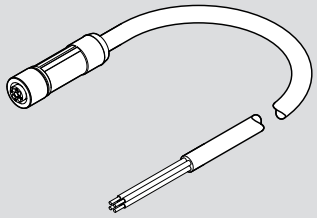
NEBL-T12...4-E-...-LE4

Connecting cable



FESTO

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Assembly instructions

8238709
2025-06b
[8238711]

8238709

1 Applicable documents

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

2 Safety

2.1 Safety instructions

- 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

The connecting cable connects electric drives to the power supply at the M12 T-coded plug.

2.3 Training of qualified personnel

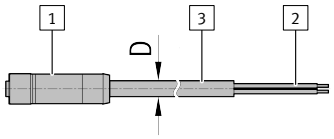
Work on the product may only be carried out by qualified personnel who can evaluate the work and detect dangers. The qualified personnel are trained in electrical engineering.

3 Additional information

- Contact the regional Festo contact if you have technical problems ➔ www.festo.com.
- Accessories ➔ www.festo.com/catalogue.

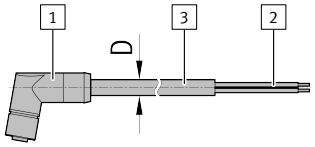
4 Design

4.1 Product design



1 Socket M12x1, T-coded
2 Core (4x)
3 Cable

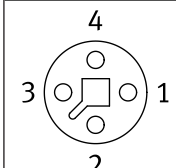
Fig. 1: NEBL-T12G4-E-...-LE4



1 Socket M12x1, T-coded
2 Core (4x)
3 Cable

Fig. 2: NEBL-T12W4-E-...-LE4

4.2 Contact assignment

Electrical connection 1 Field device side		Core[1]	Electrical connection 2 Controller side
	1	BN	Open end
	2	WH	
	3	BU	
	4	BK	

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

Tab. 1: Contact assignment

5 Mounting

5.1 Assembly, field device side

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: 0.4 Nm ± 55%

5.2 Strain relief for electrical connection 1

- Attach the cable sheath to the area in front of the socket.
  - No strain on the socket.

5.3 Assembly, controller side

1. Strip and assemble the cable sheath and cores as required.
2. Wire the cores in accordance with the contact assignment.

5.4 Strain relief for electrical connection 2

- Fix the cable sheath in the area in front of the wire ends.
  - No strain on the wires.

5.5 Integration

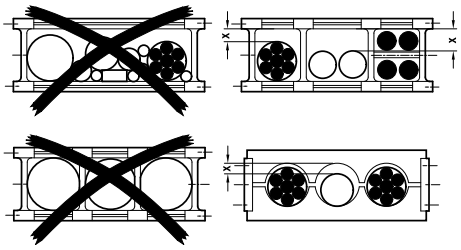
5.6 Wiring

Character-istics	Cable characteristics	Wiring
-E	Suitability for energy chains	In energy chain or flexible

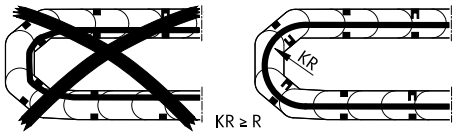
Tab. 2: Wiring

5.7 Mounting in energy chain

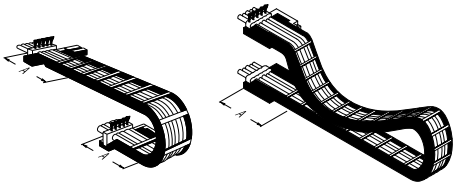
1. Lay out the energy chain lengthways.
2. Place the cables in the energy chain without twisting them.
3. Separate cables from each other using separators/drilled holes.
4. Do not bind cables in bundles.
5. Maintain space X. X > 10% of the cable diameter D.
   With the energy chain hanging vertically: 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-T12...4-E-...-LE4			
Certificates, declaration of conformity			➔ www.festo.com/sp
Cable characteristic			Suitability for energy chains
Cable composition		[mm²]	4x1.5
Shielding			No
Cable diameter	D	[mm]	6.75 ± 0.20
Mounting space	A	[mm]	≥ 135
Current rating at 40 °C		[A]	12
Surge resistance		[kV]	1.5
Operating voltage range DC	U_B	[V]	0 ... 63
Bending radius			
Fixed cable installation	R	[mm]	≥ 34
Flexible cable installation	R	[mm]	≥ 68
Ambient temperature			
Fixed cable installation		[°C]	–50 ... +85
Flexible cable installation		[°C]	–30 ... +85
Material			
Cable sheath			TPE-U(PUR)
Insulating sheath			PP
Electrical connection 1			
Function			Field device side
Connection type			Socket
Connection technology			M12x1 T-coded in accordance with EN 61076-2-111
Type of mounting			Screw-type lock
Degree of protection In assembled state			IP65, IP67
Pollution degree			3
Electrical connection 2			
Function			Controller side
Connection type			Cable
Connection technology			Open end
Wire ends			Sheath removed

Tab. 3: Technical data