

TMR31

Compact thermometer

Metric RTD 4-20 mA compact thermometer for industrial applications



Benefits:

- Small, compact design made entirely of stainless steel
- Extremely short response times
- Highly accurate even with short insertion lengths
- 4-wire, Pt100 or PC-programmable transmitter with 4 to 20 mA output
- Configuration and visualization with ReadWin® 2000 PC operating software, which is free of charge
- Breakdown information in event of sensor break or sensor short-circuit, adjustable as per NAMUR NE43
- Marine approval

Specs at a glance

- **Accuracy** class A acc. to IEC 60751
- **Response time** $t_{50} = 1 \text{ s}$ $t_{90} = 2 \text{ s}$
- **Max. process pressure (static)** at 20 °C: 100 bar (1.450 psi)
- **Operating temperature range** PT 100: -50 °C ...200 °C (-58 °F ...392 °F)
- **Max. immersion length on request** up to 600,00 mm (23,62")

from **€92.00**

Price as of 31.08.2025

More information and current pricing:

www.endress.com/TMR31

Field of application: With cost efficiency, optimal use of space, reliable operation, easy installation and commissioning the TMR31 fulfills the requirements of modern process measurement technology. Vibration-proof integrated thin-film sensors guarantee highest operational safety at the fastest response times.

Features and specifications

Thermometer

Measuring principle

Resistance Temperature Detector

Characteristic / Application

metric style
compact temperature probe
fast response time
threaded process connection
with or without neck

Thermowell / protection tube

without (not intended to use with thermowell)

Insert / probe

pipe version, isolated wires, not flexible

Outer diameter protection tube / Insert

4,00 mm (0,16")
6,00 mm (0,24")

Max. immersion length on request

up to 600,00 mm (23,62")

Material protection tube/ thermowell

1.4404 (316L)

Process connection

male thread:
G1/4"
G1/2"
NPT1/4"
NPT1/2"
M14x1.5
M18x1.5
BSPT R1/2"

Tip shape

straight

Thermometer

Surface roughness Ra

0,8 µm (32 µin.)

Operating temperature range

PT 100:

-50 °C ...200 °C

(-58 °F ...392 °F)

Max. process pressure (static)

at 20 °C: 100 bar (1.450 psi)

Accuracy

class A acc. to IEC 60751

Response time

t₅₀ = 1 s

t₉₀ = 2 s

Integration head transmitter

no (4...20mA Signal)

Certification

Marine approval

UL 3111-1

More information www.endress.com/TMR31