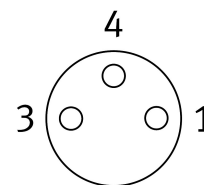


# Connecting cable NEBA-M8W3-U-2.5-N-LE3

Part number: 8078230

**FESTO**



## Data sheet

| Feature  | Value  |
|--|--|
| Conforms to standard                           | EN 61076-2-104<br>EN 61984   |
| Certification                                  | c UL us - Listed (OL)  |
| Intended use                                   | The connecting cable connects field devices (sensors, actuators) with controllers.   |
| Certificate issuing authority                  | UL E253748   |
| Cable designation                              | Without label holder   |
| Contact durability                             | 100  |
| Product weight                                 | 50 g   |
| Application note                               | Meets the requirements of IEC 61010-1 and 61010-2-202, in particular for electrically operated valves from Festo.<br>Only energy-limited circuits with a maximum current of 4 A at a max. open circuit voltage of 30 VDC are permitted to be used for supplying electrically actuated valves from Festo. |
| Electrical connection 1, function              | Field device end   |
| Electrical connection 1, design                | Round  |
| Electrical connection 1, connection type       | Socket   |
| Electrical connection 1, cable outlet          | Angled   |
| Electrical connection 1, connection technology | M8x1 A-coded as per EN 61076-2-104   |
| Electrical connection 1, number of pins/wires  | 3  |
| Electrical connection 1, occupied pins/wires   | 3  |
| Electrical connection 1, type of mounting      | Screw-type lock with hexagon AF 9 and longitudinal knurl<br>rotatable<br>Compatible with rotatable/non-rotatable screw lock  |
| Electrical connection 1, terminal allocation   | Pin 1 = BN<br>Pin 3 = BU<br>Pin 4 = BK   |
| Electrical connection 1, display               | without  |
| Electrical connection 2, function              | Control side   |
| Electrical connection 2, connection type       | Cable  |
| Electrical connection 2, connection technology | Open end   |
| Electrical connection 2, number of pins/wires  | 3  |

| Feature  | Value  |
|--|--|
| Electrical connection 2, occupied pins/wires                 | 3  |
| Electrical connection 2, terminal allocation                 | Pin 1 = BN<br>Pin 3 = BU<br>Pin 4 = BK   |
| Electrical connection 2, display                             | without  |
| DC operating voltage range                                   | 0 V...60 V   |
| Note on operating voltage range DC                           | 0 - 30 V for UL applications<br>NEC/CEC CLASS 2  |
| Operating voltage range AC                                   | 0 V...48 V   |
| Note on operating voltage range AC                           | 0 - 30 V for UL applications<br>NEC/CEC CLASS 2  |
| Current rating at 40° C                                      | 4 A  |
| Note on acceptable current load at 40°C                      | Observe derating   |
| Surge resistance   | 1.5 kV   |
| Cable length   | 2.5 m  |
| Cable characteristic   | Suitable for energy chains/robot applications<br>abrasion-resistant<br>low adhesion<br>Flame-retardant and self-extinguishing  |
| Connector cable test conditions                              | Test conditions on request<br>Torsion resistance: > 300,000 cycles, ±270°/0.1 m<br>Flexural strength: > 50000 cycles, bending radius 5 mm<br>Energy chain > 5 million cycles, bending radius 28 mm |
| Note on connector cable test conditions                      | tested at 23 °C  |
| Bending radius, fixed cable installation                     | 12 mm  |
| Bending radius, flexible cable installation                  | 39 mm  |
| Cable diameter   | 3.8 mm   |
| Cable design   | 3 x 0.25 mm <sup>2</sup>   |
| Nominal conductor cross section                              | 0.25 mm <sup>2</sup>   |
| Wire ends  | Stripped<br>Cut off bluntly  |
| Degree of protection   | IP65<br>IP68<br>IP69K  |
| Note on degree of protection                                 | In mounted state   |
| Special features   | UV-resistant<br>hydrolysis resistant<br>Resistant to cooling lubricants<br>Resistant to microbes<br>Oil-resistant<br>Ozone-resistant   |
| Use in exterior area   | Locations of use with direct outdoor climatic exposure Class D1 based on IEC 60654-1   |
| Ambient temperature  | -40 °C...85 °C   |
| Note on ambient temperature                                  | -40 - 50 °C for UL applications  |
| Ambient temperature with flexible cable installation         | -20 °C...85 °C   |
| Note on ambient temperature with flexible cable installation | -20 - 50 °C for UL applications  |
| Storage temperature  | -25 °C...55 °C   |
| Note on storage temperature                                  | short-term for transport in packaging -40 ... 85 °C  |
| Relative air humidity  | Max. 93% at 40 °C  |
| Nominal altitude of use above sea level                      | <= 2000 m NHN  |
| Overvoltage category   | II   |
| CE marking (see declaration of conformity)                   | As per EU RoHS directive   |
| UKCA marking (see declaration of conformity)                 | To UK RoHS instructions  |
| LABS (PWIS) conformity                                       | VDMA24364-B2-L   |

| Feature  | Value   |
|--|---|
| Suitability for the production of Li-ion batteries | Product corresponds to Festo's internal product definition for use in battery production:Metals with more than 1% by mass of copper, zinc or nickel are excluded from use.The exceptions are nickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils |
| Cleanroom class                                    | Class 4 according to ISO 14644-1  |
| Note on materials                                  | CFC-free<br>RoHS-compliant<br>Cadmium-free<br>Halogen-free<br>Free of phosphoric acid ester   |
| Contamination level                                | 3   |
| Corrosion resistance class (CRC)                   | 1 - Low corrosion stress  |
| Material of cable sheath                           | TPE-U(PUR)  |
| Color cable sheath                                 | Gray  |
| Housing material                                   | TPE-U(PUR)  |
| Housing colour                                     | Black   |
| Material of screw-type lock                        | Die-cast zinc, nickel-plated  |
| Seals material                                     | FPM   |
| Material of pin contacts                           | Copper alloy, gold-plated   |
| Insulating sheath material                         | PP  |