

Capacitance Level measurement Liquicap FMI51

For continuous level and interface
measurement in liquids



More information and current pricing:

www.fr.endress.com/FMI51

Benefits:

- Use also in safety systems requiring functional safety to SIL2 in accordance with IEC 61508
- Reliable and universal application thanks to wide range of certificates and approvals
- No calibration necessary (factory preconfiguration). No calibration necessary for media with a conductivity of 100 μ S/cm and higher
- Material in contact with the process made of corrosion-resistant material, FDA-listed materials
- Menu-guided local configuration via plain text display (optional)
- Two-stage overvoltage protection

Specs at a glance

- **Accuracy** Repeatability 0,1%
- **Process temperature** -80°C...200°C -112°F...392°F
- **Process pressure / max. overpressure limit** Vacuum ... 100 bar (Vacuum ... 1450 psi)
- **Max. measurement distance** 0.1 m ... 4.0 m (0.3 ft ... 13 ft)
- **Main wetted parts** Insulation material: PTFE,PFA 316L

Field of application: Liquicap FMI51 is a reliable fully insulated rod probe for continuous level monitoring in liquids, particularly in build-up forming media and extremely high temperatures. The measurement is independent of the dielectric constant (dc). Used in conjunction with Fieldgate FXA320 (remote measured value interrogation using Internet technology), Liquicap is an ideal solution for Inventory Management Solutions.

Features and specifications

Continuous / Liquids

Measuring principle

Capacitive

Characteristic / Application

Fully insulated rod probe, for standart- and extreme process conditions (temperature, pressure, build-up)

Interface measurement

Interfaces liquid / liquid also with emulsion layers

Specialities

Inactive length

Factory calibrated

short response time by change of value

Supply / Communication

12-36V DC HART

PFM

Accuracy

Repeatability 0,1%

Linearity error for conductive liquids

<0,25%

Ambient temperature

-50°C...+70°C

-58°F...+158°F

Process temperature

-80°C...200°C

-112°F...392°F

Process pressure / max. overpressure limit

Vacuum ... 100 bar

(Vaccum ... 1450 psi)

Continuous / Liquids**Main wetted parts**

Insulation material: PTFE,PFA
316L

Process connection

G1/2, G 3/4, G 1, G1 1/2 /NPT 1/2, NPT 3/4, NPT 1", NPT1 1/2
Flanges from DN25.../ASME 1".../JIS...

Process connection hygienic

Tri-Clamp ISO02852 gap free plated
Dairy coupling
Flush-mounted seal

Sensor length

Total length: 6m (20ft)
Inactive length: max. 2m (7ft)

Max. measurement distance

0.1 m ... 4.0 m
(0.3 ft ... 13 ft)

Communication

4...20mA HART
PFM

Certificates / Approvals

ATEX, FM, CSA, IEC Ex, TIIS, INMETRO, NEPSI, EAC

Safety approvals

SIL

Design approvals

EN 10204-3.1
NACE MR0175

Hygienic approvals

3A, EHEDG

Continuous / Liquids

Marine approval

GL/ ABS/ DNV

Options

Separate housing
gas-tight probe seal

Application limits

Insufficient clearance towards ceiling
Changing, non-conductive
media, conductivity
< 100 $\mu\text{S}/\text{cm}$
Notice the pressure and temperature derating

More information www.fr.endress.com/FMI51