

# Vibration

## Level detection



5

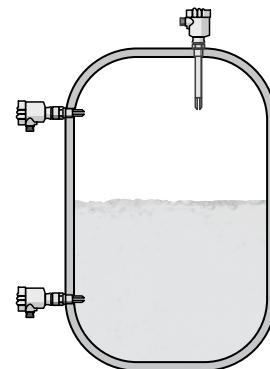
<b>Overview</b>	<b>Page 116</b>
<b>VEGASWING 51</b>	<b>Page 120</b>
<b>VEGASWING series 60</b>	<b>Page 122</b>
<b>VEGAVIB series 60</b>	<b>Page 128</b>
<b>VEGAWAVE series 60</b>	<b>Page 134</b>
<b>Accessory</b>	<b>Page 140</b>
<b>Level switches VEGATOR</b>	<b>Page 144</b>

## VEGASWING

For manifold applications in liquids

### Measuring principle and applications

The tuning fork of VEGASWING is activated to vibrate on its resonance frequency. The frequency of the fork reduces with the immersion. The frequency change is evaluated by the integrated electronics and converted into a switching signal. With the tuning fork of only 40 mm length, VEGASWINGs work reliably in all liquids independent of the installation position. Pressure, temperature, foam, viscosity and composition of the liquid do not influence the switching accuracy. The price-favourable setup is hence restricted to a simple electrical connection. The high degree of an integrated self-monitoring ensures always a safe and reliable function. Typical applications are overfill and dry run protection systems in liquids, but also in safety-relevant applications up to SIL2 and test with pressing the key.

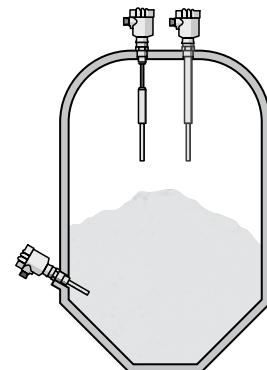


## VEGAVIB

Reliable switching in granulated bulk solids

### Measuring principle and applications

The vibrating rod of VEGAVIB is activated to vibrate via the piezo drive. If the vibrating rod is immersed, the amplitude will be damped. The electronics detects this damping and converts it into a switching command. The ideal rod design ensures a reliable function in granulated bulk solids. The vibrating element of VEGAVIB is always free and operates reliably. Due to the simple cleanability, it fulfills all requirements for use in the food processing and pharmaceutical industry. The installation position and granulation size do not influence the reliability. Mounting and setup are very easy, an adjustment with medium is not necessary. The VEGAVIB is used as overfill protection and empty alarm in silos and bunkers, also in safety-relevant applications up to SIL2. Typical applications are bulk solids such as plastic granules, pellets and non-adhesive powder products.

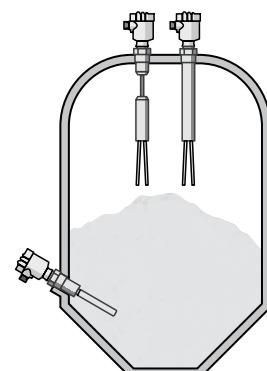


## VEGAWAVE

Robust and reliable for powdery bulk solids

### Measuring principle and applications

A tuning fork is used as sensor element for the VEGAWAVE series. The principle of amplitude processing corresponds to that of VEGAVIB series. The advantages of this series are ruggedness as well as insensitivity to buildup. Therefore, it is the ideal sensor for powders and fine-grained products. Mounting and setup are very easy, an adjustment with medium is not necessary. The VEGAWAVE is used as overfill protection and empty alarm in silos and bunkers, also in safety-relevant applications up to SIL2. Typical applications are products such as flour, cement and sand as well as fine-grained bulk solids such as plastic granules, grit and styrofoam.



## Overview

Instrument type	Material	Process fitting	Process temperature	Process pressure
<b>VEGASWING 51</b> Liquids Standard	316L	Thread from G $\frac{1}{2}$ , $\frac{1}{2}$ NPT, hygienic fittings	-40 ... +150 °C	-1 ... +64 bar (-100 ... +6400 kPa)
<b>VEGASWING 61</b> Liquids Standard	316L, Alloy, ECTFE, PFA, enamel, Alloy 400, Duplex	Thread from G $\frac{3}{4}$ , $\frac{3}{4}$ NPT, flanges from DN 25, 1", hygienic fittings	-50 ... +250 °C	-1 ... +64 bar (-100 ... +6400 kPa)
<b>VEGASWING 63</b> Liquids Tube extension up to 6 m	316L, Alloy, ECTFE, PFA, enamel, Alloy 400, Duplex	Thread from G $\frac{3}{4}$ , $\frac{3}{4}$ NPT, flanges from DN 25, 1", hygienic fittings	-50 ... +250 °C	-1 ... +64 bar (-100 ... +6400 kPa)
<b>VEGASWING 66</b> Liquids under extreme high and low process tempera- tures Tube extension up to 3 m	316L, Inconel 718, Alloy	Thread from G1, 1 NPT, flanges from DN 50, 2"	-196 ... +450 °C	-1 ... +160 bar (-100 ... +16000 kPa)

## Overview

Instrument type		Measuring range	Process fitting	Process temperature	Process pressure
<b>VEGAVIB 61</b> Standard		Bulk solids from 20 g/l	Thread from G1, 1 NPT, flanges from DN 32, 1½", hygienic fittings	-50 ... +250 °C	-1 ... +16 bar (-100 ... +1600 kPa)
<b>VEGAVIB 62</b> Suspension cable up to 80 m		Bulk solids from 20 g/l	Thread from G1, 1 NPT, flanges from DN 32, 1½", hygienic fittings	-40 ... +150 °C	-1 ... +6 bar (-100 ... +600 kPa)
<b>VEGAVIB 63</b> Tube extension up to 6 m		Bulk solids from 20 g/l	Thread from G1, 1 NPT, flanges from DN 32, 1½", hygienic fittings	-50 ... +250 °C	-1 ... +16 bar (-100 ... +1600 kPa)
<b>VEGAWAVE 61</b> Standard		Bulk solids from 8 g/l	Thread G1½, 1½ NPT, flanges from DN 50, 2", hygienic fittings	-50 ... +250 °C	-1 ... +25 bar (-100 ... +2500 kPa)
<b>VEGAWAVE 62</b> Suspension cable up to 80 m		Bulk solids from 8 g/l	Thread G1½, 1½ NPT, flanges from DN 50, 2", hygienic fittings	-40 ... +150 °C	-1 ... +6 bar (-100 ... +600 kPa)
<b>VEGAWAVE 63</b> Tube extension up to 6 m		Bulk solids from 8 g/l	Thread G1½, 1½ NPT, flanges from DN 50, 2", hygienic fittings	-50 ... +250 °C	-1 ... +25 bar (-100 ... +2500 kPa)

## Overview

Instrument type	Input	Hysteresis	Output	Operating voltage
<b>VEGATOR 111</b> Single channel signal conditioning instrument acc. to NAMUR	 1 x sensor input NAMUR (IEC 60947-5-6)	fix	1 x relay output (SPDT) Optionally 1 fail safe relay output (SPDT)	20 ... 253 V AC/DC, 50/60 Hz
<b>VEGATOR 112</b> Double channel signal conditioning instrument acc. to NAMUR	 2 x sensor input NAMUR (IEC 60947-5-6)	fix	2 x relay output (SPDT)	20 ... 253 V AC/DC, 50/60 Hz
<b>VEGATOR 121</b> Single channel signal conditioning instrument for level detection	 1 x sensor input two-wire 8/16 mA	fix	1 x relay output (SPDT) Optionally 1 fail safe relay output (SPDT)	20 ... 253 V AC/DC, 50/60 Hz
<b>VEGATOR 122</b> Double channel signal conditioning instrument for level detection	 2 x sensor input two-wire 8/16 mA	fix	2 x relay output (SPDT)	20 ... 253 V AC/DC, 50/60 Hz

**VEGASWING 51****Vibrating level switch for liquids****Application area**

The VEGASWING 51 is a universal level switch with small dimensions for use in liquids. 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 thanks to simple setup without medium
- Precise and reliable function due to product-independent switching point
- Low maintenance costs

**Technical data**

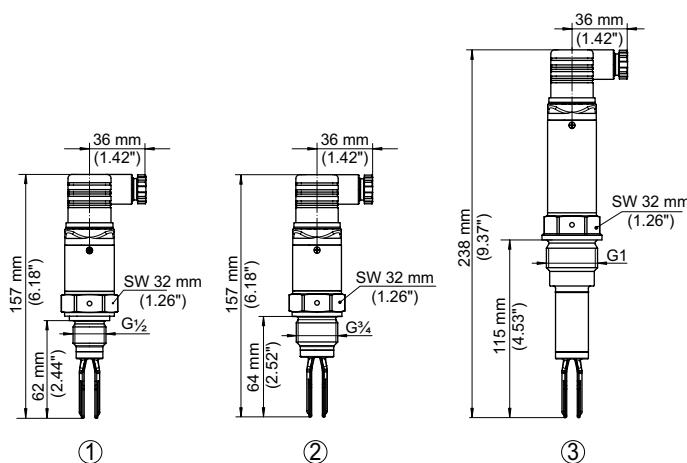
Material: 316L

Process fitting: thread from G $\frac{1}{2}$ ,  $\frac{1}{2}$  NPT

hygienic fittings

Process temperature: -40 ... +150 °C

Process pressure: -1 ... +64 bar (-100 ... +6400 kPa)



- 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 with extended switching point

You will find further process fittings and options under [www.vega.com/configurator](http://www.vega.com/configurator).

You will find further drawings and tables under [www.vega.com/downloads](http://www.vega.com/downloads).

You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

**Approval**

- XX** without .....  
**XM** Ship approval .....  
**XA** Overfill protection according to WHG .....

**Version / Process temperature**

- S** Standard / -40...+100°C .....  
**T** Extended / -40...+150°C .....  
**H** Hygienic applications / -40...+150°C .....

**Process fitting / Material**

- GH** Thread G½ PN64, DIN3852-A / 316L .....  
**NH** Thread ½NPT PN64, ASME B1.20.1 / 316L .....  
**GB** Thread G¾ PN64, DIN3852-A / 316L .....  
**GP** Thread G¾ PN64, DIN3852-A / 316L (Ra<0.8µm) .....  
**NB** Thread ¾NPT PN64, ASME B1.20.1 / 316L .....  
**GA** Thread G1 PN64, DIN3852-A / 316L .....  
**GL** Thread G1 PN64, DIN3852-A / 316L (Ra<0.8µm) .....  
**NA** Thread 1NPT PN64, ASME B1.20.1 / 316L .....  
**RF** Thread R1 PN64, EN10226-1 / 316L (Ra<0.8µm) .....  
**CL** Clamp 1" PN16 (ø50.5mm), DIN32676, ISO2852 / 316L (Ra<0.8µm) .....  
**CN** Clamp 2" PN16 (ø64mm), DIN32676, ISO2852 / 316L (Ra<0.8µm) .....  
**RL** Slotted nut DN25 PN40, DIN11851 / 316L (Ra<0.8µm) .....  
**RM** Slotted nut DN40 PN40, DIN11851 / 316L (Ra<0.8µm) .....  
**RN** Slotted nut DN50 PN25, DIN11851 / 316L (Ra<0.8µm) .....

**Electronics**

- C** Contactless electronic switch 20...253V AC/DC .....  
**T** Transistor PNP 9.6...35V DC .....

**Housing material**

- P** 316L .....

**Electrical connection / Protection**

- M** M12x1 / IP67' .....  
**V** according to ISO4400 incl. plug / IP65 .....  
**Q** acc. to ISO4400 incl. plug with QuickOn connection / IP67 .....  
**P** M12x1 incl. 5m cable / IP68 (0.2bar)<sup>1)</sup> .....

**Switching point**

Standard .....

**L** with extended switching point .....

**SG51.** 

<sup>1)</sup> Not in conjunction with Electronics "C"

## VEGASWING 61

**Vibrating level switch for liquids****Application area**

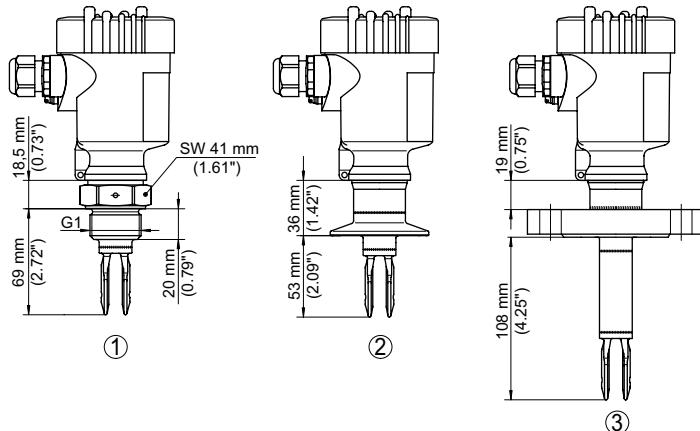
The VEGASWING 61 is a universal level switch for use in all liquids. Independent of the mounting position, it detects reliably with millimetre accuracy the limit level. The instrument can be used as empty or full detector, as approved overfill protection, dry run protection or pump protection in vessels and pipelines. The VEGASWING 61 offers maximum reliability in a wide application range.

**Your benefit**

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

**Technical data**

Materials:	316L, Alloy, ECTFE, PFA, enamel, Alloy 400, Duplex
Process fitting:	thread from G $\frac{3}{4}$ , $\frac{3}{4}$ NPT flanges from DN 25, 1" hygienic fittings
Process temperature:	-50 ... +250 °C
Process pressure:	-1 ... +64 bar (-100 ... +6400 kPa)
SIL qualification:	optionally up to SIL2



1 Threaded version G1

2 Clamp version

3 Flange version with extended switching point

You will find further process fittings and options under [www.vega.com/configurator](http://www.vega.com/configurator).

You will find further drawings and tables under [www.vega.com/downloads](http://www.vega.com/downloads).

You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

**Approval**

- XX** without .....
- XA** Overfill protection according to WHG .....
- CA** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + WHG .....
- DA** ATEX II 1/2G, Ex d IIC T2...T6 + WHG .....
- CM** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + Ship approval .....
- DM** ATEX II 1/2G, Ex d IIC T2...T6 + Ship approval .....
- CI** IECEx Ex ia IIC T6 .....
- DI** IEC Ex d IIC T6...T2 Ga/Gb .....
- GI** IEC Ex tD A20/21 IP66 T\*, A21 .....
- XM** Ship approval .....

**Process fitting / Material**

- GBV** Thread G $\frac{3}{4}$  PN64, DIN3852-A / 316L .....
- GB3** Thread G $\frac{3}{4}$  PN64, DIN3852-A / Duplex (1.4462) .....
- NBV** Thread  $\frac{3}{4}$ NPT PN64, ASME B1.20.1 / 316L .....
- GAV** Thread G1 PN64, DIN3852-A / 316L .....
- NAV** Thread 1NPT PN64, ASME B1.20.1 / 316L .....
- CCN** Clamp 1" PN16 ( $\varnothing$ 50.5mm) DIN32676, ISO2852 / 316L (Ra<0.3µm) .....
- CCP** Clamp 1" PN16 ( $\varnothing$ 50.5mm) DIN32676, ISO2852 / 316L (Ra<0.8µm) .....
- CAN** Clamp 2" PN16 ( $\varnothing$ 64mm) DIN32676, ISO2852 / 316L (Ra<0.3µm) .....
- CAP** Clamp 2" PN16 ( $\varnothing$ 64mm) DIN32676, ISO2852 / 316L (Ra<0.8µm) .....
- RAN** Slotted nut DN40 PN40, DIN11851 / 316L (Ra<0.3µm) .....
- RAP** Slotted nut DN40 PN40, DIN11851 / 316L (Ra<0.8µm) .....
- FPV** Flange DN25 PN40 Form C, DIN 2501 / 316L .....
- FPH** Flange DN25 PN40 Form C, DIN 2501 / ECTFE .....
- FEV** Flange DN50 PN40 Form C, DIN2501 / 316L .....
- FEH** Flange DN50 PN40 Form C, DIN2501 / ECTFE .....
- FEF** Flange DN50 PN40 Form C, DIN2501 / PFA .....
- FPS** Flange DN25 PN40 Form B1, EN1092-1 / Enamel .....
- FES** Flange DN50 PN40 Form B1, EN1092-1 / Enamel .....
- APV** Flange 1" 150lb RF, ASME B16.5 / 316L .....
- APH** Flange 1" 150lb RF, ASME B16.5 / ECTFE .....
- APE** Flange 1" 150lb RF, ASME B16.5 / Enamel .....
- ACV** Flange 2" 150lb RF, ASME B16.5 / 316L .....
- ACH** Flange 2" 150lb RF, ASME B16.5 / ECTFE .....
- ACE** Flange 2" 150lb RF, ASME B16.5 / Enamel .....

**Adapter / Process temperature**

- X** without / -50...+150°C .....
- T** with / -50...+250°C .....
- G** with gas-tight leadthrough / -50...+150°C .....
- D** with gas-tight leadthrough / -50...+250°C .....

**Housing / Protection / Cable gland**

- P** Plastic single chamber IP66/67 / M20x1.5 .....
- M** Aluminium single chamber IP66/IP67 / M20x1.5 .....
- U** Aluminium single chamber / IP66/IP67 /  $\frac{1}{2}$ NPT .....
- 8** Stainless steel single chamber (electropolished) / IP66/IP67 / M20x1.5 .....

**Electronics**

- C** Contactless electronic switch 20...250V AC/DC .....
- R** Relay (DPDT) 20...72V DC/20...250V AC (3A) .....
- T** Transistor (NPN/PNP) 10...55V DC .....
- Z** Two-wire (8/16mA) 12...36V DC .....
- N** NAMUR signal .....

**Switching point**

- X** Standard .....
- L** with extended switching point .....

SWING61.

**VEGASWING 63**

**Vibrating level switch with tube extension for liquids**


**Application area**

VEGASWING 63 is used as a universal level switch in all liquids. Independent of the mounting position it detects reliably with millimetre accuracy the level. The instrument can be used in vessels as empty or full detector, as approved overfill protection, dry run protection or pump protection. The position of the switching point is determined through the tube extension. The VEGASWING 63 offers high reliability and security in a wide application range.

**Your benefit**

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

**Technical data**

Version: tube extension up to 6 m

Materials: 316L, Alloy, ECTFE,

PFA, enamel, Alloy 400, Duplex

Process fitting: thread from G $\frac{3}{4}$ ,  $\frac{3}{4}$  NPT

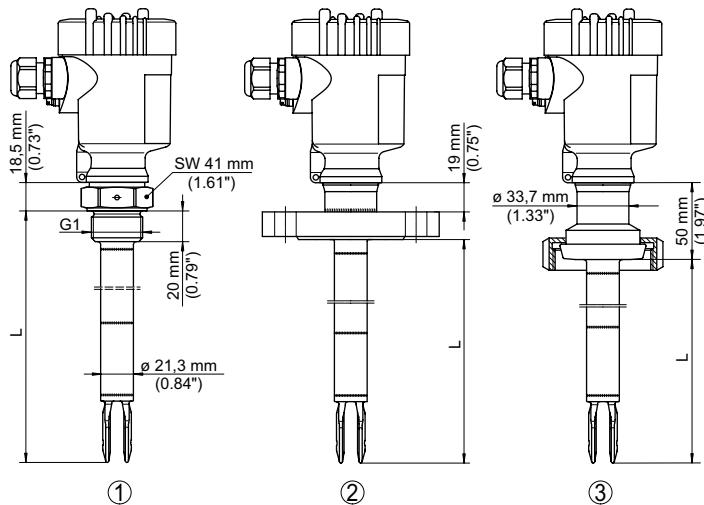
flanges from DN 25, 1"

hygienic fittings

Process temperature: -50 ... +250 °C

Process pressure: -1 ... +64 bar (-100 ... +6400 kPa)

SIL qualification: optionally up to SIL2



1 Threaded version G1

2 Flange version

3 Bolting DN 50 PN 25

You will find further process fittings and options under [www.vega.com/configurator](http://www.vega.com/configurator).

You will find further drawings and tables under [www.vega.com/downloads](http://www.vega.com/downloads).

You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

**Approval**

- XX** without .....  
**XA** Overfill protection according to WHG .....  
**CA** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + WHG .....  
**DA** ATEX II 1/2G, Ex d IIC T2...T6 + WHG .....  
**CM** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + Ship approval .....  
**DM** ATEX II 1/2G, Ex d IIC T2...T6 + Ship approval .....  
**CI** IECEx Ex ia IIC T6 .....  
**DI** IEC Ex d IIC T6...T2 Ga/Gb .....  
**GI** IEC Ex tD A20/21 IP66 T\*, A21 .....  
**XM** Ship approval .....

**Process fitting / Material**

- GBV** Thread G¾ PN64, DIN3852-A / 316L .....  
**GB3** Thread G¾ PN64, DIN3852-A / Duplex (1.4462) .....  
**NBV** Thread ¾NPT PN64, ASME B1.20.1 / 316L .....  
**GAV** Thread G1 PN64, DIN3852-A / 316L .....  
**NAV** Thread 1NPT PN64, ASME B1.20.1 / 316L .....  
**CCN** Clamp 1" PN16 (ø50.5mm) DIN32676, ISO2852 / 316L (Ra<0.3µm) .....  
**CCP** Clamp 1" PN16 (ø50.5mm) DIN32676, ISO2852 / 316L (Ra<0.8µm) .....  
**CAN** Clamp 2" PN16 (ø64mm) DIN32676, ISO2852 / 316L (Ra<0.3µm) .....  
**CAP** Clamp 2" PN16 (ø64mm) DIN32676, ISO2852 / 316L (Ra<0.8µm) .....  
**RAN** Slotted nut DN40 PN40, DIN11851 / 316L (Ra<0.3µm) .....  
**RAP** Slotted nut DN40 PN40, DIN11851 / 316L (Ra<0.8µm) .....  
**FPV** Flange DN25 PN40 Form C, DIN 2501 / 316L .....  
**FPH** Flange DN25 PN40 Form C, DIN 2501 / ECTFE .....  
**FEV** Flange DN50 PN40 Form C, DIN2501 / 316L .....  
**FEH** Flange DN50 PN40 Form C, DIN2501 / ECTFE .....  
**FEF** Flange DN50 PN40 Form C, DIN2501 / PFA .....  
**FPS** Flange DN25 PN40 Form B1, EN1092-1 / Enamel .....  
**FES** Flange DN50 PN40 Form B1, EN1092-1 / Enamel .....  
**APV** Flange 1" 150lb RF, ASME B16.5 / 316L .....  
**APH** Flange 1" 150lb RF, ASME B16.5 / ECTFE .....  
**APE** Flange 1" 150lb RF, ASME B16.5 / Enamel .....  
**ACV** Flange 2" 150lb RF, ASME B16.5 / 316L .....  
**ACH** Flange 2" 150lb RF, ASME B16.5 / ECTFE .....  
**ACE** Flange 2" 150lb RF, ASME B16.5 / Enamel .....

**Adapter / Process temperature**

- X** without / -50...+150°C .....  
**T** with / -50...+250°C .....  
**G** with gas-tight leadthrough / -50...+150°C .....  
**D** with gas-tight leadthrough / -50...+250°C .....

**Housing / Protection / Cable gland**

- P** Plastic single chamber IP66/67 / M20x1.5 .....  
**M** Aluminium single chamber IP66/IP67 / M20x1.5 .....  
**U** Aluminium single chamber / IP66/IP67 / ½NPT .....  
**8** Stainless steel single chamber (electropolished) / IP66/IP67 / M20x1.5 .....

**Electronics**

- C** Contactless electronic switch 20...250V AC/DC .....  
**R** Relay (DPDT) 20...72V DC/20...250V AC (3A) .....  
**T** Transistor (NPN/PNP) 10...55V DC .....  
**Z** Two-wire (8/16mA) 12...36V DC .....  
**N** NAMUR signal .....

SWING63.				
----------	--	--	--	--

**Length (from seal surface)**

- 316L (80-6000 mm ) per 100 mm  
 ECTFE coated (80-3000 mm) per 100 mm  
 PFA coated (80-3000 mm) per 100 mm  
 316L Ra <0.8µm (80-6000 mm) per 100 mm  
 316L Ra <0.3µm (80-6000 mm) per 100 mm  
 enamelled version (300, 400, 500, 600 mm) once

## VEGASWING 66



Vibrating level switch for liquids under extreme process temperatures and pressures

### Application area

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

### Your benefit

- Minimum time and cost expenditure thanks to simple setup without medium
- Precise and reliable function through product-independent switching point
- Low maintenance costs
- High reliability through monitored sensor element

### Technical data

Versions:

compact version or  
with tube extension up to 3 m

Materials:

316L, Inconel 718, Alloy

Process fitting:

thread from G1, 1 NPT

Process temperature:

flanges from DN 50, 2"

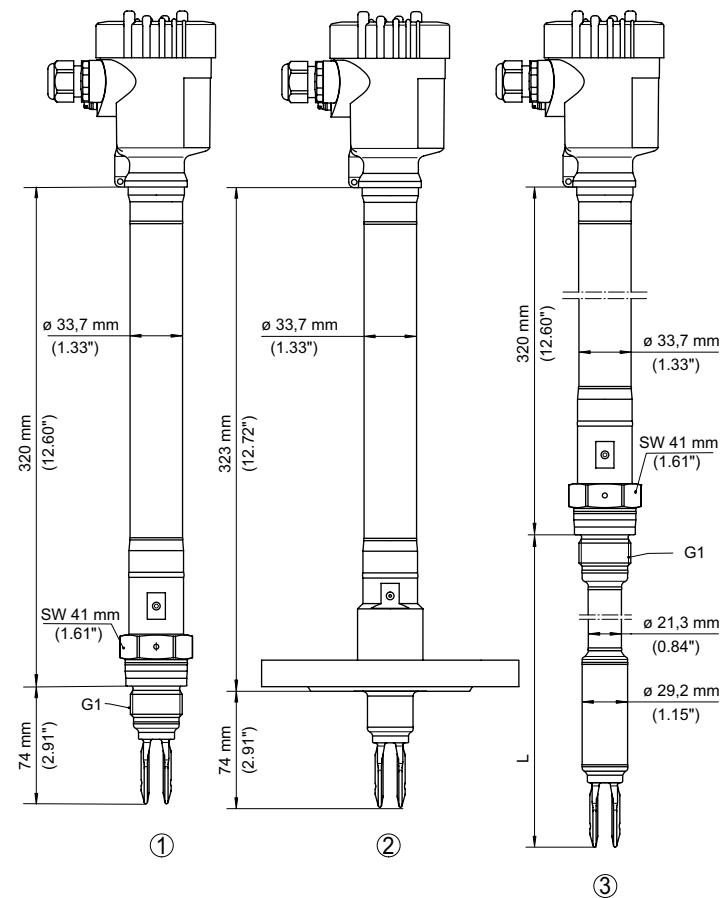
Process pressure:

-196 ... +450 °C

SIL qualification:

-1 ... +160 bar (-100 ... +16000 kPa)

optionally up to SIL2 (homogeneous redundancy up to SIL3)



- 1 Compact version
- 2 Flange version
- 3 Tube version
- L Sensor length

You will find further process fittings and options under [www.vega.com/configurator](http://www.vega.com/configurator).

You will find further drawings and tables under [www.vega.com/downloads](http://www.vega.com/downloads).

You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

**Scope**

**A Europe .....**

**I Worldwide .....**

**Approvals**

- X** without .....
- M** Ship approval (GL; LRS; ABS) .....
- C** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 .....
- E** ATEX II 1/2G, 2G Ex d IIC T6 .....
- C** IEC Ex ia IIC T6 .....
- O** IEC Ex ia IIC T6 + Ship approval .....
- E** IEC Ex d IIC T6 .....

**Version / Material**

- K** Compact version / Inconel 718 (2.4668) .....
- R** with tube extension / 316L and Inconel 718 (2.4668) .....
- H** with tube extension / Alloy C22 (2.4602) and Inconel 718 (2.4668) .....

**Process fitting / Material**

- AA** Thread G1 PN100, DIN3852-A / 316L .....
- AB** Thread G1 PN160, DIN3852-A / Inconel 718 (2.4668) .....
- AC** Thread 1NPT PN100, ASME B1.20.1 / 316L .....
- AD** Thread 1NPT PN160, ASME B1.20.1 / Inconel 718 (2.4668) .....
- AG** Flange DN50 PN40 Form C, DIN2501 / 316L .....
- AI** Flange DN65 PN40 Form C, DIN2501 / 316L .....
- AJ** Flange DN80 PN40 Form C, DIN2501 / 316L .....
- AK** Flange DN100 PN16 Form C, DIN2501 / 316L .....
- AL** Flange DN100 PN40 Form C, DIN2501 / 316L .....
- AN** Flange DN125 PN40 Form C, DIN2501 / 316L .....
- AO** Flange DN150 PN16 Form C, DIN2501 / 316L .....
- AP** Flange DN150 PN40 Form C, DIN2501 / 316L .....
- BG** Flange DN50 PN40 Form B1, EN1092-1 / 316L .....
- BE** Flange DN150 PN40 Form B1, EN1092-1 / 316L .....
- BC** Flange 1½" 1500lb RFJ, ASME B16.5 / 316L .....
- AS** Flange 2" 150lb RF, ASME B16.5 / 316L .....
- AT** Flange 2" 300lb RF, ASME B16.5 / 316L .....
- CA** Flange 2" 300lb RFJ, ASME B16.5 / 316L .....
- AU** Flange 2" 600lb RF, ASME B16.5 / 316L .....
- BF** Flange 2" 900lb RFJ, ASME B16.5 / 316L .....
- AV** Flange 2½" 150lb RF, ASME B16.5 / 316L .....
- AW** Flange 2½" 300lb RF, ASME B16.5 / 316L .....
- AY** Flange 2½" 600lb RF, ASME B16.5 / 316L .....
- AZ** Flange 3" 150lb RF, ASME B16.5 / 316L .....
- BA** Flange 3" 300lb RF, ASME B16.5 / 316L .....
- BB** Flange 4" 300lb RF, ASME B16.5 / 316L .....

**Second line of defense / Process temperature**

- A** with / -196...+450°C .....
- X** without / -196...+450°C .....

**Electronics**

- R** Relay (2xSPDT) 20...72V DC / 20...253V AC (5A) .....
- T** Transistor (NPN/PNP) 9.6...55V DC .....
- Z** Two-wire (8/16mA) 9.6...35V DC .....
- S** Relay (2xSPDT) 20...72V DC / 20...253V AC (5A) with SIL qualification .....
- I** Transistor (NPN/PNP) 9.6...55V DC with SIL qualification .....
- L** Two-wire (8/16mA) 9.6...35V DC with SIL qualification .....

**Housing / Protection**

- K** Plastic single chamber / IP66/IP67 .....
- A** Aluminium single chamber / IP66/IP68 (0.2 bar) .....
- 8** Stainless steel single chamber (electropolished) / IP66/IP68 (0.2 bar) .....

**Cable entry / Connection**

- M** M20x1.5 / Cable gland PA black .....
- N** ½NPT / Blind plug .....

**Certificates**

- M** yes (e.g. FDA; EN 10204-3.1; NACE) .....
- X** no .....

SG66. 

**Length (from seal surface)**

316L (260-3000 mm) per 100 mm  
Alloy C22 (200-3000 mm) per 100 mm



## VEGAVIB 61

### Vibrating level switch for granular bulk solids

#### Application area

The VEGAVIB 61 is a level switch for granular and coarse-grained bulk solids. The VEGAVIB 61 detects reliably and accurately the min. or max. level. The smooth surface of the vibrating rod, without corners and edges, avoids jamming of the bulk solid and is easy to clean.



#### Your benefit

- Minimum time and cost expenditure thanks to simple setup without medium
- Reliable function through product-independent switching point
- Low maintenance costs

#### Technical data

Measuring range:  
Process fitting:

bulk solids from 20 g/l  
thread from G1, 1 NPT

flanges from DN 32, 1½"

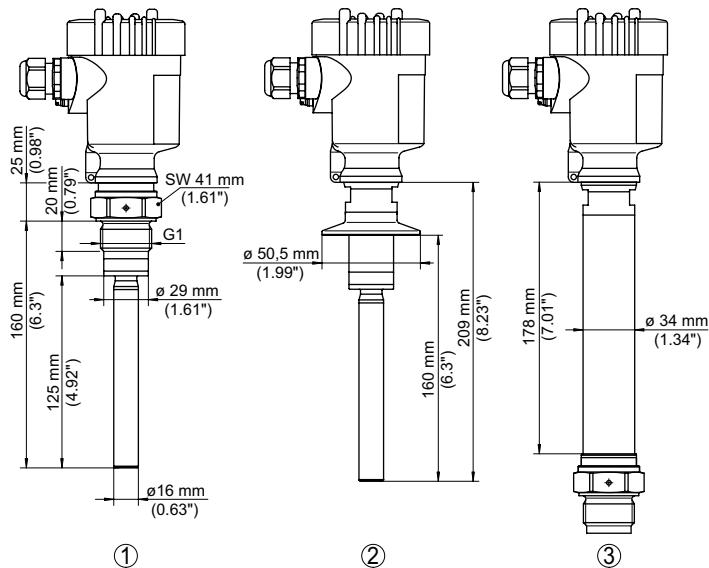
hygienic fittings

-50 ... +250 °C

Process temperature:  
Process pressure:  
SIL qualification:

-1 ... +16 bar (-100 ... +1600 kPa)

optionally up to SIL2



1 Threaded version G1

2 Clamp version 1", 1½"

3 Version with temperature adapter

You will find further process fittings and options under [www.vega.com/configurator](http://www.vega.com/configurator).

You will find further drawings and tables under [www.vega.com/downloads](http://www.vega.com/downloads).

You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

**Approval**

- XX** without .....
- CX** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 .....
- CK** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + 1D, 1/2D, 2D Ex tD IP66 T\* .....
- CI** IECEx Ex ia IIC T6 .....
- LX** ATEX II 1/2G, 2G Ex d IIC T1...T6 Ga/Gb, Gb .....
- GX** ATEX II 1D, 1/2D, 2D Ex tD IP66 T\* .....
- GI** IEC Ex tD A20/21 IP66 T\*, A21 .....

**Version / Process temperature**

- A** Standard / -50...+150°C .....
- B** With adapter / -50...+250°C .....
- C** Detection of bulk solids in water / -50...+150°C .....

**Process fitting / Material**

- GC** Thread G1 PN16, DIN3852-A / 316L .....
- NC** Thread 1NPT PN16, ASME B1.20.1 / 316L .....
- GD** Thread G1½ PN16, DIN3852-A / 316L, switching point as VEGAVIB 51 .....
- ND** Thread 1½NPT PN16, ASME B1.20.1 / 316L, switching point as VEGAVIB 51 .....
- GG** Thread G1½ PN16, DIN 3852-A / 316L .....
- NG** Thread 1½NPT PN16, ASME B1.20.1 / 316L .....
- CT** Clamp 1½" PN16 (ø50.5mm), DIN32676, ISO2852 / 316L (Ra<0.8µm) .....
- CV** Clamp 2" PN16 (ø64mm), DIN32676, ISO2852 / 316L (Ra<0.8µm) .....
- RA** Slotted nut DN40 PN40, DIN11851 / 316L .....
- EF** Flange DN50 PN40 Form C, DIN2501 / 316L .....
- KF** Flange DN80 PN40 Form C, DIN2501 / 316L .....
- MF** Flange DN100 PN16 Form C, DIN2501 / 316L .....
- HA** Flange 2" 150lb RF, ASME B16.5 / 316L .....
- OA** Flange 3" 150lb RF, ASME B16.5 / 316L .....

**Electronics**

- C** Contactless electronic switch 20...253V AC/DC .....
- R** Relay (DPDT) 20...72V DC / 20...253V AC (3A) .....
- T** Transistor (NPN/PNP) 10...55 V DC .....
- Z** Two-wire (8/16mA) 10...36V DC .....

- N** NAMUR signal .....

**Housing / Protection**

- K** Plastic single chamber / IP66/IP67 .....
- A** Aluminium single chamber / IP66/IP68 (0.2 bar) .....
- 8** Stainless steel single chamber (electropolished) / IP66/IP68 (0.2 bar) .....

**Cable entry / Cable gland / Plug connection**

- M** M20x1.5 / with / without .....
- N** ½NPT / without / without .....

**Additional equipment**

- X** without .....

VB61.						
-------	--	--	--	--	--	--

## VEGAVIB 62

Vibrating level switch with suspension cable for granular bulk solids

### Application area

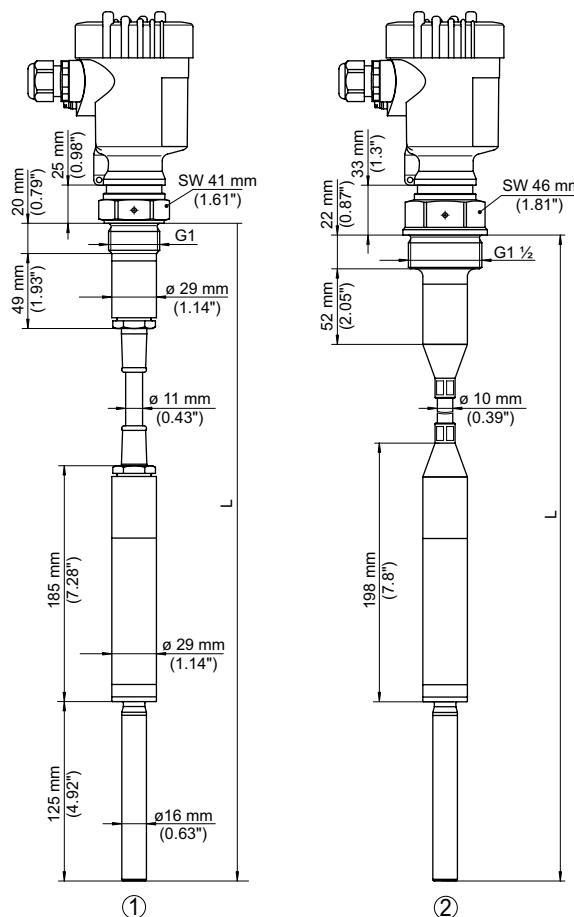
The VEGAVIB 62 is a level switch for granular and coarse-grained bulk solids. The optimized rod design without corners and edges avoids jamming of the bulk solids and is easy to clean. The VEGAVIB 62 detects reliably and accurately the min. or max. level in bulk solids. The position of the switching point is specified flexibly through the length of the suspension cable.

### Your benefit

- Minimum time and cost expenditure thanks to simple setup without medium
- Reliable function through product-independent switching point
- Low maintenance costs

### Technical data

Version:	suspension cable up to 80 m
Measuring range:	bulk solids from 20 g/l
Process fitting:	thread from G1, 1 NPT flanges from DN 32, 1½" hygienic fittings
Process temperature:	-50 ... +150 °C
Process pressure:	-1 ... +6 bar (-100 ... +600 kPa)
SIL qualification:	optionally up to SIL2



1 Version with PUR suspension cable  
2 Version with FEP suspension cable

You will find further process fittings and options under [www.vega.com/configurator](http://www.vega.com/configurator).

You will find further drawings and tables under [www.vega.com/downloads](http://www.vega.com/downloads).

You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

**Approval**

- XX** without .....
- CX** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 .....
- CK** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + 1D, 1/2D, 2D Ex tD IP66 T\* .....
- CI** IECEx Ex ia IIC T6 .....
- GX** ATEX II 1D, 1/2D, 2D Ex tD IP66 T\* .....
- GI** IEC Ex tD A20/21 IP66 T\*, A21 .....

**Version / Process temperature**

- T** Cable PUR / -20...+80°C .....
- H** Cable FEP / -40...+150°C .....
- C** Detection of solids in water / -20...+80°C .....
- E** Detection of solids in water / -40...+100°C .....

**Process fitting / Material**

- GC** Thread G1 PN6, DIN3852-A / 316L .....
- NC** Thread 1NPT PN6, ASME B1.20.1 / 316L .....
- GD** Thread G1½ PN6, DIN3852-A / 316L .....
- ND** Thread 1½NPT PN6, ASME B1.20.1 / 316L .....
- EF** Flange DN50 PN40 Form C, DIN2501 / 316L .....
- KF** Flange DN80 PN40 Form C, DIN2501 / 316L .....
- MF** Flange DN100 PN16 Form C, DIN2501 / 316L .....
- HA** Flange 2" 150lb RF, ASME B16.5 / 316L .....
- OA** Flange 3" 150lb RF, ASME B16.5 / 316L .....

**Electronics**

- C** Contactless electronic switch 20...253V AC/DC .....
- R** Relay (DPDT) 20...72V DC / 20...253V AC (3A) .....
- T** Transistor (NPN/PNP) 10...55 V DC .....
- Z** Two-wire (8/16mA) 10...36V DC .....
- N** NAMUR signal .....

**Housing / Protection**

- K** Plastic single chamber / IP66/IP67 .....
- A** Aluminium single chamber / IP66/IP68 (0.2 bar) .....
- 8** Stainless steel single chamber (electropolished) / IP66/IP68 (0.2 bar) .....

**Cable entry / Cable gland / Plug connection**

- M** M20x1.5 / with / without .....
- N** ½NPT / without / without .....

**Additional equipment**

- X** without .....

VB62.

**Length (from seal surface)**

PUR (480-80000 mm) per 100 mm  
FEP (480-80000 mm) per 100 mm



## VEGAVIB 63

### Vibrating level switch with tube extension for granular bulk solids

#### Application area

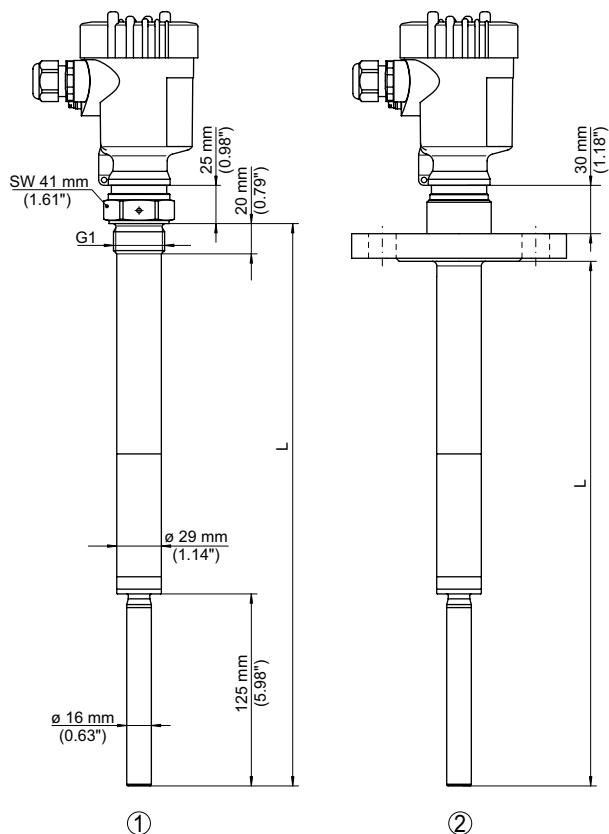
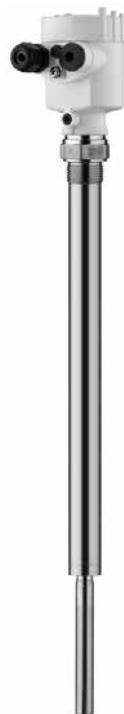
The VEGAVIB 63 is a level switch for granular and coarse-grained bulk solids. The VEGAVIB 63 detects reliably and accurately the min. or max. level. The smooth surface of the vibrating rod, without corners and edges, avoids jamming of the bulk solid and is easy to clean. The position of the switching point is specified through the tube extension.

#### Your benefit

- Minimum time and cost expenditure thanks to simple setup without medium
- Reliable function through product-independent switching point
- Low maintenance costs

#### Technical data

Version:	tube extension up to 6 m
Measuring range:	bulk solids from 20 g/l
Process fitting:	thread from G1, 1 NPT flanges from DN 32, 1½" hygienic fittings
Process temperature:	-50 ... +250 °C
Process pressure:	-1 ... +16 bar (-100 ... +1600 kPa)
SIL qualification:	optionally up to SIL2



1 Threaded version G1  
2 Flange version

You will find further process fittings and options under [www.vega.com/configurator](http://www.vega.com/configurator).

You will find further drawings and tables under [www.vega.com/downloads](http://www.vega.com/downloads).

You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

**Approval**

- XX** without .....
- CX** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 .....
- CK** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + 1D, 1/2D, 2D Ex tD IP66 T\* .....
- CI** IECEx Ex ia IIC T6 .....
- LX** ATEX II 1/2G, 2G Ex d IIC T1...T6 Ga/Gb, Gb .....
- GX** ATEX II 1D, 1/2D, 2D Ex tD IP66 T\* .....
- GI** IEC Ex tD A20/21 IP66 T\*, A21 .....

**Version / Process temperature**

- A** Standard / -50...+150°C .....
- B** With adapter / -50...+250°C .....
- C** Detection of bulk solids in water / -50...+150°C .....

**Process fitting / Material**

- GC** Thread G1 PN16, DIN3852-A / 316L .....
- NC** Thread 1NPT PN16, ASME B1.20.1 / 316L .....
- GD** Thread G1½ PN16, DIN3852-A / 316L .....
- ND** Thread 1½NPT PN16, ASME B1.20.1 / 316L .....
- CA** Clamp 2" PN16 (ø64mm), DIN32676, ISO2852 / 316L .....
- RA** Slotted nut DN40 PN40, DIN11851 / 316L .....
- DF** Flange DN40 PN40 Form C, DIN2501 / 316L .....
- EF** Flange DN50 PN40 Form C, DIN2501 / 316L .....
- KF** Flange DN80 PN40 Form C, DIN2501 / 316L .....
- MF** Flange DN100 PN16 Form C, DIN2501 / 316L .....
- HA** Flange 2" 150lb RF, ASME B16.5 / 316L .....
- IA** Flange 2" 300lb RF, ASME B16.5 / 316L .....
- OA** Flange 3" 150lb RF, ASME B16.5 / 316L .....

**Electronics**

- C** Contactless electronic switch 20...253V AC/DC .....
- R** Relay (DPDT) 20...72V DC / 20...253V AC (3A) .....
- T** Transistor (NPN/PNP) 10...55 V DC .....
- Z** Two-wire (8/16mA) 10...36V DC .....
- N** NAMUR signal .....

**Housing / Protection**

- K** Plastic single chamber / IP66/IP67 .....
- A** Aluminium single chamber / IP66/IP68 (0.2 bar) .....
- 8** Stainless steel single chamber (electropolished) / IP66/IP68 (0.2 bar) .....

**Cable entry / Cable gland / Plug connection**

- M** M20x1.5 / with / without .....
- N** ½NPT / without / without .....

**Additional equipment**

- X** without .....

VB63.						
-------	--	--	--	--	--	--

**Length (from seal surface)**

316L (180-6000 mm) per 100 mm

## VEGAWAVE 61



### Vibrating level switch for powders

#### Application area

The VEGAWAVE 61 is a level switch for universal use in powders and fine-grained bulk solids. The level switch detects reliably and robust the min. or max. level. The tuning fork is ideal for use either in adhesive and abrasive products as well as in bulk solids with very low density.

#### Your benefit

- Minimum time and cost expenditure thanks to simple setup without medium
- Reliable function through product-independent switching point
- Low costs for maintenance through robust design

#### Technical data

Measuring range:

bulk solids from 8 g/l

Process fitting:

thread G1½, 1½ NPT

flanges from DN 50, 2"

Process temperature:

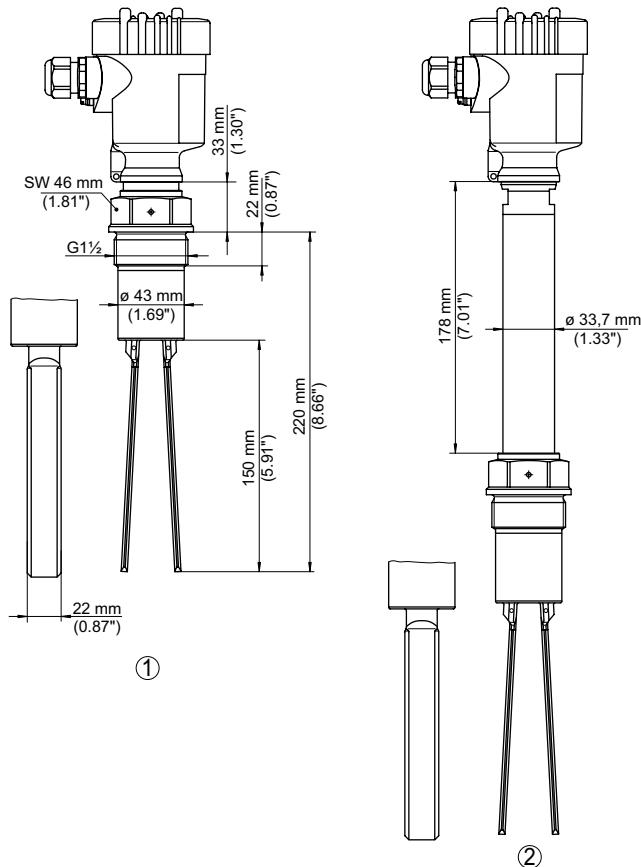
-50 ... +250 °C

Process pressure:

-1 ... +25 bar (-100 ... +2500 kPa)

SIL qualification:

optionally up to SIL2



1 Threaded version G1½

2 Threaded version G1½ with temperature adapter up to +250 °C

You will find further process fittings and options under [www.vega.com/configurator](http://www.vega.com/configurator).

You will find further drawings and tables under [www.vega.com/downloads](http://www.vega.com/downloads).

You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

**Approval**

- XX** without .....
- CX** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 .....
- CK** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + ATEX II 1/2D IP6X T\* .....
- CI** IEC Ex ia IIC T6 .....
- LX** ATEX II 1/2G, 2G Ex d IIC T1...T6 .....
- GX** ATEX II 1D, 1/2D, 2D Ex tD IP66 T\* .....
- GI** IEC Ex tD A20/21 IP66 T\*, A21 .....

**Version / Process temperature**

- A** Standard / -50...+150°C .....
- B** with adapter / -50...+250°C .....
- C** Detection of solids in water / -50...+150°C .....
- D** Detection of solids in water / -50...+250°C .....

**Process fitting / Material**

- GD** Thread G1½ PN25, DIN3852-A / 316L .....
- ND** Thread 1½NPT PN25, ASME B1.20.1 / 316L .....
- EF** Flange DN50 PN40 Form C, DIN2501 / 316L .....
- KF** Flange DN80 PN40 Form C, DIN2501 / 316L .....
- MF** Flange DN100 PN16 Form C, DIN2501 / 316L .....
- HA** Flange 2" 150lb RF, ASME B16.5 / 316L .....
- OA** Flange 3" 150lb RF, ASME B16.5 / 316L .....

**Electronics**

- C** Contactless electronic switch 20...253V AC/DC .....
- R** Relay (DPDT) 20...72V DC / 20...253V AC (3A) .....
- T** Transistor (NPN/PNP) 10...55 V DC .....
- Z** Two-wire (8/16mA) 10...36V DC .....
- N** NAMUR signal .....

**Housing / Protection**

- K** Plastic single chamber / IP66/IP67 .....
- A** Aluminium single chamber / IP66/IP68 (0.2 bar) .....
- 8** Stainless steel single chamber (electropolished) / IP66/IP68 (0.2 bar) .....

**Cable entry / Cable gland / Plug connection**

- M** M20x1.5 / with / without .....
- N** ½NPT / without / without .....

**Additional equipment**

- X** without .....

WE61.						
-------	--	--	--	--	--	--

## VEGAWAVE 62



### Vibrating level switch with suspension cable for powders

#### Application area

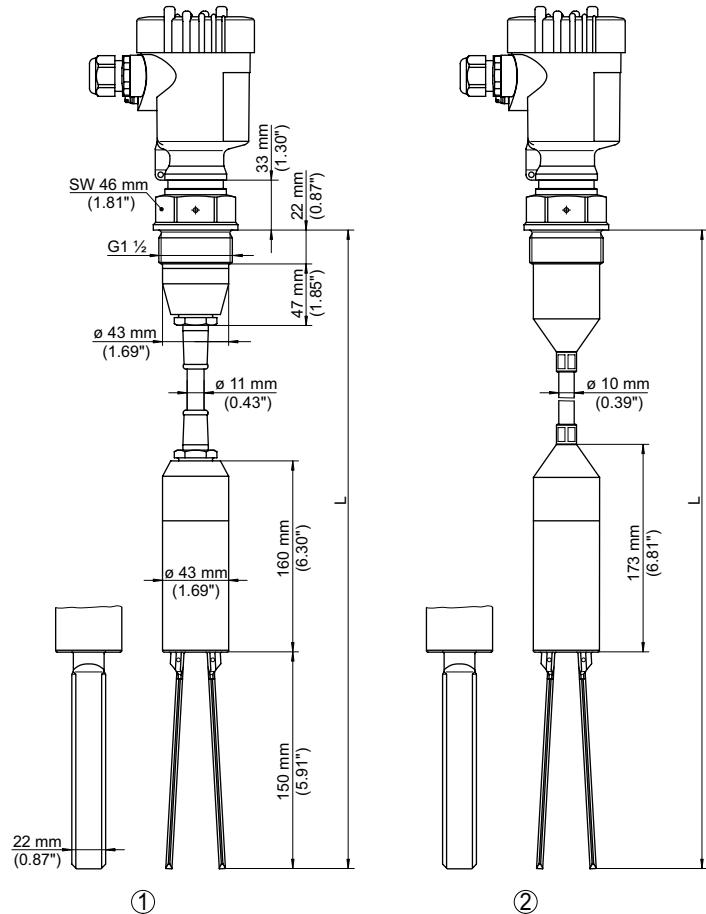
The VEGAWAVE 62 is a level switch for universal use in powders and fine-grained bulk solids. The level switch detects reliably and robust the min. or max. level. The tuning fork is ideal for use either in adhesive and abrasive products as well as in bulk solids with very low density. The position of the switching point is determined through the length of the suspension cable.

#### Your benefit

- Minimum time and cost expenditure thanks to simple setup without medium
- Reliable function through product-independent switching point
- Low costs for maintenance through robust design

#### Technical data

Version:	suspension cable up to 80 m
Measuring range:	bulk solids from 8 g/l
Process fitting:	thread G1½, 1½ NPT flanges from DN 50, 2"
Process temperature:	-50 ... +150 °C
Process pressure:	-1 ... +6 bar (-100 ... +600 kPa)
SIL qualification:	optionally up to SIL2



- 1 Version with PUR suspension cable  
(-20 ... +80 °C)  
2 Version with FEP suspension cable  
(-40 ... +150 °C)

You will find further process fittings and options under [www.vega.com/configurator](http://www.vega.com/configurator).

You will find further drawings and tables under [www.vega.com/downloads](http://www.vega.com/downloads).

You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

**Approval**

- XX** without .....  
**CX** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 .....  
**CK** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + ATEX II 1/2D IP6X T\* .....  
**CI** IEC Ex ia IIC T6 .....  
**GX** ATEX II 1D, 1/2D, 2D Ex tD IP66 T\* .....  
**GI** IEC Ex tD A20/21 IP66 T\*, A21 .....

**Version / Process temperature**

- T** Cable PUR / -20...+80°C .....  
**H** Cable FEP / -40...+150°C .....  
**C** Detection of solids in water / -20...+80°C .....  
**E** Detection of solids in water / -40...+100°C .....

**Process fitting / Material**

- GD** Thread G1½ PN6, DIN3852-A / 316L .....  
**ND** Thread 1½NPT PN6, ASME B1.20.1 / 316L .....  
**EF** Flange DN50 PN40 Form C, DIN2501 / 316L .....  
**KF** Flange DN80 PN40 Form C, DIN2501 / 316L .....  
**MF** Flange DN100 PN16 Form C, DIN2501 / 316L .....  
**HA** Flange 2" 150lb RF, ASME B16.5 / 316L .....  
**OA** Flange 3" 150lb RF, ASME B16.5 / 316L .....

**Electronics**

- C** Contactless electronic switch 20...253V AC/DC .....  
**R** Relay (DPDT) 20...72V DC / 20...253V AC (3A) .....  
**T** Transistor (NPN/PNP) 10...55 V DC .....  
**Z** Two-wire (8/16mA) 10...36V DC .....  
**N** NAMUR signal .....

**Housing / Protection**

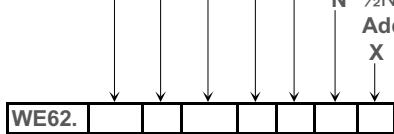
- K** Plastic single chamber / IP66/IP67 .....  
**A** Aluminium single chamber / IP66/IP68 (0.2 bar) .....  
**8** Stainless steel single chamber (electropolished) / IP66/IP68 (0.2 bar) .....

**Cable entry / Cable gland / Plug connection**

- M** M20x1.5 / with / without .....  
**N** ½NPT / without / without .....

**Additional equipment**

- X** without .....



WE62.						
-------	--	--	--	--	--	--

**Length (from seal surface)**

PUR (480-80000 mm) per 100 mm  
FEP (480-80000 mm) per 100 mm

## VEGAWAVE 63



### Vibrating level switch with tube extension for powders

#### Application area

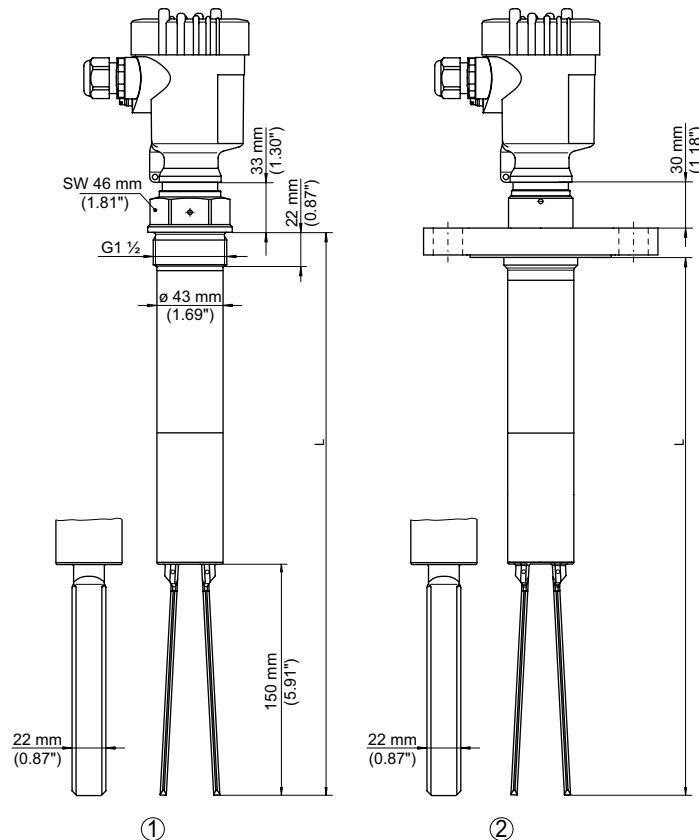
The VEGAWAVE 63 is a level switch for universal use in powders and fine-grained bulk solids. The level switch detects reliably and robust the min. or max. level. The tuning fork is ideal for use either in adhesive and abrasive products as well as in bulk solids with very low density. The position of the switching point can be determined through the length of the tube extension.

#### Your benefit

- Minimum time and cost expenditure thanks to simple setup without medium
- Reliable function through product-independent switching point
- Low costs for maintenance through robust design

#### Technical data

Version:	tube extension up to 6 m
Measuring range:	bulk solids from 8 g/l
Process fitting:	thread G1½, 1½ NPT flanges from DN 50, 2"
Process temperature:	-50 ... +250 °C
Process pressure:	-1 ... +25 bar (-100 ... +2500 kPa)
SIL qualification:	optionally up to SIL2



1 Threaded version G1½  
2 Flange version

You will find further process fittings and options under [www.vega.com/configurator](http://www.vega.com/configurator).  
 You will find further drawings and tables under [www.vega.com/downloads](http://www.vega.com/downloads).  
 You will find mounting accessory, welded sockets and housing overviews in chapter "Accessory".

**Approval**

- XX** without .....
- CX** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 .....
- CK** ATEX II 1G, 1/2G, 2G Ex ia IIC T6 + ATEX II 1/2D IP6X T\* .....
- CI** IEC Ex ia IIC T6 .....
- LX** ATEX II 1/2G, 2G Ex d IIC T1...T6 .....
- GX** ATEX II 1D, 1/2D, 2D Ex tD IP66 T\* .....
- GI** IEC Ex tD A20/21 IP66 T\*, A21 .....

**Version / Process temperature**

- A** Standard / -50...+150°C .....
- B** with adapter / -50...+250°C .....
- C** Detection of solids in water / -50...+150°C .....
- D** Detection of solids in water / -50...+250°C .....

**Process fitting / Material**

- GD** Thread G1½ PN25, DIN3852-A / 316L .....
- ND** Thread 1½NPT PN25, ASME B1.20.1 / 316L .....
- EF** Flange DN50 PN40 Form C, DIN2501 / 316L .....
- KF** Flange DN80 PN40 Form C, DIN2501 / 316L .....
- MF** Flange DN100 PN16 Form C, DIN2501 / 316L .....
- HA** Flange 2" 150lb RF, ASME B16.5 / 316L .....
- OA** Flange 3" 150lb RF, ASME B16.5 / 316L .....

**Electronics**

- C** Contactless electronic switch 20...253V AC/DC .....
- R** Relay (DPDT) 20...72V DC / 20...253V AC (3A) .....
- T** Transistor (NPN/PNP) 10...55 V DC .....
- Z** Two-wire (8/16mA) 10...36V DC .....
- N** NAMUR signal .....

**Housing / Protection**

- K** Plastic single chamber / IP66/IP67 .....
- A** Aluminium single chamber / IP66/IP68 (0.2 bar) .....
- 8** Stainless steel single chamber (electropolished) / IP66/IP68 (0.2 bar) .....

**Cable entry / Cable gland / Plug connection**

- M** M20x1.5 / with / without .....
- N** ½NPT / without / without .....

**Additional equipment**

- X** without .....

WE63.						
-------	--	--	--	--	--	--

**Length (from seal surface)**

316L (240-6000 mm) per 100 mm

## Welded socket VEGASWING 51/61/63



– with O-ring seal in front and welding marking

### suitable for

1 VEGASWING 51/61/63 .....

#### Version / Material

**GB** Thread G $\frac{3}{4}$ , DIN3852-A / 316L .....

**GA** Thread G1, DIN3852-A / 316L .....

#### Test certificate

**B** C 3.1-Certificate/Mat. .....

**A** H 2.2-Certificate/Mat. .....

**X** without .....

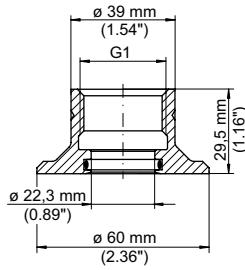
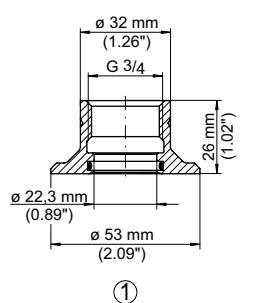
#### Seal

**1** FKM .....

**3** EPDM .....

**4** G75B FFKM 78 black Perlast .....

ESTSG.				
--------	--	--	--	--



1 Thread G $\frac{3}{4}$ , version ESTSG.1GB\*\*

2 Thread G1, version ESTSG.1GA\*\*

(1)

(2)

## Lock fitting for VEGASWING 63



- for continuous height adjustment of a VEGASWING 63
- up to a process pressure of 64 bar

5

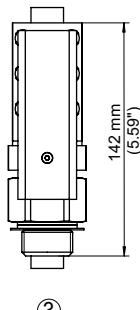
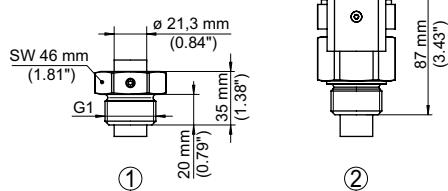
### Process pressure / Process temperature / suitable for

- 1 Unpressurised / -50...+250°C / Approval XX, XA .....
- 2 -1...+16bar / -50...+150°C / Approval XX, XA, CA, DA, GX, GK .....
- 3 -1...+64bar / -50...+250°C / Approval XX, XA, CA, DA, GX, GK .....

### Process fitting / Material

- GC Thread G1, DIN3852-A / 316L .....
- NC Thread 1NPT, ASME B1.20.1 / 316L .....
- GD Thread G1½, DIN3852-A / 316L .....
- ND Thread 1½NPT, ASME B1.20.1 / 316L .....

ARV-SG63. [ ] [ ]



For mounting the lock fitting, the associated VEGASWING 63 (depending on the version) must have the following min. length:

- 1 Version: unpressurized / -50 ... +250 °C;  
min. length: 120 mm
- 2 Version: -1 ... 16 bar / -50 ... +150 °C;  
min. length: 175 mm
- 3 Version: -1 ... 64 bar / -50 ... +250 °C;  
min. length: 235 mm



## Lock fitting for VEGAVIB 63



– for continuous height adjustment of a VEGAVIB 63/S61

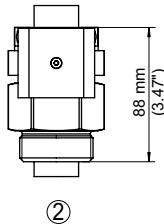
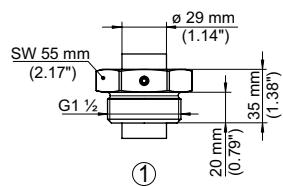
### Process pressure / Process temperature / suitable for

- 1 Unpressurised / -50...+250°C / Approval XX .....
- 2 -1...+16bar / -50...+150°C / Approval XX, CX, CK, LX, GX .....

### Process fitting / Material

- |    |   |
|----|---|
| GD | Thread G1½, DIN3852-A / 316L .....      |
| ND | Thread 1½NPT, ASME B1.20.1 / 316L ..... |

**ARV-VB63.**



For mounting the lock fitting, the associated VEGAVIB 63 (depending on the version) must have the following min. length:

- 1 Version: unpressurized / -50 ... +250 °C;  
min. length: 205 mm
- 2 Version: -1 ... 16 bar / -50 ... +150 °C;  
min. length: 265 mm

## Lock fitting for VEGAWAVE 63



- for continuous height adjustment of a VEGAWAVE 63/S61



5

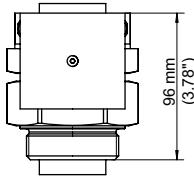
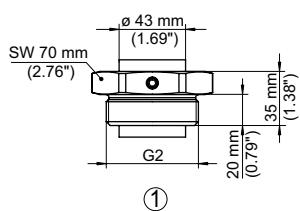
**Process pressure / Process temperature / suitable for**

- 1 Unpressurised / -50...+250°C / Approval XX .....
- 2 -1...+16bar / -50...+150°C / Approval XX, CX, CK, LX, GX .....

**Process fitting / Material**

- GA Thread G2, DIN3852-A / 316L .....
- NA Thread 2NPT, ASME B1.20.1 / 316L .....

ARV-WE63. [ ] [ ]



For mounting the lock fitting, the associated VEGAWAVE 63 (depending on the version) must have the following min. length:

- 1 Version: unpressurized / -50 ... +250 °C;  
min. length: 230 mm
- 2 Version: -1 ... 16 bar / -50 ... +150 °C;  
min. length: 290 mm

## VEGATOR 111



Single channel signal conditioning instrument acc. to NAMUR (IEC 60947-5-6) for level detection

### Application area

The VEGATOR 111 is a signal conditioning instrument for level detection for vibrating level switches VEGASWING, VEGAVIB and VEGAWAVE with electronics version according to NAMUR (IEC 60947-5-6). With this instrument, simple control tasks can be solved. Typical applications are monitoring functions such as overflow or dry run protection. Optionally a false signal output is available.

### Your benefit

- Comprehensive monitoring detects short-circuit and line break of the measuring cable and interferences in the sensor
- Simple and comfortable line monitoring by means of test key
- Simple installation through carrier rail mounting as well as detachable, coded terminals

### Technical data

Input:	1 x sensor input NAMUR (IEC 60947-5-6)
Output:	1 x relay output (SPDT) optionally 1 x fail safe relay output (SPDT)
Operating voltage:	20 ... 253 V AC/DC, 50/60 Hz
Mounting:	carrier rail mounting 35 x 7.5 according to EN 50022
SIL qualification:	optionally up to SIL2



### Scope

A Europe .....
I Worldwide .....

### Approval

X for Ex-free area .....
M Ship approval .....
A ATEX II 3G Ex nA nC ic IIC T4 Gc + II (1) G/D [Ex ia Ga/Da] IIC/IIIC .....
C ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I .....
O ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I + Ship approval .....
A IEC Ex nA nC ic IIC T4 Gc + [Ex ia Ga/Da] IIC/IIIC, [Ex ia Ma] I .....
C IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I .....
O IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I + Ship approval .....

### Version

X Single channel according to NAMUR (IEC60947-5-6) .....
S Single channel according to NAMUR (IEC60947-5-6), with fail safe relay .....

### SIL qualification

X without .....
S with, incl. Safety Manual .....

### Housing / Protection

K Plastic / IP20 .....
------------------------

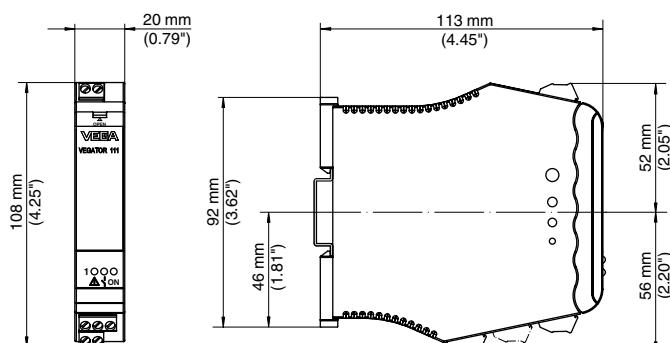
### Terminal blocks / Connection

X detachable 2.5mm <sup>2</sup> / Sensor: 1 x black; output and operating voltage: 2 x black .....
B detachable 2.5mm <sup>2</sup> / Ex sensor: 1 x blue; output and operating voltage: 2 x black .....

### Certificates

M Yes .....
X no .....

TOR111.



**VEGATOR 112**

**Double channel signal conditioning instrument acc. to NAMUR**  
(IEC 60947-5-6) for level detection

**Application area**

The VEGATOR 112 is a signal conditioning instrument for level detection for vibrating level switches VEGASWING, VEGAVIB and VEGAWAVE with electronics version according to NAMUR (IEC 60947-5-6). With this instrument, simple control tasks can be solved. Typical applications are monitoring functions such as overflow or dry run protection.



5

**Your benefit**

- Comprehensive monitoring detects short-circuit and line break of the measuring cable and interferences in the sensor
- Simple and comfortable line monitoring by means of test keys for both channels
- Simple installation through carrier rail mounting as well as detachable, coded terminals

**Technical data**

Input:	2 x sensor input NAMUR (IEC 60947-5-6)
Output:	2 x relay output (SPDT)
Operating voltage:	20 ... 253 V AC/DC, 50/60 Hz
Mounting:	carrier rail mounting 35 x 7.5 acc. to EN 50022
SIL qualification:	optionally up to SIL2

**Scope**

A Europe .....
I Worldwide .....

**Approval**

X for Ex-free area .....
M Ship approval .....
A ATEX II 3G Ex nA nC ic IIC T4 Gc + II (1) G/D [Ex ia Ga/Da] IIC/IIIC .....
C ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I .....
O ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I + Ship approval .....
A IEC Ex nA nC ic IIC T4 Gc + [Ex ia Ga/Da] IIC/IIIC, [Ex ia Ma] I .....
C IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I .....
O IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I + Ship approval .....

**Version**

X Double channel according to NAMUR (IEC 60947-5-6) .....
SIL qualification .....

X without .....
S with, incl. Safety Manual .....

Housing / Protection .....
K Plastic / IP20 .....

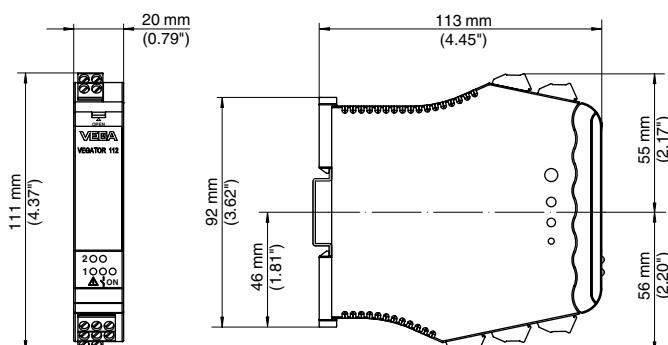
**Terminal blocks / Connection**

X detachable 2.5mm <sup>2</sup> / Sensor: 2 x black; output and operating voltage: 2 x black .....
B detachable 2.5mm <sup>2</sup> / Ex sensor: 2 x blue; output and operating voltage: 2 x black .....

Certificates .....
M Yes .....

X no .....
------------

TOR112.



## VEGATOR 121



### Single channel signal conditioning instrument for level detection

#### Application area

The VEGATOR 121 is a signal conditioning instrument for level detection for the vibrating level switches VEGASWING, VEGAVID and VEGAWAVE with electronics version "Two-wire 8/16 mA". With this instrument simple control tasks can be solved. Typical applications are monitoring functions such as overflow or dry run protection. Optionally a false signal output is available.

#### Your benefit

- Comprehensive monitoring detects short-circuit and line break of the measuring cable and interferences in the sensor
- Simple and comfortable line monitoring by means of test key (also for SIL and WHG)
- Simple installation through carrier rail mounting as well as detachable, coded terminals



#### Technical data

Input:	1 x sensor input two-wire 8/16 mA
Output:	1 x relay output (SPDT) optionally 1 x fail safe relay output (SPDT)
Operating voltage:	20 ... 253 V AC/DC, 50/60 Hz
Mounting:	carrier rail 35 x 7.5 acc. to EN 50022
SIL qualification:	optionally up to SIL2

#### Scope

**A** Europe .....

**I** Worldwide .....

#### Approval

**X** for Ex-free area .....

**M** Ship approval .....

**A** ATEX II 3G Ex nA nC ic IIC T4 Gc + II (1) G/D [Ex ia Ga/Da] IIC/IIIC .....

**C** ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I .....

**U** ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I + WHG .....

**O** ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I + Ship approval .....

**A** IEC Ex nA nC ic IIC T4 Gc + [Ex ia Ga/Da] IIC/IIIC, [Ex ia Ma] I .....

**C** IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I .....

**U** IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I + WHG .....

**O** IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I + Ship approval .....

#### Version

**X** Single-channel (8/16mA) for level detection .....

**S** Single channel (8/16mA), level detection with fail safe relay .....

#### SIL qualification

**X** without .....

**S** with, incl. Safety Manual .....

#### Housing / Protection

**K** Plastic / IP20 .....

#### Terminal blocks / Connection

**X** detachable 2.5mm<sup>2</sup> / Sensor: 1 x black; output and operating voltage: 2 x black .....

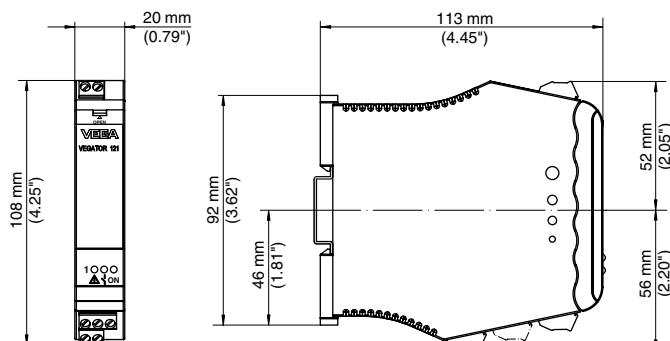
**B** detachable 2.5mm<sup>2</sup> / Ex sensor: 1 x blue; output and operating voltage: 2 x black .....

#### Certificates

**M** Yes .....

**X** no .....

TOR121.



**VEGATOR 122****Double channel signal conditioning instrument for level detection****Application area**

The VEGATOR 122 is a signal conditioning instrument for level detection for the vibrating level switches VEGASWING, VEGAVIB and VEGAWAVE with electronics version "Two-wire 8/16 mA". With this instrument simple control tasks can be solved. Typical applications are monitoring functions such as overflow or dry run protection.



5

**Your benefit**

- Comprehensive monitoring detects short-circuit and line break of the measuring cable and interferences in the sensor
- Simple and comfortable line monitoring by means of test keys for both channels (also for SIL and WHG)
- Simple installation through carrier rail mounting as well as detachable, coded terminals

**Technical data**

Input:	2 x sensor input two-wire 8/16 mA
Output:	2 x relay output (SPDT)
Operating voltage:	20 ... 253 V AC/DC, 50/60 Hz
Mounting:	carrier rail 35 x 7.5 acc. to EN 50022
SIL qualification:	optionally up to SIL2

**Scope**

- A Europe .....  
I Worldwide .....

**Approval**

- X for Ex-free area .....  
M Ship approval .....  
A ATEX II 3G Ex nA nC ic IIC T4 Gc + II (1) G/D [Ex ia Ga/Da] IIC/IIIC .....  
C ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I .....  
U ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I + WHG .....  
O ATEX II (1) G/D [Ex ia Ga/Da] IIC/IIIC, I (M1) [Ex ia Ma] I + Ship approval .....  
A IEC Ex nA nC ic IIC T4 Gc + [Ex ia Ga/Da] IIC/IIIC, [Ex ia Ma] I .....  
C IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I .....  
U IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I + WHG .....  
O IEC [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I + Ship approval .....

**Version**

- X Double-channel (8/16mA) for level detection .....

**SIL qualification**

- X without .....

- S with, incl. Safety Manual .....

**Housing / Protection**

- K Plastic / IP20 .....

**Terminal blocks / Connection**

- X detachable 2.5mm<sup>2</sup> / Sensor: 2 x black; output and operating voltage: 2 x black .....

- B detachable 2.5mm<sup>2</sup> / Ex sensor: 2 x blue; output and operating voltage: 2 x black .....

**Certificates**

- M Yes .....

- X no .....

TOR122.

