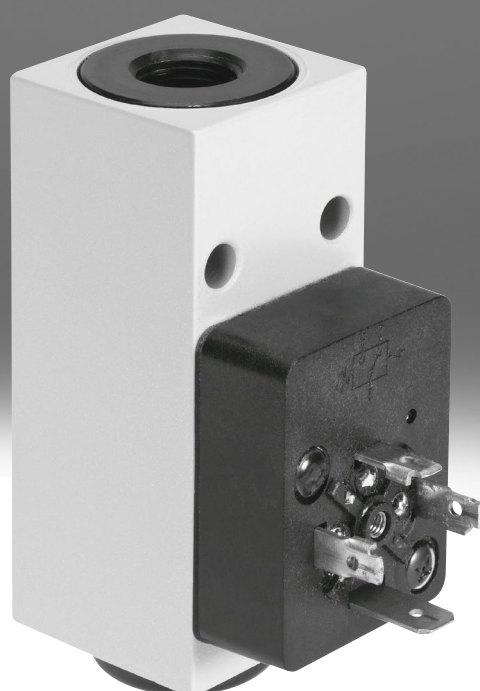


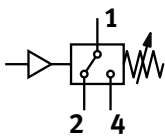
Pressure switch PEV, VPEV

FESTO



Characteristics

At a glance

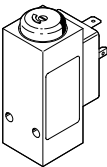


Mechanical pressure and vacuum switch

- Adjustable switching point
- Mounting: screw-in, via through-holes or on an H-rail
- Adjustable pressure indicator or vacuum indicator in sturdy aluminium cast housing with plug to EN 175301-803 or EN 60947-5-2.
- Visual scale for setting the pressure
- Approval: CCC, c UL us - Recognized (OL), RCM

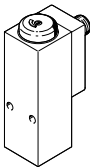
Series

[PEV] Pressure switch



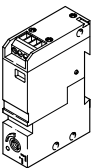
Pressure switch with through-hole
PEV-SW27: Pressure switch, screw-in type

[VPEV] Vacuum switch



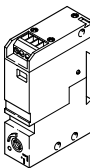
Vacuum switch with through-hole

[PEV-W] Pressure switch



Pressure switch, H-rail mounting

[VPEV-W] Vacuum switch



Vacuum switch, H-rail mounting

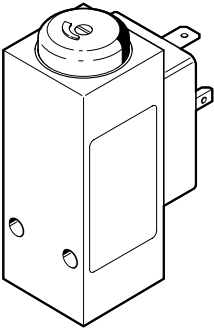
Type code

001	Series	
PEV	Pressure switch	
VPEV	Pressure switch	
002	Pneumatic connection	
1/8	G1/8	
1/4	G1/4	
003	Generation	
	None	
A	Series A	
B	Series B	

004	Electrical connection	
	Standard	
KL	Screw terminal, 4-pin	
M12	Plug M12x1, 4-pin, round design, to EN 60947-5-2	
S	Plug M8x1, 4-pin	
005	Setting options	
	None	
SC	Scale for pressure setting	
006	Plug socket	
	Included in the scope of delivery	
OD	Not included in the scope of delivery	

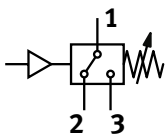
Datasheet

General technical data – PEV/VPEV

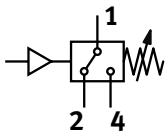


Pneumatic connection	G1/8, G1/4
Type of mounting	With through-hole
Mounting position	optional
Measured variable	Relative pressure
Measurement method	Pneumatic/electric pressure transducer with setting scale Pneumatic/electric pressure transducer
Pressure measuring range	-1 ... 1.6 bar

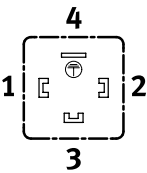
Function PEV/VPEV



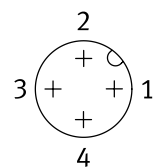
Function PEV/VPEV-...-M12



Pin allocation – PEV/VPEV (plug, form A)



Pin allocation – PEV/VPEV (plug M12x1, 4-pin)



Datasheet

Operating and environmental conditions – PEV/VPEV

Pneumatic connection	G1/8, G1/4
Operating pressure	-0.1 ... 1.2 MPa
Operating pressure	-1 ... 12 bar
Operating pressure	-3 ... 175 psi
Operating medium	Compressed air to ISO 8573-1:2010 [7:-:] Compressed air to ISO 8573-1:2010 [7:4:4] Water
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Media temperature	-20 ... 80°C
Ambient temperature	-20 ... 80°C
Conforms to standard	EN 60947-5-1
Approval ¹⁾	CCC c UL us - Recognized (OL)
CE mark (see declaration of conformity) ²⁾	To EU Low Voltage Directive
UKCA marking (see declaration of conformity) ³⁾	To UK regulations for electrical equipment
Degree of protection	IP65
Corrosion resistance class CRC ⁴⁾	2 - Moderate corrosion stress

1) c UL us only for ...M12; more information www.festo.com/catalogue/pev → Support/Downloads.

2) More information www.festo.com/catalogue/pev → Support/Downloads.

3) More information www.festo.com/catalogue/pev → Support/Downloads.

4) More information www.festo.com/catalogue/kbk2

Electrical data – PEV/VPEV

Pneumatic connection	G1/8, G1/4
Switching element function	Changeover switch
Max. switching frequency	3 Hz
Max. switching output voltage AC	48 ... 250 V
Max. switching output voltage DC	48 ... 125 V
Max. output current	4,000 ... 5,000 mA
Min. load current	1 mA at 24 V 10 mA at 10 V 100 mA at 5 V
Utilisation category - inductive load	AC-14 DC-13
Utilisation category - resistive load	AC-12 DC-12

Display / operation – PEV/VPEV

Pneumatic connection	G1/8, G1/4
Switching status indication ¹⁾	Yellow LED
Setting range threshold value	-0.95 ... 12 bar
Setting range threshold value after conversion	0.16 ... 1.6 bar

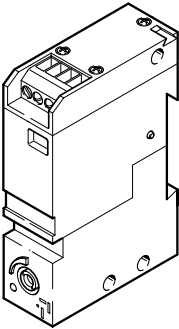
1) Switching status indication: PEV-1/4-B-OD; VPEV-1/8

Materials – PEV/VPEV

Pneumatic connection	G1/8, G1/4
Material housing	Die-cast aluminium, Wrought aluminium alloy
Material switch contact	Silver
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

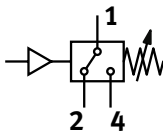
Datasheet

General technical data – PEV-W/VPEV-W

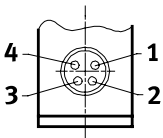


Pneumatic connection	M5
Type of mounting	Either:, With through-hole, With H-rail
Mounting position	optional
Measured variable	Relative pressure
Measurement method	Pneumatic/electric pressure transducer
Pressure measuring range	-0.8 ... 8 bar

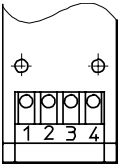
Function PEV-W/VPEV-W



Pin allocation – PEV-W/VPEV-W (plug M8x1, 4-pin)



Pin allocation – PEV-W/VPEV-W (screw terminal, 4-pin)



Datasheet

Operating and environmental conditions – PEV-W/VPEV-W

Pneumatic connection	M5
Operating pressure	-1 ... 8 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:-:-]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Media temperature	0 ... 60°C
Ambient temperature	0 ... 60°C
Approval ¹⁾	RCM trademark
CE mark (see declaration of conformity) ²⁾	To EU EMC Directive, In accordance with EU RoHS Directive
Degree of protection ⁴⁾	IP20, IP65
Corrosion resistance class CRC ⁵⁾	2 - Moderate corrosion stress

1) c UL us only for ...M12; more information www.festo.com/catalogue/pev → Support/Downloads.

2) More information www.festo.com/catalogue/pev → Support/Downloads.

4) ...-WS: IP65; ...-W-KL: IP20

5) More information www.festo.com/catalogue/kbk2

Electrical data – PEV-W/VPEV-W

Pneumatic connection	M5
Switching element function	Changeover switch
Max. switching frequency	3 Hz
Max. output current	2,500 mA

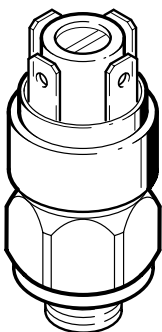
Display / operation – PEV-W/VPEV-W

Pneumatic connection	M5
Switching status indication	Yellow LED
Setting range threshold value	-0.8 ... 8 bar

Materials – PEV-W/VPEV-W

Pneumatic connection	M5
Material housing	PA, PET, POM
Note on materials	RoHS-compliant

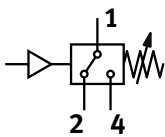
General technical data – PEV-SW27



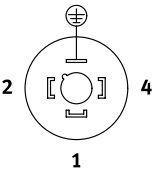
Pneumatic connection	G1/4
Type of mounting	Screw-in
Mounting position	optional
Measured variable	Relative pressure
Measurement method	Pneumatic/electric pressure transducer
Pressure measuring range	1 ... 10 bar

Datasheet

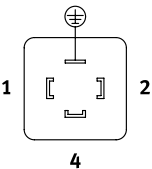
Function PEV-SW27



Pin assignment – PEV-SW27 (PEV-1/4-A-SW27)



Pin assignment – PEV-SW27, PEV-1/4-A-SW27-B-OD



Operating and environmental conditions – PEV-SW27

Pneumatic connection	G1/4
Operating pressure	1 ... 10 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:::]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Media temperature	-20 ... 80°C
Ambient temperature	-30 ... 100°C
CE mark (see declaration of conformity) ²⁾	To EU Low Voltage Directive
UKCA marking (see declaration of conformity) ³⁾	To UK regulations for electrical equipment
Degree of protection	IP65

2) More information www.festo.com/catalogue/pev → Support/Downloads.
3) More information www.festo.com/catalogue/pev → Support/Downloads.

Electrical data – PEV-SW27

Pneumatic connection	G1/4
Switching element function	Changeover switch
Max. switching frequency	3 Hz
Max. switching output voltage AC	250 V
Max. switching output voltage DC	250 V
Max. output current	4,000 mA

Display / operation – PEV-SW27

Pneumatic connection	G1/4
Setting range threshold value	1 ... 10 bar

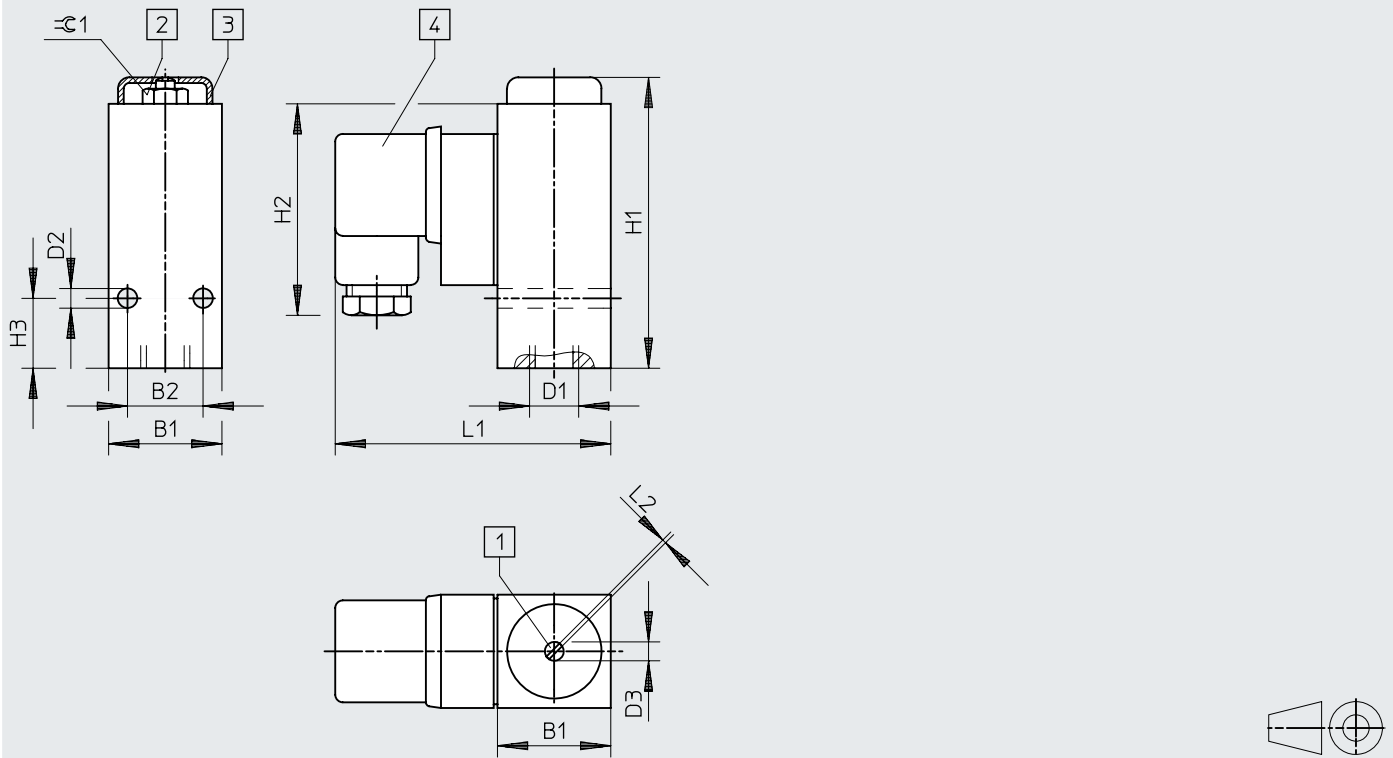
Datasheet

Materials – PEV-SW27

Pneumatic connection	G1/4
Material housing	PA66-GF30 Galvanised steel
Material membrane	NBR
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Dimensions

Dimensions – Pressure switch PEV-1/4-B Download CAD data www.festo.com

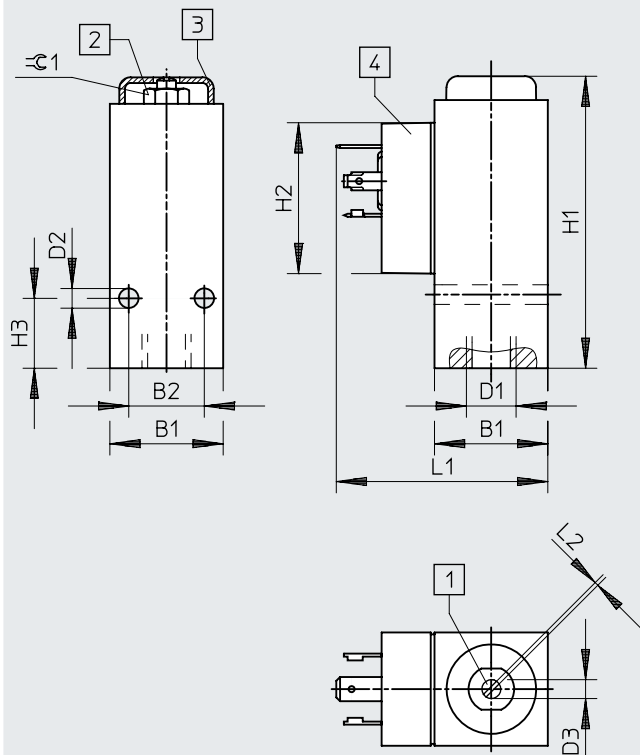


- [1] Switching point adjusting screw
- [2] Hex nut for adjusting the hysteresis (under protective cap)
- [3] Protective cap
- [4] Push-in connector M16x1.5 according to EN 175301-803-A, choice of cable outlet by turning socket insert 4x90°

	B1	B2	D1	D2 ∅	D3	H1	H2	H3	L1	L2	≙G1
	±0,2	±0,1		±0,2		±0,6		±0,5		±0,2	
PEV-1/4-B	30	20	G1/4	5,2	min. 5	77,3	56	18,5	78	1	11

Dimensions

Dimensions – Pressure switch PEV-1/4-B-OD

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


- [1] Switching point adjusting screw
- [2] Hex nut for adjusting the hysteresis (under protective cap)
- [3] Protective cap
- [4] Push-in connector suitable for plug socket M16x1.5 to EN 175301-803-A

	B1	B2	D1	D2 Ø	D3	H1	H2	H3	L1	L2	≈G1
	±0,2	±0,1		±0,2		±0,6		±0,5		±0,2	
PEV-1/4-B-OD	30	20	G1/4	5,2	min. 5	77,3	40	18,5	56	1	11

Dimensions

Dimensions – Pressure switch PEV-1/4-SC-OD

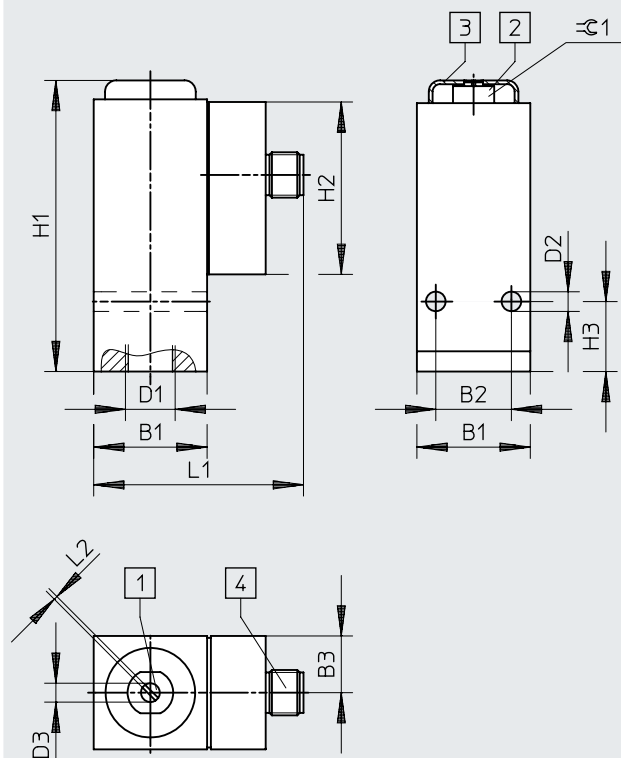
Download CAD data www.festo.com

[1] Switching point adjusting screw
[2] Hex nut for adjusting the hysteresis (under protective cap)
[3] Protective cap
[4] Push-in connector suitable for plug socket M16x1.5 to EN 175301-803-A
[5] Scale for reading the set switching pressure

	B1	B2	D1	D2 Ø	D3	H1	H2	H3	L1	L2	Ø1
	±0,2	±0,1		±0,2		±0,6		±0,5		±0,2	
PEV-1/4-SC-OD	30	20	G1/4	5,2	min. 5	77,3	40	18,5	56	1	11

Dimensions

Dimensions – Pressure switch PEV-1/4-B-M12

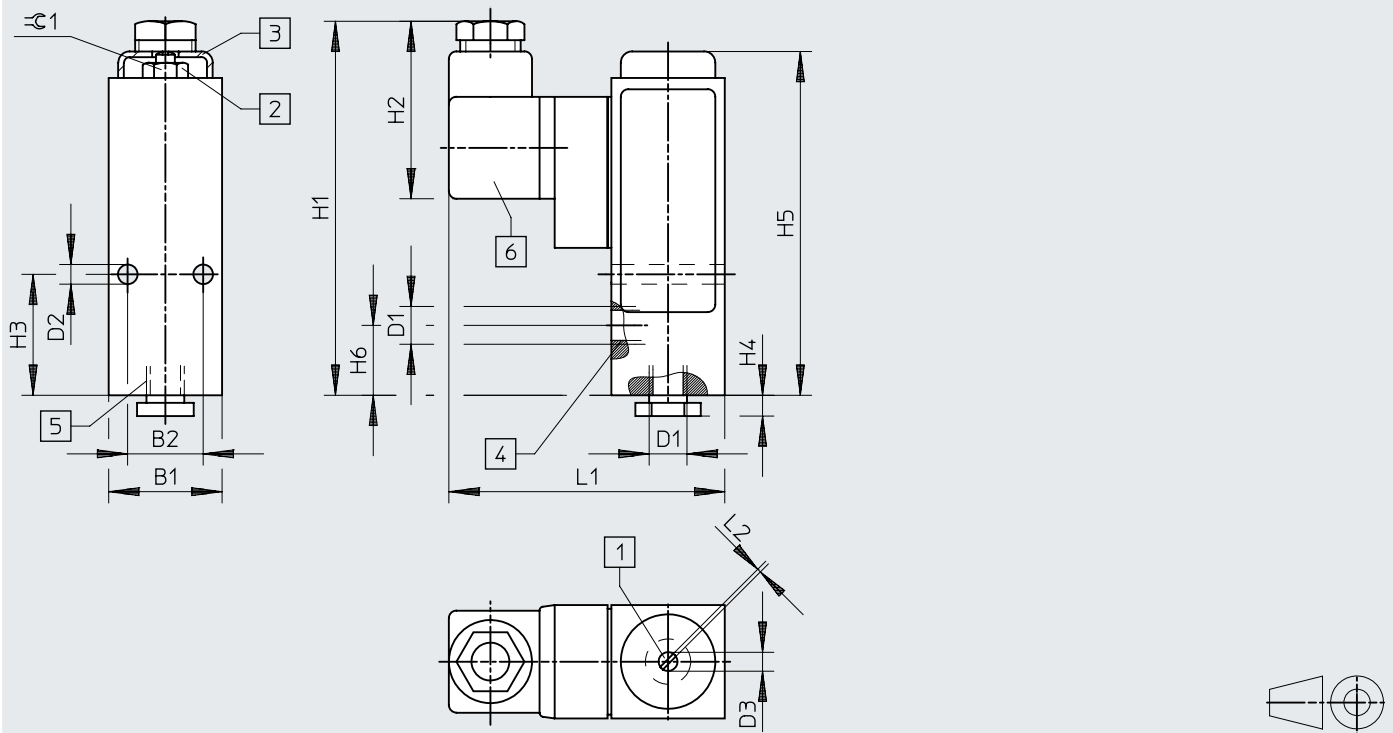
[Download CAD data](#) www.festo.com


- [1] Switching point adjusting screw
- [2] Hex nut for adjusting the hysteresis (under protective cap)
- [3] Protective cap
- [4] Plug pattern for plug connector M12x1 to EN 60947-5-2

	B1	B2	B3	D1	D2 ø	D3	H1	H2	H3	L1	L2	≈G1
	±0,2	±0,1			±0,2		±0,6		±0,5		±0,2	
PEV-1/4-B-M12	30	20	12,5	G1/4	5,2	min. 5	77,3	40	18,5	55,4	1	11

Dimensions

Dimensions – Vacuum switch VPEV-1/8 Download CAD data www.festo.com

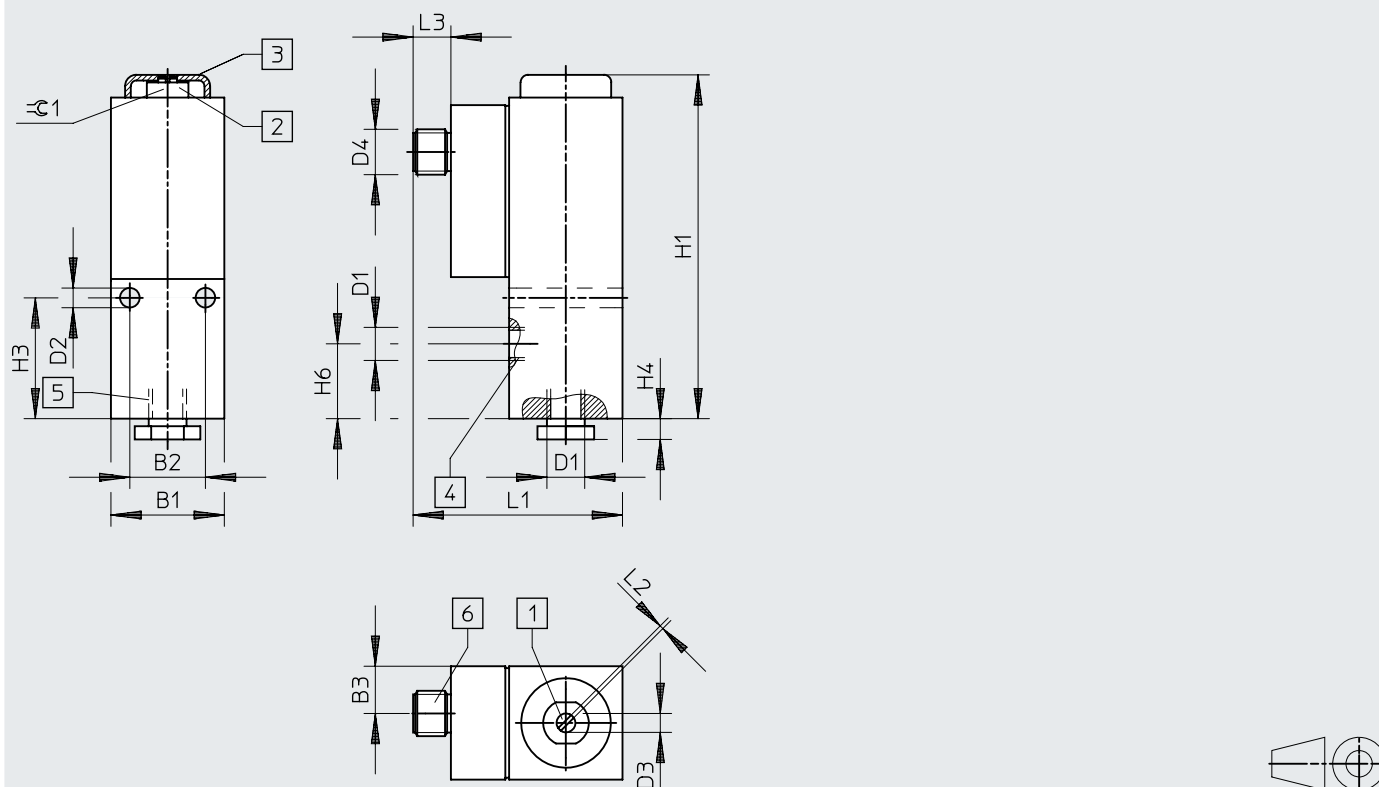


- [1] Switching point adjusting screw
- [2] Hex nut for adjusting the hysteresis (under protective cap)
- [3] Protective cap
- [4] Vacuum connection
- [5] Compressed air connection with plug screw
- [6] Push-in connector M16x1.5 according to EN 175301-803-A, choice of cable outlet by turning socket insert 4x90°

	B1	B2	D1	D2 Ø	D3	H1	H2	H3	H4	H5	H6	L1	L2	≈G1
	±0,2	±0,1		±0,2				±0,1					±0,2	
VPEV-1/8	30	20	G1/8	5,2	min. 5	98	48	32	5,5	91	18,5	78	1	11

Dimensions

Dimensions – Vacuum switch VPEV-1/8-M12

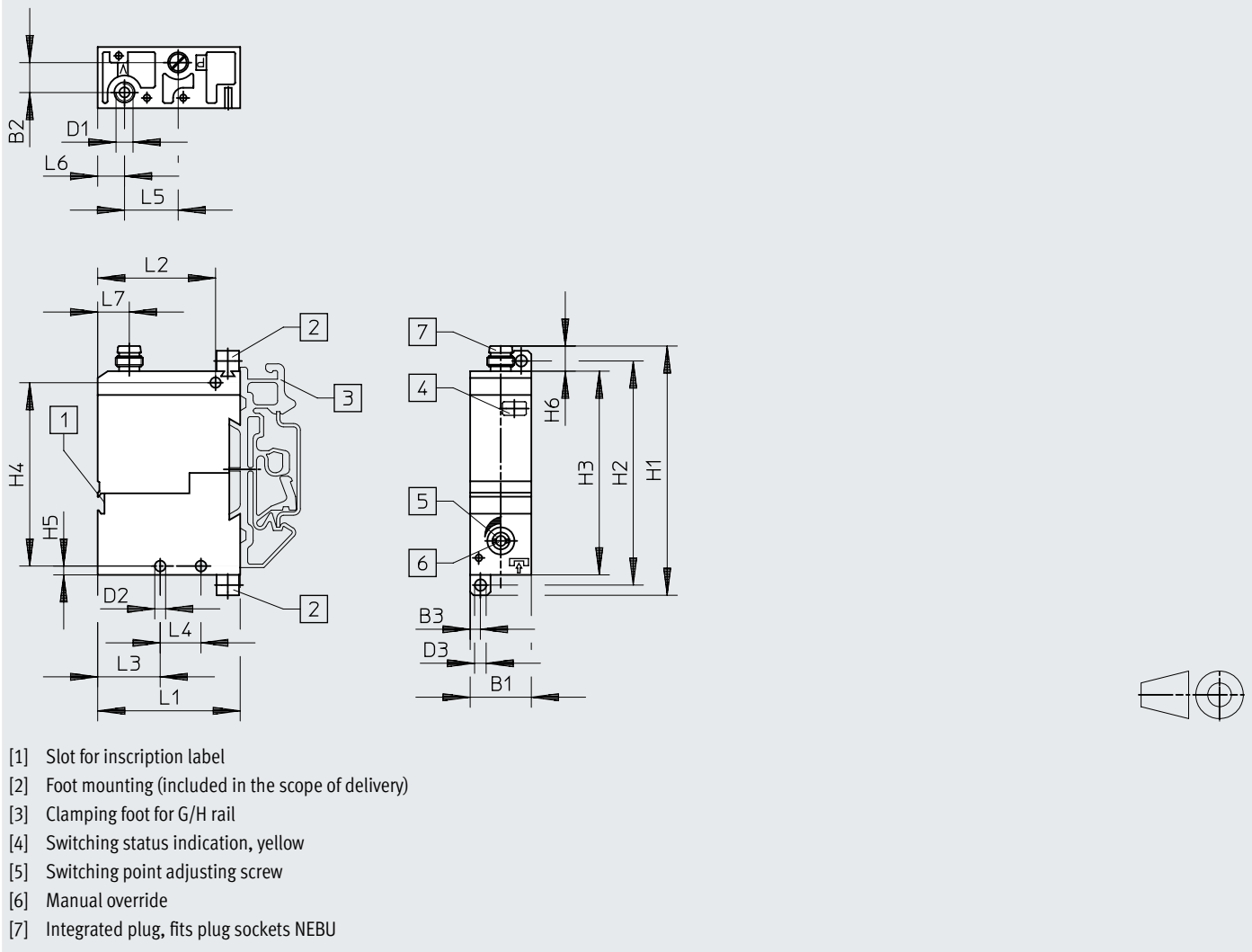
[Download CAD data](http://www.festo.com)


- [1] Switching point adjusting screw
- [2] Hex nut for adjusting the hysteresis (under protective cap)
- [3] Protective cap
- [4] Vacuum connection
- [5] Compressed air connection with plug screw
- [6] Plug pattern for plug connector M12x1 to EN 60947-5-2

	B1	B2	B3	D1	D2 Ø	D3	D4	H1	H3	H4	H6	L1	L2	L3	≅G1
	±0,2	±0,1	-0,1		±0,2				±0,1				±0,2		
VPEV-1/8-M12	30	20	12,5	G1/8	5,2	min. 5	M12x1	91	32	5,5	18,5	55,4	1	10	11

Dimensions

Dimensions – PEV-W-S, VPEV-W-S Download CAD data www.festo.com

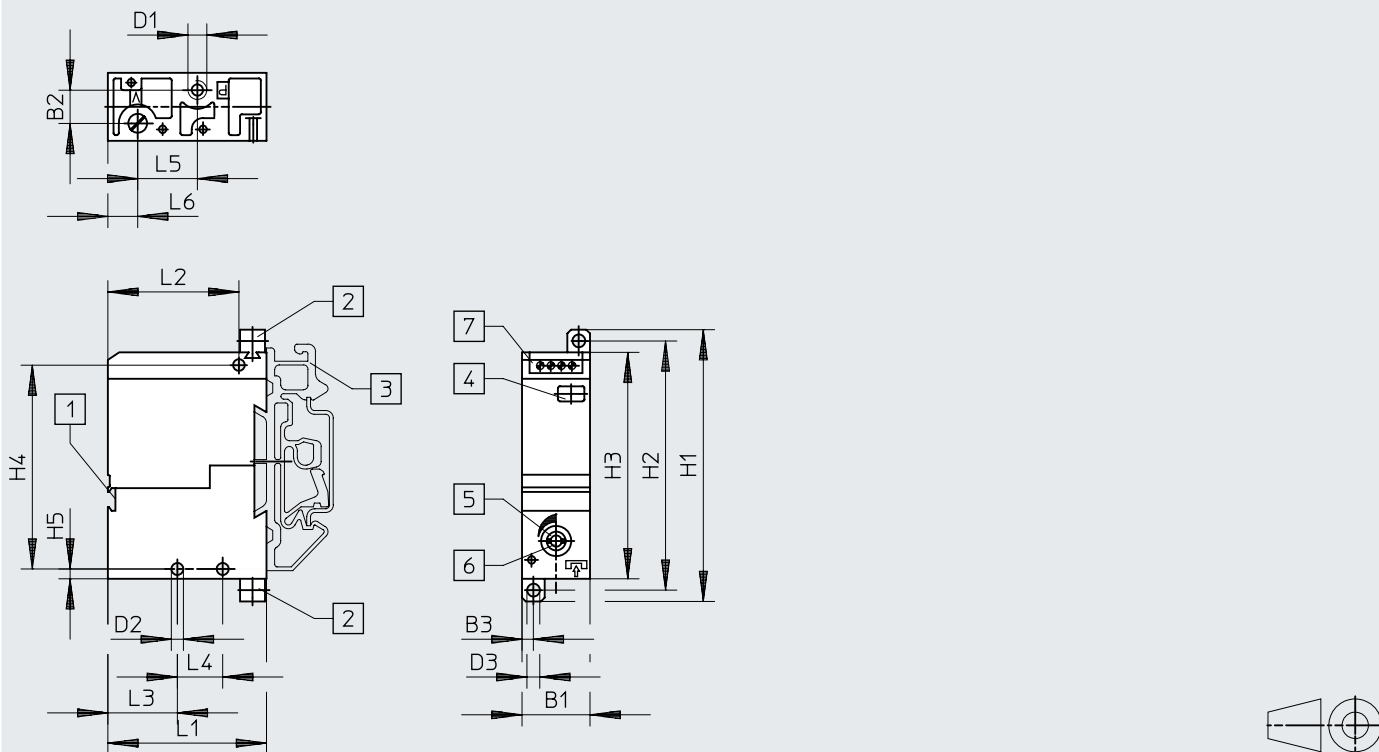


	B1	B2	B3	D1	D2 ø	D3	H1	H2	H3	H4
PEV-W-S, VPEV-W-S	18	8,8	3	M5	3,2	3,4	73,4	66	60	54

	H5	H6	L1	L2	L3	L4	L5	L6	L7
PEV-W-S, VPEV-W-S	2,6	7,4	42	34,7	18,4	12	15,8	7,9	9,3

Dimensions

Dimensions – PEV-W-KL, VPEV-W-KL

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- [1] Slot for inscription label
- [2] Foot mounting (included in the scope of delivery)
- [3] Clamping foot for G/H rail
- [4] Switching status indication, yellow
- [5] Switching point adjusting screw
- [6] Manual override
- [7] Connection terminals for cable

	B1	B2	B3	D1	D2 Ø	D3	H1	H2	H3	H4	H5	L1	L2	L3	L4	L5	L6
PEV-W-KL, VPEV-W-KL	18	8,8	3	M5	3,2	3,4	72	66	60	54	2,6	42	34,7	18,4	12	15,8	7,9

Dimensions

Dimensions – Pressure switch PEV-1/4-A-SW27 Download CAD data www.festo.com



	D1	D2 ø	D3 ø	H1	H2 -0,2	H3	H4	≈G1
PEV-1/4-A-SW27	G1/4	30	26	58	8	2	1,3	27

Dimensions

Dimensions – Pressure switch PEV-1/4-A-SW27-B-OD

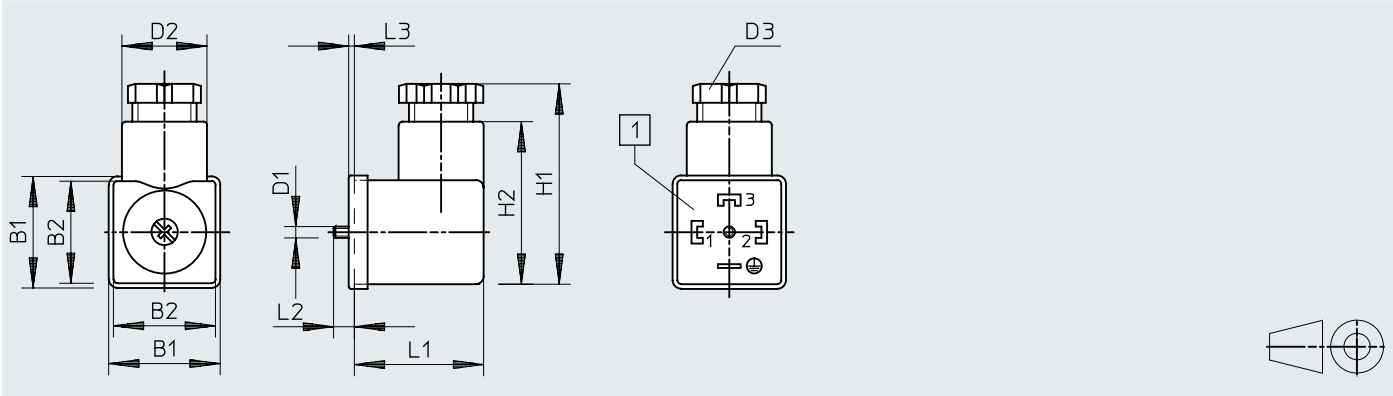
[Download CAD data](#) [www.festo.com](#)

[1] Max. tightening torque 50 Nm
[2] Integrated plug to EN 175201-803
[3] Switching-point adjustment

	B1	D1	D2 ø	H1	H2 -0,2	≈G1
PEV-1/4-A-SW27-B-OD	30	G1/4	34	74	8	27

Dimensions

Dimensions – Angled plug socket PEV-1/4-WD-LED- ... (Accessories) Download CAD data www.festo.com



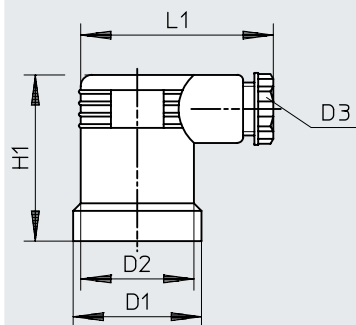
[1] Inserts can be rotated 90°

		B1	B2	D1	D2 Ø	D3	H1	H2	L1	L2	L3
PEV-1/4-WD-LED-24	PEV-...-24	30	27,5	M3	22,5	Pg11	53	43	34,2	5,5	1,5
PEV-1/4-WD-LED-230	PEV-...-230										

Dimensions

Dimensions – Angled plug socket PEV-1/4-A-WD (accessories)

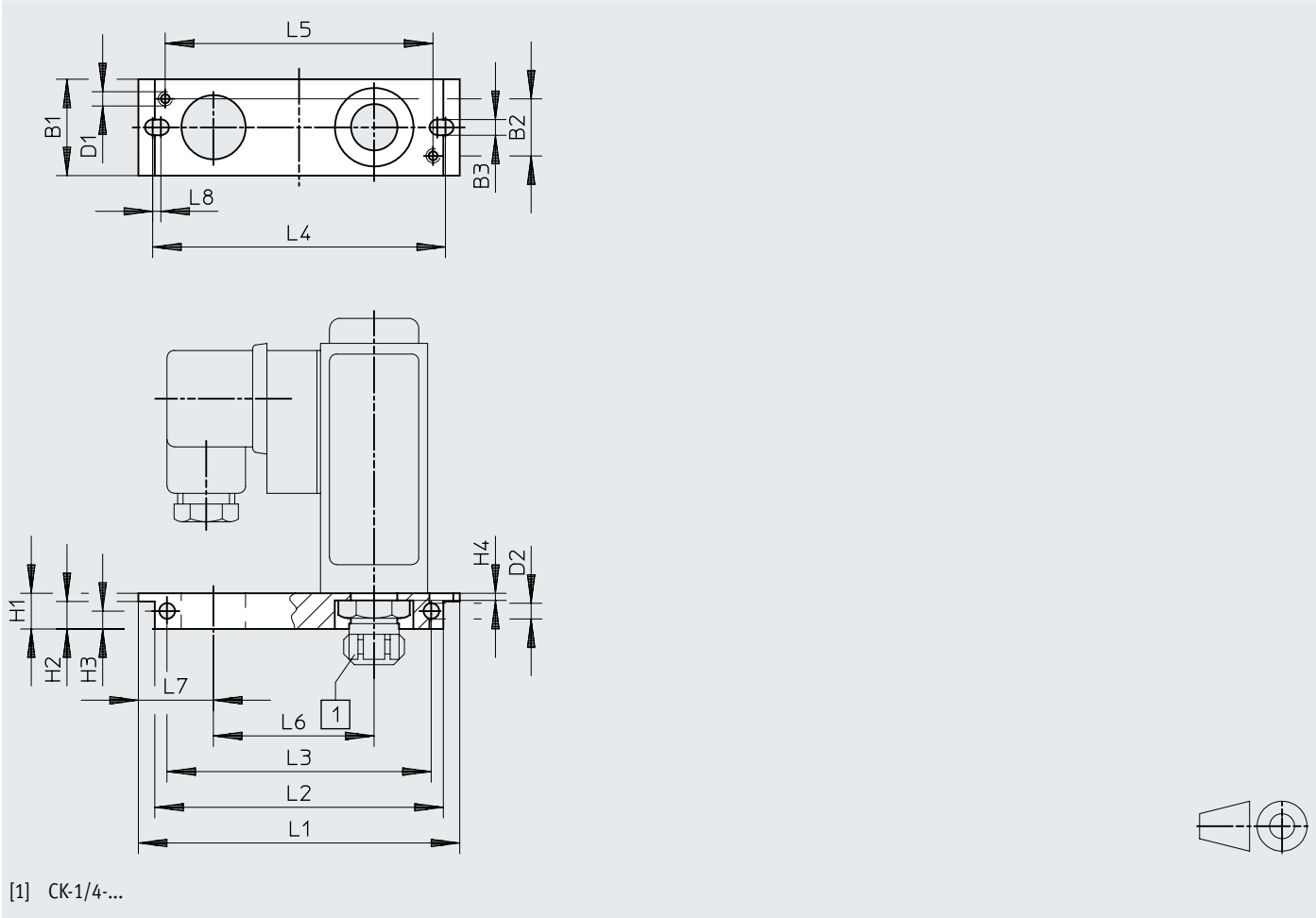
Download CAD data www.festo.com



	D1	D2	D3	H1	L1
	Ø	Ø			
PEV-1/4-A-WD	34	30	Pg9	44	51

Dimensions

Dimensions – Mounting plate APL for pressure switch PEV (accessories) Download CAD data www.festo.com



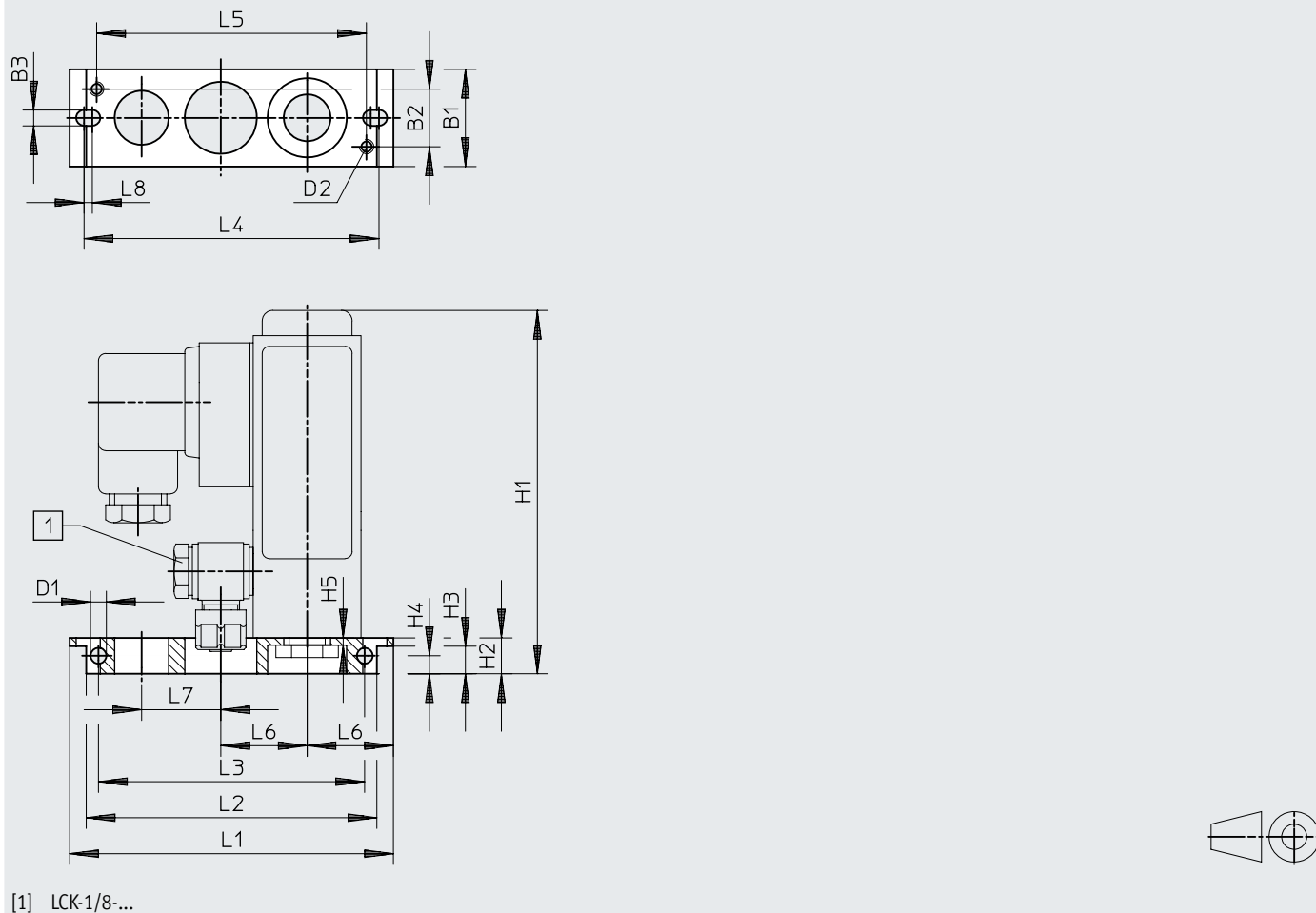
		B1	B2	B3	D1	D2	H1	H2	H3	H4
APL-2N-PEV	PEV-...	27	16	4,4	M4	4,4	10	7,7	5	2

		L1	L2	L3	L4	L5	L6	L7	L8
APL-2N-PEV	PEV-...	88,5	80,8	74	82	75	45	21	2,3

Dimensions

Dimensions – Mounting plate APL for vacuum switch VPEV (accessories)

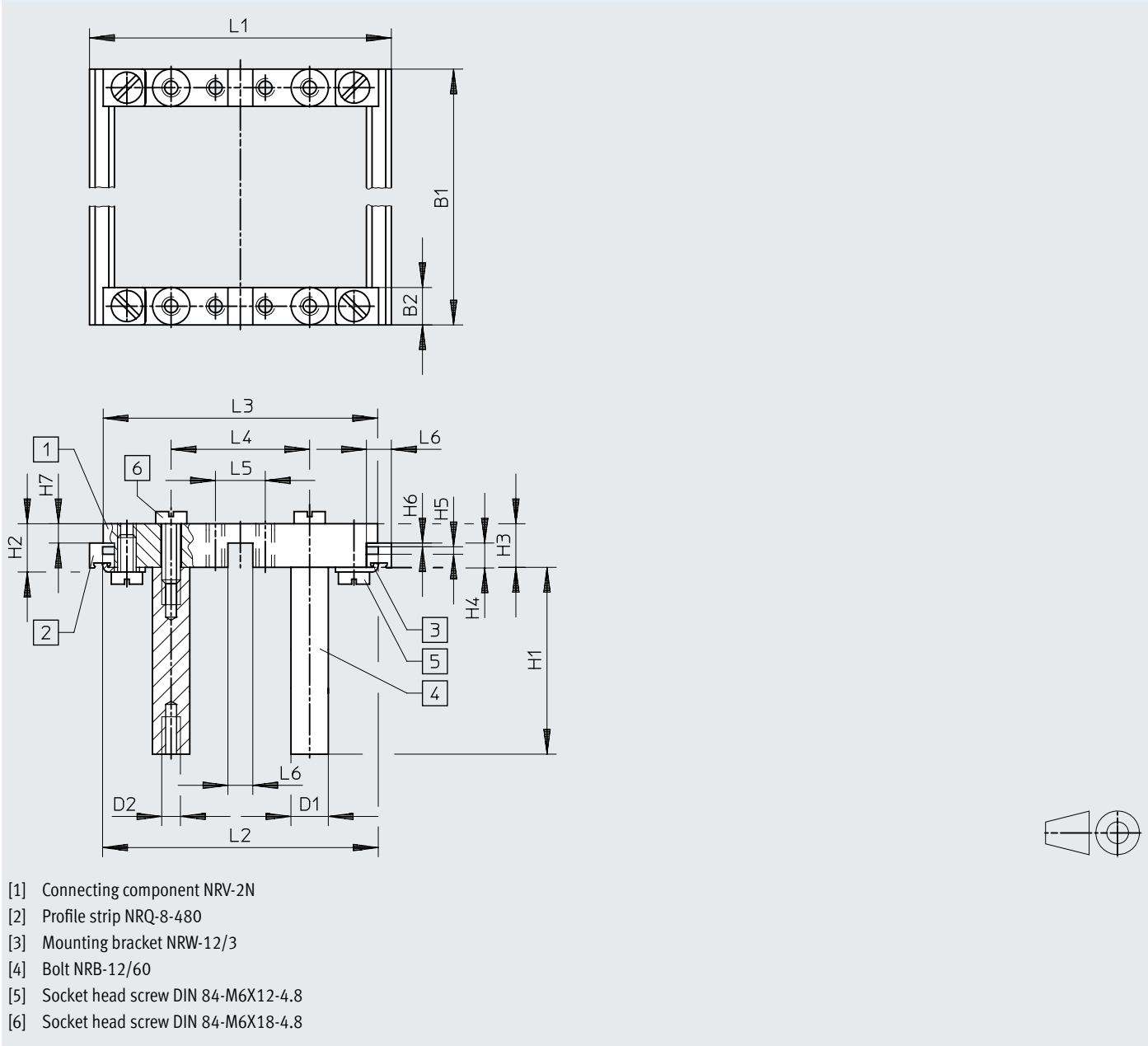
Download CAD data www.festo.com



		B1	B2	B3	D1	D2	H1	H2	H3	H4
APL-2N-VPEV	VPEV-...	27	16	4,4	4,4	M4	101	10	7,7	5
		H5	L1	L2	L3	L4	L5	L6	L7	L8
APL-2N-VPEV	VPEV-...	2	88,5	80,8	74	81	75	24	22	2,3

Dimensions

Dimensions – Mounting frame NRRQ (accessories) Download CAD data www.festo.com



	B1	B2	D1	D2	H1	H2	H3	H4	H5	H6	H7	L1	L2	L3	L4	L5	L6
NRRQ	480	12	12 ø	M6	60	15,5	14	8	2,4	1,2	6,2	97	88,6	88,2	44,5	16	8

Ordering data

Ordering data – Pressure switch PEV with through-hole					
	Pneumatic connection	Electrical connection	Product weight	Part no.	Type
	G1/4	4-pin, M12x1, Plugs, To EN 60947-5-2, Round design	194 g	192488	PEV-1/4-B-M12
		Type A, Plugs, To DIN 43650, Square design	144 g	161760	PEV-1/4-SC-OD
			194 g	175250	PEV-1/4-B-OD
				10773	PEV-1/4-B

Ordering data - Vacuum switch VPEV with through-hole					
	Pneumatic connection	Electrical connection	Product weight	Part no.	Type
	G1/8	4-pin, M12x1, Plugs, To EN 60947-5-2, Round design	220 g	192489	VPEV-1/8-M12
		Type A, Plugs, To DIN 43650, Square design	240 g	150261	VPEV-1/8

Ordering data – Pressure switch PEV-W with through-hole					
	Pneumatic connection	Electrical connection	Product weight	Part no.	Type
	M5		56 g	152618	PEV-W-KL-LED-GH
				152616	PEV-W-S-LED-GH

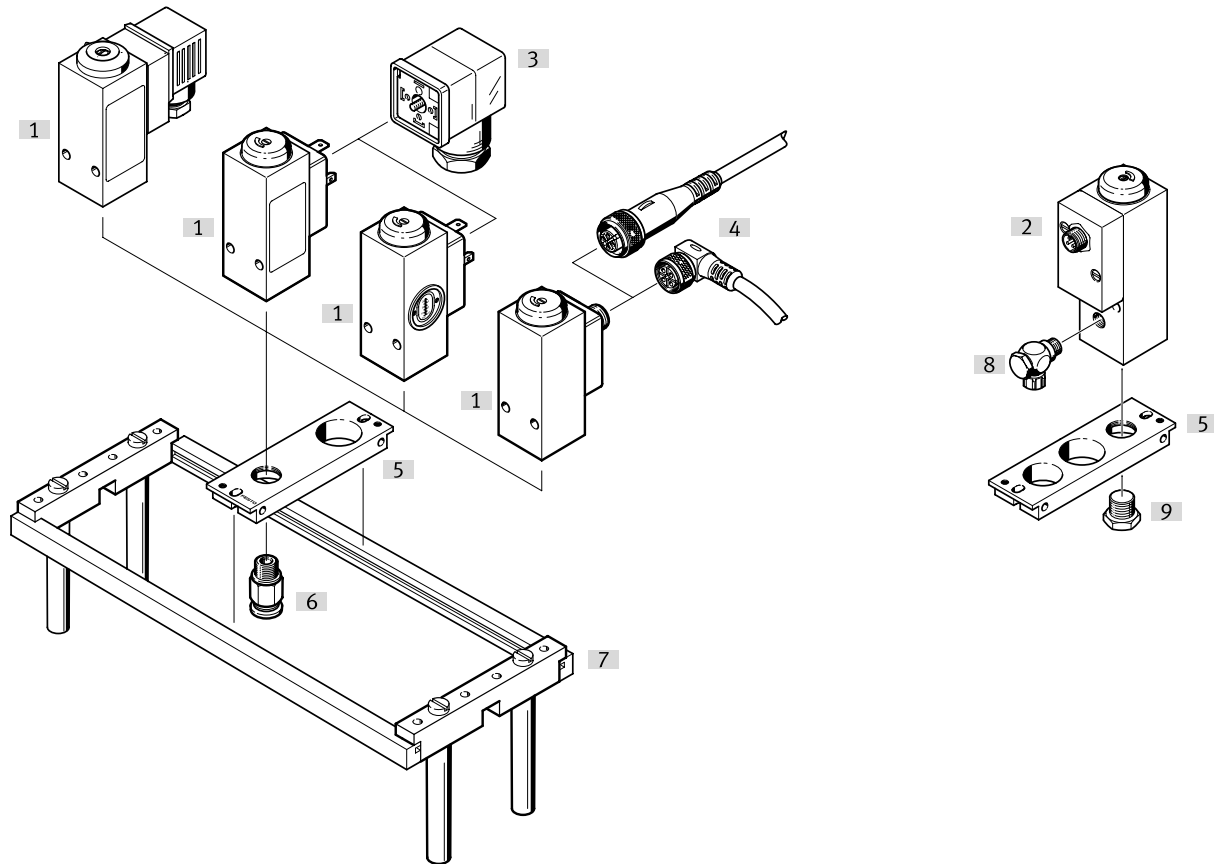
Ordering data – Vacuum switch VPEV-W with through-hole					
	Pneumatic connection	Electrical connection	Product weight	Part no.	Type
	M5		56 g	152617	VPEV-W-S-LED-GH
				152619	VPEV-W-KL-LED-GH

Ordering data

Ordering data - Pressure switch PEV-SW27, screw-in type					
	Pneumatic connection	Electrical connection	Product weight	Part no.	Type
	G1/4	4-pin, Plugs	138 g	159259	PEV-1/4-A-SW27
			900 g	175252	PEV-1/4-A-SW27-B-OD

Peripherals

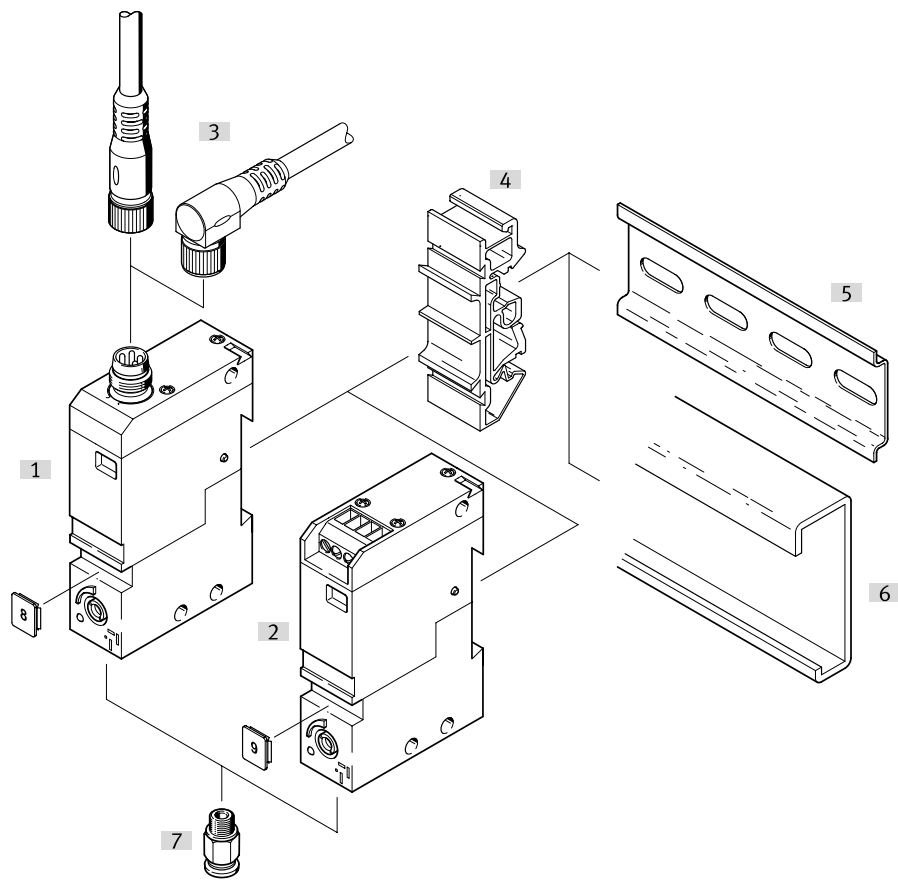
Peripherals overview - PEV/VPEV with through-hole



Accessories		→ Link
Type/order code	Description	
[1] Pressure switch PEV		pev
[2] Vacuum switch VPEV		vpev
[3] Angled plug socket with switching status display PEV; plug socket without switching status display MSSD		30
[4] Connecting cable NEBA-M12		30
[5] Mounting plate APL		30
[6] Push-in fitting QS		qs
[7] Mounting frame NRRQ		30
[8] Quick connector CK-1/8; LCK-1/8		ck
[9] Plug screw VPEV-1/8	Included in the scope of delivery of the VPEV	-

Peripherals

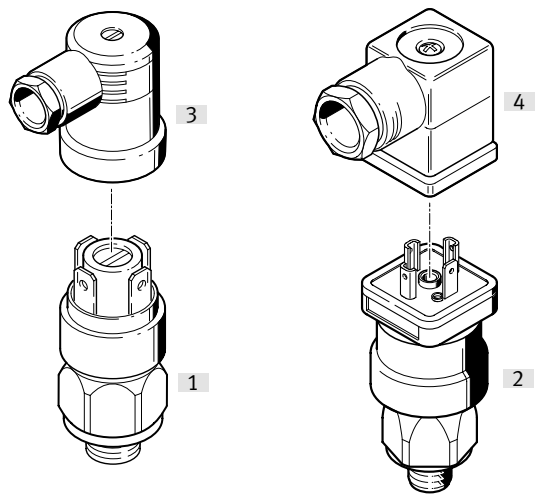
Peripherals overview – PEV-W/VPEV-W for H-rail mounting



Accessories		→ Link
Type/order code	Description	
[1] Pressure and vacuum switch PEV-W-S, VPEV-W-S	Electrical connection: Plug M8x1, 4-pin	pev
[2] Pressure and vacuum switch PEV-W-KL, VPEV-W-KL	Electrical connection: Screw terminal, 4-pin	pev
[3] Connecting cable NEBA-M8		31
[4] Mounting latch PENV		31
[5] DIN mounting rail NRH	According to EN 60715	31
[6] DIN mounting rail NRC	According to EN 50035	31
[7] Push-in fitting QSM-M5		qsm

Peripherals

Peripherals overview – Pressure switch PEV-SW27, screw-in type



Accessories		→ Link
Type/order code	Description	
[1] Pressure switch PEV-1/4-A-SW27		pev
[2] Pressure switch PEV-1/4-A-SW27-B-OD		pev_wd
[3] Angled plug socket PEV-1/4-A-WD		30
[4] Angled plug socket PEV-1/4-WD-LED- ...		30

Accessories

Angled plug socket PEV-1/4-WD-LED- ...						
	Electrical connection	Switching status indication	Operational voltage range AC	Operational voltage range DC	Part no.	Type
		Yellow LED, Green LED		15 ... 30 V	164274	PEV-1/4-WD-LED-24
			150 ... 230 V	140 ... 180 V	164275	PEV-1/4-WD-LED-230

Angled plug socket PEV-1/4-A-WD					
	Electrical connection	Note on materials	LABS (PWIS) conformity	Part no.	Type
	4-pin, Angled socket	RoHS-compliant	VDMA24364-B1/B2-L	161209	PEV-1/4-A-WD

Mounting plate APL					
	Short type code	Note on materials	LABS (PWIS) conformity	Part no.	Type
	APL		VDMA24364-B2-L	150218	APL-2N-VPEV
		RoHS-compliant	VDMA24364-B1/B2-L	9349	APL-2N-PEV

Mounting frame NRRQ				
	Short type code	LABS (PWIS) conformity	Part no.	Type
	NRRQ	VDMA24364-B1/B2-L	9365	NRRQ-2N

Mounting bracket NRW				
	Short type code	LABS (PWIS) conformity	Part no.	Type
	NRW	VDMA24364-B1/B2-L	11571	NRW-9/1,5-B

Plug socket MSSD						
	Electrical connection	Cable fitting	Cable diameter	Product weight	Part no.	Type
	3-pin, Angled socket, Type A, To DIN EN 175301-803, Square design MSC, Square design MSN1	Pg 9	6 ... 8 mm	22 g	171157	MSSD-C-4P

Accessories

Connecting cables NEBA, straight							
	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/cores	Cable length	Part no.	Type	
	M12x1, A-coded to EN 61076-2-101	Open end	4	2.5 m	8078239	NEBA-M12G5-U-2.5-N-LE4	
				5 m	8078240	NEBA-M12G5-U-5-N-LE4	
	M8x1, A-coded, to EN 61076-2-104				2.5 m	8078227	NEBA-M8G4-U-2.5-N-LE4
				5 m	8078228	NEBA-M8G4-U-5-N-LE4	

Connecting cables NEBA, angled						
	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/ cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	Open end	4	2.5 m	8078248	NEBA-M12W5-U-2.5-N-LE4
	M8x1, A-coded, to EN 61076-2-104			5 m	8078249	NEBA-M12W5-U-5-N-LE4
				2.5 m	8078233	NEBA-M8W4-U-2.5-N-LE4
				5 m	8078234	NEBA-M8W4-U-5-N-LE4

DIN mounting rail NRC (2 m length)				
	Short type code	LABS (PWIS) conformity	Part no.	Type
	NRC	VDMA24364-B2-L	6756	NRC-32-2000

DIN mounting rail NRH (2 m length)				
	Short type code	LABS (PWIS) conformity	Part no.	Type
	NRH	VDMA24364-B2-L	35430	NRH-35-2000

Mounting latch PENV					
	Short type code	Type of mounting	LABS (PWIS) conformity	Part no.	Type
	PENV	With H-rail	VDMA24364-B2-L	164597	PENV-BGH