

Liquiphant FTL51B - digital, simple and safe

Point level switch for all liquid media



More information and current pricing:

www.fi.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/cm³ (0.4 g/cm³ 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

Density

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/cm³

Other approvals and certificates

Overfill protection WHG
SIL2/ SIL 3 according to IEC 61508

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;
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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

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

Ambient temperature

-60 °C...+70 °C
(-51 °F...+158 °F)

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/cm³
(0.4 g/cm³ optional)

Main wetted parts

316L
Alloy

Point Level / Liquids**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

DC-PNP 3-wire

Relays

NAMUR

PFM

Bluetooth® wireless technology

Certificates / Approvals

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

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

Point Level / Liquids

Marine approval

ABS/ LR/ BV/ DNV GL

Options

Heavy duty stainless steel housing

Components

FTL325P Interface PFM

FTL325N Interface NAMUR

More information www.fi.endress.com/FTL51B