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 100μS/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

<table>
<thead>
<tr>
<th><strong>Measuring principle</strong></th>
<th>Capacitive</th>
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<table>
<thead>
<tr>
<th><strong>Characteristic / Application</strong></th>
<th>Fully insulated rod probe, for standard- and extreme process conditions (temperature, pressure, build-up)</th>
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<table>
<thead>
<tr>
<th><strong>Interface measurement</strong></th>
<th>Interfaces liquid / liquid also with emulsion layers</th>
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<tr>
<th><strong>Specialities</strong></th>
<th>Inactive length</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factory calibrated</td>
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<td></td>
<td>Short response time by change of value</td>
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</tbody>
</table>

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<thead>
<tr>
<th><strong>Supply / Communication</strong></th>
<th>12-36V DC HART</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>PFM</td>
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</table>

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<thead>
<tr>
<th><strong>Accuracy</strong></th>
<th>Repeatablity 0.1%</th>
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<tr>
<th><strong>Linearity error for conductive liquids</strong></th>
<th>&lt;0.25%</th>
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<tr>
<th><strong>Ambient temperature</strong></th>
<th>-50°C...+70°C</th>
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<tbody>
<tr>
<td></td>
<td>-58°F...+158°F</td>
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<table>
<thead>
<tr>
<th><strong>Process temperature</strong></th>
<th>-80°C...200°C</th>
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<tbody>
<tr>
<td></td>
<td>-112°F...392°F</td>
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</tbody>
</table>

| **Process pressure / max. overpressure limit** | Vacuum ... 100 bar (Vacuum ... 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", NPT 1 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 μS/cm
Notice the pressure and temperature derating

More information [www.us.endress.com/FMI51](http://www.us.endress.com/FMI51)