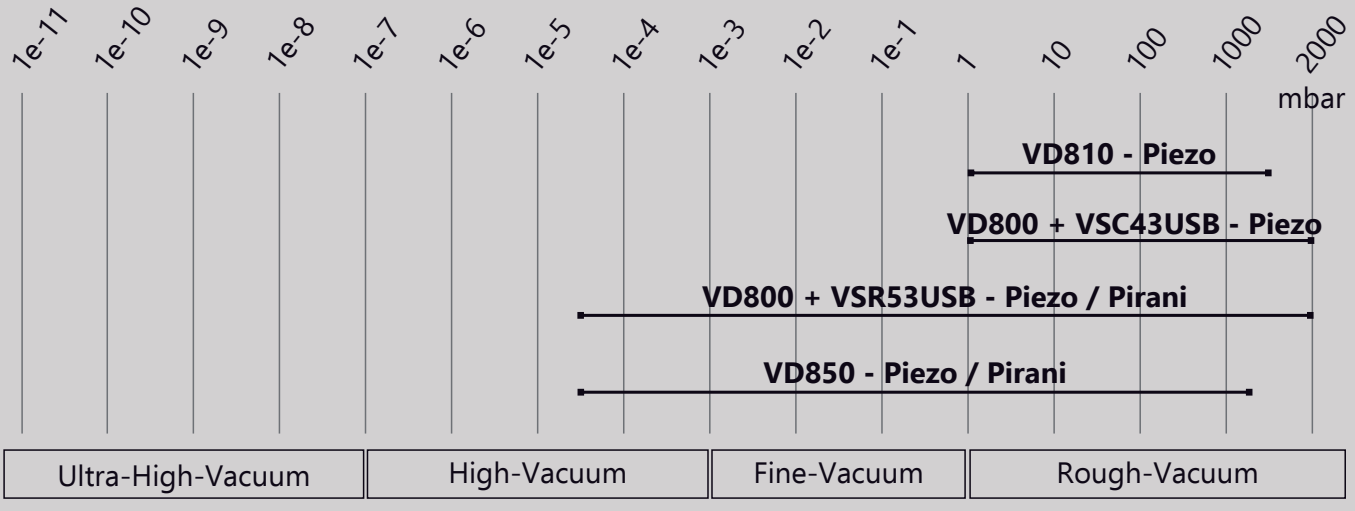
VD800 series
Compact Vacuum Meters

THYRACONT
Vacuum Instruments

www.thyracont-vacuum.com

VD800 series
At a Glance



VD800 series
Features

Variably applicable
The VD800 compact vacuum meters measure absolute pressure from 2000 to 5e-5 mbar and relative pressure in a range of -1060 to +1200 mbar. They are thus suited for various applications.

Big graphic display
The integrated display and a 4+1 membrane keypad allow an intuitive menu navigation. Measured values and pressure curves can directly be read-out on-site.

Precise solutions
The compact vacuum meters' displays show absolute and relative pressure as well as lowest and highest value of a measurement cycle. Temperature compensated sensors and advanced electronics guarantee precise and reproducible measuring results.

Rate of rise measurement
Our VD800 are perfectly suited for the long-term control of the increase in pressure to secure the tightness of vacuum chambers and vacuum systems.

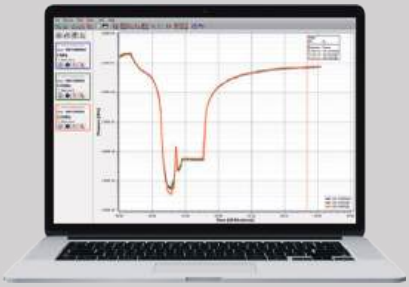
Connection
The different models can easily be connected to vacuum pumps or vacuum equipment by use of standard vacuum fittings.
Furthermore, they can be put directly into a vacuum chamber.
Adaptors for different flange sizes, threads and hoses are also available.

Replacement sensors
Defective sensor heads can easily be exchanged by trained personnel on-site. Maintenance time and costs are thus reduced to a minimum.

Comfortable data saving
All VD800 compact vacuum meters feature an integrated data logger and save multiple measurement series, recording them with their RTC data .

USB-C /Bluetooth® LE
The USB-C interface – or optional Bluetooth® LE for wireless data transfer – allows a direct read-out of the measured data and the export of measurement series stored in the data logger.

Data analysis
The VacuGraph™-software can be used to read-out the data logger, as well as for an easy visualization and analysis of the measured 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.



VD800 series
Accessories and Services

- **VD800CASE**
  Protective case VD800,
  with foam protection,
  275 x 230 x 83 mm

- **VD800N5**
  Charger 5 V

- **WUSB_AC001**
  Cable USB-C to USB-A, 1.0 m
  included with device

- **WUSB_CC002**
  Cable USB-C to USB-C, 2.0 m

- **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 VD810

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

- **ZG14UNF716** Adaptor
  G1/4 - 7/16" UNF,
  length 35 mm, only for VD810

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

- **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 DN 16 ISO-KF
  with baffle for sensor protection
  against pollution

- **ZZDF016** Centering ring DN 16 ISO-KF
  with wire filter for sensor protection
  against pollution

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

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

VD800 series
Technical Data

	VD800	VD810	VD850
Measurement Principle	Read-out of external Thyracont USB-C-transducers	Piezoresistive (independent on gas type)	Piezoresistive / Heat conducting Pirani (depending on gas type)
Measurement Range	Depending on transducer	Abs. 2000 - 1 mbar (1500 - 1 Torr) Rel. -1060 bis +1200 mbar (-795 ... +900 Torr)	Abs. 1200 - 5e-5 mbar (900 - 5e-5 Torr) Rel. -1060 bis +340 mbar (-795 ... +255 Torr)
Max. Overload	-	4 bar abs.	10 bar abs.
Accuracy	-	Absolute pressure: 0.25% of scaled value Relative pressure: 0.3% of span	Absolute pressure: 1200 - 40 mbar: 0.3% of scaled value 40 - 1e-3 mbar: 10% of measured value Relative pressure: 0.25% of span
Resolution	-	1 mbar	1200 ... 1000 mbar: 1 mbar 1000 ... 2.0 mbar: 0.1 mbar 2.0 ... 1e-2 mbar: 3 digits 1e-2 ... 1e-4 mbar: 2 digits 1e-4 ... 5e-5 mbar: 1 digit
Repeatability	-	0.1% of scaled value + 1 digit	1200 - 40 mbar: 0.1 % of scaled value 40 - 1e-2 mbar: 2 % of measured value
Materials with Vac. Contact	-	Stainless steel 1.4305, Al_2O_3 ceramic, FKM	Stainless steel 1.4307, nickel, tungsten SiO_2, glass, SnAg Lot, Polyimid, Epoxid
Logging Rate	20 ms ... 60 s	20 ms ... 60 s	20 ms ... 60 s
Environment	Interior, degree of contamination max. PD 2 Rel. humidity max 80% up to 30 °C, max. 50% up to 40 °C, non-condensing		
Operating Temperature	+5...+50 °C	+5...+50 °C	+5...+50 °C
Storage Temperature	-20...+60 °C	-20...+60 °C	-20...+60 °C
Power Supply	5 VDC via USB-C	5 VDC via USB-C	5 VDC via USB-C
Operating Time	-	> 1000 h	> 48 h
Interfaces	USB 2.0	USB 2.0 optional Bluetooth® LE	USB 2.0 optional Bluetooth® LE
Vacuum Connection	-	DN 16 ISO-KF, G1/4	DN 16 ISO-KF
Display	Graphic display, resolution 400 x 240		
Protection Class	IP20, not certified		
Weight	200 g	250 g	250 g
Dimensions	70 x 105 x 24,4 mm	70 x 105 x 46,4 mm	70 x 105 x 46,4 mm

Notes

Notes

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