VEGASWING 66

Transistor (NPN/PNP)

Vibrating level switch for liquids under extreme process temperatures and pressures

Technical data

Process pressure	-1 … +160 bar/-100 … +16000 kPa (-14.5 … +2320 psig)
Process temperature	-196 … +450 °C (-321 … +842 °F)
Viscosity - dynamic	0.1 … 1000 mPa s
Density	0.7 … 2.5 g/cm^3 (0.025 … 0.09 lbs/in^3); 0.47 … 2.5 g/cm^3 (0.0163 … 0.09 lbs/in^3) by switching over
Ambient temperature	-40 … +70 °C (-40 … +158 °F)
Hysteresis	approx. 2 mm (0.08 in) with vertical installation
Process fitting	Thread from G1, 1 NPT, flanges from DN 50, 1½"
Operating voltage	10 … 55 V DC
Power consumption	max. 0.5 W
Load current	< 400 mA
Voltage loss	< 2 V
Switching voltage	< 55 V DC
Blocking current	< 10 µA
SIL qualification	Optionally up to SIL2 (with homogeneous redundancy up to SIL3)

Application area

The VEGASWING 66 is used as a universal vibrating level switch for all liquids. In compact version or with tube extension, it detects reliably with millimetre accuracy the limit level. The instrument can be used as empty or full detector in vessels and steam generators. The VEGASWING 66 offers maximum reliability and safety in a wide process temperature and process pressure range.

Your benefit

- Minimum time and cost expenditure due to simple setup without medium
- Precise and reliable function due to product-independent switching point
- Low maintenance costs

Function

The heart of the sensor is the inductive drive by which the tuning fork is energized to vibrate at its resonance frequency. When covered with medium, the frequency of the fork decreases. This frequency change is processed by the integrated electronics and converted into a switching command. With the tuning fork with only 40 mm length, the VEGASWING work reliably independent of the installation position in any liquid. Pressure, temperature, foam, viscosity and the composition of the liquid do not influence the switching accuracy.

Materials

The wetted parts of the instrument are made of stainless steel 316L and Inconel 718.

A complete overview of the available materials can be found on our homepage.

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 and relay output, a two-wire version for connection to a controller is available.
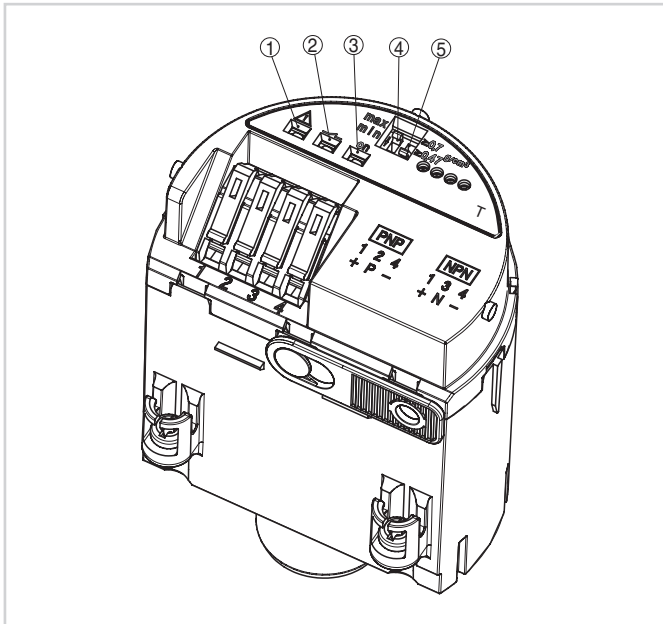
Approvals

The instruments are suitable for use in hazardous areas and are approved, e.g. according to ATEX, FM, CSA and IEC. The instruments also have different ship approvals such as e.g. GL, LRS or ABS and are approved as overfill protection according to WHG.

You can find detailed information on the existing approvals with the appropriate product on our homepage.
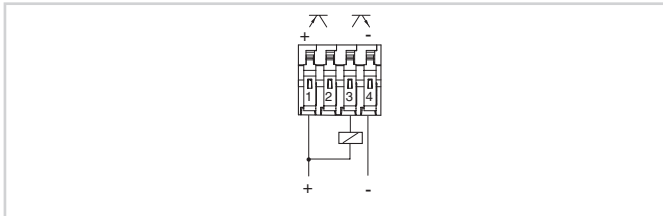
Adjustment

The mode and sensitivity of the level switch can be adjusted on the electronics module. Several signal lamps show the status of the instrument.
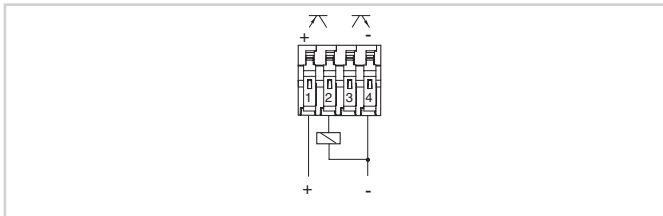

Oscillator - Transistor output

1 *Signal lamp - red (LED)*
2 *Signal lamp - yellow (LED)*
3 *Signal lamp - green (LED)*
4 *DIL switch for mode adjustment*
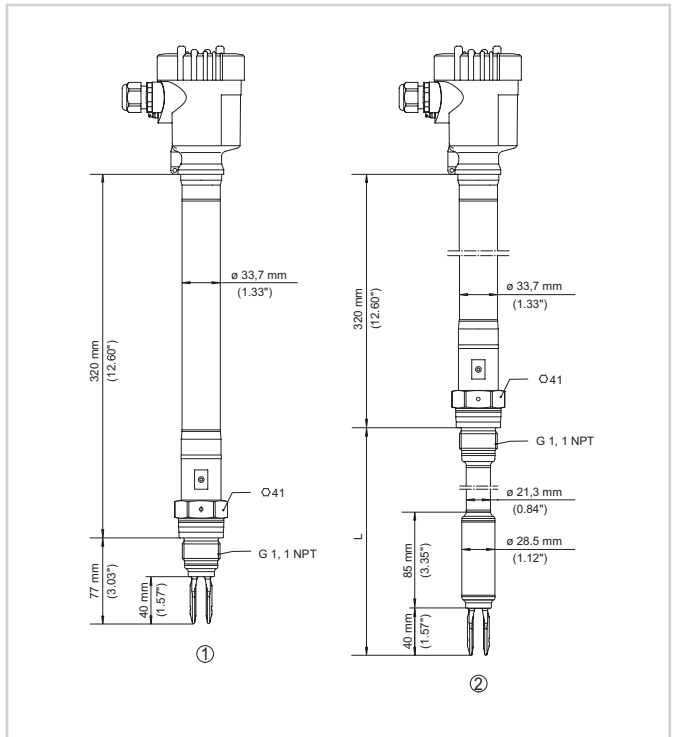5 *DIL switch for sensitivity adjustment*

Electrical connection

NPN action

PNP action

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

Dimensions

VEGASWING 66

1 *Compact version*
2 *Tube version*
L *Sensor length*

Information

You can find further information on the VEGA product line on our homepage.

In the download section on our homepage you'll find free operating instructions, product information, brochures, approval documents, instrument drawings and much, much more.

Instrument selection

On our homepage under "*Products*" you can select the suitable measuring principle and instrument for your application.

You can find detailed information on the instrument versions at www.vega.com and "*Products*".

Contact

You can find your personal contact person at VEGA on our homepage www.vega.com and "*Contact*".