

# VD850 - Compact Vacuum Meter Piezo / Pirani, data logger

Absolute Pressure 1200 to  $5 \times 10^{-5}$  mbar,

Relative Pressure max. -1060 ... +340 mbar

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## Overview VD800-series vacuum meters

- Big graphic display
- Intuitive menu-driven handling
- Direct graphical visualization of pressure curves
- Integrated data logger for saving multiple measurement series with RTC data
- Storage of minimum and maximum pressures achieved during measurement
- Automatic switch-off or continuous operation
- Optical and acoustical alarm when reaching a predefined threshold
- Charging per standard USB-C cable
- Quick and easy data-transfer to PC, tablet, or smartphone via USB-C or wireless via Bluetooth® LE (optional)
- Pressure units: mbar, Torr, hPa
- Selectable menu language
- Adjustable logging rate of 20 ms to 60 s for fast processes
- VacuGraph™-Software: To read-out data logger, and to visualize, analyze, and save measurements

## Overview VD850 vacuum meter

- Wide measuring range of combined piezo/Pirani sensor
- Measurement of absolute and relative pressure
- Pirani sensor with durable, elastic helix filament
- Integrated metal screen for protection against contamination such as oil and solvent vapors
- High resolution and precision in whole measuring range, ideal e. g. for the maintenance of vacuum pumps and systems
- Stable measuring values due to optimized temperature compensation
- Excellent long-term stability
- Leak-rate calculation via rate of rise measurement
- Adjustable gas type correction factor
- Long battery performance of min. 48 hours
- Calibrated exchange sensor heads for quick and easy replacement by trained personnel

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## Technical Data

|                             |                                                                                                                                                                                                                             |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measurement Principle       | Piezoresistive / heat conducting Pirani (Pirani depending on gas type)                                                                                                                                                      |
| Measurement Range           | Absolute pressure 1200 - $5 \times 10^{-5}$ mbar (900 - $5 \times 10^{-5}$ Torr)<br>Relative pressure max. -1060 ... +340 mbar (-795 ... +255 Torr)                                                                         |
| Max. Overload               | 10 bar abs.                                                                                                                                                                                                                 |
| Accuracy                    | Absolute pressure: 1200 ... 40 mbar: 0,3% f. s. (of scale value)<br>40 ... $1,0 \times 10^{-3}$ mbar: 10% f. r. (of measured value)<br>Relative pressure: 0,25% f. spane                                                    |
| Repeatability               | 1200 ... 40 mbar: 0,1% f. s. (of scale value)<br>40 ... $1 \times 10^{-2}$ mbar: 2% f. r. (of measured value)                                                                                                               |
| Resolution                  | 1200 ... 1000 mbar: 1 mbar   1000 ... 2,0 mbar: 0,1 mbar<br>2,0 ... $1 \times 10^{-2}$ mbar: 3 digits   $1 \times 10^{-2}$ ... $1 \times 10^{-4}$ mbar: 2 digits<br>$1 \times 10^{-4}$ ... $5 \times 10^{-5}$ mbar: 1 digit |
| Materials with Vac.-Contact | Stainless steel 1.4307, nickel, tungsten, $\text{SiO}_2$ , glass, SnAg Lot, polyimid, epoxy                                                                                                                                 |
| Logging Rate                | 20 ms ... 60 s                                                                                                                                                                                                              |
| Environment                 | Interior, degree of contamination max. PD 2 / Rel. humidity max. 80%<br>up to 30 °C, max. 50% up to 40 °C / non-condensing                                                                                                  |
| Operating Temperature       | +5...+50 °C                                                                                                                                                                                                                 |
| Storage Temperature         | -20...+60 °C                                                                                                                                                                                                                |
| Power Supply                | 5VDC via USB-C                                                                                                                                                                                                              |
| Operating Time              | Internal Li battery: > 48 hours                                                                                                                                                                                             |
| Interfaces                  | USB 2.0, optional Bluetooth® LE                                                                                                                                                                                             |
| Vacuum Connection           | DN 16 ISO-KF                                                                                                                                                                                                                |
| Display                     | Graphic display, resolution 400 x 240                                                                                                                                                                                       |
| Protection Class            | IP 20, not certified                                                                                                                                                                                                        |
| Weight                      | 250 g                                                                                                                                                                                                                       |

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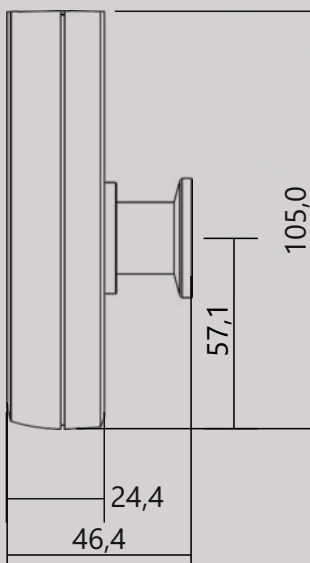
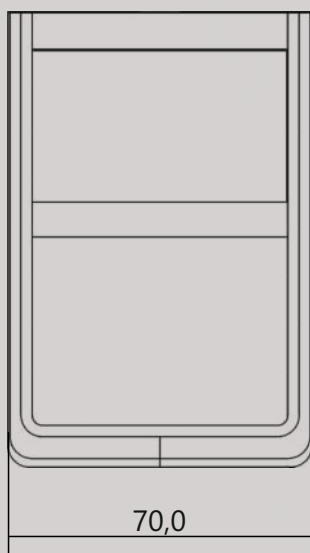
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## Dimensions in mm



## Model designations

- VD850 Compact vacuum meter  
DN 16 ISO-KF flange  
incl. WUSB\_AC001
- VD850BT Compact vacuum meter  
DN 16 ISO-KF flange  
Bluetooth® LE  
incl. WUSB\_AC001

## Accessories

- VD800CASE protective plastic case
- VD800N5 charger 5 V
- VGR VacuGraph™ software
- WUSB\_AC001 cable USB-C to USB-A, 1.0 m
- WUSB\_CC002 cable USB-C to USB-C, 2.0 m

Further accessories as well as detailed information about our product family can be found in our VD800 brochure.