VEGASON 61
4 … 20 mA/HART four-wire

Ultrasonic sensor for continuous level measurement

Application area
The VEGASON 61 is an ultrasonic sensor for continuous level measurement of liquids or bulk solids. Typical applications are the measurement of liquids in storage vessels or open basins. The sensor is also suitable for the detection of bulk solids in small vessels or open containers. The non-contact measuring principle is independent of product properties and enables a setup without medium.

Advantages
- Non-contact measurement
- Reliable measurement, independent of product properties
- Price-favourable solution for simple applications

Function
Short ultrasonic pulses are emitted by the transducer in the direction of the measured product, reflected by its surface and received back by the transducer. The elapsed time from emission to reception of the signals is proportional to the level in the vessel.

Technical data

<table>
<thead>
<tr>
<th>Measuring range</th>
<th>5 m (16.4 ft)</th>
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</thead>
<tbody>
<tr>
<td>In liquids up to</td>
<td>2 m (6.562 ft)</td>
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<tr>
<td>In bulk solids up to</td>
<td>±4 mm or &lt; 0.2 %</td>
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<tr>
<td>Deviation</td>
<td></td>
</tr>
<tr>
<td>Process fitting</td>
<td>Thread G1¼ A, 1¼ NPT</td>
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<tr>
<td>Process pressure</td>
<td>-0.2 … +2 bar/-20 … +200 kPa</td>
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<tr>
<td></td>
<td>(-2.9 … +29 psig)</td>
</tr>
<tr>
<td>Process temperature</td>
<td>-40 … +80 °C (-40 … +176 °F)</td>
</tr>
<tr>
<td>Ambient, storage and</td>
<td>-40 … +70 °C (-40 … +158 °F)</td>
</tr>
<tr>
<td>transport temperature</td>
<td></td>
</tr>
<tr>
<td>Operating voltage</td>
<td>20 … 72 V DC, 20 … 253 V AC, 50/60 Hz</td>
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</table>

Materials
The wetted parts of the instrument are made of PVDF. The process seal is made of EPDM. You will 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 the two-wire electronics with 4 … 20 mA/HART, a four-wire version and two purely digital versions with Profinbus PA and Foundation Fieldbus are available.

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. Further adjustment options are available via HART communicator as well as manufacturer-specific programs such as AMS™ or PDM.

**Dimensions**

Dimensions VEGASON 61

**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 Profield 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.

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.

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**Electrical connection**

Connection compartment double chamber housing

1. Spring-loaded terminals for signal output
2. Ground terminal for connection of the ground conductor and screen
3. Spring-loaded terminals for voltage supply

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