

Margin of error KAL 100	± 0.2 % of max. value + 0.3 Pa Measurement ranges > 0..200 Pa / ±200 Pa ± 0.5 % of max. value + 0.3 Pa Measurement ranges ≤ 0..200 Pa / ±200 Pa
Margin of error KAL 200	± 0.1 % of max. value + 0.3 Pa Measurement ranges > 0..200 Pa / ±200 Pa ± 0.2 % of max. value + 0.3 Pa Measurement ranges 0..200 Pa / ±200 Pa ± 0.3 % of max. value + 0.3 Pa 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

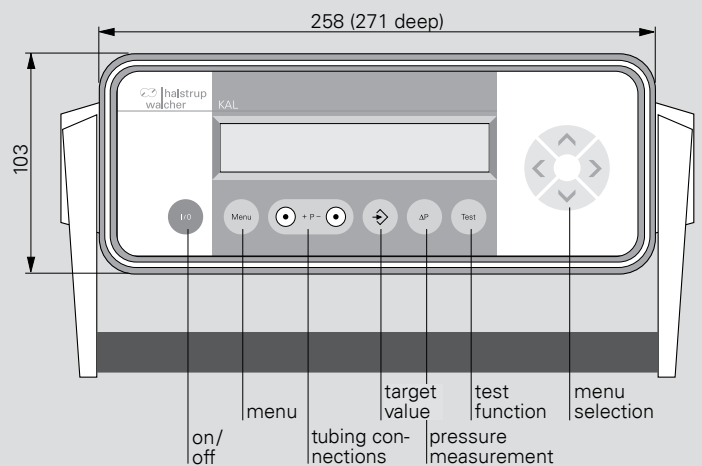
Measurement ranges	B
0..100 Pa	0
0..200 Pa	02
0..500 Pa	05
0..1 kPa	1
0..2 kPa	2
0..5 kPa	5
0..10 kPa	10
0..20 kPa	20
0..50 kPa	50
0..100 kPa	100
± 100 Pa	0A
± 200 Pa	02A
± 500 Pa	05A
± 1 kPa	1A
± 2 kPa	2A
± 5 kPa	5A
± 10 kPa	10A
± 20 kPa	20A
± 50 kPa	50A
-80..100 kPa	100A

Order code	A	B	C	D
KAL	-	-	-	-



## Features

- High precision measurement and calibration device in one
- 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)



## User software





# HIGH PRECISION ON-SITE MEASUREMENT AND CALIBRATION

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

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

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 a keyboard/display and automatically generated using a high precision pump. With these devices, the user can select not only the display language but also the unit of pressure. In addition, the KAL 200 has a USB interface so that pressure sequences can be programmed using supplied PC software. This makes it possible to produce time-optimised calibration sequences.

	KAL 200	KAL 100	KAL 84
<b>Details on</b>	p. 38	p. 38	p. 39
			
<b>Pressure generation</b>	automatic		manual
<b>Applications</b>	mobile or stationary (laboratory)		
<b>Measurement ranges</b>	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)
<b>Margin of error</b>	± 0.1 % of max. value + 0.3 Pa Measurement ranges > 0.200 Pa/±200 Pa ± 0.2 % of max. value + 0.3 Pa Measurement ranges 0..200 Pa/±200 Pa ± 0.3 % of max. value + 0.3 Pa Measurement ranges 0..100 Pa/±100 Pa	± 0.2 % of max. value + 0.3 Pa Measurement ranges > 0.200 Pa/±200 Pa ± 0.5 % of max. value + 0.3 Pa 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
<b>Interface</b>	USB (standard)	USB (optional)	-
<b>Analog measurement input for test object</b>	✓	optional	-
<b>Battery life (rechargeable)</b>	8 h	8 h	2 h
<b>Factory calibration certificate</b>	✓	Accessory	Accessory

## ACCESSORIES

Carrying bag KAL 84  
Hand pump KAL 84  
Transport case KAL 100/200  
Carrying bag KAL 100/200  
DAkkS calibration certificate, German  
DAkkS calibration certificate, English  
ISO factory calibration certificate

**Order no.**  
9062.0001 ①  
9601.0036 ②  
9220.0002 ③  
supplied as standard  
9601.0003 (see p. 41)  
9601.0004 (see p. 41)  
9601.0002 (included for KAL 200)



②  
Hand pump KAL 84  
Order no. 9601.0036



①  
Carrying bag KAL 84  
Order no. 9062.0001



③  
Transport case KAL 100/200  
Order no. 9220.0002



Carrying bag KAL 100/200  
supplied as standard