Model VHS Fork

Vibrating Element Solids Level Sensor

***Very* Low Density Materials - No Problem!**

Ideal level sensor technology for very lightweight powders and granular materials - no calibration, universal AC/DC power supply and proven solidstate technology

The Next Level

BlueLevel® technologies

Model VHS Fork

Vibrating Element Solids Level Sensor

- ✓ proven technology - highly reliable
- ✓ very high sensitivity - senses very low density materials
- ✓ universal AC/DC power supply - flexibility
- ✓ solidstate - no moving parts
- ✓ no calibration required - easy setup
- ✓ you are protected - *golden parachute support*

Principal of Operation

Model VHS Fork sensors use a mechanical resonance system. The mechanical element is excited and kept in resonance by the sensor's electronic circuitry. An electrical signal is applied to a piezoelectric crystal at the natural resonant frequency. This electrical excitation causes physical deformation of the crystal, which in-turn creates the fork vibration. When no material is present around the fork, the vibration exists. With material present and surrounding the fork, the vibration is dampened and detected by the electronic circuitry. This results in a change in the relay output and local LED indication.

Application and Use

Model VHS Fork vibrating element point level sensors are used to detect the presence and absence of very lightweight powders and granular bulk solid materials in bins, hoppers and silos. Best performance and use can be found with dry and free-flowing materials. The Model VHS Fork is great for use in detecting very lightweight materials with density as low as 0.624 lbs/ft^3 (0.01 kg/dm^3). Model VHS Fork vibrating element sensors are also ideal for vessels with changing contents as the sensors do not require calibration, unlike RF capacitance or admittance sensors. Industries where successful applications can be found include Plastic Processing, Chemical, Food and many others.

Standard Models Available

- Standard Fork 6.9" (175mm) insertion length
- Short Fork 5.4" (137mm) insertion length

Technical Data Summary

Power Supply	Universal 20-255VAC/20-60VDC
Sensitivity	Selectable, minimum density is 0.624lbs/ft^3 (0.01kg/dm^3)
Time Delay	Fixed
When Covered	≤ 0.5 sec
When Uncovered	≤ 2 sec or ≤ 1 sec
Output	SPDT Relay, 8A @ 250VAC
Fail-Safe	Selectable - High or Low
Housing	Die-cast aluminum, FDA compliant powder coat, NEMA Type 4X, IP65
Process Connection	1-1/2" NPT stainless steel
Probe Materials	316Ti stainless steel
Process Temp	-22° F to +266° F (-30° C to +130° C)
Ambient Temp	-22° F to +144° F (-30° C to +60° C)
Certifications	CE Mark

Ordering Information

Final Assembly Part Number Structure

46 - XXX 1 - 1 XX

Output
1 - SPDT Relay

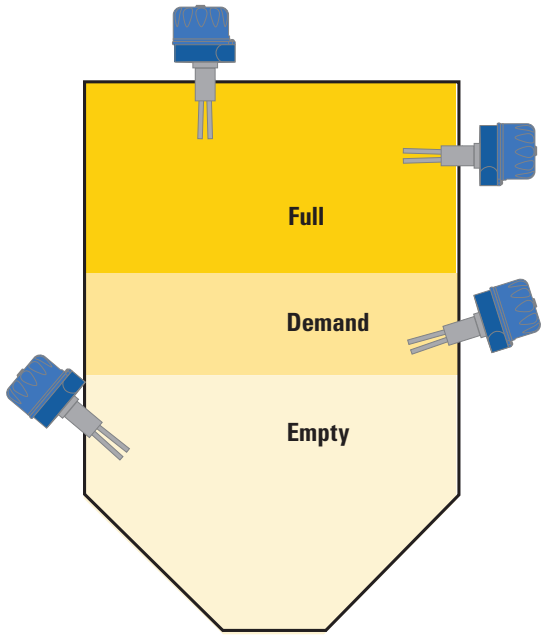
Approvals
1 - Ordinary Location (CE Mark)

Probe
3 - Standard Fork
4 - Short Fork

Version
1 - Standard Length

Process Connection
1 - 1-1/2" NPT

Product Use



The ***Next Level***

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