PUC 24

Measurement ranges	± 100 Pa or ± 250 Pa freely scalable within this range
Margin of error (0.3 Pa margin of error for the reference)	± 0.5 % of max. value
Temperature coefficient span	0.03 % of max. value/K (10..50°C)
Temperature coefficient zero point	±0 % (cyclical zero-point correction)
Overload capacity	200 x
Medium	air, all non-aggressive gases
Max. system pressure	10 kPa
Sensor response time	25 ms
Time constants	25 ms..40 s (adjustable)
Input signal humidity/temperature module (galvanically separated)	0..10 V, R_i = 470 kΩ 0/4..20 mA, R_i = 50 Ω adjustable
Operating temperature	10..50°C
Storage temperature	-10..70°C
Power consumption	approx. 7 VA
Weight	approx. 1 kg
Pressure ports	for tubing NW 3..6 mm
Protection class	IP65 (recessed in the wall)
Certificates	CE

Supply voltage

24 V DC, ± 10 % smoothed

Output

0..10 V (R_i > 2 kΩ)
0/4..20 mA (R_i < 500 Ω) adjustable

2 contact points, 6 A, 230 V AC,
may be configured as desired within this pressure range

Measurement range	A
± 100 Pa	0
± 250 Pa	1

Data interface	B
none	0
PROFIBUS DP (optional)[1]	DP
RS 232 (optional)	2

[1] GSD-Download at www.halstrup-walcher.de/en/software

Bus connection	C
none	0
9-pin Sub-D flush type connector [2]	D
sub-D plug with 150 mm cable	DK
round pin connector M 12 with 150 mm cable	RK

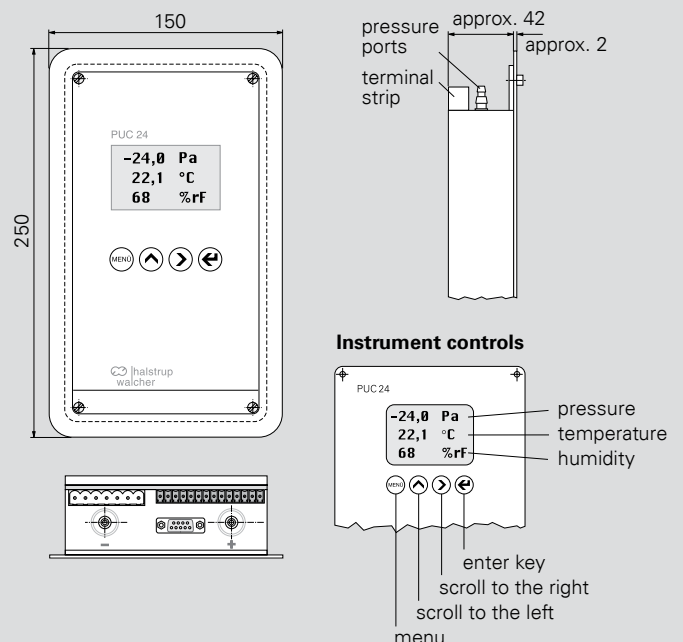[2] not suitable for wall thicknesses greater than 5 mm

Order code	A	B	C
PUC 24	–	–	–

Can be pre-set on request:
Time constant, relay parameter, analogue output,
deactivation of the cyclic zeroing (only for PROFIBUS DP)

Features

- Cleanroom panel (stainless steel) for displaying air-conditioning data
- Integrated, high precision measurement of differential pressure
- % rH/°C transmitters switchable (independent of manufacturer)
- Optimum cleanroom design (TU Munich/Weihenstephan)
- Solvent resistant stainless steel surface
- 3 analog outputs, optional digital interface
- Acoustic alarm when the threshold value is exceeded, acknowledgement via key
- Optical alarm signal if critical values are exceeded (cyclically inversed/normal)
- Bilingual menu (English/German) (others on request)
- 2 contact points (6 A/230 V AC)
- 2 adjustable limit switches permit the connection of signalling devices and save additional wiring

Instrument controls

pressure
temperature
humidity

enter key
scroll to the right
scroll to the left
menu

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					
Min. measurement range	± 100 Pa		± 10 Pa		± 250 Pa		± 50 Pa	
Degree of measurement uncertainty (0.3 Pa margin of error for the reference)	± 0.5 % [1] (standard)		± 0.2 % [1] (optional) ± 0.5 % [1] (standard)		± 0.2 % [1] (optional) ± 0.5 % [1] (standard)	± 0.2 % [1][2] ± 0.5 % [1] ± 1 % [1]	± 2 % (≥ 100 Pa) or ± 3 % (for 50 Pa) of the set value	± 0.5 % [1] ± 1 % [1]
Square-root (volume flow)	-	-	✓	✓ [3]	✓	-	-	-
Display	✓	✓	optional	-	optional	optional	optional	✓

[1] of max. value   [2] for measurement ranges ≥ 250 Pa

[3] optionally with stat. pressure sensor and temperature analogue output for compensation

ACCESSORIES

Certificates (see p. 42) — Order no.

DAkkS calibration certificate (German)	9601.0003
DAkkS calibration certificate (English)	9601.0004
ISO factory calibration certificate	9601.0002

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
Norprene tubing (please state length required)	9061.0132
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.

User software

You can set the parameters for our instruments or monitor and record measurements using a PC via a USB or RS 232 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: PUC 24, PUC 28 (K), P 26, P 34 and P 29.

You can download the file here:
www.halstrup-walcher.de/en/software