



## Compact Vacuum Meter / Data Logger

**Absolute Pressure 100 - 5x10<sup>-4</sup> mbar (Torr) VD83M**

The precise digital vacuum meter VD83M measures absolute pressure in the fine vacuum range.

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

The VD83M can be operated with either battery or plug in power supply making it ideal for portable or stationary applications.



### Typical Applications

- ▶ Check and setup of vacuum appliances
- ▶ Diagnosis and documentation for rotary vane vacuum pumps
- ▶ Service and maintenance
- ▶ Modern teaching aid with PC interface
- ▶ Recording and plotting of pump-down diagrams
- ▶ Vacuum centrifugation
- ▶ Coating plants
- ▶ Chemical process engineering
- ▶ Evaporators

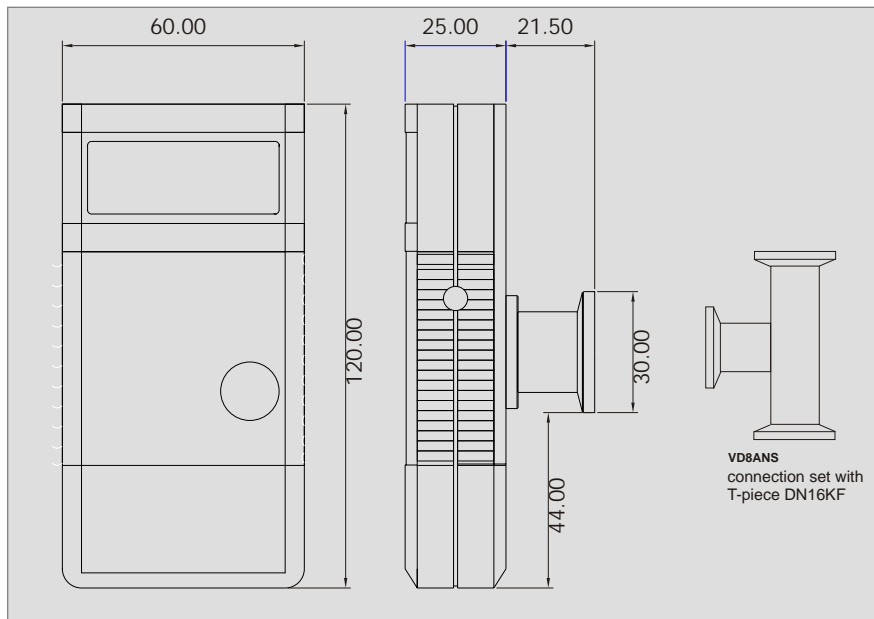
### Your Benefits

- ▶ Compact, user-friendly
- ▶ Very high reproducibility
- ▶ Temperature compensated, metal sealed Pirani sensor with robust helix filament
- ▶ High battery lifetime due to clocked measurement
- ▶ Pressure units mbar, Torr, hPa
- ▶ Extensive sensor protection against condensed solvents
- ▶ Exact and easy readjustment at the push of a button
- ▶ Choice between battery saving auto-off mode or continuous operation
- ▶ Bidirectional infrared interface (VD83MIR)
- ▶ Online data transfer to PC (VD83MIR)
- ▶ Data logger function: Save measurements in the vacuum meter and afterwards transfer data to PC by push of a button (VD83MIR)
- ▶ Min/Max memory: Storage and display of high and low values
- ▶ VacuGraph software for saving and plotting measurements on a PC
- ▶ Stainless steel small flange



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### Technical Data

Measurement Principle	Pirani, depending on gas type
Materials In Contact With Vacuum	Stainless steel, tungsten, nickel
Measurement Range	100 - 5.0e-4 mbar (75 - 5.0e-4 Torr) admitted overload: 4 bar abs.
Accuracy	Depending on range 100 - 20 mbar: < 30 % from reading 20 - 0,01 mbar: < 10 % from reading <0,01 mbar: < factor 2
Measuring Rate	1,6 s
Operating Temperature	5 ... 50°C
Storage Temperature	-20 ... +60°C
Power Supply	9V block battery (alt. NiCd-Accu) or 12VDC external (plug in power supply)
Power Consumption	Approx. 110 mW (clocked measurement) additionally 25 mW during data transfer
Electrical Connection	Jack for external mains adapter
Vacuum Connection	Stainless steel small flange DN 16 KF
Operation Time (without data transfer)	Max.100 h with 9V Lithium battery, max.40 h with 9V Alkali-Mangan battery
Display	LCD 12mm
Infrared Interface	VD83MCIR only: range 1,2 m
Data Memory	VD83MCIR only: approx. 1000 data records
Weight	Approx. 200 g (battery included)

### Article Numbers

- ▶ **VD83M**  
Digital compact vacuum meter,  
100 - 5,0e-4 mbar, DN16KF flange
- ▶ **VD83MIR**  
As above, additional IR interface

#### Accessories:

- ▶ **VD8CASE**  
Protective case
- ▶ **VD8ALK**  
AlMn battery, 9V block 6LR61
- ▶ **VD8N2**  
Plug in power supply
- ▶ **VD8ANS**  
Connection set with tee DN16KF, 2  
centering rings and 2 clamps
- ▶ **VD8IRA**  
IR adapter for serial PC interface
- ▶ **VGR**  
VacuGraph software for Windows

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