

## TR24 Modular RTD thermometer

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



More information and current pricing:

[www.endress.com/TR24](http://www.endress.com/TR24)

### Benefits:

- High degree of flexibility thanks to modular design with standard terminal heads as per DIN EN 50446 and customer-specific immersion lengths
- High degree of insert compatibility and design as per DIN 43772
- Fast response time with reduced tip form
- Types of protection for use in hazardous locations: Intrinsic safety (Ex ia), 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  $t_{50} = 2\text{ s}$   $t_{90} = 5\text{ s}$
- **Max. process pressure (static)** at 20 °C: 40 bar (580 psi)
- **Operating temperature range** PT 100: -200 °C ... 500 °C (-328 °F ... 932 °F)
- **Max. immersion length on request** up to 10.000,00 mm (393,70")

**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.

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## Features and specifications

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### Thermometer

**Measuring principle**

Resistance Temperature Detector

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**Characteristic / Application**

metric style  
modular temperature assembly  
process connection as compression fitting  
without neck

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**Thermowell / protection tube**

without (not intended to use with thermowell)

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**Insert / probe**

mineral insulated (MI), flexible

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**Outer diameter protection tube / Insert**

3,0 mm (0,12")

6,0 mm (0,24")

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**Max. immersion length on request**

up to 10.000,00 mm (393,70")

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**Material protection tube/ thermowell**

1.4404 (316L)

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**Process connection**

compression fitting:

G1/2"

NPT1/2"

weld in version

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**Tip shape**

straight

reduced

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**Surface roughness Ra**

Not defined

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## Thermometer

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### Operating temperature range

PT 100:

-200 °C ...500 °C

(-328 °F ...932 °F)

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### Max. process pressure (static)

at 20 °C: 40 bar (580 psi)

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### Accuracy

class A acc. to IEC 60751

class AA acc. to IEC 60751

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### Response time

depending on configuration

t<sub>50</sub> = 2 s

t<sub>90</sub> = 5 s

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### Integration head transmitter

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

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### Ex - approvals

ATEX II

NEPSI

IECEX

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### Certification

Gost Metrology

SIL (transmitter only)

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