

Measurement ranges others available upon request	250/500 Pa 1/2.5/5/10/20/50/100 kPa freely scalable from 10..100 % within a measurement range
Margin of error (0.3 Pa margin of error for the reference)	±0.2 % FS for measurement ranges ≤ 50 kPa or ±0.5 % FS
Temperature coefficient span	0.03 % FS/K (10..50 °C)
Temperature coefficient zero point	±0 % (cyclical zero-point correction)
Overload capacity	100 kPa for measurement ranges ≥ 2.5 kPa 200 x for measurement ranges < 2.5 kPa
Medium	natural gas
Max. system pressure	100 kPa for all measurement ranges
Sensor response time	25 ms
Time constants	25 ms..60 s (adjustable)
Operating temperature	10..50 °C
Storage temperature	-10..70 °C
Power consumption	approx. 6 VA
Weight	approx. 750 g
Cable glands	2 x M 16
Pressure ports	2 x laboratory nozzle DIN 12898
Protection class	IP65
Certificates	CE, EN1127-1:2007

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

Power supply	B
24 VDC ± 10 %	24 DC

<sup>1)</sup> output signals can be configured freely

Measurement range	C
Measurement range e.g. 0..250 Pa, 0..100 mmHg (etc.)	

Margin of error	D
±0.2 % FS <sup>2)</sup>	2
±0.5 % FS	S

<sup>2)</sup> for measurement ranges ≤ 50 kPa

Display + keyboard	E
none	0
multi-coloured LCD and keyboard	LC



Tubing connections	F
standard for tubing NW 5..8 mm	0
cutting ring coupling 8 mm	S

Order code	A	B	C	D	E	F
P29						

Can be pre-set on request:  
Time constant, relay parameter, analogue output root-extracted / linear, deactivation of the cyclic zeroing

**TÜV-tested**

As long as the customer observes the specified flushing process, special electronic encapsulation safely separates any ignition sources from flammable gas.



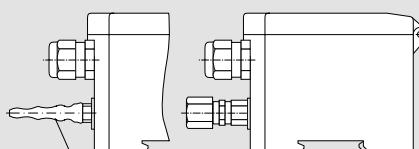
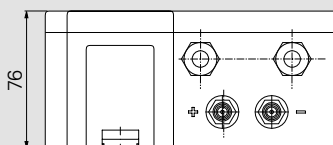
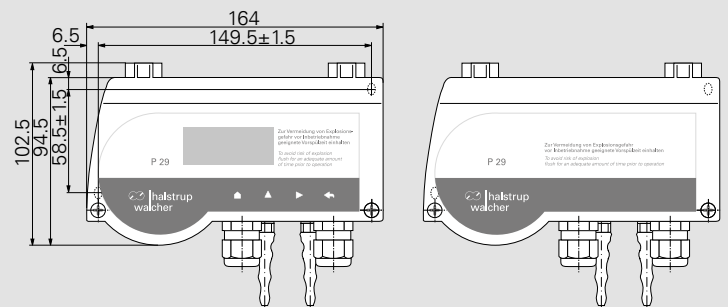
Picture: Version with display

**Features**

- TÜV-tested differential pressure transmitter for natural gas
- Design changes and technical modifications keep ignition source and gas mixture safely separated (not suitable for Ex-applications)
- Scalable measurement range and display
- For pressure and volume flow measurement
- Zero-point correction prevents zero-point drift
- Built-in valve provides a high level of overload protection
- Also suitable for top-hat rail mounting
- Multilingual menu (English/French/German/Italian)

P29 with display

P29 without display











Cutting ring connector (optional)

Laboratory nozzle in accordance with DIN 12898

# 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 our pressure sensor technology on p.6.

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

Product	PUC24	PUC28(K)	P26	P34	P29	PU/PI/PIZ	PS27	REG21
Details on	p. 14	p. 15	p. 16	p. 17	p. 18	p. 19	p. 20	p. 21
								
<b>Application</b>	Process monitoring for clean-rooms (Pa, °C, % rH), with stainless steel front	Process monitoring panel aluminium, anodised (optional: with calibration port) (Pa, °C, % rH)	High precision, freely scalable pressure transmitter for critical applications	Measuring transmitter with very small dimensions – ideal for the control cabinet	High precision, freely scalable pressure transmitter for natural gas	For standard applications. PIZ: 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		0..100 kPa		± 100 kPa	
<b>Min. measurement range</b>	± 100 Pa		± 10 Pa		0..250 Pa		± 50 Pa	
<b>Margin of error</b> (0.3 Pa margin of error for the reference)	± 0.5 % FS <sup>1)</sup> (standard)		± 0.2 % FS <sup>1)</sup> (optional) ± 0.5 % FS (standard)		± 0.2 % FS <sup>1)</sup> (optional) ± 0.5 % FS (standard)		± 0.2 % FS <sup>2)</sup> ± 0.5 % FS ± 1 % FS ± 2 % (≥ 100 Pa) or ± 3 % (for 50 Pa) of the set value	
<b>Square-root (volume flow)</b>	-	-	✓	✓ <sup>3)</sup>	✓	-	-	-
<b>Display</b>	✓	✓	optional	-	optional	optional	optional	✓

<sup>1)</sup> for measurement ranges ≤ 50 kPa

<sup>2)</sup> for measurement ranges ≥ 250 Pa and ≤ 50 kPa

<sup>3)</sup> optionally with stat. pressure sensor and temperature analogue output for compensation

## ACCESSORIES

### Certificates (see p.42)

DAkkS calibration certificate (German)  
DAkkS calibration certificate (English)  
ISO factory calibration certificate

### Order no.

9601.0003  
9601.0004  
9601.0002

### User software

You can set the parameters for our instruments or monitor and record measurements using a PC via a USB or RS232 interface. These features are supported by our free user software. This also allows you to transfer your settings to other devices by saving and reusing them.

### Connecting components

Silicone tubing ID 5 mm, OD 9 mm, red (please state length required) 9601.0160  
Silicone tubing ID 5 mm, OD 9 mm, blue (please state length required) 9601.0161  
Norpren tubing (please state length required) 9061.0132  
Y-piece for tubing 9601.0171

Our user software is compatible with the following pressure transmitters: PUC24, PUC28(K), P26, P34 and P29.

You can download the file here:

[www.halstrup-walcher.de/en/software](http://www.halstrup-walcher.de/en/software)

### Pressure ports

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