

# 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](http://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]	
<b>Pressure switches</b>							
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	
<b>Vacuum switches</b>							
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
<b>PE converter</b>							
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

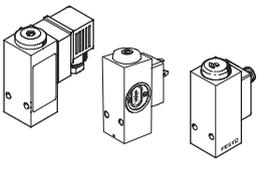
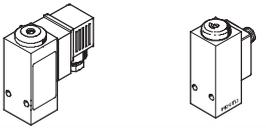
Type codes, technical data

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

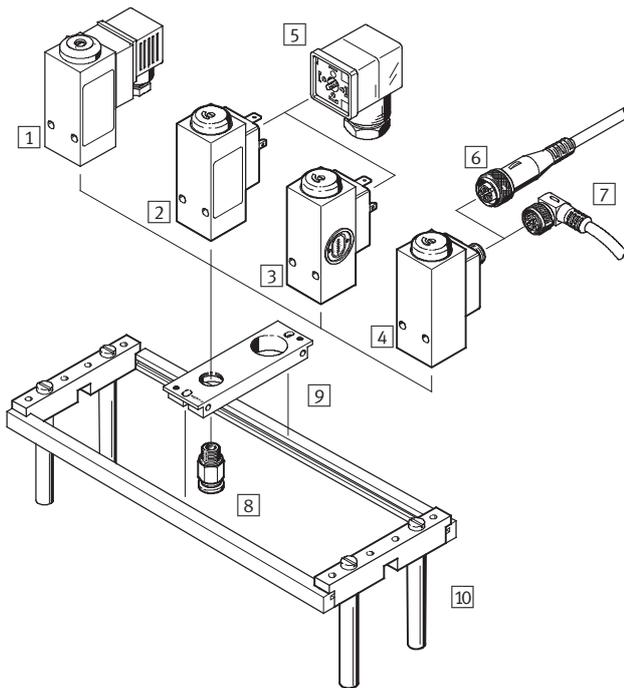
Technical data					
Type		PEV-1/4-B-M12	PEV-1/4-B-(OD) PEV-1/4-SC-OD	VPEV-1/8-M12	VPEV-1/8
<b>Design</b>					
Pneumatic connection		G1/4		G1/8	
<b>Electrical data</b>					
Max. switching output voltage	[V DC]	48	125	48	125
	[V AC]	48	250	48	250
Switching element function		Changeover switch			
Max. output current	[mA]	5,000		-	
Protection against short circuit		No			
Protection against polarity reversal		Yes			
Protection class		IP65			
<b>Operating and environmental conditions</b>					
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)	-
<b>Materials</b>					
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
<b>Pressure switches</b>						
	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
<b>Vacuum switches</b>						
	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			
	Number of wires	Cable length [m]	Part No. Type
Technical data → Internet: nebu			
<b>M12x1, straight socket</b>			
	4	5	541328 NEBU-M12G5-K-5-LE4
<b>M12x1, angled socket</b>			
	4	5	541329 NEBU-M12W5-K-5-LE4

Ordering data – Push-in fittings		
	Part No.	Type
Technical data → Internet: quick star		
	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	
<b>Type</b>	
PEV-W	Pressure switch
VPEV-W	Vacuum switch
<b>Electrical connection</b>	
KL	Screw terminal, 4-pin
S	Plug, M8x1, 4-pin
<b>Switching status display</b>	
LED	Yellow LED
<b>Type of mounting</b>	
GH	Via DIN H-rail or via through-holes

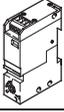
Technical data			
Type		PEV-W	VPEV-W
<b>Design</b>			
Pneumatic connection		M5	M5
<b>Electrical data</b>			
Operating voltage range	[V DC]	10 ... 30	10 ... 30
	[V AC]	–	–
Switching element function		Changeover switch	
Max. output current	[mA]	2,500	2,500
Protection against short circuit		No	
Protection against polarity reversal		Yes	
Protection class		IP65	
<b>Operating and environmental conditions</b>			
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 <sup>1)</sup>	
Certification		C-Tick	
<b>Materials</b>			
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](http://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

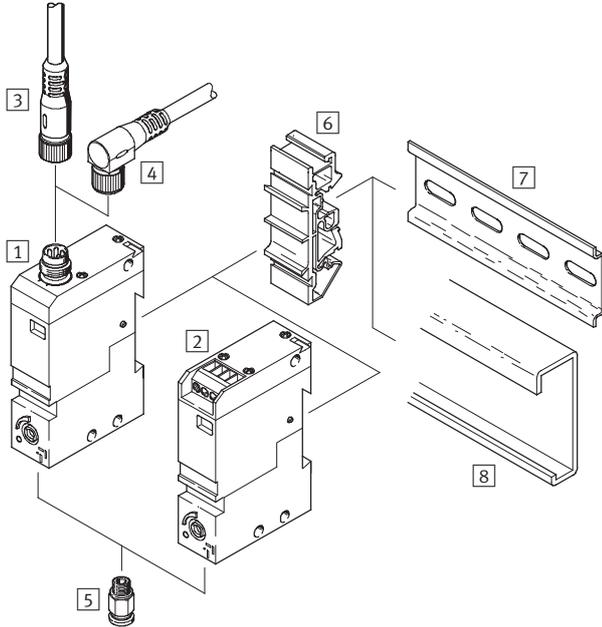
Ordering data				
Description	Electrical connection	Plug socket in scope of delivery	Part No.	Type
Pressure switches				
	Screw terminal, 4-pin	-	152618	PEV-W-KL-LED-GH
	Plug, M8x1, 4-pin	-	152616	PEV-W-S-LED-GH
Vacuum switches				
	Screw terminal, 4-pin	-	152619	VPEV-W-KL-LED-GH
	Plug, M8x1, 4-pin	-	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
<b>M8x1, straight socket</b>				
	4	2.5	541342	NEBU-M8G4-K-2.5-LE4
		5	541343	NEBU-M8G4-K-5-LE4
<b>M8x1, angled socket</b>				
	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	-	
<b>Type</b>										
PEV	Pressure switch									
<b>Pneumatic connection</b>										
1/4	G1/4									
<b>Generation</b>										
A	A series									
<b>Width across flats</b>										
SW27	27 mm									
<b>Electrical connection</b>										
-	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
<b>Design</b>		
Pneumatic connection	G1/4	
<b>Electrical data</b>		
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	
<b>Operating and environmental conditions</b>		
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	
<b>Materials</b>		
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
<b>Type</b>								
PE	PE converter							
PEN	PE converter							
VPE	PE converter for vacuum							
<b>Pneumatic connection</b>								
1/8	G1/8							
M5	Female thread M5							
<b>Type of mounting</b>								
2N	On mounting frame 2N							
<b>Width across flats</b>								
SW	Splash proof design							

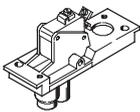
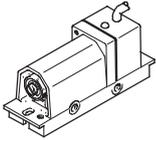
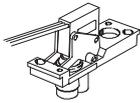
## Technical data

Type	PE-1/8-2N	PE-1/8-2N-SW	PEN-M5	VPE-1/8-2N	VPE-1/8-2N-SW
<b>Design</b>					
Pneumatic connection	G1/8		M5	G1/8	
<b>Electrical data</b>					
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
<b>Operating and environmental conditions</b>					
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 <sup>1)</sup>	In accordance with EU Low Voltage Directive	
Certification		CCC	C-Tick	CCC	
<b>Materials</b>					
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	<b>7860</b>	<b>PE-1/8-2N</b>
		3 wires	<b>7862</b>	<b>PE-1/8-2N-SW</b>
	-1 ... +8	Cable, 3-wire	<b>8625</b>	<b>PEN-M5</b>
	-0.95 ... 0	Screw terminal	<b>12594</b>	<b>VPE-1/8-2N</b>
		3 wires	<b>12595</b>	<b>VPE-1/8-2N-SW</b>

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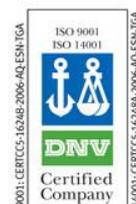
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# Festo North America

## Festo Regional Contact Center

5300 Explorer Drive  
Mississauga, Ontario L4W 5G4  
Canada

### USA Customers:

For ordering assistance,

**Call:** 1.800.99.FESTO (1.800.993.3786)

**Fax:** 1.800.96.FESTO (1.800.963.3786)

**Email:** [customer.service@us.festo.com](mailto:customer.service@us.festo.com)

For technical support,

**Call:** 1.866.GO.FESTO (1.866.463.3786)

**Fax:** 1.800.96.FESTO (1.800.963.3786)

**Email:** [product.support@us.festo.com](mailto:product.support@us.festo.com)

### Canadian Customers:

**Call:** 1.877.GO.FESTO (1.877.463.3786)

**Fax:** 1.877.FX.FESTO (1.877.393.3786)

**Email:** [festo.canada@ca.festo.com](mailto:festo.canada@ca.festo.com)

---

## USA Headquarters

Festo Corporation  
395 Moreland Road  
P.O. Box 18023  
Hauppauge, NY 11788, USA  
[www.festo.com/us](http://www.festo.com/us)

---

## USA Sales Offices

### Appleton

North 922 Tower View Drive, Suite N  
Greenville, WI 54942, USA

### Boston

120 Presidential Way, Suite 330  
Woburn, MA 01801, USA

### Chicago

1441 East Business Center Drive  
Mt. Prospect, IL 60056, USA

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1825 Lakeway Drive, Suite 600  
Lewisville, TX 75057, USA

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2601 Cambridge Court, Suite 320  
Auburn Hills, MI 48326, USA

### New York

395 Moreland Road  
Hauppauge, NY 11788, USA

### Silicon Valley

4935 Southfront Road, Suite F  
Livermore, CA 94550, USA

## United States



**USA Headquarters, East:** Festo Corp., 395 Moreland Road, Hauppauge, NY 11788

Phone: 1.631.435.0800; Fax: 1.631.435.8026;

Email: [info@festo-usa.com](mailto:info@festo-usa.com)

[www.festo.com/us](http://www.festo.com/us)

## Canada



**Headquarters:** Festo Inc., 5300 Explorer Drive, Mississauga, Ontario L4W 5G4

Phone: 1.905.624.9000; Fax: 1.905.624.9001;

Email: [festo.canada@ca.festo.com](mailto:festo.canada@ca.festo.com)

[www.festo.ca](http://www.festo.ca)

## Mexico



**Headquarters:** Festo Pneumatic, S.A., Av. Ceylán 3, Col. Tequesquahuac,  
54020 Tlalneantla, Edo. de México

Phone: 011 52 [55] 53 21 66 00; Fax: 011 52 [55] 53 21 66 65;

Email: [festo.mexico@mx.festo.com](mailto:festo.mexico@mx.festo.com)

[www.festo.com/mx](http://www.festo.com/mx)

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## Central USA

Festo Corporation  
1441 East Business  
Center Drive  
Mt. Prospect, IL 60056, USA  
Phone: 1.847.759.2600  
Fax: 1.847.768.9480



## Western USA

Festo Corporation  
4935 Southfront Road,  
Suite F  
Livermore, CA 94550, USA  
Phone: 1.925.371.1099  
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