VEGACAP 65
Transistor (NPN/PNP)

Capacitive cable electrode for level detection

Area of application
The VEGACAP 65 is a point level sensor for use in all areas of industry. The partly insulated probe is ideal for the measurement of bulk solids and can also be used in non-conductive liquids such as e.g. oil. The proven construction ensures high functional safety.

Advantages
• Long lifetime and low maintenance requirement through robust mechanical construction
• High flexibility through shortenable probe
• Maximum use of the vessel, because measurement over the complete probe length

Function
Sensor and vessel form the two electrodes of a capacitor. A capacitance change caused by a level change is evaluated by the integrated electronics and converted into a switching signal. The capacitive measuring principle has no special requirements in respect to installation and mounting.

Technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor length</td>
<td>up to 32 m (105 ft)</td>
</tr>
<tr>
<td>Process fitting</td>
<td>Thread from G1, 1 NPT, flanges from DN 50, 2&quot;</td>
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<tr>
<td>Process pressure</td>
<td>-1 … +6 bar/-100 … +6400 kPa</td>
</tr>
<tr>
<td></td>
<td>(-14.5 … +928 psig)</td>
</tr>
<tr>
<td>Process temperature</td>
<td>-50 … +200 °C (-58 … +392 °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>10 … 55 V DC</td>
</tr>
<tr>
<td>Power consumption max</td>
<td>max. 0.5 W</td>
</tr>
<tr>
<td>Load current</td>
<td>&lt; 400 mA</td>
</tr>
<tr>
<td>Voltage loss</td>
<td>&lt; 1 V</td>
</tr>
<tr>
<td>Turn-on voltage</td>
<td>&lt; 55 V DC</td>
</tr>
<tr>
<td>Blocking current</td>
<td>&lt; 10 µA</td>
</tr>
<tr>
<td>Switching delay</td>
<td>0.7 s (on/off)</td>
</tr>
</tbody>
</table>

Materials
The wetted parts of the instrument are made of stainless steel. The probe insulation is made of PTFE. 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 in plastic, stainless steel or Aluminium. They are available with protection ratings up to IP 67.

Electronics versions
The instruments are available in different electronics versions. Apart from the versions with transistor output, contactless electronic switch and relay output, a two-wire version for connection to a signal conditioning instrument is 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 mode and switching point of the level switch can be adjusted on the electronics module. A signal lamp shows the switching status of the instrument.

Oscillator - Transistor output
1 Potentiometer for switching point adaptation
2 DIL switch for measuring range selection (with compensation button)
3 DIL switch for mode adjustment
4 Ground terminal
5 Connection terminals
6 Control lamp

Electrical connection

Wiring plan
1 Voltage supply

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

Dimensions

1 Threaded version
2 Flange version
3 Threaded version with temperature adapter

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.

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.