INSTRUCTION MANUAL
VIBRATING FORK POINT LEVEL SWITCH (LIQUID)
AQUA FORK -7100 (PNP O/P)

FUNCTION:

The electronically stimulated fork vibrates at it's mechanically resonance frequency of approx.400 Hz. If the liquid media or free flowing powder material covers the fork, the damping of the vibration is detected electronically and a corresponding signal output is actuated. The vibrating fork having self-cleaning properties.

The small deposit on the vibrating fork does not affect the operation of the Aqua FORK.

MEASURING SYSTEM:

The complete system, Vibrating FORK - consists of: -
> The sensing probe of Vibrating Fork and
> The Electronic Switching unit

PRIMARY AREA OF APPLICATION

1. All types of liquid applications like Edible oils, Lubricating oils, Paints
2. Plastic industry, powder, granular etc
3. Light free flowing power etc

TECHNICAL SPECIFICATIONS:

CONTROL UNIT

Parameters	Specifications
Housing	SS304 Cable Entry 1 no.
Power consumption	2 Watts
Mains Voltage	24 V DC
Output	PNP(NO) OUTPUT rated at Approx 600 ohms. Resistance *Output is Sourcing.
Ambient temperature	0 ° C to +60° C
Switch status display	RED LED OFF-NORMAL Condition RED LED ON - Alarm **Condition**.

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SENSING PROBE (FORK):

Parameters	Specifications
Mounting	Screwed – 1" BSP (standard) Flanged (as per requirement)
Fork	stainless steel- 316
Operating temperature	150 ° C max. (Inside vessel).
Probe Length	**125 mm (standard)** TO 3000mm As per Requirement.

INSTALLATION OF AQUAFORK:

The standard unit has screwed mounting, which can be mounted laterally on the container wall at the desired level of the material to be controlled. The fork tines should be horizontally or pointed slightly downward.

Following precautions should be taken during installations -

The tines should not be bent or position distorted.

During filling operation, the material should not fall directly onto the tines. Otherwise protection shield should be provided over the tines.

During installation of probe with screwed mounting, turn the hexagonal mounting nut of the probe and not the housing.

For side mounting location the tines position should be such that the material can flow freely through them.

The knife-edges of the tines should face the ground plane in horizontal mounting position.

The tines should extend far enough into the vessel so that they are free to vibrate despite the build-up on the vessel wall. The extended probe should be mounted in such a way that it does not extend further than necessary in the vessel.

Turbulence during pneumatic conveying can cause operational problems and can be avoided by shielding the tines by windscreen.

ELECTRICAL CONNECTION TO AQUAFORK

Please refer the connection diagram for the electrical connection. Appropriate mains voltage should be connected to the terminals of the instruments as specified. The connectors are suitable for 1.5 sq. mm cable cross section.
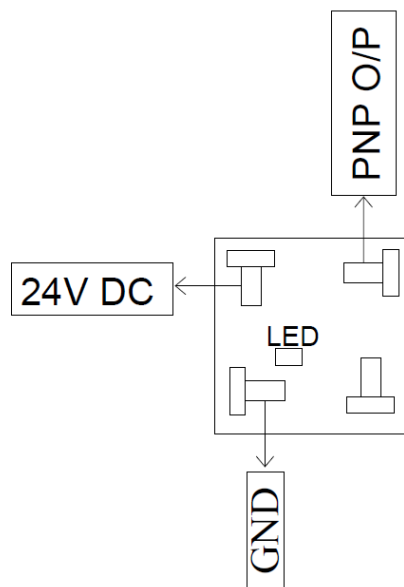The AQUAFORK has no need of calibration/setting. It is factory calibrated.

MAINTENANCE

The AQUAFORK need no maintenance.

However, if the material has built up tendency, over a period of time, tines should be cleaned whenever need occurs.
Ensure that the cable glands and the housing lid are sealed to prevent ingress of moisture.

Connection Diagram:-