

Vibronic

Point level detection

Liquiphant FTL51C

Point level switch for liquids with highly corrosion-resistant coating



Benefits:

- Use in safety systems requiring functional safety to SIL2/SIL3 in accordance with IEC 61508/IEC 61511-1
- Different plastic coating (PFA) and enamel coating for applications with aggressive medias
- 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 environmental
- Variety of standardized process connections for all applications

More information and current pricing:

www.id.endress.com/FTL51C

Specs at a glance

- **Process temperature** -50 °C...+150 °C (-58 °F...+302 °F) up to 230 °C / 450°F on request
- **Process pressure absolute / max. overpressure limit**
Vacuum...40 bar (Vacuum...580 psi)
- **Min. density of medium** 0.5g/cm³ (0.4g/cm³ optional)

Field of application: Liquiphant FTL51C is a point level switch with extension tube and highly corrosion resistant coating. For use in hazardous areas with all international certificates. Useable in all industries. FTL51 offers functional safety SIL2/SIL3. With the second line of defense 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
High protection against aggressive media by using antistatic coating
Modular housing concept
Wide range of process connections
Pipe extension up to 3 m (6 m option)

Supply / Communication

Transmitter power supply (MUS)

Ambient temperature

-50...80°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...40 bar (with reduced technical data)

Wetted parts

ECTFE, PFA and Enamel

Sensor length

115...3000 mm
(depends by the covering)

Density

Output

Pulse

Certificates / Approvals

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

Specialities

Commissioning with ReadWin2000

Components

Density Computer FML621

Measuring range

Density range: 0.3 to 2 g/cm³

Other approvals and certificates

SIL2/ SIL3

Point Level / Liquids**Measuring principle**

Vibration Liquids

Characteristic / Application

High protection against aggressive media by using antistatic coating
Modular housing concept
wide range of process connections
Analogue and bus interfaces
Extensive certificate range (e.g.Ex,WHG)
pipe extension up to 3m (6m option)

Specialities

Foam detection
Detect a density change
second line of defense

Point Level / Liquids**Supply / Communication**

PROFIBUS PA
19...253V AC, 2-wire
10...55V DC-PNP, 3-wire
DPDT, 19...253V AC, 10...55V DC
8/16mA, 11...36V DC
NAMUR
PFM, 2-wire
NAMUR with testbutton

Ambient temperature

-50 °C...+70 °C
(-58 °C...+158 °F)

Process temperature

-50 °C...+150 °C
(-58 °F...+302 °F)
up to 230 °C / 450°F on request

Process pressure absolute / max. overpressure limit

Vacuum...40 bar
(Vacuum...580 psi)

Min. density of medium

0.5g/cm³ (0.4g/cm³ optional)

Main wetted parts

ECTFE
PFA (Edlon)
PFA (Rubyred)
PFA (conductive)
Enamel

Process connection

Flange:
DN25...DN100,
ASME 1"...3",
JIS RF10 K 50

Point Level / Liquids**Process connection hygienic**FDA conform with PFA (Edlon)

Sensor length

ECTFE, PFA 130mm, 148mm...3000mm

(ECTFE, PFA 5.12", 5.83"...118")

Enamel 130mm, 148mm...1200mm

(Enmal 5.12", 5.83"...47.24")

Communication

PROFIBUS PA

19...253V AC

10...55V DC-PNP

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

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

NAMUR

PFM

Certificates / ApprovalsATEX, FM, CSA C/US, IEC Ex, TIIS, INMETRO, NEPSI

Safety approvalsSIL2/ SIL3

Design approvalsEN 10204-3.1

Marine approvalGL/ ABS/ DNV

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

Components

FTL325P/FTL375P Interface PFM

FTL325N/FTL375N Interface NAMUR

More information www.id.endress.com/FTL51C