

Vibrating Fork Point Switch for Liquids - UVFSL



It is a point level switch based on piezo driven vibrating fork technology. Model UVFSL is suitable for detection of liquids in tanks.

Salient Features:

- ☑ No moving parts. Minimum maintenance.
- ☑ Fail safe design.
- ☑ Unaffected by environmental changes e.g. temperature, pressure & humidity.
- ☑ Unaffected by dust clouds and agitation.
- ☑ Ex - proof version Gr IIA & IIB for hazardous applications.
- ☑ The vibration has a self cleaning effect.

Construction & Operation:

The system is available in two versions - Integral (Standalone) & Two Part. In the integral system, the controller is integral with the sensing probe. In two part system, the controller is separate from the probe and can be mounted remotely. The sensing probe is of rugged construction. The sensing probe is fitted with an enclosure at its top end, which holds the control electronics and its lower end holds a SS tuning fork, which vibrates at its mechanical resonance frequency of 400 Hz, created through a piezo crystal when in air. However, when the tuning fork is covered with liquid / slurry, its vibrations get damped. This is sensed by the control electronics, which changes the status of output relay contacts.

Specification:

Sensing probe

Enclosure	: Cast Al, WP -IP 66, Cast Al, Ex-Proof Gr. IIB
Cable Gland	: Polyamide PG 13.5 x W-Proof Const. Brass 3/4" ET x Ex-Proof
Mounting	: SS304 x 1" BSP (M) screwed
Fork MOC	: SS316
Extension pipe MOC	: SS304 or SS316
Std Insertion Length (L)	: 125mm
Max Insertion Length (L)	: 2500mm
Resonance Frequency	: 400 Hz
Max Optg Temperature	: 150°C
Max Pressure	: 10Kg/cm ²
Viscosity	: 1000 cSt

Controller (Integral)

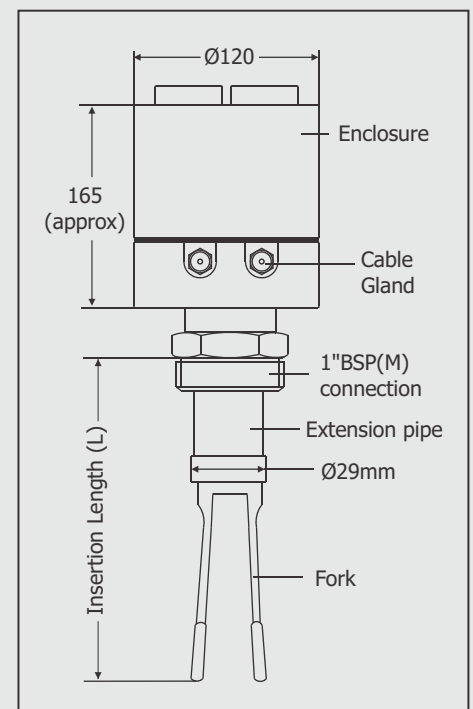
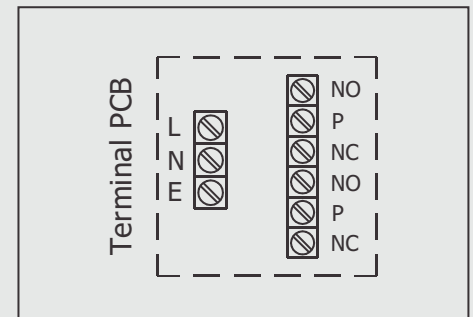
Enclosure Dimensions	: Ø120 x 165 height
Conduit connection	: Polyamide PG 13.5 x 2 Nos
Supply	: 110 or 230 VAC 50-60 Hz or 24VDC
Relay Contacts	: DPDT x 5A, 230 VAC resistive load
Signal Delay	: Fork covered to free about 2-3 secs. Fork free to covered 2 secs.
Switching Delay	: Continuously adjustable from 2 to 20 secs for fork free or covered
Safety Operation	: Field selectable fail safe high & low
LED Status Display	: Power ON-Yellow; Normal-Green; Alarm-RED
Power Consumption	: 2VA
Amb Temperature	: 60°C
Amb Humidity	: 95% Rh non condensing

Controller (Two part)

All specs as in Integral except	
Enclosure Dimensions	: Ø122 x 150 height
Interconnecting Cable	: 3 core x 1.5mm ² PVC Insulated (Buyer's Scope)



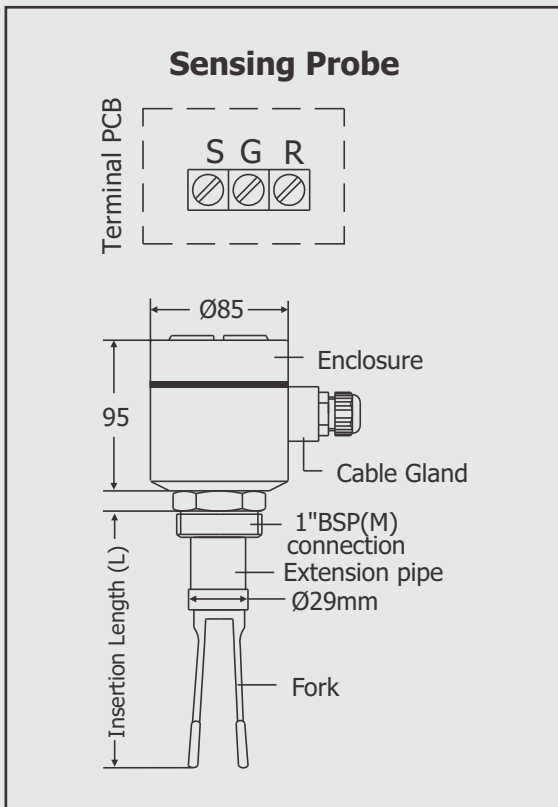
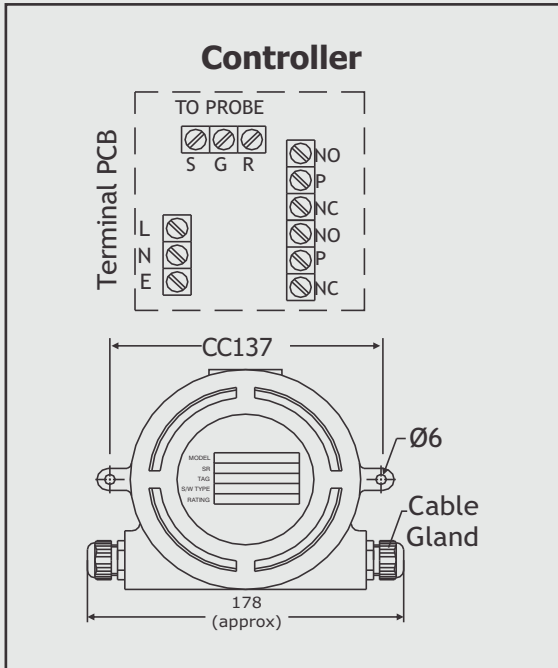
Integral system:



Virating Fork Point Switch For Liquid-UVFSL



Two part system:



Services:

Liquids (UVFSL) : Oil, Milk, Water / Effluent Water.

Ordering information:

Specify Model No x L (mm) x Liq x Viscosity x Optg Temp & Press

Model Identification:

System

Integral (standalone) _____

Two part _____

Probe Encl. x Control Unit Encl.

Cast Al WP IP-66 (Syst-I) _____

Cast Al, WP IP-66 x Cast Al,
WP IP-66 (Syst-T) _____

Cast Al, Ex-proof Gr IIA & IIB x
Cast Al, WP IP-66 (Syst-T) _____

Others _____

Sensing Probe

Standard (150°C) _____

Others _____

Process Conn

SS304 screwed 1" BSP (M) _____

Ss304 flanged 1½" NB ANSI 150# _____

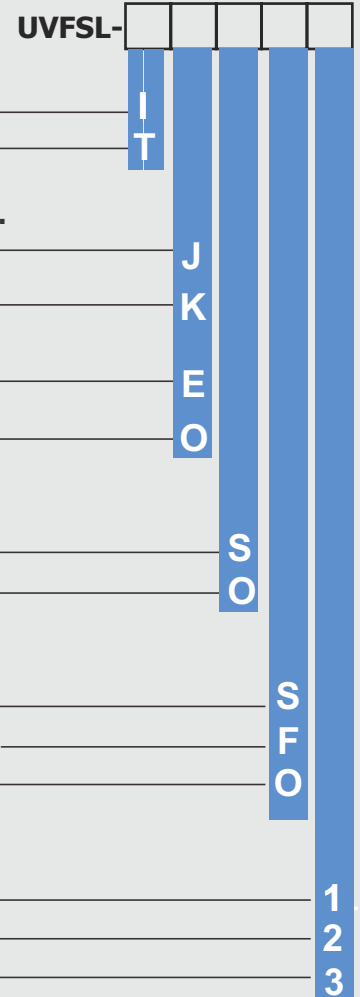
Others _____

Supply

110 VAC _____

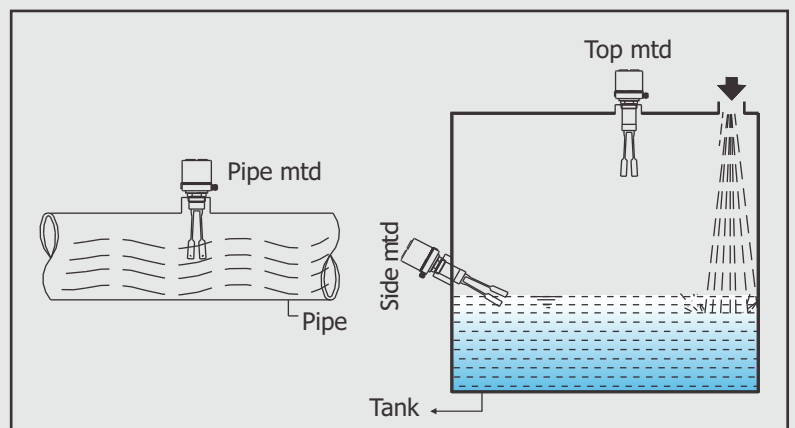
230 VAC _____

24 VDC _____



Installation:

The sensing probe can be top or side mtd. on the vessel or pipe to suit your application.



*All dimensions in mm, except specified.