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Technical details

Temperature range -10°C ... +70°C

Medium

Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Differing the pressure dew point must be at least 10°C below lowest occurring ambient temperature.

Materials

Body: Al (anodized), seals: NBR and POM, inner parts: Al, stainless steel and brass



This valve may be used either normally open or normally closed.

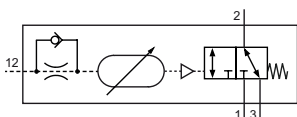
Normally closed: pressure inlet port 1 (P).

Normally open: pressure inlet port 3 (R).

A signal arriving at 12 (Z) switches the flow of the valve from 1 (P) to 2 (A) and closes port 3 (R) after the set time has expired.

Instead of supplying main pressure to either port 1 or 3, the branched signal line can be connected to 1 or 3. The signal line to port 1 or 3 must not be longer than the signal line to port 12.

3/2-way valves



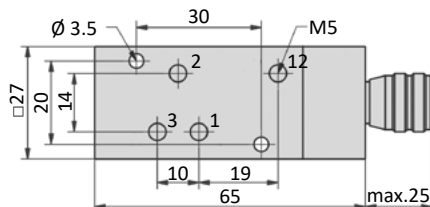
VZ
3/2-way, single pilot,
mechanical spring return,
adjustable time delay

Technical data

Model-no.:	VZ-25-310	VZ-18-310	VZ-18-310-20
Connection	M5	G1/8	G1/8
Nominal size (mm)	3.2	6	6
Operating pressure (bar)	3 ... 10	3 ... 10	3 ... 10
Pilot pressure (bar)	3 ... 10	3 ... 10	3 ... 10
Time range (s)	0.25 ... 5	0.5 ... 10	1 ... 20
Flow rate (NI/min)	160	600	600
Weight (kg)	0.135	0.360	0.360

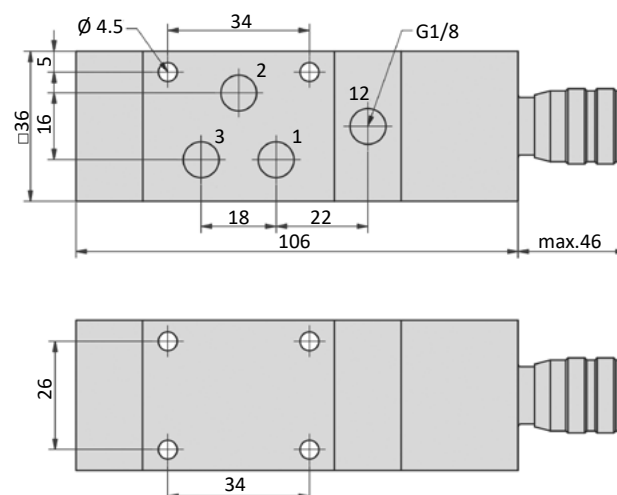
Dimensions

VZ-25-310



- 1 = pressure inlet
- 2 = outlet
- 3 = exhaust
- 12 = signal port

VZ-18-310, VZ-18-310-20



Series SZ

Technical details

Temperature range -10°C ... +70°C

Medium

Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Differing the pressure dew point must be at least 10°C below lowest occurring ambient temperature.

Materials

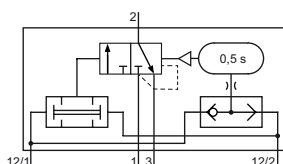
Body: Al (anodized), seals: NBR and POM, inner parts: Al, stainless steel and brass



The valve operates after two input signals at 12 arriving within 0.5 s.
The valve is actuated as long as the signals continue.
If the input signals do not arrive within 0.5 s, the valve does not operate.
Both signals must be reset before the valve switches back on.

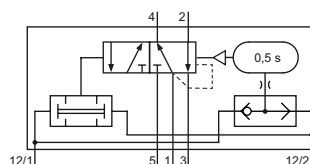
This part is no safety device in the sense of the MRL 2006/42/EG.

3/2-way valve



SZ-18-310
two-signal controls,
3/2-way

5/2-way valve



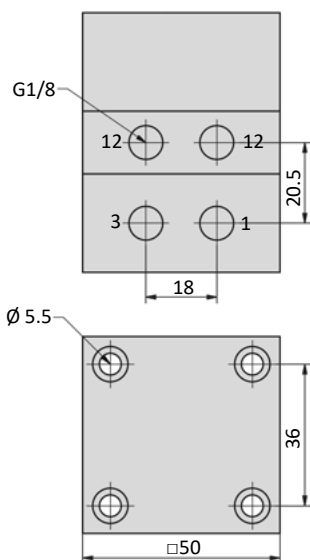
SZ-14-510
two-signal controls,
5/2-way

Technical data

Model-no.:	SZ-18-310	SZ-14-510
Connection	G1/8	G1/4
Nominal size (mm)	4	8
Operating pressure (bar)	4 ... 10	4 ... 10
Pilot pressure (bar)	4 ... 10	4 ... 10
Flow rate (NI/min)	280	1300
Weight (kg)	0.360	0.825

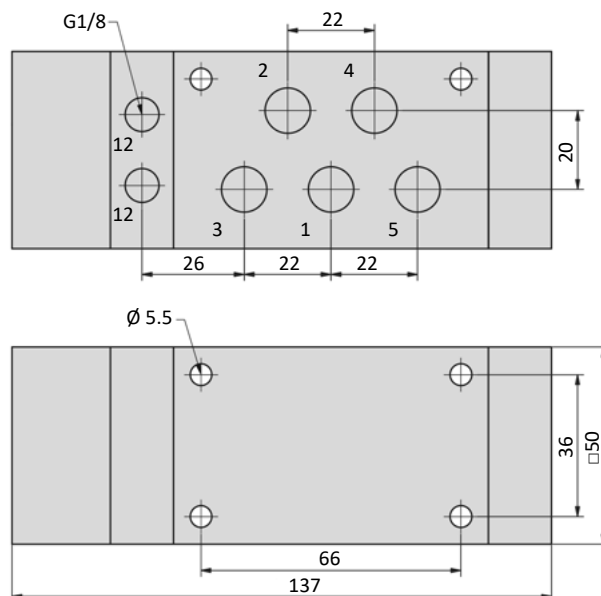
Dimensions

SZ-18-310



- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts
- 12 = signal ports

SZ-14-510



Technical details

Temperature range	-10°C ... +70°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Differing the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), seals: NBR and POM, inner parts: Al, stainless steel and brass

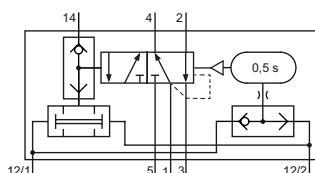


The valve operates after two input signals at 12 arriving within 0.5 s.
The valve is actuated as long as the signals continue.
If the input signals do not arrive within 0.5 s, the valve does not operate.
Both signals must be reset before the valve switches back on.
In addition, it has a self-locking device. A signal to 14 actuates the two-signal-control as a standard 5/2-valve. When the signal at 14 ends, the valve resets.



This part is no safety device in the sense of the MRL 2006/42/EG.

5/2-way valve



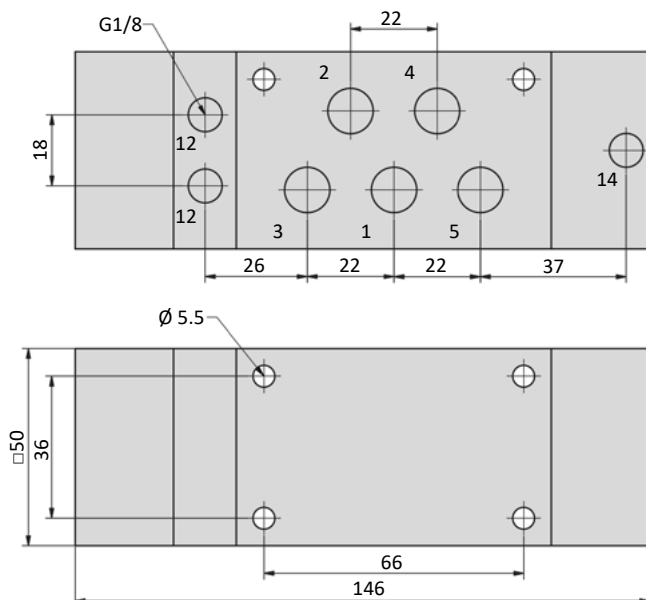
SZS-14-510
two-signal controls,
5/2-way

Technical data

Model-no.:	SZS-14-510
Connection	G1/4
Nominal size (mm)	8
Operating pressure (bar)	4 ... 10
Pilot pressure (bar)	4 ... 10
Flow rate (NI/min)	1300
Weight (kg)	0.885

Dimensions

SZS-14-510



- 1 = pressure inlet
- 2,4 = outlets
- 3,5 = exhausts
- 12 = signal ports
- 14 = signal port

Series SU

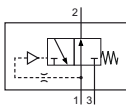
Technical details

Temperature range	-10°C ... +70°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Differing the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), seals: NBR and POM, inner parts: Al, stainless steel and brass



3/2-way one-shot valve. It converts a continuous pneumatic signal into a 0.3 s pulse.

3/2-way valve



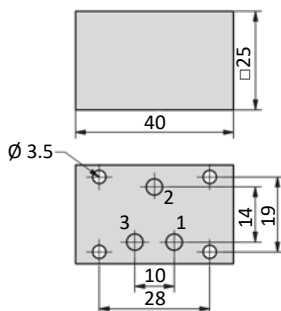
SU-25-310
signal interrupter,
3/2-way

Technical data

Model-no.:	SU-25-310
Connection	M5
Nominal size (mm)	3.2
Operating pressure (bar)	3 ... 10
Pilot pressure (bar)	3 ... 10
Duration of pulse (s)	0.3
Reset time (s)	0.1
Flow rate (NI/min)	160
Weight (kg)	0.063

Dimensions

SU-25-310



- 1 = pressure inlet
- 2 = outlet
- 3 = exhaust

Technical details

Temperature range -10°C ... +70°C

Medium

Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Differing the pressure dew point must be at least 10°C below lowest occurring ambient temperature.

Materials

Body: Al (anodized), seals: NBR and POM, inner parts: Al, stainless steel and brass

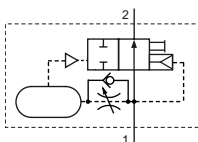


The valve is interrupting a permanent pneumatic signal and provides an impulse. The duration of the impulse is adjustable. Not activated, the incoming air at port 1 has free flow to port 2. Depending on the adjusted time at the adjusting screw (see drawing below), the valve will change position, closing using the model SUZ-18-210-H, or air is vented from port 2 to port 3 using model SUZ-18-310-H.

The valve will maintain this position until there is A new air signal at port one. This will switch the valve back to the NO position and keeps it open based on the adjusted time setting.

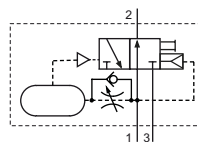
Operating the manual override is switching the valve back to its NO position.

2/2-way valve



SUZ-18-210-H
signal interrupter,
2/2-way, adjustable time delay,
manual override non-detend

3/2-way valve



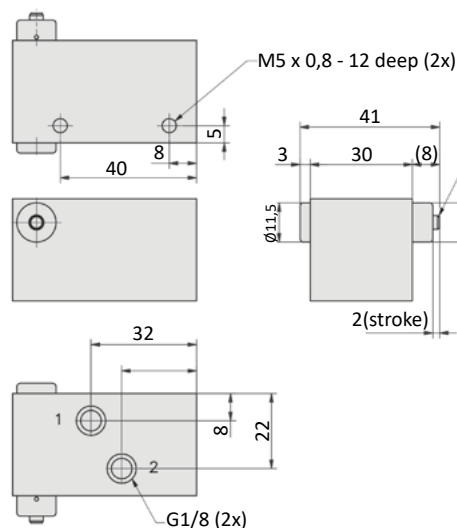
SUZ-18-310-H
signal interrupter,
3/2-way, adjustable time delay,
manual override non-detend

Technical data

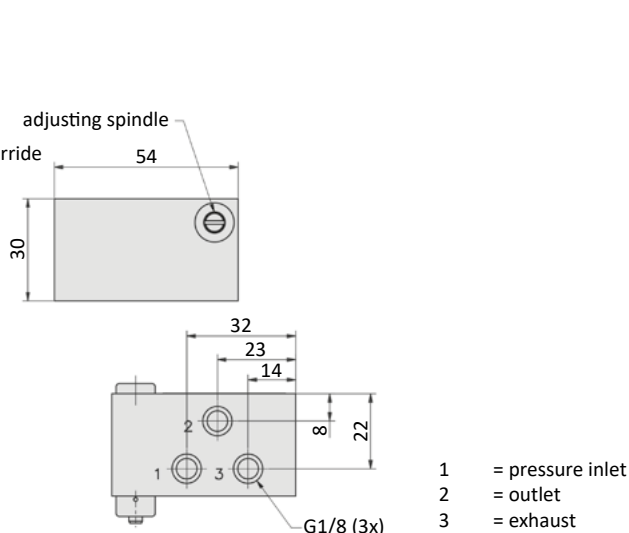
Model-no.:	SUZ-18-210-H	SUZ-18-310-H
Connection	G1/8	G1/8
Nominal size (mm)	6	5,3
Operating pressure (bar)	3 ... 10	3 ... 10
Pilot pressure (bar)	3 ... 10	3 ... 10
Duration of pulse (s)	0,3 ... 5	0,3 ... 5
Reset time (s)	0,1	0,1
Flow rate (NI/min)	500	480
Weight (kg)	0,135	0,135

Dimensions

SUZ-18-210-H



SUZ-18-310-H



Series OR

Technical details

Temperature range -10°C ... +70°C

Medium

Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Differing the pressure dew point must be at least 10°C below lowest occurring ambient temperature.

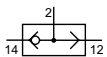
Materials

Body: Al (anodized), seals: NBR,
inner parts: stainless steel and brass



Output signal is present if one inlet is pressurized. The higher input signal (min. difference 0.2 bar) is dominant.

OR valves



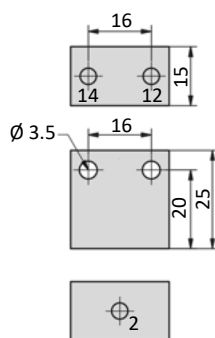
OR-xx
OR valve

Technical data

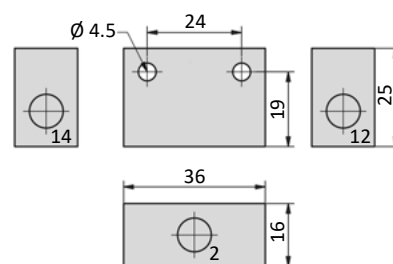
Model-no.:	OR-25	OR-18	OR-14-01
Connection	M5	G1/8	G1/4
Nominal size (mm)	3.2	4	5.5
Operating pressure (bar)	-0.95 ... 10	-0.95 ... 10	-0.95 ... 10
Min. difference (bar)	0.2	0.2	0.2
Flow rate (NI/min)	160	280	900
Weight (kg)	0.026	0.038	0.110

Dimensions

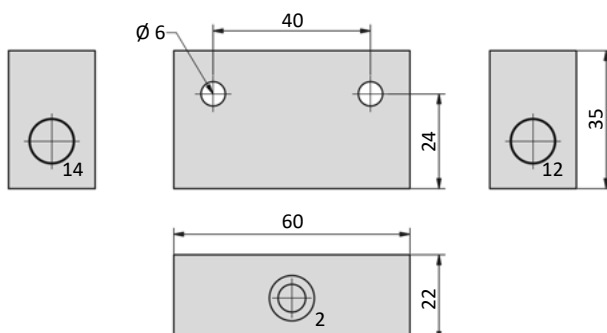
OR-25



OR-18



OR-14-01



12, 14 = signal input
2 = signal output

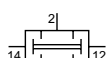
Technical details

Temperature range	-10°C ... +70°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Differing the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Al (anodized), seals: NBR, inner parts: stainless steel and brass



Output signal at port 2 is present if both inlets 12 and 14 are pressurized.
If both pressures are different (min. 0.2 bar), the lower pressure is switched to 2.

AND valves



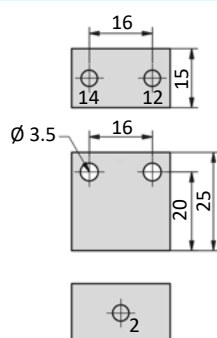
AN-xx
AND valve

Technical data

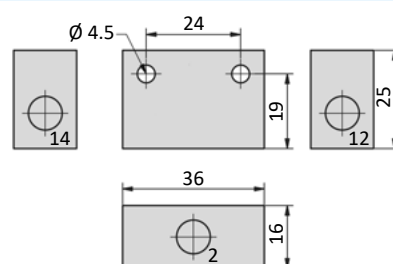
Model-no.:	AN-25	AN-18
Connection	M5	G1/8
Nominal size (mm)	3.2	4
Operating pressure (bar)	-0.95 ... 10	-0.95 ... 10
Min. difference (bar)	0.2	0.2
Flow rate (NI/min)	160	280
Weight (kg)	0.026	0.038

Dimensions

AN-25



AN-18



12, 14 = signal input
2 = signal output

Series SE

Technical details

Temperature range -10°C ... +70°C

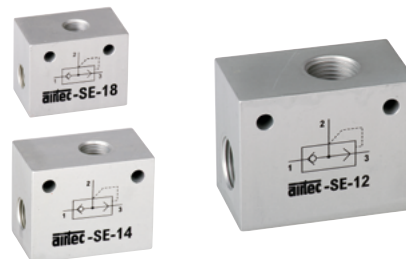
Medium

Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Differing the pressure dew point must be at least 10°C below lowest occurring ambient temperature.

Materials

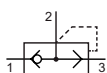
Body: Al (anodized), seals: NBR

Valves in accordance with 2014/34/EU (ATEX) available. (Chapter 13)



A quick exhaust valve is used to increase the speed of a pneumatic cylinder. The flow from the control valve to the cylinder ports is unrestricted. If valve port 1 is de-pressurized, air is exhausted from 2 to 3.

SE valves



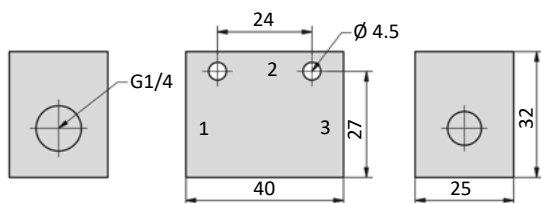
SE-xx
quick exhaust valve

Technical data

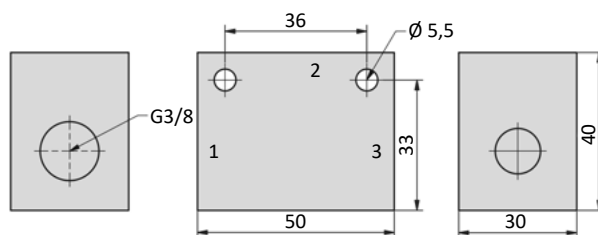
Model-no.:	SE-18	SE-14	SE-12
Connection	G1/8	G1/4	G1/2
Nominal size 1-2 (mm)	5	7	12
Nominal size 2-3 (mm)	8	10	16
Flow rate 1-2 (l/min)	600	1200	2800
Flow rate 2-3 (l/min)	1200	2400	5600
Operating pressure (bar)	0.5 ... 10	0.5 ... 10	0.5 ... 10
Weight (kg)	0.070	0.125	0.310

Dimensions

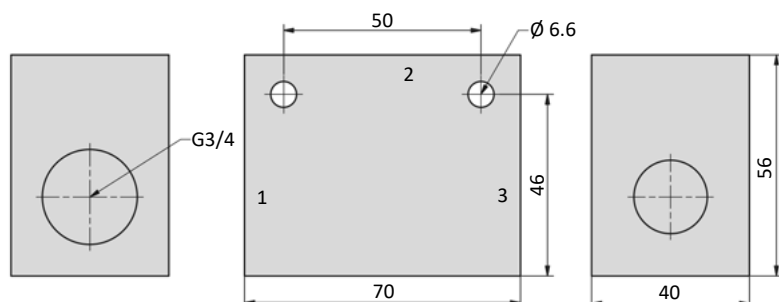
SE-18



SE-14



SE-12



- 1 = inlet from valve
- 2 = outlet to cylinder
- 3 = exhaust

Technical details

Temperature range -10°C ... +70°C

Medium

Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Differing the pressure dew point must be at least 10°C below lowest occurring ambient temperature.

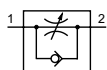
Materials

Body: Al (anodized), seals: NBR



This valve is used for the speed control of a pneumatic cylinder. The flow rate can be regulated by turning the adjusting screw.

DR valves



DR-xx
flow control valve

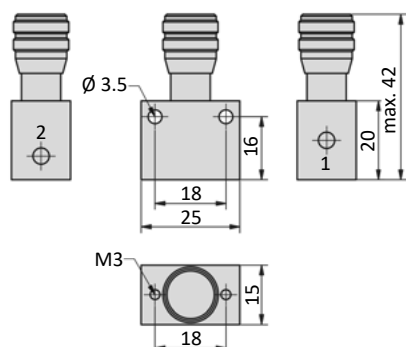
Technical data

Model-no.:	DR-25	DR-18	DR-14	DR-10
Connection	M5	G1/8	G1/4	G1/2
Nominal size 1-2 (mm)	0.5 ... 1.5	0.5 ... 2	1 ... 5	1 ... 7
Nominal size 2-1 (mm)	2.5	4.5	7.5	11
Flow rate 1-2 (NI/min)	5 ... 40	5 ... 90	50 ... 600	50 ... 600
Flow rate 2-1 (NI/min)	120	480	1300	1400
Operating pressure (bar)	0.5 ... 10	0.5 ... 10	0.5 ... 10	2 ... 10
Weight (kg)	0.034	0.040	0.098	0.215

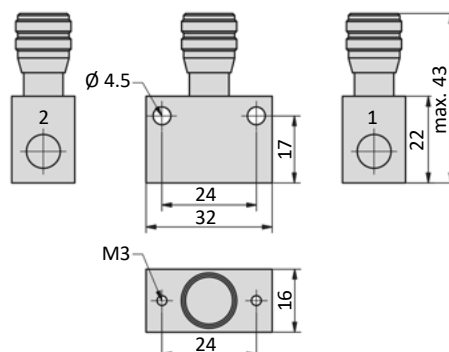
Series DR

Dimensions

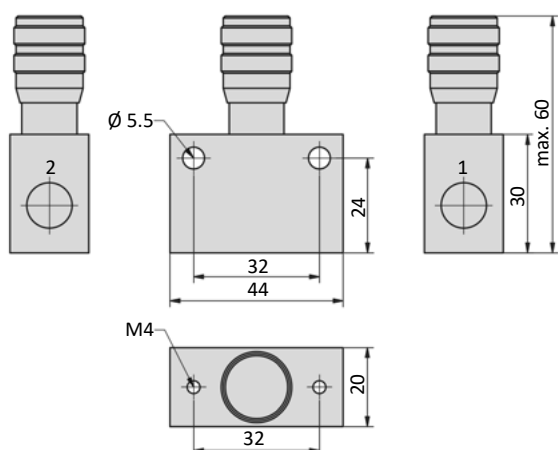
DR-25



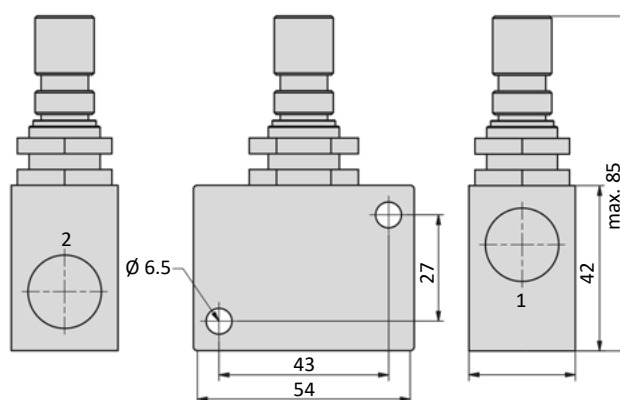
DR-18



DR-14



DR-10



1 = inlet
2 = outlet

Technical details

Temperature range 0°C ... +50°C

Medium

Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Differing the pressure dew point must be at least 10°C below lowest occurring ambient temperature.

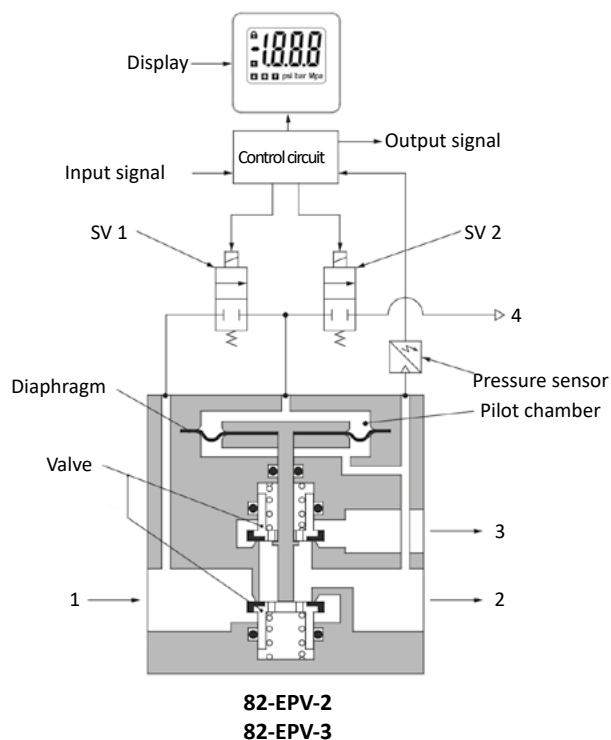
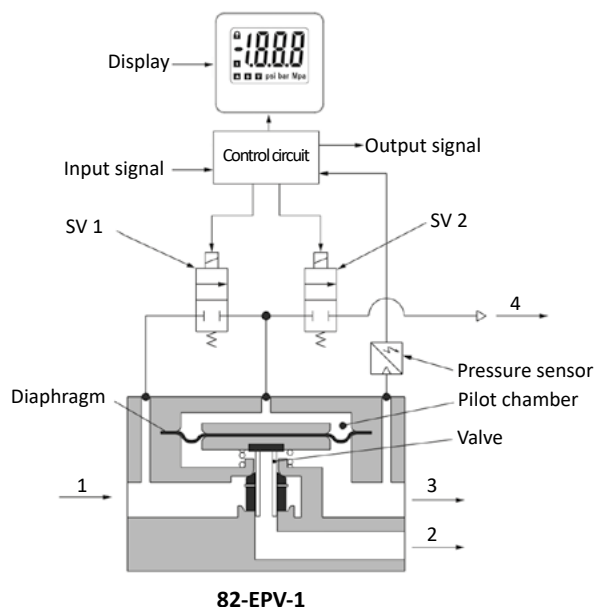
Materials

Body: Al (anodized), plastic, seals: NBR, inner parts: Al, steel and brass



Function

With an increasing input signal, the solenoid valve SV1 (air supply) is switched ON while at the same time the solenoid valve SV2 (air exhaust) remains closed. Air is supplied to the pilot chamber. The pressure in the pilot chamber increases and is applied to the upper side of the membrane. The valve which is connected to the membrane opens, and air flows towards the valve outlet. The outlet pressure is monitored by a pressure sensor which transmits a corresponding electrical signal to the control circuit. The control circuit adjusts the valve so that the outlet pressure is proportional to the input pressure. The pressure sensor continually controls the outlet pressure and keeps it proportional to the inlet pressure.



- 1 = pressure inlet
- 2 = outlet
- 3 = exhaust
- 4 = exhaust

Series 82-EPV

Order code

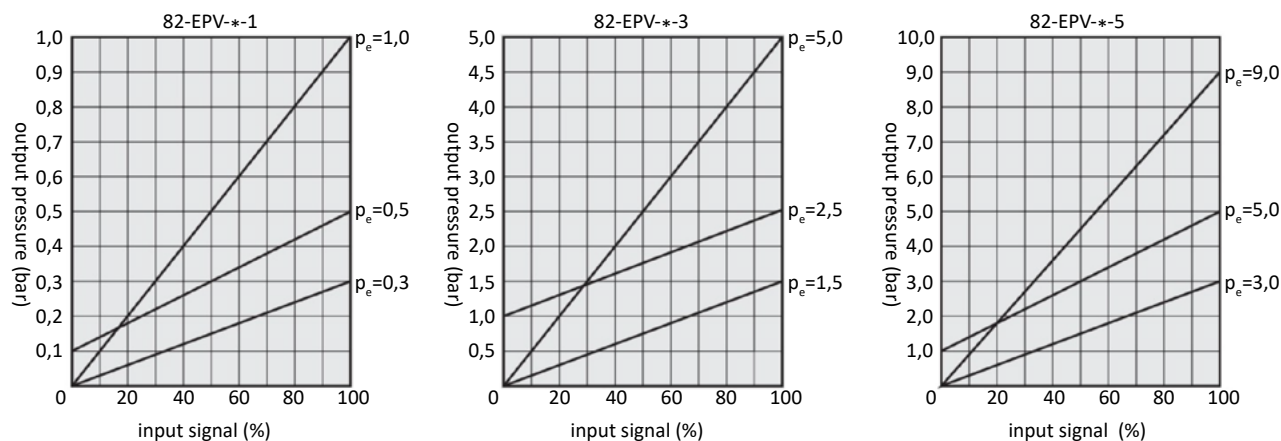
82-EPV-**-**-**-F***	
Series	Accessories
Type / Nominal size	without accessories
1 2 mm	0C without bracket with cable connector, straight, 3m
2 7 mm	0L without bracket with cable connector, right angle, 3m
3 11 mm	C0 with flat bracket without cable connector
	L0 with L-type bracket without cable connector
Output range	CC with flat bracket with cable connector, straight, 3m
1 0,05 ... 1 bar	CL with flat bracket with cable connector, right angle, 3m
3 0,05 ... 5 bar	LC with L-type bracket with cable connector, straight, 3m
5 0,05 ... 9 bar	LL with L-type bracket with cable connector, right angle, 3m
Input signal	Connection
0 4 ... 20 mA DC	F1 G1/8 (only type 1)
3 0 ... 10 V DC	F2 G1/4
	F3 G3/8 (only type 2 and 3)
	F4 G1/2 (only type 3)
	Output signal
	1 1 ... 5 V DC
	2 switch, NPN output
	3 switch, PNP output
	4 4 ... 20 mA DC

Accessories

Model-no.:	82-EPV-MB-L	Model-no.:	86-ST-EPV-C-3
	L-type bracket		Cable connector, straight, 3m
Model-no.:	82-EPV-MB-C	Model-no.:	86-ST-EPV-L-3
	Flat bracket		Cable connector, right angle, 3m

Technical data

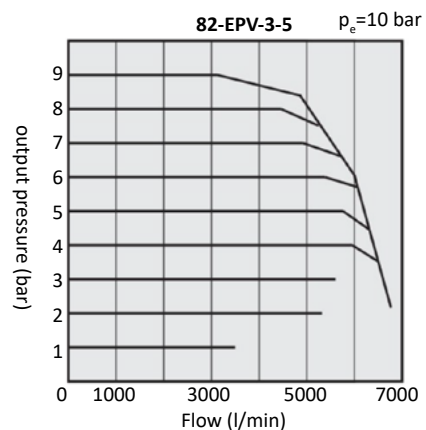
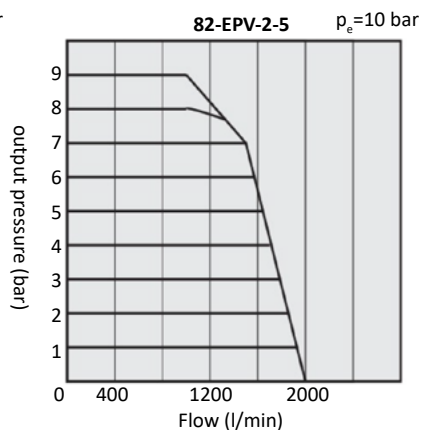
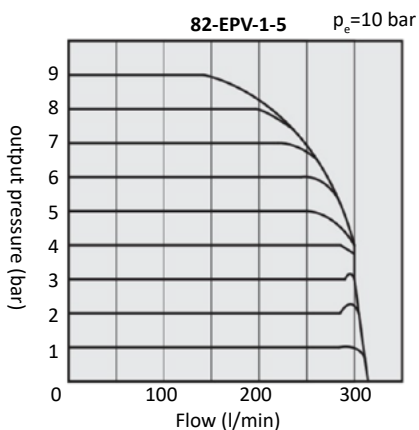
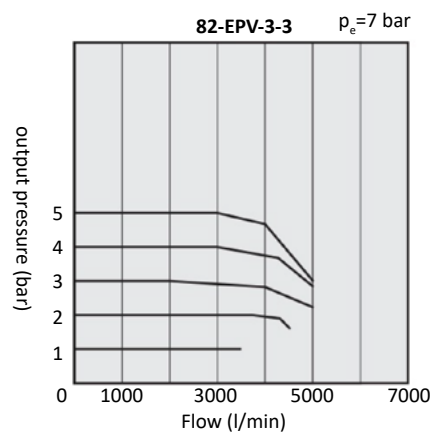
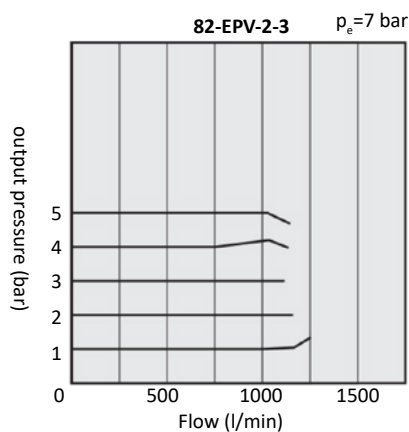
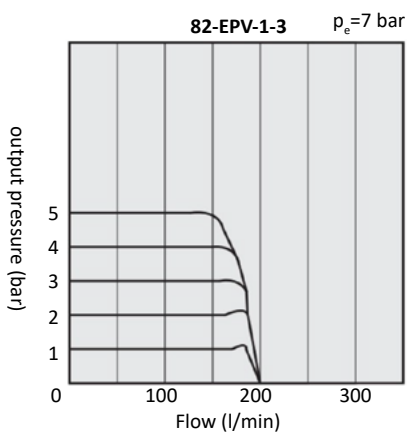
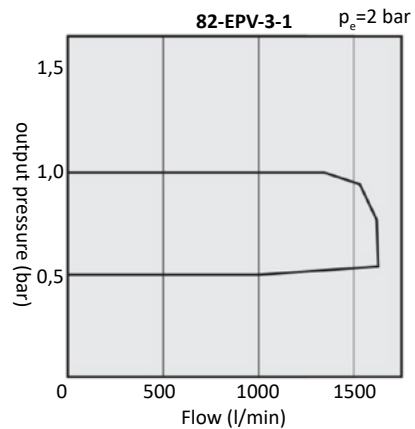
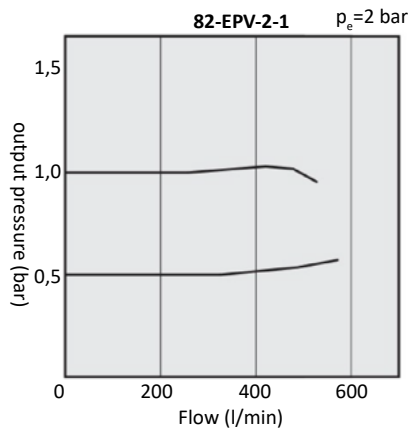
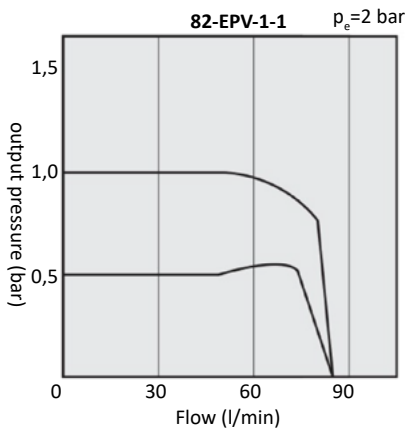
Model-no.:	82-EPV-1-1 82-EPV-2-1 82-EPV-3-1	82-EPV-1-3 82-EPV-2-3 82-EPV-3-3	82-EPV-1-5 82-EPV-2-5 82-EPV-3-5
Input range (bar)	1 ... 2	1 ... 10	1 ... 10
Output range (bar)	0,05 ... 1	0,05 ... 5	0,05 ... 9
Input signal	0 ... 10 V or 4 ... 20 mA		
Input impedance	ca. 6,5 k Ω (0 ... 10 V) \leq 250 Ω (4 ... 20 mA)		
Output signal (analog)	0 ... 5 V or 4 ... 20 mA		
Output signal (switch)	NPN or PNP (max. 30 V, 80 mA)		
Repeatability	\pm 0,5% (full span)		
Linearity	\pm 1% (full span)		
Hysteresis	0,5% (full span)		
Temperature characteristics	2% (full span)/K		
Display precision	\pm 2% (full span)		
Electrically connection	M12-plug, 4-pin		
Nominal voltage	24 V DC \pm 10%		
Power consumption	max. 3 W		
Protection	IP 65 according to EN 60529		
Weight (kg)	82-EPV-1	0,25	
	82-EPV-2	0,37	
	82-EPV-3	0,66	

Linearity


Series 82-EPV

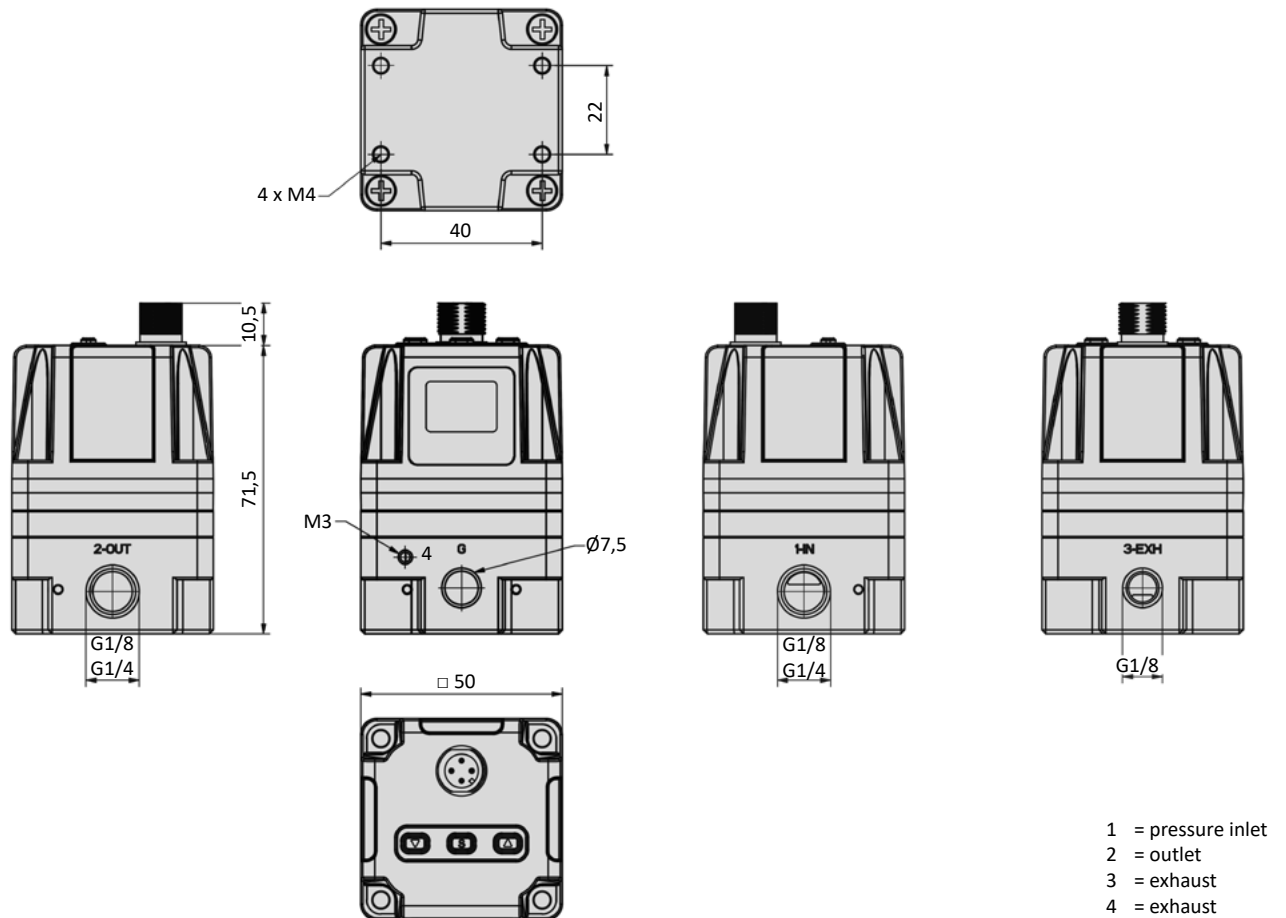
Technical data

Flow characteristics

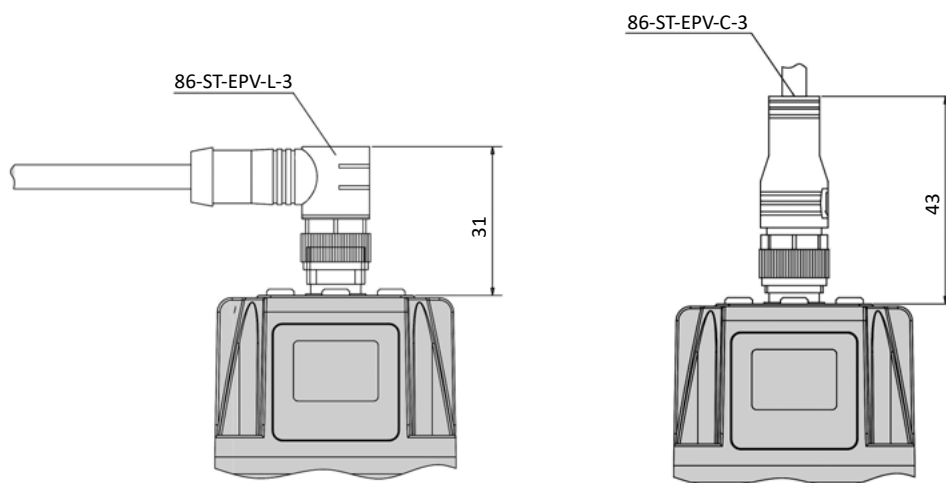


Dimensions

82-EPV-1



Cable connector

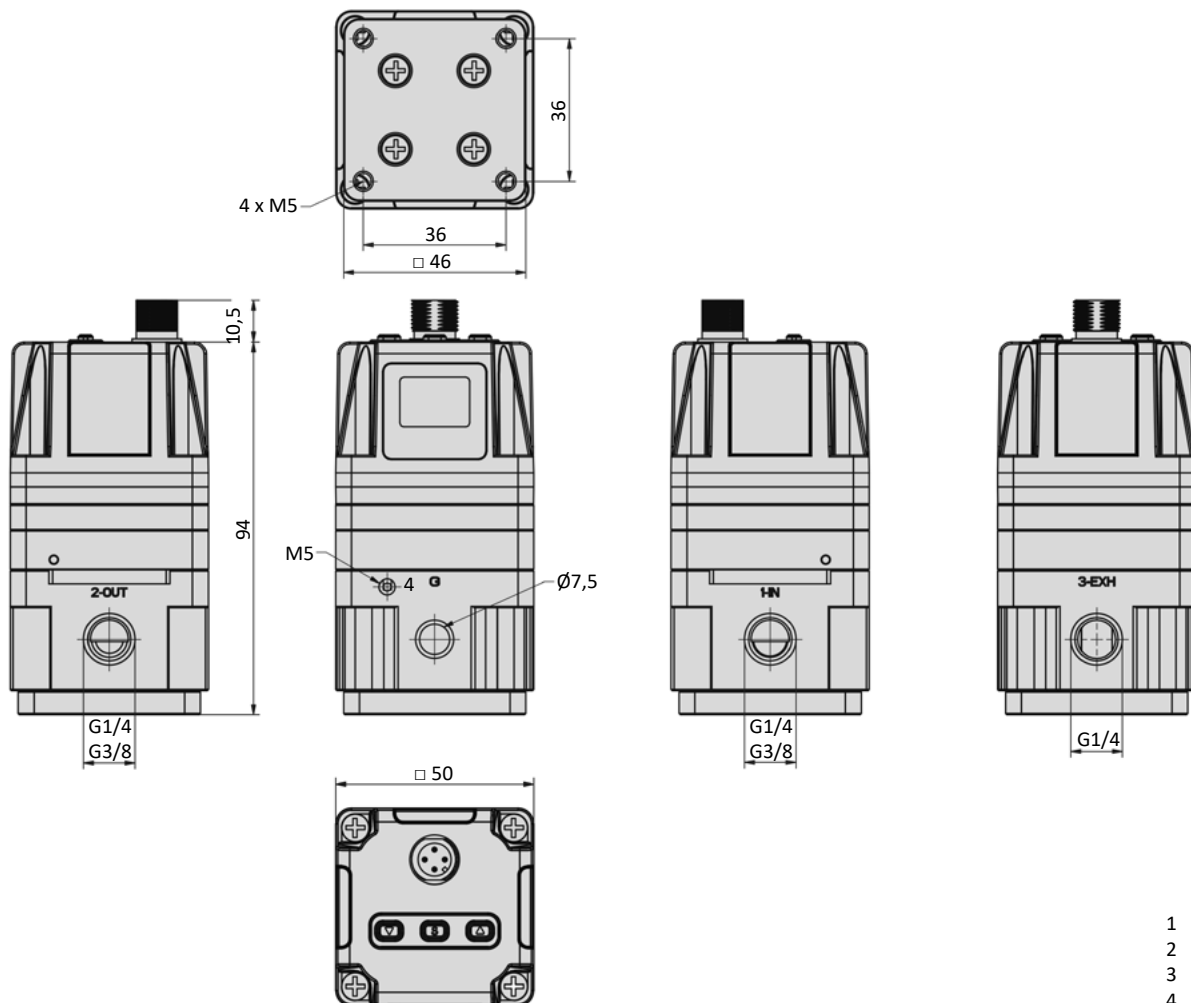


Series 82-EPV



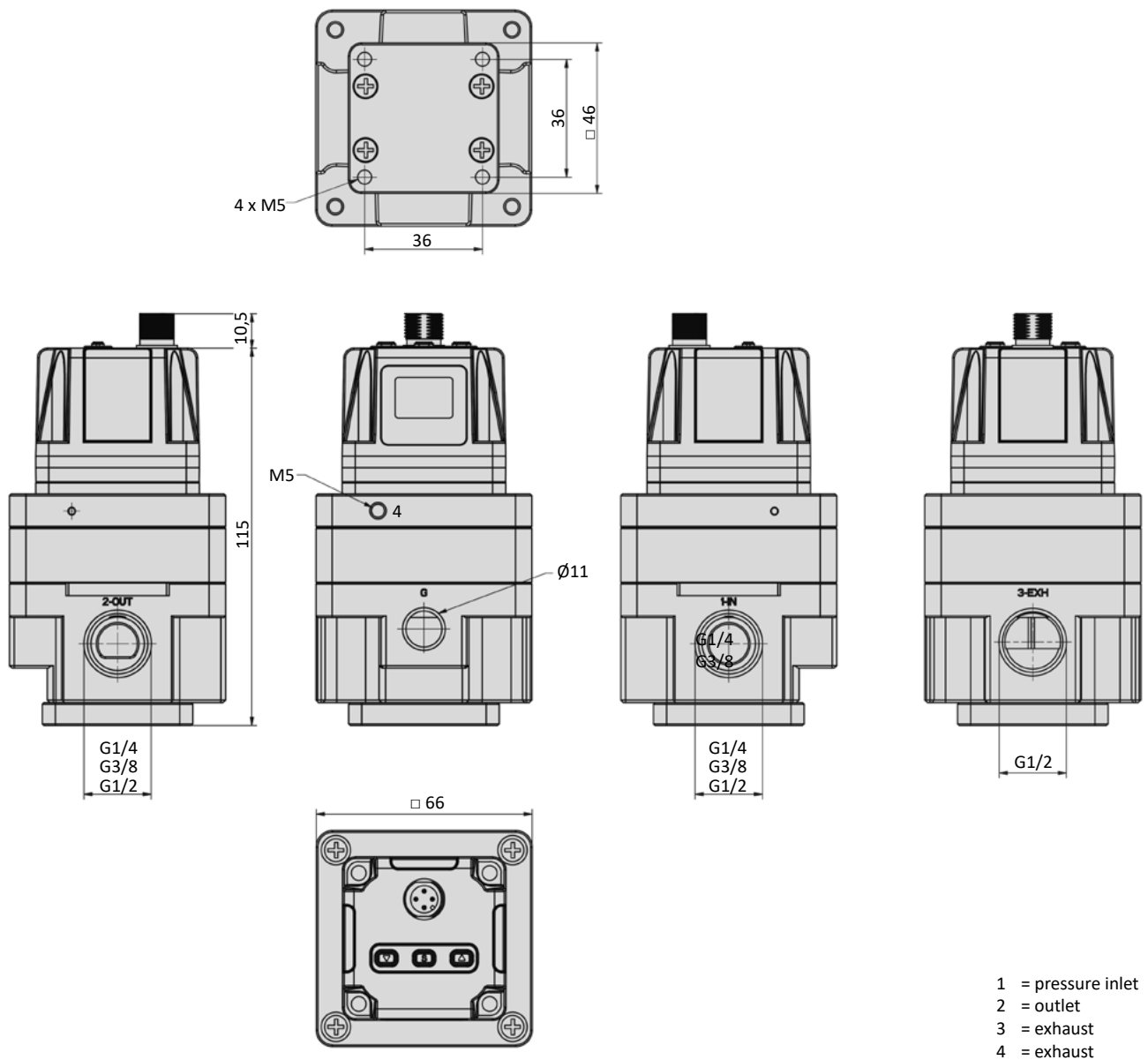
Dimensions

82-EPV-2



Dimensions

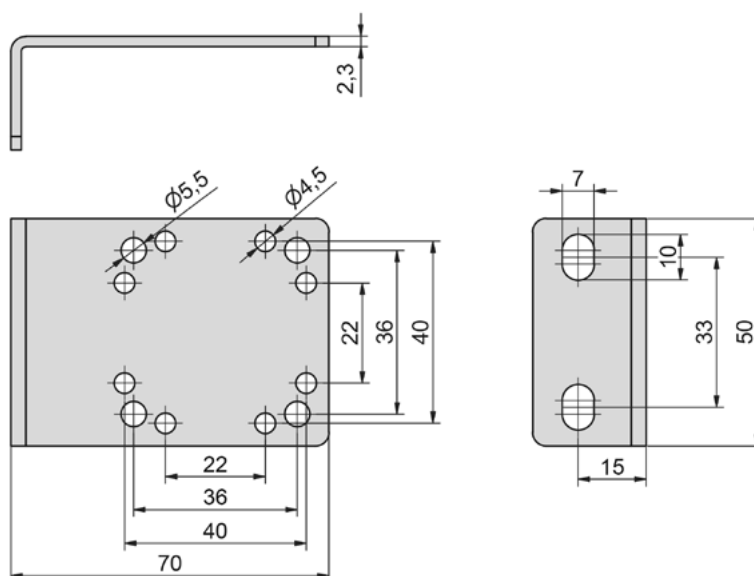
82-EPV-3



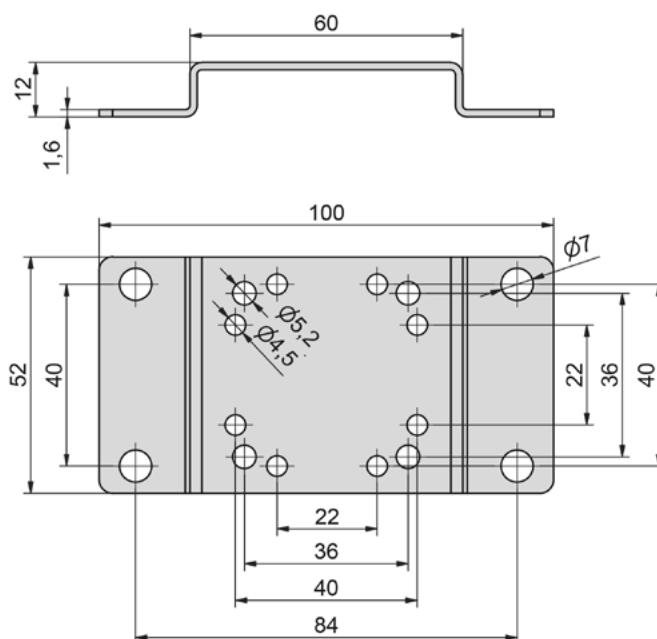
Series 82-EPV

Dimensions

Bracket 82-EPV-MB-L



Bracket 82-EPV-MB-C



Technical details

Temperature range	0°C ... +50°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Differing the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: plastic, seals: NBR, pressure connector: brass, zinc plated



Function

Adjustable, digital pressure switch with 2 colour LCD display. The pressure provides a wide range of output options (see table below).
The 2m connection cable is included.

Order code

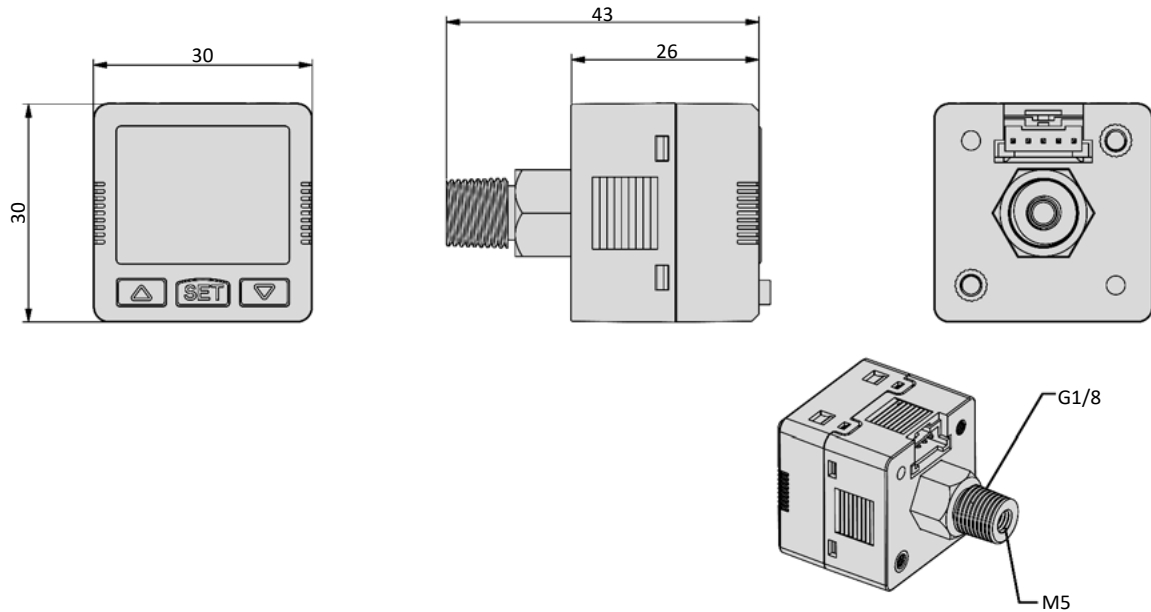
82-DPS-***-***-***			
Series	←	Connection	→
		without	G-thread
		N	NPT-thread
Version / Outputs	←	Outputs	→
2	Standard, 2 electrical outputs	NN	2 x switch, NPN
3	Standard, 1 electrical output	PP	2 x switch, PNP
5	Enhanced humidity resistance, 2 electrical outputs	NV	1 x switch, NPN 1 x analog, 1 ... 5 V
Measurement range / Setting range	←	PV	1 x switch, PNP 1 x analog, 1 ... 5 V
01	-1 ... 1 bar	NA	1 x switch, NPN 1 x analog, 4 ... 20 mA
10	-1 ... 10 bar	PA	1 x switch, PNP 1 x analog, 4 ... 20 mA
20*	-1 ... 20 bar	PN**	1 x switch, PNP or NPN
* only 82-DPS-5...		** only 82-DPS-3...	

Series 82-DPS

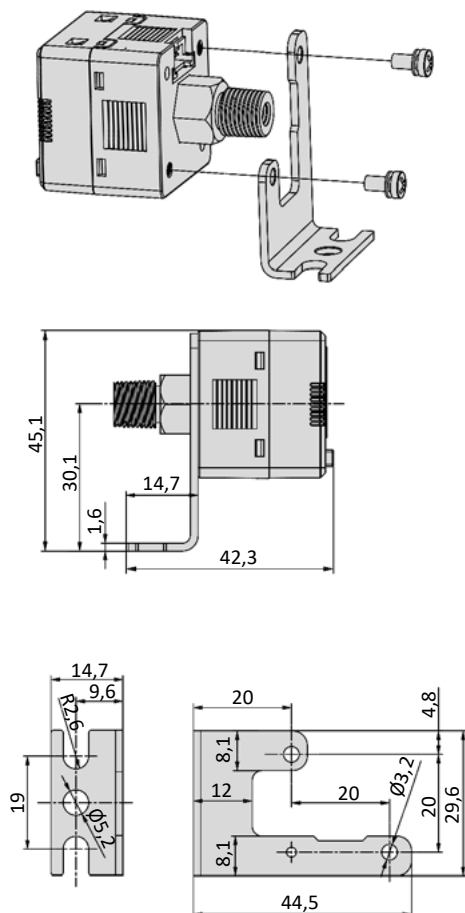
Technical data

Model-no.:	82-DPS-	2-01-PN	2-10-PN	3-01-xx	3-10-xx	5-01-xx	5-10-xx	5-20-xx
Measurement range (bar)		-1 1	-1 ... 10	-1 1	-1 ... 10	-1 1	-1 ... 10	-1 ... 20
Setting range (bar)		-1 1	-1 ... 10	-1 1	-1 ... 10	-1 1	-1 ... 10	-1 ... 20
Withstand pressure (bar)		5	15	5	15	3	30	30
Output signal (switch)		NN: 2 x NPN, PP: 2 x PNP, Nx: 1 x NPN, Px: 1 x PNP		NPN or PNP		NN: 2 x NPN, PP: 2 x PNP, Nx: 1 x NPN, Px: 1 x PNP		
Switch function		NO or NC (programmable)						
Output modus		hysteresis mode, window comparator mode, output off						
Max. contact voltage		28 V						
Max. load current		80 mA						
Voltage drop		≤ 1 V						
Response time (ms)		adjustable: 2,5, 20, 100, 500, 1000, 2000						
Short-circuit protection		yes						
Output signal (analog)		xV: 1 ... 5 V, load impedance ≥ 1 kΩ xA: 4 ... 20 mA, load impedance ≤ 400 Ω		-		xV: 1 ... 5 V, load impedance ≥ 1 kΩ xA: 4 ... 20 mA, load impedance ≤ 400 Ω		
Display accuracy		± 2% full span (at 25°C)						
Temperature characteristics		± 3% full span (0 ... 50°C)						
Hysteresis		adjustable						
Pressure units		mHg, psi, bar, MPa, kPa						
Display		2-line LCD-display, four digit, 1.line red/green, 2.line orange		single-line LCD-display, four digit, red/green, output status display				
Electrical connection		flat plug, 5-pin				round plug with bayonet coupling, 5-pin		
Nominal voltage		12 ... 24 V DC ± 10%						
Power consumption		max. 40 mA						
Protection		IP 40 according to EN 60529				IP 65 according to EN 60529		
Connection		G(NPT)1/8 male and M5 female				G(NPT)1/4 male and M5 female		
Weight (kg)		0,036				0,052		

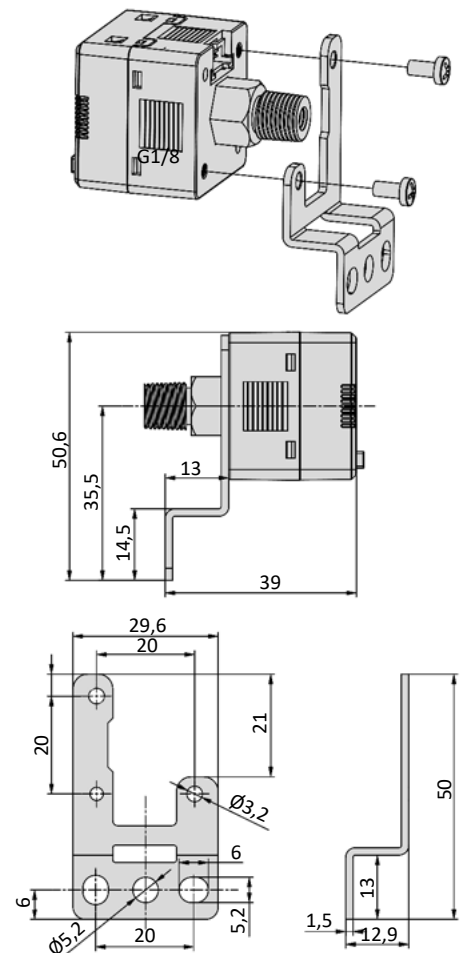
Dimensions 82-DPS-2 and 82-DPS-3



82-DPS-2-3-MB-L



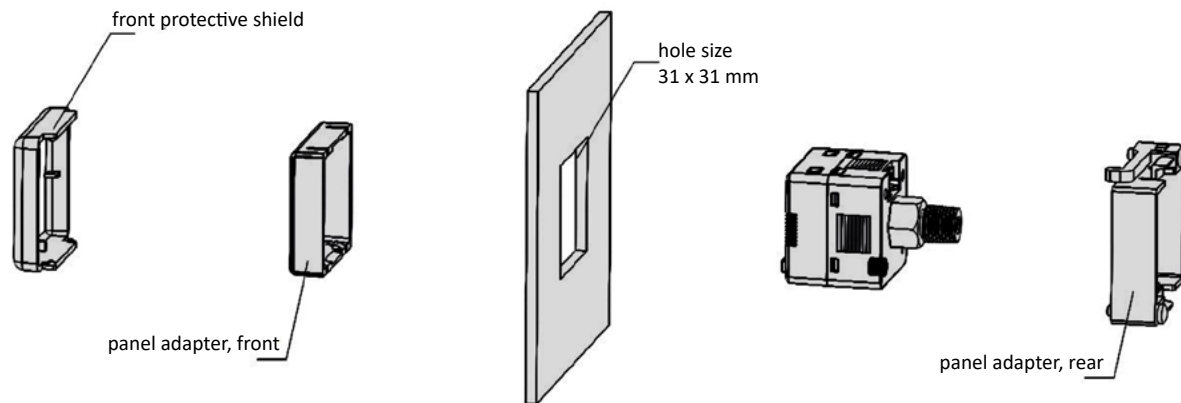
82-DPS-2-3-MB-S



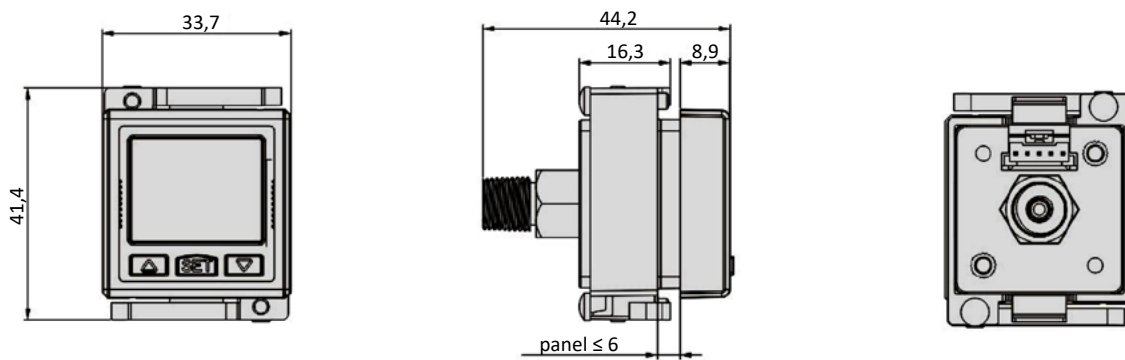
Series 82-DPS

Dimensions

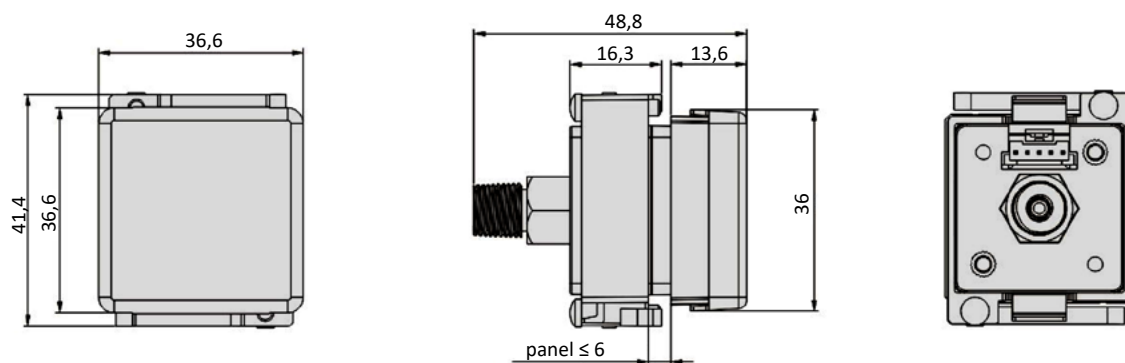
Panel mounting 82-DPS-2 and 82-DPS-3, functional principle



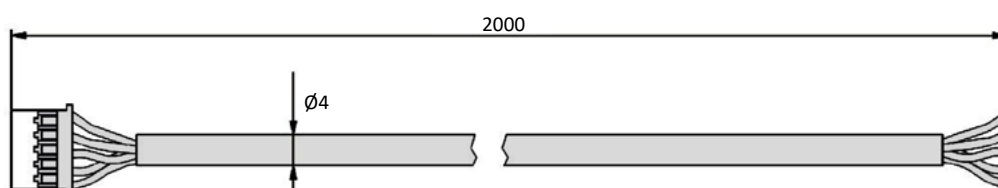
82-DPS-2-3-PM

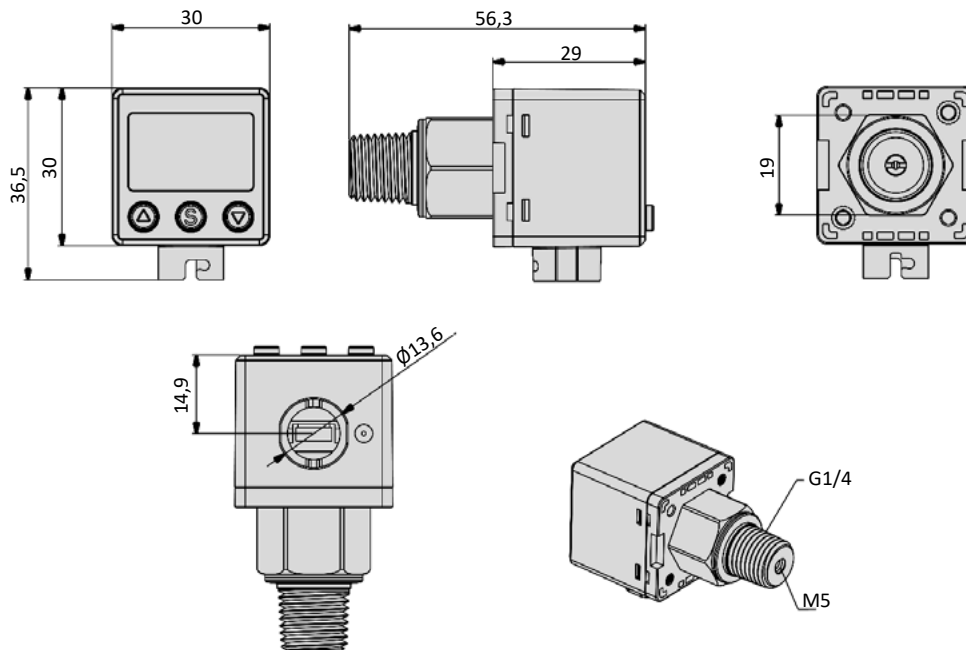
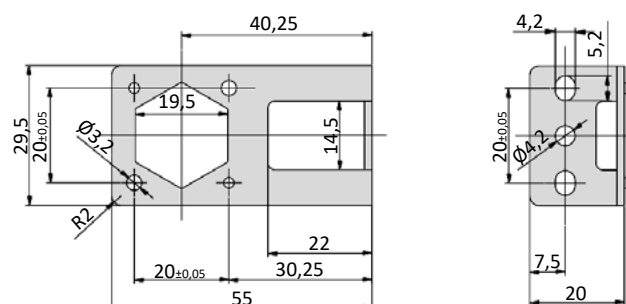
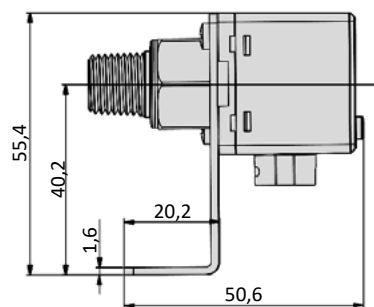
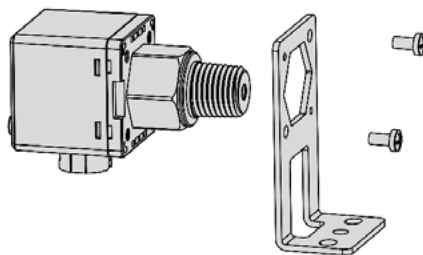
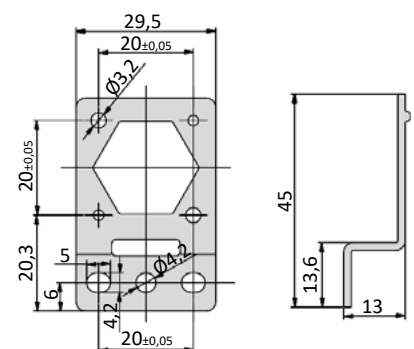
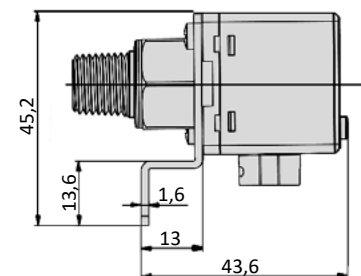
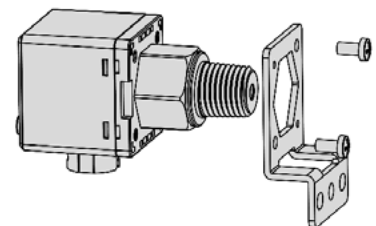


82-DPS-2-3-PMS



86-ST-DPS-2-3-2



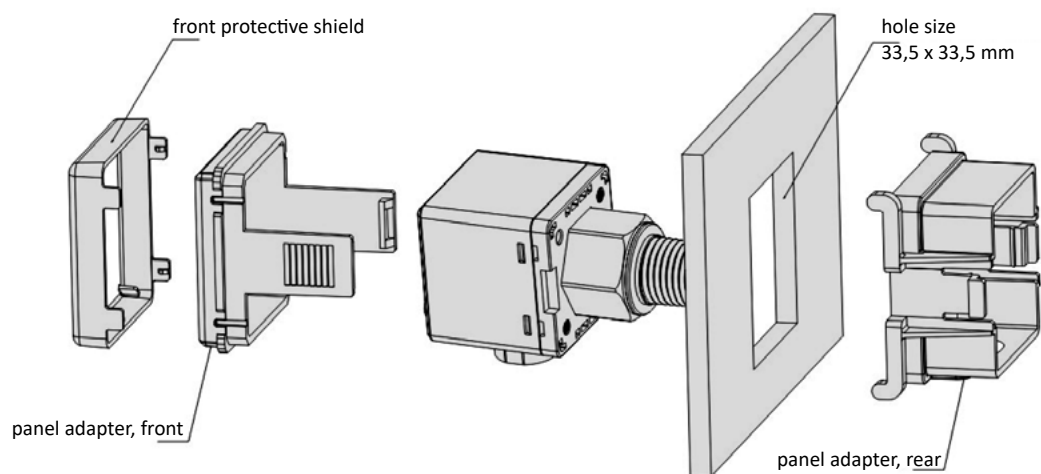
Dimensions 82-DPS-5

82-DPS-5-MB-L

82-DPS-5-MB-S


Series 82-DPS

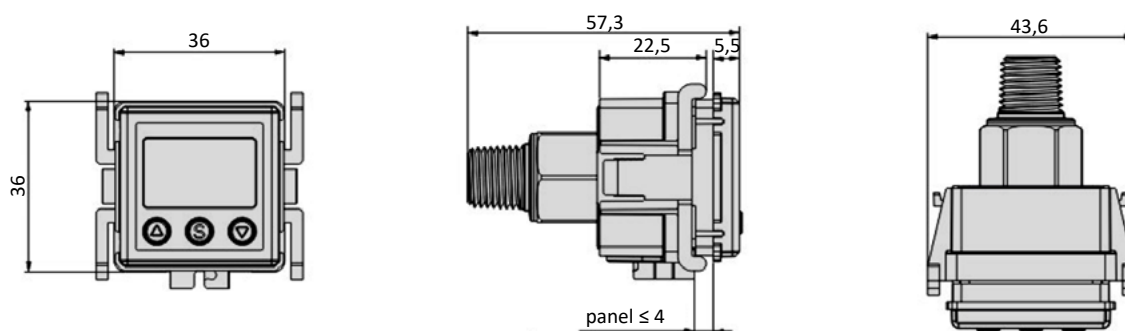


Dimensions

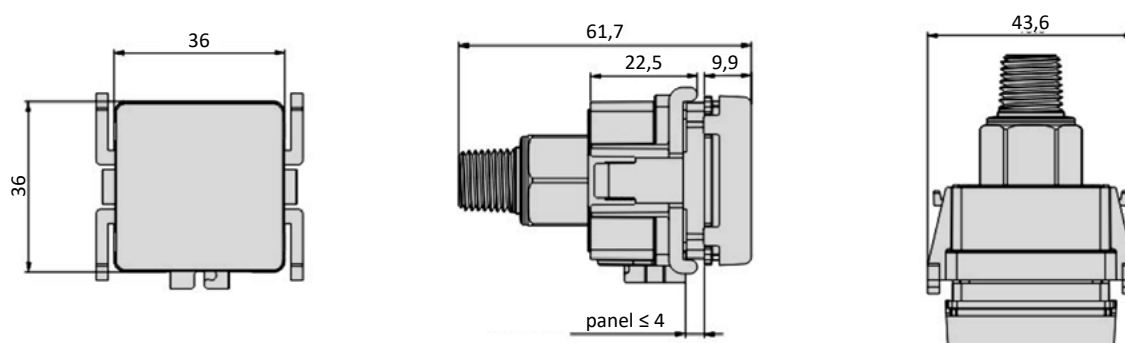
Panel mounting 82-DPS-5, functional principle



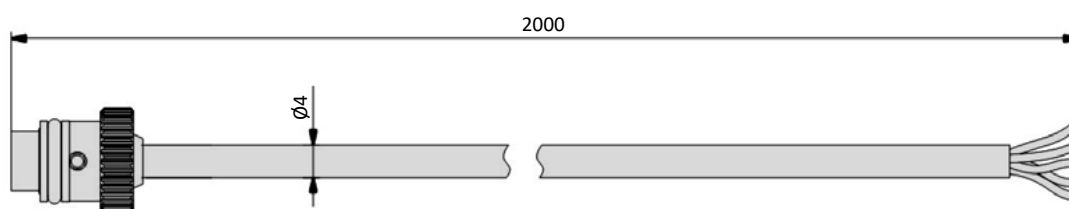
82-DPS-5-PM



82-DPS-5-PMS



86-ST-DPS-5-2



Accessories

Model-no.:

82-DPS-2-3-MB-L

L-type bracket


Model-no.:

82-DPS-5-MB-L

L-type bracket

Model-no.:

82-DPS-2-3-MB-S

S-type bracket

Model-no.:

82-DPS-5-MB-S

S-type bracket

Model-no.:

82-DPS-2-3-PM

panel mount adapter


Model-no.:

82-DPS-5-PM

panel mount adapter

Model-no.:

82-DPS-2-3-PMS

panel mount adapter with front protective shield


Model-no.:

82-DPS-5-PMS

panel mount adapter with front protective shield

Model-no.:

86-ST-DPS-2-3-2

Cable connector, 2m
(part of delivery)

Model-no.:

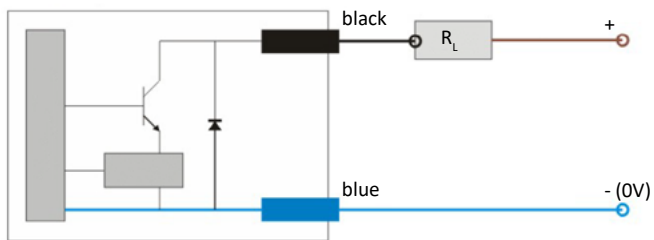
86-ST-DPS-5-2

Cable connector, 2m
(part of delivery)

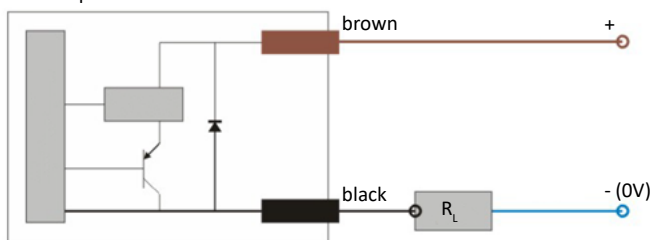
Series 82-DPS

Elektrical connection

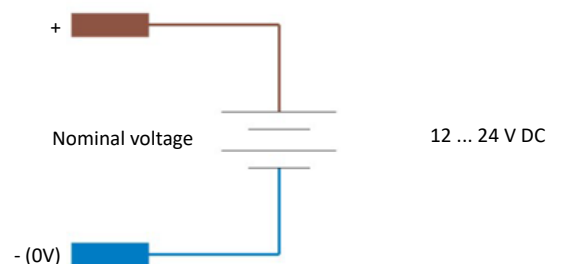
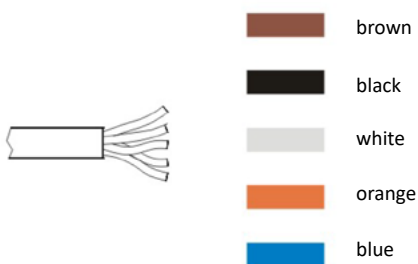
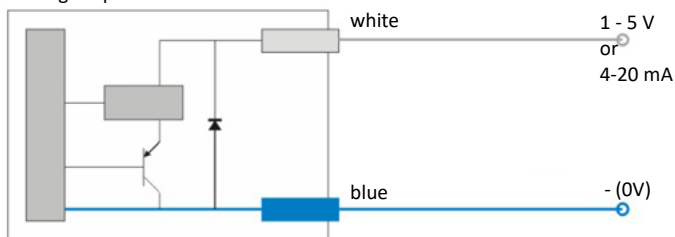
NPN output



PNP output

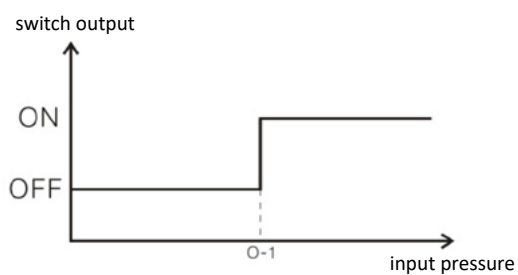


Analog output

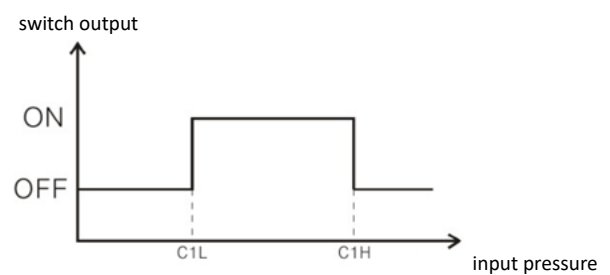


Output function

Hysteresis mode



Window comparator mode



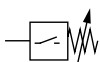
Technical details

Temperature range	-10°C ... +80°C
Medium	Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Differing the pressure dew point must be at least 10°C below lowest occurring ambient temperature.
Materials	Body: Zinc coated steel, seals: NBR (PE-14), FKM (PE-18)



Adjustable diaphragm pressure switch. Optional, the switches are available with a pre-adjusted switching point at 4 bar. The protective cup (PE-18-01) and plug connector (PE-14-01) are included.

Pressure switch



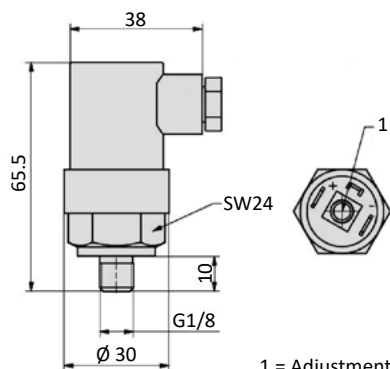
PE
pressure switch

Technical data

Model-no.:	PE-18-01		PE-14-01	
Connection	G1/8		G1/4	
Pressure range (bar)	1 ... 10		1 ... 12	
Overpressure safety (bar)	300		300	
Repeatability (bar at 20°C)	± 0.5		± 0.3	
Contact function	NO		Change-over contact	
Max. operating voltage	30 V DC	250 V AC	30 V DC	250 V AC
Max. current	1 A	0.5 A	3 A	1 A
Protection	IP 65 according to EN 60529		IP 65 according to EN 60529	
Weight (kg)	0.070		0.140	

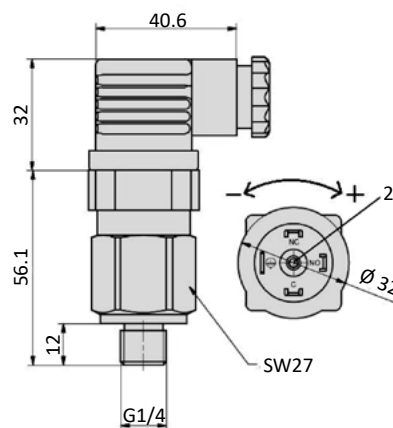
Dimensions

PE-18-01



1 = Adjustment of pressure range
(with screwdriver)

PE-14-01



2 = Adjustment of pressure range
(with hex key 1,5 mm)