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 interface 2): 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 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
±0.0 % (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 mm²)

Power supply
24 V AC/DC ± 10 %

USB interface
USB 2.0 Full-Speed Slave (Mini USB)

Pressure ports
for tubing NW 4 or 6 mm

Protection class
IP 20

Certificates
CE

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

Measured range absolute pressure
200 kPa

Accuracy absolute pressure
±0.2 % FS

Temperature input
4 .. 20 mA, R_i = 130 Ω

Temperature range freely scalable

Output (linear / root extracted) 1)

0 .. 10 V (R_L ≥ 2 kΩ) 1
0 .. 20 mA (R_L ≤ 500 Ω) 0
4 .. 20 mA (R_L ≤ 500 Ω) 4

Measurement range 1)

Margin of error

±0.2 % of max. value 2) 2
±0.5 % of max. value 5

Contact points

none 0
2 relays (exchange contacts) 2
max. 230 V AC, 6 A

Application

standard A
P- / T-compensated volume flow B

Tubing connectors

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
P 34 - - - - - -

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

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

### Product Details

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### Application

- **Process monitoring**
  - for cleanrooms (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

- **± 0.5 % FS**
  - (0.3 % Pa margin of error for the reference)
- **± 0.2 % FS**
  - (optional)
- **± 0.5 % FS**
  - (standard)
- **± 0.2 % FS**
  - (optional)
- **± 0.5 % FS**
  - (standard)
- **± 0.2 % FS**
  - (optional)
- **± 0.5 % FS**
  - (optional)
- **± 1 % FS**
- **± 2 %**
  - (≥ 100 Pa)
  - or
  - **± 3 %**
  - (for 50 Pa)
  - of the set value
- **± 0.5 % FS**
  - ± 1 % FS

### Square-root (volume flow)

- **-**
- **-**
- **стрелка**
- **стрелка**
- **optional**
- **optional**
- **optional**
- **optional**
- **optional**
- **-**

### Display

- **стрелка**
- **стрелка**
- **optional**
- **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

#### Connecting components

- Silicone tubing ID 5 mm, OD 9 mm, red (please state length required)
- Silicone tubing ID 5 mm, OD 9 mm, blue (please state length required)
- Norprene tubing (please state length required)
- Y-piece for tubing

#### Pressure ports

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

### 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.

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)