Specification sheet

VEGAPULS 31

Two-wire 4 … 20 mA/HART
Radar sensor for continuous level measurement

Technical data

Measuring range up to	15 m (49.21 ft)
Deviation	≤ 2 mm
Beam angle	8°
Measuring frequency	W-band (80 GHz technology)
Output signal	4 … 20 mA/HART
Process fitting	Thread G1½, 1½ NPT, R1½
Process pressure	-1 … +3 bar (-100 … +300 kPa/-14.5 … +43.51 psig)
Process temperature	-40 … +80 °C (-40 … +176 °F)
Bluetooth standard	Bluetooth 5.0
Bluetooth range	typically 25 m (82 ft)
Operating voltage	12 … 35 V DC
Protection rating	IP66/IP67 acc. to IEC 60529, Type 4X acc. to UL 50

Application area

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

Materials

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

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

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

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.

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.

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

Adjustment on site
On-site adjustment of the device is carried out via the integrated display and adjustment unit.

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.
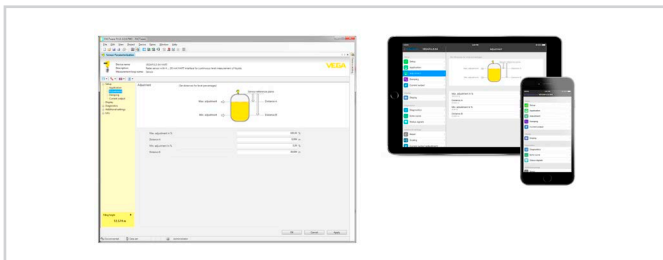
Wireless adjustment via Bluetooth

The Bluetooth version of the 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.
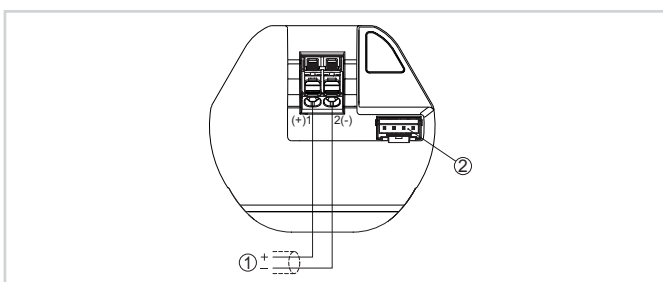

Adjustment via PACTware or app

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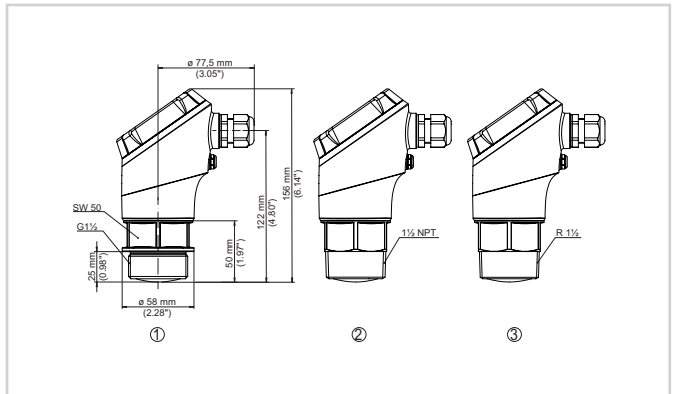
Electrical connection

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

Dimensions VEGAPULS 31

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

Mounting accessories

For the VEGAPULS 31 the suitable mounting accessories for ceiling or wall mounting is available.

Mounting strap with adjustable sensor holder for sensors with lateral cable outlet - Wall mounting (example)

You can find further information on the mounting accessory on our homepage.

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*".