

# VEGASWING 51

Transistor (PNP)

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<br>(-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/cm <sup>3</sup> (0.025 ... 0.09 lbs/in <sup>3</sup> ) |
| Density - can be ordered optionally            | 0.5 ... 2.5 g/cm <sup>3</sup> (0.018 ... 0.09 lbs/in <sup>3</sup> ) |
| 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 mounting                       |
| Process fitting                                | Thread from G½, ½ NPT, hygienic fittings                            |
| Operating voltage                              | 9.6 ... 35 V DC                                                     |
| Power consumption                              | max. 0.5 W                                                          |
| Load current                                   | < 250 mA                                                            |
| Voltage loss                                   | < 3 V                                                               |
| Switching voltage                              | < 34 V DC                                                           |
| Blocking current                               | < 10 µA                                                             |
| Switching delay                                | 500 ms (on/off)<br>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 Klingsil 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 IP67.

## 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

Worldwide approvals are available for VEGA instruments, e.g. for use in hazardous areas, on ships or in hygienic applications.

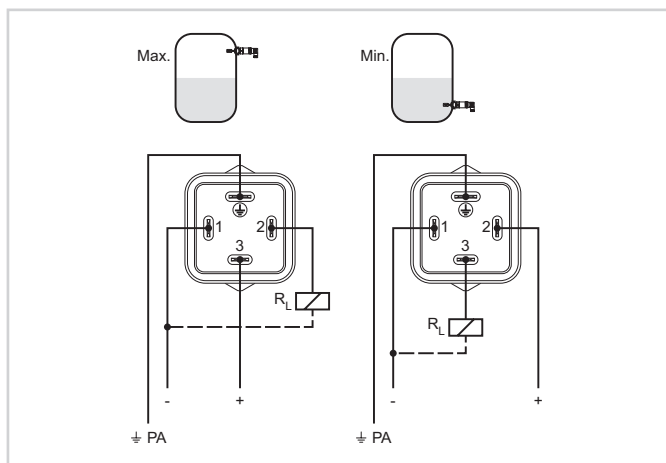
For approved devices (e.g. with Ex approval) the technical data in the respective safety instructions are applicable.

You can find detailed information in the available approvals on our homepage under "Downloads".

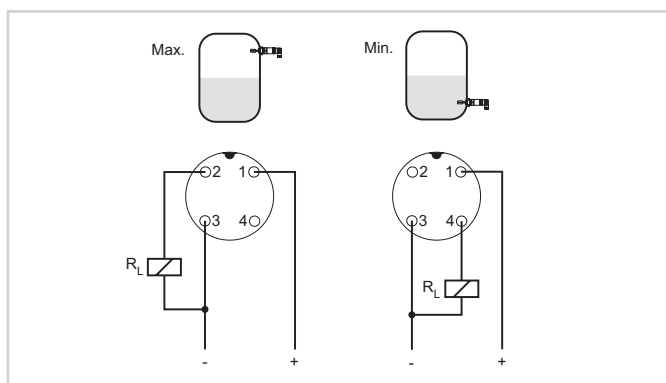
### Adjustment

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

### Electrical connection



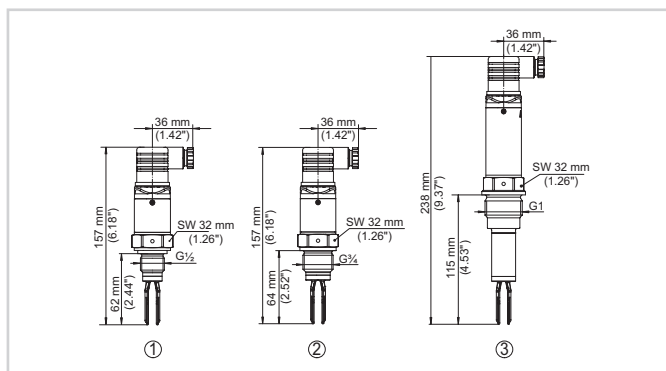
VEGASWING 51 with valve block according to ISO 4400



VEGASWING 51 with M12 x 1 plug connection

You can find details on electrical connection in the instrument operating instructions on our homepage at [www.vega.com/downloads](http://www.vega.com/downloads).

### Dimensions



- 1 Threaded version  $G\frac{1}{2}$  up to 100 °C
- 2 Threaded version  $G\frac{3}{4}$  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 of our homepage you'll find operating instructions, product information, industry brochures and approval documents as well as device and adjustment software.

### Instrument selection

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

There you will also find detailed information on the available device versions.

### Contact

You can find your personal contact person at VEGA on our homepage under "*Contact*".