

TEC420

Thermocouple thermometer

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



More information and current pricing:

www.jp.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** $t_{50} = 3\text{ s}$ $t_{90} = 7\text{ s}$
- **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 tubewithout (not intended to use with thermowell)

Insert / probemineral insulated (MI), flexible

Outer diameter protection tube / Insert6,0 mm (0,24")

Max. immersion length on requestup to 100.000,00 mm (3.937,01")

Material protection tube/ thermowell

1.4401 (316)
Alloy 600 (2.4816)

Process connectiondepending on configuration

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)

Thermometer

Max. process pressure (static)

at 20 °C: 20 bar (290 psi)

Accuracy

class 2 acc. to IEC 60584

Response time

t50 = 3 s

t90 = 7 s

Integration head transmitter

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

Ex - approvals

ATEX

Certification

SIL (transmitter only)

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