

# Liquiphant FTL51B - digital, simple and safe

## Point level switch for all liquid media



### Benefits:

- Universal measuring principle for limit detection – proven vibronic technology
- Developed according to IEC 61508 for highest safety – SIL2/3 applications (3rd party approved)
- Periodic proof testing is quickly and simple organized with guided wizards via the SmartBlue-App or via a test button or magnetic pin from outside. Via digital communication you can initiate the device for a fast and easy testing of the safety loop.
- **Heartbeat Technology** allows safe, continuous diagnostics and a simple verification, without process interruption
- Centralized asset management with easy online access to all device information thanks to digital communication
- Second line of defense to protect the environment

More information and current pricing:

[www.us.endress.com/FTL51B](http://www.us.endress.com/FTL51B)

### Specs at a glance

- **Process temperature** -50 °C...+150 °C (-58 °F...+302 °F)
- **Process pressure / max. overpressure limit** Vacuum...100 bar  
Vacuum...1450 psi
- **Min. density of medium** 0.5 g/cm<sup>3</sup> (0.4 g/cm<sup>3</sup> optional)

**Field of application:** The Liquiphant FTL51B is specialized for the process industry and developed to be used directly in SIL2 and SIL3 applications. You conduct periodic proof tests according to SIL or WHG mobile with an intuitive wizard. At the end you receive an automated documentation. Liquiphant measures reliably and is not affected by changing media properties, flow, turbulences, gas bubbles, foam, vibrations or build-up. The device is easy to use, has a digital connection and gives real-time data at hand.

---

## Features and specifications

---

### Point Level / Liquids

**Measuring principle**

Vibration Liquids

---

**Characteristic / Application**

Compact vibronic device with an optional pipe extension up to 6 m (19.7 ft);

Modular housing concept;

Wide range of certificates

---

**Specialities**

Heartbeat Technology,

Bluetooth® Operation and maintenance SmartBlue App,

LED Module,

RFID TAG for easy identification,

Second line of defense,

Ambient temperature down to -50°C (-60°C optional),

Temperature spacer for high process temperature,

Plug and play functionalities

---

**Supply / Communication**

19...253V AC / 2-wire,

10...55V / DC-PNP 3-wire,

9...20V DC with relay DPDT,

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

2-wire NAMUR,

2-wire PFM,

4-20mA HART

---

**Ambient temperature**

-60 °C...+70 °C

(-51 °F...+158 °F)

---

**Process temperature**

-50 °C...+150 °C

(-58 °F...+302 °F)

---

---

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

Vacuum...100 bar

Vacuum...1450 psi

---

**Min. density of medium**0.5 g/cm<sup>3</sup>(0.4 g/cm<sup>3</sup> optional)

---

**Main wetted parts**

316L

Alloy

---

**Process connection**

Threads:

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

Flanges:

DN25...DN100

ASME 1"...4"

JIS 25A...100A

---

**Process connection hygienic**

Tri-Clamp ISO2852

---

**Sensor length**

Up to 6 m (19.7 ft)

---

**Communication**

2-wire direct load

HART

DC-PNP 3-wire

Relays

NAMUR

PFM

Bluetooth® wireless technology

---

**Certificates / Approvals**

ATEX, IEC Ex, CSA, NEPSI, KC, JPN Ex, INMETRO, UK Ex

## Point Level / Liquids

### Safety approvals

Overfill protection WHG  
SIL2/ SIL 3 according to IEC 61508

### Design approvals

EN 10204-3.1  
NACE MR0175, MR0103  
ASME B31.3 Process Piping  
AD2000  
CRN  
AD 2000

### Marine approval

ABS/ LR/ BV/ DNV

### Options

Heavy duty stainless steel housing

### Components

FTL325P Interface PFM  
FTL325N Interface NAMUR

## Density

### Measuring principle

Vibration Density

### Product Headline

Vibronic point level switch with optional extension tube for liquid applications in hazardous areas .  
Reliable measurement values not affected by: changing media properties, gas bubbles, foam, build-up, flow or turbulences.

### Characteristic / Application

Compact vibronic device with an optional pipe extension up to 6 m (19.7 ft),  
Modular housing concept,  
Wide range of certificates

---

## Density

### Ambient temperature

-60 °C...+70 °C  
(-51 °F...+158 °F)

---

### Process temperature

-50 °C...+150 °C  
(-58 °F...+302 °F)

---

### Process pressure

Vacuum...100 bar  
Vacuum...1450 psi

---

### Wetted parts

316L  
Alloy

---

### Sensor length

Up to 6 m (19.7 ft)

---

### Certificates / Approvals

ATEX, IEC Ex, CSA, NEPSI, KC, JPN Ex, INMETRO

---

### Specialities

Heartbeat Technology,  
Bluetooth® Operation and maintenance SmartBlue App,  
LED Module,  
RFID TAG for easy identification,  
Second line of defense,  
Ambient temperature down to -50°C (-60°C optional),  
Temperature spacer for high process temperature,  
Plug and play functionalities

---

### Components

Density Computer FML621

---

### Measuring range

Density range: 0.3 to 2 g/cm<sup>3</sup>

---

## Density

### Other approvals and certificates

Overfill protection WHG

SIL2/ SIL 3 according to IEC 61508

---

More information [www.us.endress.com/FTL51B](http://www.us.endress.com/FTL51B)