

VSP - Analogline Vacuum Transducer Pirani

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

ANALOGLINE



Overview VSP vacuum transducer

- Durable, elastic Pirani helix filament
- Patented impulse Pirani with extended measuring range, very high resolution also in the rough vacuum range
- Integrated metal facing for protection against contamination like oil vapours or solvent vapours
- Highest reliability and excellent reproducibility
- Due to metal sealed stainless steel measuring cell (He leakage rate $< 5 \times 10^{-10}$ mbar l / s)
- Overpressure stability up to 16 bar
- Suitable for 1 and 2 channel controller VD6 / VD12

Overview Analogline vacuum transducers

- Stable, reproducible measurement values due to microprocessor controller and individual temperature compensation
- Precise, digital adjustment to zero pressure and atmosphere at the push of a button. The vacuum transducer automatically recognizes the adjustment point
- Functionalities of the Analogline are reduced to minimum to achieve an optimal cost-performance-ratio
- Robust metal housings and plugs with protection class IP54 (4-20 mA versions) or IP40 (0-10 V versions), ideal for rugged industry environments
- Compact construction, ideal for industrial applications with reduced space
- Linear and logarithmic output signal of the transducer (optionally 4-20 mA or 0-10 V) can easily read out with a system control (PLC)

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Technical Data

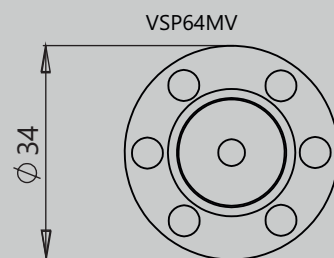
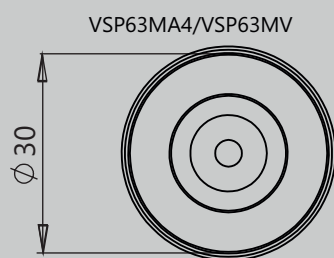
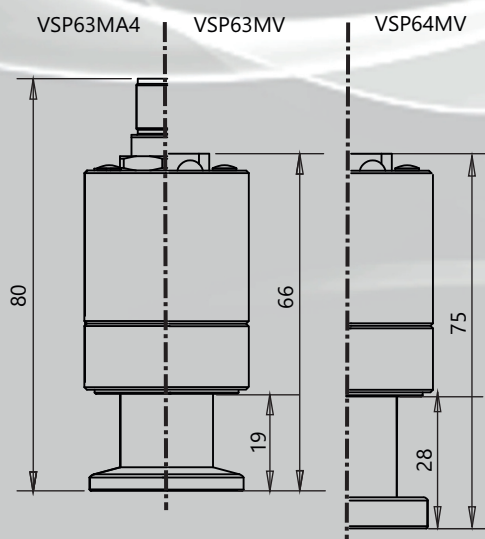
Measurement principle	Heat conduction (pat. Impulse Pirani), depending on gas type
Measurement Range	1000 – $1\text{e-}4$ mbar (750 – $1\text{e-}4$ Torr)
Materials with Vac. Contact	Stainless steel 1.4307, tungsten, nickel, glass
Max. Overload	10 bar abs., optional: 16 bar abs. (with CERT31P)
Accuracy	1000 – 20 mbar: < 30 % f. r. 20 – $2\text{e-}3$ mbar: < 10 % f. r.
Repeatability	20 – $2\text{e-}3$ mbar: 2 % f. r.
Reaction Time	<200 ms
Voltage Supply	15 – 30 VDC
Electrical Connection	M12 A, 5pole, male, lockable (VSP63MA4) Hirschmann, 6pole, male, lockable (VSP63MV/VSP64MV)
Power Consumption	Max. 1.0 W with 24 VDC supply voltage (VSP63MV/VSP64MV) Max. 1.5 W with 24 VDC supply voltage (VSP63MA4)
Operating Temperature	+5...+60 °C
Storage Temperature	-20...+70 °C
Bake Out Temperature	Max. 150 °C at the flange (transducer separated from voltage supply)
Output Signal	VSP63MV/VSP64MV: 0 - 10 VDC, load > 10 k Ω range 1.5 - 8.5 VDC, logarithmic (1 V/decade) VSP63MA4: 4 - 20 mA, logarithmic
Vacuum Connection	DN 16 CF-F (VSP64MV), DN 16 ISO-KF (VSP63MA4, VSP63MV)
Protection Class	IP40 (VSP63MV, VSP64MV), IP54 (VSP63MA4)
Weight	Approx. 100 g

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Dimensions in mm



Model designations

- VSP63MV DN 16 ISO-KF connection, output 0 - 10 V, log.
- VSP64MV DN 16 CF connection, output 0 - 10 V, log.
- VSP63MA4 DN 16 ISO-KF connection, output 4 - 20 mA, log.

Sets

- VD64P115 Set (115 VAC) with 1 channel controller VD6S2115, VSP63MA4, measuring cable 2 m
- VD64P230 Set (230 VAC) with 1 channel controller VD6S2230, VSP63MA4, measuring cable 2 m
- VD124P Set with 2 channel controller VD12, VSP63MV, measuring cable 2 m

Accessories

- CERT31P Overpressure stability 16 bar, inc. testing certificate 3.1
- XB0500004 Mating plug, 5pole, for VSP63MA4
- XB0600002 Mating plug, 6pole, for VSP63MV/VSP64MV

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