VSP - Smartline Vacuum Transducer Pirani

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

Overview VSP vacuum transducer

- Durable, elastic Pirani spiral coil filament
- Stable measurements due to optimized temperature compensation
- Integrated metal screen for protection against oil and solvent vapors
- Overpressure stability up to 16 bar

Overview Smartline vacuum transducers

- Digital RS485 interfaces plus 0-10 V output signal, EtherCAT or PROFINET, Bluetooth adapter SLKBT for wireless communication
- PROFINET transducers support MRP
- Exchangeable sensor heads with stored calibration data
- Large LCD display (exc. EtherCAT, PROFINET)
- Readjustment of zero and atmosphere by push-button or interface
- LEDs for device status and switch points
- Two independent, potentialfree relay switch points (exc. EtherCAT, PROFINET)
- Protection class up to IP54
- 0-10 V output signal can be scaled according to the required output characteristics. Exchange of existing vacuum gauges easily, independent of the manufacturer, without programming effort
- Intelligent sensors for simplified integration according to Industry 4.0 standards
- Metal sealed stainless steel sensor cell, suitable for UHV (He leackage rate <5e-10 mbar l / s)
- Expansion with 2 channel controller VD12 or 4 channel controller VD14 possible
- VacuGraph™ Windows software for visualisation, analysis and storage of measuring data

VSP - Smartline Vacuum Transducer Pirani

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

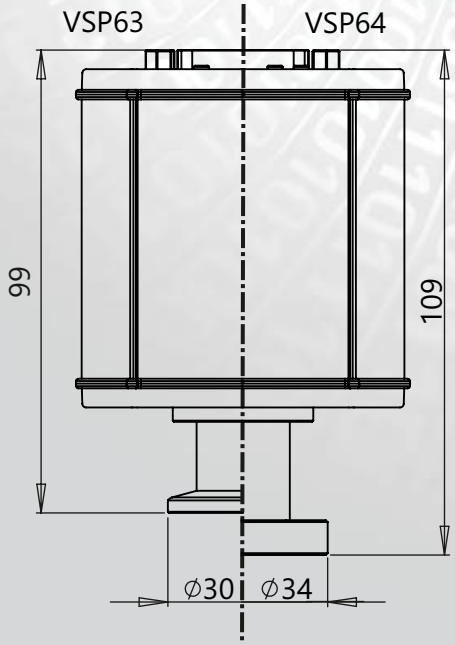
Technical Data

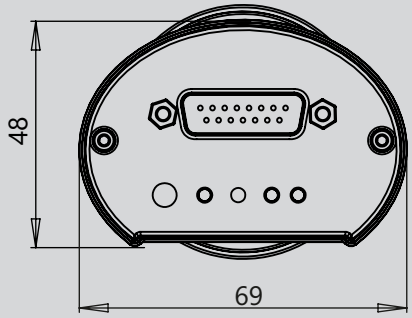
Measurement Principle	Heat conduction Pirani, depending on gas type
Measurement Range	1000 - 1e-4 mbar (750 - 1e-4 Torr)
Max. Overload	10 bar abs. | optional: 16 bar abs. (with CERT31P)
Accuracy	1000 - 20 mbar: Approx. 30 % f. r., 20 - 2e-3 mbar: 10 % f. r.
Repeatability	20 - 2e-3 mbar: 2% f. r.
Materials With Vac. Contact	Stainless steel 1.4307, tungsten, nickel, glass
Reaction Time	40 ms
Operating Temperature	+5...+60°C (Profinet -5... + 50°C)
Storage Temperature	-40...+65°C
Max. Bake Out Temperature	Max. 150°C at the flange (voltage supply switched-off)
Power Supply	20 - 30 VDC
Power Consumption	Max. 2.5 W, add. 0.8 W for EtherCAT /relays / LCD, add. 1.6 W f. Profinet
Output Signal	0-10 VDC, min. 10 kΩ, measuring range 1.5 to 8.5 VDC, log. except for EtherCAT, Profinet
Serial Interface	RS485: 9.6 kBd to 115 kBd, 8 databit, 1 stopbit, no parity, EtherCAT, Profinet
Switch Points	2x relay, potential free, 49 VAC / 2 A, 30 VDC / 2 A, max. 60 VA except for EtherCAT, Profinet
Electrical Connection	RS485/0-10V: SubD, 15-pole, male RS485/EtherCAT/Profinet: 1x M12 A / 2x M12 D, female
Vacuum Connection	DN 16 ISO-KF (VSP63), DN 16 CF-F (VSP64)
Protection Class	Up to IP54 (SubD with XB15SL05 adaptor)
Weight	Approx. 190 g (VSP63)

VSP - Smartline Vacuum Transducer Pirani

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

Dimensions in mm





Model designations

- VSP63D DN 16 ISO-KF, 0-10 V and RS485
- VSP64D DN 16 CF-F, 0-10 V and RS485

- VSP63DL DN 16 ISO-KF, 0-10 V and RS485, with LCD display
- VSP64DL DN 16 CF-F, 0-10 V and RS485, with LCD display

- VSP63E DN 16 ISO-KF, EtherCAT and RS485
- VSP64E DN 16 CF-F, EtherCAT and RS485

- VSP63PN DN 16 ISO-KF, Profinet and RS485
- VSP64PN DN 16 CF-F, Profinet and RS485

Set

VD1263P: Set with 2 channel controller VD12 + VSP63D + measuring cable 2 m

Accessories

- CERT31P: overpressure stability 16 bar, incl. testing certificate 3.1
- Replacement sensor heads: B_VSP63DA, B_VSP64DA
- SLCASE Smartline protective plastic case , SLN4 plug-in power supply, SLKUSB interface converter RS485-USB, VGR VacuGraph software lite version

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