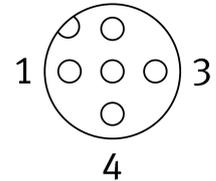


# Connecting cable NEBA-M12W5P-U-2.5-N-LE3

Part number: 8078256

FESTO



## Data sheet

| Feature  | Value  |
|--|--|
| Conforms to standard                                 | EN 61076-2-101<br>EN 61984   |
| Approval   | 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 inscription label holder   |
| Frequency of connection                              | 100  |
| Product weight                                       | 56 g   |
| Instructions on use                                  | 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 V DC are permissible 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                | Angled   |
| Electrical connection 1, connector system            | M12x1, A-coded to EN 61076-2-101   |
| Electrical connection 1, number of connections/cores | 5  |
| Electrical connection 1, used connections/cores      | 3  |
| Electrical connection 1, type of mounting            | Screw-type lock with 13 mm hexagon and longitudinal knurl<br>Rotatable   |
| Electrical connection 1, compatible type of mounting | Compatible with rotatable/non-rotatable screw-type lock  |
| Electrical connection 1, terminal allocation         | Pin 1 = BN<br>Pin 3 = BU<br>Pin 4 = BK   |
| Electrical connection 1, display                     | Status indicator LED green<br>Switching status indication, yellow LED for PNP N/O contact  |
| Electrical connection 2, function                    | Controller side  |
| Electrical connection 2, connection type             | Cable  |
| Electrical connection 2, connector system            | Open end   |

| Feature  | Value  |
|--|--|
| Electrical connection 2, number of connections/cores             | 3  |
| Electrical connection 2, used connections/cores                  | 3  |
| Electrical connection 2, terminal allocation                     | Pin 1 = BN<br>Pin 3 = BU<br>Pin 4 = BK   |
| Electrical connection 2, display                                 | None   |
| Operational voltage range DC                                     | 10 V...30 V  |
| Current rating at 40° C  | 4 A  |
| Note on permissible current load at 40°C                         | Observe derating   |
| Immunity to surge  | 0.8 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  |
| Test conditions cable  | Test conditions on request<br>Torsional strength: > 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   |
| Notes on test conditions cable                                   | Tested at 23 °C  |
| Bending radius, fixed cable                                      | 12 mm  |
| Bending radius, moving cable                                     | 39 mm  |
| Cable diameter   | 3.8 mm   |
| Cable structure  | 3 x 0.25 mm <sup>2</sup>   |
| Nominal cross section conductor                                  | 0.25 mm <sup>2</sup>   |
| Wire ends  | Sheath removed<br>Cut off bluntly  |
| Degree of protection   | IP65<br>IP68<br>IP69K  |
| Note on degree of protection                                     | In assembled state   |
| Special characteristics  | UV resistant<br>Hydrolysis-resistant<br>Resistant to cooling lubricants<br>Resistant to microbes<br>Oil resistant<br>Ozone-resistant   |
| Outdoor applications   | Application areas with direct exposure to outdoor climatic influences<br>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 moving cable                            | -20 °C...85 °C   |
| Note on the ambient temperature with flexible cable installation | -20 - 50 °C for UL applications  |
| Storage temperature  | -25 °C...55 °C   |
| Note on storage temperature                                      | Temporarily during transport in packaging -40 ... 85 °C  |
| Relative air humidity  | Max. 93% at 40 °C  |
| Nominal altitude of use  | ≤ 2000 m NHN   |
| Overvoltage category   | II   |
| CE mark (see declaration of conformity)                          | In accordance with 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               | Product corresponds to the internal product definition from Festo 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, printed circuit boards, cables, electrical plug connectors and coils |
| Cleanroom class  | 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>Free of halogen<br>Free of phosphoric acid ester |
| Pollution degree                | 3  |
| Note on the contamination level | In mounted state   |
| Corrosion resistance class CRC  | 1 - Low corrosion stress   |
| Material cable sheath           | TPE-U(PUR)   |
| Cable sheath colour             | Grey   |
| Material housing                | TPE-U(PUR)   |
| Housing colour                  | Black  |
| Material screw-type lock        | Die-cast zinc, nickel-plated   |
| Material seals                  | FPM  |
| Material electrical contact     | Gold-plated copper alloy   |
| Material insulating sheath      | PP   |