Assembly instructions (Original instructions)
8068856
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[8068858]

Connecting cable VMPAL-KM...-S-SD...-IP67

FESTO

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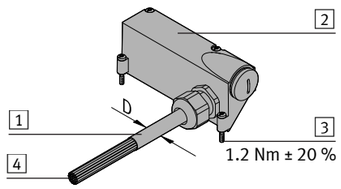
1. Applicable documents

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

2. Intended use

Connection of the multi-pin plug connection of valve terminal MPA-L to a controller.

3. Structure

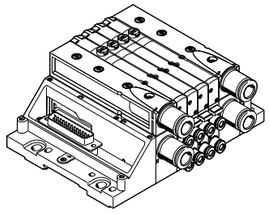


1 Cable (1x)

Field device side:
2 Socket strip (1x)
Sub-D socket
25-pin/44-pin
3 Screw (4x)

Controller side:
4 Wire end[1] (25x/36x)
Cut off bluntly

4. Not in scope of delivery



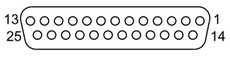
5 Valve terminal (1x)
MPA-L

5. Safety

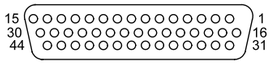
- Switch off power supply and compressed air before mounting work.
- Do not touch the contact surfaces of the plug connectors.
- Observe the handling specifications for electrostatically sensitive components.
- Comply with tightening torques.

6. Contact allocation

Socket strip 2 (25-pin)



Socket strip 2 (44-pin)



[1] Wire ends must be shortened and pre-assembled as needed.

7. Pin allocation

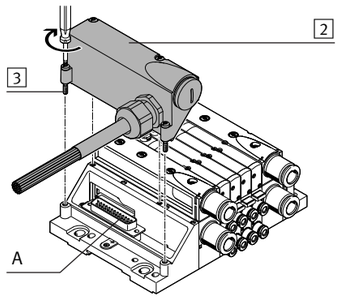
25-pin		44-pin	
Colour code[2]	Pin	Colour code[2]	Pin
WH	1	WH	1
GN	2	GN	2
YE	3	YE	3
GY	4	GY	4
PK	5	PK	5
BU	6	BU	6
RD	7	RD	7
VT	8	VT	8
GYPK	9	GYPK	9
RDBU	10	RDBU	10
GNWH	11	GNWH	11
BNGN	12	BNGN	12
YEWH	13	YEWH	13
BNYE	14	BNYE	14
GYWH	15	GYWH	15
BNGY	16	BNGY	16
WHPK	17	WHPK	17
BNPK	18	BNPK	18
BUWH	19	BUWH	19
BNBU	20	BNBU	20
RDWH	21	RDWH	21
BNRD	22	BNRD	22
BKWH	23	BKWH	23
BN	24	BN	24
BK	25	BKBN	25
–		GNGY	26
–		YEGY	27
–		GNPK	28
–		YEPK	29
–		GNBU	30
–		YEBU	31
–		RDGN	32
–		–	33 ... 40
–		RDYE	41
–		BKGN	42
–		BKYE	43
–		BK	44

[2] Colour code according to IEC 60757:1983-01

8. Technical data

VMPAL			KM-S-SD25	KM-S-SD44	KMSK
Cable composition		[mm²]	25x0.34	36x0.25	25x0.34
Current rating		[A]	2.62	1.44	2.62
Operating voltage range AC/DC	U_B	[V]	0 ... 30		
Surge resistance		[kV]	2.4		
Cable diameter	D	[mm]	10.2 ± 0.25	9.6 ± 0.2	11.2 ± 0.2
Cable bending radius					
Fixed cable installation	R	[mm]	≥ 41	≥ 38	≥ 38
Flexible cable installation	R	[mm]	≥ 122	≥ 115	≥ 112
Suitable for energy chains			No	No	Yes
Mounting space	A	[mm]	–	–	224
Degree of protection in mounted status					
Field device side			IP67		
Ambient temperature					
Field device side		[°C]	–5 ... +50		
Fixed cable installation		[°C]	–5 ... +80	–40 ... +80	–40 ... +70
Flexible cable installation		[°C]	–40 ... +80	–5 ... +80	–5 ... +70
Cable sheath material			PVC	PVC	TPE-U(PUR)

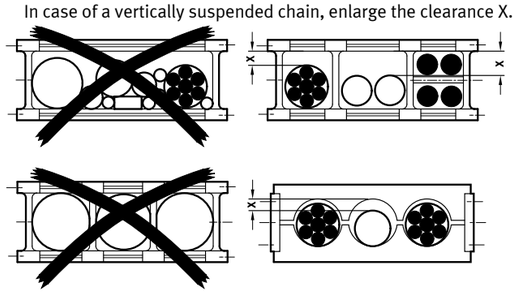
9. Mounting



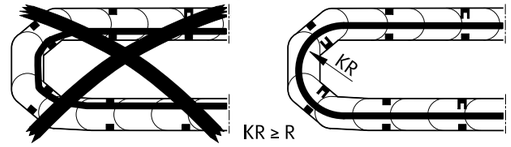
- Plug the socket strip 2 onto the contact strip (A).
- Tighten screws 3.

10. Mounting suitable cables in energy chains

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 through separators/drill holes.
4. Do not connect cables together.
5. Comply with space X. X > 10 % of the cable diameter D.
   In case of a vertically suspended chain, enlarge the clearance X.



6. 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.



7. Mount chain (➔ Corresponding assembly instructions).
8. Fasten cables:
– At both ends of the chain in case of short energy chains (➔ Fig. 1)
– Only at the driver end in the case of long, sliding energy chains (➔ Fig. 2).
9. Do not move cables up to the fastening point.
➔ Mounting space A between the fastening point and bending movement is observed.

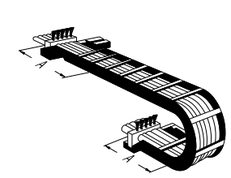


Fig. 1

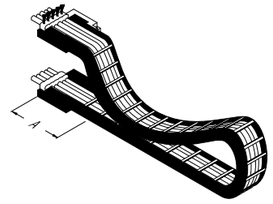


Fig. 2

Note

Chain break.
Damage to cables.
- Replace cables.

Note

Malfunction and material damage due to vertically suspended cables.
The cables stretch.
- Regularly check the length of the cables.
- Readjust the cables if required.