

# Vibronic

## Point level detection

### Liquiphant FTL50H

Compact vibration point level switch for liquids especially in the food and life sciences industry



More information and current pricing:

[www.endress.com/FTL50H](http://www.endress.com/FTL50H)

#### Benefits:

- International hygienic certificates (3-A, EHEDG, ASME BPE). FDA-conformed material
- Electro-polished and passivated surface finishing
- International explosion protection certificates and overfill protection certificate (WHG)
- No mechanically moving parts: no maintenance, no wear, long operating life.  
Monitoring of fork for damage: guaranteed function
- Use in safety systems requiring functional safety to SIL2/SIL3 in accordance with IEC 61508/IEC 61511-1
- No calibration required, easy to start up
- Variety of standardized hygienic process connections for hygiene sensitive applications

#### Specs at a glance

- **Process temperature** -50 °C...+150 °C (-58 °F...+302 °F)
- **Process pressure / max. overpressure limit** Vacuum...64 bar (Vacuum...928 psi)
- **Min. density of medium** 0.5g/cm<sup>3</sup> (0.4g/cm<sup>3</sup> optional)

**Field of application:** Liquiphant FTL50H is a point level switch for use in hazardous areas with all international certificates. Especially useable in the food and life sciences industry with hygienic certificates (3-A, EHEDG, ASME BPE). FTL50H offers functional safety SIL2/SIL3. Reliable

measurement values, not affected by: changing media properties, flow, turbulences, gas bubbles, foam, vibrations or build-up.

## Features and specifications

### Point Level / Liquids

#### Measuring principle

Vibration Liquids

#### Characteristic / Application

Premium device for point level detection in hygienic/aseptic applications.

Focus Food & Beverage and Life Sciences.

Compact sensor version,

Modular & completely welded housing concept,

Wide range of certificates.

#### Specialities

Plug and play functionalities,

Surface finish: mechanical or electro-polished,

Density/Concentration measurement,

SIL 2/3 according to IEC 61508

#### Supply / Communication

PROFIBUS PA,

19 ..253V AC,

10...55V DC-PNP,

19...253V AC or 19...55V DC with relay DPDT,

8/16mA,

NAMUR,

PFM

#### Ambient temperature

-50 °C...+70 °C

(-58 °F...+158 °F)

#### Process temperature

-50 °C...+150 °C

(-58 °F...+302 °F)

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**Point Level / Liquids****Process pressure / max. overpressure limit**

Vacuum...64 bar  
(Vacuum...928 psi)

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**Min. density of medium**

0.5g/cm<sup>3</sup>  
(0.4g/cm<sup>3</sup> optional)

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**Main wetted parts**

316L

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**Process connection**

Threads (for weld-in adapter):  
G3/4A, G1A.  
Flange:  
DN25...DN100  
ASME 1"...4",  
JIS 25A...100A

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**Process connection hygienic**

Tri-Clamp,  
DIN 11851, DIN11864-1  
Ingold,  
Flush mount,  
DRD,  
SMS1145,  
Varivent (Varinline)

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**Sensor length**

Compact sensor

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**Communication**

PROFIBUS PA

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**Certificates / Approvals**

ATEX, FM, CSA C/US, IEC Ex, TIIS, INMETRO,  
NEPSI

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## Point Level / Liquids

### Safety approvals

Overfill protection WHG,  
SIL 2/ SIL 3

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### Design approvals

Inspection certificate 3.1, EN10204,  
CoC ASME BPE,  
Conformity to cGMP,  
EU Food Contact Material (EC) 1935/2004,  
US Food Contact Material FDA CFR 21,  
CN Food Contact Material GB 4806,  
Declaration of Conformity ASME B31.3,  
AD2000,  
CRN approval

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### Hygienic approvals

3-A,  
EHEDG,  
CoC-ASME BPE

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### Marine approval

GL/ ABS/ DNV

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### Options

Customized settings (Density)

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### Components

FTL325P/FTL375P Interface PFM  
FTL325N/FTL375N Interface NAMUR

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### Successor

FTL63

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## Density

### Measuring principle

Vibration Density

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## Density

### **Characteristic / Application**

Premium device for density measurement in hygienic/aseptic applications.

Focus Food & Beverage and Life Sciences.

Compact sensor version.

Modular housing or completely welded compact housing.

Wide range of certificates.

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### **Supply / Communication**

via density controller FML621

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### **Ambient temperature**

-40 °C...70 °C (-40...158 °F)

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### **Process temperature**

0...80 °C (32...176 °F)

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### **Process pressure**

0...25 bar (0...362 psi)

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### **Wetted parts**

316L

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### **Hygienic**

3A

EHEDG

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### **Sensor length**

Compact sensor

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### **Output**

Pulse

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### **Certificates / Approvals**

ATEX, FM, CSA C/US, IEC Ex, TIIS, INMETRO, NEPSI

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## Density

### Specialities

Density/Concentration measurement in combination with density controller FML621,  
Surface finish: mechanical polished (up to 0.3 µm)

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### Components

Density Computer FML621

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More information [www.endress.com/FTL50H](http://www.endress.com/FTL50H)