iTHERM TM401
Modular RTD thermometer - basic technology

For standard hygienic and aseptic applications in the Food & Beverages and Life Sciences industries

Benefits:
- Excellent value for money and fast delivery
- User-friendly and reliable from product selection to maintenance
- International certification: hygiene standards as per 3-A®, EHEDG, ASME BPE, FDA, TSE Certificate of Suitability
- Wide range of process connections

Specs at a glance
- **Accuracy** class A acc. to IEC 60751
- **Response time** depending on configuration
- **Max. process pressure (static)** at 20 °C: 40 bar (580 psi)
- **Operating temperature range** PT100: -50 °C ... 200 °C (-58 °F ... 392 °F)
- **Max. immersion length on request** up to 400 mm (15.75”)

Field of application: This iTHERM thermometer has been designed to meet the basic requirements of the Food & Beverages and Life Sciences industries at the best price. It offers a variety of versions within a clearly segmented standard product. The result: Time and cost savings by simple and fast product selection. The device uses basic technology with features such as a fixed, non-replaceable insert, a wide range of process connections and international certification at an excellent value for money.

Features and specifications
Thermometer

**Measuring principle**
Resistance Temperature Detector

**Characteristic / Application**
metric style
hygienic applications
aseptic applications
hygienic process connections
with neck

**Thermowell / protection tube**
without (not intended to use with thermowell)

**Insert / probe**
without exchangeable insert

**Outer diameter protection tube / Insert**
6,0 mm (0,24")
8,0 mm (0,31")

**Max. Immersion length on request**
up to 400 mm (15,75")

**Material protection tube/ thermowell**
316L

**Process connection**
compression fitting
triclamp
microclamp
clamp connections acc. to ISO2852
Ingold
G3/4" Liquiphant
G1" Liquiphant
Varivent
SMS 1147
screwed pipe joint acc. to DIN 11851
**Thermometer**

<table>
<thead>
<tr>
<th><strong>Tip shape</strong></th>
<th>straight</th>
<th>reduced</th>
</tr>
</thead>
</table>

| **Surface roughness Ra** | 0,76 μm (30 μin) | 0,38 μm (15 μin)             |

<table>
<thead>
<tr>
<th><strong>Operating temperature range</strong></th>
<th>PT100:</th>
<th>-50 °C ... 200 °C (-58 °F ... 392 °F)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Max. process pressure (static)</strong></th>
<th>at 20 °C: 40 bar (580 psi)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Accuracy</strong></th>
<th>class A acc. to IEC 60751</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Response time</strong></th>
<th>depending on configuration</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Integration head transmitter</strong></th>
<th>yes (4 ... 20 mA, HART)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Certification</strong></th>
<th>SIL (transmitter only)</th>
</tr>
</thead>
</table>

More information [www.endress.com/TM401](http://www.endress.com/TM401)