

VEGAPULS 42

Three-wire with IO-Link

Radar sensor for continuous level measurement



Application area

The VEGAPULS 42 is the ideal radar sensor for non-contact level measurement in factory automation. Designed for food and pharmaceutical applications.

The optional universal connection for hygienic adapters reduces the installation effort and stockkeeping. The device has an optional display with on-site operation and a coloured 360° status indication.

The sensor is suitable both for measuring liquids as well as bulk solids.

Your benefit

- Simple integration into control systems by means of IO-Link
- Simple setup via Bluetooth adjustment
- Clearly visible coloured 360° status indication, display and on-site adjustment optional
- Optional universal connection for hygienic adapter

Function

The device emits a continuous radar signal through its antenna which is modulated in its frequency. The emitted signal is reflected by the medium and received by the antenna as an echo.

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	15 m (49.21 ft)
Deviation	≤ 2 mm
Output signal	IO-Link, PNP/NPN, 4 ... 20 mA (active)
Process fitting	Thread G $\frac{3}{4}$, $\frac{3}{4}$ NPT Thread G1, 1 NPT Thread G1 for hygienic adapter
Process pressure	-1 ... 16 bar (-14.5 ... 232.06 psig)
Process temperature	-40 ... +130 °C (-40 ... +266 °F)
Ambient temperature	-40 ... +70 °C (-40 ... +158 °F)
Bluetooth standard	Bluetooth 5.0
Bluetooth range	typically 25 m (82 ft)
Operating voltage	12 ... 35 V DC
Protection rating	IP66/IP67/IP69 acc. to EN/IEC 60529, Type 6P acc. to NEMA/UL 50E

Materials

The wetted parts of the instrument are made of PTFE and stainless steel 316L. The process seal is made of FKM or 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 housing is made of stainless steel 316L or PBT/PC and is available in protection classes IP66/IP67 and up to IP69.

Approvals

Worldwide approvals are available for VEGA instruments, e.g. for use in hygienic applications.

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

Adjustment

IO-Link

Operation is via an IO-Link master. The IODD (IO Device Description) is required for operation and can be found using IODDfinder.

Wireless adjustment via Bluetooth

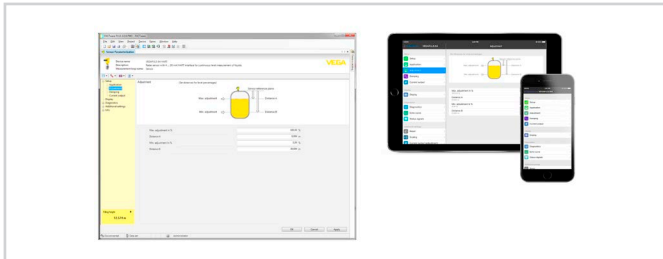
Requirement: The sensor has an integrated Bluetooth module.

The sensor can be operated with a smartphone/tablet (iOS or Android operating system). The required VEGA Tools app can be downloaded and installed free of charge in the respective store.



Download VEGA Tools app

The sensor can be adjusted with a PC/notebook (Windows operating system). The necessary adjustment software PACTware (with corresponding DTM) can be downloaded and installed free of charge on the VEGA website.



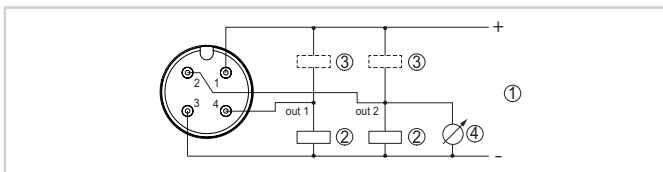
Adjustment via PACTware or app

Adjustment on site

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

Electrical connection

M12 x 1 plug

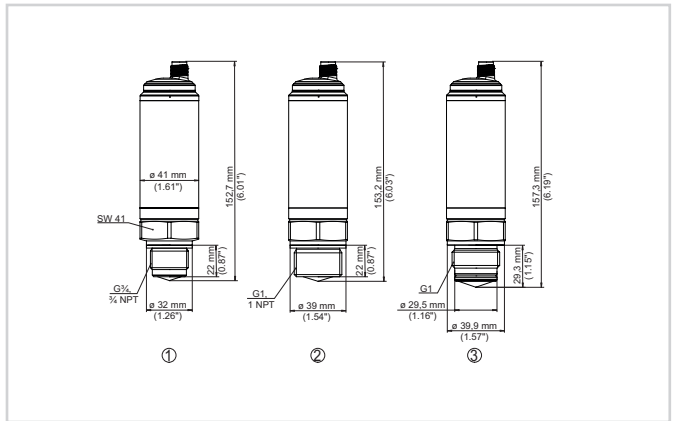


Wiring plan - Three-wire with IO-Link (2 x transistor or 4 ... 20 mA plus 1 x transistor)

- 1 Voltage supply
- 2 PNP switching
- 3 NPN switching
- 4 Current output

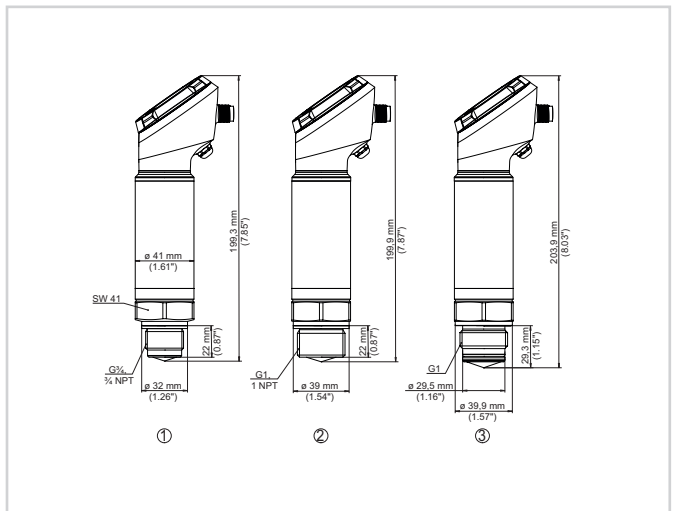
Details on the electrical connection can be found in the operating instructions of the device in the download area on our homepage.

Dimensions



Dimensions VEGAPULS 42 without display

- 1 Thread G $\frac{3}{4}$, $\frac{1}{4}$ NPT
- 2 Thread G1, 1 NPT
- 3 Hygienic version thread G1 with O-ring



Dimensions VEGAPULS 42 with display

- 1 Thread G $\frac{3}{4}$, $\frac{1}{4}$ NPT
- 2 Thread G1, 1 NPT
- 3 Hygienic version thread G1 with O-ring

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".