

## Motor cable NEBM-T1G8-E-...-Q7N-LE8

**FESTO**

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### 1. Applicable documents

All available documents for the product → [www.festo.com/pk](http://www.festo.com/pk)

→ Assembly instructions of the encoder cable (G)

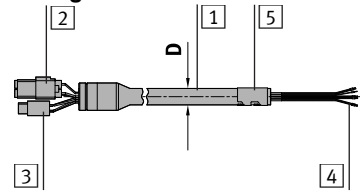
### 2. Safety

- Do not connect or disconnect plug connectors when powered.
- Switch off power supply before mounting work.
- Observe the tightening torque.

### 3. Intended use

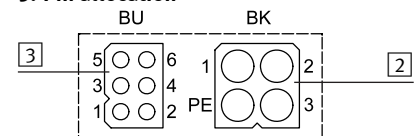
Connection of motor EMMS-AS to a suitable controller.

### 4. Design



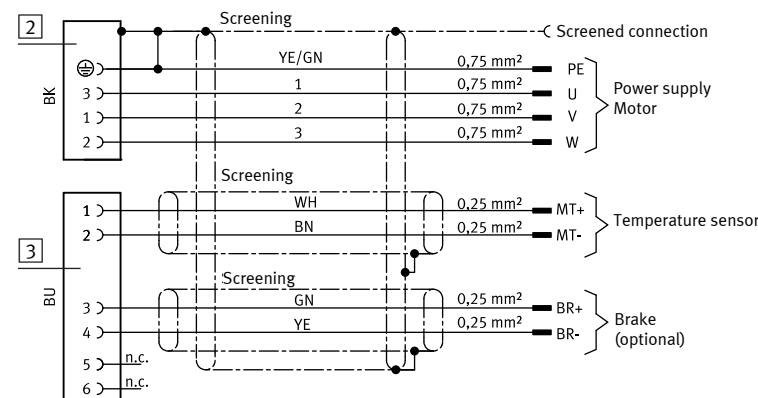
- 1 Cable (1x)
- Field device side:
- 2 Socket BK<sup>1)</sup>, 4-pin (1x)
- 3 Socket BU, 6-pin (1x)
- Controller side:
- 4 Wire end sleeve 6 mm/5 mm (8x)
- 5 Screened connection (1x)

### 5. Pin allocation



Field device side

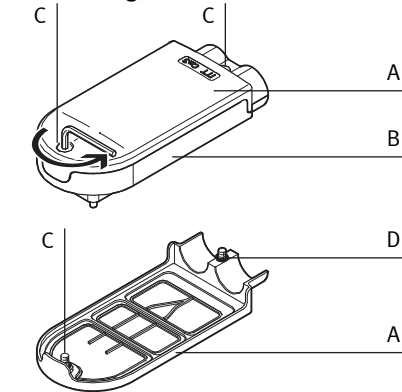
Controller side



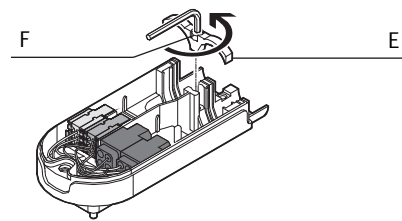
### 6. Mounting, controller side

- Connect the wires to the motor connection of the controller in accordance with the pin allocation.
- Clamp the screened connection [5] into the spring clip of the controller.

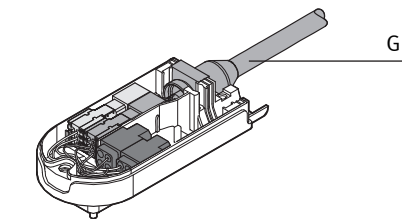
### 7. Mounting, field device side



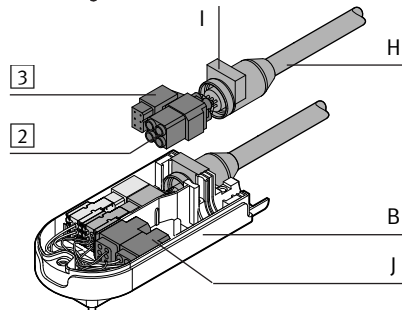
- Remove the cover (A) of the connection box (B).
- Unscrew screws (C) (↺ 2).
- O-rings (D) are still seated on the screws (C).
- The O-rings (D) prevent loss of the screws (C) and damage to the main seal.



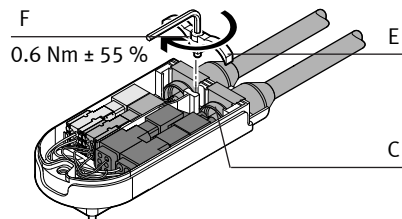
- Unscrew screw (F) (↺ 2).
- Remove the strain relief (E).



- Wire the encoder cable (G) with the yellow and red signal sockets (→ applicable document).



- Wiring the motor cable (H):
- Align the motor cable (H) so that the flat side (I) faces upwards.
- Press the sockets [2] and [3] onto the appropriate plug connectors (J).
- Contact PE from socket [2] latches into the terminal of connecting box (B).

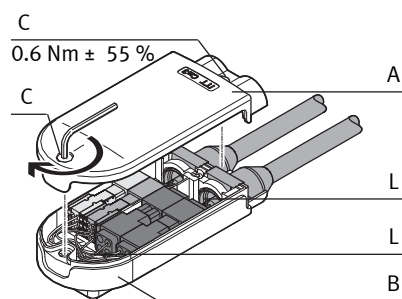


- Brass rings (K) of the cables (G)/(H) are located at the position of the strain relief (E).
- Fasten the strain relief (E) onto the brass rings (K) using the screw (F).

### → Note

Malfunction and material damage due to crushed wires.

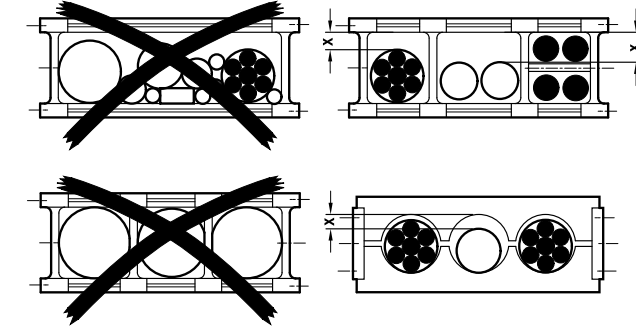
- Do not clamp any wires (L) between the cover (A) and connection box (B).



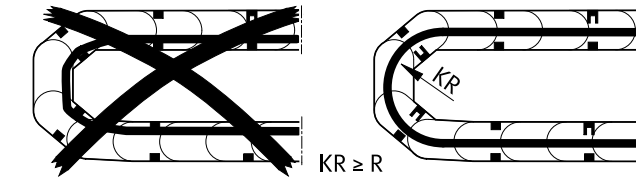
- Place the cover (A) carefully onto the connection box (B).
- Tighten screws (C).

### 8. Mounting cables in an energy chain

- Lay the chain out lengthwise.
- Place the cables in the chain, making sure they are not twisted.
- Separate cables from each other through separator/drift holes.
- Do not connect cables together.
- Comply with space X. X > 10 % of the cable diameter D. With vertically hanging chain, increase the space X.



- Align chain in the operating position.
- The bending radius of the cables is at least R
- Cables are freely movable in the bending radius KR of the energy chain
- Cables are not forced through the chain.



- Mount chain (→ corresponding assembly instructions).
- Fasten cables:

- For short energy chains, fasten at both ends of the chain (→ Fig. 1)
- For long, sliding energy chains, fasten only at the moment compensator end (→ Fig. 2).

- Do not move cables up to the fastening point.

→ Mounting space A between the fastening point and the bending movement is maintained.

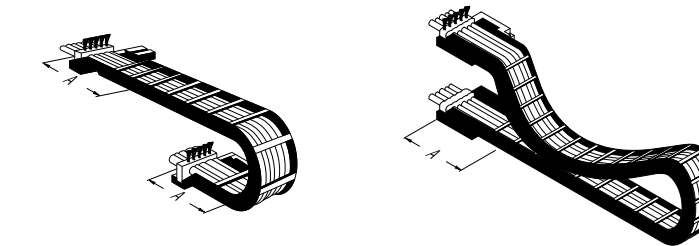


Fig. 1

Fig. 2

### → Note

Chain break.  
 Damages to cables.

- Replace cables.

### → Note

Malfunction and material damage due to vertically hanging cables.  
 The cables stretch.

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

### 9. Technical data

| NEBM-T1G8-E-...-Q7N-LE8                                  |                    |   |            |
|--|--------------------|---|------------|
| Cable composition  | [mm <sup>2</sup> ] | 4x0.75                                      | 2x(2x0.25) |
|  |                    | Screened                                    |            |
| Current rating   | [A]                | 12  | 3          |
| Operating voltage range AC/DC                            | U <sub>B</sub> [V] | 0 ... 630                                   | 0 ... 48   |
| Surge resistance   | [kV]               | 4.0   | 0.5        |
| Cable diameter   | D [mm]             | 11  |            |
| Cable bending radius                                     |                    |   |            |
| Fixed cable installation                                 | R [mm]             | ≥ 55  |            |
| Flexible cable installation                              | R [mm]             | ≥ 110                                       |            |
| Mounting space   | A R                | 220   |            |
| Degree of protection in mounted status                   |                    |   |            |
| Field device side  |                    | IP65  |            |
| Ambient temperature                                      |                    |   |            |
| Fixed cable installation                                 | [°C]               | -50 ... +90                                 |            |
| Flexible cable installation                              | [°C]               | -40 ... +90                                 |            |
| Cable sheath material                                    |                    | TPE-U(PUR)                                  |            |
| CE marking (declaration of conformity)                   |                    | In accordance with EU Low Voltage Directive |            |
| → <a href="http://www.festo.com/sp">www.festo.com/sp</a> |                    |   |            |

<sup>1)</sup> Colour code in accordance with IEC 60757:1983-01