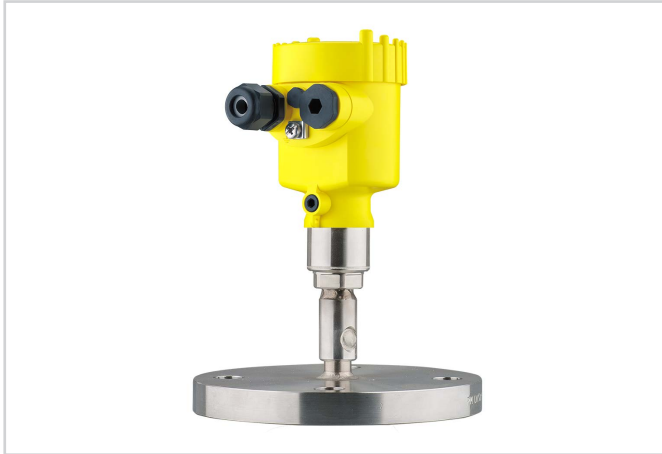


# VEGABAR 81

## 4 ... 20 mA/HART

### Pressure transmitter with chemical seal



#### Application area

The VEGABAR 81 is a pressure transmitter with chemical seal for pressure and level measurement. The chemical seals of the VEGABAR 81 adapted to the process ensure a reliable measurement even in highly corrosive and hot products.

In conjunction with a Slave sensor the VEGABAR 81 is also suitable for the electronic differential pressure measurement.

#### Your benefit

- Simple adaptation, thanks to versatile configuration
- Reliable measurement up to temperatures of 400 °C
- Reliable measurement independent of foam generation and tank installations

#### Function

The heart of the pressure transmitter is the pressure measuring cell transforming the pressure into an electrical signal. This pressure-dependent signal is converted by the integrated electronics into a standardized output signal.

Sensor element with VEGABAR 81 is a fully welded metallic measuring cell. With measuring ranges up to 16 bar, a piezoresistive sensor element with internal transmission liquid is used. From 25 bar upwards, a strain gauge sensor element is used on the back side of the stainless steel diaphragm. This dry system works without additional isolating liquid.

#### Technical data

Measuring ranges	-1 ... +1000 bar/-0,1 ... +100 MPa (-14.5 ... +15000 psig)
Smallest measuring range	+0.4 bar/+40 kPa (+5 psig)
Deviation	< 0.2 %
Process fitting	Threads from G $\frac{1}{2}$ , flanges from DN 25, 1 $\frac{1}{2}$ ", hygienic fittings
Process temperature	-40 ... +400 °C (-40 ... +752 °F)
Ambient, storage and transport temperature	-40 ... +80 °C (-40 ... +176 °F)
Operating voltage	9.6 ... 35 V DC
SIL qualification	Optionally up to SIL2 (with homogeneous redundancy up to SIL3)

#### Materials

The process fitting is made of stainless steel 316L. The process diaphragm is available in 316L and in the high resistance materials Hastelloy C276, Tantalum as well as PTFE on 316Ti.

You will find a complete overview of the available materials and seals in the "Configurator" at [www.vega.com](http://www.vega.com) and "VEGA Tools".

#### 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

The instruments are available in different electronics versions. Apart from the two-wire electronics 4 ... 20 mA or 4 ... 20 mA/HART also pure digital versions with Profibus PA, Foundation Fieldbus and Modbus are possible. In addition, a version as Slave sensor is available for the electronic differential pressure measurement.

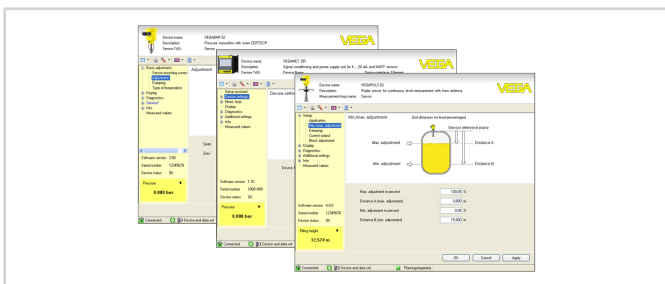
#### Approvals

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.

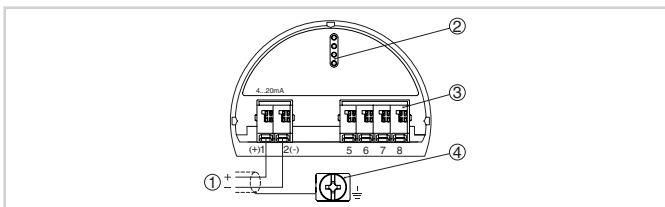
You can find detailed information at [www.vega.com/downloads](http://www.vega.com/downloads) and "Approvals".

## Operation

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. Further adjustment options are available via HART communicator as well as manufacturer-specific programs such as AMS™ or PDM.



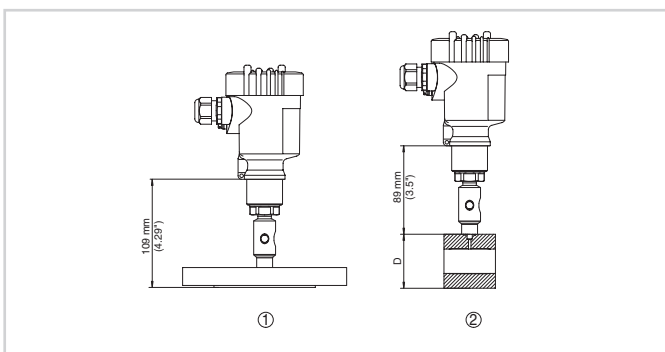
## Electrical connection



Electronics and connection compartment, single chamber housing

- 1 Voltage supply/Signal output
- 2 For display and adjustment module or interface adapter
- 3 For external display and adjustment unit
- 4 Ground terminal for connection of the cable screen

## Dimensions



Dimensions VEGABAR 81

- 1 Flange version +150 °C
- 2 Version with tube isolating diaphragm +150 °C

## Information

You can find further information about the VEGA product line on [www.vega.com](http://www.vega.com).

In the download section at [www.vega.com/downloads](http://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

With the "Finder" at [www.vega.com/finder](http://www.vega.com/finder) and "VEGA Tools" you can select the most suitable measuring principle for your application. You can find detailed information on the instrument versions in the "Configurator" at [www.vega.com/configurator](http://www.vega.com/configurator) and "VEGA Tools".

## Contact

You can find the VEGA agency serving your area on our homepage [www.vega.com](http://www.vega.com).