



Measured data differential pressure

| | |
|--|--|
| Measurement ranges (also ± measurement ranges) others available upon request | 10/50/100/250/500 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 % of FS/K (10..50 °C) |
| Temperature coefficient zero point | ±0 % (cyclical zero-point correction) |
| Max. system pressure/ Overload capacity | 400 kPa measurement ranges ≥ 2.5 kPa 200 x measurement ranges < 2.5 kPa |
| Medium | air, all non-aggressive gases |
| 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. 450 g |
| Connections | Screw terminals (connection capacity 0.25..2.5 mm ²) |
| Power supply | 24 VAC/DC ± 10 % |
| USB interface | USB 2.0 Full-Speed Slave (Mini USB) |
| Pressure ports | for tubing NW 4 or 6 mm |
| Protection class | IP20 |
| Certificates | CE |

Features

- Differential pressure transmitter with very small dimensions – ideal for control cabinet installation
- Optional: P-/T-compensated volume flow (temperature analogue input and internal stat. pressure sensor)
- Optionally with relay
- Zero-point correction prevents zero-point drift
- Built-in valve provides a high level of overpressure protection
- Volume flow can be configured via k-factor, dP_{max}/V_{max} or 20 individual values
- USB interface²⁾: via PC-software scaling, characteristic line form and many other parameters can be set
- Free software available at www.halstrup-walcher.de/en/software
- Delivery possible already completely integrated into the control cabinet (on request)



Measured data for P-/T-compensated volume flow (optional)

| | |
|----------------------------------|---|
| Measured range absolute pressure | 200 kPa |
| Accuracy absolute pressure | ±2.0 % FS |
| Temperature input | 4..20 mA, R _i = 130 Ω Temperature range freely scalable |

| Output (linear/ root extracted) ¹⁾ | A | Measurement range | B |
|--|---|--|---|
| 0..10 V (R _L ≥ 2 kΩ) | 1 | Measurement range e.g. 0..10 Pa, -10..50 mbar, ±100 mmHg (etc.) | |
| 0..20 mA (R _L ≤ 500 Ω) | 0 | | |
| 4..20 mA (R _L ≤ 500 Ω) | 4 | | |

¹⁾ output signals can be configured freely

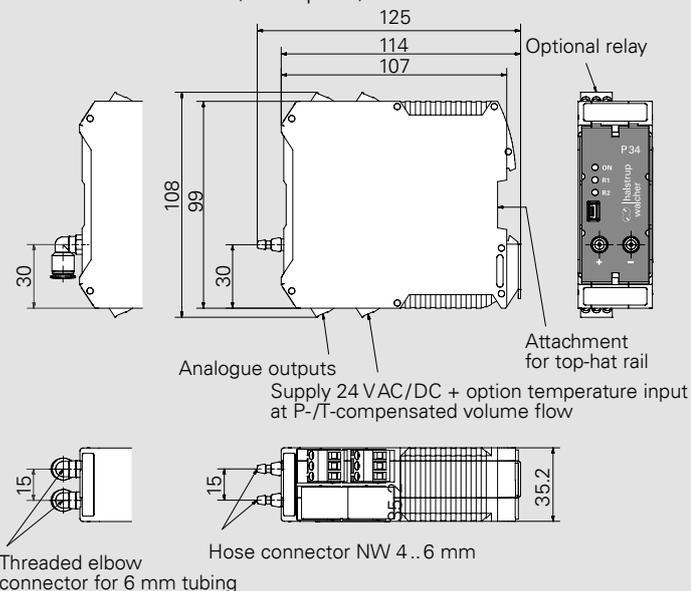
| Margin of error | C | Contact points | D |
|------------------------------------|---|--|---|
| ±0.2 % of max. value ²⁾ | 2 | none | 0 |
| ±0.5 % of max. value | 5 | 2 relays (exchange contacts) max. 230 VAC, 6 A | 2 |

²⁾ for measurement ranges ≤ 50 kPa

| Application | E |
|------------------------------|---|
| standard | A |
| P-/T-compensated volume flow | B |

| Tubing connectors | F |
|--|---|
| standard grommet for NW 4 or 6 mm tubing | 0 |
| threaded elbow connector for 6 mm tubing | W |

| Order code | A | B | C | D | E | F |
|------------|---|---|---|---|---|---|
| P34 | - | - | - | - | - | - |



²⁾ Accessories: USB cable (Order no. 9601.0254)

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

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 |
| |  |  |  |  |  |  |  |  |
| Application | 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 |
| Housing installation | Installed in wall (panel) | | Mounted on a wall/top-hat rail | | | | | Rack |
| Max. measurement range | ± 250 Pa | | ± 100 kPa | | 0.. 100 kPa | ± 100 kPa | | |
| Min. measurement range | ± 100 Pa | | ± 10 Pa | | 0.. 250 Pa | ± 50 Pa | | |
| Margin of error (0.3 Pa margin of error for the reference) | ± 0.5 % FS ¹⁾ (standard) | | ± 0.2 % FS ¹⁾ (optional) ± 0.5 % FS (standard) | | ± 0.2 % FS ¹⁾ (optional) ± 0.5 % FS (standard) | ± 0.2 % FS ²⁾ ± 0.5 % FS ± 1 % FS | ± 2 % (≥ 100 Pa) or ± 3 % (for 50 Pa) of the set value | ± 0.5 % FS ± 1 % FS |
| Square-root (volume flow) | - | - | ✓ | ✓ ³⁾ | ✓ | - | - | - |
| Display | ✓ | ✓ | optional | - | optional | optional | optional | ✓ |

¹⁾ for measurement ranges ≤ 50 kPa

²⁾ for measurement ranges ≥ 250 Pa and ≤ 50 kPa

³⁾ 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

Pressure ports

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