



Level limit switch for liquids

The only one for hot and cold:
VEGASWING 66

Looking Forward **VEGA**



The only one that stays cool when it gets hot



Overfill protection at high temperatures

VEGASWING 66 provides additional protection against overfilling at process temperatures up to +450 °C. What other vibrating level switch, or any others, can withstand such heat?

Technical solution

With only a 40 millimetre-long tuning fork, the level switch fits into almost any bypass. It can even be installed in addition to a level gauge, as it does not affect the continuous level measurement in any way.

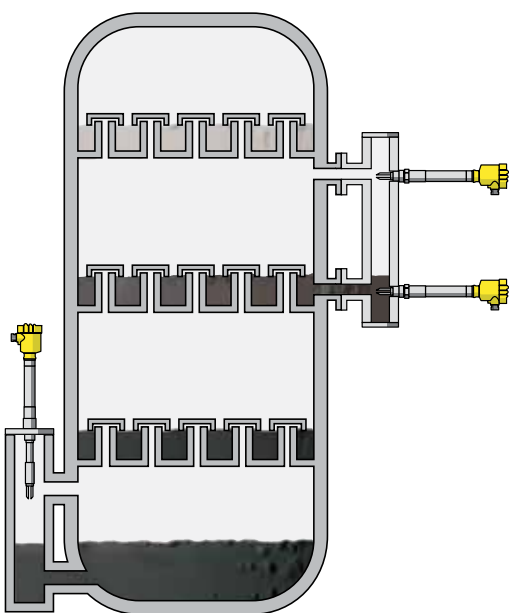
Thanks to VEGASWING 66, as integral part of a Safety Instrumented System (SIS), the periodic function test costs considerably less. For example, if it is connected to a safety PLC, a brief line interruption is sufficient to initiate a test: it then performs a check of the safety functions automatically.

Installation point

VEGASWING 66 can be integrated into existing systems as an intrinsically safe or explosion proof version. As a homogeneously or diversely redundant device for level detection, it can be used in combination for Safety Instrumented Systems up to SIL3.

Advantages

- High safety level through monitoring of sensor element and electronics
- Fast and sure function test via simple press of a button
- Flexible and reliable in applications up to SIL2 (with homogeneous redundancy up to SIL3)





The only one that loves the cold



Ideal for cryogenic processes

Industrial gases are liquefied for storage and transport at temperatures well below $-100\text{ }^{\circ}\text{C}$. The overfill protection system must be resistant to the physical properties of these extremely cold liquefied gases.

Technical solution

VEGASWING 66 is the first vibrating level switch to provide a simple and reliable solution for point level detection at low process temperatures.

Whether in liquid ethylene at $-104\text{ }^{\circ}\text{C}$, in natural gas (LNG) at $-162\text{ }^{\circ}\text{C}$, or even in nitrogen at $-196\text{ }^{\circ}\text{C}$ – the instrument dependably prevents filling above the maximum level.

Installation point

To properly configure the measuring point, the engineer only has to determine the installation length of VEGASWING 66. Since the instrument is SIL qualified and has “Ex ia” or “Ex d” approval, electrical connection is all that is needed to begin safe, reliable operation. For use on gas tankers, it meets all necessary approvals for different ship classifications. The function test before filling is initiated simply by pressing a button on the electronic module or brief interruption to the signal cable.



Advantages

- Universal application, as only a very low minimum product density is required
- Doubly secure through Second Line of Defense
- Cost-optimized setup without medium



The only one that takes the pressure



Dependable in saturated steam

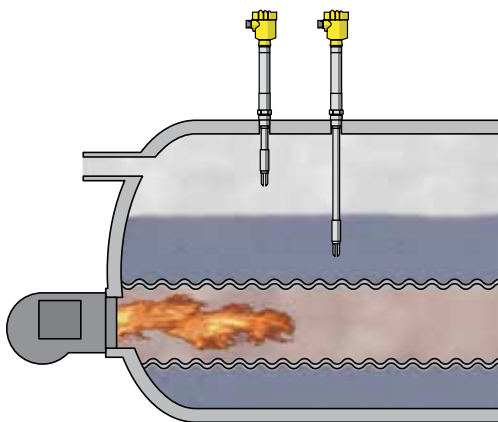
As a monitor of high and low water levels in boilers, VEGASWING 66 is an ideal complement to a continuous level measurement, for example together with a VEGAFLEX 86 guided wave radar sensor.

Technical solution

SIL2 qualified and equipped with the necessary steam boiler approvals (EN 12952-11 and EN 12953-9), such an instrument combination offers many advantages. SIL3 is achieved for combined limiting functions in “1 out of 2” or “2 out of 3” voting architectures. Both the level measurement and point level detection are independent of boiler temperature and pressure as well as the density of the water or the saturated steam.

Installation point

VEGASWING 66 is either integrated into the bypass or installed directly in the vessel. Since it can be deployed in process pressures up to a maximum of 160 bar, it covers practically all saturated steam applications. Its second process seal of ceramic, as a “Second Line of Defense”, reliably prevents any chance of steam from emission.



Advantages

- Fast and reliable function test – either manually via simple keypress or automatically via the boiler control system
- Doubly secure through Second Line of Defense
- Flexible and highly available in applications up to SIL3 with “1 out of 2” or “2 out of 3” architecture

VEGASWING 66 – the only one for hot and cold

A world first from VEGA: the first vibrating level switch for process conditions from -196 to +450 °C and -1 to +160 bar.

A new standard for level detection of liquids

The new VEGASWING 66 level switch operates using the vibration principle. It combines all the normal benefits of this technology with an unprecedented operating range. Even in applications with extreme conditions, the instrument brings significant cost savings in setup, commissioning, maintenance and servicing. The product-independent switch point and extensive monitoring functions mean higher reliability for every application.

VEGASWING 66 rounds out the VEGASWING 60 instrument series with an area of application that until now could not be covered with piezo-based level switches.

High-tech materials and engineering

The key element of VEGASWING 66 is the high-tech material of the tuning fork. Inconel Alloy 718 is extremely resistant to temperature and corrosion. This material is used, among other things, on liquid fuelled rockets and aircraft engines. It is also well proven in sour gas applications (NACE). At the heart of the sensor is the patented induction drive. It ensures



a reliable and harmonic oscillation frequency over the entire application range.

For use in explosive, corrosive or toxic media, on request we can equip VEGASWING 66 with an additional ceramic feedthrough – as a Second Line of Defense.

No compromises

Almost all liquid media can be detected with the VEGASWING vibrating level switch, regardless of temperature, pressure or density fluctuations.

	Vibrating level switches	Capacitive probes	Float switches
Adjustment-free setup	+	-	+
Independent of dielectric constant	+	-	+
Independent of product density	+	+	-
Product-independent switch point	+	-	-
Independent of surface turbulence	+	+	-
Self-monitoring sensor element	+	-	-
Easy and reliable function test during operation	+	-	-
Simple maintenance and servicing	+	-	-

The complete VEGASWING 60 instrument series

VEGASWING 61	Technical data
Version	Compact version
Process temperature/pressure	-50 ... +250 °C/ -1 ... +64 bar
Process fitting	Flanges from DN 25, 1" Threads from G $\frac{3}{4}$, $\frac{3}{4}$ NPT Hygienic fittings
Material	316L, Alloy, ECTFE, PFA, enamel, Alloy 400
Electronics	Relay (DPDT), transistor PNP/NPN, contactless electronic switch, two-wire 8/16 mA, NAMUR
Approvals	Ex ia, Ex d, WHG, ship classifications, up to SIL2 (with homogeneous redundancy up to SIL3)



VEGASWING 63	Technical data
Version	with tube extension up to 6.000 mm
Process temperature/pressure	-50 ... +250 °C/ -1 ... +64 bar
Process fitting	Flanges from DN 25, 1" Threads from G $\frac{3}{4}$, $\frac{3}{4}$ NPT Hygienic fittings
Material	316L, Alloy, ECTFE, PFA, enamel, Alloy 400
Electronics	Relay (DPDT), transistor PNP/NPN, contactless electronic switch, two-wire 8/16 mA, NAMUR
Approvals	Ex ia, Ex d, WHG, ship classifications, up to SIL2 (with homogeneous redundancy up to SIL3)



VEGASWING 66	Technical data
Version	Compact version, with tube extension up to 3.000 mm
Process temperature/pressure	-196 ... +450 °C/ -1 ... +160 bar
Process fitting	Flanges from DN 40, 1 $\frac{1}{2}$ " Threads G1, 1 NPT
Material	Inconel 718 (Alloy 718) with 316L or Alloy C22
Electronics	Relay (DPDT), transistor PNP/NPN, two-wire 8/16 mA
Approvals	Ex ia, Ex d, WHG, ship classifications, up to SIL2 (with homogeneous redundancy up to SIL3), steam boiler approval

