

# Connecting cable NEBA-M8G4-U-2.5-N-LE4

Part number: 8078227

FESTO



 General operating condition

## 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.   |
| Explosion prevention and protection                   | Observe the information on the certificate<br>Zone 2 (ATEX)<br>Zone 22 (ATEX)  |
| Certificate issuing authority                         | UL E253748   |
| Cable designation                                     | Without label holder   |
| Contact durability                                    | 100  |
| Product weight  | 66 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 side  |
| Electrical connection 1, design                       | Round  |
| Electrical connection 1, connection type              | Socket   |
| Electrical connection 1, cable outlet                 | Straight   |
| Electrical connection 1, connection technology        | M8x1 A-coded as per EN 61076-2-104   |
| Electrical connection 1, number of pins/wires         | 4  |
| Electrical connection 1, occupied pins/wires          | 4  |
| Electrical connection 1, type of mounting             | Screw-type lock with hexagon AF 9 and longitudinal knurl<br>Rotatable  |
| Electrical connection 1, type of mounting             | Compatible with rotatable/non-rotatable screw-type lock  |
| Electrical connection for input 1, connection pattern | 00991872   |
| Electrical connection 1, terminal allocation          | Pin 1 = BN<br>Pin 2 = WH<br>Pin 3 = BU<br>Pin 4 = BK   |
| Electrical connection 1, display                      | None   |
| 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         | 4  |
| Electrical connection 2, occupied pins/wires          | 4  |

| Feature  | Value   |
|--|---|
| Electrical connection 2, terminal allocation                 | Pin 1 = BN<br>Pin 2 = WH<br>Pin 3 = BU<br>Pin 4 = BK  |
| Electrical connection 2, display                             | None  |
| 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                     | ≥14 mm  |
| Bending radius, flexible cable installation                  | ≥46 mm  |
| Cable diameter   | 4.5 mm  |
| Cable design   | 4 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>Cooling lubricant-proof<br>Microbe-resistant<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  |
| Suitability for the production of Li-ion batteries           | Suitable for battery production with reduced Cu/Zn/Ni values (F1a)  |
| Cleanroom suitability, measured according to ISO 14644-14    | Class 4 according to ISO 14644-1  |

| <b>Feature</b>                   | <b>Value</b>   |
|----------------------------------|--|
| Note on materials                | CFC-free<br>RoHS compliant<br>Cadmium-free<br>Halogen-free<br>Contains no phosphoric acid esters |
| Contamination level              | 3  |
| Note on the contamination level  | In mounted state   |
| 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         | Gold-plated copper alloy   |
| Insulating sheath material       | PP   |