

Pressure and vacuum switches PEV/VPEV, PE converters PE/PEN/VPE

Product overview



- Mechanical pressure and vacuum switches with adjustable switching point
- PE converter
- Designs with adjustable hysteresis
- Designs with switching status display
- Variant with scale for pressure adjustment
- Wide range of mounting options

Detailed product information

➔ www.festo.com/catalogue/pev

Product overview							
Method of measurement	Operating pressure [bar]	Type	Pneumatic connection	Type of mounting	Max. switching output voltage		➔ Page/ Internet
					[V DC]	[V AC]	
Pressure switches							
Pneumatic/electrical pressure transducer	1 ... 12	PEV-1/4-B-M12	G1/4	With through-holes	48	48	2
		PEV-1/4-B			125	250	
		PEV-1/4-SC-OD			125	250	
	0 ... 8	PEV-W	M5	Via DIN H-rail	10 ... 30	–	4
1 ... 10	PEV-1/4-A	G1/4	Screw-in	250	250	7	
Vacuum switches							
Pneumatic/electrical pressure transducer	–1 ... 1.6	VPEV-1/8-M12	G1/8	Via through-hole	48	48	2
		VPEV-1/8			125	250	
	–1 ... 0	VPEV-W	M5	Via DIN H-rail	10 ... 30	–	4
PE converter							
Pneumatic/electrical differential pressure switch	–1 ... +8	PEN-M5	M5	On mounting frame 2N	10 ... 30	–	8
Pneumatic/electrical pressure transducer	0 ... 8	PE-1/8-2N	G1/8	On mounting frame 2N	12 ... 250	12 ... 250	
	–0.95 ... 0	VPE-1/8-2N	G1/8	On mounting frame 2N	12 ... 250	12 ... 250	

Pressure and vacuum switches PEV/VPEV, with through-holes

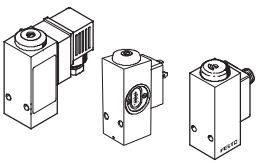
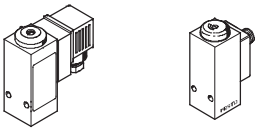
Type codes, technical data

Type codes	
PEV - 1/4 - B - - - -	
Type	
PEV	Pressure switch
VPEV	Vacuum switch
Pneumatic connection	
1/8	G1/8
1/4	G1/4
Generation	
B	B series
Electrical connection	
-	Plug, square design to EN 43 650, type A
M12	Plug, M12x1, 4-pin, round design
Setting options	
SC	Scale for pressure adjustment
Plug socket	
-	Included in scope of delivery
OD	Not included in scope of delivery

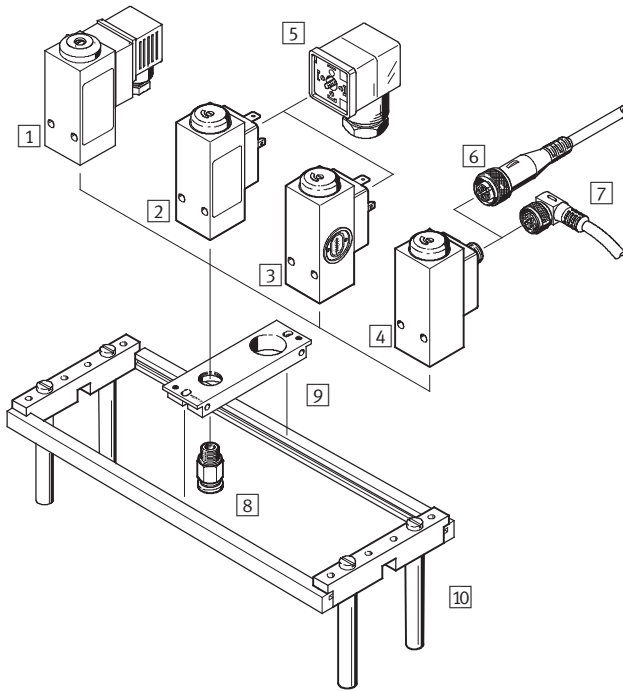
Technical data					
Type		PEV-1/4-B-M12	PEV-1/4-B-(OD) PEV-1/4-SC-OD	VPEV-1/8-M12	VPEV-1/8
Design					
Pneumatic connection		G1/4		G1/8	
Electrical data					
Max. switching output voltage	[V DC]	48	125	48	125
	[V AC]	48	250	48	250
Switching element function		Changeover switch			
Max. output current	[mA]	5,000		-	
Protection against short circuit		No			
Protection against polarity reversal		Yes			
Protection class		IP65			
Operating and environmental conditions					
Operating medium		Filtered compressed air, lubricated or unlubricated Water Mineral oil		Filtered compressed air, lubricated or unlubricated Vacuum, lubricated or unlubricated	
Operating pressure	[bar]	1 ... 12		-1 ... +1.6	
Ambient temperature	[°C]	-20 ... +80			
Conforms to		EN 60947-5-1			
CE mark (see declaration of conformity)		In accordance with EU Low Voltage Directive			
Certification		CCC			
		c UL us - Recognized (OL)	-	c UL us - Recognized (OL)	-
Materials					
Housing		Wrought aluminium alloy			
Note on materials		RoHS-compliant		RoHS-compliant	

Pressure and vacuum switches PEV/VPEV, with through-holes

Technical data, peripherals overview


Ordering data						
Description	Electrical connection	Adjustable hysteresis	Visual scale for pressure adjustment	Plug socket in scope of delivery	Part No.	Type
Pressure switches						
	Plug, square design to DIN 43650, type A	■	-	■	10773	PEV-1/4-B
		■	-	-	175250	PEV-1/4-B-OD
		-	■	-	161760	PEV-1/4-SC-OD
	Plug M12x1, 4-pin	■	-	-	192488	PEV-1/4-B-M12
Vacuum switches						
	Plug, square design to DIN 43650, type A	■	-	■	150261	VPEV-1/8
	Plug M12x1, 4-pin	■	-	-	192489	VPEV-1/8-M12

Peripherals overview





Accessories	
1	Pressure switch PEV-1/4-B-..., vacuum switch VPEV-1/8
2	Pressure switch PEV-1/4-B-OD-...
3	Pressure switch PEV-1/4-SC-OD-... with scale for pressure adjustment
4	Pressure switch PEV-1/4-B-M12, vacuum switch VPEV-1/8-M12
5	Plug socket PEV-1/4-WD-LED-... with switching status display Plug socket MSSD-C-4P without switching status display
6	Connecting cable NEBU-M12G5-... with straight socket
7	Connecting cable NEBU-M12W5-... with angled socket
8	Push-in fitting QS-...
9	Mounting plate APL-2N-PEV
10	Mounting frame NRRQ-2N

Ordering data – Plug sockets

	Description	Part No.	Type
	With switching status display	164274	PEV-1/4-WD-LED-24
		164275	PEV-1/4-WD-LED-230
	Without switching status display	171157	MSSD-C-4P


Ordering data – Connecting cables

Technical data → Internet: nebu



	Number of wires	Cable length [m]	Part No.	Type
M12x1, straight socket				
	4	5	541328	NEBU-M12G5-K-5-LE4
M12x1, angled socket				
	4	5	541329	NEBU-M12W5-K-5-LE4

Ordering data – Push-in fittings

Technical data → Internet: quick star

	Part No.	Type
	186097	QS-G1/4-6
	186099	QS-G1/4-8

Ordering data – Mounting attachments

	Part No.	Type
	9349	APL-2N-PEV
	9365	NRRQ-2N
	11571	NRW-9/1,5-B

Pressure and vacuum switches PEV-W/VPEV-W, DIN H-rail mounting

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Type codes, technical data

Type codes	
PEV-W – KL – LED – GH	
Type	
PEV-W	Pressure switch
VPEV-W	Vacuum switch
Electrical connection	
KL	Screw terminal, 4-pin
S	Plug, M8x1, 4-pin
Switching status display	
LED	Yellow LED
Type of mounting	
GH	Via DIN H-rail or via through-holes

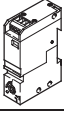
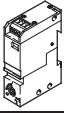
Technical data			
Type		PEV-W	VPEV-W
Design			
Pneumatic connection		M5	M5
Electrical data			
Operating voltage range	[V DC]	10 ... 30	10 ... 30
	[V AC]	–	–
Switching element function		Changeover switch	
Max. output current	[mA]	2,500	2,500
Protection against short circuit		No	
Protection against polarity reversal		Yes	
Protection class		IP65	
Operating and environmental conditions			
Operating medium		Filtered compressed air, lubricated or unlubricated	Filtered compressed air, lubricated or unlubricated Vacuum, lubricated or unlubricated
Operating pressure	[bar]	0 ... 8	0 ... -1
Ambient temperature	[°C]	-20 ... +80	
CE mark (see declaration of conformity)		In accordance with EU EMC directive ¹⁾	
Certification		C-Tick	
Materials			
Housing		Wrought aluminium alloy	
Note on materials		RoHS-compliant	

1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com → Support → 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.

Pressure and vacuum switches PEV-W/VPEV-W, DIN H-rail mounting



Technical data

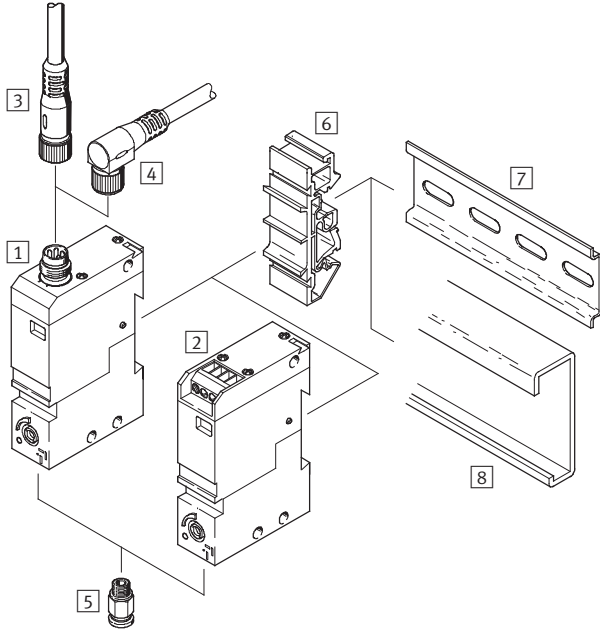
Ordering data				
Description	Electrical connection	Plug socket in scope of delivery	Part No.	Type
Pressure switches				
	Screw terminal, 4-pin	-	152618	PEV-W-KL-LED-GH
	Plug, M8x1, 4-pin	-	152616	PEV-W-S-LED-GH
Vacuum switches				
	Screw terminal, 4-pin	-	152619	VPEV-W-KL-LED-GH
	Plug, M8x1, 4-pin	-	152617	VPEV-W-S-LED-GH

Pressure and vacuum switches PEV-W/VPEV-W, DIN H-rail mounting

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Peripherals overview

Peripherals overview





Accessories

1	Pressure switch PEV-W-S-... with plug M8x1 Vacuum switch VPEV-W-S-... with plug M8x1
2	Pressure switch PEV-W-KL-... with screw terminals Vacuum switch VPEV-W-KL-... with screw terminals
3	Connecting cable NEBU-M8G4-... with straight socket
4	Connecting cable NEBU-M8W4-... with angled socket
5	Push-in fitting QSM-M5
6	Mounting latch PENV-BGH
7	Mounting rail to DIN EN 60715
8	Mounting rail to DIN EN 50035


Ordering data – Connecting cables

Technical data → Internet: nebu


	Number of wires	Cable length [m]	Part No.	Type
M8x1, straight socket				
	4	2.5	541342	NEBU-M8G4-K-2.5-LE4
		5	541343	NEBU-M8G4-K-5-LE4
M8x1, angled socket				
	4	2.5	541344	NEBU-M8W4-K-2.5-LE4
		5	541345	NEBU-M8W4-K-5-LE4

Ordering data – Push-in fittings

Technical data → Internet: quick star

	For tubing O.D. [mm]	Part No.	Type
	3	153302	QSM-M5-3
	4	153304	QSM-M5-4
	6	153306	QSM-M5-6

Ordering data – Accessories

	Part No.	Type
	164597	PENV-BGH

Pressure switches PEV, screw-in

Type codes, technical data



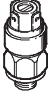

Type codes

		PEV	-	1/4	-	A	-	SW27	-	
Type										
PEV	Pressure switch									
Pneumatic connection										
1/4	G1/4									
Generation										
A	A series									
Width across flats										
SW27	27 mm									
Electrical connection										
-	For plug socket PEV-1/4-A-WD									
B-OD	For plug socket PEV-1/4-WD-LED-...									


Technical data

Type	PEV-1/4-A-SW27	PEV-1/4-A-SW27-B-OD
Design		
Pneumatic connection	G1/4	
Electrical data		
Operating voltage range	[V DC]	12 ... 250
Max. switching output voltage	[V DC]	250
	[V AC]	250
Switching element function	Changeover switch	
Max. output current	[mA]	4,000
Protection against short circuit	No	
Protection against polarity reversal	No	
Protection class	IP65	
Operating and environmental conditions		
Operating medium	Filtered compressed air, lubricated or unlubricated	
Operating pressure	[bar]	1 ... 10
Ambient temperature	[°C]	-30 ... +100 -20 ... +100
CE mark (see declaration of conformity)	In accordance with EU Low Voltage Directive	
Materials		
Housing	Galvanised steel	

Ordering data

	Electrical connection	Plug socket in scope of delivery	Part No.	Type
	Plug, 4-pin	-	159259	PEV-1/4-A-SW27
	Plug, 4-pin	-	175252	PEV-1/4-A-SW27-B-OD

Ordering data – Plug sockets

	Description	Operating voltage range		Part No.	Type
		[V DC]	[V AC]		
	For pressure switch PEV-1/4-A-SW27	≤180	≤230	161209	PEV-1/4-A-WD
	For pressure switch PEV-1/4-A-SW27-B-OD	15 ... 30	-	164274	PEV-1/4-WD-LED-24
		≤180	≤230	164275	PEV-1/4-WD-LED-230

PE converter PE/PEN/VPE

Type codes, technical data

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Type codes

		PE	-	1/8	-	2N	-	SW
Type								
PE	PE converter							
PEN	PE converter							
VPE	PE converter for vacuum							
Pneumatic connection								
1/8	G1/8							
M5	Female thread M5							
Type of mounting								
2N	On mounting frame 2N							
Width across flats								
SW	Splash proof design							

Technical data

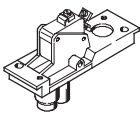
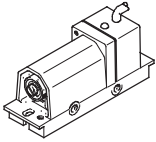
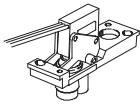
Type	PE-1/8-2N	PE-1/8-2N-SW	PEN-M5	VPE-1/8-2N	VPE-1/8-2N-SW
Design					
Pneumatic connection	G1/8		M5	G1/8	
Electrical data					
Operating voltage range	[V DC]	12 ... 250	12 ... 30	12 ... 250	
	[V AC]	12 ... 250	-	12 ... 250	
Switch output	-		PNP	-	
Switching element function	Changeover switch		N/O contact	Changeover switch	
Max. output current	[mA]	4,000	350	4,000	
Minimum load current	[mA]	100	-	100	
Protection against short circuit		No	Yes	No	
Protection against polarity reversal		No			
Protection class	IP00, IP20 with protective cap	IP67	IP67	IP00, IP20 with protective cap	IP67
Operating and environmental conditions					
Operating medium	Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm				
	-				Vacuum
Operating pressure	[bar]	0 ... 8	-1 ... +8	-0.95 ... 0	
Ambient temperature	[°C]	0 ... 60	-20 ... +60		0 ... 60
CE mark (see declaration of conformity)		In accordance with EU Low Voltage Directive	In accordance with EU EMC directive ¹⁾	In accordance with EU Low Voltage Directive	
Certification		CCC	C-Tick	CCC	
Materials					
Housing	Die-cast aluminium, polyamide		Die-cast zinc	Die-cast aluminium, polyamide	

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PE converters PE/PEN/VPE

Technical data



Ordering data				
	Operating pressure [bar]	Electrical connection	Part No.	Type
	0 ... 8	Screw terminal	7860	PE-1/8-2N
		3 wires	7862	PE-1/8-2N-SW
	-1 ... +8	Cable, 3-wire	8625	PEN-M5
	-0.95 ... 0	Screw terminal	12594	VPE-1/8-2N
		3 wires	12595	VPE-1/8-2N-SW