

# VD800-Serie

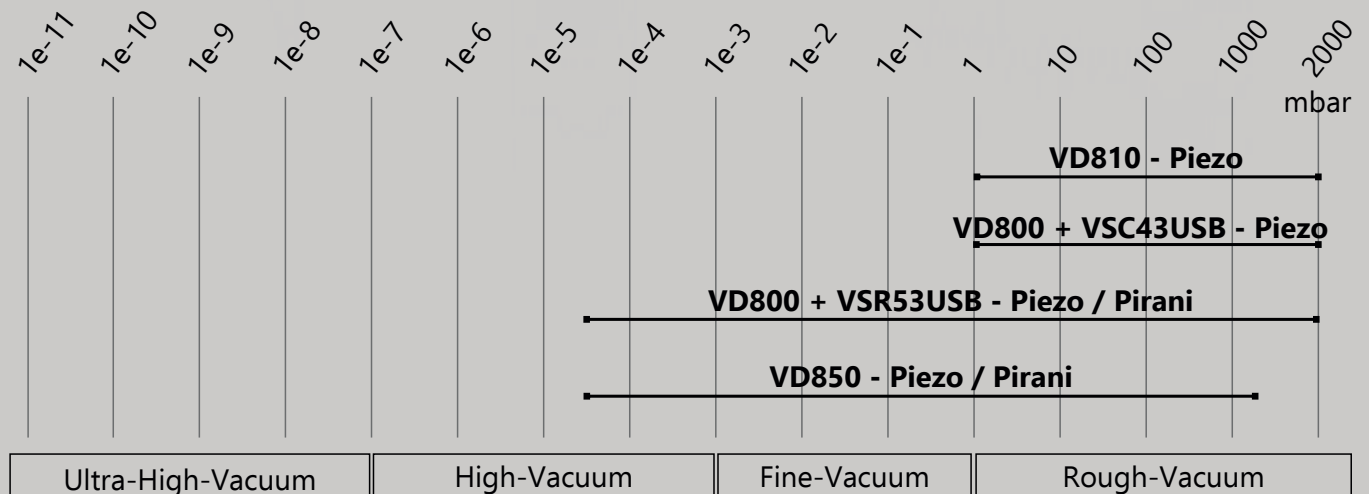
## Kompakt-Vakuummeter

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# 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

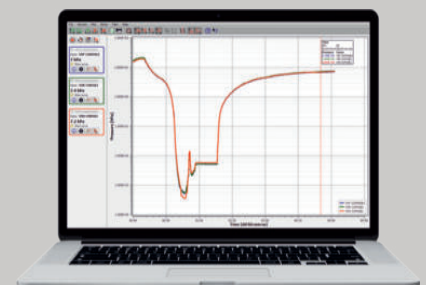
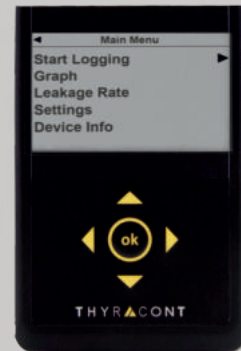
All VD800 compact vacuum meters feature an integrated data logger and save multiple measurement series, recording them with their RTC data.

### 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



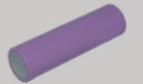
- **WUSB\_AC001**  
Cable USB-C to USB-A, 1.0 m included with device



- **WUSB\_CC002**  
Cable USB-C to USB-C, 2.0 m



- **VD800SH**  
Silicone protective cover



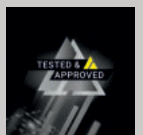
- **VD800LI**  
Lithium round cell



- **Sensor Heads**  
B\_VD850



- **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
<b>Measurement Principle</b>	Read-out of external Thyracont USB-C-transducers	Piezoresistive (independent on gas type)	Piezoresistive / Heat conducting Pirani (depending on gas type)
<b>Measurement Range</b>	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)
<b>Max. Overload</b>	-	4 bar abs.	10 bar abs.
<b>Accuracy</b>	-	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
<b>Resolution</b>	-	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
<b>Repeatability</b>	-	0.1% of scaled value + 1 digit	1200 - 40 mbar: 0.1 % of scaled value 40 - 1e-2 mbar: 2 % of measured value
<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 SiO <sub>2</sub> , glass, SnAg Lot, Polyimid, Epoxid
<b>Logging Rate</b>	100 ms ... 60 s	20 ms ... 60 s	20 ms ... 60 s
<b>Environment</b>	Interior, degree of contamination max. PD 2 Rel. humidity max 80% up to 30 °C, max. 50% up to 40 °C, non-condensing		
<b>Operating Temperature</b>	+5...+50 °C	+5...+50 °C	+5...+50 °C
<b>Storage Temperature</b>	-20...+60 °C	-20...+60 °C	-20...+60 °C
<b>Power Supply</b>	5 VDC via USB-C	5 VDC via USB-C	5 VDC via USB-C
<b>Operating Time</b>	-	> 1000 h	> 48 h
<b>Interfaces</b>	USB 2.0	USB 2.0 optional Bluetooth® LE	USB 2.0 optional Bluetooth® LE
<b>Vacuum Connection</b>	-	DN 16 ISO-KF, G1/4	DN 16 ISO-KF
<b>Display</b>	Graphic display, resolution 400 x 240		
<b>Protection Class</b>	IP40		
<b>Weight</b>	200 g	250 g	250 g
<b>Dimensions</b>	70 x 105 x 24,4 mm	70 x 105 x 46,4 mm	70 x 105 x 46,4 mm





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© Thyracont Vacuum Instruments GmbH  
Max-Emanuel-Str. 10  
94036 Passau, Germany

Tel.: +49 (0)851 95986 0  
E-Mail: [direct@thyracont-vacuum.de](mailto:direct@thyracont-vacuum.de)  
[www.thyracont-vacuum.com](http://www.thyracont-vacuum.com)