

TEC420

Thermocouple thermometer

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



More information and current pricing:

www.be.endress.com/TEC420

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
- Head transmitter with easy selection: Analog output 4 to 20 mA, HART®, PROFIBUS® PA or FOUNDATION Fieldbus™

Specs at a glance

- **Accuracy** class 2 acc. to IEC 60584
- **Response time** $t_{50} = 3$ s $t_{90} = 7$ s
- **Max. process pressure (static)** at 20 °C: 20 bar (290 psi)
- **Operating temperature range** Type K: -40 °C ...1.100 °C (-40 °F ...2.012 °F) Type J: -40 °C ...750 °C (-40 °F ...1.382 °F) Type T: -40 °C ...400 °C (-40 °F ...752 °F)
- **Max. immersion length on request** up to 100.000,00 mm (3.937,01")

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

Thermocouple

Characteristic / Application

metric style

modular temperature assembly

suitable for hazardous areas

process connection as compression fitting

without neck

Thermowell / protection tube

without (not intended to use with thermowell)

Insert / probe

mineral insulated (MI), flexible

Outer diameter protection tube / Insert

6,0 mm (0,24")

Max. immersion length on request

up to 100.000,00 mm (3.937,01")

Material protection tube/ thermowell

1.4401 (316)

Alloy 600 (2.4816)

Process connection

depending on configuration

Thermometer

Operating temperature range

Type K:

-40 °C ...1.100 °C

(-40 °F ...2.012 °F)

Type J:

-40 °C ...750 °C

(-40 °F ...1.382 °F)

Type T:

-40 °C ...400 °C

(-40 °F ...752 °F)

Max. process pressure (static)

at 20 °C: 20 bar (290 psi)

Accuracy

class 2 acc. to IEC 60584

Response timet₅₀ = 3 st₉₀ = 7 s**Integration head transmitter**yes (4 ... 20 mA; HART; PROFIBUS PA; FOUNDATION
FIELDBUS)**Ex - approvals**

ATEX

Thermometer

Certification

SIL (transmitter only)

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