

# Vibronic

## Point level detection

### Liquiphant FTL50

Compact vibration point level switch for liquids in all industries



More information and current pricing:

[www.fi.endress.com/FTL50](http://www.fi.endress.com/FTL50)

#### Benefits:

- Use in safety systems requiring functional safety to SIL2/SIL3 in accordance with IEC 61508/IEC 61511-1
- International explosion protection certificates and overfill prevention certificate (WHG)
- No calibration required, easy to start up
- No mechanically moving parts: no maintenance, no wear, long operating life.
- Monitoring of fork for damage: guaranteed function
- Second line of defense to protect the environment
- Variety of standardized process connections for all applications
- Stainless steel (316L) and high-corrosion resistant sensor material (Alloy)

#### Specs at a glance

- **Process temperature** -50 °C...+150 °C (-58 °F...+302 °F)
- **Process pressure absolute / 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> option)

**Field of application:** Liquiphant FTL50 is a point level switch for use in hazardous areas with all international certificates. Useable in all industries. FTL50 offers functional safety SIL2/SIL3. With the second line of defense the highest degree of safety and availability of the device can be guaranteed. Reliable measurement values, not affected by: changing

media properties, flow, turbulences, gas bubbles, foam, vibrations or build-up.

## Features and specifications

### Density

**Measuring principle**

Vibration Density

**Characteristic / Application**

Liquiphant M Density  
with Density Computer FML621  
Temperature and pressure measurement  
Modular housing concept  
Wide range of process connections

**Supply / Communication**

Transmitter power supply (MUS)

**Ambient temperature**

-50...70°C  
-50...60°C for hazardous applications

**Process temperature**

0...80°C (validity of accuracy data)  
-50...0°C / 80...150°C (with reduced technical data)

**Process pressure absolute**

0...25 bar  
>25...64 bar (with reduced technical data)

**Wetted parts**

316L/C4

**Sensor length**

Compact: 50.5 mm

**Output**

Pulse

---

**Density****Certificates / Approvals**

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

---

**Specialities**

Commissioning with ReadWin2000

---

**Components**

Density Computer FML621

---

**Other approvals and certificates**

SIL2/ SIL3

---

**Point Level / Liquids****Measuring principle**

Vibration Liquids

---

**Characteristic / Application**

Modular housing concept  
wide range of process connections  
Analogue and bus interfaces  
Extensive certificate range (e.g. Ex,WHG)  
compact, e.g. pipes

---

**Specialities**

Foam detection  
Detect a density change  
second line of defense

---

**Supply / Communication**

PROFIBUS PA  
19...253V AC  
10...55V DC-PNP  
19...253V AC or 10...55V DC  
8/16mA, 11...36V DC  
NAMUR  
PFM

---

## Point Level / Liquids

**Ambient temperature**

-50 °C...+70 °C  
(-58 °F...+158 °F)

---

**Process temperature**

-50 °C...+150 °C  
(-58 °F...+302 °F)

---

**Process pressure absolute / 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> option)

---

**Main wetted parts**

316L, Alloy

---

**Process connection**

Thread:

G3/4A, G1A, R3/4", R1, NPT3/4, NPT1

Flange:

DN25...DN100,

ASME 1"...4",

JIS 25A...100A

---

**Process connection hygienic**

Tri-Clamp ISO2852

---

**Communication**

PROFIBUS PA

19...253V AC

10...55V DC-PNP

19...253V AC or 10...55V DC

8/16mA, 11...36V DC

NAMUR

PFM

---

## Point Level / Liquids

### Certificates / Approvals

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

---

### Safety approvals

SIL2/ SIL3

---

### Design approvals

EN 10204-3.1

NACE MR0175, MR0103

ASME B31.3

AD2000

---

### Marine approval

GL/ ABS/ DNV

---

### Options

Heavy duty stainless steel housing mainly for the oil and gas industry

---

### Components

FTL325P/FTL375P Interface PFM

FTL325N/FTL375N Interface NAMUR

---

### Successor

Liquiphant FTL51B

---

More information [www.fi.endress.com/FTL50](http://www.fi.endress.com/FTL50)