

# Liquiphant FTL51B - digital, simple and safe

## Point level switch for all liquid media



More information and current pricing:

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

### Benefits:

- Universal measuring principle for limit detection – proven vibronic technology
- Developed according 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 these ways, you can initiate the instrument for a fast and easy testing of the safety loop
- Heartbeat Technology allows safe, continuous diagnostics and a simple verification
- **Heartbeat Diagnostics:** Permanent diagnostics increase the safety of the plant. You connect your device via the SmartBlue-App and you easily have real time diagnostics at hand
- **Heartbeat Verification:** The device can be verified without process interruption. The verification report is generated automatically
- **Heartbeat Monitoring:** With the frequency tracking of the sensor data you have all information at hand for predictive maintenance and process optimization strategies

### Specs at a glance

- **Process temperature** -50 °C...+150 °C (-58 °F...+302 °F)
- **Process pressure absolute / 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 already developed according to IEC 61508 to be used directly in SIL2 and SIL3 applications without big efforts. You conduct periodic proof tests according to SIL or WHG simply 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.

## Features and specifications

### Density

**Measuring principle**

Vibration Density

**Product Headline**

Liquiphant with Density Computer FML621

**Characteristic / Application**

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

**Ambient temperature**

-60 °C...+70 °C  
(-51 °F...+158 °F)

**Process temperature**

-50 °C...+150 °C  
(-58 °F...+302 °F)

**Process pressure absolute**

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

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## Density

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### 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

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### Components

Density Computer FML621

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### Measuring range

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

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### Other approvals and certificates

Overfill protection WHG  
SIL2/ SIL 3 according to IEC 61508

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## Point Level / Liquids

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### Measuring principle

Vibration Liquids

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### Characteristic / Application

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

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**Point Level / Liquids****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

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**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,  
NAMUR,  
PFM

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**Ambient temperature**

-60 °C...+70 °C  
(-51 °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...100 bar  
Vacuum...1450 psi

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**Min. density of medium**

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

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**Main wetted parts**

316L  
Alloy

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

Threads:

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

Flanges:

DN25...DN100

ASME 1"...4"

JIS 25A...100A

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**Process connection hygienic**

Tri-Clamp ISO2852

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**Sensor length**

Up to 6 m (19.7 ft)

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**Communication**

2-wire direct load

DC-PNP 3-wire

Relays

NAMUR

PFM

Bluetooth® wireless technology

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**Certificates / Approvals**

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

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**Safety approvals**

Overfill protection WHG

SIL2/ SIL 3 according to IEC 61508

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**Design approvals**

EN 10204-3.1

NACE MR0175, MR0103

ASME B31.3 Process Piping

AD2000

CRN

AD 2000

## Point Level / Liquids

### **Marine approval**

ABS/ LR/ BV/ DNV GL

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### **Options**

Heavy duty stainless steel housing

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### **Components**

FTL325P Interface PFM

FTL325N Interface NAMUR

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