



Smartline



PROFINET  
EtherCAT

RS485  
0-10 V

## Overview VCP vacuum transducer

- Durable, elastic Pirani spiral coil filament
- Suitable for demanding applications with aggressive media due to platinum rhodium filament
- Overpressure stability up to 16 bar
- Short response time of up to 40 ms
- Integrated metal screen for protection against oil and solvent vapors
- Stable measurements due to optimized temperature compensation

## 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 leakage rate  $< 5 \times 10^{-10}$  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

# VCP - Smartline Vacuum Transducer Pirani for Corrosive Media

## Absolute Pressure 1000 to 5 x 10<sup>-4</sup> mbar

### Technical Data

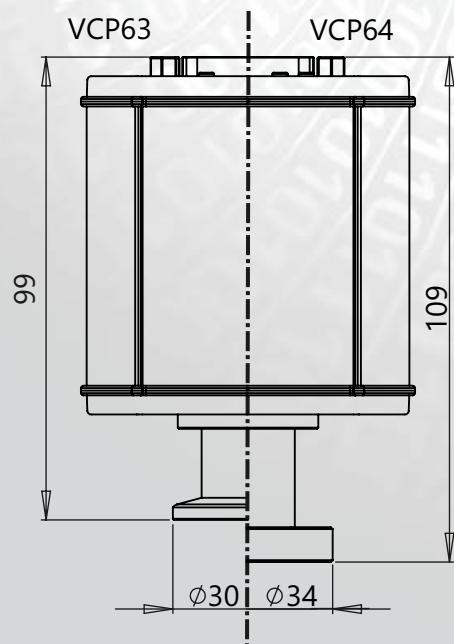
|                             |                                                                                                   |
|-----------------------------|---------------------------------------------------------------------------------------------------|
| Measurement Principle       | Heat conduction Pirani, depending on gas type                                                     |
| Measurement Range           | 1000 - 5e-4 mbar (750 - 5e-4 Torr)                                                                |
| Max. Overload               | 10 bar abs.   optional: 16 bar abs. (with CERT31P)                                                |
| Accuracy                    | 1000 - 10 mbar: Approx. 30 % f. r., 10 - 1e-2 mbar: 10 % f. r.                                    |
| Repeatability               | 10 - 1e-2 mbar: 5 % f. r.                                                                         |
| Materials with Vac. Contact | Stainl. steel 1.4307, platinum/rhodium, nickel, glass                                             |
| Reaction Time               | 40 ms                                                                                             |
| Operating Temperature       | +5...+60°C                                                                                        |
| Storage Temperature         | -40...+65°C                                                                                       |
| Max. Bake Out Temperature   | Max. 150°C at the flange (voltage supply switched-off)                                            |
| Supply                      | 20 - 30 VDC                                                                                       |
| Power Consumption           | Max. 2.5 W, add. 0.8 W for EtherCAT /relays / LCD<br>add. 1.6 W f. Profinet                       |
| Output Signal               | 0-10 VDC, min. 10 kΩ, measuring range 2.2 to 8.5 VDC, log.<br>except for EtherCAT, Profinet       |
| Digital Interface           | RS485: 9.6 kBd to 115 kBd, 8 databit, 1 stopbit, no parity<br>EtherCAT, Profinet                  |
| Switch Points               | 2x relay, potential free, 49 VAC / 2 A, 30 VDC / 2 A, max. 60 VA<br>except for EtherCAT, Profinet |
| Electrical Connection       | RS485/0-10V: SubD, 15-pole, male<br>RS485/EtherCAT/Profinet: 1x M12 A / 2x M12 D, female          |
| Vacuum Connection           | DN 16 ISO-KF (VCP63), DN 16 CF-F (VCP64)                                                          |
| Protection Class            | Up to IP54 (SubD with XB15SL05 adaptor)                                                           |
| Weight                      | 190 g (VCP63)                                                                                     |

# VCP - Smartline Vacuum Transducer Pirani for Corrosive Media

## Absolute Pressure 1000 to $5 \times 10^{-4}$ mbar



### Dimensions



### Model designations

- VCP63D DN 16 ISO-KF, 0-10 V and RS485
- VCP64D DN 16 CF-F, 0-10 V and RS485
- VCP63DL DN 16 ISO-KF, 0-10 V and RS485, with LCD display
- VCP64DL DN 16 CF-F, 0-10 V and RS485, with LCD display
- VCP63E DN 16 ISO-KF, EtherCAT and RS485
- VCP64E DN 16 CF-F, EtherCAT and RS485
- VCP63PN DN 16 ISO-KF, Profinet and RS485
- VCP64PN DN 16 CF-F, Profinet and RS485

### Accessories

- CERT31P: overpressure stability 16 bar, incl. testing certificate 3.1
- Replacement sensor heads: B\_VCP63D, B\_VCP64D
- 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.

