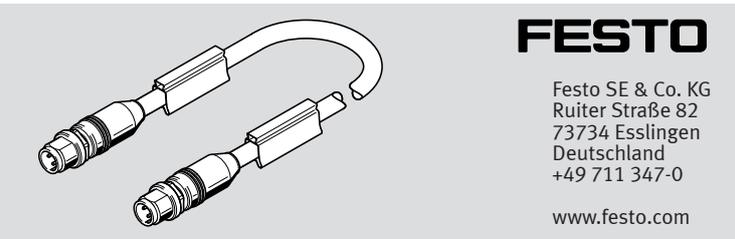


NEBC-D12G4-E...-D12G4-ET

Connecting cable



Assembly instructions

8146976
2021-07
[8146978]



8146976

Translation of the 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

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

2.2 Intended use

Cable for data transfer.

3 Structure

3.1 Product design

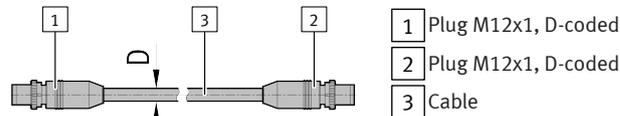


Fig.1

3.2 Contact assignment

Electrical connection 1 Field device side		Assignment/signal	Electrical connection 2 Controller side	
1 Plug connector	Pin		Pin	2 Plug connector
	1	TD+	1	
	2	RD+	2	
	3	TD-	3	
	4	RD-	4	

Tab. 1: Contact assignment

4 Assembly

4.1 Mounting electrical connection 1

1. Align the plug [1] to match the socket.
2. Insert the plug [1] into the socket.
3. Tighten the screw-type lock of the plug [1]. Tightening torque: 0.4 Nm ± 50%

4.2 Mounting electrical connection 2

1. Align the plug [2] to match the socket.
2. Insert the plug [2] into the socket.
3. Tighten the screw-type lock of the plug [2]. Tightening torque: 0.4 Nm ± 50%

4.3 Wiring

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

Tab. 2: Wiring

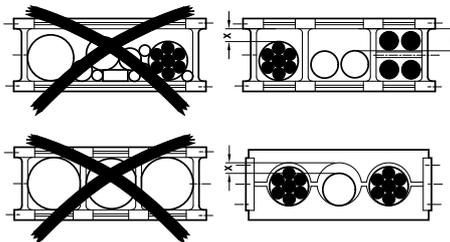
4.4 Strain relief

Strain relief for movable wiring

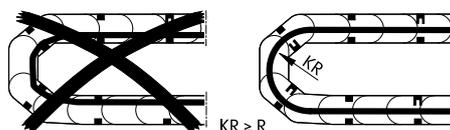
- Install the strain relief and mountings over a wide area to prevent damage to the interior structure and the exterior shell.

4.5 Mounting in energy chain

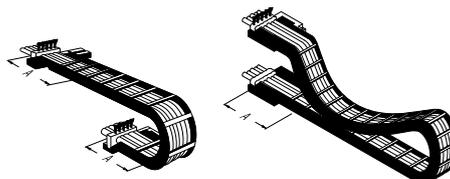
1. Lay the chain out lengthwise.
2. Place the cables on the chain, making sure they are not twisted.
3. Separate cables from each other using separators/drilled holes.
4. Do not connect cables together.
5. Maintain space X. $X > 10\%$ of the cable diameter D.
If the chain is suspended vertically: increase space X.



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 the energy chain → corresponding instructions.
 8. Fasten cables:
 - with short energy chains (length < 1 m) at both ends of the chain
 - with long sliding energy chains (length > 1 m) only at the driver end
 9. Do not move cables all the way to the fastening point.



- ↪ 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.

5 Technical data

NEBC-D12G4-E...-D12G4-ET		
Cable characteristic		Suitable for energy chains
Cable composition	[mm ²]	4x0.34 (star quad)
Shielding		Shielded
Cable diameter	D [mm]	6.7
Mounting space	A [mm]	≥ 134
Current rating at 40 °C	[A]	4
Surge resistance	[kV]	0.8
Operating voltage range DC	U _B [V]	0 ... 30
Bending radius		
Fixed cable installation	R [mm]	≥ 40
Flexible cable installation	R [mm]	≥ 100
Ambient temperature		
Fixed cable installation	[°C]	-25 ... +80
Flexible cable installation	[°C]	-20 ... +60
Material		
Cable sheath		TPE-U(PUR)
Insulating sheath		PE
Electrical connection 1		
Function		Field device side
Connection type		Plug connector
Connection technology		M12x1 D-coded
Type of mounting		Screw-type lock with hexagon ≈∅13 and longitudinal knurl
Degree of protection		IP65, IP67 In assembled state
Electrical connection 2		
Function		Controller side
Connection type		Plug connector
Connection technology		M12x1 D-coded
Type of mounting		Screw-type lock with hexagon ≈∅13 and longitudinal knurl
Degree of protection		IP65, IP67 In assembled state

Tab. 3: Technical data