Specification sheet

VEGASWING 51

IO-Link

Vibrating level switch for liquids



Application area

The VEGASWING 51 is used as a universal level switch in liquids with small dimensions. Independent of the mounting position, it detects reliably with millimetre accuracy the limit level. The instrument can be used as empty or full detector, as approved overfill protection, dry run protection or pump protection in vessels and pipelines. The VEGASWING 51 is an economical solution with maximum reliability and safety.

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 vibration 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 38 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.

Technical data

Process pressure	-1 … +64 bar/-100 … +6400 kPa (-14.5 … +928 psig)
Process temperature - Standard	-40 … +100 °C (-40 … +212 °F)
Process temperature - High temperature version	-40 … +150 °C (-40 … +302 °F)
Viscosity - dynamic	0.1 … 10000 mPa s
Density	0.7 … 2.5 g/cm³ (0.025 … 0.09 lbs/in³)
Density - can be ordered optionally	0.5 … 2.5 g/cm³ (0.018 … 0.09 lbs/in³)
Ambient temperature on the housing	-40 … +70 °C (-40 … +158 °F)
Storage and transport temperature	-40 … +80 °C (-40 … +176 °F)
Hysteresis	approx. 2 mm (0.08 in) with vertical installation
Process fitting	Thread from G½, ½ NPT, hygienic fittings
Operating voltage	9.6 … 35 V DC
Power consumption	max. 0.5 W
Switching delay	500 ms (on/off) 0.5 … 60 s (can be ordered optionally)

Materials

The wetted parts of the instrument are made of stainless steel 316L. The supplied process seal is made of Klingersil C-4400.

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

Housing versions

The instruments are available in different temperature versions and as hygienic version.

The housing is made of 316L and plastic PEI.

The different versions are available up to protection IP 67.

Electronics versions

The instruments are available in three different electronics versions. Apart from the electronics with transistor output (PNP) and the IO-Link output a version with contactless electronic switch is also available.

Approvals

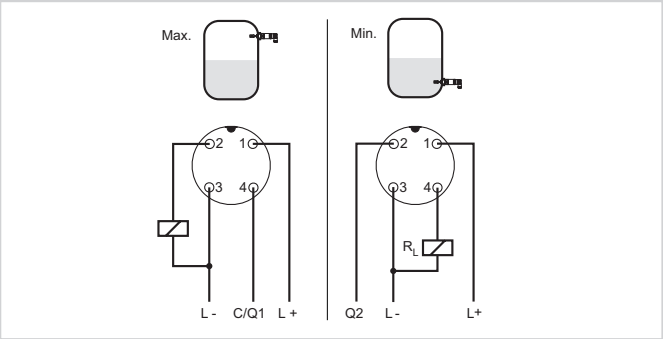
The instrument is approved as overfill protection according to WHG and has also different ship approvals such as e.g. GL, LRS or ABS.

Detailed information about the available approvals can be found on our homepage with the respective product.

Adjustment

No adjustments on the instrument are necessary. The switching function is determined by the electrical connection.

Electrical connection

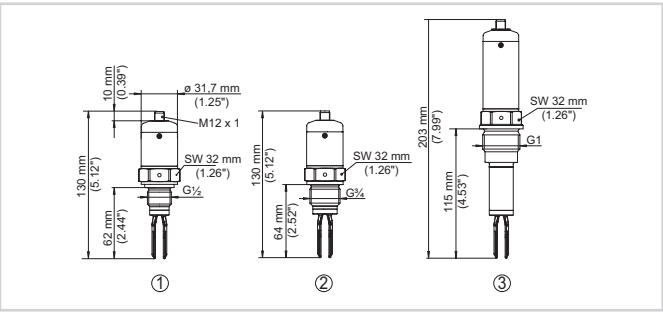


Wiring plan (housing), terminal assignment IO-link output with M12 x 1 plug connection

1 *L+ Voltage supply (brown)*
2 *Max. level detection (white)*
3 *L- Voltage supply (blue)*
4 *Min. level detection/IO-Link communication (black)*
R_L *Load resistance (contactor, relay, etc.)*

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

Dimensions



1 *Threaded version G½ up to 100 °C*
2 *Threaded version G¾ up to 100 °C*
3 *Threaded version G1 up to 150 °C*

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*".