VEGABAR 29

Two-wire 4 … 20 mA

Pressure sensor with metallic measuring cell

Application area

The VEGABAR 29 is a universally applicable pressure sensor with switching function and metallic measuring cell. It is used for measuring gases, vapours and liquids. Even with high requirements for robustness and hygiene, the device records the measured values with high accuracy.

The optional universal connection for hygienic adapters reduces the installation effort and stockkeeping.

Your benefit

- Universal use thanks to completely welded metallic measuring cell
- Coloured 360° operating status indication
- Convenient wireless setup and diagnostics with smartphone via Bluetooth
- Easy integration into control systems due to a variety of connection technologies

Function

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

Sensor element with VEGABAR 29 is a fully completely metallic measuring cell with stainless steel diaphragm.

For measuring ranges up to 100 bar, a piezoresistive sensor element with internal transmission liquid is used. From 250 bar a strain gauge sensor element on the rear of the stainless steel diaphragm is used. This dry system operates without additional isolating liquid.

Technical data

Measuring ranges	-1 … +1000 bar/-100 … +100 MPa (-14.5 … +14500 psig)
Smallest measuring range	0.4 bar/40 kPa (5 psig)
Deviation	< 0.3 %
Output signal	4 … 20 mA
Process fitting	Thread from G¼, ¼ NPT, hygienic fittings from DN 25
Process temperature	-40 … +130 °C (-40 … +266 °F)
SIP process temperature	+150 °C (+302 °F) with brief vapour stratification
Ambient, storage and transport temperature	-40 … +70 °C (-40 … +140 °F)
Bluetooth standard	Bluetooth 5.0
Bluetooth range	typically 25 m (82 ft)
Operating voltage	12 … 35 V DC
Protection rating	up to IP66/IP68 (0.5 bar) or IP66/IP67/IP69 acc. to EN 60529/IEC 529, up to Type 6P NEMA/UL 50E

Materials

The wetted parts of the device such as the process fitting and measuring diaphragm are made of 316L. Depending on the process fitting, the process seal is made of Klingersil C-4400, EPDM or FKM.

A complete overview of the available materials and seals can be found on our homepage under " *Products*" and " *Configure & Order*".

Housing versions

The housing is equipped with plug connector according to ISO 4400, M12 x 1 or direct cable outlet.

It is available with protection ratings up to IP68 (0.5 bar)/IP69.

Electronics versions

In addition to the two-wire electronics 4 … 20 mA, three-wire electronics with IO link as well as 4 … 20 mA (active) and transistor outputs are also possible.

Depending on the electronics, the connection is made via ISO 4400, M12 x 1 plug or direct cable outlet.

Approvals

Worldwide approvals are available for VEGA instruments, e.g. for use in hazardous areas, on ships or in hygienic applications.

For approved devices (e.g. with Ex approval) the technical data in the respective safety instructions are applicable.

You can find detailed information in the available approvals on our homepage under " *Downloads*".

Adjustment

The Bluetooth version of the device enables wireless connection to smartphones/tablets (iOS/Android) or Windows PCs.

Wireless connection to standard operating devices

Operation is via a free app from the " *Apple App Store*", the " *Google Play Store*" or the " *Baidu Store*". Alternatively, adjustment can also be carried out via PACTware/DTM and a Windows PC.
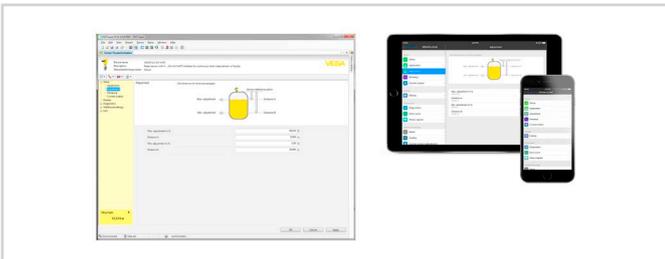

Adjustment via PACTware or app

Electrical connection

Plug according to ISO 4400
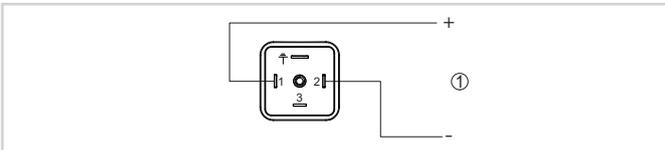
Wiring plan - two-wire 4 … 20 mA - plug according to ISO 4400

1   *Voltage supply and signal output*

M12 x 1 plug
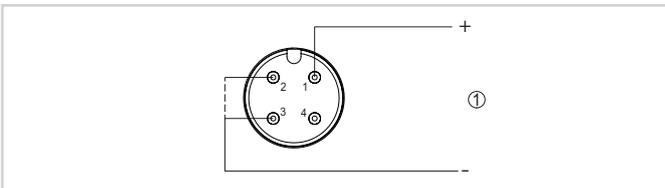
Wiring plan - two-wire 4 … 20 mA - M12 x 1 plug

1   *Voltage supply and signal output*

Dimensions
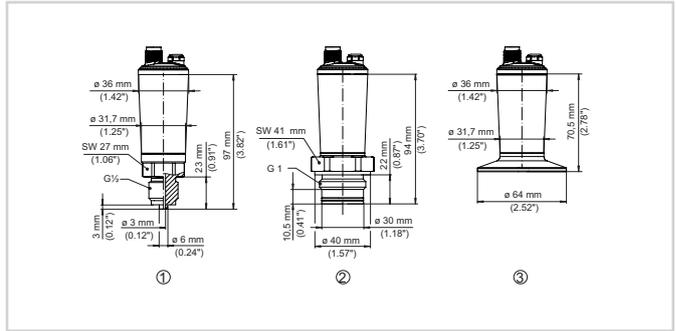
Dimensions VEGABAR 29

1   *Thread G½ (EN 837), manometer connection*
2   *Thread G1 (ISO 228-1)*
3   *Clamp 2" PN 40 ø 64 mm (DIN 32676, ISO 2852)*

Information

You can find further information on the VEGA product line on our homepage.

In the download section of our homepage you'll find operating instructions, product information, industry brochures and approval documents as well as device and adjustment software.

Instrument selection

On our homepage under " *Products*" you can select the suitable measuring principle and instrument for your application.

There you will also find detailed information on the available device versions.

Contact

You can find your personal contact person at VEGA on our homepage under " *Contact*".