# Vibronic Point level switch Liquiphant FTL71

## Point level switch with extension tube for liquids in high-temperature applications



More information and current pricing: www.uk.endress.com/FTL71

#### Benefits:

- Use in safety systems requiring functional safety to SIL2 in accordance
  - IEC 61508/IEC 61511-1
- With welded gas-tight feed-through maximum safety in the event of damaged sensor
- Wide variety of electronics, e.g. NAMUR, relay, thyristor, PFM signal output: the right connection for every process control system
- Large number of process connections to choose from: universal usage
- No calibration: quick, low-cost start-up
- No mechanically moving parts: no maintenance, no wear, long operating life.
  - Monitoring of fork for damage: quaranteed function
- FDA approved materials (PFA Edlon)

## Specs at a glance

- **Process temperature** -60 °C...+280 °C (-76 °F...+540 °F) (300°C / 572°F, 50h cumulated)
- Process pressure absolute / max. overpressure limit Vacuum...100 bar (Vacuum...1450 bar)
- Min. density of medium 0.5g/cm³ (0.4g/cm³ optional)

**Field of application:** Liquiphant FTL71 is a point level switch with extension tube for use in hazardous areas with all international certificates. FTL71 is especially designed for applications with high process temperatures up to 280°C and can be used up to SIL2, in homogeneous redundancy up to SIL3. An integrated second line of defense offers the highest degree of safety. Reliable measurement

values, not affected by: changing media properties, flow, turbulences, gas bubbles, foam, vibrations or build-up.

## Features and specifications

## Point Level / Liquids

#### Measuring principle

Vibration Liquids

#### **Characteristic / Application**

Modular housing concept

High process temperatures up to 280°C

wide range of process connections

Analogue and bus interfaces

Extensive certificate range (e.g. Ex,WHG)

compact, e.g. pipes

Dual Sealing / Second line of defense

#### **Specialities**

Foam detection

Detect a density change

second line of defense

#### **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** 

#### **Ambient temperature**

-50 °C...+70 °C

(-58 °F...+158 °F)

### Point Level / Liquids

#### **Process temperature**

-60 °C...+280 °C (-76 °F...+540 °F) (300°C / 572°F, 50h cumulated)

#### Process pressure absolute / max. overpressure limit

Vacuum...100 bar (Vacuum...1450 bar)

#### Min. density of medium

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

#### Main wetted parts

316L / Alloy PFA and Enamel on request

#### **Process connection**

Thread:

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

Flange:

DIN DN25...DN100,

ASME 1"...4",

JIS 25A...100A

#### Sensor length

Length 130mm (5.12") (Liquiphant II) 148mm...3000mm / 6000mm optional (5.83"...118" / 236" optional)

#### Communication

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

## Point Level / Liquids

#### **Certificates / Approvals**

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

#### Safety approvals

SIL

#### **Design approvals**

EN 10204-3.1

NACE MR0175, MR0103

**ASME B31.3** 

AD2000

#### Marine approval

GL/ ABS

#### **Options**

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

#### Components

FTL325P/FTL375P Interface PFM FTL325N/FTL375N Interface NAMUR

More information www.uk.endress.com/FTL71

