VEGAPULS 68
Modbus and Levelmaster protocol

Radar sensor for continuous level measurement of bulk solids

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&quot;</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>8 ... 30 V DC</td>
</tr>
<tr>
<td>Output signal</td>
<td>Digitales Ausgangssignal nach Standard EIA-485</td>
</tr>
<tr>
<td>Protocols</td>
<td>Modbus RTU, Modbus ASCII, Levelmaster</td>
</tr>
</tbody>
</table>

Application area

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.

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 double chamber version in plastic, stainless steel or Aluminium. They are available in protection class IP 66/IP 67.

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 protocols. Another HART version is available with integrated accumulator.

Approvals

The instruments are suitable for use in hazardous areas and are approved according to FM.

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 corresponding DTM. The connection of the PC is carried out via USB directly on the instrument or via an interface adapter USB/RS 485 on the signal cable.

Information

You can find further information about the VEGA product line on our homepage www.vega.com. In the download section under 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 Proibus 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/find.
You can find detailed information on the instrument versions in the "configurator" on our homepage under www.vega.com/configurator.

Contact

You can find the VEGA agency serving your area on our homepage www.vega.com.

Electrical connection

Connection compartment

1 Modbus connection
2 Slide switch for termination resistor 120 D
3 USB connection
4 Voltage supply

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

Dimensions

Dimensions VEGAPULS 68