

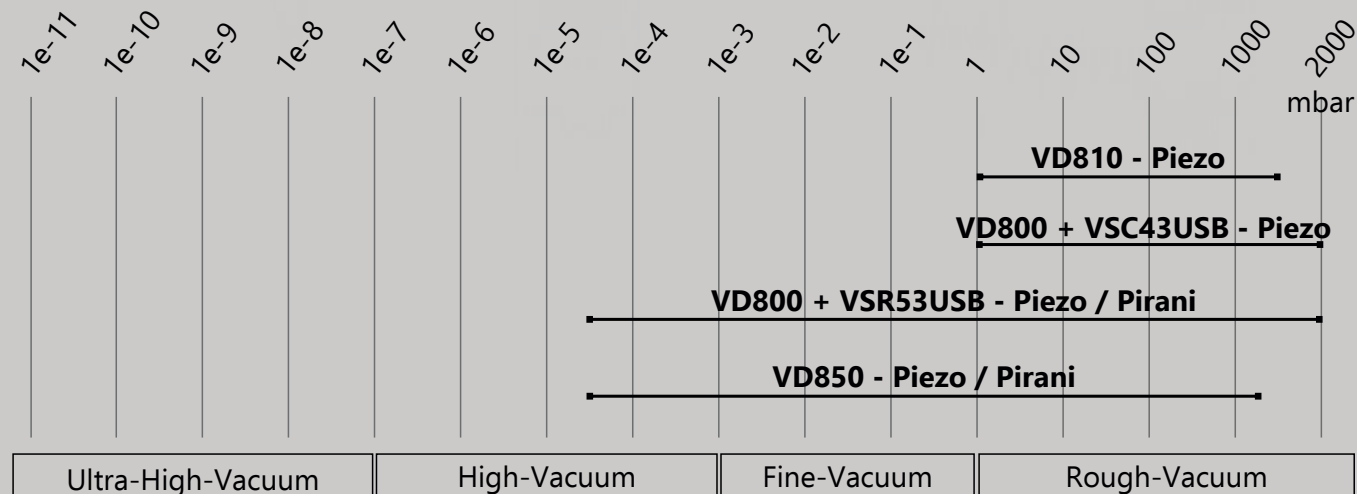
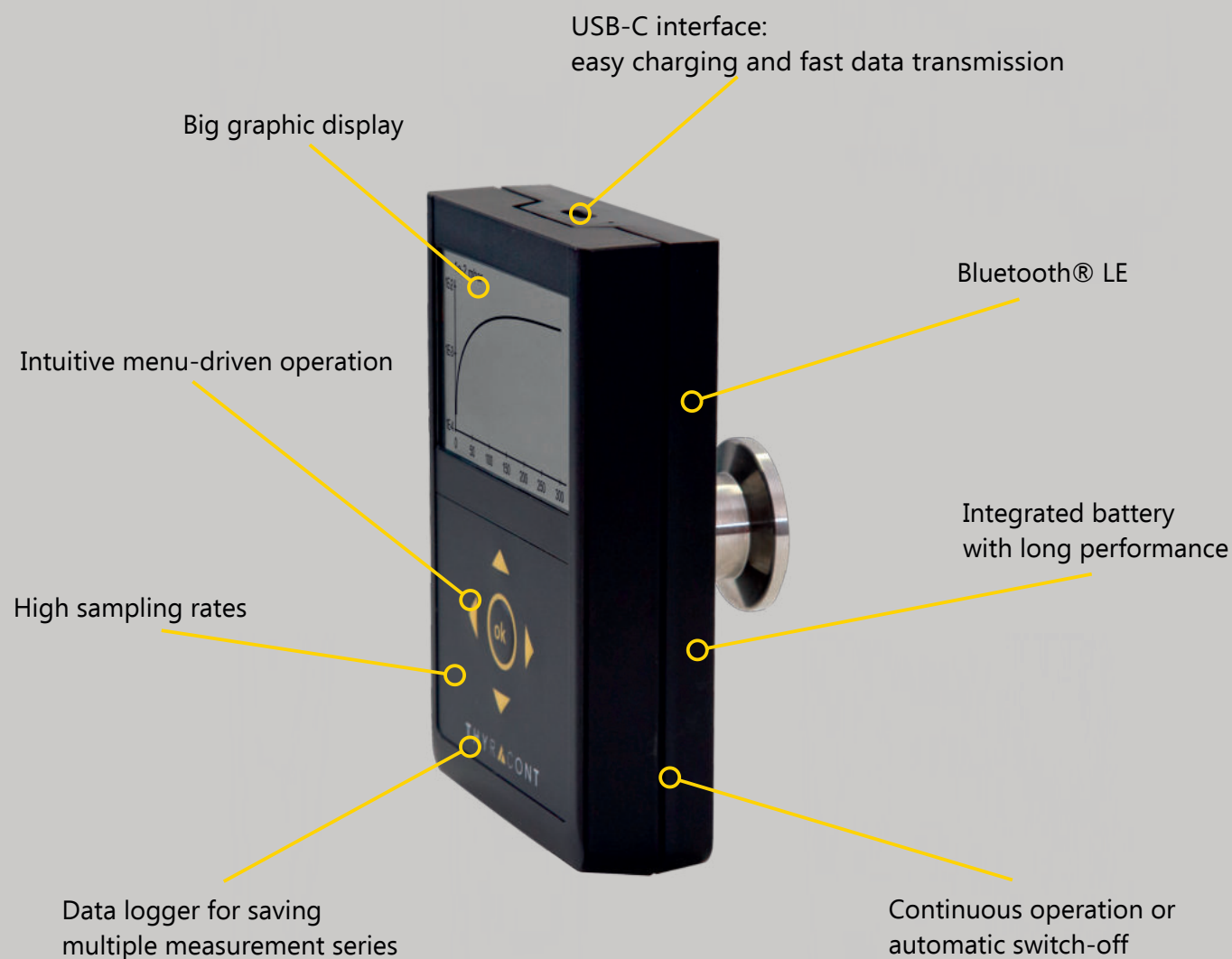
VD800 series

Compact Vacuum Meters



VD800 series

At a Glance



VD800 series

Features

Variably applicable

The VD800 compact vacuum meters measure absolute pressure from 2000 to 5×10^{-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

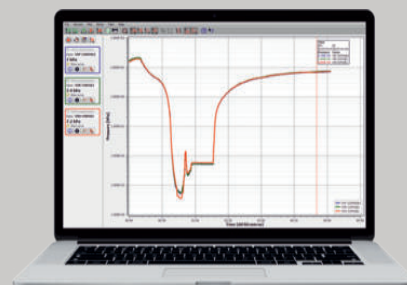
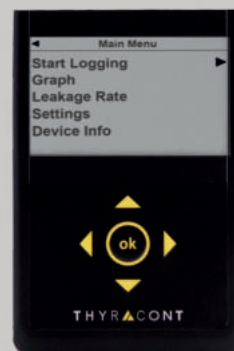
All VD800 compact vacuum meters feature an integrated data logger and save multiple measurement series, recording them with their RTC data.

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



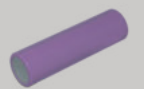
- **WUSB_AC001**
Cable USB-C to USB-A, 1.0 m
included with device



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



- **VD800SH**
Silicone protective cover



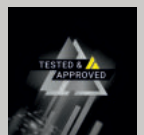
- **VD800LI**
Lithium round cell



- **Sensor Heads**
V_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**
DAkS 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 ₂ O 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

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