Specification sheet

VEGABAR 83

Foundation Fieldbus

Pressure transmitter with metallic measuring cell

Application area

The VEGABAR 83 is a pressure transmitter for pressure measurement of gases, vapours and liquids in all industries. VEGABAR 83 offers special advantages for applications with high pressures.

In conjunction with a Slave sensor the VEGABAR 83 is also suitable for the electronic differential pressure measurement.

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	< 0.075 %; < 0.1 %; < 0.2 %
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)
Operating voltage	9 … 32 V DC

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 or double 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 or 4 … 20 mA/HART, also purely digital versions with Profibus PA, Foundation Fieldbus and are available. In addition a version as Slave sensor is available for the electronic differential pressure measurement.

Supplementary electronics

For instruments with double chamber housing two supplementary electronics such as radio module, a second current output or a power pack are available.

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

Adjustment on the measurement loop

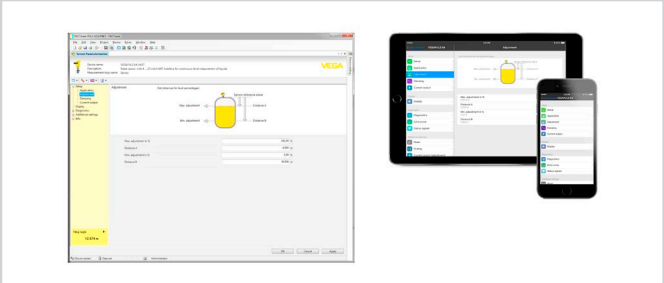
The adjustment of the instrument is carried out via the optional display and adjustment module PLICSCOM or via a PC with the adjustment software PACTware and corresponding DTM.

Wireless adjustment via Bluetooth

The Bluetooth version of display and adjustment module enables a wireless connection to standard adjustment units. This can be smartphones/tablets with iOS or Android operating system or PCs with PACTware and Bluetooth USB adapter.

Wireless connection to standard operating devices

Adjustment is hence carried out via a free-of-charge app from the Apple App Store or the Google Play Store or the adjustment software PACTware and respective DTM.

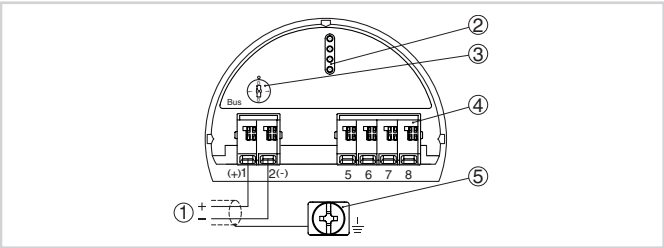


Adjustment via PACTware or app

Adjustment via remote systems

Another adjustment possibility is a configuration tool for Foundation Fieldbus instruments.

Electrical connection

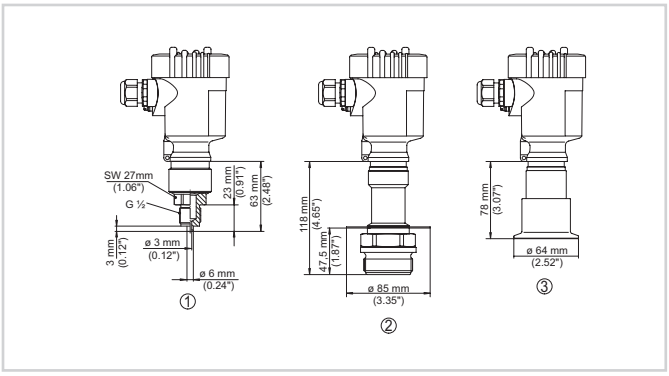


Electronics and terminal compartment, single chamber housing

1 *Voltage supply/Signal output*
2 *Contact pins for the display and adjustment module or interface adapter*
3 *Simulation switch ("1" = mode for simulation release)*
4 *For external display and adjustment unit*
5 *Ground terminal for connection of the cable screen*

You can find details on electrical connection in the instrument operating instructions at www.vega.com/downloads.

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*".

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