

Connecting cables for valves, socket type B, industry standard

**FESTO**



## Connecting cables for valves, socket type B, industry standard

### Type codes – Connecting cable with PUR cable sheath

001	Series
NEBV	Connecting cable for valves

002	Product version
	Standard
C	Easy-to-clean design

003	Connection technology left, field device side
A1	Socket type A, EN 175301-803
B2	Socket type B, industry standard, 11 mm
C1S	Socket type C, narrow design
H1	Socket connection pattern H
M8	Socket M8x1 A-coded, EN 61076-2-104
M12	Socket M12x1 A-coded, EN 61076-2-101
Z3	Socket connection pattern ZC, self-tapping screw
Z4	Socket connection pattern ZC, metric screw
S1	Sub-D socket
S7	Sub-D HD socket
Q7	Port pattern Q7 socket
HS	Socket connection pattern S
HP	Socket connection pattern HP

004	Cable outlet left
	None
G	Straight
W	Angled
WA	Angled 45°

005	Number of pins/wires on the left
2	2
3	3
4	4
8	8
9	9
15	15
25	25
37	37
44	44

006	Display
	None
F	LED signal status, AC
L	LED signal status, DC
N	LED switching state, NPN
P	LED switching state, PNP
U	LED, UC

007	Additional socket functions
	None
HL	Hood for MPA-L
HM	Hood for MPA-S
HS	With seal

008	Circuitry
	None
P	Protective circuit
R	Holding current reduction with integrated protective circuit

009	Cable characteristic
P	Basic
K	Standard
E	Suitable for energy chains
F	Food-safe to standard

010	Cable design
	Standard
D	Double cable
M	Alternative material
N	Leads

011	Cable length [m]
0.1	0.1
0.2	0.2
0.3	0.3
0.5	0.5
0.6	0.6
1	1
2	2
2.5	2.5
3	3
5	5
10	10

012	Cable identification
	With label holder
N	Without label holder

013	Connection technology right, controller side
LE	Open end
M8	Plug M8x1 A-coded, EN 61076-2-104
M12	Plug M12x1 A-coded, EN 61076-2-101
Z1	Port pattern ZB plug, self-tapping screw

014	Plug
	None
G	Straight
W	Angled

015	Number of pins/wires on the right
2	2
3	3
4	4
5	5
10	10
15	15
25	25
26	26
27	27
36	36
37	37
39	39
44	44

016	Degree of protection, electrical system
	Standard
S6	IP40
S1	IP65
S9	IP65/IP67
S10	IP65/IP67/IP69K

Type codes – Connecting cable with PVC cable sheath

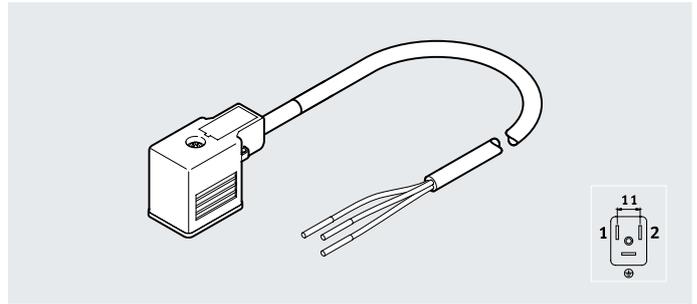
001	Series	
<b>KMF</b>	Connecting cable for valves, socket type B to industry standard 11 mm	
002	Variant	
<b>1</b>	Variant 1	
003	Rated operating voltage	
<b>24</b>	24 V DC	
<b>24DC</b>	24 V DC	
<b>230AC</b>	230 V AC	

004	Cable length [m]	
<b>2.5</b>	2.5	
<b>5</b>	5	
<b>10</b>	10	
005	Display	
	No display	
<b>LED</b>	LED signal status, DC	

## Datasheet – Connecting cable with PUR cable sheath

### Connecting cable NEBV-B2W3

- Connecting cable
- Pre-assembled at one or both ends
- For connecting valves



General technical data		NEBV-B2W3F... -LE3		NEBV-B2W3F... -M12W3	
Type					
<b>Electrical connection 1</b>					
Function	Field device side				
Connection type	Socket				
Cable outlet	Angled				
Design	Rectangular				
Connection technology	Plug pattern type B, to industry standard, 11 mm				
Number of pins/cores	3				
Assigned pins/cores	3				
Type of mounting	On solenoid valve via M3 central screw				
<b>Electrical connection 2</b>					
Function	Control side				
Connection type	Cable			Plug	
Cable outlet	–			Angled	
Design	–			Round	
Connection technology	Open end			M12x1, A-coded, to EN 61076-2-101	
Number of pins/cores	3			5	
Assigned pins/cores	3			3	
Type of mounting	–			Screw locking with spanner size 13 (hexagon)	

Technical data – Electrics							
Nominal operating voltage		24 V AC/DC		110 V AC/DC		230 V AC/DC	
Operating voltage range	[V AC]	18 ... 30		0 ... 110		0 ... 230	
	[V DC]	18 ... 30		0 ... 110		0 ... 230	
Surge resistance	[kV]	0.8		1.5		4	
Current rating at 40 °C	[A]	4		1		10	
Contamination level		3		3		3	
Display		Yellow LED, signal status indication		–		–	
Additional functions		Protective circuit		–		–	
Protective earth connection		Available		Available		Available	

Technical data – Cable		
Cable structure	[mm <sup>2</sup> ]	3x 0.75
Cable diameter	[mm]	5.9
Cable diameter tolerance	[mm]	±0.3
Cable characteristic		Standard
Test conditions, cable		Test conditions on request
Cable designation		Without inscription label holder

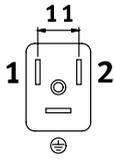
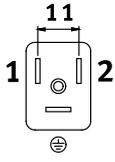
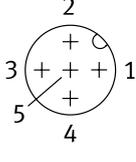
## Datasheet – Connecting cable with PUR cable sheath

Materials		
Electrical connection 2	Connection technology Open end	M12x1, A-coded, to EN 61076-2-101
Housing	TPE-U(PUR)	TPE-U(PUR)
Housing colour	Black	Black
Union nut	–	Nickel-plated die-cast zinc
Insulating sheath	PP	PP
Cable sheath	TPE-U(PUR)	TPE-U(PUR)
Cable sheath colour	Grey	Grey
Note on materials	RoHS-compliant	RoHS-compliant
LABS (PWIS) conformity	VDMA24364 zone III	VDMA24364-Zone III

Operating and environmental conditions			
Nominal operating voltage	24 V AC/DC	110 V AC/DC	230 V AC/DC
Ambient temperature [°C]	–25 ... +80	–25 ... +80	–25 ... +80
Ambient temperature with flexible cable installation [°C]	–25 ... +80	–25 ... +80	–25 ... +80
Degree of protection	IP67	IP67	IP67
Note on degree of protection	In mounted state	In mounted state	In mounted state
Corrosion resistance class (CRC) <sup>1)</sup>	2	2	2
CE marking (see declaration of conformity) <sup>2)</sup>	–	To EU Low Voltage Directive	To EU Low Voltage Directive
	–	To EU RoHS Directive	To EU RoHS Directive
UKCA marking (see declaration of conformity) <sup>1)</sup>	–	To UK regulations for electrical equipment	To UK regulations for electrical equipment
	–	To UK RoHS regulations	To UK RoHS regulations
Certification	c CSA us (OL)	c CSA us (OL)	c CSA us (OL)

1) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

2) More information [www.festo.com/catalogue/...](http://www.festo.com/catalogue/...) → Support/Downloads.

Wiring (socket/plug view)				
Electrical connection 1	Pin	Wire colour <sup>1)</sup>	Pin	Electrical connection 2
<b>Electrical connection 2, connection technology open end</b>				
	1	BK	–	Open end
	2	BK	–	Open end
	GND	GN YE	–	Open end
<b>Electrical connection 2, connection technology M12x1, A-coded to EN 61076-2-101</b>				
	1	BK	3	
	2	BK	4	
	GND	GN YE	5	

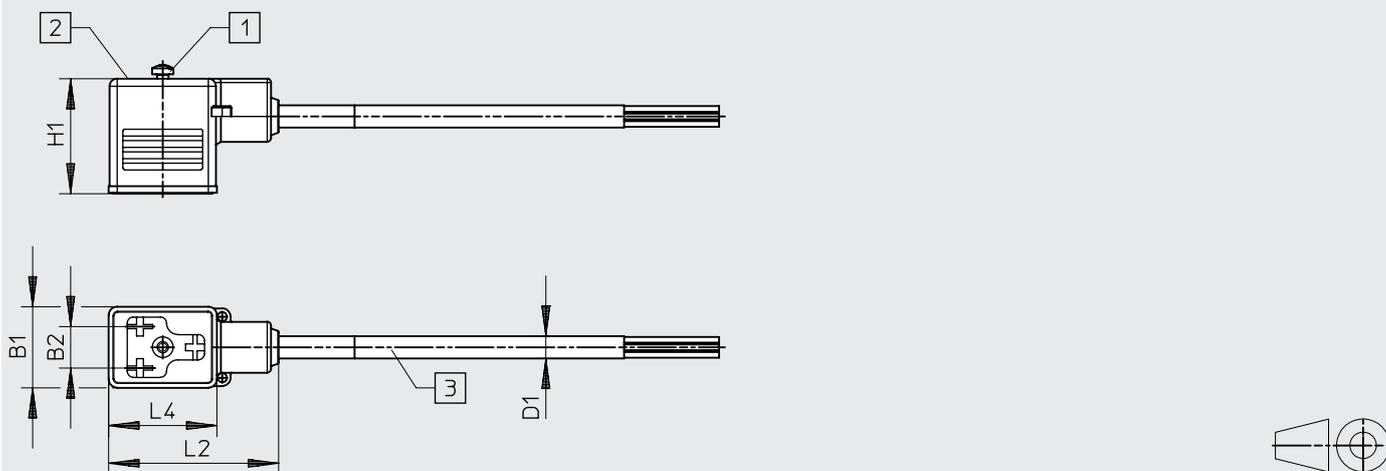
1) To IEC 757

## Datasheet – Connecting cable with PUR cable sheath

### Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

Electrical connection 2, connection technology open end

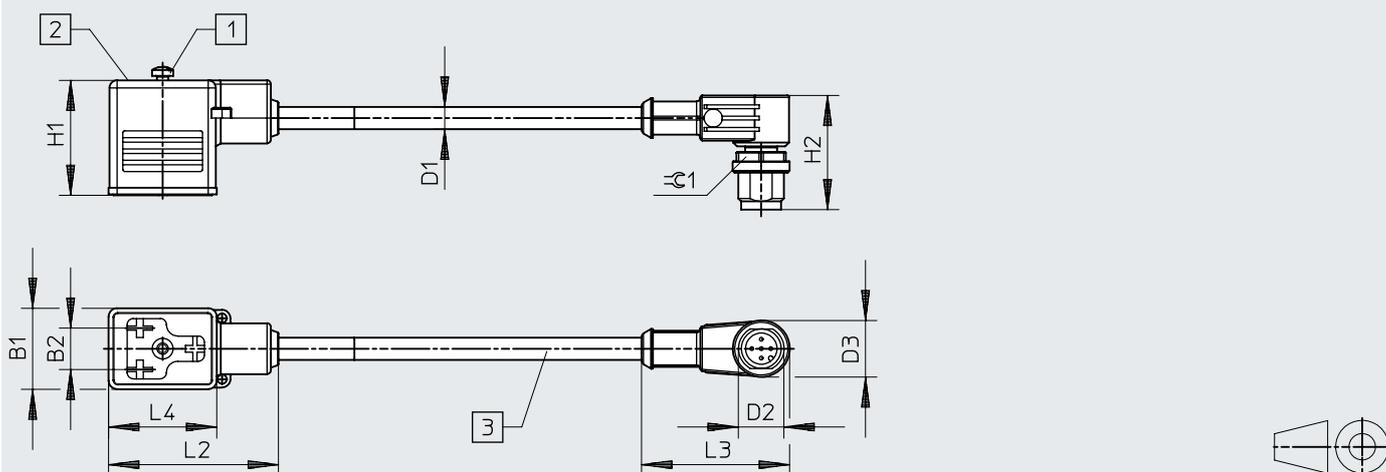


[1] Retaining screw M3

[2] Signal status indication for version P

[3] Cable, length depending on the order

Electrical connection 2, connection technology plug M12x1



[1] Retaining screw M3

[2] Signal status indication for version P

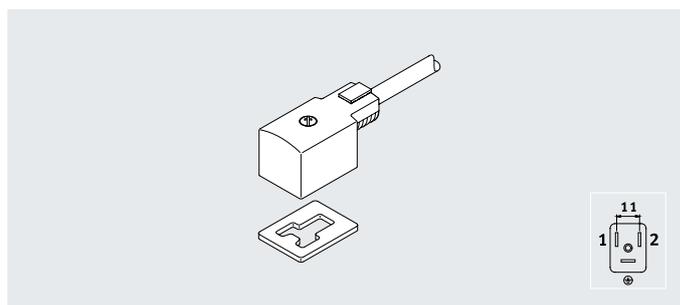
[3] Cable, length depending on the order

Type	B1	B2	D1 ∅	D2	D3 ∅	H1	H2	L2	L3	L4	⊖
NEBV-B2W3...-LE3	21.5	11	5.9	–	–	30.5	–	45	–	29	–
NEBV-B2W3...-M12W3	21.5	11	5.9	M12x1	15	30.5	31	45	39	29	13

## Datasheet – Connecting cable with PVC cable sheath

## Connecting cable KMF

- Connecting cable
- Pre-assembled at one end
- For connecting valves



## General technical data

## Electrical connection 1

Function	Field device side
Connection type	Socket
Cable outlet	Angled
Design	Rectangular
Connection technology	Plug pattern type B, to industry standard, 11 mm
Number of pins/cores	3
Assigned pins/cores	3
Type of mounting	On solenoid valve via M3 central screw
Mounting position	Any

## Electrical connection 2

Function	Control side
Connection type	Cable
Connection technology	Open end
Number of pins/cores	3
Assigned pins/cores	3

## Technical data – Electrics

Nominal operating voltage	24 V DC	230 V AC	
Operating voltage range	[V AC]	–	230 ... 254.5
	[V DC]	20.4 ... 27.6	–
Current rating at 40 °C	[A]	4	4
Contamination level		3	3
Display		Yellow LED, signal status indication	–
Protective earth connection		Available	Available

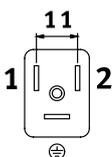
## Technical data – Cable

Cable structure	[mm <sup>2</sup> ]	3x 0.75
Cable diameter	[mm]	6
Cable characteristic		Standard
Test conditions, cable		Test conditions on request
Cable designation		Without inscription label holder

## Datasheet – Connecting cable with PVC cable sheath

Materials		
Housing	PC, POM	
Cable sheath	PVC	
Pin contacts	Bronze	
LABS (PWIS) conformity	VDMA24364-B2-L	
Operating and environmental conditions		
Nominal operating voltage	24 V DC	230 V AC
Ambient temperature [°C]	-20 ... +80	-20 ... +80
CE marking (see declaration of conformity) <sup>1)</sup>	-	To EU Low Voltage Directive
	To EU RoHS Directive	To EU RoHS Directive
UKCA marking (see declaration of conformity) <sup>1)</sup>	-	To UK regulations for electrical equipment
	To UK RoHS regulations	To UK RoHS regulations
Degree of protection to IEC 60529	IP67	IP67
Note on degree of protection	In mounted state	In mounted state

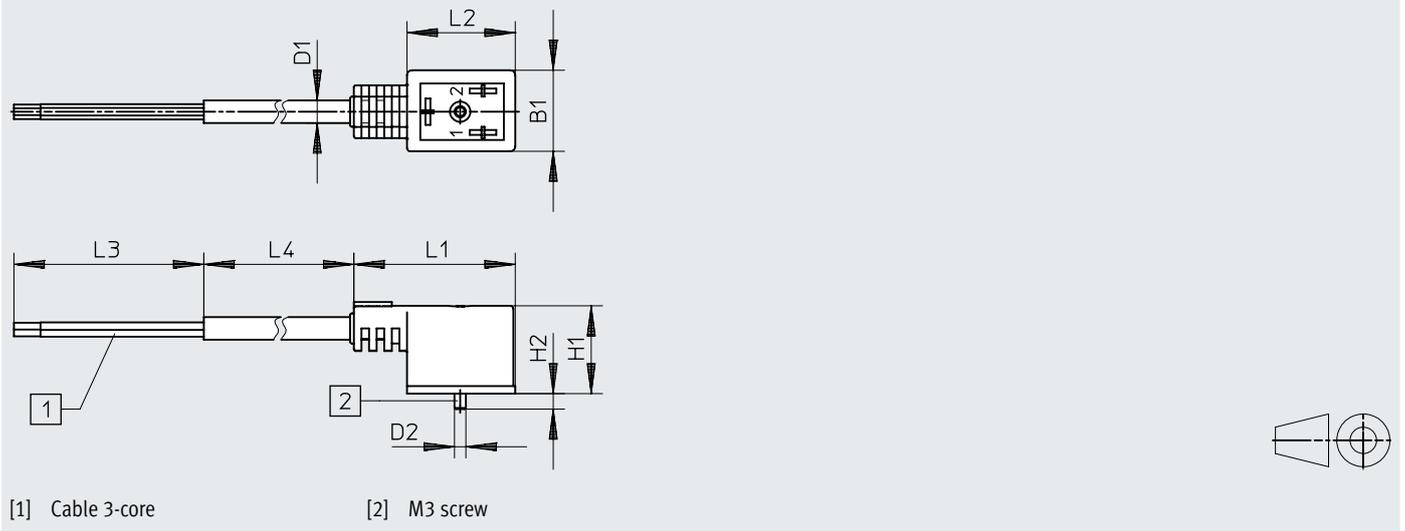
- 1) For information about the area of use, see the declaration of conformity at: [www.festo.com/catalogue/...d/Support/Downloads](http://www.festo.com/catalogue/...d/Support/Downloads).  
If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

Wiring (socket/plug view)					
Electrical connection 1	Pin	Wire colour <sup>1)</sup>	Pin	Electrical connection 2	
<b>Electrical connection 2, connection technology open end</b>					
	1	BK	-	Open end	
	2	BK	-	Open end	
	GND	GNYE	-	Open end	

- 1) To IEC 757

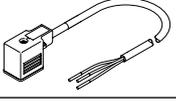
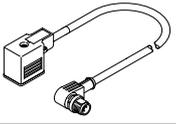
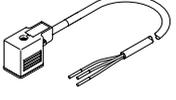
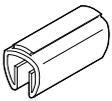
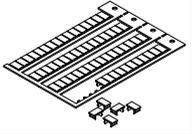
### Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)



Type	B1	D1 ∅	D2	H1	H2	L1	L2	L3	L4
KMF-1...-2.5	21	6	M3	23	6	43	28	50	2500
KMF-1...-5									5000
KMF-1...-10									10000

## Ordering data

Ordering data – Connecting cable with PUR cable sheath						
	Nominal operating voltage [V]		Cable length [m]	Weight [g]	Part no.	Type
<b>Electrical connection 2, connection technology open end</b>						
	24 AC/DC	<ul style="list-style-type: none"> <li>• Signal status indication</li> <li>• Protective circuit</li> </ul>	0.6	80	<b>3679778</b>	<b>NEBV-B2W3F-P-K-0.6-N-LE3</b>
	230 AC/DC	–	0.6	80	<b>3579468</b>	<b>NEBV-B2W3-K-0.6-N-LE3</b>
<b>Electrical connection 2, connection technology M12x1, A-coded to EN 61076-2-101</b>						
	24 AC/DC	<ul style="list-style-type: none"> <li>• Signal status indication</li> <li>• Protective circuit</li> </ul>	0.3	60	<b>3679773</b>	<b>NEBV-B2W3F-P-K-0.3-N-M12W3</b>
			0.6	100	<b>3679774</b>	<b>NEBV-B2W3F-P-K-0.6-N-M12W3</b>
	110 AC/DC	–	0.3	60	<b>3579463</b>	<b>NEBV-B2W3-K-0.3-N-M12W3</b>
			0.6	100	<b>3579464</b>	<b>NEBV-B2W3-K-0.6-N-M12W3</b>
<b>Ordering data – Connecting cable with PVC cable sheath</b>						
	Nominal operating voltage [V]		Cable length [m]	Weight [g]	Part no.	Type
<b>Electrical connection 2, connection technology open end</b>						
	24 DC	Signal status indication	2.5	170	<b>30935</b>	<b>KMF-1-24DC-2.5-LED</b>
			5	320	<b>30937</b>	<b>KMF-1-24DC-5-LED</b>
			10	620	<b>193458</b>	<b>KMF-1-24-10-LED</b>
	230 AC	–	2.5	170	<b>30936</b>	<b>KMF-1-230AC-2.5</b>
			5	320	<b>30938</b>	<b>KMF-1-230AC-5</b>
<b>Ordering data – Accessories</b>						
					Part no.	Type
	Inscription labels for attaching to a cable with diameter 5 ... 8 mm		11x20 mm		<b>33361</b>	<b>KM-BZ</b>
	Inscription labels for connecting cable KMF, 64 per frame		6x10 mm		<b>18576</b>	<b>IBS-6x10</b>

Ordering data – Modular product system

Ordering table		Conditions	Code	Enter code
Module no.	<b>8003577</b>			
Connecting cable	Connecting cables for valves		<b>NEBV</b>	NEBV
Connection technology left, field device side	Socket type B to industry standard, 11 mm		<b>-B2</b>	-B2
Cable outlet left	Angled		<b>W</b>	W
Number of pins/cores on the left	3-pin		<b>3</b>	3
Display	None			
	Signal status LED		<b>F</b>	
Wiring	None			
	Integrated protective circuit		<b>-P</b>	
Cable characteristic	Standard		<b>-K</b>	-K
Cable length	[m] 0.3	[1]	<b>-0.3</b>	
	[m] 0.6		<b>-0.6</b>	
Cable designation	Without inscription label holder		<b>-N</b>	-N
Connection technology on the right, controller side	Open end		<b>-LE</b>	
	Plug M12x1, A-coded, EN 61076-2-101		<b>-M12</b>	
Cable outlet right	None			
	Angled	[1]	<b>W</b>	
Number of pins/cores on the right	3-pin		<b>3</b>	3

[1] -0.3, W Only with connection technology on the right, M12