VEGAPULS 68
Foundation Fieldbus

Radar sensor for continuous level measurement of bulk solids

Area of application

The VEGAPULS 68 is a radar sensor for continuous measurement of bulk solids also under difficult process conditions and large measuring ranges. The sensor is ideal for level measurement in high silos, large bunkers, stone crushers and in the furnace. The VEGAPULS 68 with different antenna versions and materials is the optimum solution for virtually all applications and processes. Through the wide temperature and pressure range, the sensor can be used universally and enables a simple planning.

Advantages

- Non-contact measurement
- High plant availability, because wear and maintenance-free
- Reliable measurement independent of steam, dust and noise

Function

Extremely short microwave impulses are emitted by the antenna system in the direction of the measured product, reflected by the product surface and received back again by the antenna system. The time from emission to reception of the signals is proportional to the level in the vessel. A special time stretching procedure allows reliable and precise measurement of the extremely short signal running times.

Technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring range up to</td>
<td>75 m (246.1 ft)</td>
</tr>
<tr>
<td>Deviation</td>
<td>±2 mm</td>
</tr>
<tr>
<td>Process fitting</td>
<td>Thread from G1½: 1½ NPT; flanges from DN 50, 2”</td>
</tr>
<tr>
<td>Process pressure</td>
<td>-1 … +160 bar/-100 … +16000 kPa (-14.5 … +2320 psig)</td>
</tr>
<tr>
<td>Process temperature</td>
<td>-200 … +450 °C (-328 … +842 °F)</td>
</tr>
<tr>
<td>Ambient, storage and transport temperature</td>
<td>-40 … +80 °C (-40 … +176 °F)</td>
</tr>
<tr>
<td>Operating voltage</td>
<td>9 … 32 V DC</td>
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</tbody>
</table>

Materials

The wetted parts of the instrument are made of 316L, Hastelloy C22, Monell Alloy, stainless steel precision casting 1.4848 or PTFE, PP, PEEK. The process seal is made of FKM, FFKM or graphite.

You can find a complete overview of the available materials and seals in the "configurator" on our homepage under www.vega.com/configurator.

Housing versions

The housings are available as single chamber or double chamber version in plastic, stainless steel or aluminium.

They are available in protection ratings up to IP 68 (1 bar).

Electronics versions

The instruments are available in different electronics versions. Apart from 4 … 20 mA/HART in two and four-wire version, there are also digital versions with Profibus PA, Foundation Fieldbus and Modbus RTU/Level-master possible. Another version is available with integrated accumulator.

Approvals

The instruments are suitable for use in hazardous areas and are approved e.g. according to ATEX and IEC. The instruments have also different ship approvals such as e.g. GL, LRS or ABS.

You can find detailed information on the existing approvals in the "configurator" on our homepage under www.vega.com/configurator.
Operation

The adjustment of the instrument is carried out via the optional indicating and adjustment module PLICSCOM or via a PC with the adjustment software PACTware and respective DTM. Another adjustment possibility is a configuration tool for Foundation Fieldbus instruments.

Information

You can find further information about the VEGA product line on our homepage [www.vega.com](http://www.vega.com).
In the download section under [www.vega.com/downloads](http://www.vega.com/downloads) you'll find free operating instructions, product information, brochures, approval documents, instrument drawings and much, much more.
There, you will also find GSD and EDD files for Profinet PA systems as well as DD and CFF files for Foundation Fieldbus systems.

Instrument selection

With the "finder" you can select the most suitable measuring principle for your application: [www.vega.com/finder](http://www.vega.com/finder).
You can find detailed information on the instrument versions in the "configurator" on our homepage under [www.vega.com/configurator](http://www.vega.com/configurator).

Contact

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

Electrical connection

- **Electronics and connection compartment, single chamber housing**

  1. Voltage supply, signal output
  2. Contact pins for the indicating and adjustment module or interface adapter
  3. Simulation switch ("1" = mode for simulation release)
  4. For external indicating and adjustment unit
  5. Ground terminal for connection of the cable screen

You can find details on the electrical connection in the instrument operating instructions on our homepage at [www.vega.com/downloads](http://www.vega.com/downloads).

Dimensions

Dimensions VEGAPULS 68