

## LIQUISENSE



### COMPACT TUNING FORK POINT LEVEL SWITCH FOR LIQUIDS

**LIQUISENSE** is a compact and easy to install point level switch suitable for detection of wide variety of liquids. It is suitable for use in small vessels and pipelines where available space is at a premium. It is unaffected by electrical and physical properties of the media such as conductivity, dielectric constant, foam, air bubbles, and turbulence. Wetted parts are made of highly polished non-corrosive stainless steel, making it suitable for pharmaceutical and food grade applications.



#### Operating Principle

The Tuning Fork is maintained by Piezo electric elements at its resonant frequency. With other parameters remaining constant the resonant frequency of the fork depends on the mass of liquid moved per second. Therefore, measuring the change in the resonant frequency of the fork affords an indirect measure of liquid level. LIQUISENSE electronics measures this change accurately and converts it to a switched open collector PNP Transistor output that can be used to operate a relay or serves as input to a programmable logic controller (PLC).

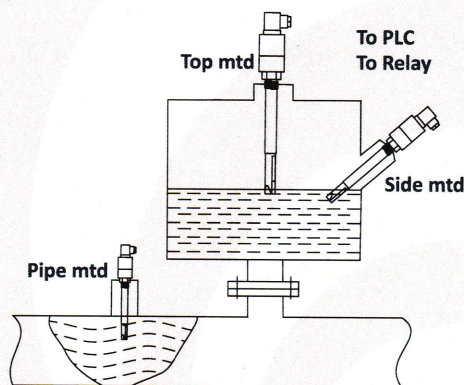
#### SALIENT FEATURES

- Compact size with integral electronics
- No calibration required, so plug and play
- No moving parts, so no wear and tear
- Open collector PNP output
- Fork made of non-corrosive stainless steel with highly polished tines so suitable for pharmaceutical and food grade applications.
- IP 68 ingress protection
- Selectable fail safe mode
- LED indicators for status, alarm and normal operation

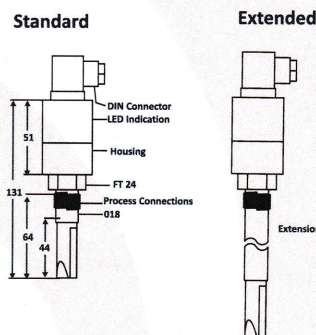
## TECHNICAL SPECIFICATIONS

Housing	: SS316
Terminal	: DIN connector
Cable Gland	: PG9
Process connection	: 1/2" or 3/4" or 1" BSP / NPT (M)
Fork MOC	: SS316
Standard insertion length	: 68 mm
Extended insertion length	: 1500 mm
Operating voltage	: 15 to 30 VDC
Output	: PNP open collector limited to 100 mA max. and momentary short circuit protected
Switching indication	: Blue (Normal), Yellow (material status), Red (Alarm).
Resonant frequency in air	: 1.8 KHz
Max. viscosity of liquid media	: 10,000 Cst.
Min. Density of liquid media	: 0.7 g/cc
Tolerable ambient temperature	: -20 to 60 deg C
Max. temperature of liquid media	: 80 deg C
Max. temp.of media with standoff	: 150 deg C
Max. pressure in vessel	: 10Kg / sq. cm
Fail Safe mode	: High / Low field selectable

### INSTALLATION :



**APPLICATIONS :** Water, Milk, Honey, Food and Beverages Fuel, Edible Oil, Chemicals & Pesticides



### Model Identification :

LIQUESENSE -		Insertion Length
<b>Process Connection</b>		
1/2" BSP (M)	1	
3/4" NPT (M)	2	
3/4" BSP (M)	3	
3/4" NPT (M)	4	
1" BSP (M)	5	
1" NPT (M)	6	
Others	O	
<b>Insertion Length</b>		
Standard	S	
Extended	E	
<b>Temperature Standoff</b>		
Without	W	
With standoff	H	

All dimension in mm except

### Ordering Information :

Model No x Liquid x Viscosity x Operating Temperature x Pressure x Insertion Length

**NB: Specifications liable to change without notice in lieu of product improvement or up gradation**



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