

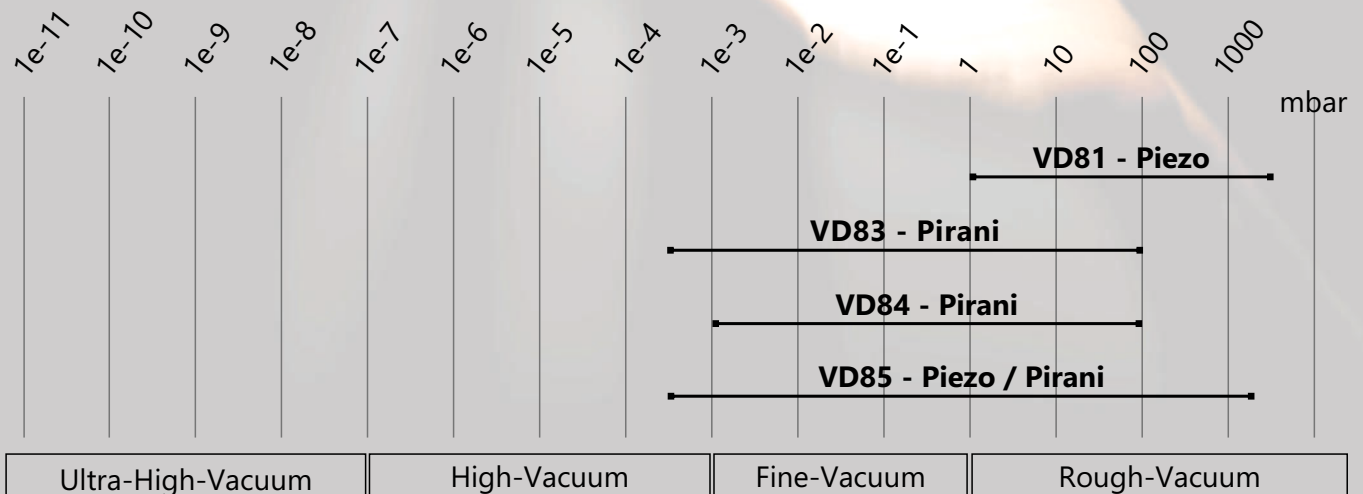
# VD8

## Compact Vacuum Meters

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# VD8 At a Glance



# VD8 Features



## Variably applicable

The VD8 compact vacuum meter can be used as a portable instrument or for permanent installation in vacuum facilities. The vacuum meters can be operated by a battery or a plug-in power supply.

## Precise solutions

The compact vacuum meters' display shows the exact absolute pressure. Temperature compensated sensors and advanced electronics guarantee precise and reproducible measuring results.



## Connection

The different models can easily be connected to vacuum pumps or vacuum equipment by use of standard vacuum fittings. Furthermore, they can be put directly into a vacuum chamber. Adaptors for different flange sizes, threads and hoses are also available.



## Maximum flexibility

Gauge type VD84 has an external Pirani sensor on a spiral cable. It is ideally suited for installation of the sensor in a position which is difficult to reach. It is also handy when a single instrument is needed for multiple measuring points with permanently installed Pirani sensors.

## Rate of rise measurement

Our VD8 are perfectly suited for the long-term control of the increase in pressure to secure the tightness of vacuum chambers and vacuum systems.

## Energy saving mode

Due to cycled measurements, the compact vacuum meter reaches a high battery lifetime.

The user can choose between automatic switch off (time adjustable) or continuous operation.

## Comfortable data saving

All VD8 compact vacuum meters feature an integrated data logger and save the pressure values independent of a PC throughout the measurement.

It is also possible to execute measurements online and directly transfer the data to a PC

during the continuing measurement process.

The vacuum meters also allow for the option to save the lowest and the highest value of a measurement cycle with the „HiLo“ function.



## VacuGraph™ Software

VacuGraph vacuum software for Windows, Linux and MacOS enables an easy visualization and analysis of data. This is especially beneficial in applications where data must be documented e.g. by saving and comparing pump-down characteristics for audits and quality assurance.

Practical features like the tool to calculate the leakage rate complete the software.

## A matter of the right setting

The user can configure gauge settings as well as the data logger (e.g. units, storage rate, etc.) by himself, either directly on the gauge, with the VacuGraph software or alternatively via software command.

A free lite version of the VacuGraph is also available.

# VD8 Accessories and Services



- **VD8ZUB** accessory set consisting of:
  - VD8CASE Protective Case Vd8
  - VD8N4 Plug-in power supply 15 V
  - VD8ALK Alkaline blockbattery
  - WUSB0002 interface cable USB, 2 m
  - VGR VacuGraph software



- **VD8ALK**  
Alkaline blockbattery 9 V (vacuum tested)



- **VD8N4**  
Plug-in power supply, 15 V, EURO, US, UK, AUS, for Vd8



- **VD8CASE**  
Protective case VD8, with foam protection, 275 x 230 x 83 mm



- **WUSB0002**  
Interface cable, 2 m, USB



- **VGR VacuGraph™** software for Windows, Linux and MacOS, full version to download, single license or triple license (VGRX3)



- **Calibrations:**
  - **DCERT:** Works calibration  
4 reference points per pressure decade
  - **DKDCERT**  
DAkkS calibration



- **VD81SW1** Hose Nozzle, G1/4 male thread, hose nozzle (Inside diameter 6 - 8 mm), brass-nickel plated, only for VD81



- **ZSW1612** Adaptor  
DN 16 ISO-KF / hose nozzle (Inside diameter 12 mm)



- **ZG14UNF716** Adaptor  
G1/4 - 7/16" UNF, length 35 mm



- **ZG1614** Adaptor  
DN 16 ISO-KF - G1/4



- **ZNPT14** Adaptor  
DN 16 ISO-KF - NPT 1/4



- **VD8ANS** Connection set consisting of:
  - 1x ZTA016 DN 16 ISO-KF tee, aluminium
  - 2x ZZR016 DN 16 ISO-KF centering ring, stainless steel / FKM
  - 2x ZSR1016 DN 10/16 ISO-KF clamp, aluminium



- **ZZCH016** Centering ring with Baffle for sensor protection against pollution



- **ZZDF016** Centering ring with wire filter for sensor protection against pollution



- **ZSST016** spiral pipe DN 16 KF for protection against condensate and coating of the sensor

**You will find further accessories in our brochure for vacuum components.**

# VD8 Technical Data

	VD81	VD83	VD84	VD85
<b>Measurement Principle</b>	Piezo resistive, independent of gas type	Heat conduction Pirani (gas type dependent)	Heat conduction Pirani (gas type dependent)	Piezo resistive / Heat conduction Pirani (Pirani gas type dep.)
<b>Measurement Range</b>	1600 - 1 mbar (1200 - 1 Torr)	100 - 5e-4 mbar (75 - 5e-4 Torr)	100 - 1e-3 mbar (75 - 1e-3 Torr)	1200 - 5e-4 mbar (900 - 5e-4 Torr)
<b>Max. overload</b>	4 bar abs.	4 bar abs.	4 bar abs.	2 bar abs.
<b>Accuracy</b>	0.3% f.s.	100 - 20 mbar: <30% f.r. 20 - 2e-3 mbar: 10% f.r.	100 - 20 mbar: <30% f. r. 20 - 1e-2 mbar: 10% f.r.	1200 - 40 mbar: 0.3% f.s. 40 - 2e-3 mbar: 10% f.r.
<b>Resolution</b>	1 mbar	100 - 10 mbar: 1 mbar < 10 mbar: 2 digits mantissa, 1 decimal place	100 - 10 mbar: 1 mbar < 10 mbar: 2 digits, mantissa, 1 decimal place	1200 - 1000 mbar: 1 mbar 1000 - 1 mbar: 0.1 mbar < 1 mbar: 2 digits mantissa, 1 decimal place
<b>Measurement Rate</b>	1.0 s (0.1 s if logging rate is set accordingly)	1.0 s	1.0 s	1.0 s
<b>Logging rate</b>	50 ms, 1 ... 6000 s	1 ... 6000 s	1 ... 6000 s	1 ... 6000 s
<b>Materials with Vac. contact</b>	Stainless steel 1.4305, Al <sub>2</sub> O <sub>3</sub> ceramic, FKM	Stainless steel, 1.4307, nickel, tungsten, glass	Stainless steel 1.4305, nickel, tungsten, glass	Stainless steel, 1.4307, gold, nickel, tungsten, glass, FKM
<b>Operating temp.</b>	+5...+50 °C	+5...+50 °C	+5...+50 °C	+5...+50 °C
<b>Storage temp.</b>	-20...+60 °C	-20...+60 °C	-20...+60 °C	-20...+60 °C
<b>Power supply</b>	9 V battery or 12...15 VDC external	9 V battery or 12...15 VDC external	9 V battery or 12...15 VDC external	9 V battery or 12...15 VDC external
<b>Power consumption</b>	Approx. 2 mW (clocked)	Approx. 110 mW (clocked)	Approx. 110 mW (clocked)	Approx. 110 mW (clocked)
<b>Operating time</b>	Li-battery: <5000 h, 6LR61 Alkaline: <2500 h, NiCd rechargeable battery 150mAh: <500h	Li-battery: <100 h, 6LR61 Alkaline: <40 h	Li-battery: <100 h, 6LR61 Alkaline: <40 h	Li-battery: <100 h, 6LR61 Alkaline: <40 h
<b>Serial Interface</b>	Mini-USB, Type B, 5pin, female, Virtual Com Port protocol			
<b>Electrical Connection</b>	Mini-jack 2.5 mm for plug-in power supply	Mini-jack 2.5 mm for plug-in power supply	Mini-jack 2.5 mm for plug-in power supply	Mini-jack 2.5 mm for plug-in power supply
<b>Vacuum Connection</b>	DN16 ISO KF, G1/4 female or hose nozzle (accessory VD81SW1)	DN16 ISO KF	DN16 ISO KF or 1/8" male thread	DN16 ISO KF
<b>Display</b>	LCD 12 mm	LCD 12 mm	LCD 12 mm	LCD 12 mm
<b>Dimensions</b>	60 x 120 x 47 mm	60 x 120 x 47 mm	60 x 120 x 25 mm	60 x 120 x 62.5 mm
<b>Protective Class</b>	IP40	IP40	IP40	IP40
<b>Weight</b>	200 g (battery included)	200 g (battery included)	200 g (battery included)	230 g (battery included)