VEGAFLEX 86
4 … 20 mA/HART - four-wire
TDR sensor for continuous level and interface measurement of liquids

Application area
With VEGAFLEX 86 you can measure virtually all kinds of liquids under extreme pressure and temperature conditions essentially maintenance free. The sensor delivers precise and reliable measured values even in applications with buildup, foam generation or condensation. In saturated steam applications, the special reference probe ensures a density-independent measurement. VEGAFLEX 86 is a truly cost-effective level and interface sensor for your measuring task.

Your benefit
• The guided adjustment enables a simple, time-saving and reliable setup
• Comprehensive diagnosis options allow maintenance-free operation and thus high plant availability
• Shortenable probes allow simple standardization and maximum flexibility in planning

Function
High frequency microwave pulses are coupled onto a cable or rod and guided along the probe. The pulse is reflected by the product surface. The time from emission to reception of the signals is proportional to the level in the vessel.

Technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
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<tbody>
<tr>
<td>Measuring range</td>
<td>- Cable probe: up to 75 m (246.1 ft)</td>
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<tr>
<td></td>
<td>- Rod probe: up to 6 m (19.69 ft)</td>
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<tr>
<td>Measuring accuracy</td>
<td>± 2 mm</td>
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<tr>
<td>Process fitting</td>
<td>Thread from G1½, 1½ NPT, flanges from DN 50, 2&quot;</td>
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<tr>
<td>Process pressure</td>
<td>-1 … +400 bar/-100 … +40000 kPa (-14.5 … +5800 psig)</td>
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<tr>
<td>Process temperature</td>
<td>-196 … +450 °C (-320 … +842 °F)</td>
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<tr>
<td>Ambient, storage and transport temperature</td>
<td>-40 … +70 °C (-40 … +158 °F)</td>
</tr>
<tr>
<td>Operating voltage</td>
<td>- Version for low voltage: 9.6 … 48 V DC, 20 … 42 V AC, 50/60 Hz</td>
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<td></td>
<td>- Version for mains voltage: 90 … 253 V AC, 50/60 Hz</td>
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Materials
The wetted parts of the instrument are made of stainless steel. The instrument seal is either made from FFKM or graphite. 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 Profibus 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 also have various ship approvals such as e.g. GL, LRS or ABS. You can find detailed information on www.vega.com/downloads and "Approvals".
**Adjustment**

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

**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 of the electrical connection in the operating instruction of the instrument on www.vega.com/downloads.

**Dimensions**

![Dimensions Diagram]

VEGAFLEX 86 - threaded version

1. Version -196 ... +280 °C - rod
2. Version -196 ... +280 °C - cable
3. Version -196 ... +450 °C - rod
4. Version -196 ... +450 °C - cable

**Information**

You can find further information about the VEGA product line on www.vega.com.

In the download section under www.vega.com/downloads you'll find 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" on www.vega.com/finder and "VEGA Tools" you can select the most suitable measuring principle for your application. You can find detailed information on the instrument versions in the "Configurator" on www.vega.com/configurator and "VEGA Tools".

**Contact**

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