

# Vibronic

## Point level detection

### Liquiphant FTL81

Point level switch for liquids for FailSafe overfill prevention



More information and current pricing:

[www.de.endress.com/FTL81](http://www.de.endress.com/FTL81)

#### Benefits:

- Use in safety systems requiring functional safety to SIL3 in accordance with IEC 61508 Ed.2.0/ IEC 61511-1/ISA 84-1 and DIN EN ISO 13849
- Proof test: proof testing interval up to 12 years, Slave devices tested at the press of a button
- Permanent self-monitoring/internal redundancy
- 4-20mA interface (acc. to NAMUR NE 06/NE 43): easy integration via the switching unit (Nivotester FailSafe FTL825) with a two-channel output (safety contacts) and locking function or direct integration into a safety PLC
- No adjustment: quick, low-cost startup
- No mechanically moving parts: no maintenance, no wear, long operating life
- Monitoring of fork for damage, corrosion, build-up and mechanical blocking

#### Specs at a glance

- **Process temperature** -60°C...+280°C (-76°F...+540°F)
- **Process pressure absolute / max. overpressure limit**  
Vacuum...100 bar (1450 psi)
- **Min. density of medium** Density from 0.4 g/cm<sup>3</sup> (0.4 SGU)

**Field of application:** Liquiphant FTL81 is a point level switch for use in hazardous areas with all international certificates. FailSafe overfill prevention in applications with functional safety up to SIL3 with one

device. 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

Reliable point level switch with extension pipe for MIN and MAX safety applications up to SIL3.

Dual Sealing / Second line of defense

Modular housing concept

#### Specialities

Outstanding features:

- permanent LIVE signal monitors function safety
- failsafe design and
- high availability of the measuring values

#### Supply / Communication

2-wire 4...20 mA

#### Ambient temperature

-60°C...+70°C

(-76°F...+160°F)

#### Process temperature

-60°C...+280°C

(-76°F...+540°F)

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

Vacuum...100 bar

(1450 psi)

#### Min. density of medium

Density from 0.4 g/cm<sup>3</sup>

(0.4 SGU)

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**Point Level / Liquids**

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**Main wetted parts**

316L  
Alloy C

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**Process connection**

Flange:  
DN25...DN100,  
ASME 1"...4",  
JIS 10K...20K  
Thread:  
G3/4, G1, R3/4,  
R1, MNPT3/4, MNPT1

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**Sensor length**

Extension pipe up to 3 m (9.8 ft)

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**Communication**

2-wire 4...20 mA

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**Certificates / Approvals**

ATEX, FM, CSA, CSA C/US, IEC Ex, NEPSI, EAC

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**Safety approvals**

Overfill protection WHG  
Leakage Detection  
SIL3

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**Design approvals**

EN 10204-3.1  
NACE MR0175, MR0103  
ASME B31.3  
AD2000

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**Marine approval**

GL/ ABS/ LR/ BV/ DNV

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## Point Level / Liquids

### Options

PWIS free  
Pressure tight feed through  
Weather protection

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### Components

Nivotester FTL825, Transmitter

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