

TH11

Modular RTD thermometer, US style

Best in class temperature measurement technology for general applications



More information and current pricing:

www.endress.com/TH11

Benefits:

- High flexibility due to modular assembly with standard terminal heads and customized immersion length
- One source shopping for temperature measurement solutions. World class transmitter with integrated sensor offering for heavy process industry applications. Remove and install straight out of the box!
- Improved galvanic isolation on most devices (2 kV)
- Simplified model structure: Competitively priced, offers great value. Easy to order and reorder. A single model number includes sensor and transmitter assembly for a complete point solution.
- All iTEMP® transmitters provide long term stability $\leq 0.05\%$ per year
- Fast response time with reduced/tapered tip form
- Head or field transmitter with easy selection: Analog output 4 to 20 mA, HART®, PROFIBUS® PA or FOUNDATION Fieldbus™

Specs at a glance

- **Accuracy** class A acc. to IEC 60751 class B acc. to IEC 60751
- **Response time** 63% $t_r = 2,0$ s
- **Max. process pressure (static)** at 20°C: 250 bar (3.626 psi) depends on configuration
- **Operating temperature range** PT 100: -200 °C ...600 °C -328 °F ...1.112 °F)
- **Max. immersion length on request** up to 96" (2439 mm) others on request

Field of application: The high modular thermometer is used for several applications in almost all industries. Examples are heat exchangers, dryers, process reactors, reactor stations, etc. With different head transmitter it's a complete unit ready for use with enhanced

measurement accuracy and reliability. It also enables very fast response times, due to direct contact measurement without thermowell. A variety of process connections and dimensions offer flexible application possibilities.

Features and specifications

Thermometer

Measuring principle

Resistance Temperature Detector

Characteristic / Application

US style

modular temperature assembly

threaded process connection

direct immersion style

Thermowell / protection tube

without (not intended to be used with thermowell)

Insert / probe

mineral insulated (MI), flexible

PTFE-insulated, rigid

Outer diameter protection tube / Insert

1/8" (3,18 mm)

3/16"(4,76 mm)

1/4" (6,35 mm)

3/8" (9,53 mm)

Thermometer

Max. immersion length on request

up to 96" (2439 mm)

others on request

Material protection tube/ thermowell

Sensor sheath

316/316L

Process connection

male thread:

G1/2"

NPT1/2"

compression fitting:

NPT1/8"

NPT1/4"

Tip shape

straight

reduced

Surface roughness Ra

Not defined

Operating temperature range

PT 100:

-200 °C ...600 °C

-328 °F ...1.112 °F)

Thermometer

Max. process pressure (static)
at 20°C: 250 bar (3.626 psi)

depends on configuration

Accuracy
class A acc. to IEC 60751

class B acc. to IEC 60751

Response time
63% rt = 2,0 s

Integration head transmitter
yes (4 ... 20 mA; HART; PROFIBUS PA; FOUNDATION
FIELDBUS)

Ex - approvals
transmitter only

FM IS

CSA IS

FM/CSA IS

Certification
SIL (transmitter only)

More information www.endress.com/TH11