

VSP62

Smartline Vacuum Transducer Absolute Pressure 1000 to 1×10^{-4} mbar

The VSP62 is based on a new, patented measurement principle.

This enhancement of the well proven Pirani sensor results in a larger measuring range with higher resolution.

The temperature compensated transducer provides an analog, logarithmic output signal 0 - 10 V.



Smartline

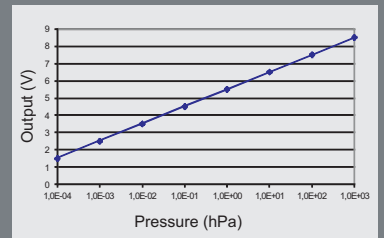
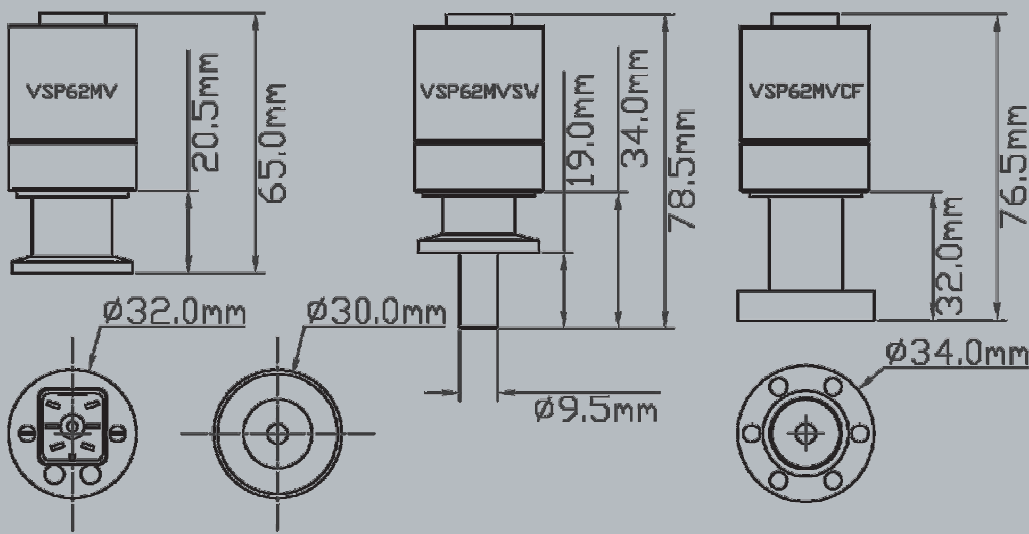
Typical Applications

- Analysis instruments
- Freeze drying
- Vacuum ovens
- Coating plants
- Operational control of roughing pumps and vacuum plants
- Applications requiring cost savings and inaccessible installations
- Safety circuits in vacuum systems
- Monitoring of fore vacuum
- Process engineering
- Vacuum centrifuges

Benefits

- High reliability
- Extremely compact, designed for industrial applications
- Wide measuring range, high resolution in the rough vacuum range
- Excellent reproducibility
- Suitable for UHV applications due to the robust metal sealed stainless steel sensor
- Durable Pirani helix filament
- Highly cost effective
- Filament protected by a metal screen provides good resistance against oil and solvent vapors
- Rugged, EMI-proof metal housing
- Low power consumption
- Stable measuring values due to optimized temperature compensation
- Precise push button digital adjustment on zero pressure and atmosphere
- Easy system integration and connection with PLCs due to logarithmic 0 - 10 V standard output
- Vacuum connection using stainless steel small flange DN 16 ISO-KF, conflat flange DN 16 CF or hose nozzle 9,5 mm





$$V_{out} (V) = \log(p(\text{hPa})) + 5.5$$

$$p(\text{hPa}) = 10^{(V_{out}(V) - 5.5)}$$

Technical Data

Measuring Principle	Heat conduction (Impulse Pirani), depending on gas type
Materials In Contact With Vacuum	Stainless steel 1.4307, nickel, tungsten, glass
Measurement Range	1000 - 1×10^{-4} mbar ($750 - 1 \times 10^{-4}$ Torr), max. overpressure 4 bar absolute
Accuracy	1000 - 20 mbar: < 30% from reading 20 - 2×10^{-3} mbar: < 10% from reading < 2×10^{-3} mbar: < factor 2
Repeatability	2%
Reaction Time	Max. 200 ms
Voltage Supply	15 - 30 VDC
Electrical Connection	Hirschmann, 6 pole, male, screwable
Power Consumption	Approx. 10 mA
Operating Temperature	+5...+50°C
Storage Temperature	-20...+70°C
Max. Bake Out Temperature	80°C at the flange
Output Signal	0 - 10 VDC, measuring range 1.5 - 8.5 VDC, logarithmic, 1V / decade load resistance > 10 kΩ
Vacuum Connection	Stainless steel small flange DN 16 ISO-KF (VSP62MV), additional hose nozzle 9.5 mm (VSP62MVS) stainless steel conflat flange DN 16 CF (VSP62MVCF)
Protection Class	IP40
Weight	Approx. 120 g

Product Codes

- **VSP62MV**
Pirani transducer, 1000 to 1×10^{-4} mbar, with DN 16 ISO-KF connection; Output 0 - 10 V logarithmic

- **VSP62MVS**
As above, with DN 16 ISO-KF connection and hose nozzle 9.5 mm

- **VSP62MVCF**
As above, with DN 16 CF connection

Accessories:

- **XB060002**
Counter plug, 6-pole

- **Wo606002**
Measuring cable, shielded, 2 m (for VD₉ / VD₁₀)

- **Wo606006**
Measuring cable, shielded, 6 m (for VD₉ / VD₁₀)