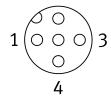
## Connecting cable NEBA-M12W5P-U-5-N-LE3 Part number: 8078257

**FESTO** 





## **Data sheet**

Feature	Value
Conforms to standard	EN 61076-2-101 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	103 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	Angled
Electrical connection 1, connection technology	M12x1 A-coded as per EN 61076-2-101
Electrical connection 1, number of pins/wires	5
Electrical connection 1, occupied pins/wires	3
Electrical connection 1, type of mounting	Screw-type lock with hexagon AF13 and vertical knurling rotatable Compatible with rotatable/non-rotatable screw lock
Electrical connection 1, terminal allocation	Pin 1 = BN Pin 3 = BU Pin 4 = BK
Electrical connection 1, display	Status indicator LED green Switching status indication, yellow LED for PNP N/O contact
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

Electrical connection 2, terminal allocation Pin 3 = 8U Pin 4 = 8K  Electrical connection 2, display Without DC operating voltage range 10 V30 V  Current rating at 40°C 4A Observe derating Surge resistance Observe derating Surge resistance Cable ineight Sirve consistance Cable ineight Sirve conditions on request of the conditions o	Feature	Value
Pin 3 = BU   Pin 4 = BK     Pin 5	Electrical connection 2, occupied pins/wires	3
Pin 4 = BK	Electrical connection 2, terminal allocation	
Electrical connection 2, display  Dic operating voltage range  10 V30 V  A A  Note on acceptable current load at 40°C  Observe derating  Surge resistance  O.8 kV  Cable length  S m  Cable characteristic  Sustable for energy chains/robot applications abarasion-resistant low adhesion  Flame-retardant and self-extinguishing  Connector cable test conditions  Test conditions on request  To some resistance > 0.0 km /		
DC operating voltage range  10 V30 V  Current rating at 40° C  AA  Note on acceptable current load at 40°C  Observe derating  Surge resistance  Cable length  Sm  Cable length  Sm  Cable length  Connector cable test conditions  Test conditions on request Torsion resistant is 50000 cycles, ±270°/0.1 m Flexural strength: 50000 cycles, ±270°/0.1 m Flexural strength: 50000 cycles, bending radius 58 mm Energy chain > 5 million cycles, bending radius 58 mm Energy chain > 5 millio	Electrical connection 2. display	
Current rating at 40° C  Note on acceptable current load at 40° C  Suger ensistance  Observe derating  Suitable for energy chains/robot applications abasion resistant low adhesion related the substance and the		
Note on acceptable current load at 40°C Surge resistance O. 8. kV Cable characteristic Suitable for energy chains/robot applications abrasion resistant Cable characteristic Suitable for energy chains/robot applications abrasion resistant barsaion resistant connector cable test conditions Test conditions on request Torsion resistance: > 300,000 cycles, ±270°/0.1 m Recurrent at strength: > 50000 cycles, bending radius 5 mm Energy chain > 5 million cycles, bending radius 5 mm Energy chain > 5 million cycles, bending radius 28 mm Energy chain > 5 million cycles, bending radius 5 mm Energy chain > 5 million cycles, bending radius 5 mm Energy chain > 5 million cycles, bending radius 28 mm Energy chain > 5 million cycles, bending radius 28 mm Energy chain > 5 million cycles, bending radius 28 mm Energy chain > 5 million cycles, bending radius 5 mm Energy chain > 5 million cy	·	
Surge resistance  O, 8 kV  Sable length  S m  Cable characteristic  Sultable for energy chains/robot applications abarsaion-resistant tow adhesion  False re-tardant and self-extinguishing  Connector cable test conditions  Test conditions on request Torsion resistance: > 300,000 cycles, ±270°/0.1 m Februal 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  12 mm  Bending radius, fixed cable installation  39 mm  Cable design  3 x 0.25 mm²  Substance of the conditions  Series of protection  30 mm  Cable design  3 x 0.25 mm²  Wire ends  Substance of protection  Pos Pos Pos Resistant to cooling furtients and the protection of the fixed protection  In mounted state  UV-resistant hesistant to cooling furtients Resistant to microbes oil-resistant resistant to recoling furtients Resistant to microbes oil-resistant temperature with flexible cable installation  Ambient temperature with flexible cable installation  Note on ambient temperature  Ao °C85 °C  Note on ambient temperature with flexible cable installation  20 °C85 °C  Note on ambient temperature  And Substance temperature  And Sub		
Cable length Cable characteristic Suitable characteris	·	
Cable characteristic  Suitable for energy chains/robot applications abrasion-resistant towardnession  Face related and self-extinguishing  Connector cable test conditions  Test conditions on request  Torsion resistance: > 300,000 cycles, ±270°/0.1 m		
abrasion-resistant towa dhesion Fame-retardant and self-extinguishing Connector cable test conditions Test conditions on request Torsion resistance: > 300,000 cycles, \$270*/0.1 m Resural strength: > 50000 cycles, bending radius 5 mm Resural strength: > 50000 cycles, bending radius 5 mm Resural strength: > 50000 cycles, bending radius 5 mm Resural strength: > 50000 cycles, bending radius 5 mm Resural strength: > 50000 cycles, bending radius 28 mm  Tested at 23 °C  Bending radius, fixed cable installation 12 mm  Bending radius, fixed cable installation 39 mm  Cable diameter 3.8 mm Cable diameter 3.8 mm  Cable design 3 x 0.25 mm²  Nominal conductor cross section 0,25 mm²  Nominal conductor cross section 1,25 mm²  Nominal conductor cross section 1,26 m²  Wire ends 2,25 mm²  Note on degree of protection In mounted state  Uv-resistant 1,26 m²  Wire selstant 1,26 m²		
Test conditions on request forsion reguest process and	Cable characteristic	abrasion-resistant low adhesion
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   Energy chain > 5 mm   Energy chain > 5 mm   Energy chain > 5 mm    I mm   I mm   I mounted state   IV-resistant   IV-	C	
Bending radius, fixed cable installation 12 mm  Bending radius, flexible cable installation 39 mm  Cable diameter 3.8 mm  Nominal conductor cross section 0.25 mm²  Wire ends Stripped Cut off bluntly  Degree of protection IP65 IP68 IP69K  Note on degree of protection In mounted state  UV-resistant hydroysis resistant Resistant to cooling lubricants Resistant to interobes 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 4-40 °C85 °C  Note on ambient temperature with flexible cable installation -20 °C85 °C  Note on ambient temperature with flexible cable installation -20 °C85 °C  Note on ambient temperature with flexible cable installation -20 °C50 °C for UL applications  Storage temperature  -25 °C55 °C  Note on ambient temperature with flexible cable installation -20 °C55 °C  Note on ambient temperature with flexible cable installation -20 °C55 °C  Note on subject temperature with flexible cable installation -20 °C55 °C  Note on subject temperature with flexible cable installation -20 °C55 °C  Note on subject temperature with flexible cable installation -20 °C55 °C  Note on subject temperature with flexible cable installation -20 °C55 °C  Note on subject temperature with flexible cable installation -20 °C55 °C  Note on subject temperature with flexible cable installation -20 °C55 °C  Note on subject temperature with flexible cable installation -20 °C55 °C  Note on subject temperature with flexible cable installation -20 °C55 °C  Note on subject temperature with flexible cable installation -20 °C55 °C  Note on subject temperature with flexible cable installation -20 °C55 °C  Note on subject temperature with flexible cable installation -20 °C55 °C  Note on subject temperature with flexible cable installation -20 °C55 °C  Note on subject temperature with flexible cable installation -20 °C55 °C  Note on subject temperature with flexible cable install	Connector cable test conditions	Torsion resistance: > 300,000 cycles, ±270°/0.1 m Flexural strength: > 50000 cycles, bending radius 5 mm
Bending radius, flexible cable installation  39 mm  Cable design  3.8 mm  Cat off bluntly  Degree of protection  Wire ends  Degree of protection  1.668 1.768 1.	Note on connector cable test conditions	tested at 23 °C
Cable design  3.8 mm  Cable design  3 x 0.25 mm²  Nominal conductor cross section  0.25 mm²  Wire ends  Stripped Cut off bluntly  Degree of protection  IP65 IP68 IP69K  Note on degree of protection  In mounted state  UV-resistant hydrolysis resistant Resistant to cooling lubricants Resistant to to coling lubricants Resistant to cooling lubricants Resistant to cooling lubricants Resistant to microbes Oil-resistant  Uzone-resistant  Use in exterior area  Locations of use with direct outdoor climatic exposure Class D1 based on IEC 60654-1  Ambient temperature  40 * C85 ° C  Note on ambient temperature with flexible cable installation  20 ° C85 ° C  Note on ambient temperature with flexible cable installation  20 ° C85 ° C  Note on ambient temperature  Note on ambient temperature  \$ 50 * C for UL applications  Storage temperature  Note on storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  Storage temperature  \$ 50 * C for UL applications  \$ 50 * C for UL appli	Bending radius, fixed cable installation	12 mm
Cable design  Nominal conductor cross section  O.25 mm²  Stripped Cut off bluntly  Degree of protection  IP65 IP68 IP68 IP69K  Note on degree of protection  In mounted state  UV-resistant Nydrolysis resistant Resistant to cooling lubricants Resistant to microbes Oil-resistant Ozone-resistant Ozone-resistant Ozone-resistant Ozone-resistant Note on ambient temperature  -40 °C85 °C Note on ambient temperature with flexible cable installation Note on ambient temperature with flexible cable installation Storage temperature  -20 °C. °C for UL applications  Storage temperature  -20 °C55 °C Note on storage temperature  -20 °C55 °C Note on storage temperature  -20 °C55 °C Note on storage temperature  -21 °C55 °C Note on storage temperature  -22 °C55 °C Note on storage temperature  -24 °C55 °C Note on storage temperature  -25 °C55 °C Note on storage temperature  -26 °C55 °C Note on storage temperature  -27 °C55 °C Note on storage temperature  -28 °C55 °C Note on storage temperature  -29 °C55 °C Note on storage temperature  -20 °C55 °	Bending radius, flexible cable installation	39 mm
Nominal conductor cross section  Wire ends  Stripped Cut off bluntly  Degree of protection  IP65 IP68 IP69K  Note on degree of protection  Special features  UV-resistant hydrolysis resistant Resistant to cooling lubricants Resistant to cooling lubricants Resistant to cooling lubricants Resistant to microbes Oil-resistant Ozone-resistant Use in exterior area  Use in exterior area  Locations of use with direct outdoor climatic exposure Class D1 based on IEC 60654-1  Ambient temperature  -40 °C85 °C  Note on ambient temperature with flexible cable installation -20 °C85 °C  Note on ambient temperature with flexible cable installation -20 °C85 °C  Note on subject temperature with flexible cable installation -20 °C85 °C  Note on storage temperature  Note on storage temperature  Storage temperature  Note on storage temperature  Ama. 93% at 40 °C  Relative air humidity  Max. 93% at 40 °C  Relative air humidity  Max. 93% at 40 °C  CE marking (see declaration of conformity)  II  CE marking (see declaration of conformity)  To UK ROHS instructions  UKSA marking (see declaration of conformity)  To UK ROHS instructions  UABS (PWIS) conformity  VDMA24364-B2-L  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	Cable diameter	3.8 mm
Wire ends  Cut off bluntly  Degree of protection  IP65 IP68 IP69K  Note on degree of protection  In mounted state  UV-resistant hydrolysis resistant Resistant to cooling lubricants Resistant to incrobes 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 °C85 °C  Note on ambient temperature with flexible cable installation -20 °C85 °C  Note on ambient temperature with flexible cable installation -20 °C85 °C  Note on ambient temperature with flexible cable installation -20 °C85 °C  Note on storage temperature  -40 *So °C for UL applications  Storage temperature  -25 °C55 °C  Note on storage temperature  short-term for transport in packaging -40 85 °C  Relative air humidity  Max. 93% at 40 °C  Mox. 93% at 40 °C  Mox. 93% at 40 °C  II  CE marking (see declaration of conformity)  As per EU ROHS directive  UKCA marking (see declaration of conformity)  To UK ROHS instructions  USDM24364-B2-L  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	Cable design	3 x 0.25 mm <sup>2</sup>
Cut off bluntly  Degree of protection  IP65 IP65 IP68 IP69K  Note on degree of protection  In mounted state  UV-resistant hydrolysis resistant Resistant to cooling lubricants Resistant to microbes Oil-resistant Ozone-resistant Use in exterior area  Use in exterior area  Locations of use with direct outdoor climatic exposure Class D1 based on IEC 60654-1  Ambient temperature  -40 °C85 °C  Note on ambient temperature with flexible cable installation  -20 °C85 °C  Note on ambient temperature with flexible cable installation  -20 °C85 °C  Note on ambient temperature with flexible cable installation  -20 °C85 °C  Note on sample temperature with flexible cable installation  -20 °C85 °C  Note on storage temperature  Note on storage temperature  Note on storage temperature  Note on storage temperature  Short-term for transport in packaging -40 85 °C  Relative air humidity  Max. 93% at 40 °C  Relative air humidity  Max. 93% at 40 °C  Wominal 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  UKR RoHS instructions  VDMA24364-B2-L  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 incikel-plated surfaces, circuit boards, cables, electrical plug connectors and coils	Nominal conductor cross section	0.25 mm <sup>2</sup>
IP68   IP69K     Note on degree of protection   In mounted state	Wire ends	1 '''
UV-resistant hydrolysis resistant Resistant to cooling lubricants Resistant to cooling lubricants Resistant to cooling lubricants Resistant to microbes Oil-resistant Ozone-resistant  Use in exterior area  Use in exterior area  Locations of use with direct outdoor climatic exposure Class D1 based on IEC 60654-1  Ambient temperature  -40 °C85 °C  Note on ambient temperature with flexible cable installation  -20 °C85 °C  Note on ambient temperature with flexible cable installation  -20 °C85 °C  Note on ambient temperature with flexible cable installation  -20 °C85 °C  Note on sorrage temperature  -25 °C55 °C  Note on storage temperature  short-term for transport in packaging -40 85 °C  Relative air humidity  Max. 93% at 40 °C  Relative air humidity  Max. 93% at 40 °C  Relative air fumidation of conformity  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  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	Degree of protection	IP68
hydrolysis resistant Resistant to cooling lubricants Resistant to icrobes Oil-resistant Ozone-resistant Use in exterior area Locations of use with direct outdoor climatic exposure Class D1 based on IEC 60654-1 Locations of use with direct outdoor climatic exposure Class D1 based on IEC 60654-1 Ambient temperature -40 °C85 °C Note on ambient temperature with flexible cable installation -20 °C85 °C Note on ambient temperature with flexible cable installation -20 °C85 °C Note on ambient temperature with flexible cable installation -20 °C85 °C Note on storage temperature -25 °C55 °C Note on storage temperature short-term for transport in packaging -40 85 °C Relative air humidity Max. 93% at 40 °C -= 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 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	Note on degree of protection	In mounted state
on IEC 60654-1  Ambient temperature  -40 °C85 °C  Note on ambient temperature  -40 · 50 °C for UL applications  Ambient temperature with flexible cable installation  -20 °C85 °C  Note on ambient temperature with flexible cable installation  -20 · 50 °C for UL applications  Storage temperature  -25 °C55 °C  Note on storage temperature  short-term for transport in packaging -40 85 °C  Relative air humidity  Max. 93% at 40 °C  <= 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  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	Special features	hydrolysis resistant Resistant to cooling lubricants Resistant to microbes Oil-resistant
Note on ambient temperature  Ambient temperature with flexible cable installation  -20 °C85 °C  Note on ambient temperature with flexible cable installation  -20 °C85 °C  Note on storage temperature  -25 °C55 °C  Note on storage temperature  short-term for transport in packaging -40 85 °C  Relative air humidity  Max. 93% at 40 °C  -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  VDMA24364-B2-L  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	Use in exterior area	
Ambient temperature with flexible cable installation -20 °C85 °C -20 - 50 °C for UL applications  Storage temperature -25 °C55 °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  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	Ambient temperature	-40 °C85 °C
Note on ambient temperature with flexible cable installation  -20 - 50 °C for UL applications  -25 °C55 °C  Note on storage temperature  Short-term for transport in packaging -40 85 °C  Relative air humidity  Max. 93% at 40 °C  -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  VDMA24364-B2-L  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	Note on ambient temperature	-40 - 50 °C for UL applications
Storage temperature  -25 °C55 °C  Note on storage temperature  short-term for transport in packaging -40 85 °C  Relative air humidity  Max. 93% at 40 °C  <= 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  VDMA24364-B2-L  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	Ambient temperature with flexible cable installation	-20 °C85 °C
Note on storage temperature  Relative air humidity  Max. 93% at 40 °C  Nominal altitude of use above sea level  Overvoltage category  II  CE marking (see declaration of conformity)  LABS (PWIS) conformity  To UK RoHS instructions  VDMA24364-B2-L  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	Note on ambient temperature with flexible cable installation	-20 - 50 °C for UL applications
Relative air humidity  Max. 93% at 40 °C  <= 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  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	Storage temperature	-25 °C55 °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  VDMA24364-B2-L  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	Note on storage temperature	short-term for transport in packaging -40 85 °C
Overvoltage category  CE marking (see declaration of conformity)  As per EU RoHS directive  To UK RoHS instructions  LABS (PWIS) conformity  VDMA24364-B2-L  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	Relative air humidity	Max. 93% at 40 ℃
CE marking (see declaration of conformity)  As per EU RoHS directive  UKCA marking (see declaration of conformity)  To UK RoHS instructions  VDMA24364-B2-L  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	Nominal altitude of use above sea level	<= 2000 m NHN
UKCA marking (see declaration of conformity)  To UK RoHS instructions  VDMA24364-B2-L  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	Overvoltage category	II
LABS (PWIS) conformity  VDMA24364-B2-L  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	CE marking (see declaration of conformity)	As per EU RoHS directive
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	UKCA marking (see declaration of conformity)	To UK RoHS instructions
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	LABS (PWIS) conformity	VDMA24364-B2-L
Class 4 according to ISO 14644-1	Suitability for the production of Li-ion batteries	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
	Cleanroom class	Class 4 according to ISO 14644-1

Feature	Value
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