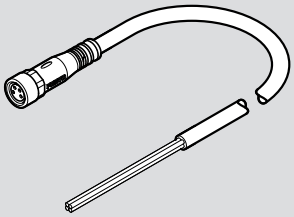
NEBL-M8...4-E-...-LE4

Connecting cable



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Assembly instructions

8168753
2022-02b
[8168755]

8168753

Translation of the original instructions

1 Applicable documents

All available documents for the product ➔ www.festo.com/sp.

2 Safety

2.1 Safety instructions

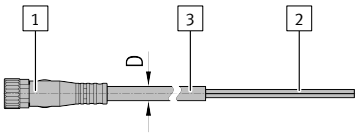
- Work on the product may only be carried out by qualified personnel who can evaluate the work and detect dangers. The qualified personnel are trained in electrical engineering.
- Do not connect or disconnect the push-in connector while the voltage is live.
- Do not wire or disconnect an open cable end when powered.
- Only mount the product on components that are in a condition to be safely operated.

2.2 Intended use

Connecting cable for the power supply for applications with which a low voltage drop is required, including for longer cables, e.g. for CPX-AP.

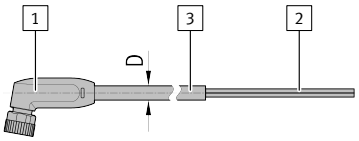
3 Structure

3.1 Product design



1 Socket M8x1, A-coded
2 Wire end (4x)
3 Cable

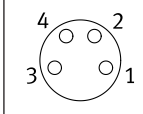
Fig. 1: NEBL-M8G4-E-...-LE4



1 Socket M8x1, A-coded
2 Wire end (4x)
3 Cable

Fig. 2: NEBL-M8W4-E-...-LE4

3.2 Contact assignment

Electrical connection 1 Field device side		Electrical connection 2 Controller side
1 Socket	Pin	2 Wire ends[1]
	1	BN
	2	WH
	3	BU
	4	BK

1) Colour code in accordance with IEC 60757:2021-06

Tab. 1: Contact assignment

4 Assembly

4.1 Application of assembly tools

- Use only a suitable tool with torque function for the screw-type lock with hexagon and longitudinal knurl.

4.2 Mounting electrical connection 1

1. Align the socket 1 to fit the plug.
2. Connect the socket 1 to the plug.
3. Tighten the screw-type lock of the socket 1. Tightening torque: 0.2 Nm ± 50%

4.3 Mounting electrical connection 2

1. Strip and assemble the cable sheath and wire ends as required.
2. Connect the wires in accordance with the contact assignment.

4.4 Wiring

Feature	Cable characteristic	Wiring
-E	Suitable for energy chains	in energy chain or flexible

Tab. 2: Wiring

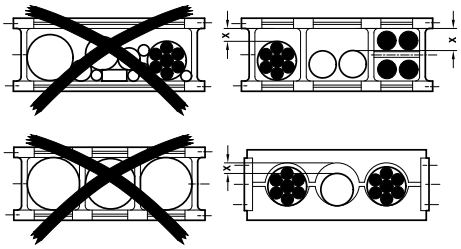
4.5 Strain relief

Strain relief for movable wiring

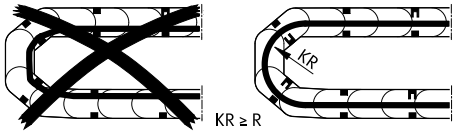
- Install the strain reliefs and mountings over a wide area to prevent damage to the internal structure and outer cover.

4.6 Mounting in energy chain

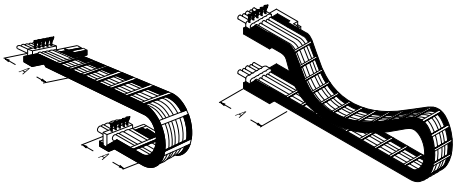
1. Lay out the energy chain lengthways.
2. Place the cables in the energy chain without twisting them.
3. Separate cables from each other using separators/drilled holes.
4. Do not bind cables in bundles.
5. Maintain space X. X > 10% of the cable diameter D.
   With the energy chain hanging vertically: increase the space X.



6. Align the energy chain in the working position:
   - Make sure that the radius is greater than the bending radius R of the cables.
   - The cables can move freely in the bending radius KR of the energy chain.



   ↳ The cable movement is not forced by the energy chain.
7. Mount the energy chain ➔ corresponding instruction manual.
8. Fasten the cables:
   - for short energy chains with a length < 1 m at both ends of the energy chain
   - for long sliding energy chains with a length > 1 m at the driver end only
9. Do not move cables all the way to the fastening point.



   ↳ The mounting space A between the fastening point and bending movement is maintained.

NOTICE

Damage to cables if the chain breaks.

- Replace cables after a chain break.

NOTICE

Malfunction and material damage due to vertically suspended cables.

The cables stretch.

- Regularly check the length of the cables.
- Readjust the cables if required.

NEBL-M8...4-E-...-LE4			
Cable characteristic			Suitable for energy chains
Cable composition		[mm²]	4x0.5
Shielding			no
Cable diameter	D	[mm]	4.8
Mounting space	A	[mm]	≥ 96
Current rating at 40 °C		[A]	5.2
Surge resistance		[kV]	0.8
Operating voltage range			
AC	U_B	[V]	0 ... 30
DC	U_B	[V]	0 ... 30
Bending radius			
Fixed cable installation	R	[mm]	≥ 15
Flexible cable installation	R	[mm]	≥ 50
Ambient temperature			
Fixed cable installation		[°C]	–40 ... +90
Note on the ambient temperature with fixed cable installation		[°C]	–40 ... +75 for UL applications
Flexible cable installation		[°C]	–20 ... +90
Note on the ambient temperature with movable cable installation		[°C]	–20 ... +75 for UL applications
Material			
Cable sheath			TPE-U(PUR)
Insulating sheath			PP
Electrical connection 1			
Function			Field device side
Connection type			Socket
Connection technology			M8x1 A-coded to EN 61076-2-104
Type of mounting			Screw-type lock with hexagon ⌭ 9 and longitudinal knurl
Degree of protection			IP65, IP68, IP69K In assembled state
Electrical connection 2			
Function			Controller side
Connection type			Cable
Connection technology			Open end
Wire ends			Sheath removed, Cut off bluntly

Tab. 3: Technical data