

VACUUM TECHNOLOGY Hositrad

HVCM-1 PROGRAMMABLE PRECISION VACUUM TRANSMITTER

ADVANTAGES

- Chemical and corrosion resistant ceramic diaphragm
- Measurement range from 0.1 to 1000 Torr
- 4-20 mA programmable current output
- 0-10 VDC programmable voltage output
- USB programmer for easy configuration and setup
- Temperature drift compensated
- Configurable via plug-and-play USB communicator
- Robust ultra compact 316 stainless steel design
- IP67 enclosure for harsh environments
- Optional solid-state setpoint relay for process control

The **HVCM-1 vacuum transmitter** is designed for measurement in a variety of industrial applications. Its modular compact design offers a unique combination of high measurement performance, flexible configuration and a robust stainless steel design.

Applications include vacuum fore-line surveillance, freeze-drying and heat treatment furnaces.

The HVCM-1 is programmable and configurable from a PC via the novel S4-Connect™ interface.

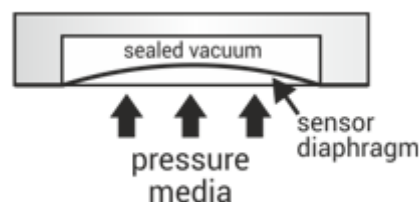
Diaphragm sensor technology

The HVCM-1 transducer is based on a ceramic aluminum oxide sensor diaphragm that converts the applied pressure to an electric signal. The sensor element is a dry cell diaphragm design without filling oil contained.

The ceramic sensor surface in combination with the 316 stainless steel flange and internal Viton® sealing offers excellent chemical resistance and compatibility with a wide range of aggressive gases, solvents and acids.

The HVCM-1 sensor is built to last and can withstand continuously vibrations and instant pressure changes from vacuum to atmosphere.

For applications that requires all-welded sensor design refer to the HVSM-1 stainless steel diaphragm vacuum transducer.





Measurement performance

Each product is individually tested, calibrated and compensated for drift related to temperature changes.

Calibration data is stored in the internal non-volatile memory.

Advanced enclosure design

The IP67 sealed 316 stainless steel enclosure with integrated hydrophobic membrane is designed for extreme environments. The innovative moisture control barrier prevents internal moisture accumulation and water condensation when changes in ambient pressure, temperature and humidity occur. Gauge pressure sensors measures relative to ambient pressure and the hydrophobic membrane provides pressure equalization when the ambient pressure changes, e.g. due to changes in the weather or altitude.

S4-Connect™ programmer

The innovative S4-Connect™ USB digital communication interface provides access to the powerful digital core. It enables digital communication over the power supply line, thus eliminating the need for additional connector pins. The interface can be used for diagnostics, maintenance, service, calibration, setpoint configuration, analog output scaling and setting of other customized parameters. Furthermore, the products offer pin compatibility with industry standard pin-outs for analog transducers.

Customized settings

The transmitter can be delivered with a custom configuration to match specific application and requirements. Examples of pre-configured options include measurement range, pressure unit, setpoint configuration and output signal scaling. Customized products will be assigned a unique part number for easy and simple future re-ordering.

Process pressure control and surveillance

The optional setpoint can be either used for controlling or surveillance of the measured pressure via a solid-state relay. The basic control uses on/off regulation with a programmable setpoint and hysteresis value.

Analog and digital output options

The HVCM-1 is available in versions with traditional analog output (e.g. 4-20 mA and 0-10 VDC) and various optional digital interfaces.

APPLICATIONS

Fore-line vacuum pressure control and surveillance

Plasma sterilization

PVD coating

Semiconductor processing

Gas back-filling systems