

VD83 - Compact Vacuum Meter Pirani, Datalogger

Absolute Pressure 100 to 5×10^{-4} mbar



Overview VD83 vacuum meter

- Pirani sensor with durable, elastic helix filament
- Measuring values are stable due to optimized temperature compensation
- Integrated metal facing protects the sensor against contamination like oil vapours or solvent vapours
- Gas type correction factors for immaculate pressure readings
- Suitable for ultra high vacuum applications due to metal sealed stainless steel measuring cell (He leakage rate $<5e-10$ mbar l / s)

Overview VD8 vacuum meters

- Can be used as a portable instrument or for permanent installation in vacuum facilities. The gauges can be operated by a battery or a plugin power supply
- Integrated data logger for up to 2000 measurement values
- Vacuum meters can be placed directly into a vacuum chamber, connected to an appliance with their flange or with a suitable adaptor
- Storage of minimum and maximum pressures achieved during measurement
- Pressure units: mbar, Torr, hPa
- High battery lifetime due to cycled measurements; the user can choose between automatic switch off (time adjustable) for battery saving or continuous operation
- USB interface for easy push button data transfer to PCs, but no PC connection is necessary during measurements
- VacuGraph™ Software: To visualize, analyze and save measurements on a PC (lite version free of charge)

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Technical Data

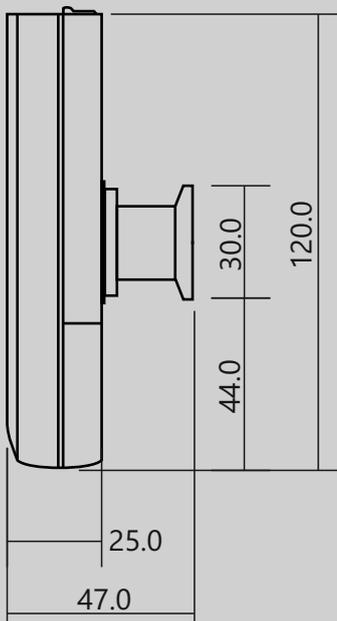
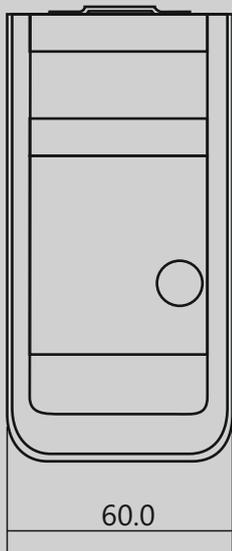
Measurement Principle	Heat conduction Pirani (gas type dependent)
Measurement Range	100 - 5×10^{-4} mbar (75 - 5×10^{-4} Torr)
Max. Overload	4 bar absolute
Accuracy	100 – 20 mbar: <30% f.r. (f. reading), 20 - 2×10^{-3} mbar: 10% f.r. (f. reading)
Resolution	100 - 10 mbar: 1 mbar, <10 mbar: 2 digits mantissa, 1 decimal place
Measurement Rate	1.0 s
Logging Rate	1 ... 6000 s
Materials With Vac. Contact	Stainl. steel 1.4307, nickel, tungsten, glass
Operating Temperature	+5...+50 °C
Storage Temperature	-20...+60 °C
Power Supply	9 V battery or 12...15 VDC external
Power Consumption	Approx. 110 mW (clocked)
Operating Time	Li-battery: <100h, 6LR61 Alkaline:<40h
Serial Interface	Mini-USB, Type B, 5pin, female, Virtual Com Port protocol
Electrical Connection	Mini-jack 2.5 mm for plug-in power supply
Vacuum Connection	Stainless steel small flange DN 16 ISO KF
Display	LCD 12 mm
Protection Class	IP40
Weight	Approx. 200 g (battery included)

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Dimensions in mm



Model designations

- VD83 Compact vacuum meter
DN 16 ISO-KF with G 1/4 female thread

Accessories

- VD8ZUB accessory set consisting of:
 - VD8CASE protective plastic case
 - VD8N4 power supply 15 V, incl. change-over plug, EURO, US, UK, AUS
 - VD8ALK alkaline battery 9 V (vacuum tested);
 - WUSB0002 interface cable, 2 m, USB;
 - VGR VacuGraph™ software

Further accessories as well as detailed information about our product family can be found in our VD8 brochure.