

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

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

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

<b>001</b>	<b>Series</b>	
<b>NEBV</b>	Connecting cable for valves	

<b>002</b>	<b>Product version</b>	
	Standard	
<b>C</b>	Easy-to-clean design	

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

<b>004</b>	<b>Cable outlet left</b>	
	None	
<b>G</b>	Straight	
<b>W</b>	Angled	
<b>WA</b>	Angled 45°	

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

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

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

<b>008</b>	<b>Circuitry</b>	
	None	
<b>P</b>	Protective circuit	
<b>R</b>	Holding current reduction with integrated protective circuit	

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

<b>010</b>	<b>Cable design</b>	
	Standard	
<b>M</b>	Alternative material	
<b>N</b>	Leads	
<b>D</b>	Double cable	

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

<b>012</b>	<b>Cable identification</b>	
	With label holder	
<b>N</b>	Without label holder	

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

<b>014</b>	<b>Plug</b>	
	None	
<b>G</b>	Straight	
<b>W</b>	Angled	

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

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

Type codes – Connecting cable with PVC cable sheath

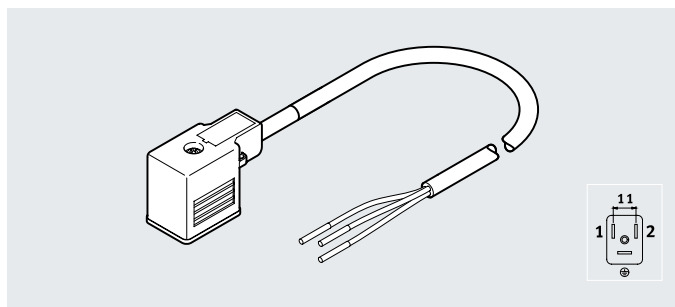
001	Series	
<b>KMF</b>	Connecting cable for valves, socket type B to industry standard 11 mm	
002	Variant	
<b>1</b>	Variant 1	
003	Rated operating voltage	
<b>24</b>	24 V DC	
<b>24DC</b>	24 V DC	
<b>230AC</b>	230 V AC	

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		
Type	NEBV-B2W3F... -LE3	NEBV-B2W3F... -M12W3
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/wires	3	
Assigned pins/wires	3	
Type of mounting	On solenoid valve with M3 central screw	
Electrical connection 2		
Function	Controller 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/wires	3	5
Assigned pins/wires	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
Acceptable current load at 40°C	[A]	4	1	10
Pollution degree		3	3	3
Display		Yellow LED, signal status indication	–	–
Additional functions		Protective circuit	–	–
Protective earth connection		Available	Available	Available

Technical data – Cable		
Cable composition	[mm <sup>2</sup> ]	3x 0.75
Cable diameter	[mm]	5.9
Cable diameter tolerance	[mm]	±0.3
Cable characteristic		Standard
Cable test conditions		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
	Contains paint-wetting impairment substances	Contains paint-wetting impairment substances

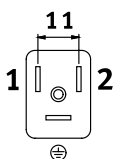
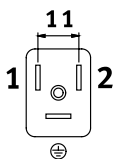
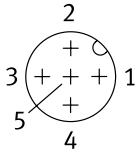
Operating and environmental conditions				
Nominal operating voltage		24 V AC/DC	110 V AC/DC	230 V AC/DC
Ambient temperature	[°C]	–25 ... +80	–25 ... +80	–25 ... +80
Ambient temperature with flexible cable installation	[°C]	–25 ... +80	–25 ... +80	–25 ... +80
CE marking (see declaration of conformity)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

1) For information about the area of use, see the EC declaration of conformity at: [www.festo.com/catalogue/nebv](http://www.festo.com/catalogue/nebv) → 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.

2) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Circuitry (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		

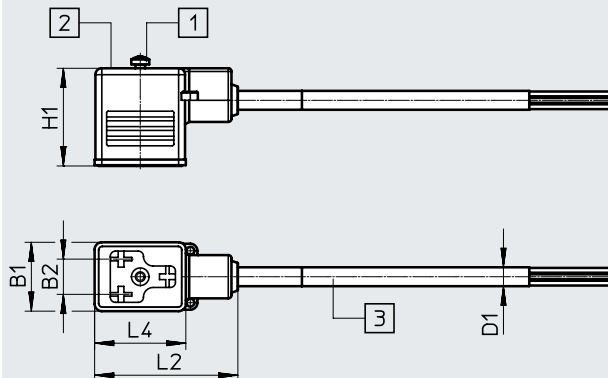
1) To IEC 757

## Datasheet – Connecting cable with PUR cable sheath

### Dimensions

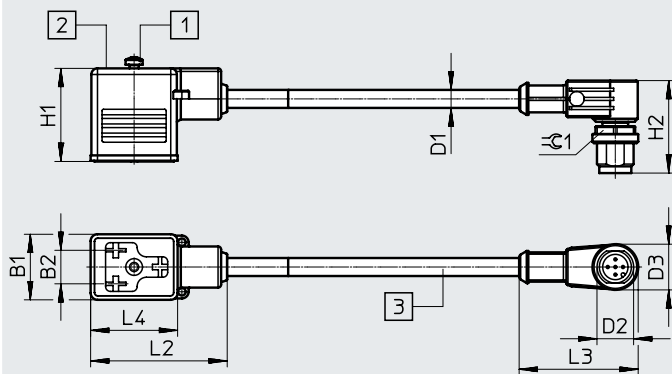
Download CAD data → [www.festo.com](http://www.festo.com)

Electrical connection 2, connection technology open end



- [1] Mounting screw M3
- [2] Signal status indication for version P
- [3] Cable, length depending on the order

Electrical connection 2, connection technology plug M12x1



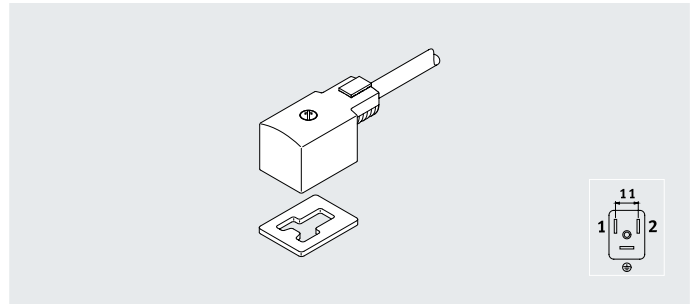
- [1] Mounting screw M3
- [2] Signal status indication for version P
- [3] Cable, length depending on the order

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/wires	3
Assigned pins/wires	3
Type of mounting	On solenoid valve with M3 central screw
Mounting position	Any

## Electrical connection 2

Function	Controller side
Connection type	Cable
Connection technology	Open end
Number of pins/wires	3
Assigned pins/wires	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	–
Acceptable current load at 40°C	[A]	4	4
Pollution degree		3	3
Display	Yellow LED, signal status indication	–	–
Protective earth connection	Available	Available	Available

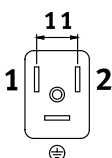
## Technical data – Cable

Cable composition	[mm <sup>2</sup> ]	3x 0.75
Cable diameter	[mm]	6
Cable characteristic		Standard
Cable test conditions		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	
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 instructions	To UK RoHS instructions
Degree of protection to IEC 60529	IP67	IP67
Note on degree of protection	In assembled state	In assembled state

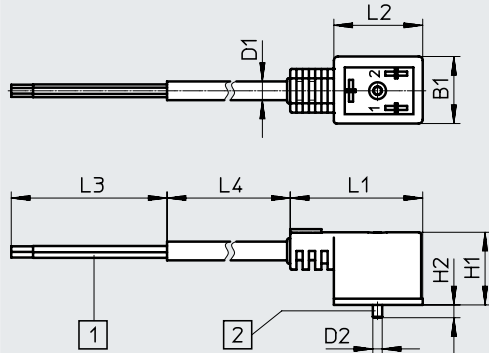
- 1) For information about the area of use, see the declaration of conformity at: [www.festo.com/catalogue/...](http://www.festo.com/catalogue/...) → Support/Downloads.  
If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for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

Circuitry (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)



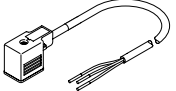
[1] Cable, 3-wire  
[2] M3 screw

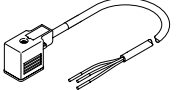
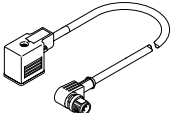
Type	B1	D1 ∅	D2	H1	H2	L1	L2	L3	L4
KMF-1-...-2,5	21	6	M3	23	6	43	28	50	2500
KMF-1-...-5									5000
KMF-1-...-10									10000

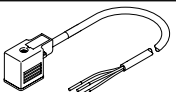


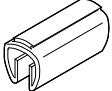
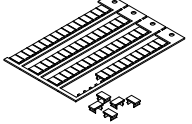
Ordering data

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Ordering data – Connecting cable with PVC cable sheath						
	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	★ 30935	KMF-1-24DC-2.5-LED

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	3679778	NEBV-B2W3F-P-K-0.6-N-LE3
	230 AC/DC	–	0.6	80	3579468	NEBV-B2W3-K-0.6-N-LE3
<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	3679773	NEBV-B2W3F-P-K-0.3-N-M12W3
			0.6	100	3679774	NEBV-B2W3F-P-K-0.6-N-M12W3
	110 AC/DC	–	0.3	60	3579463	NEBV-B2W3-K-0.3-N-M12W3
			0.6	100	3579464	NEBV-B2W3-K-0.6-N-M12W3

Ordering data – Connecting cable with PVC cable sheath						
	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	5	320	30937	KMF-1-24DC-5-LED
			10	620	193458	KMF-1-24-10-LED
	230 AC	–	2.5	170	30936	KMF-1-230AC-2.5
			5	320	30938	KMF-1-230AC-5

Ordering data – Accessories						
					Part no.	Type
	Inscription labels for attaching to a cable with diameter 5 ... 8 mm		11x20 mm		33361	KM-BZ
	Inscription labels for connecting cable KMF, 64 per frame		6x10 mm		18576	IBS-6x10

## 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 on the left, field device side	Socket type B to industry standard, 11 mm		<b>-B2</b>	-B2
Cable outlet on the left	Angled		<b>W</b>	W
Number of pins/wires on the left	3-pin		<b>3</b>	3
Display	None			
	Signal status LED		<b>F</b>	
Circuitry	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 on the right	None			
	Angled	[1]	<b>W</b>	
Number of pins/wires on the right	3-pin		<b>3</b>	3

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