**VEGAPULS 65**

4 … 20 mA/HART four-wire

Radar sensor for continuous level measurement of liquids

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**Area of application**

The VEGAPULS 65 is a radar sensor for continuous measurement of liquids under simple process conditions. It is particularly suitable for level measurement in vessels with small process fittings and under simple process conditions. The slim rod antenna enables the installation in small vessel openings.

**Advantages**

- Non-contact measurement
- High plant availability, because wear and maintenance-free
- Exact measuring results independent of process conditions

**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.

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**Technical data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring range up to</td>
<td>35 m (114.8 ft)</td>
</tr>
<tr>
<td>Deviation</td>
<td>±8 mm</td>
</tr>
<tr>
<td>Process fitting</td>
<td>Thread from G11½: 1½ NPT; flanges from DN 50, 2&quot;</td>
</tr>
<tr>
<td>Process pressure</td>
<td>-1 … +16 bar/-100 … +1600 kPa (-14.5 … +232 psig)</td>
</tr>
<tr>
<td>Process temperature</td>
<td>-40 … +150 °C (-40 … +302 °F)</td>
</tr>
<tr>
<td>Ambient, storage and transport</td>
<td>-40 … +70 °C (-40 … +158 °F)</td>
</tr>
<tr>
<td>Operating voltage</td>
<td></td>
</tr>
<tr>
<td>– Version for low voltage</td>
<td>9.6 … 48 V DC, 20 … 42 V AC, 50/60 Hz</td>
</tr>
<tr>
<td>– Version for mains voltage</td>
<td>90 … 253 V AC, 50/60 Hz</td>
</tr>
<tr>
<td>SIL rating</td>
<td>up to SIL2</td>
</tr>
</tbody>
</table>

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**Materials**

The wetted parts of the instrument are made of PVDF, 316L or PTFE. The process seal is made of FKM.

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

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**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.

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**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 Profinbus PA, Foundation Fieldbus and Modbus RTU/Level-master possible. Another version is available with integrated accumulator.

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**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](http://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. Further adjustment options are available via HART communicator as well as manufacturer-specific programs such as AMS™ or PDM.

**Dimensions**

Dimensions VEGAPULS 65

1. Threaded version G 1 1/2 A
2. Flange version DN 80

**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 Proﬁbus 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).

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**Electrical connection**

Connection compartment, double chamber housing

1. Voltage supply
2. 4 … 20 mA signal output active
3. 4 … 20 mA signal output passive

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