

# TR88

## Modular RTD thermometer

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



More information and current pricing:

[www.endress.com/TR88](http://www.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 transmitter**yes (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.endress.com/TR88](http://www.endress.com/TR88)