Vibronic
Point level switch
Liquiphant FTL71

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

Benefits:
- Use in safety systems requiring functional safety to SIL2 in accordance with 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: guaranteed 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 / 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

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### 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 / max. overpressure limit**
Vacuum...100 bar  
(Vacuum...1450 bar)

**Min. density of medium**
0.5g/cm³ (0.4g/cm³ 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.endress.com/FTL71