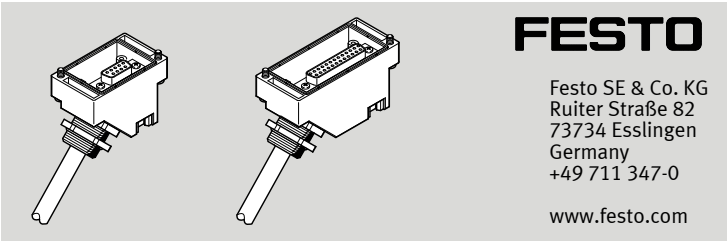


KMP3/KMP4
Connecting cable



Assembly instructions

8116204
2020-06a
[8116206]



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.
- Assembly and installation should only be carried out by qualified personnel. These personnel have electrical training or a relevant qualification.

2.2 Intended use

Connection of a CPV valve terminal to a higher-order controller.

3 Configuration

3.1 Product design

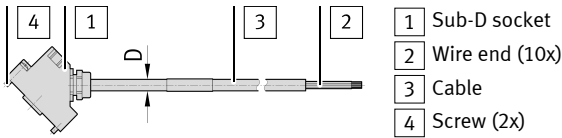


Fig. 1 KMP3/KMP4-9P...

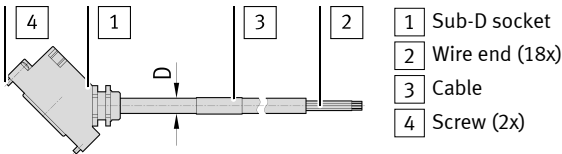


Fig. 2 KMP3-25P...

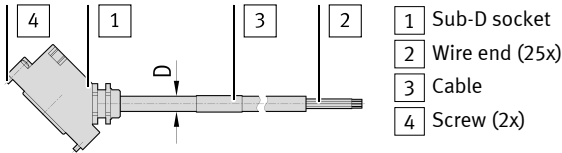


Fig. 3 KMP4-25P...

3.2 Contact assignment

Electrical connection 1 Field device side			Electrical connection 2 Controller side
1 Socket Pin			2 Wire ends Wire colour ¹⁾
KMP3/KMP4-9P...	KMP3-25P...	KMP4-25P...	
1	1	1	WH
2	2	2	GN
3	3	3	YE
4	4	4	GY
5	5	5	PK
6	6	6	BU
7	7	7	RD
8	8	8	VT
-	9	9	GYPK
-	10	10	RDBU
-	11	11	GNWH
-	12	12	BNGN
-	13	13	YEWB
-	14	14	BNYE
-	15	15	GYWH
-	16	16	BNGY
-	n.c.	17	WHPK
-	n.c.	18	BNPK
-	n.c.	19	BUWH
-	n.c.	20	BNBU
-	n.c.	21	RDWH
-	n.c.	22	BNRD
-	n.c.	23	BKWH
-	24	24	BN
9	25	25	BK

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

Tab. 1 Contact assignment

4 Assembly

4.1 Mounting of Electrical Connection 1

1. Align socket 1 to match plug.
2. Connect socket 1 to the plug.
3. Tighten screws 4. Tightening torque: 0.6 Nm ± 20 %

4.2 Mounting of Electrical Connection 2

1. Shorten and pre-assemble cable sheath and wire ends as needed.
2. Connect the wires in accordance with the contact assignment.

4.3 Strain Relief

Strain Relief for Movable Wiring

- Fix the cable sheath in the area of the wire ends 2. No force may be transferred to the cables.

4.4 Change of cable outlet direction (optional)

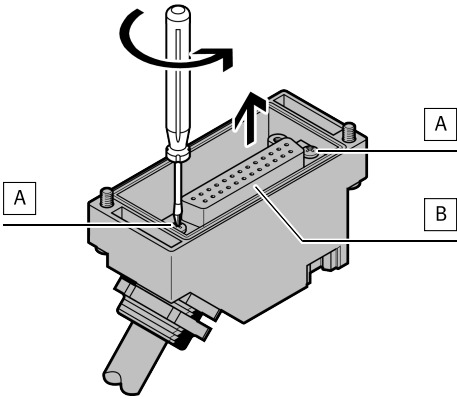


Fig. 4

1. Remove two screws [A] from the contact holder [B].
2. Carefully pull contact holder [B] from the cable socket.

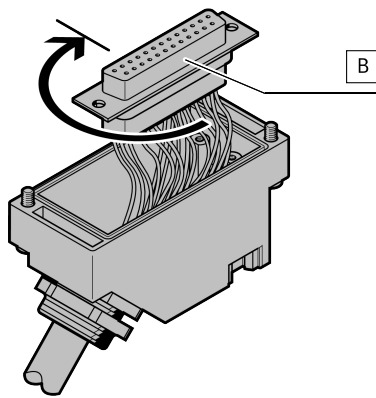


Fig. 5

3. Turn contact holder [B] 180°. Avoid cable twist during turning.

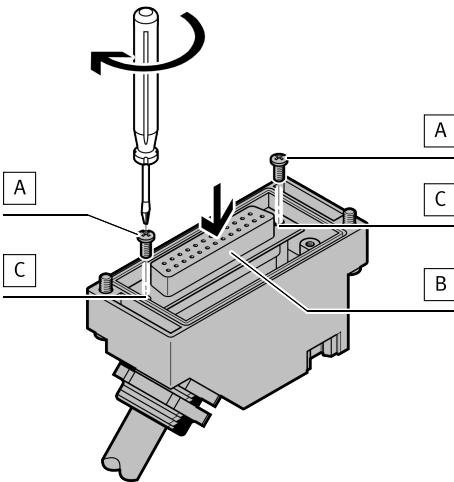


Fig. 6

4. Fasten the contact holder [B] loosely in the previously unused holes [C] with the two screws [A].

4.5 Wiring

Character-istics	Cable characteristic	Wiring
KMP3	Standard	Flexible (freely movable, unguided wiring) The line can be dynamically bent, but not for robots or energy chains.
KMP4	Suitable for energy chains	In energy chain or flexible

Tab. 2 Wiring

4.6 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.

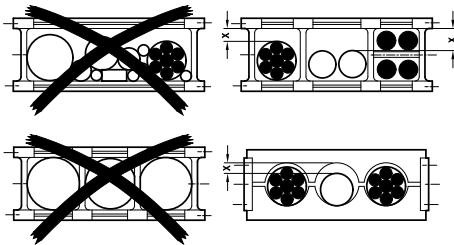


Fig. 7

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

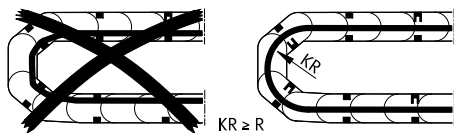


Fig. 8

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

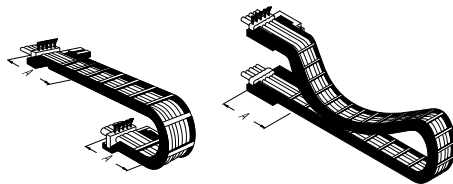


Fig. 9

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

KMP...		3-9P...	3-25P...	4-9P...	4-25P...
Cable characteristic		Standard		Suitable for energy chains	
Cable composition	[mm ²]	10x0.34	18x0.34	10x0.25	25x0.25
Cable diameter	D [mm]	7.15	8.5	PVC: 7.4 PUR: 7.0	PVC: 10.4 PUR: 9.8
Mounting space	A [mm]	–		PVC: ≥ 148 PUR: ≥ 140	PVC: ≥ 208 PUR: ≥ 196
Current rating at 40 °C	[A]	3			
Surge resistance	[kV]	1			
Operating voltage range					
DC	U _B [V]	0 ... 30			
Bending radius					
Fixed cable installation	R [mm]	≥ 30	≥ 45	PVC: ≥ 24 PUR: ≥ 23	PVC: ≥ 33 PUR: ≥ 31
Flexible cable installation	R [mm]	≥ 75	≥ 90	PVC: ≥ 39 PUR: ≥ 37	PVC: ≥ 55 PUR: ≥ 51
Ambient temperature					
Fixed cable installation	[°C]	–25 ... +70		–40 ... +70	
Flexible cable installation	[°C]	–5 ... +70		PVC: –5 ... +70 PUR: –40 ... +70	
Material					
Cable sheath		PVC		PVC: PVC PUR: TPE-U(PUR)	
Electrical connection 1					
Function		Field device side			
Connection type		Socket			
Connection technology		Sub-D			
Type of mounting		2x M3 screw			
Electrical connection 2					
Function		Controller side			
Connection type		Cable			
Connection technology		Open end			
Wire ends		Cut off bluntly			

Tab. 3 Technical data