

Margin of error (0.3 Pa margin of error for the reference)	± 0.5 % of max. value
Overload capacity	10 x for measurement ranges ≤ 10 kPa 2 x for measurement ranges > 10 kPa 1.2 x in the 200 kPa measurement range
Calculation of air speed	$v = 1.291 \cdot \sqrt{\Delta p}$ with v in m/s and Δp = differential pressure at the pitot tube in Pa (pitot factor and density adjustable) with telescoping pitot tube, see p. 27
Zero-point correction	performed electronically by pressing zero-point key
Medium	air, all non-aggressive gases
Analog output	0..2 V ($R_L \geq 2 \text{ k}\Omega$) 0..1..2 V ($R_L \geq 2 \text{ k}\Omega$) for negative and positive measurement ranges
Display	3½ digit LCD, character height = 10 mm
Time constants	1..10 s
Operating temperature	0..50 °C
Storage temperature	-10..70 °C
Power supply	9V battery (service life approx. 100 h) (display reads "low bat" when power falls below a certain minimum level); Switches off automatically after approx. 20 min.
Weight	approx. 0.4 kg
Pressure ports	for tubing NW 4 or 6 mm
Certificates	CE

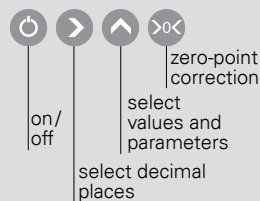
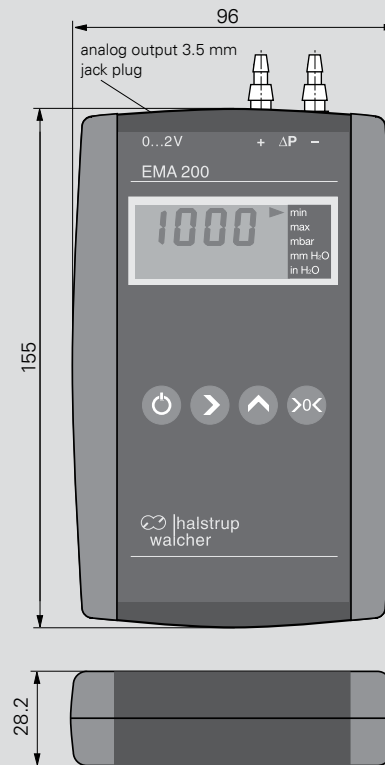
Measurement range			A
±200 Pa	(±2 mbar)	1.5..18 m/s	0
±2 kPa	(±20 mbar)	5..58 m/s	1
±20 kPa	(±200 mbar)	15..180 m/s	10
±200 kPa	(±2000 mbar)		100

Order code	A
EMA 200	—

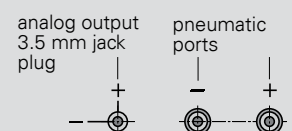


Features

- High-end pressure gauge for differential pressure and flow measurements
- Adjustable pitot factor and density
- Zero-point correction at the push of a button
- Min./max. value memory
- Temperature measurement



Connection diagram



DIGITAL PRESSURE GAUGES

Product	EMA 200	EMA 84
Details on	p. 28	p. 29
		
Features	Portable digital pressure gauge with min./max. value memory and free selection of units, also suitable for flow measurements	Rugged, portable digital pressure gauge
Measurement ranges	± 200 Pa (± 2 mbar) ± 2 kPa (± 20 mbar) ± 20 kPa (± 200 mbar) ± 200 kPa (± 2 000 mbar)	0.. 100 Pa (0.. 1 mbar) 0.. 1 kPa (0.. 10 mbar) 0.. 10 kPa (0.. 100 mbar) 0.. 100 kPa (0.. 1 000 mbar)
Margin of error (0.3 Pa margin of error for the reference)	± 0.5 % of max. value	± 0.2 % of max. value for measurement ranges 1.. 50 kPa or ± 0.5 % of max. value for measurement ranges 1.. 100 kPa or ± 1 % of max. value

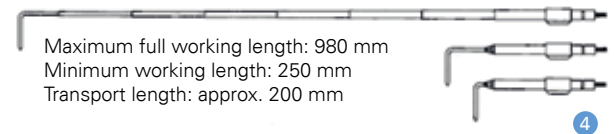
The EMA 200 can be ordered in 4 different measurement ranges. The units can be changed as required: Pa and kPa are shown in the display; mbar, mmH₂O, and in H₂O are printed on the housing film and marked with an arrow. The temperature or rate of flow is shown in a second line on the display.

The EMA 84 can also be ordered with 4 different measurement ranges. The following units may be selected: Pa/mbar and mbar/kPa.

ACCESSORIES

Shoulder bag EMA 200
Carrying bag EMA 84
Shoulder bag EMA 84 (with LCD viewing window)
DAkkS calibration certificate, German (p. 42)
DAkkS calibration certificate, English (p. 42)
ISO factory calibration certificate
Connecting components (tubing etc.)
Telescoping pitot tube for flow measurements (EMA 200)

Order no.
9074.0001 ①
9063.0001 ②
9064.0001 ③
9601.0003
9601.0004
9601.0002
see p. 11
9061.0193 ④



USE OF HANDHELD GAUGES

After the start-up of an air-conditioning system or cleanroom, or during maintenance or validation work, it is necessary to monitor a large number of pressure values. It is therefore essential to measure and record the following values accurately:

- ventilator pressure
- pressure drop at power units and filters
- overpressure in the cleanroom
- flow in the air duct and rooms

The EMA range of hand-held pressure gauges has been optimised for long-term use in building services engineering and industrial applications. They are rugged and simple to operate.

