VD81

Compact Vacuum Meter / Data Logger
Absolute Pressure 1600 to 1 mbar

The versatile VD81 digital vacuum meter measures absolute pressure in the rough vacuum range.

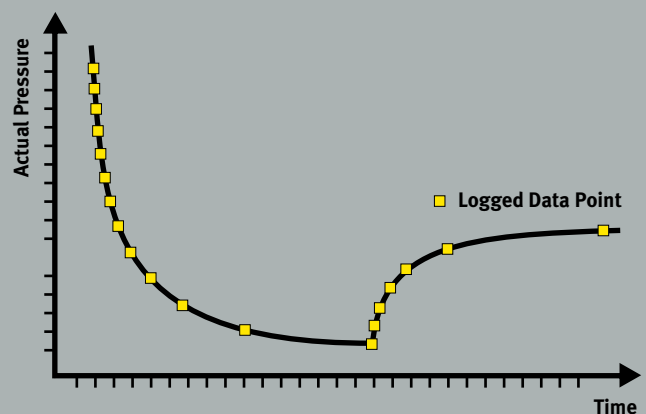It is available with USB interface and can be used as data logger.

The VD81 can be operated with either battery or external power supply making it ideal for both, portable or stationary applications.
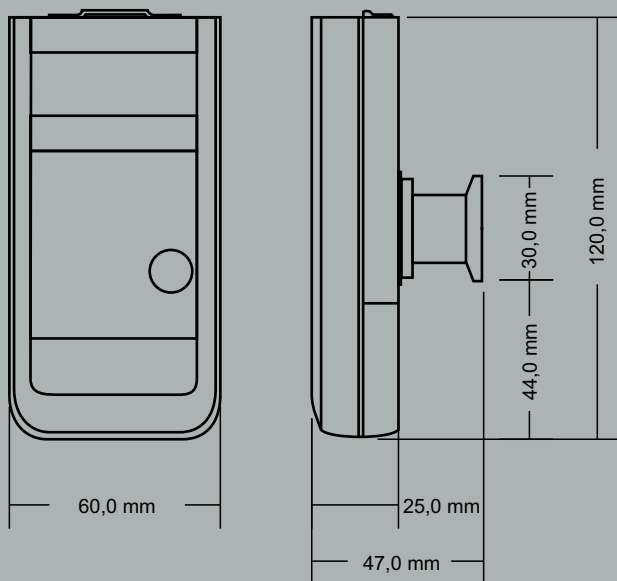
Typical Applications

- Checking and setup of vacuum plants

- Operational control and documentation at vacuum plants and pumps

- Service and maintenance

- Modern teaching aid with PC interface

- Replacement of mercury manometers in research and teaching, laboratories and manufacturing

- Leak tests

- Packing machines

- Analysis instruments

- Chemical process engineering

Benefits

- Chemically resistant ceramic sensor with FKM sealing

- High repeatability

- Excellent long term stability

- Up to 5000 h battery life

- Vacuum connection by small flange, G1/4 female thread or screw in hose nozzle

- Compact, easy to use

- Min/Max Memory: Storage and display of high and low values

- Automatic switch off or continuous operation

- Pressure units mbar, Torr, hPa

- Exact readjustment without a potentiometer

- User friendly operational concept

- USB interface

- Easy configuration of the vacuum meter by VacuGraph™ software or directly at the instrument

- Measuring rate of the data logger can be arbitrarily set by means of VacuGraph™ software or directly selected at the instrument

- Optionally measurements are saved only on pressure change to reduce data volume

- Online data transfer to PC via USB

- Data logger functionality: Save up to 2000 measurements in the vacuum meter and push button data transfer to a PC; no PC connection is necessary during the measurement

- VacuGraph™ software for saving and plotting measurements on PC

Data logging at measurement changes

60,0 mm 25,0 mm 47,0 mm 30,0 mm 44,0 mm 120,0 mm

Technical Data

Measuring Principle	Piezo resistive, independent of gas type
Materials In Contact With Vacuum	Stainless steel 1.4305, Al2O3 ceramic, FKM
Measurement Range	1600 - 1 mbar (1200 - 1 Torr), max. overpressure 4 bar absolute
Resolution	1 mbar (Torr)
Accuracy	‹ ± 0.3% full scale (linearity, hysteresis, repeatability)
Response Time	20 ms
Measuring Rate	1.0 s (100 ms in data logger mode)
Data Logging Rate	0.1...999 s
Operating Temperature	0...+50°C
Storage Temperature	-20...+60°C
Power Supply	9 V block battery (alternatively NiMh rechargeable battery) or 15 VDC external (power supply)
Power Consumption	Approx. 2 mW
Operating Time	9 V lithium battery: max. 5000 h 9 V Alkaline 6LR61 battery: max. 2500 h 9 V rechargeable battery 150 mA: max. 500 h
Electrical Connection	Jack for external power supply
Vacuum Connection	DN 16 ISO-KF with G1/4 female thread or hose nozzle (accessory VD81SW1)
Protection Class	IP40
Display	LCD 12 mm
Weight	Approx. 200 g (battery included)

Product Codes

- **VD81**
Compact vacuum meter,
1600 to 1 mbar, DN 16 ISO-KF flange
with G1/4 female thread

Accessories:

- **VD8CASE**
Protective case

- **VD8ALK**
AlMn battery, 9 V block 6LR61

- **VD8N4**
External power supply,
100 to 240 VAC

- **VD81SW1**
Hose nozzle, nickel coated brass

- **VD8ANS**
Connection set with tee
DN 16 ISO-KF, 2 centering rings and
2 clamps

- **VGR**
VacuGraph™ software for Windows

- **WUSB0002**
Interface cable USB, shielded, 2 m