

# Connecting cables for valves, plug pattern ZC, metric screw

Type codes

NEBV - Z4 WA 2 L - R - E - 5 - N - M8 G 3 - S1

**Function**

NEBV	Connecting cables for valves
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**Connection technology on left, field device side**

Z4	Socket, plug pattern ZC, metric screw
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**Cable outlet left**

WA	Angled 45°
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**Number of pins/wires, left**

2	2-pin
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**Display**

-	None
L	Signal status LED

**Circuitry**

-	None
P	Integrated protective circuit
R	Holding current reduction with integrated protective circuit

**Cable characteristic**

E	Suitable for energy chains
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**Cable length**

0,2	0.2 m
0,5	0.5 m
2,5	2.5 m
5	5 m
10	10 m

**Cable designation**

N	Without inscription label holder
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**Connection technology on right, controller side**

LE	Open end
M8	Plug M8x1, A-coded, EN 61076-2-104
Z1	Plug, plug pattern ZB, self-tapping screw

**Cable outlet right**

-	Open end
G	Straight
W	Angled

**Number of pins/wires, right**

2	2-pin
3	3-pin

**Degree of protection for electrics**

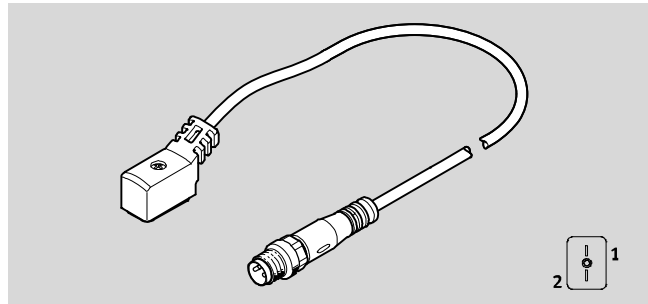
S1	IP65
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# Connecting cables for valves, plug pattern ZC, metric screw

Technical data

**Connecting cable NEBV-Z4WA2**

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



General technical data			
Electrical connection 1			
Function	Field device side		
Connection type	Socket		
Cable outlet	Angled		
Design	Square		
Connection technology	Plug pattern ZC, metric screw		
Number of pins/wires	2		
Assigned pins/wires	2		
Type of mounting	On solenoid valve via central screw M2		
Electrical connection 2			
Function	Controller side		
Connection type	Cable	Plug	Plug
Cable outlet	–	Straight	Angled
Design	–	Round	Square
Connection technology	Open end	M8x1, A-coded, to EN 61076-2-104	Plug pattern ZB, self-tapping screw
Number of pins/wires	2	3	2
Assigned pins/wires	2	2	2
Type of mounting	–	–	On solenoid valve via self-tapping screw

Technical data – Electrical		
Nominal operating voltage	[V DC]	24
Operating voltage range	[V DC]	20.4 ... 26.4
Surge resistance	[kV]	2.4
Degree of contamination		3
Connection frequency		50
Protection against polarity reversal		Bipolar
Protective earth connection		Not present

Technical data – Cable		
Cable composition	[mm <sup>2</sup> ]	2 x 0.14
Cable diameter	[mm]	2.9
Cable diameter tolerance	[%]	±0.1
Conductor nominal cross section	[mm <sup>2</sup> ]	0.14
Cable characteristic		Suitable for use with energy chains
Cable test conditions		Test conditions on request
Bending radius, flexible cable installation	[mm]	≥29
Cable identification		Without inscription label holder

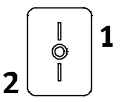
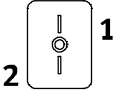
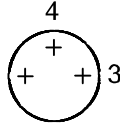
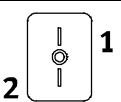
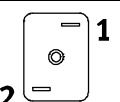
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Technical data

Materials			
Electrical connection 2	Connection technology		
	Open end	M8x1, A-coded, to EN 61076-2-104	Plug pattern ZB, self-tapping screw
Housing	TPE-U (PUR)	TPE-U (PUR)	TPE-U (PUR)
Housing colour	Black	Black	Black
Union nut	–	Nickel-plated brass	–
Insulating sheath	PP	PP	PP
Screws	Stainless steel	Stainless steel	Stainless steel
Pin contacts	Tin-plated copper alloy	Tin-plated copper alloy	Tin-plated copper alloy
	–	Gold-plated brass	–
Cable sheath	TPE-U (PUR)	TPE-U (PUR)	TPE-U (PUR)
Cable sheath colour	Grey	Grey	Grey
Note on materials	RoHS compliant	RoHS compliant	RoHS compliant

Operating and environmental conditions		
Additional functions	With holding current reduction	Without holding current reduction
Ambient temperature [°C]	–10 ... +50	–10 ... +50
CE marking (see declaration of conformity)	To EU EMC Directive <sup>1)</sup>	–
Degree of protection	IP65	IP65
Note on degree of protection	In mounted state	In mounted state

1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: [www.festo.com/sp](http://www.festo.com/sp) → User documentation.  
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

Circuitry (socket/plug view)					
Electrical connection 1	Pin	Wire colour <sup>1)</sup>		Pin	Electrical connection 2
Electrical connection 2, connection technology open end					
	1	BK		–	Open end
	2	BK		–	
Electrical connection 2, connection technology M8x1 A-coded to EN 61076-2-104					
	1	BK		1	
	2	BK		3	
Electrical connection 2, connection technology plug pattern ZB, self-tapping screw					
	1	BK		1	
	2	BK		2	

1) To IEC 757

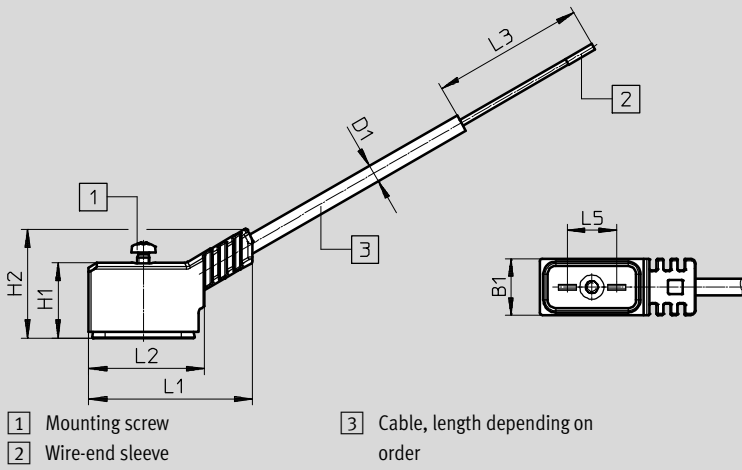
# Connecting cables for valves, plug pattern ZC, metric screw

Technical data

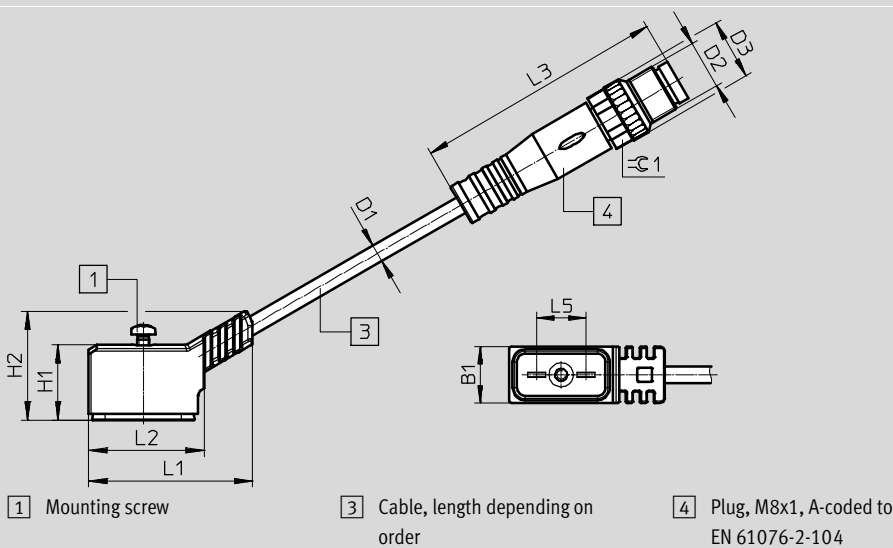
**Dimensions**

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

Electrical connection 2, connection technology open end



Electrical connection 2, connection technology M8x1 A-coded to EN 61076-2-104



Type	B1	D1 ∅	D2	D3 ∅	H1	H2	L1	L2	L3	L5	≅C1
NEBV-Z4WA2L-...-LE2-S1	9.7	2.9	-	-	12	17.5	26.9	19	50	8.4	-
NEBV-Z4WA2L-...-M8G3-S1	9.7	2.9	M8x1	10	12	17.5	26.9	19	41.1	8.4	9

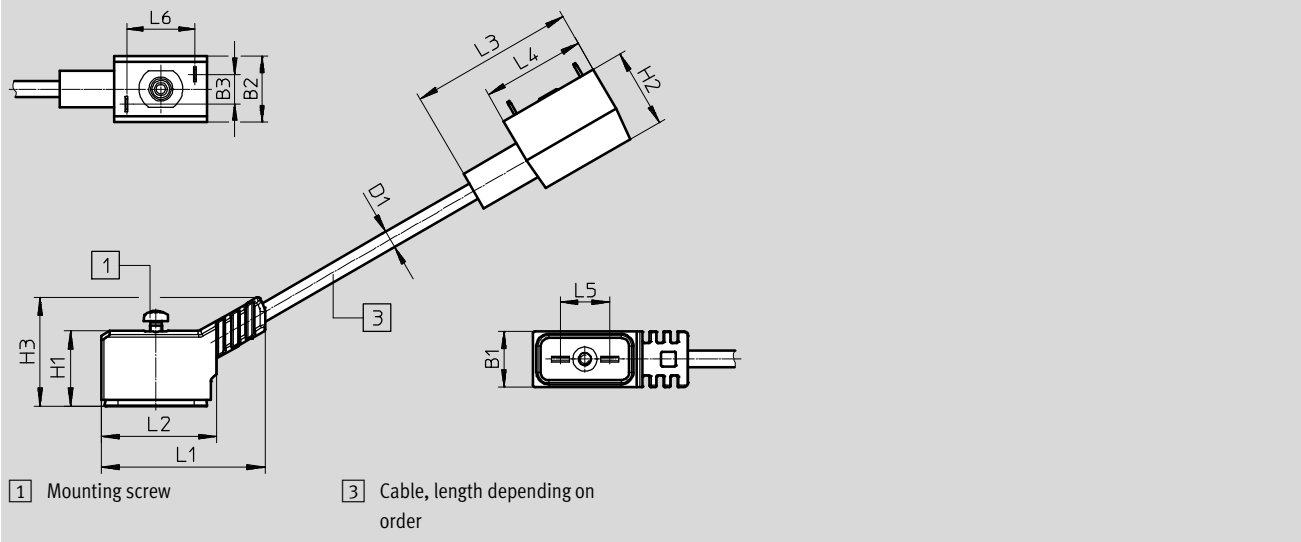
# Connecting cables for valves, plug pattern ZC, metric screw

Technical data

**Dimensions**

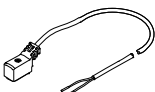
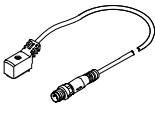
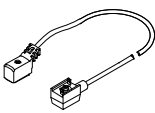
Download CAD data → [www.festo.com](http://www.festo.com)

Electrical connection 2, connection technology plug pattern ZB, self-tapping screw



Type	B1	B2	B3	D1 Ø	H1	H2	H3	L1	L2	L3	L4	L5	L6
NEBV-Z4WA2...-Z1W2-S1	9.7	9.7	5.4	2.9	12	13	17.5	26.9	19	27	17	8.4	12.5

**Ordering data**

	Additional functions	Signal status display	Cable length [m]	Weight [g]	Part No.	Type
<b>Electrical connection 2, connection technology open end</b>						
	Protective circuit	Yellow LED	2.5	50	<b>8047671</b>	<b>NEBV-Z4WA2L-P-E-2.5-N-LE2-S1</b>
			5	90	<b>8047672</b>	<b>NEBV-Z4WA2L-P-E-5-N-LE2-S1</b>
			10	170	<b>8047670</b>	<b>NEBV-Z4WA2L-P-E-10-N-LE2-S1</b>
	Holding current reduction, protective circuit	Yellow LED	2.5	50	<b>8047679</b>	<b>NEBV-Z4WA2L-R-E-2.5-N-LE2-S1</b>
			5	90	<b>8047680</b>	<b>NEBV-Z4WA2L-R-E-5-N-LE2-S1</b>
			10	170	<b>8047678</b>	<b>NEBV-Z4WA2L-R-E-10-N-LE2-S1</b>
<b>Electrical connection 2, connection technology M8x1 A-coded to EN 61076-2-104</b>						
	Protective circuit	Yellow LED	0.5	18	<b>8047673</b>	<b>NEBV-Z4WA2L-P-E-0.5-N-M8G3-S1</b>
			2.5	54	<b>8047674</b>	<b>NEBV-Z4WA2L-P-E-2.5-N-M8G3-S1</b>
	Holding current reduction, protective circuit	Yellow LED	0.5	18	<b>8047683</b>	<b>NEBV-Z4WA2L-R-E-0.5-N-M8G3-S1</b>
			2.5	54	<b>8047684</b>	<b>NEBV-Z4WA2L-R-E-2.5-N-M8G3-S1</b>
<b>Electrical connection 2, connection technology plug pattern ZB, self-tapping screw</b>						
	Operating voltage range 0 ... 30 V DC	–	0.2	18	<b>8047681</b>	<b>NEBV-Z4WA2-E-Q2-N-Z1W2-S1</b>
	Holding current reduction, protective circuit	Yellow LED	0.2	18	<b>8047682</b>	<b>NEBV-Z4WA2L-R-E-Q2-N-Z1W2-S1</b>

# Connecting cables for valves, plug pattern ZC, metric screw

Ordering data – Modular product system

Ordering table		Condi- tions	Code	Entry code
<b>M</b>	Module no.	<b>8003577</b>		
	Connecting cable	Connecting cables for valves	<b>NEBV</b>	NEBV
	Connection technology on left, field device side	Socket, plug pattern ZC, metric screw	<b>-Z4</b>	-Z4
	Cable outlet, left	Angled 45°	<b>WA</b>	WA
	Number of pins/wires, left	2-pin	<b>2</b>	2
<b>O</b>	Display	None Signal status LED	<b>L</b>	
	Circuitry	None	<b>1</b>	
		Integrated protective circuit	<b>2</b>	<b>-P</b>
		Holding current reduction with integrated protective circuit		<b>-R</b>
<b>M</b>	Cable characteristic	Suitable for use with energy chains	<b>-E</b>	-E
	Line length [m]	0.2	<b>1</b>	<b>-0,2</b>
		0.5	<b>3</b>	<b>-0,5</b>
		2.5	<b>2</b>	<b>-2,5</b>
		5	<b>4</b>	<b>-5</b>
		10	<b>4</b>	<b>-10</b>
	Cable identification	Without inscription label holder	<b>-N</b>	-N
	Connection technology on right, control side	Open end	<b>-LE</b>	
		Plug connector M8x1, A-coded, EN 61076-2-104	<b>-M8</b>	
		Plug, plug pattern ZB, self-tapping screw	<b>-Z1</b>	
<b>O</b>	Cable outlet right	None		
		Straight	<b>G</b>	
		Angled	<b>W</b>	
<b>M</b>	Number of pins/wires, right	2-pin	<b>2</b>	
		3-pin	<b>3</b>	
	Degree of protection for electrics	IP65	<b>-S1</b>	-S1

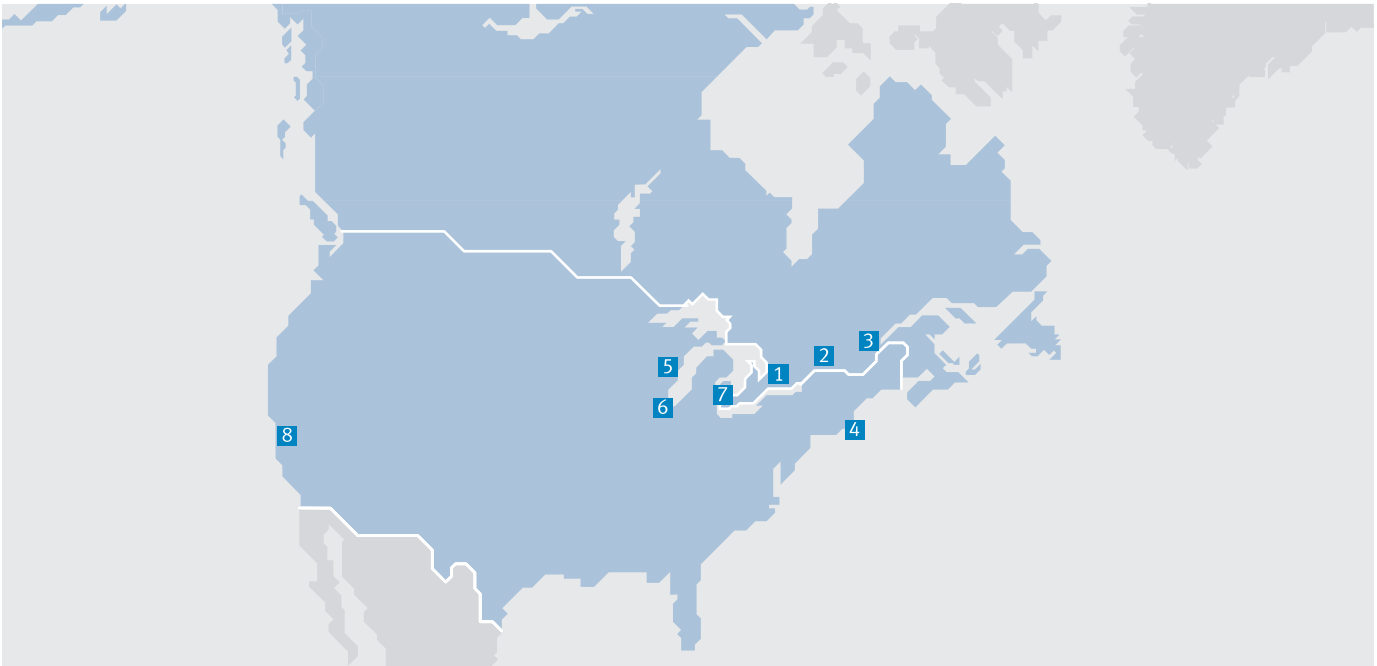
- 1** -0,2 Only with connection technology on right Z1
- 2** -P, -2,5 Not with connection technology on right Z1
- 3** -0,5, 3 Only with connection technology on right M8
- 4** -5, -10 Only with connection technology on right LE

**M** Mandatory data  
**O** Options

**Transfer order code**

**8003577** **NEBV** - **Z4** **WA** **2** - - **E** - - **N** - - **S1**

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