Connecting cable
NEBA-M8W3-U-2.5-N-M8G3

Part number: 8078300

General operating condition

Data sheet

Feature	Value
Conforms to standard	EN 61076-2-104 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	54 g
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.
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	M8x1, A-coded, to EN 61076-2-104
Electrical connection 1, number of connections/cores	3
Electrical connection 1, used connections/cores	3
Electrical connection 1, type of mounting	Screw-type lock with hexagon A/F 9 mm and longitudinal knurl Rotatable
Electrical connection 1, compatible type of mounting	Compatible with rotatable/non-rotatable screw-type lock
Electrical connection 1, connection pattern	00991871
Electrical connection 1, terminal allocation	Pin 1 = BN Pin 3 = BU Pin 4 = BK
Electrical connection 1, display	None
Electrical connection 2, function	Controller side
Electrical connection 2, design	Round
Electrical connection 2, connection type	Plugs
Electrical connection 2, cable outlet	Straight
Electrical connection 2, connector system	M8x1, A-coded to EN 61076-2-104
Electrical connection 2, number of connections/cores	3
Electrical connection 2, used connections/cores	3
electrical connection 2, type of mounting	Screw-type lock with hexagon A/F 9 mm and longitudinal knurl Rotatable

Feature	Value
Electrical connection 2, compatible type of mounting	Compatible with rotatable/non-rotatable screw-type lock
Electrical connection 2, connection pattern	00991155
Electrical connection 2, terminal allocation	Pin 1 = BN Pin 3 = BU Pin 4 = BK
Electrical connection 2, display	None
Operational voltage range DC	0 V ... 60 V
Note on operational voltage range DC	0 - 30 V for UL applications
Operational voltage range AC	0 V ... 48 V
Note on operational voltage range AC	0 - 30 V for UL applications
Current rating at 40° C	4 A
Note on permissible current load at 40°C	Observe derating
Immunity to surge	1.5 kV
Cable length	2.5 m
Cable characteristic	Suitable for energy chains/robot applications Abrasion-resistant Low adhesion Flame-retardant and self-extinguishing
Test conditions cable	Test conditions on request Torsional strength: › 300,000 cycles, ±270°/0.1 m Flexural strength: ›50000 cycles, bending radius 5 mm 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 mm²
Nominal cross section conductor	0.25 mm²
Degree of protection	IP65 IP68 IP69K
Note on degree of protection	In assembled state
Special characteristics	UV resistant Hydrolysis-resistant Resistant to cooling lubricants Resistant to microbes Oil resistant Ozone-resistant
Outdoor applications	Application areas with direct exposure to outdoor climatic influences 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	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

Feature	Value
Note on materials	CFC-free RoHS-compliant Cadmium-free Free of halogen 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