Safe and reliable temperature measurement.

The VITO MPT Multi spot Pt100 Temperature probe for temperature measurement together with Honeywell Enraf automatic tank gauging equipment is the answer for accurate inventory management. The VITO MPT is a robust and reliable device, fully complying with all relevant industrial standards. The VITO MPT provides average product temperature, vapor temperature and temperature profiles, utilizing high accuracy Pt100 temperature sensors. Its accuracy complies with the requirements for legal metrology and is according to API MPMS Chapter 7 section 3. The solution meets international safety requirements for use in explosion hazardous areas.

## Technical Specification

### Principle

**Measuring principle**
4-14 Pt100 temperature elements equidistant spaced between top and bottom element

### Measuring Specifications

<table>
<thead>
<tr>
<th>Product temperature range</th>
<th>Low</th>
<th>Standard</th>
<th>High</th>
<th>Very high</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-200 ºC to +50 ºC (-328 ºF to +122 ºF)</td>
<td>-50 ºC to +120 ºC (-58 ºF to +248 ºF)</td>
<td>-50 ºC to +200 ºC (-58 ºF to +392 ºF)</td>
<td>-20 ºC to +250 ºC (-4 ºF to +482 ºF)</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-50 ºC to +120 ºC (-58 ºF to +248 ºF)</td>
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</tr>
<tr>
<td>Measuring length</td>
<td>Depending on identification code (see drawing)</td>
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</tr>
<tr>
<td></td>
<td>• 1/6 DIN Class B = ± 1/6·(0.30+0.005·</td>
<td>t</td>
<td>) ºC</td>
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<tr>
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<td>) ºC</td>
<td>• 1/10 DIN Class B = ± 1/10·(0.30+0.005·</td>
</tr>
<tr>
<td>Probe accuracy</td>
<td>• 1/6 DIN Class B = ± (0.15+0.002·</td>
<td>t</td>
<td>) ºC</td>
<td>• 1/6 DIN Class B = ± (0.15+0.002·</td>
</tr>
<tr>
<td></td>
<td>• 1/10 DIN Class B = ± (0.12+0.0015·</td>
<td>t</td>
<td>) ºC</td>
<td>• 1/10 DIN Class B = ± (0.12+0.0015·</td>
</tr>
<tr>
<td>Measuring resolution</td>
<td>0.01 ºC (0.01 ºF)</td>
<td>0.01 ºC (0.01 ºF)</td>
<td>0.01 ºC (0.01 ºF)</td>
<td>0.01 ºC (0.01 ºF)</td>
</tr>
</tbody>
</table>

### Mechanical

| Process material                  | AISI 316 |
| Adjusting pipe                    | ISO 228/1-G1/2B (1/2 BSP), adjustable length 255 mm (10”), see drawing |
| Maximum outside diameter          | 28.6 mm (1.2”) |
| Mounting flange                   | Optional (1/2 BSP threaded mounting hole required) |
| Anchor weight                     | Max. 9 kg (20 lb) |

### Environmental

| Storage temperature               | -50 ºC to +120 ºC (-58 ºF to +248 ºF) |
| Operating pressure                | 6 bar / 600 kPa (90 psi) hydrostatic pressure |
| Safety                            | The VITO MPT probe is a passive component and can be considered as simple apparatus when used in Intrinsically Safe circuits in accordance with the following: |
|                                   | • EN IEC 60079-11, clause 5.7 |
|                                   | • NEC (National Electrical Code) Article 504 (Intrinsically Safe Systems) 504.2 (Definitions) Simple Apparatus |

### Electrical

| Flying leads                      | Color coded stranded wires, PTFE isolated, length: |
|                                   | • 35 cm (14”) |
|                                   | • 250 cm (98”) |
|                                   | • 600 cm (236”) |

Op
### Identification Code

#### Pos 1 Application
- General purpose

#### Pos 2 Product Temperature Probe
- **Standard:** -50 °C to +120 °C (-58 °F to +248 °F)
- **Low:** -200 °C to +50 °C (-328 °F to +122 °F)
- **High:** -50 °C to +200 °C (-58 °F to +392 °F)
- **Very High:** -20 °C to +250 °C (-4 °F to +482 °F)

#### Pos 3 Position Not Used
- Not used

#### Pos 4 Flying Leads Length
- **N:** 35 cm (14")
- **B:** 250 cm (98")
- **E:** 600 cm (236")

#### Pos 5, 6, 7 Instrument Designation
- VITO MPT Temperature probe

#### Pos 8 Accuracy Class Pt100 Elements
- **1/6 DIN Class B:** $\pm \frac{1}{6} \cdot (0.30 + 0.005 \cdot |t|)$ °C
- **1/10 DIN Class B:** $\pm \frac{1}{10} \cdot (0.30 + 0.005 \cdot |t|)$ °C

#### Pos 9, 10 Number of Pt100 Elements
- 04 to 14 (max. 06 elements if directly connected to SmartRadar FlexLine)

#### Pos 11 Electrical Hazardous Classification
- **1 m (39") from bottom of probe**
- **15 cm (6") from bottom of probe**

#### Pos 12, 13, 14, 15 Overall Length in Steps of 10 cm
- Range 0370 to 4000 cm

#### Pos 16, 17, 18, 19 Position of Highest Temperature Element in Steps of 10 cm
- 0300 to 3930 cm (≤ overall length -70 cm)

#### Pos 20 Separator

#### Pos 21 Tag Plate
- **None**
- **Included (AISI 304)**

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**Typical Identification Code**

**Your Identification Code**
For More Information
To learn more about Honeywell Enraf's VITO Probes, visit www.honeywellenraf.com or contact your Honeywell Enraf account manager.

Americas
Honeywell Enraf Americas, Inc.
2000 Northfield Ct.
Roswell, GA 30076
USA
Phone: +1 770 475 1900
Email: enraf-us@honeywell.com

Europe, Middle East and Africa
Honeywell Enraf
Delftechpark 39
2628 XJ Delft
The Netherlands
Phone: +31 (0)15 2701 100
Email: enraf-nl@honeywell.com

Asia Pacific
Honeywell Pte Ltd.
17 Changi Business Park Central 1
Singapore 486073
Phone: +65 6355 2828
Email: enraf-sg@honeywell.com

Dimensional Drawing
361 VITO MPT Temperature probe

For More Information
To learn more about Honeywell Enraf's VITO Probes, visit www.honeywellenraf.com or contact your Honeywell Enraf account manager.

Americas
Honeywell Enraf Americas, Inc.
2000 Northfield Ct.
Roswell, GA 30076
USA
Phone: +1 770 475 1900
Email: enraf-us@honeywell.com

Europe, Middle East and Africa
Honeywell Enraf
Delftechpark 39
2628 XJ Delft
The Netherlands
Phone: +31 (0)15 2701 100
Email: enraf-nl@honeywell.com

Asia Pacific
Honeywell Pte Ltd.
17 Changi Business Park Central 1
Singapore 486073
Phone: +65 6355 2828
Email: enraf-sg@honeywell.com

Honeywell Enraf
Your Terminal Operations Partner

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