

Margin of error KAL 100 (0.3 Pa margin of error for the reference)	± 0.2 % of max. value Measurement ranges > 0..200 Pa / ±200 Pa ± 0.5 % of max. value Measurement ranges ≤ 0..200 Pa / ±200 Pa
Margin of error KAL 200 (0.3 Pa margin of error for the reference)	± 0.1 % of max. value Measurement ranges > 0..200 Pa / ±200 Pa ± 0.2 % of max. value Measurement ranges 0..200 Pa / ±200 Pa ± 0.3 % of max. value Measurement ranges 0..100 Pa / ±100 Pa
Hysteresis	0.1 % of max. value
Overload capacity	600 kPa for measurement ranges > 3 kPa 200 X for measurement ranges ≤ 3 kPa
Temperature coefficient zero point	± 0 % (cyclical zero-point correction)
Temperature coefficient span	KAL 100: 0.04 % of max. value / K (10..40 °C) KAL 200: 0.03 % of max. value / K (10..40 °C)
Calibration temperature	22 °C
Medium	air, all non-aggressive gases
Measurement input/ power supply (test object)	0..10 V, 0/4..20 mA Accuracy: 0.2 % of max. value 24 VDC/100 mA
Display	Alphanumeric display with 2 x 20 characters, backlighting
Operating temperature	10..40 °C
Storage temperature	-10..70 °C
Weight	approx. 4.5 kg
Pressure ports	Ø 6 mm, for tubing NW 5 mm
Certificates	CE

Model	A
KAL 100	100
KAL 200	200

Power supply	C
115 VAC, 6 % / -15 % (50/60 Hz)	1
230 VAC, 6 % / -15 % (50/60 Hz)	2
115 VAC, 6 % / -15 % (50/60 Hz) and rechargeable lithium ion battery	1A
230 VAC, 6 % / -15 % (50/60 Hz) and rechargeable lithium ion battery	2A

Data interface	D
none	0
USB + measurement input for test object (standard for KAL 200)	1

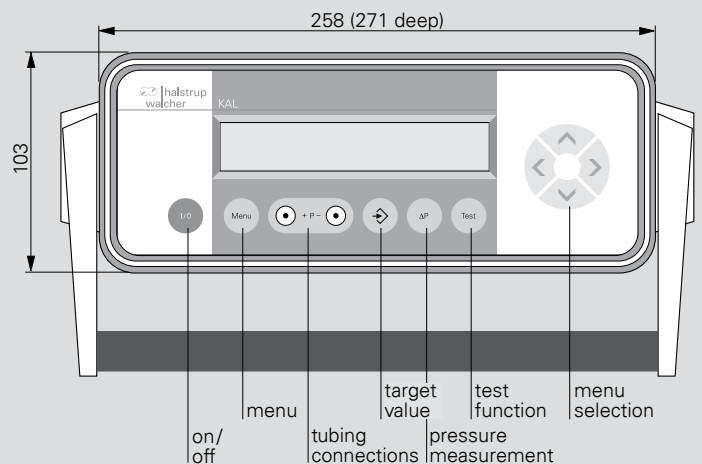
Measurement ranges	B
0..100 Pa	0
0..200 Pa	02
0..500 Pa	05
0..1 kPa	1
0..2 kPa	2
0..5 kPa	5
0..10 kPa	10
0..20 kPa	20
0..50 kPa	50
0..100 kPa	100
±100 Pa	0A
±200 Pa	02A
±500 Pa	05A
±1 kPa	1A
±2 kPa	2A
±5 kPa	5A
±10 kPa	10A
±20 kPa	20A
±50 kPa	50A
-80..100 kPa	100A

Order code	A	B	C	D
KAL	-	-	-	-



## Features

- High precision measurement and calibration device
- Runs on mains supply or battery, highly flexible (optional)
- Battery life approx. 8 hours, ideal for mobile applications
- Automatic zero-point correction provides high zero-point stability
- Internal pump quickly and accurately generates negative or positive differential pressures of up to 100 kPa
- Optional USB interface available (Standard for KAL 200)
- Factory calibration certificate supplied as standard (KAL 200)
- Unit conversion (e.g. mmHg, mmH<sub>2</sub>O, psi, etc.)
- Multilingual menu (English/French/German/Italian/Spanish)
- With power supply and measurement input for the external test object (transmitter being calibrated)





# HIGH PRECISION ON-SITE MEASUREMENT AND CALIBRATION

The KAL range from halstrup-walcher offers 3 pressure calibration devices which offer outstanding value for money and can be used either for stationary (e.g. in a customer's own laboratory) or mobile applications. These devices combine the following features:

- integrated pressure generation (for setting the calibration point)
- high-precision pressure measurement

In the KAL 84, the pressure is generated using a manual pump and integrated pressure bellows. In the KAL 100/200, the calibration point (target pressure) is entered via the keyboard. A high precision pump automatically generates the target pressure. The user can select not only the display language but also the unit of pressure.

Product	KAL 200	KAL 100	KAL 84
Details on	p. 36	p. 36	p. 37
			
Pressure generation	automatic		manual
Applications	mobile or stationary (laboratory)		
Measurement ranges	0..100 Pa/0..200 Pa/0..500 Pa/0..1 kPa/0..2 kPa/ 0..5 kPa/0..10 kPa/0..20 kPa/0..50 kPa/0..100 kPa/ ±100 Pa/±200 Pa/±500 Pa/±1 kPa/±2 kPa/±5 kPa/ ±10 kPa/±20 kPa/±50 kPa/-80..100 kPa		0..100 Pa (0..1 mbar) 0..1 kPa (0..10 mbar) 0..10 kPa (0..100 mbar) 0..100 kPa (0..1000 mbar) 0..300 mmHg (0..400 mbar)
Margin of error (0.3 Pa margin of error for the reference)	± 0.1 % of max. value Measurement ranges > 0.200 Pa/±200 Pa  ± 0.2 % of max. value Measurement ranges 0..200 Pa/±200 Pa ± 0.3 % of max. value Measurement ranges 0..100 Pa/±100 Pa	± 0.2 % of max. value Measurement ranges > 0.200 Pa/±200 Pa ± 0.5 % of max. value Measurement ranges ≤ 0.200 Pa/±200 Pa	± 0.2 % of max. value ± 1 digit Measurement ranges 0..50 kPa ± 0.5 % of max. value ± 1 digit
Interface	USB (standard)	USB (optional)	-
Analog measurement input for test object	✓	optional	-
Battery life (rechargeable)	8 h	8 h	2 h
Factory calibration certificate	✓	optional	optional

## USER SOFTWARE FOR THE KAL 100/200

Control calibration processes from your PC.

The KAL 100/200 calibration devices with USB port can be operated using our user software. You have a choice of three operating modes: target value mode, pressure measurement and test mode.

Define calibration points and run to them automatically. Once you have saved a defined calibration run, you can use it again for another or the same pressure transmitter.

You can also use the software to set parameters which you would otherwise set using the display's operating menu (unit, language, zero-point adjustment,...).

You can find the free user software at:

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

