

Measurement ranges (also ± measurement ranges) others available upon request	50/100/200/500 Pa 1/2.5/5/10/20/50/100 kPa
Margin of error	± 2 % of the set value for ≥ 100 Pa or ± 3 % of the set value for 50 Pa
Temperature coefficient span	0.1 % of max. value/K
Temperature coefficient zero point	0.1 % of max. value/K
Overload capacity	12 x for measurement ranges ≤ 20 kPa 4 x for measurement ranges ≥ 20 kPa
Medium	air, all non-aggressive gases
Max. system pressure	10 kPa for measurement ranges ≤ 10 kPa max. nominal pressure of sensor for measurement ranges above 10 kPa
Sensor response time	20 ms
Time constants	20 ms .. 4 s adjustable (factory-provided)
Operating temperature	-20 .. 60 °C with Display 0 .. 50 °C
Storage temperature	-20 .. 70 °C
Power consumption	approx. 1 VA
Weight	approx. 0.25 kg
Cable glands	2 x M12
Pressure ports	for tubing NW 4 .. 6 mm
Protection class	IP65
Certificates	CE

Output <sup>1)</sup>	A
0 .. 10 V (R <sub>L</sub> ≥ 50 kΩ)	1
2 .. 10 V (R <sub>L</sub> ≥ 50 kΩ)	2
0 .. 20 mA (R <sub>L</sub> ≤ 500 Ω)	0
4 .. 20 mA (R <sub>L</sub> ≤ 500 Ω)	4
0 .. 5 V (R <sub>L</sub> ≥ 50 kΩ)	5

Power supply	B
24 VAC/DC ± 10 % (without galvanic separation)	AC/DC
15 .. 32 VDC (two-wire) (only for A = 4)	ZWL

<sup>1)</sup> the output signal can be configured using jumpers

Measurement range	C
Standard (e.g. 0 .. 100 Pa) <sup>2)</sup>	
toggles between: 100 Pa/250 Pa/500 Pa/1 000 Pa	1
toggles between: 250 Pa/500 Pa/1 000 Pa/2.5 kPa	2
toggles between: 1 kPa/2.5 kPa/5 kPa/10 kPa	3
toggles between: 10 kPa/25 kPa/50 kPa/100 kPa	4

<sup>2)</sup> others available upon request, also ± measurement ranges

Contact point	D
none	0
1 relay (changeover contacts) max. 230 VAC, 6 A (min. required switching capacity 300 mW) (not for two-wire)	1

LCD	E
none	0
4-digit	1

Order code	A	B	C	D	E
PS 27					

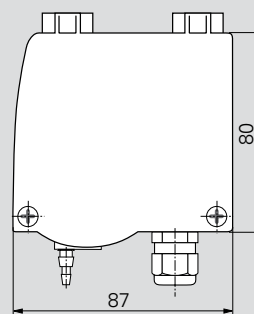
Can be pre-set on request:  
Time constant and relay parameter



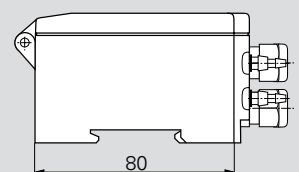
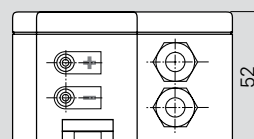
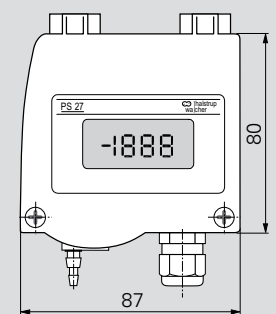
## Features

- Compact differential pressure transmitter for basic applications
- Also available with two-wire technology (optional)
- With optional display
- Either with one fixed measurement range or toggling between 4 different measurement ranges
- 4 measurement ranges can be selected via jumpers (optional)
- With ± measurement ranges and asymmetric measurement ranges
- With optional relay (6 A)
- Suitable for top-hat rail mounting and wall surface installation

PS 27 without display











PS 27 with display



# MEASUREMENT OF DIFFERENTIAL PRESSURE

Measurement of differential pressure is useful in a broad range of applications. It is used in ventilation and air-conditioning technology but also in many areas of air handling process technology. The next pages show a number of these. You can find more information about pressure sensor technology on p. 6.

halstrup-walcher offers a wide range of products for stationary measurement of differential pressure.

	PUC24	PUC28(K)	P26	P34	P29	PU/PI/PIZ	PS27	REG21
Details on	p. 18	p. 19	p. 20	p. 21	p. 22	p. 23	p. 24	p. 25
								
<b>Application</b>	Process monitoring for clean-rooms (Pa, °C, % rH), with stainless steel front	Process monitoring panel (optional: with calibration port) (Pa, °C, % rH), aluminium, anodised	High precision, scalable differential pressure transmitter	Measuring transmitter with very small dimensions – ideal for the control cabinet	Like P26, for natural gas	For standard applications. PIZ: PI in two wire technology	A basic sensor for simple applications	Measurement and regulation of pressure
<b>Housing installation</b>	Installed in wall (panel)		Mounted on a wall/top-hat rail					Rack
<b>Max. measurement range</b>	± 250 Pa		± 100 kPa					
<b>Min. measurement range</b>	± 100 Pa		± 10 Pa		± 250 Pa		± 50 Pa	
<b>Degree of measurement uncertainty</b>	± 0.5 % <sup>1)</sup> (standard)		± 0.2 % of the scaled range (40..100 % of max. value) <sup>2)</sup> (optional) ± 0.5 % of the scaled range (40..100 % of max. value) <sup>2)</sup> (standard)		± 0.2 % <sup>1)</sup> (optional) ± 0.5 % <sup>1)</sup> (standard)		± 0.2 % <sup>1)3)</sup> ± 0.5 % <sup>1)2)</sup> ± 1 % <sup>1)</sup> ± 2 % (≥ 100 Pa) or ± 3 % (for 50 Pa) of the set value	
<b>Square-root (volume flow)</b>	-	-	✓	✓ <sup>4)</sup>	✓	-	-	-
<b>Display</b>	✓	✓	optional	-	optional	optional	optional	✓

<sup>1)</sup> max. value of upper range value

<sup>2)</sup> but not less than 0.3 Pa

<sup>3)</sup> for measurement ranges ≥ 250 Pa only

<sup>4)</sup> optionally with stat. pressure sensor and temperature analogue input for compensation

## ACCESSORIES

### Certificates (see p. 41)

DAkkS calibration certificate (German)

DAkkS calibration certificate (English)

ISO factory calibration certificate

### Order no.

9601.0003

9601.0004

9601.0002

### Connecting components

Silicone tubing ID 5 mm, OD 9 mm, red 9601.0160  
(please state length required)

Silicone tubing ID 5 mm, OD 9 mm, blue 9601.0161  
(please state length required)

Norprene tubing 9061.0132  
(please state length required)

Y-piece for tubing 9601.0171

### Pressure ports

We can supply a wide range of customer-specific pressure ports, e.g. various cutting ring couplings or hose connectors.

