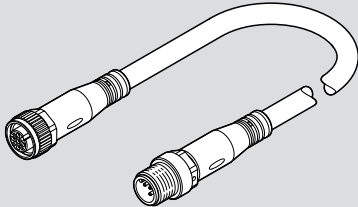


NEBU-M12G5-E-...-Q8N-M12G5

Connecting cable



FESTO

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8219353

Assembly instructions

8219353
2026-07a
[8219355]

Original instructions

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1 Applicable documents

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

2 Safety

2.1 Safety instructions

- Before working on the product: Switch off the power supply, ensure that it is off and secure it against being switched on again.
- The plug connector must not be under power when unplugged.
- Only mount the product on components that are in a condition to be safely operated.

2.2 Intended use

The connecting cable connects field devices (sensors, actuators) with controllers.

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

- For technical issues, contact the regional Festo representative → www.festo.com/contact.
- Accessories → www.festo.com/catalogue.

4 Product design

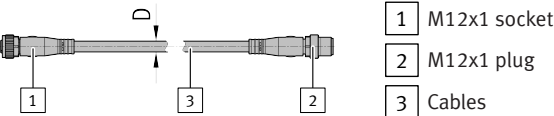
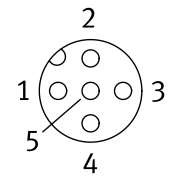
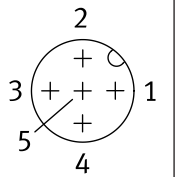


Fig. 1: NEBU-M12G5-E-...-Q8N-M12G5

5 Contact assignment

Electrical connection 1 Field device side	Pin	Core ¹⁾	Pin	Electrical connection 2 Controller side
NEBU-M12G5-E-...-Q8N-M12G5				
	1	BN	1	
	2	WH	2	
	3	BU	3	
	4	BK	4	
	5	GY	5	

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

Tab. 1: Contact assignment

6 Mounting

6.1 Assembly information

1

Use a torque spanner and check the tightening torque. The setting behaviour of the seal is taken into account in the specified tightening torque. Repeated retightening is not necessary and may impair the sealing properties.

6.2 Mounting electrical connection 1

1. Align the socket  to fit the plug.
2. Connect the socket  to the plug.
3. Tighten the screw-type lock of the socket . Tightening torque: 0.6 Nm ± 10%

6.3 Strain relief for electrical connection 1

- Apply the strain relief and fastening over a large area to avoid damage to the internal structure and outer shell.

6.4 Mounting electrical connection 2

1. Align the plug  to fit the socket.
2. Insert the plug  into the socket.
3. Tighten the screw-type lock of the plug . Tightening torque: 0.6 Nm ± 10%

6.5 Strain relief for electrical connection 2

- Apply the strain relief and fastening over a large area to avoid damage to the internal structure and outer shell.

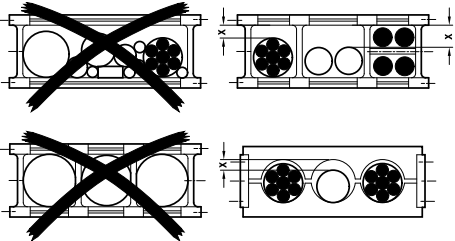
6.6 Wiring

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

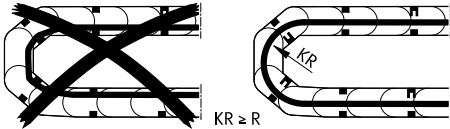
Tab. 2: Wiring

6.7 Mounting in energy chain

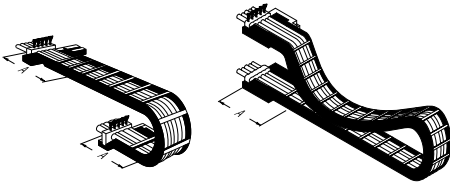
1. Lay out the energy chain lengthways.
2. Place the cables in the energy chain without twisting them.
3. Separate cables from each other using separators/drilled holes.
4. Do not bind cables in bundles.
5. Maintain space X. X > 10% of the cable diameter D.
With the energy chain hanging vertically: increase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

7 Technical data

7.1 Technical data

NEBU-M12G5-E-...Q8N-...-M12G5		
Certificates, declaration of conformity		➔ www.festo.com/sp
Cable characteristic		Suitability for energy chains
Cable composition	[mm²]	5 x 1
Cable diameter	D [mm]	7±0.1
Mounting space	A [mm]	> 20xD
Current rating at 40 °C	[A]	4
Surge resistance	[kV]	1.5
Nominal operating altitude	[m MSL]	≤ 2000
Relative humidity at 40 °C	[%]	max. 93
Overvoltage category		II
Operating voltage range		
Operating voltage range AC	U _B [V]	0 ... 60
Operating voltage range DC	U _B [V]	0 ... 60
Bending radius		
Fixed cable installation	[mm]	≥ 21
Flexible cable installation	[mm]	≥ 71
Flexible cable installation in energy chain (≥ 5 million cycles)	R [mm]	≥ 75
Ambient temperature		
Fixed cable installation	[°C]	−25 ... +80
Flexible cable installation	[°C]	−5 ... +80
Material		
Cable sheath		TPE-U(PUR)
Electrical connection 1		
Function		Field device side
Connection type		Socket
Connection technology		M12x1 A-coded to EN 61076-2-101
Type of mounting		Screw-type lock with hexagon SW13 and longitudinal knurl rotatable
		Compatible with screw-type lock, rotatable or non-rotatable
Degree of protection In assembled state		IP65 IP68 IP69K
Pollution degree In assembled state		3
Electrical connection 2		
Function		Controller side
Connection type		Plug connector
Connection technology		M12x1 A-coded to EN 61076-2-101
Type of mounting		Screw-type lock with hexagon SW13 and longitudinal knurl rotatable
		Compatible with screw-type lock, rotatable or non-rotatable
Degree of protection In assembled state		IP65 IP68 IP69K
Pollution degree In assembled state		3

Tab. 3: Technical data