

# VD83

# Compact Vacuum Meter / Data Logger Absolute Pressure 100 to $5 \times 10^{-4}$ mbar

VD83 precision digital vacuum meter measures absolute pressure in the fine vacuum range.

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

The VD83 can be operated with either battery or power supply making it ideal for portable or fixed applications.

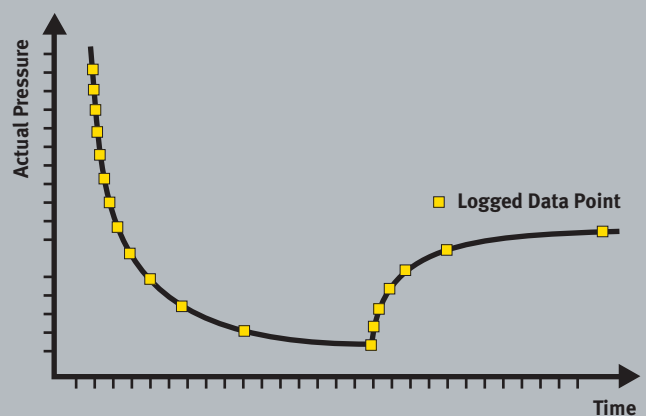


## Typical Applications

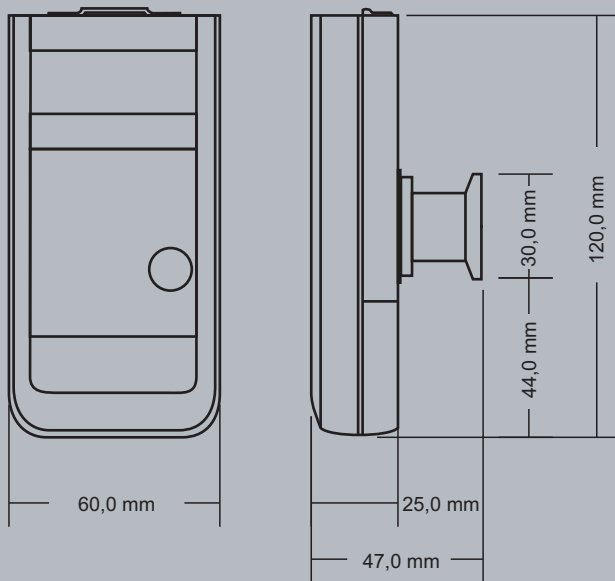
- Checking and setup of vacuum appliances
- Diagnosis and documentation of rotary vane vacuum pumps
- Service and maintenance
- Modern teaching aid with PC interface
- Recording and plotting of pump down diagrams
- Leak tests
- Vacuum centrifugation
- Coating plants
- Evaporators

## Benefits

- Temperature compensated, metal sealed Pirani sensor with durable helix filament
- High accuracy
- Excellent repeatability
- The sensor is well protected against condensed solvents
- High battery life due to clocked measurement
- Compact, user-friendly
- 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
- Battery conserving auto-off mode or 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
- 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	Pirani, depending on gas type
Materials In Contact With Vacuum	Stainless steel 1.4307, tungsten, nickel, glass
Measurement Range	100 - $5 \times 10^{-4}$ mbar ( $75 - 5 \times 10^{-4}$ Torr), max. overpressure 4 bar absolute
Resolution	2-digit plus exponent
Accuracy	100 - 20 mbar: < 30% from reading 20 - $2 \times 10^{-3}$ mbar: < 10% from reading < $1 \times 10^{-3}$ 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, NiCd rechargeable battery or 12 VDC external
Electrical Connection	Jack for external power supply
Power Consumption	Approx. 110 mW (clocked measurement)
Vacuum Connection	Stainless steel small flange DN 16 ISO-KF
Operating Time	Max. 100 h with 9V lithium battery, max. 40 h with 9V Alkali-Mangan battery
Display	LCD 12 mm
Protection Class	IP40
Weight	Approx. 200 g (battery included)

## Product Codes

- **VD83**  
Compact vacuum meter,  
100 to  $5 \times 10^{-4}$  mbar, DN 16 ISO-KF  
flange

### Accessories:

- **VD8CASE**  
Protective case
- **VD8ALK**  
AlMn battery, 9 V block 6LR61
- **VD8N2**  
Power supply
- **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