Vibro 320 Series

Orion Vibrating Fork Level Switch

APPLICATIONS

Orion Vibro is used to display (detect) levels of all kinds of powder and solid bulk materials in any type of container or silos. Vibrating level switch with adjustable detection sensitivity.

SELECTION FOR APPLICATION AREA

In construction industry for leveling of gypsum, lime, fine sand, dolomite, calcite, perlite, cement, stone, coal, pulverized coal powder, etc.

In food industry for leveling of, feed, seed, flour, salt, sugar, etc.

In plastic industry for leveling of plastic particles, etc.

FUNCTIONS

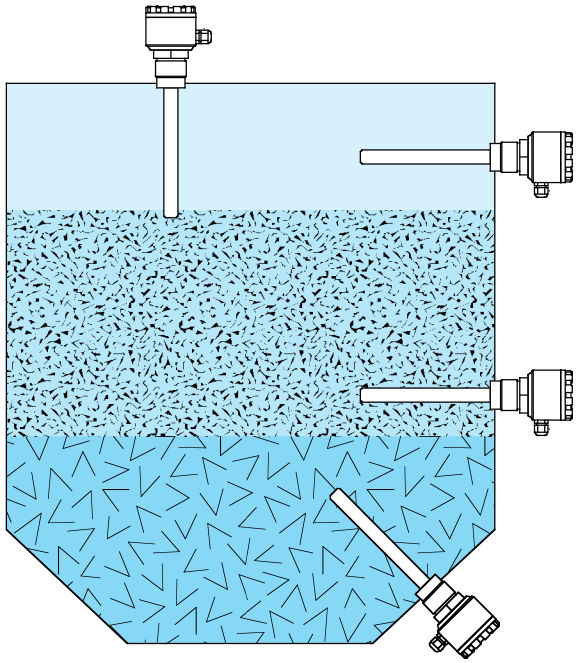
There is a diapason like structure at the end of vibrating type level switch. When particulate matter surrounds the diapason, it creates a counter force on the diapason which reduces the vibration of diapason. When this force is high enough to prevent vibration, the loss of vibration is detected by the piezosensor and an output signal is generated. Detection sensitivity can be set up for all kind material depending on type and density.

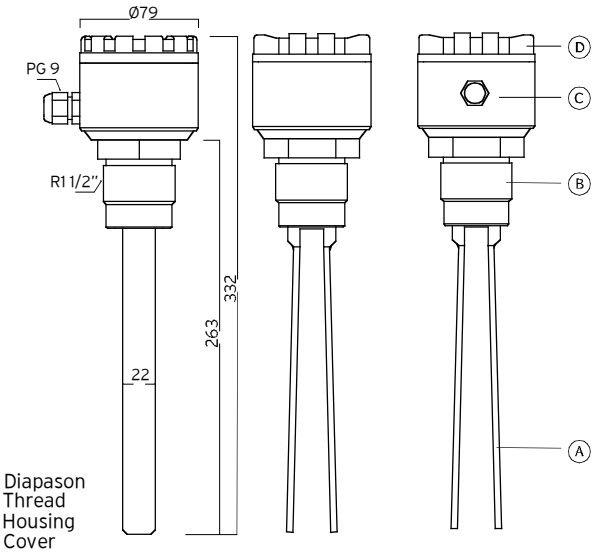
TECHNICAL DATA

ELECTRICAL SPECIFICATIONS	
Connection terminal	: Max. 2 mm^2 (AWG 14) sectioned cable input.
Fitting	: PG9
Supply Voltage	: 24V AC / DC + - 30% max. 2.0W
Signal Output	: 1 changeover contact AC max. 250V, 2A, 500VA resistive load
Signal Delay	: Max. 1.0s
Protection Class	: IP68 (cable cover fully closed and by using a fitting 4-8 mm thick and full-bored)

MECHANICAL SPECIFICATIONS	
Casing	: Aluminum machining process
Probe	: IP68
Screw Material	: Stainless steel SS304
Screw Size	: R 1 1/2" Whitworth screw thread DIN 259
Diapason	: Stainless steel SS304
Housing	: Electrostatic powder paint RAL6014 over noncorrosive alodine coating
Weight	: 1.16 kg

WORKING CONDITIONS	
Ambient Temperature	: -20°C.. +60°C (ambient)
Operating Temperature	: -20°C.. +100°C (material)
Min. Sensing Density	: 20g/l
Vibration Frequency	: 80 Hz
Max. Particle size	: 6 mm (without using a guard)
Max. Mechanical Load	: 500 N from side
Max. Tensile Force	: 1kN
Max. Silo Internal Pressure	: 10 bar
Max. Operating vibration	: Does not work in vibrated area





A Diapason
B Thread
C Housing
D Cover

MECHANICAL INSTALLATION

- Instrument should be kept away from the material entrance.
- In order to prevent water leakage, cable entry should be positioned as downward.
- In case of exposure to extremely heavy materials a shield should be used to protect the probe, so that the force exerting onto spindle will be reduced.
- Housing should fully be closed to ensure that sealing appropriately maintained.

ORDERING CODES

One type is available as VBR0320-24VDC 24V.
Ext for 180°C high temperature option.

COMPLIANCE TO APPLICABLE NORMS

CE COMPLIANCE

EN 61000-6-4:2001	Generic emission standard. Industrial environments.
EN 61000-6-2:2005	Generic immunity standard. Industrial environments.
EN 61010-1:2001	Safety requirements for electrical equipment for measurement, control and laboratory use.