

TC15

Modular TC thermometer

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



More information and current pricing:

www.endress.com/TC15

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
- Extension neck to protect the head transmitter from overheating
- Fast response time with reduced/tapered tip form
- 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 1 acc. to IEC 60584
- **Response time** depending on configuration
- **Max. process pressure (static)** at 20 °C: 400 bar (5.802 psi)
- **Operating temperature range** Type K: max. 1.100 °C (max. 2.012 °F) Type J: max. 750 °C (max. 1.382 °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

Thermocouple

Characteristic / Application

metric style
modular temperature assembly
universal range of application
suitable for hazardous areas
suitable for high process pressures
flanged process connection
with neck
incl. thermowell / protection tube (metal)

Thermowell / protection tube

bar stock (drilled)

Insert / probe

mineral insulated (MI), flexible

Outer diameter protection tube / Insert

18,0 mm (0,71")

24,0 mm (0,94")

Max. immersion length on request

up to 30.000,00 mm (1.181,10")

Material protection tube/ thermowell

1.0460 (A105)

1.4571 (316Ti)

1.7335 (13CrMo4-5; F-11)

Alloy C276 (2.4819)

Duplex SAF 2205 (1.4462)

Titan Gr2 (3.7035)

Optional coating

Not defined

Thermometer

Process connection

weld in version

flange:

DN25 PN40 B1 (EN1092)

DN40 PN40 B1(EN1092)

DN50 PN40 B1 (EN1092)

ASME 1" 150 RF (B16.5)

ASME 1" 300 RF (B16.5)

Tip shape

tapered

Surface roughness Ra

0,8 µm (31,5 µin.)

Operating temperature range

Type K:

max. 1.100 °C

(max. 2.012 °F)

Type J:

max. 750 °C

(max. 1.382 °F)

Max. process pressure (static)

at 20 °C: 400 bar (5.802 psi)

Accuracy

class 1 acc. to IEC 60584

Response time

depending on configuration

Integration head transmitteryes (4 ... 20 mA; HART; PROFIBUS PA; FOUNDATION
FIELDBUS)

Thermometer

Ex - approvals

ATEX Ex ia, Ex nA

IECEX Ex ia

NEPSI Ex ia

EAC Ex ia

UKCA Ex ia, Ex nA, Ex tc

Certification

Gost Metrology

SIL (transmitter only)

More information www.endress.com/TC15