VEGAPULS 31

Two-wire 4 … 20 mA/HART

Radar sensor for continuous level measurement

Application area

The VEGAPULS 31 is the ideal radar sensor for non-contact level measurement in standard applications on all industrial plants.

It is particularly suitable for level measurement and measured value visualisation in water treatment, storage tanks with acids and lyes, additives in all industrial areas or for measuring levels through a plastic tank or IBC container.

The sensor is suitable both for measuring liquids and for use on small bulk solids silos or bulk solids containers.

Your benefit

- Maintenance-free operation due to non-contact 80 GHz radar technology
- Exact measurement results independent of medium properties and process conditions
- Local display for easy checking of the level. Maintenance-free operation due to non-contact measuring principle

Function

The sensor emits a continuous radar signal through the antenna. The emitted signal is reflected by the medium and received as an echo by the antenna.

The frequency difference between the emitted and received signal is proportional to the distance and depends on the filling height. The determined filling height is converted into a respective output signal and output as measured value.

Technical data

Measuring range	up to 30 m (98.43 ft)
Deviation	≤ 2 mm
Beam angle	8°
Output signal	4 … 20 mA/HART
Process fitting	Thread G1½, 1½ NPT, R1½
Process pressure	-1 … +3 bar (-100 … +200 kPa/-14.5 … +43.51 psig)
Process temperature	-40 … +80 °C (-40 … +176 °F)
Ambient temperature	-40 … +70 °C (-40 … +158 °F)
Operating voltage	12 … 35 V DC

Materials

The wetted parts of the instrument are made of PVDF. The process seal is made of FKM.

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

Housing versions

The housing is made of PBT plastic and is available in protection rating IP66/IP67.

Electronics versions

The instrument is available in the 4 … 20 mA/HART electronics version.

Adjustment

Adjustment via the signal cable

The adjustment of the instrument is carried out via the interface adapter VEGACONNECT and a PC with the adjustment software PACTware and corresponding DTM.
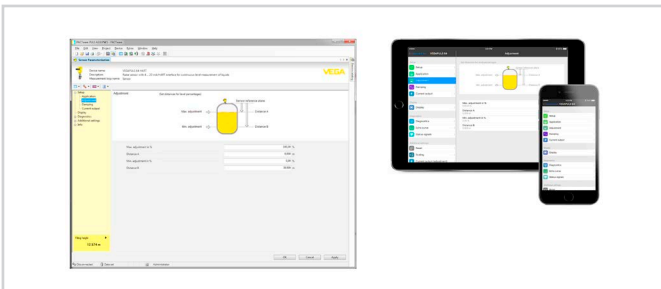
Wireless adjustment via Bluetooth

The Bluetooth version of the instrument 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.
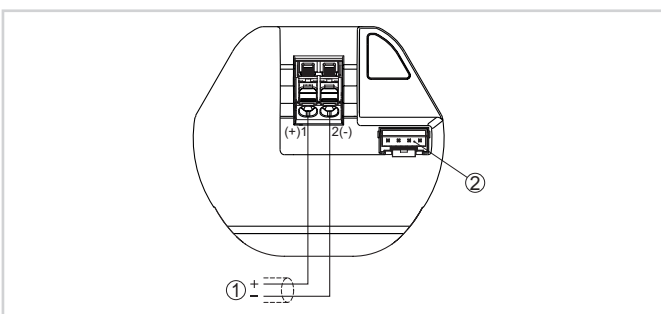

Adjustment via PACTware or app

Adjustment via remote systems

Further adjustment options are possible via a HART Communicator as well as manufacturer-specific programs such as AMS↑ or PDM.
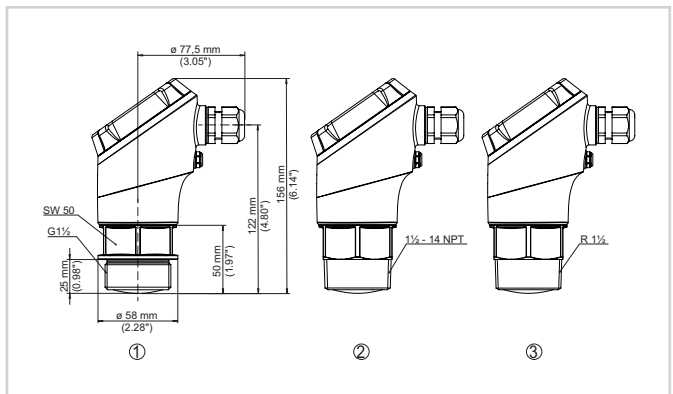
Electrical connection

Connection compartment VEGAPULS 31

1   *Voltage supply, signal output*
2   *Plug connector for the display and adjustment module or interface adapter*

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

Dimensions

VEGAPULS 31

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1   *Thread G1½*
2   *Thread 1½ NPT*
3   *Thread R1½*

Information

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

In the download section on our homepage 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

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

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

Contact

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