

High-Temperature Thermocouple - TAF16

Designed for the extremely high process temperatures in cement production, steel treatment, incinerators and fluidized bed furnaces



More information and current pricing:

www.endress.com/TAF16

Benefits:

- Long lifetime by usage of innovative thermowell materials with increased wear and chemical resistance
- Long-term stable measurement due to sensor protection with non-porous materials
- Flexible product selection thanks to modular design
- Optimized life cycle costs by means of replaceable spare parts

Specs at a glance

- **Accuracy** class 2 acc. to IEC 60584
- **Max. process pressure (static)** at 20 °C: 1 bar (15 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 N: -40 °C ...1.150 °C (-40 °F ...2.102 °F) Type S: 0 °C ...1.400 °C (32 °F ...2.552 °F)
- **Max. immersion length on request** up to 4.525,00 mm (178,15")

Field of application: Measuring points with extremely high process temperatures require this high-temperature thermometer with a ceramic or metal thermowell as well as thermocouples made from special metals such as platinum and rhodium. The thermowell made from special materials protects from mechanical and chemical damages in the process and increases the life span of the used sensors. This leads to: Cost savings for maintenance of the measuring point, quality improvements of the products and increased plant safety.

Features and specifications

Thermometer

Measuring principle

Thermocouple

Characteristic / Application

metric style

modular temperature assembly

high temperature probe (furnace)

incl. thermowell / protection tube (metal)

Thermowell / protection tube

welded protection tube

ceramic protection tube

Insert / probe

mineral insulated (MI), flexible

ceramic capillary, rigid

Outer diameter protection tube / Insert

14,0 mm (0,55")

15,0 mm (0,59")

17,2 mm (0,68")

18,0 mm (0,71")

21,3 mm (0,84")

22,0 mm (0,87")

26,7 mm (1,05")

28,0 mm (1,10")

Max. immersion length on request

up to 4.525,00 mm (178,15")

Thermometer

Material protection tube/ thermowell

1.4401 (316)
1.4749 (~446)
1.4841 (310)
Alloy 600 (2.4816)
Alloy 601 (2.4851)
Incoloy 800HT (1.4959)
Kanthal AF
Kanthal Super
NiCo
Siliciumnitrid(SiN)

Process connection

compression fitting:
G1/2"
G3/4"
G1"
G11/4"
G11/2"
adjustable Flange

Tip shape

straight

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 N:
-40 °C ...1.150 °C
(-40 °F ...2.102 °F)
Type S:
0 °C ...1.400 °C
(32 °F ...2.552 °F)

Thermometer

Max. process pressure (static)

at 20 °C: 1 bar (15 psi)

Accuracy

class 2 acc. to IEC 60584

Integration head transmitter

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

Certification

SIL (transmitter only)

More information www.endress.com/TAF16