

# Vibronic

## Point level detection

### Liquiphant FTL51H

Point level switch with extension tube for liquids especially in the food and life sciences industry



More information and current pricing:

[www.endress.com/FTL51H](http://www.endress.com/FTL51H)

#### Benefits:

- International hygienic certificates (3-A, EHEDG, ASME BPE). FDA-conformed material
- Electro-polished and passivated surface finishing
- International explosion protection certificates and overfill prevention 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 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> optional)

**Field of application:** Liquiphant FTL51H is a point level switch with extension tube 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). FTL51H 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

### Density

#### Measuring principle

Vibration Density

#### Characteristic / Application

Liquiphant M Density  
with Density Computer FML621  
Temperature and pressure measurement  
Modular & completely welded housing concept  
Focus Food & Pharma  
Surface up to 0.3  $\mu$   
Variable sensor length up to 3 m (6 m option)

#### 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

#### Hygienic

3A  
EHEDG

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**Density****Sensor length**

115...3000 mm  
>3000...6000 mm (Option)

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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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**Specialities**

Commissioning with ReadWin2000

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**Components**

Density Computer FML621

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**Other approvals and certificates**

SIL2/ SIL3

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

Vibration Liquids

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**Characteristic / Application**

Modular & completely welded housing concept  
Focus Food & Pharma  
surface up to 0,38µm electro polished  
wide range of process connections  
Analogue and bus interfaces  
Extensive certificate range (e.g. EHEDG,3A)  
Compact, e.g. pipes  
variable sensor length up to 3m (6m option)

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**Specialities**

Foam detection  
Detect changes of the density

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**Point Level / Liquids****Supply / Communication**

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

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**Ambient temperature**

-50 °C...+70 °C  
(-58 °F...+158 °F)

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**Process temperature**

-50 °C...+150 °C  
(-58 °F...+302 °F)

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**Process pressure absolute / 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**

Thread:  
G3/4A, G1A, R3/4", R1, NPT3/4, NPT1  
Flange:  
DN25...DN100,  
ASME 1"...4",  
JIS 25A...100A

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**Point Level / Liquids****Process connection hygienic**

Tri-Clamp ISO2852

Dairy coupling

Aseptic

DRD

SMS

Varivent

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**Sensor length**

Length 130mm (5.12") (Liquiphant II)

148mm...6000mm (5.83...236")

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**Communication**

PROFIBUS PA

19...253V AC

10...55V DC-PNP

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

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

NAMUR

PFM

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**Certificates / Approvals**

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

NEPSI

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**Safety approvals**

SIL2/ SIL3

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**Design approvals**

EN 10204-3.1

AD2000

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**Hygienic approvals**

CoC ASME-BPE

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**Marine approval**

GL/ ABS/ DNV

Point Level / Liquids

**Components**

FTL325P/FTL375P Interface PFM

FTL325N/FTL375N Interface NAMUR

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More information [www.endress.com/FTL51H](http://www.endress.com/FTL51H)