Specification sheet

VEGABAR 83

Slave sensor for electronic differential pressure
Pressure transmitter with metallic measuring cell

Application area

The VEGABAR 83 Slave sensor is combined with a sensor from the VEGABAR 80 series to an electronic differential pressure measurement. The unit is suitable for the measurement of differential pressure, level with superimposed pressure or vacuum, flow, density or interface. Measured products are gases, vapours and liquids in all industries.

The VEGABAR 83 offers special advantages in applications with high pressures.

Your benefit

- Universal use thanks to completely welded measuring cell
- High measurement reliability through vacuum resistant version
- Maximum reliability and safety through proven technology

Function

The heart of the pressure transmitter is the completely welded, metallic measuring cell transforming the pressure via the integrated electronics into a standardized output signal.

For measuring ranges up to 40 bar, a piezoresistive sensor element with internal transmission liquid is used. From 100 bar a strain gauge sensor element on the rear of the stainless steel diaphragm is used. This dry system operates without additional isolating liquid.

The sensor element METEC® is used with temperature ranges up to 200 °C and larger process fittings,. This element consists of the ceramic-capacitive CERTEC® measuring cell and a special, temperature-compensated chemical seal system.

Technical data

Measuring ranges	-1 … +1000 bar/-0.1 … +100 MPa (-14.5 … +15000 psig)
Smallest measuring range	+0.1 bar/+10 kPa (+1.45 psig)
Deviation - Complete system	< 0.11 %; < 0.15 %; < 0.3 %
Process fitting	Threads from G½, flanges from DN 16, 1", hygienic fittings
Process temperature	-40 … +200 °C (-40 … +392 °F)
Ambient, storage and transport temperature	-40 … +80 °C (-40 … +176 °F)
Voltage supply	Through the Master sensor

Materials

The process fitting of the instrument is made of 316L or Alloy C276 (2.4819), the process diaphragm of Alloy C276 (2.4819). FKM, FFKM and EPDM.

You will find a complete overview of the available materials and seals in the "*Configurator*" at www.vega.com and "*Products*".

Housing versions

The housings are available as single chamber version in plastic, aluminium or stainless steel.

They are available in protection ratings up to IP 68 (25 bar) with external electronics as well as in IP 69K.

Electronics versions

Apart from the two-wire electronics with 4 … 20 mA/HART, also purely digital versions with Profibus PA and Foundation Fieldbus are possible for the corresponding master sensor.

Approvals

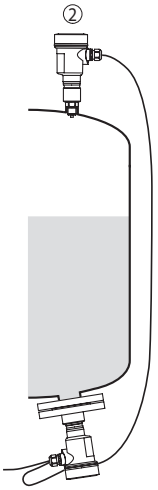
The instruments are suitable for use in hazardous areas and are approved e.g. according to ATEX and IEC. The instruments also have various ship approvals such as e.g. GL, LRS or ABS.

You can find detailed information on www.vega.com/downloads with the respective product under "*Approval*".

Adjustment

The adjustment of the instrument is carried out through the connected Master sensor.

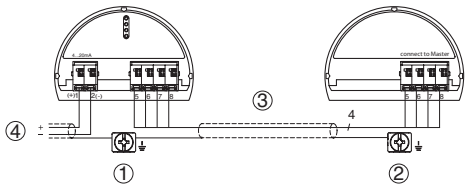
Measurement setup



Measurement setup, level measurement in pressurized vessel

1 *VEGABAR 83*
2 *VEGABAR 83 - Slave sensor*

Electrical connection

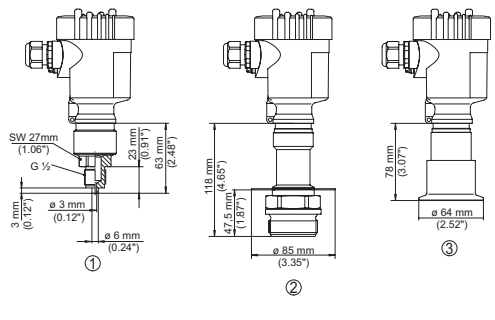


Connection example, electronic differential pressure

1 *Master sensor*
2 *Slave sensor*
3 *Connection cable*
4 *Supply and signal circuit, Master sensor*

For more VEGA product please visit: www.ainstru.com
Mail: Sales@ainstru.com

Dimensions



Dimensions VEGABAR 83

1 *Threaded version G½, manometer connection EN 837*
2 *Threaded version front-flush with screening sheet*
3 *Clamp version 2"*

Information

You can find further information about the VEGA product line on www.vega.com.

In the download section at www.vega.com/downloads you'll find operating instructions, product information, brochures, approval documents, instrument drawings and much, much more.

There, you will also find GSD and EDD files for Profibus PA systems as well as DD and CFF files for Foundation Fieldbus systems.

Instrument selection

Under "*Specify product*" on www.vega.com and "*Products*" you can select the suitable measuring principle and instrument for your application.

You can find detailed information on the instrument versions in the "*Configurator*" at www.vega.com and "*Products*".

Contact

You can find your personal contact person at VEGA on our homepage www.vega.com and "*Contact*".