

# VD84

# Compact Vacuum Meter / Data Logger Absolute Pressure 100 to $1 \times 10^{-3}$ mbar

VD84 digital Pirani vacuum meter with exchangeable sensor head reads absolute pressure in the fine vacuum range.

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

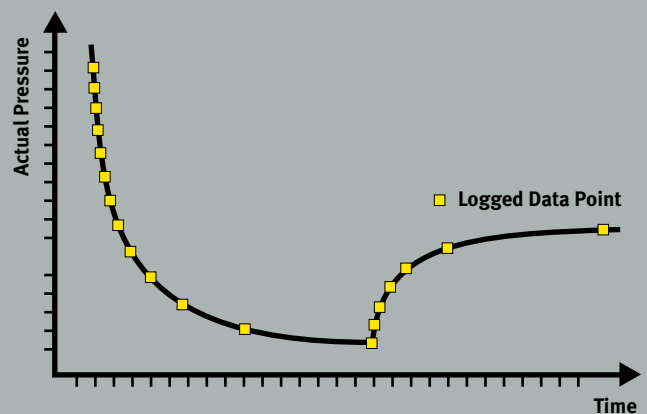
VD84 can be operated with either battery or external power supply making it ideal for portable or fixed applications.

## Typical Applications

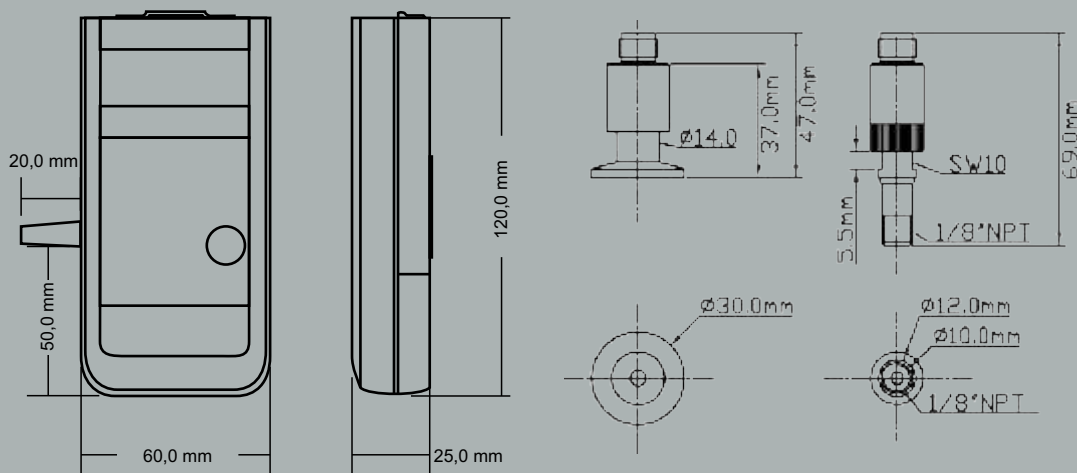
- Monitoring of vacuum insulations
- Evacuation of brake and air-conditioning systems
- Checking and setup of vacuum appliances
- Operational control and documentation of vacuum plants and pumps
- Service and maintenance
- Modern teaching aid with PC interface
- Recording and plotting of pump down diagrams
- Leak tests
- Vacuum centrifugation
- Coating plants
- Vacuum evaporators

## Benefits

- External detachable sensor with stainless steel small flange DN 16 ISO-KF or 1/8" NPT male thread
- Temperature compensated Pirani sensor with durable helix filament
- Excellent reproducibility
- The sensor is well protected against condensed solvents
- Long battery life due to clocked measurement
- Compact, easy to use
- Pressure units mbar, Torr, hPa
- Min/Max memory: Storage and display of high and low values
- Precise push button readjustment
- Automatic switch off 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
- Gas correction factors for correct pressure readings
- 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 1.4305, tungsten, nickel, glass
Measurement Range	100 - $1 \times 10^{-3}$ mbar ( $75 - 1 \times 10^{-3}$ Torr), max. overpressure 4 bar absolute
Resolution	2-digit plus exponent
Accuracy	100 - 20 mbar: $\leq \pm 30\%$ from reading 20 - $1 \times 10^{-2}$ mbar: $\leq \pm 10\%$ from reading $< 1 \times 10^{-2}$ mbar: $\leq$ 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 rechargeable battery) or 15 VDC external
Electrical Connection	Jack for external power supply
Power Consumption	Approx. 110 mW
Vacuum Connection	Stainless steel small flange DN 16 ISO-KF or 1/8" NPT male thread
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. 200 g (battery included)

## Product Codes

- **VD84/1**  
Compact vacuum meter, 100 to  $1 \times 10^{-3}$  mbar, with probe type VSP841, DN 16 ISO-KF flange
- **VD84/2**  
Digital compact vacuum meter, 100 to  $1 \times 10^{-3}$  mbar, with probe type VSP842, 1/8" NPT male thread

## Accessories:

- **VSP841**  
Additional sensor, DN 16 ISO-KF flange
- **VSP842**  
Additional sensor, 1/8" NPT male thread
- **VD8CASE**  
Protective case
- **VD8ALK**  
AlMn battery, 9 V 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