

VSR-USB - Vacuum Transducer Piezo / Pirani

Absolute Pressure 2000 to 5×10^{-5} mbar



Overview VSR-USB vacuum transducer

- Combination sensor Piezo / Pirani with extended measuring range from 2000 up to 5.0×10^{-5} mbar
- High accuracy over the entire measuring range including rough vacuum
- Measurement independent of gas type in low vacuum
- Fast response time of up to 18 ms enable shorter clock cycles
- UHV suitable due to metal sealed stainless steel measuring cell (He leakage rate $< 5 \times 10^{-10}$ mbar l/s)

Overview USB vacuum transducers

- Easy connection and adjustment via USB-C
- Intuitive handling via software or app
- Excellent reproducibility and reliability for stable production processes
- Stable, reproducible measurement values due to microprocessor controller and individual temperature compensation
- Precise, digital adjustment to zero pressure and atmosphere via USB connection possible
- Optical status display by LED
- Functionalities are reduced to minimum to achieve an optimal cost-performance-ratio
- Robust metal housings are ideal for rugged industry environments
- Compact construction, ideal for industrial applications with reduced space

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Absolute Pressure 2000 bis $5,0 \times 10^{-5}$ mbar

Technical Data

Measurement principle	Piezo resistive/heat conduction Pirani (Pirani depending on gas type)
Measurement Range	2000 – 5×10^{-5} mbar (1500 – 5×10^{-5} Torr)
Materials with Vac. Contact	Stainless steel 1.4307, tungsten, nickel, glass, silicon oxide, epoxy, Polyimide, SnAg
Max. Overload	10 bar abs.
Accuracy	2000 - 1200 mbar: <0,5 % f. s. 1200 - 30 mbar: <0,15 % f. s. 30 - 1×10^{-3} mbar: <10 % f. r.
Repeatability	2000 - 30 mbar: <0,1 % f. s. 30 - 1×10^{-2} mbar: <2 % f. r.
Reaction Time	<18 ms
Voltage Supply	2,7 - 5,25 V
Electrical Connection	USB-C, lockable
Power Consumption	<0.3 W
Operating Temperature	+5...+60 °C
Storage Temperature	-40...+65 °C
Bake Out Temperature	Max. 125 °C at the flange (transducer separated from voltage supply)
Digital Interface	USB-UART: 9.6 ... 115 kBd, 8 databit, 1 stopbit, no parity
Vacuum Connection	DN 16 ISO-KF (VSR53USB) DN 16 CF (VSR54USB)
Protection Class	IP40
Weight	Approx. 100 g (VSR53USB)

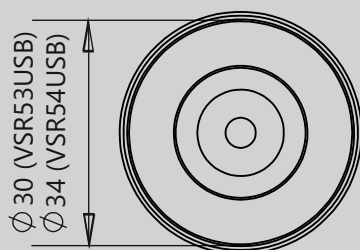
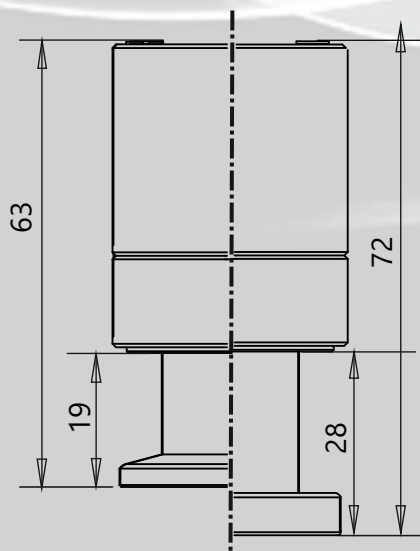
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Dimensions in mm

VSR53USB/VSR54USB



Model designations

- VSR53USB DN 16 ISO-KF, USB-C connection
- VSR54USB DN 16 CF, USB-C connection

Accessories

- WUSBC002 Cable USB-A to USB-C with lock screw
- VacuSniff App for Android
- VGR VacuGraph software

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