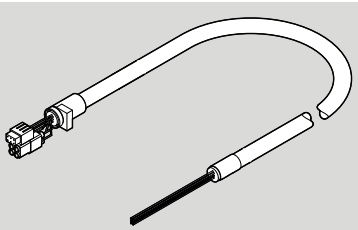
NEBM-T1G8-E-...-Q7...-LE8
Motor cable



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Instructions | Assembly

8088082
2018-04f
[8088084]

CE

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Translation of the original instructions

1 Further applicable documents

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

Observe further applicable documents:
– Instructions for encoder cable NEBM-T1G8...

2 Safety

2.1 Safety instructions

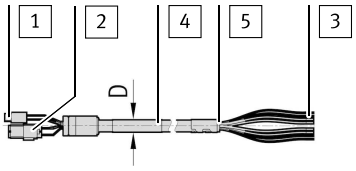
– Do not connect or disconnect plug connector when powered.
– Only assemble the product on components that are in a condition to be safely operated.

2.2 Intended use

NEBM-T1G8-E-...-Q7...-LE8:
Connection of motor EMMS-AS to controller CMMP-AS.
NEBM-T1G8-E-...-Q7...-LE8-1:
Connection of motor EMMS-AS to controller CMMT-AS.

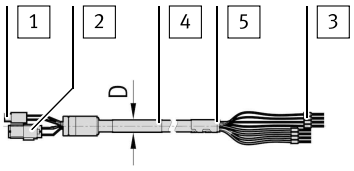
3 Configuration

3.1 Product design



1 Socket BU, 6-pin
2 Socket BK, 4-pin
3 Wire end sleeve 7 mm (8x)
4 Cable
5 Screened connection

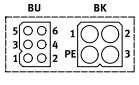
Fig. 1 NEBM-T1G8-E-...-Q7...-LE8



1 Socket BU, 6-pin
2 Socket BK, 4-pin
3 Wire end sleeve 10 mm (8x)
4 Cable
5 Screened connection

Fig. 2 NEBM-T1G8-E-...-Q7...-LE8-1

3.2 Pin allocation

Field device side	Socket	Pin	Wire[1]	Wire cross section [mm²]	Connection	Function
	BK	3	BK 1	0.75	r	Motor power supply
		1	BK 2	0.75	V	
		2	BK 3	0.75	W	
		PE	GNYE	0.75	PE	
	BU	1	WH	0.25	MT+	Temperature sensor
		2	BN	0.25	MT–	
		3	GN	0.25	BR+	Brake (optional)
		4	YE	02.5	BR–	
		5	–	–	–	Pin not assigned
		6	–	–	–	

1) Colour code in accordance with IEC 60757:1983-01

Tab. 1 Pin allocation

4 Mounting

4.1 Mounting, field device side

Remove cover

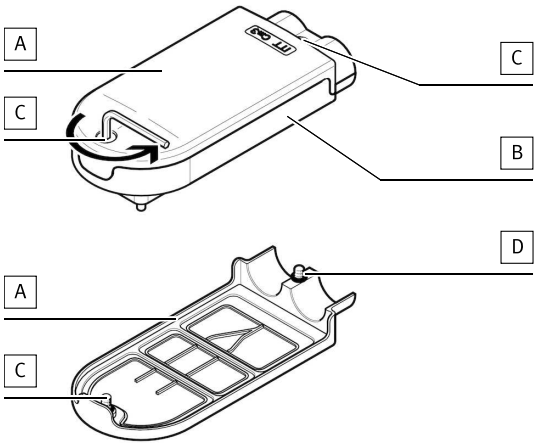


Fig. 3

1. Unscrew screws (C) (⇙ 2).
2. Remove cover (A) from connection box (B).
   ↳ O-rings (D) are still on the screws (C).

The O-rings (D) prevent the screws from getting lost (C) and from damaging the main seal.

Remove the strain relief

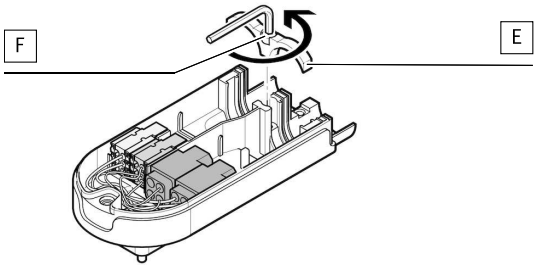


Fig. 4

1. Unscrew screw (F) (⇙ 2).
2. Remove the strain relief (E).

Place the encode cable in position

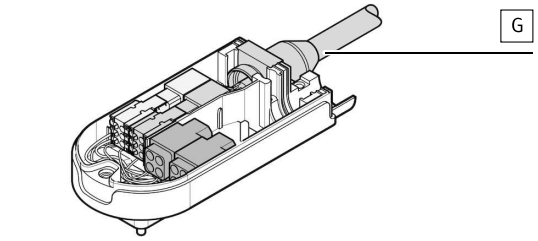


Fig. 5

- Place the encoder cable (G) in the connection box ➔ Instructions for encoder cable (G).

Place the motor cable in position

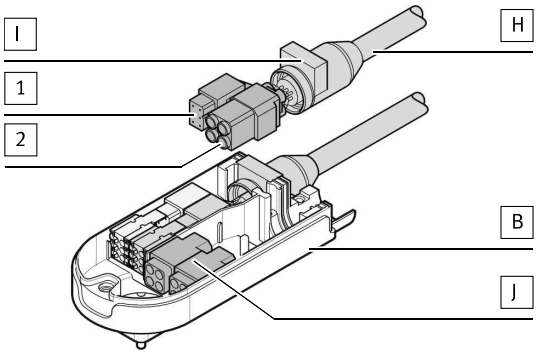


Fig. 6

1. Align the motor cable (H) so that the flat side (I) points upwards.
2. Press the sockets 1 and 2 on the correct plug connector (J).
   ↳ The PE contact of the socket 2 clicks into the terminal of the connection box (B).

Mount the strain relief

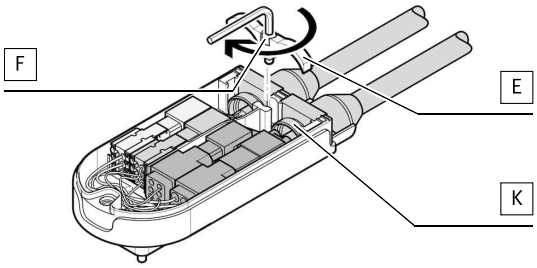


Fig. 7

1. Check that the brass rings (K) of the cables (G) and (H) are seated correctly at the strain relief (E).
2. Mount the strain relief (E) with the screw (F) on the brass rings (K). Tightening torque: 0.7 Nm ± 30 %

Attach the cover

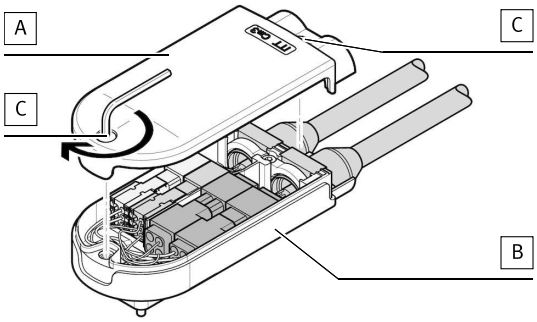


Fig. 8

1. Place the cover (A) carefully on the connection box (B).
2. Ensure that there are no wires caught between the cover (A) and the connection box (B).
3. Tighten screws (C). Tightening torque: 1.2 Nm ± 20 %

4.2 Mounting, controller side

1. Connect the wires in accordance with the pin allocation to the motor controller.
2. Clamp the screened connection into the spring clip of the controller.

4.3 Installation

Mounting in energy chain

1. Lay the chain out lengthwise.
2. Place the cables in the chain, making sure they are not twisted.
3. Separate cables from each other using separators/drill holes.
4. Do not connect cables together.

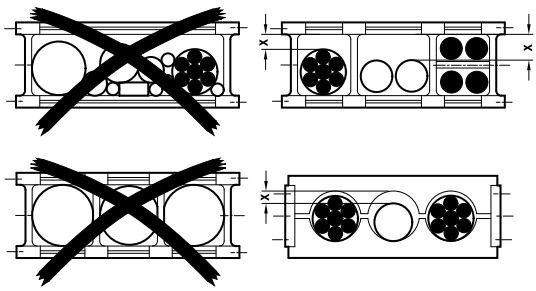


Fig. 9

5. Maintain space X. X > 10 % of the cable diameter D.
   If the chain is suspended vertically, increase the space X.

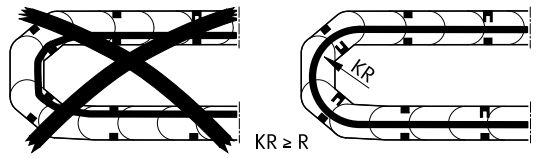


Fig. 10

6. Align chain in the operating position:
   – Make sure that the radius is greater than the bending radius R of the cables.
   – Cables can move freely in the bending radius KR of the energy chain.
   ↳ Cables are not forced through the chain.
7. Mount chain (➔ corresponding instructions).
8. Fasten cables:
   – At both ends of the chain in case of short energy chains
   – Only at the driver end in the case of long, sliding energy chains

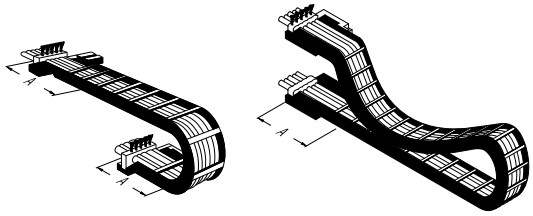


Fig. 11

9. Do not bend cables all the way to the fastening point.
   ↳ Mounting space A between the fastening point and bending movement is observed.

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.

5 Technical data

NEBM-T1G8-E-...-Q7...			-LE8	-LE8-1
Cable characteristic			Suitable for energy chains	
Cable composition		[mm²]	(4x0.75) + 2x (2x0.25)	
Shielding			Shielded	
Cable diameter	D	[mm]	11	
CE marking (see declaration of conformity): ➔ www.festo.com/sp			In accordance with Low Voltage Directive	
Current rating				
Current rating at 40 °C		[A]	12	
Note on current rating at 40 °C			3 A for conductor cross-section 0.25 mm²	
Surge resistance				
Surge resistance		[kV]	4	
Note on surge resistance			0.5 kV for conductor cross-section 0.25 mm²	
Degree of protection				
Degree of protection			IP65	
Note on degree of protection			In assembled state	
Operating voltage range				
AC/DC	U_B	[V]	0 ... 630	
Note on operating voltage range AC/DC			0 ... 48 V for conductor cross-section 0.25 mm²	
Bending radius				
Fixed cable installation	R	[mm]	≥ 55	
Flexible cable installation	R	[mm]	≥ 110	
Ambient temperature				
Fixed cable installation		[°C]	–50 ... +90	
Flexible cable installation		[°C]	–40 ... +90	
Material				
Cable sheath			TPE-U(PUR)	
Electrical connection 1				
Function			Field device side	
Connection type			Socket	
Connection technology			ITT M3	
Electrical connection 2				
Function			Controller side	
Connection type			Cable	
Connection technology			Open end	
Wire ends			Wire end sleeves in accordance with DIN 46228-A0,75-7/ -A0,5-7	Wire end sleeves in accordance with DIN 46228-E0,75-10/ -E0,5-10

Tab. 2 Technical data