Connecting cable
NEBA-M8G4-U-0.5-N-M12G4

Part number: 8078289

General operating condition

Data sheet

Feature	Value
Conforms to standard	EN 61076-2-101 EN 61076-2-104 EN 61984
Certification	c UL us - Listed (OL)
Intended use	The connecting cable connects field devices (sensors, actuators) with controllers.
Explosion prevention and protection	Zone 2 (ATEX) Zone 22 (ATEX)
Certificate issuing authority	UL E253748
Cable designation	Without label holder
Contact durability	100
Product weight	27 g
Application note	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 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	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 rotatable
Electrical connection 1, type of mounting	Compatible with rotatable/non-rotatable screw lock
Electrical connection for input 1, connection pattern	00991872
Electrical connection 1, terminal allocation	Pin 1 = BN Pin 2 = WH Pin 3 = BU Pin 4 = BK
Electrical connection 1, display	without
Electrical connection 2, function	Control side
Electrical connection 2, design	Round
Electrical connection 2, connection type	Plug
Electrical connection 2, cable outlet	Straight
Electrical connection 2, connection technology	M12x1 A-coded as per EN 61076-2-101
Electrical connection 2, number of pins/wires	4

Feature	Value
Electrical connection 2, occupied pins/wires	4
Electrical connection 2, type of mounting	Screw-type lock with hexagon AF 13 and longitudinal knurl rotatable
Electrical connection 2, type of mounting	Compatible with rotatable/non-rotatable screw lock
Electrical connection 2, connection pattern	00995386
Electrical connection 2, terminal allocation	Pin 1 = BN Pin 2 = WH Pin 3 = BU 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 NEC/CEC CLASS 2
Operating voltage range AC	0 V ... 48 V
Note on operating voltage range AC	0 - 30 V for UL applications 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	0.5 m
Cable characteristic	Suitable for energy chains/robot applications abrasion-resistant low adhesion Flame-retardant and self-extinguishing
Connector cable test conditions	Test conditions on request Torsion resistance: › 300,000 cycles, ±270°/0.1 m Flexural strength: › 50000 cycles, bending radius 5 mm 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 mm²
Nominal conductor cross section	0.25 mm²
Degree of protection	IP65 IP68 IP69K
Note on degree of protection	In mounted state
Special features	UV-resistant hydrolysis resistant Resistant to cooling lubricants Resistant to microbes Oil-resistant 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	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)
Cleanroom class	Class 4 according to ISO 14644-1
Note on materials	CFC-free RoHS-compliant Cadmium-free Halogen-free Free of phosphoric acid ester
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	Copper alloy, gold-plated
Insulating sheath material	PP