Meets the requirements of IEC 61010-1 and 61010-2-202, in particular for electrically operated valves from Festo., Only energy-limited circuits with a maximum current of 4 A at a max. open circuit voltage of 30 V DC are permissible for supplying electrically actuated valves from Festo. |                                      |          |  |

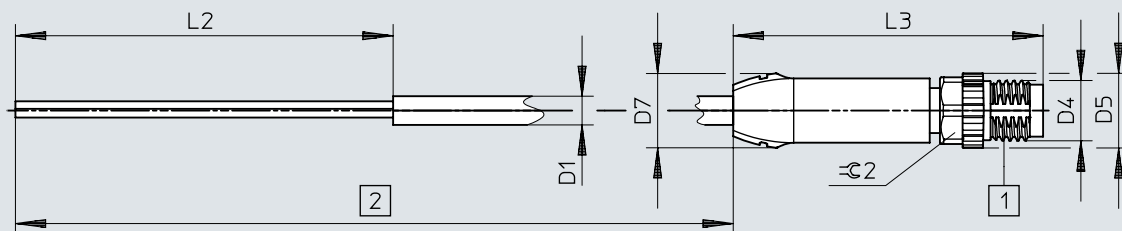
1) More information: [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

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

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

## Dimensions

## Dimensions – Open end – plug, straight

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

[1] Plug

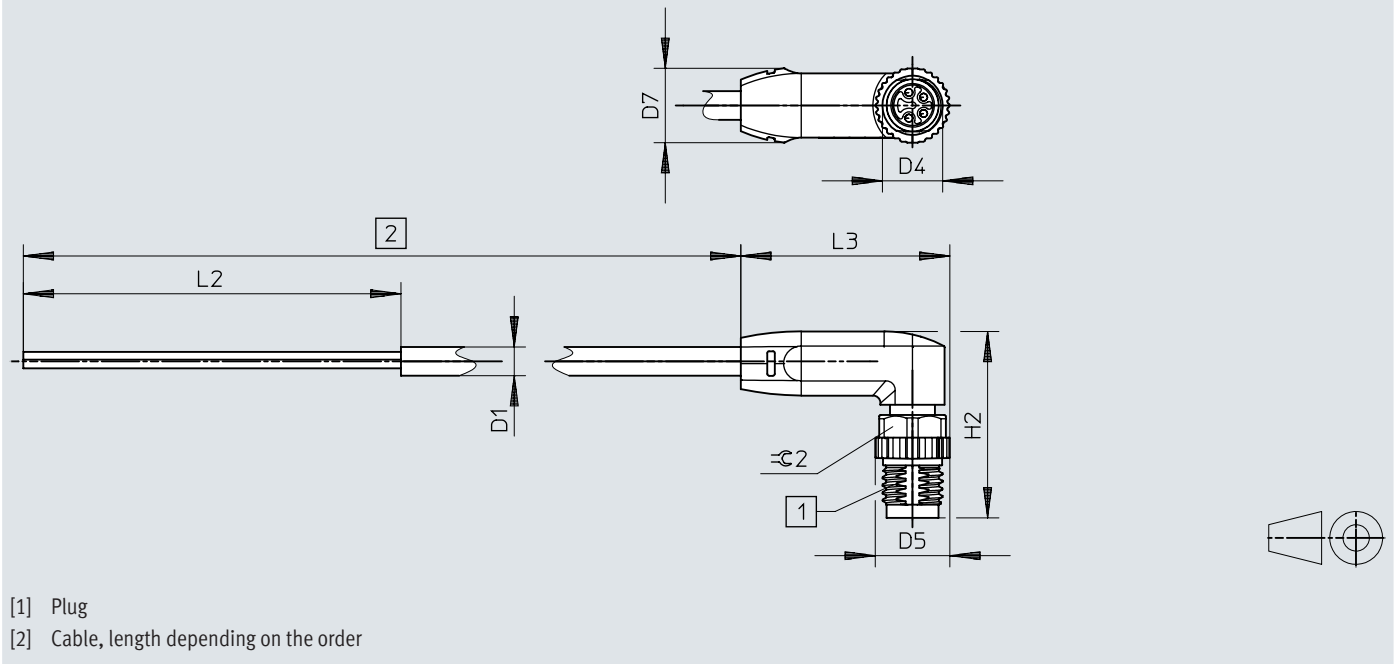
[2] Cable, length depending on the order

|                    | D1<br>∅ | D4    | D5<br>∅ | D7<br>∅ | L2 | L3   | $\varnothing 2$ |
|--------------------|---------|-------|---------|---------|----|------|-----------------|
| NEBA-LE3-...-M8G3  | 3,8     | M8x1  | 10      | 10      | 50 | 41   | 9               |
| NEBA-LE4-...-M8G4  | 4,5     | M8x1  | 10      | 10      | 50 | 41   | 9               |
| NEBA-LE3-...-M12G3 | 3,8     | M12x1 | 15      | 13,7    | 50 | 53,4 | 13              |
| NEBA-LE4-...-M12G4 | 4,5     | M12x1 | 15      | 13,7    | 50 | 53,4 | 13              |
| NEBA-LE5-...-M12G5 | 4,5     | M12x1 | 15      | 13,7    | 50 | 53,4 | 13              |

## Dimensions

### Dimensions – Open end – angled plug

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

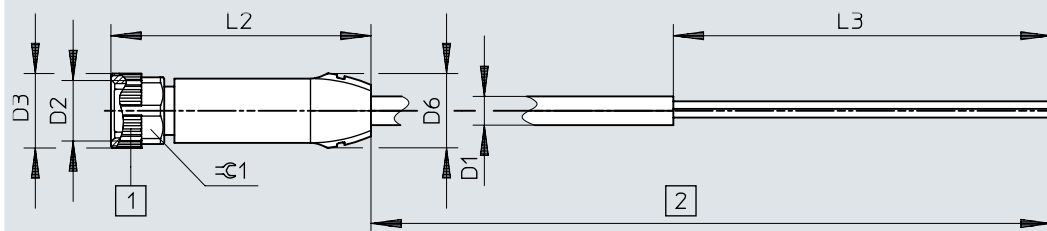


|                    | D1<br>∅ | D4    | D5<br>∅ | D7<br>∅ | H2   | L2 | L3   | $\approx C2$ |
|--------------------|---------|-------|---------|---------|------|----|------|--------------|
| NEBA-LE3-...-M8W3  | 3,8     | M8x1  | 10      | 10      | 24,7 | 50 | 27,7 | 9            |
| NEBA-LE4-...-M8W4  | 4,5     | M8x1  | 10      | 10      | 24,7 | 50 | 27,7 | 9            |
| NEBA-LE3-...-M12W3 | 3,8     | M12x1 | 15      | 13,7    | 32,6 | 50 | 36,4 | 13           |
| NEBA-LE4-...-M12W4 | 4,5     | M12x1 | 15      | 13,7    | 32,6 | 50 | 36,4 | 13           |
| NEBA-LE5-...-M12W5 | 4,5     | M12x1 | 15      | 13,7    | 32,6 | 50 | 36,4 | 13           |



## Dimensions

## Dimensions – Socket, straight – open end

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

[1] Socket

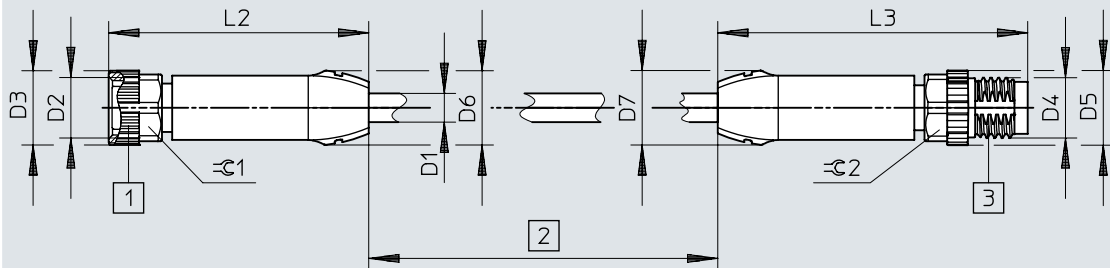
[2] Cable, length depending on the order

|                    | D1<br>∅ | D2    | D3<br>∅ | D6<br>∅ | L2   | L3 | ≈α1 |
|--------------------|---------|-------|---------|---------|------|----|-----|
| NEBA-M8G3-...-LE3  | 3,8     | M8x1  | 10      | 10      | 34,4 | 50 | 9   |
| NEBA-M8G4-...-LE4  | 4,5     | M8x1  | 10      | 10      | 34,4 | 50 | 9   |
| NEBA-M8CG3-...-LE3 | 3,8     | 8     | –       | 10      | 32,6 | 50 | –   |
| NEBA-M12G5-...-LE3 | 3,8     | M12x1 | 15      | 13,7    | 46,8 | 50 | 13  |
| NEBA-M12G5-...-LE4 | 4,5     | M12x1 | 15      | 13,7    | 46,8 | 50 | 13  |
| NEBA-M12G5-...-LE5 | 4,5     | M12x1 | 15      | 13,7    | 46,8 | 50 | 13  |

## Dimensions

### Dimensions – Straight socket – straight plug

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

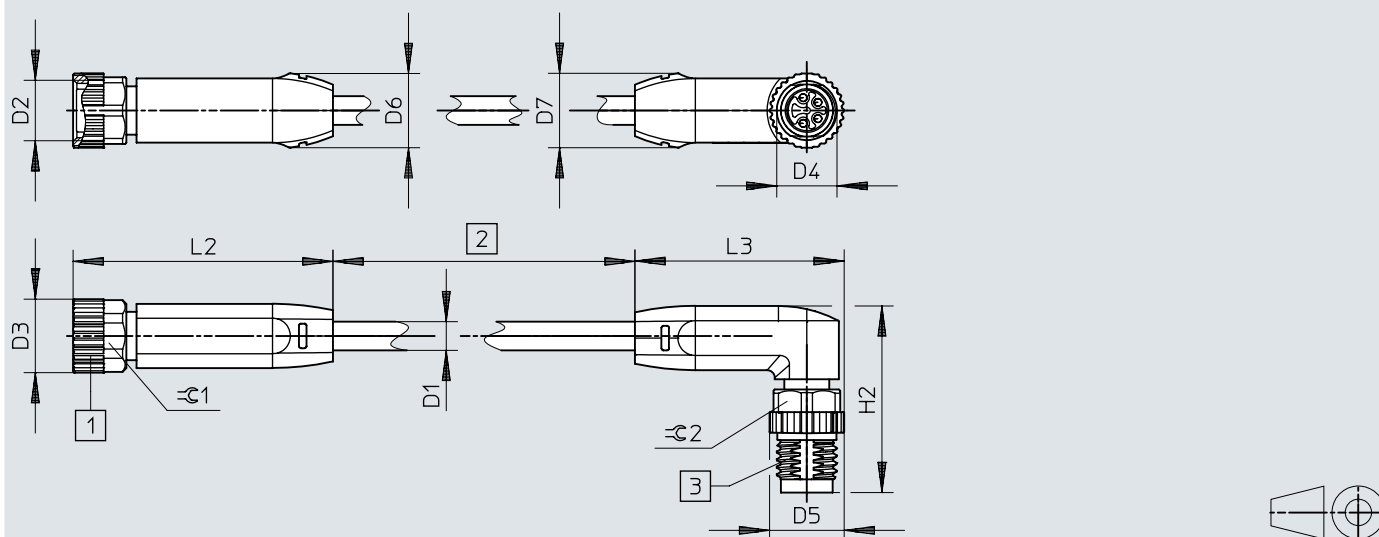


- [1] Socket
- [2] Cable, length depending on the order
- [3] Plug

|                      | D1<br>∅ | D2    | D3<br>∅ | D4    | D5<br>∅ | D6<br>∅ | D7<br>∅ | L2   | L3   | $\varnothing C1$ | $\varnothing C2$ |
|----------------------|---------|-------|---------|-------|---------|---------|---------|------|------|------------------|------------------|
| NEBA-M8G3-...-M8G3   | 3,8     | M8x1  | 10      | M8x1  | 10      | 10      | 10      | 34,4 | 41   | 9                | 9                |
| NEBA-M8G3-...-M12G3  | 3,8     | M8x1  | 10      | M12x1 | 15      | 10      | 13,7    | 34,4 | 53,4 | 9                | 13               |
| NEBA-M8G4-...-M8G4   | 4,5     | M8x1  | 10      | M8x1  | 10      | 10      | 10      | 34,4 | 41   | 9                | 9                |
| NEBA-M8G4-...-M12G4  | 4,5     | M8x1  | 10      | M12x1 | 15      | 10      | 13,7    | 34,4 | 53,4 | 9                | 13               |
| NEBA-M8CG3-...-M8G3  | 3,8     | 8     | –       | M8x1  | 10      | 10      | 10      | 32,6 | 41   | –                | 9                |
| NEBA-M8CG3-...-M12G3 | 3,8     | 8     | –       | M12x1 | 15      | 10      | 13,7    | 32,6 | 53,4 | –                | 13               |
| NEBA-M12G5-...-M8G3  | 3,8     | M12x1 | 15      | M8x1  | 10      | 13,7    | 10      | 46,8 | 41   | 13               | 9                |
| NEBA-M12G5-...-M12G3 | 3,8     | M12x1 | 15      | M12x1 | 15      | 13,7    | 13,7    | 46,8 | 53,4 | 13               | 13               |
| NEBA-M12G5-...-M8G4  | 4,5     | M12x1 | 15      | M8x1  | 10      | 13,7    | 10      | 46,8 | 41   | 13               | 9                |
| NEBA-M12G5-...-M12G4 | 4,5     | M12x1 | 15      | M12x1 | 15      | 13,7    | 13,7    | 46,8 | 53,4 | 13               | 13               |
| NEBA-M12G5-...-M12G5 | 4,5     | M12x1 | 15      | M12x1 | 15      | 13,7    | 13,7    | 46,8 | 53,4 | 13               | 13               |

## Dimensions

## Dimensions – Socket, straight – plug, angled

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

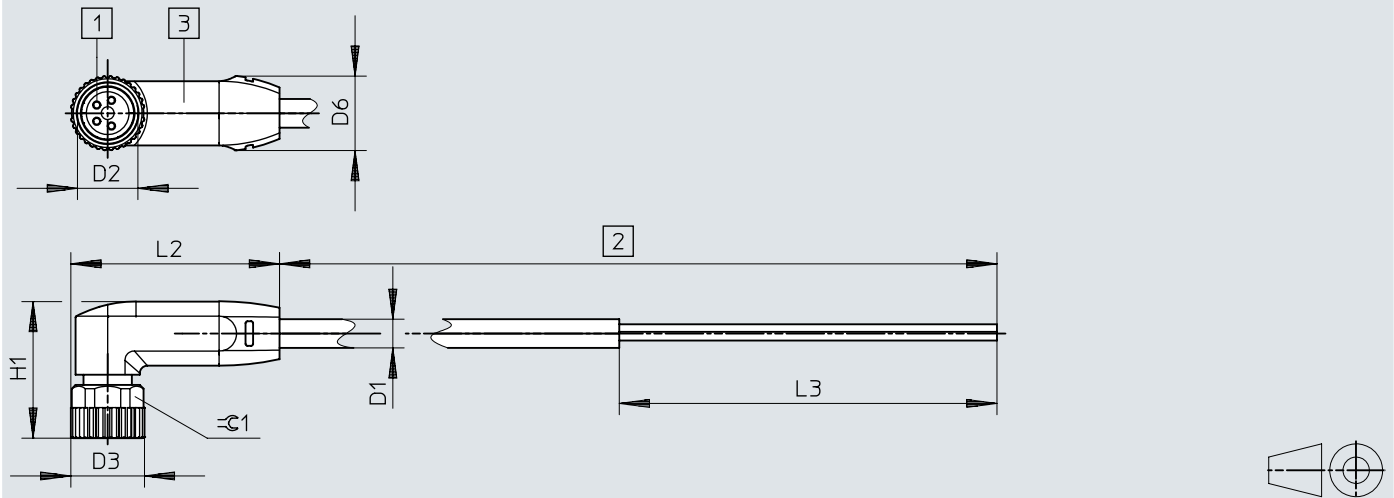
- [1] Socket  
 [2] Cable, length depending on the order  
 [3] Plug

|                      | D1<br>ø | D2    | D3<br>ø | D4    | D5<br>ø | D6<br>ø | D7<br>ø | H2   | L2   | L3   | ⌀C1 | ⌀C2 |
|----------------------|---------|-------|---------|-------|---------|---------|---------|------|------|------|-----|-----|
| NEBA-M8G3-...-M8W3   | 3,8     | M8x1  | 10      | M8x1  | 10      | 10      | 10      | 24,7 | 34,4 | 27,7 | 9   | 9   |
| NEBA-M8G3-...-M12W3  | 3,8     | M8x1  | 10      | M12x1 | 15      | 10      | 13,7    | 32,6 | 34,4 | 36,4 | 9   | 13  |
| NEBA-M8G4-...-M8W4   | 4,5     | M8x1  | 10      | M8x1  | 10      | 10      | 10      | 24,7 | 34,4 | 27,7 | 9   | 9   |
| NEBA-M8G4-...-M12W4  | 4,5     | M8x1  | 10      | M12x1 | 15      | 10      | 13,7    | 32,6 | 34,4 | 36,4 | 9   | 13  |
| NEBA-M8CG3-...-M8W3  | 3,8     | 8     | –       | M8x1  | 10      | 10      | 10      | 24,7 | 32,6 | 27,7 | –   | 9   |
| NEBA-M8CG3-...-M12W3 | 3,8     | 8     | –       | M12x1 | 15      | 10      | 13,7    | 32,6 | 32,6 | 36,4 | –   | 13  |
| NEBA-M12G5-...-M8W3  | 3,8     | M12x1 | 15      | M8x1  | 10      | 13,7    | 10      | 24,7 | 46,8 | 27,7 | 13  | 9   |
| NEBA-M12G5-...-M12W3 | 3,8     | M12x1 | 15      | M12x1 | 15      | 13,7    | 13,7    | 32,6 | 46,8 | 36,4 | 13  | 13  |
| NEBA-M12G5-...-M8W4  | 4,5     | M12x1 | 15      | M8x1  | 10      | 13,7    | 10      | 24,7 | 46,8 | 27,7 | 13  | 9   |
| NEBA-M12G5-...-M12W4 | 4,5     | M12x1 | 15      | M12x1 | 15      | 13,7    | 13,7    | 32,6 | 46,8 | 36,4 | 13  | 13  |
| NEBA-M12G5-...-M12W5 | 4,5     | M12x1 | 15      | M12x1 | 15      | 13,7    | 13,7    | 32,6 | 46,8 | 36,4 | 13  | 13  |

## Dimensions

### Dimensions – Socket, angled – open end

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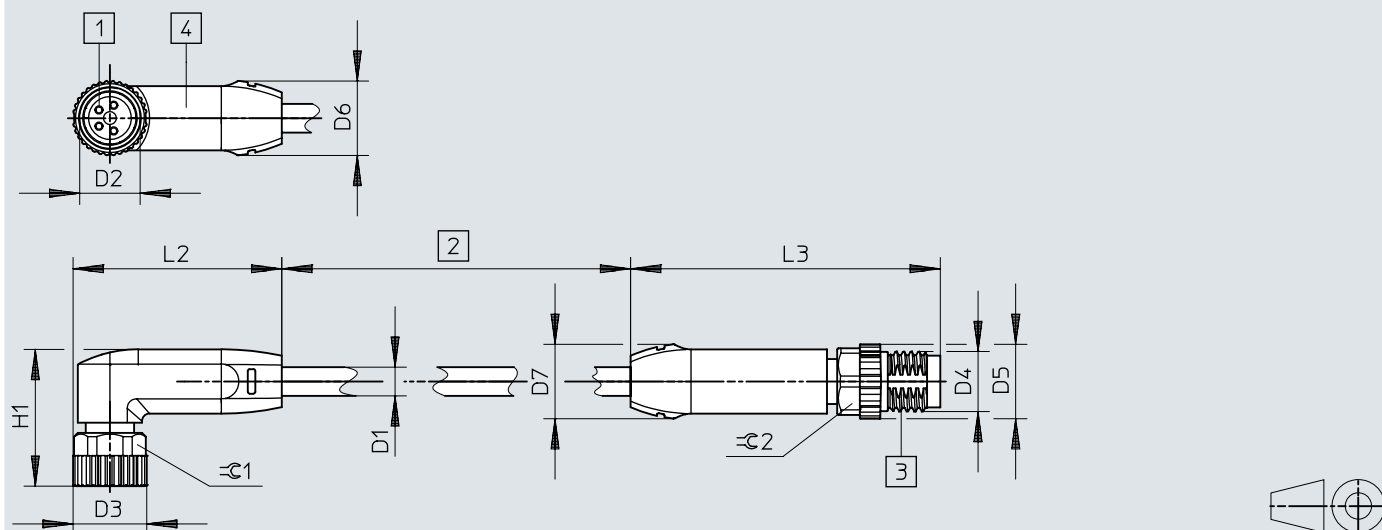


- [1] Socket
- [2] Cable, length depending on the order
- [3] Display field

|                   | D1<br>∅ | D2    | D3<br>∅ | D6<br>∅ | H1   | L2   | L3 | ⌀C1 |
|-------------------|---------|-------|---------|---------|------|------|----|-----|
| NEBA-M8W3...-LE3  | 3,8     | M8x1  | 10      | 10      | 18,1 | 27,6 | 50 | 9   |
| NEBA-M8W4...-LE4  | 4,5     | M8x1  | 10      | 10      | 18,1 | 27,6 | 50 | 9   |
| NEBA-M8CW3...-LE3 | 3,8     | 8     | –       | 10      | 17,3 | 27   | 50 | –   |
| NEBA-M12W5...-LE3 | 3,8     | M12x1 | 15      | 13,7    | 25,1 | 36,4 | 50 | 13  |
| NEBA-M12W5...-LE4 | 4,5     | M12x1 | 15      | 13,7    | 25,1 | 36,4 | 50 | 13  |
| NEBA-M12W5...-LE5 | 4,5     | M12x1 | 15      | 13,7    | 25,1 | 36,4 | 50 | 13  |

## Dimensions

## Dimensions – Socket, angled – plug, straight

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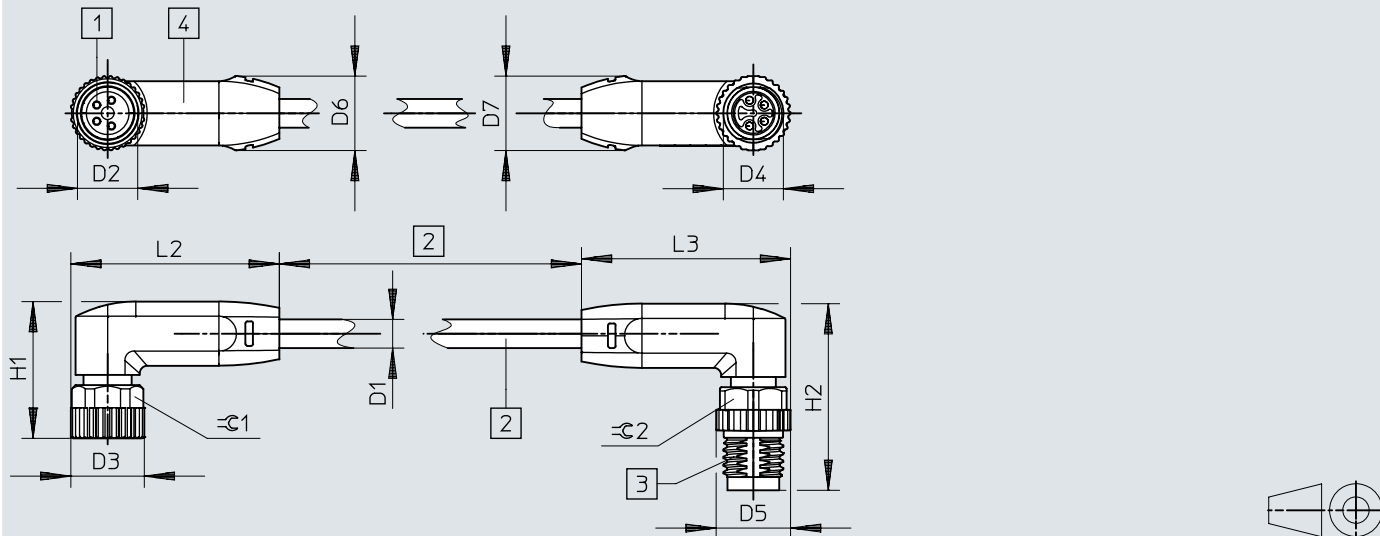
- [1] Socket  
 [2] Cable, length depending on the order  
 [3] Plug  
 [4] Display field

|                     | D1<br>∅ | D2    | D3<br>∅ | D4    | D5<br>∅ | D6<br>∅ | D7<br>∅ | H1   | L2   | L3   | ∅1 | ∅2 |
|---------------------|---------|-------|---------|-------|---------|---------|---------|------|------|------|----|----|
| NEBA-M8W3...-M8G3   | 3,8     | M8x1  | 10      | M8x1  | 10      | 10      | 10      | 18,1 | 27,6 | 41   | 9  | 9  |
| NEBA-M8W3...-M12G3  | 3,8     | M8x1  | 10      | M12x1 | 15      | 10      | 13,7    | 18,1 | 27,6 | 53,4 | 9  | 13 |
| NEBA-M8W4...-M8G4   | 4,5     | M8x1  | 10      | M8x1  | 10      | 10      | 10      | 18,1 | 27,6 | 41   | 9  | 9  |
| NEBA-M8W4...-M12G4  | 4,5     | M8x1  | 10      | M12x1 | 15      | 10      | 13,7    | 18,1 | 27,6 | 53,4 | 9  | 13 |
| NEBA-M8CW3...-M8G3  | 3,8     | 8     | –       | M8x1  | 10      | 10      | 10      | 17,3 | 27   | 41   | –  | 9  |
| NEBA-M8CW3...-M12G3 | 3,8     | 8     | –       | M12x1 | 15      | 10      | 13,7    | 17,3 | 27   | 53,4 | –  | 13 |
| NEBA-M12W5...-M8G3  | 3,8     | M12x1 | 15      | M8x1  | 10      | 13,7    | 10      | 25,1 | 36,4 | 41   | 13 | 9  |
| NEBA-M12W5...-M12G3 | 3,8     | M12x1 | 15      | M12x1 | 15      | 13,7    | 13,7    | 25,1 | 36,4 | 53,4 | 13 | 13 |
| NEBA-M12W5...-M8G4  | 4,5     | M12x1 | 15      | M8x1  | 10      | 13,7    | 10      | 25,1 | 36,4 | 41   | 13 | 9  |
| NEBA-M12W5...-M12G4 | 4,5     | M12x1 | 15      | M12x1 | 15      | 13,7    | 13,7    | 25,1 | 36,4 | 53,4 | 13 | 13 |
| NEBA-M12W5...-M12G5 | 4,5     | M12x1 | 15      | M12x1 | 15      | 13,7    | 13,7    | 25,1 | 36,4 | 53,4 | 13 | 13 |

## Dimensions

### Dimensions – Angled socket – angled plug

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- [1] Socket
- [2] Cable, length depending on the order
- [3] Plug
- [4] Display field

|                     | D1<br>ø | D2    | D3<br>ø | D4    | D5<br>ø | D6<br>ø | D7<br>ø | H1   | H2   | L2   | L3   | ≙C1 | ≙C2 |
|---------------------|---------|-------|---------|-------|---------|---------|---------|------|------|------|------|-----|-----|
| NEBA-M8W3...-M8W3   | 3,8     | M8x1  | 10      | M8x1  | 10      | 10      | 10      | 18,1 | 24,7 | 27,6 | 27,7 | 9   | 9   |
| NEBA-M8W3...-M12W3  | 3,8     | M8x1  | 10      | M12x1 | 15      | 10      | 13,7    | 18,1 | 32,6 | 27,6 | 36,4 | 9   | 13  |
| NEBA-M8W4...-M8W4   | 4,5     | M8x1  | 10      | M8x1  | 10      | 10      | 10      | 18,1 | 24,7 | 27,6 | 27,7 | 9   | 9   |
| NEBA-M8W4...-M12W4  | 4,5     | M8x1  | 10      | M12x1 | 15      | 10      | 13,7    | 18,1 | 32,6 | 27,6 | 36,4 | 9   | 13  |
| NEBA-M8CW3...-M8W3  | 3,8     | 8     | –       | M8x1  | 10      | 10      | 10      | 17,3 | 24,7 | 27   | 27,7 | –   | 9   |
| NEBA-M8CW3...-M12W3 | 3,8     | 8     | –       | M12x1 | 15      | 10      | 13,7    | 17,3 | 32,6 | 27   | 36,4 | –   | 13  |
| NEBA-M12W5...-M8W3  | 3,8     | M12x1 | 15      | M8x1  | 10      | 13,7    | 10      | 25,1 | 24,7 | 36,4 | 27,7 | 13  | 9   |
| NEBA-M12W5...-M12W3 | 3,8     | M12x1 | 15      | M12x1 | 15      | 13,7    | 13,7    | 25,1 | 32,6 | 36,4 | 36,4 | 13  | 13  |
| NEBA-M12W5...-M8W4  | 4,5     | M12x1 | 15      | M8x1  | 10      | 13,7    | 10      | 25,1 | 24,7 | 36,4 | 27,7 | 13  | 9   |
| NEBA-M12W5...-M12W4 | 4,5     | M12x1 | 15      | M12x1 | 15      | 13,7    | 13,7    | 25,1 | 32,6 | 36,4 | 36,4 | 13  | 13  |
| NEBA-M12W5...-M12W5 | 4,5     | M12x1 | 15      | M12x1 | 15      | 13,7    | 13,7    | 25,1 | 32,6 | 36,4 | 36,4 | 13  | 13  |

## Ordering data

| Ordering data – Electrical connection 1 open end     |                                       |  |              |                |          |                        |
|--|---------------------------------------|--|--------------|----------------|----------|------------------------|
| Electrical connection 1, number of connections/cores | Electrical connection 2, cable outlet | Electrical connection 2, number of connections/cores | Cable length | Product weight | Part no. | Type                   |
| 3  | Straight                              | 3  | 2.5 m        | 50 g           | 8078270  | NEBA-LE3-U-2.5-N-M8G3  |
|  |                                       |  | 5 m          | 96 g           | 8078271  | NEBA-LE3-U-5-N-M8G3    |
| 4  |                                       | 4  | 2.5 m        | 67 g           | 8078272  | NEBA-LE4-U-2.5-N-M8G4  |
|  |                                       |  | 5 m          | 129 g          | 8078273  | NEBA-LE4-U-5-N-M8G4    |
| 5  |                                       | 5  | 2.5 m        | 77 g           | 8078268  | NEBA-LE5-U-2.5-N-M12G5 |
|  |                                       |  | 5 m          | 144 g          | 8078269  | NEBA-LE5-U-5-N-M12G5   |

| Ordering data – Electrical connection 1 M8 socket, 3-pin, with switching status indication |   |   |              |                |          |                        |
|--|---|---|--------------|----------------|----------|------------------------|
| Electrical connection 1, cable outlet  | Electrical connection 2, connector system | Electrical connection 1, display  | Cable length | Product weight | Part no. | Type                   |
| Angled   | Open end                                  | Status indicator LED green, Switching status indication, yellow LED for PNP N/O contact | 2.5 m        | 50 g           | 8078260  | NEBA-M8W3P-U-2.5-N-LE3 |
|  |   |   | 5 m          | 96 g           | 8078261  | NEBA-M8W3P-U-5-N-LE3   |
|  |   | Status indicator LED green, Switching status indication, yellow LED for NPN N/O contact | 2.5 m        | 50 g           | 8078262  | NEBA-M8W3N-U-2.5-N-LE3 |
|  |   |   | 5 m          | 96 g           | 8078263  | NEBA-M8W3N-U-5-N-LE3   |

| Ordering data – Electrical connection 1 M8 socket, 3-pin, without switching status indication |   |                                       |                                 |                |           |                         |                        |                        |
|---|---|---------------------------------------|---------------------------------|----------------|-----------|-------------------------|------------------------|------------------------|
| Electrical connection 1, cable outlet   | Electrical connection 2, connector system | Electrical connection 2, cable outlet | Cable length                    | Product weight | Part no.  | Type                    |                        |                        |
| Straight  | M12x1, A-coded to EN 61076-2-101          | Straight                              | 0.5 m                           | 23 g           | 8078278   | NEBA-M8G3-U-0.5-N-M12G3 |                        |                        |
|   |   |                                       | 1 m                             | 33 g           | 8078279   | NEBA-M8G3-U-1-N-M12G3   |                        |                        |
|   |   |                                       | 2.5 m                           | 60 g           | 8078280   | NEBA-M8G3-U-2.5-N-M12G3 |                        |                        |
|   |   |                                       | 5 m                             | 107 g          | 8078281   | NEBA-M8G3-U-5-N-M12G3   |                        |                        |
|   |   |                                       | M8x1, A-coded to EN 61076-2-104 | Straight       | 0.5 m     | 17 g                    | ★ 8078282              | NEBA-M8G3-U-0.5-N-M8G3 |
|   |   |                                       |                                 |                | 1 m       | 26 g                    | ★ 8078283              | NEBA-M8G3-U-1-N-M8G3   |
|   | 1.5 m                                     | 35 g                                  |                                 |                | 8078284   | NEBA-M8G3-U-1.5-N-M8G3  |                        |                        |
|   | 2 m                                       | 44 g                                  |                                 |                | 8078285   | NEBA-M8G3-U-2-N-M8G3    |                        |                        |
|   | 2.5 m                                     | 54 g                                  |                                 |                | ★ 8078286 | NEBA-M8G3-U-2.5-N-M8G3  |                        |                        |
|   | 5 m                                       | 100 g                                 |                                 |                | ★ 8078287 | NEBA-M8G3-U-5-N-M8G3    |                        |                        |
|   | Open end                                  | Straight                              | 10 m                            | 192 g          | 8078288   | NEBA-M8G3-U-10-N-M8G3   |                        |                        |
|   |   |                                       | 1 m                             | 22 g           | 8078222   | NEBA-M8G3-U-1-N-LE3     |                        |                        |
|   |   |                                       | 2.5 m                           | 50 g           | ★ 8078223 | NEBA-M8G3-U-2.5-N-LE3   |                        |                        |
|   |   |                                       | 5 m                             | 96 g           | ★ 8078224 | NEBA-M8G3-U-5-N-LE3     |                        |                        |
|   |   |                                       | 10 m                            | 188 g          | ★ 8078225 | NEBA-M8G3-U-10-N-LE3    |                        |                        |
|   |   |                                       | 20 m                            | 373 g          | 8078226   | NEBA-M8G3-U-20-N-LE3    |                        |                        |
|   | Angled                                    | M8x1, A-coded to EN 61076-2-104       | Straight                        | 0.5 m          | 17 g      | 8078298                 | NEBA-M8W3-U-0.5-N-M8G3 |                        |
|   |   |                                       |                                 | 1 m            | 26 g      | 8078299                 | NEBA-M8W3-U-1-N-M8G3   |                        |
| 2.5 m   |   |                                       |                                 | 54 g           | 8078300   | NEBA-M8W3-U-2.5-N-M8G3  |                        |                        |
| 5 m   |   |                                       |                                 | 100 g          | 8078301   | NEBA-M8W3-U-5-N-M8G3    |                        |                        |
| Open end  |   | Straight                              | 2.5 m                           | 50 g           | ★ 8078230 | NEBA-M8W3-U-2.5-N-LE3   |                        |                        |
|   |   |                                       | 5 m                             | 96 g           | ★ 8078231 | NEBA-M8W3-U-5-N-LE3     |                        |                        |
|   |   |                                       | 10 m                            | 189 g          | ★ 8078232 | NEBA-M8W3-U-10-N-LE3    |                        |                        |

| Ordering data – Electrical connection 1 M8 socket, 3-pin, with snap-locking |   |              |                |          |                        |  |
|---|---|--------------|----------------|----------|------------------------|--|
| Electrical connection 1, cable outlet                                       | Electrical connection 2, connector system | Cable length | Product weight | Part no. | Type                   |  |
| Straight  | Open end                                  | 2.5 m        | 49 g           | 8078264  | NEBA-M8CG3-U-2.5-N-LE3 |  |
|   |   | 5 m          | 95 g           | 8078265  | NEBA-M8CG3-U-5-N-LE3   |  |
| Angled  |   | 2.5 m        | 49 g           | 8078266  | NEBA-M8CW3-U-2.5-N-LE3 |  |
|   |   | 5 m          | 95 g           | 8078267  | NEBA-M8CW3-U-5-N-LE3   |  |

## Ordering data

| Ordering data – Electrical connection 1 M8 socket, 4-pin |   |                                       |              |                |                      |                         |
|--|---|---------------------------------------|--------------|----------------|----------------------|-------------------------|
| Electrical connection 1, cable outlet                    | Electrical connection 2, connector system | Electrical connection 2, cable outlet | Cable length | Product weight | Part no.             | Type                    |
| Straight   | M12x1, A-coded to EN 61076-2-101          | Straight                              | 0.5 m        | 27 g           | 8078289              | NEBA-M8G4-U-0.5-N-M12G4 |
|  |   |                                       | 1 m          | 39 g           | 8078290              | NEBA-M8G4-U-1-N-M12G4   |
|  |   |                                       | 2.5 m        | 77 g           | 8078291              | NEBA-M8G4-U-2.5-N-M12G4 |
|  |   |                                       | 5 m          | 139 g          | 8078292              | NEBA-M8G4-U-5-N-M12G4   |
|  | M8x1, A-coded to EN 61076-2-104           | Straight                              | 0.5 m        | 20 g           | 8078293              | NEBA-M8G4-U-0.5-N-M8G4  |
|  |   |                                       | 1 m          | 33 g           | 8078294              | NEBA-M8G4-U-1-N-M8G4    |
|  |   |                                       | 2.5 m        | 70 g           | 8078295              | NEBA-M8G4-U-2.5-N-M8G4  |
|  |   |                                       | 5 m          | 133 g          | 8078296              | NEBA-M8G4-U-5-N-M8G4    |
|  |   |                                       | Open end     | Straight       | 2.5 m                | 66 g                    |
|  | 5 m                                       | 129 g                                 |              |                | 8078228              | NEBA-M8G4-U-5-N-LE4     |
|  | 10 m                                      | 254 g                                 |              |                | 8078229              | NEBA-M8G4-U-10-N-LE4    |
|  | Angled                                    | Straight                              |              |                | 2.5 m                | 66 g                    |
|  |   |                                       | 5 m          | 129 g          | 8078234              | NEBA-M8W4-U-5-N-LE4     |
| 10 m   |   |                                       | 254 g        | 8078235        | NEBA-M8W4-U-10-N-LE4 |                         |

| Ordering data – Electrical connection 1 M12 socket, 5-pin, with switching status indication |   |   |              |                |          |                         |
|---|---|---|--------------|----------------|----------|-------------------------|
| Electrical connection 1, cable outlet   | Electrical connection 2, connector system | Electrical connection 1, display  | Cable length | Product weight | Part no. | Type                    |
| Angled  | Open end                                  | Status indicator LED green, Switching status indication, yellow LED for PNP N/O contact | 2.5 m        | 56 g           | 8078256  | NEBA-M12W5P-U-2.5-N-LE3 |
|   |   |   | 5 m          | 103 g          | 8078257  | NEBA-M12W5P-U-5-N-LE3   |
|   |   | Status indicator LED green, Switching status indication, yellow LED for NPN N/O contact | 2.5 m        | 56 g           | 8078258  | NEBA-M12W5N-U-2.5-N-LE3 |
|   |   |   | 5 m          | 103 g          | 8078259  | NEBA-M12W5N-U-5-N-LE3   |

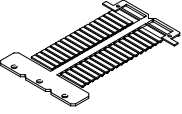
| Ordering data – Electrical connection 1 M12 socket, 5-pin, without switching status indication |   |                                       |  |              |                |          |                          |                        |       |         |                        |
|--|---|---------------------------------------|--|--------------|----------------|----------|--------------------------|------------------------|-------|---------|------------------------|
| Electrical connection 1, cable outlet  | Electrical connection 2, connector system | Electrical connection 2, cable outlet | Electrical connection 2, number of connections/cores | Cable length | Product weight | Part no. | Type                     |                        |       |         |                        |
| Straight   | M12x1, A-coded to EN 61076-2-101          | Straight                              | 5  | 0.5 m        | 34 g           | 8078274  | NEBA-M12G5-U-0.5-N-M12G5 |                        |       |         |                        |
|  |   |                                       |  | 1 m          | 47 g           | 8078275  | NEBA-M12G5-U-1-N-M12G5   |                        |       |         |                        |
|  |   |                                       |  | 2.5 m        | 87 g           | 8078276  | NEBA-M12G5-U-2.5-N-M12G5 |                        |       |         |                        |
|  |   |                                       |  | 5 m          | 153 g          | 8078277  | NEBA-M12G5-U-5-N-M12G5   |                        |       |         |                        |
|  | Open end                                  |                                       |  | 3            | 2.5 m          | 55 g     | ★ 8078236                | NEBA-M12G5-U-2.5-N-LE3 |       |         |                        |
|  |   |                                       |  |              | 5 m            | 102 g    | ★ 8078237                | NEBA-M12G5-U-5-N-LE3   |       |         |                        |
|  |   |                                       |  |              | 10 m           | 194 g    | 8078238                  | NEBA-M12G5-U-10-N-LE3  |       |         |                        |
|  |   |                                       |  | 4            | 2.5 m          | 72 g     | ★ 8078239                | NEBA-M12G5-U-2.5-N-LE4 |       |         |                        |
|  |   |                                       |  |              | 5 m            | 134 g    | ★ 8078240                | NEBA-M12G5-U-5-N-LE4   |       |         |                        |
|  |   |                                       |  |              | 10 m           | 259 g    | 8078241                  | NEBA-M12G5-U-10-N-LE4  |       |         |                        |
|  |   |                                       |  | 5            | 2.5 m          | 85 g     | 8078242                  | NEBA-M12G5-U-2.5-N-LE5 |       |         |                        |
|  |   |                                       |  |              | 5 m            | 142 g    | 8078243                  | NEBA-M12G5-U-5-N-LE5   |       |         |                        |
|  |   |                                       |  |              | 10 m           | 274 g    | 8078244                  | NEBA-M12G5-U-10-N-LE5  |       |         |                        |
|  |   |                                       |  | Angled       |                |          | 3                        | 2.5 m                  | 56 g  | 8078245 | NEBA-M12W5-U-2.5-N-LE3 |
|  |   |                                       |  |              |                |          |                          | 5 m                    | 103 g | 8078246 | NEBA-M12W5-U-5-N-LE3   |
|  |   |                                       |  |              |                |          |                          | 10 m                   | 195 g | 8078247 | NEBA-M12W5-U-10-N-LE3  |
|  |   |                                       |  |              |                |          | 4                        | 2.5 m                  | 73 g  | 8078248 | NEBA-M12W5-U-2.5-N-LE4 |
|  |   |                                       |  |              |                |          |                          | 5 m                    | 135 g | 8078249 | NEBA-M12W5-U-5-N-LE4   |
|  |   |                                       |  |              |                |          |                          | 10 m                   | 260 g | 8078250 | NEBA-M12W5-U-10-N-LE4  |
|  |   |                                       |  | 5            | 2.5 m          | 76 g     | 8078251                  | NEBA-M12W5-U-2.5-N-LE5 |       |         |                        |
| 5 m  | 143 g                                     | 8078252                               | NEBA-M12W5-U-5-N-LE5                                 |              |                |          |                          |                        |       |         |                        |
| 10 m   | 275 g                                     | 8078253                               | NEBA-M12W5-U-10-N-LE5                                |              |                |          |                          |                        |       |         |                        |





## Ordering data

| Ordering data – Modular product system   |   |              |   |                |              |
|--|---|--------------|---|----------------|--------------|
| Electrical connection 1, connector system  | Cable characteristic  | Cable length | Electrical connection 2, connector system                                   | Part no.       | Type         |
| M12x1, A-coded to EN 61076-2-101, M8x1, A-coded, to EN 61076-2-104, Open end, Diameter 8 mm, A-coded to EN 61076-2-104 | Suitable for energy chains/robot applications, Abrasion-resistant, Low adhesion, Flame-retardant and self-extinguishing | 0.3 ... 30 m | M12x1, A-coded to EN 61076-2-101, M8x1, A-coded to EN 61076-2-104, Open end | <b>8078221</b> | <b>NEBA-</b> |

## Accessories

| Inscription labels   |         |          |            |
|--|---------|----------|------------|
|  | Size    | Part no. | Type       |
|  | 4x23 mm | 541598   | ASLR-L-423 |

| Inscription label holder   |                  |                          |              |                |          |           |
|--|------------------|--------------------------|--------------|----------------|----------|-----------|
|  | Type of mounting | Function                 | Size of pack | Cable diameter | Part no. | Type      |
|  | Clip             | Inscription label holder | 100          | 3.3 ... 4.8 mm | 8078307  | NEAU-LH-3 |
|  |                  |                          |              | 4.2 ... 5.6 mm | 8143238  | NEAU-LH-4 |

| Safety clip  |             |      |          |             |
|--|-------------|------|----------|-------------|
|  | Function    | Size | Part no. | Type        |
|  | Safety clip | M12  | 548068   | NEAU-M12-GD |
|  |             | M8   | 548067   | NEAU-M8-GD  |