

TR88

Modular RTD thermometer

Comprehensive and common temperature measurement technology for almost all branches of industry



More information and current pricing:

www.us.endress.com/TR88

Benefits:

- High degree of flexibility thanks to modular design with standard terminal heads as per DIN EN 50446 and customer-specific immersion lengths
- Variable total length in suitable thermowells thanks to compression fitting on extension neck
- Types of protection for use in hazardous locations: Intrinsic safety (Ex i.a.), non-sparking (Ex nA)
- Head 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 AA acc. to IEC 60751
- **Response time** depending on configuration
- **Max. process pressure (static)** depending on Thermowell
- **Operating temperature range** PT100 TF StrongSens: -50 °C ...500 °C (-58 °F ...932 °F) PT100 WW: -200 °C ...600 °C (-328 °F ...1.112 °F) PT100 TF: -50 °C ...400 °C (-58 °F ...752 °F)
- **Max. immersion length on request** up to 30.000,00 mm (1.181,10")

Field of application: The high modular and robust thermometer finds its use in several applications in almost all industries. An optional head transmitter, with all common communication protocols, makes the device ready to use with enhanced measurement accuracy and reliability compared to directly wired sensors. A variety of process connections, dimensions and materials offer flexible application possibilities.

Features and specifications

Thermometer

Measuring principle

Resistance Temperature Detector

Characteristic / Application

metric style
modular temperature assembly
universal range of application
suitable for hazardous areas
with neck
to use with thermowell
usable with insert StrongSens

Thermowell / protection tube

to be used with thermowell

Insert / probe

mineral insulated (MI), flexible

Outer diameter protection tube / Insert

Insert Diameter
3,0 mm (0,12")
6,0 mm (0,24")

Max. immersion length on request

up to 30.000,00 mm (1.181,10")

Material protection tube/ thermowell

Not defined

Optional coating

Not defined

Thermometer**Process connection**

Thermometer connection male thread:

G1/2"

NPT1/2"

M14x1.5

M18x1.5

M20x1,5

R3/4"

R1/2"

Tip shape

Not defined

Operating temperature range

PT100 TF StrongSens:

-50 °C ...500 °C

(-58 °F ...932 °F)

PT100 WW:

-200 °C ...600 °C

(-328 °F ...1.112 °F)

PT100 TF:

-50 °C ...400 °C

(-58 °F ...752 °F)

Max. process pressure (static)

depending on Thermowell

Accuracy

class A acc. to IEC 60751

class AA acc. to IEC 60751

Response time

depending on configuration

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

Thermometer

Ex - approvals

ATEX II

IECEX

EAC Ex

Certification

Gost Metrology

SIL (transmitter only)

More information www.us.endress.com/TR88