



## Gladiator Vibration Smart Switch Series

### Description

The Gladiator Vibration Smart Switch is a third generation, state-of-the-art level probe, designed to operate in tough industrial environments.

Gladiator Vibration switches are for a wide range of liquids and solids. This type of switch is suitable for many situations requiring level detection, including pump control, high or low-level alarms for presence / absence of material.

### Points of Difference

#### HAWK's Gladiator Vibration Switch

The forks of the vibration switch are driven to vibrate like a 'tuning fork'. When material touches the forks, their vibration is changed and output will switch in response. The output has adjustable hysteresis and delays for 'on' or 'off' switching.

A test function is available to remotely confirm the probe integrity by switching the relay contacts.

#### Why Use Gladiator Vibration Switch?

##### Advantages

- No moving parts
- Not sensitive to external vibrations
- Not affected by build-up.

### Principle of Operation

A stainless steel tuning fork is driven by piezo ceramic elements, causing it to vibrate at its resonant frequency.

When the material to be detected covers the fork, vibrations are damped.

The changed vibration is sensed electronically, and the processed signal is used to switch a relay for indication or control purposes.

### Primary Areas of Application

- Brewing
- Cement
- Chemical
- Dairy
- Edible oil
- Fertilizer
- Food & Beverage
- Glass
- Mining & Metals
- Oil & Gas
- Packaging
- Paint
- Paper
- Pharmaceutical
- Plastics
- Power Generation
- Refining
- Semiconductor
- Sugar
- Textile
- Water & Wastewater

### Features

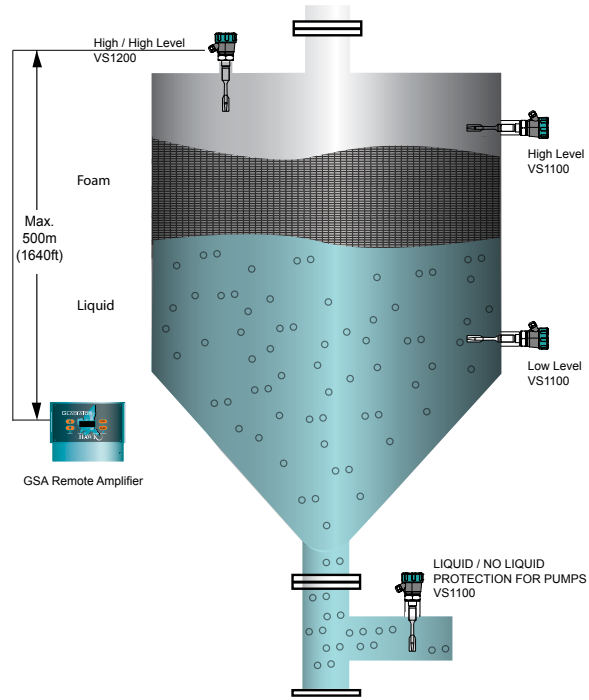
- Suitable for a wide range of solids and liquids
- Heavy duty construction
- Simple '1-minute' setup
- Remote sensor or Smart 'all in one' types
- Relay outputs:  
Smart probe (1)  
Remote (2)
- Remote test function
- Adjustable ON and OFF delays (0-20 sec)
- Smart communication options:  
GosHawk, Modbus, HART, Profibus DP, DeviceNet
- Remote GSM Connection option
- Remote amplifier to probe separation up to 500m (1640ft)
- Bright visual status indication on probe
- Independent housing alignment after mounting thread locked



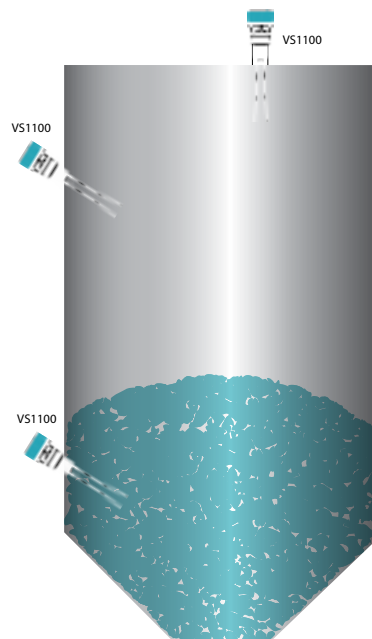


## Typical Applications

### High and Low Liquid Level Switch In Tanks



### High and Low Level Switch In Hopper





## Application Reference - Gladiator Vibration Switch



### Reliable Level Measurement of Plastic Granule / Powder Silos and Bins.

#### Application Problem

The client had been looking for reliable level measurement in plastic granules and plastic powder silos that were pneumatically filled.

The problem was during filling the existing level transmitters would lose their signal.

#### Solution

We installed a low frequency 20 kHz transducer to track the level. The unit to ensure an accurate output to the PLC penetrated the dust and turbulence during filling.

We also installed high level Gladiator Vibration switches as a failsafe high switch.

#### Ordering Information

**Level part number:**

AWR234SUXXXX

AWRT20T4XXXC15XX

C04-4

FA4A-4

**Switch part number:**

VS1100USS11STN10XP26

