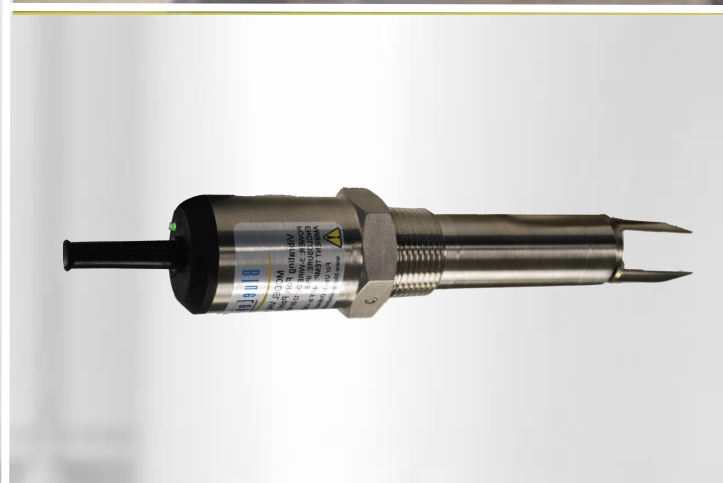


MODEL VHL MINI

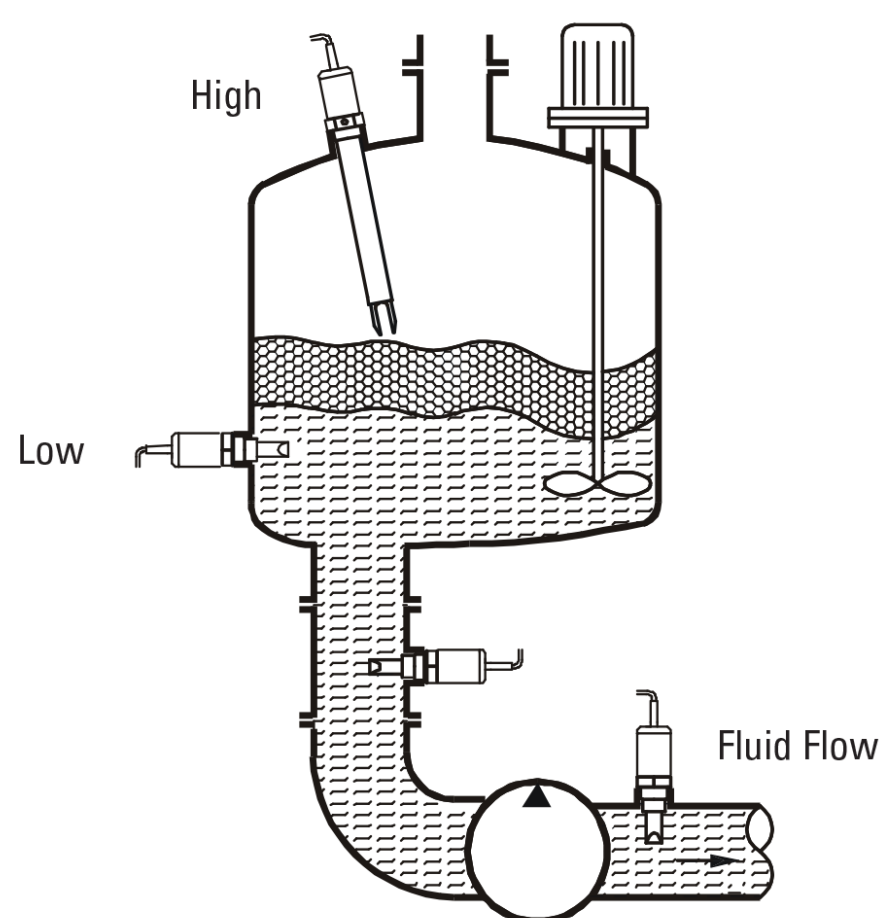
Miniature Vibrating Fork Point Level Sensor for Liquids

Model VHL Mini vibrating fork level switches are suitable for level detection of a wide range of liquids.



ABOUT

Using the most ideal technology for a very wide range of liquids and slurry materials, the VHL Mini is a miniature version of the Model VHL vibrating fork point level sensor. It is specifically for use detecting the presence and absence of liquid and slurry materials and providing input to a PLC or control system. The Model VHL Mini provides a 2-wire AC or 3-wire DC solid-state output for use in switching low current loads, such as a relay coil, LED light or as an input to a PLC or other type of control system. This unit is available with a range of probe lengths and is economical and highly reliable.



- ✓ Polished vibrating fork is standard
- ✓ PFA coated or hygienic extreme-polish available
- ✓ 2-wire AC or 3-wire DC (NPN/PNP) solid-state output
- ✓ External operational test function
- ✓ High process temperature of 266°F (130°C)

- ✓ Unaffected by dielectric constant, conductivity, viscosity, pressure and temperature
- ✓ Miniature compact stainless-steel housing
- ✓ Prewired 3m long cable
- ✓ IP68 (NEMA 6P) rated enclosure



BlueLevel Technologies, Inc.
3778 Timberlake Dr.
Richfield, OH 44286 USA

Email: bluelevel@blueleveltechnologies.com
Phone: 330-523-5215
Fax: 330-523-5212

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Technical Data

Power Supply	2-Wire AC 20-255VAC 3-Wire DC 12-55VDC
Consumption	AC: Load Dependent DC: <0.6W
Wire Connection	3m Prewired Cable
Enclosure Protection	IP68 (NEMA Type 6P)
Process Density	≥ 0.7 S.G. (0.7 g/cm ³)
Maximum Pressure	588 psi (40 bar)
Maximum Viscosity	10,000 cSt (mm ² /s)
Medium Temperature	-40°F to +266°F (-40°C to +130°C)
Ambient Temperature	-22°F to +158°F (-30°C to +70°C)
Local Indication	Bi-Color LED Alarm – Red. Normal – Green
Output	AC: 350mA Maximum DC: NPN/PNP 350mA Maximum
Material	316Ti Stainless Steel (DIN 1.4571)
Certifications	CE Mark

Ordering Information

4 5 - 2 **X** 1 **X** - 1 1 **X**

Probe Length
1 - 2.7" (69mm)
2 - 4.9" (125mm)
3 - 7.9" (200mm)
4 - Extended (12" - 118")

Output
2 - 2-Wire AC
3 - 3-Wire DC NPN/PNP

Process Connection
1 - 1" NPT
2 - 1-1/2" Tri-Clamp

Principal of Operation

Model VHL Mini vibrating fork level switches are suitable for level detection of a wide range of liquids. The operation principle is based on an electronic circuit exciting piezoelectric crystals, thereby making the fork probe vibrate. As the fluid or medium reaches and covers the fork its vibration changes or stops completely. The fork will start vibrating again as the fluid sets it free. The electronics sense the change of vibration and causes the solid-state output to change state.

Application and Use

Mounted on pipes or tanks the filling and emptying of vessels can be controlled using the Model VHL Mini as they can generate alarms providing overflow or dry run protection where input to PLC's, Controls Systems is required, and where switching low current loads is needed (refer to technical specifications).

Standard Models Available

- Threaded or Tri-Clamp process connections
- Short Probe (2.7"/69mm long)
- Standard Probe (4.9"/125mm long)
- Long Probe (7.9"/200mm long)
- Extended Probe (12"-118"/300mm-3,000mm)
- Ordinary Locations



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