VD85

Compact Vacuum Meter / Data Logger Absolute Pressure 1200 to 5 x 10^{-4} mbar

VD85 digital vacuum meter reads pressure over 7 decades in the rough and fine vacuum range.

Its sensor combination of piezo and Pirani guarantees high resolution and precision over the whole range.

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

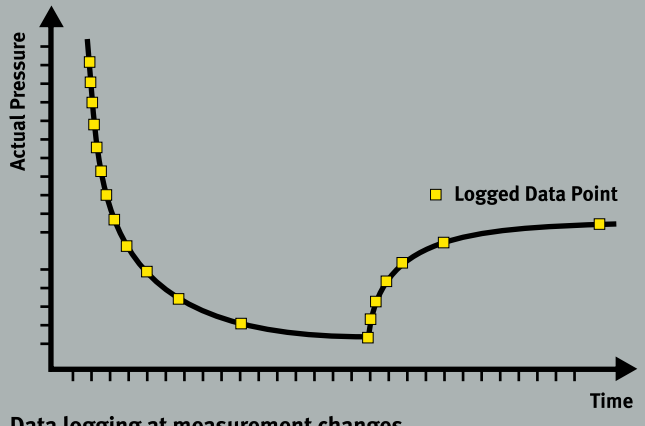
The VD85 can be operated with either battery or external power supply making it ideal for portable or stationary applications.

Typical Applications

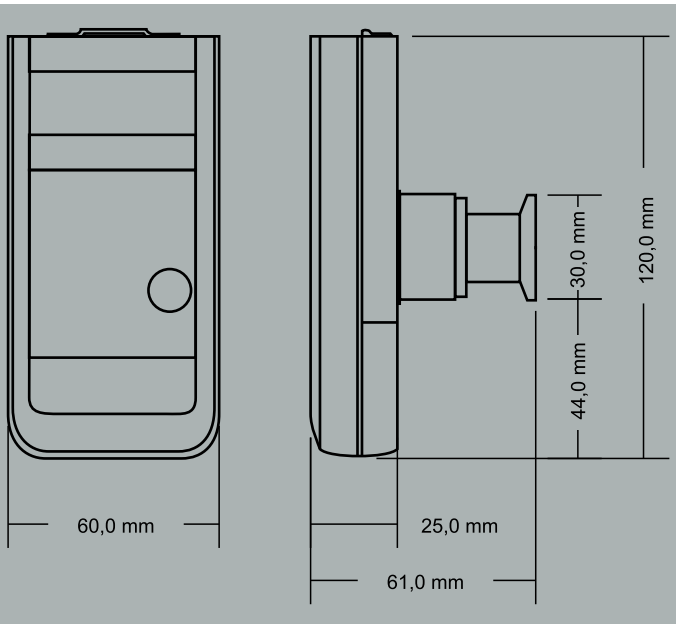
- Checking and setup of vacuum appliances
- Diagnosis and documentation of vacuum pumps
- Service and maintenance
- Leak tests
- Graphical evaluation of pump down diagrams
- Modern teaching aid with PC interface
- Coating plants
- Evaporators

Benefits

- Wide measuring range due to combined piezo/Pirani sensor
- High precision and optimal resolution over the whole range
- Excellent long term stability
- Rugged sensor (piezo/Pirani)
- Continuous pressure display over the whole range
- The Pirani sensor is active only below 200 mbar
- Pressure units mbar, Torr, hPa
- Min/Max memory: Storage and display of high and low values
- Gas correction factors for correct pressure readings
- Precise push button readjustment
- Automatic switch off and continuous operation
- 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



Technical Data

Measuring Principle	Piezo resistive, independent of gas type Pirani, depending on gas type
Materials In Contact With Vacuum	Stainless steel 1.4307, nickel, gold, tungsten, glass, FKM
Measurement Range	1200 - 5 x 10^{-4} mbar (900 - 5 x 10^{-4} Torr), max. overpressure 2 bar absolute
Resolution	1200 - 1000 mbar: 1 mbar 1000 - 1 mbar: 0.1 mbar ‹ 1 mbar: 2-digit plus exponent
Accuracy	1200 - 10 mbar: ± 0.3% full scale 10 - 2 x 10^{-3} mbar: ‹ ± 10% from reading ‹ 2 x 10^{-3} mbar: ‹ factor 2
Measuring Rate	1.0 s
Data Logging Rate	1...999 s
Operating Temperature	+5...+50°C
Storage Temperature	-20...+60°C
Power Supply	9 V block battery (alt. NiCd rechargable batt.) or 15 VDC external
Electrical Connection	Jack for external power supply
Power Consumption	Approx. 60 mW
Vacuum Connection	Stainless steel small flange DN 16 ISO-KF
Operating Time	Max. 100 h with 9 V lithium battery, max. 40 h with 9 V Alkali-Mangan battery
Display	LCD 12 mm
Protection Class	IP40
Weight	Approx. 230 g (battery included)

Product Code

- **VD85**
  Compact vacuum meter,
  1200 to 5 x 10^{-4} mbar, DN 16 ISO-KF flange

Accessories:

- **VD8CASE**
  Protective case
- **VD8ALK**
  AlMn battery, 9V block 6LR61
- **VD8N4**
  External power supply,
  100 to 240 VAC
- **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

Alterations reserved (85A03)