

# TAF16

## High temperature TC thermometer

Applicable for cement production, steel treatment, incinerators and fluidized bed furnaces



More information and current pricing:

[www.ch.endress.com/TAF16](http://www.ch.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 by 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 these special thermometers with ceramic or metal thermowells 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.

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## Features and specifications

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### Thermometer

**Measuring principle**

Thermocouple

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**Characteristic / Application**

metric style

modular temperature assembly

high temperature probe (furnace)

incl. thermowell / protection tube (metal)

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**Thermowell / protection tube**

welded protection tube

ceramic protection tube

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**Insert / probe**

mineral insulated (MI), flexible

ceramic capillary, rigid

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**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")

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**Max. immersion length on request**

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

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## 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)

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**Process connection**

compression fitting:  
G1/2"  
G3/4"  
G1"  
G1 1/4"  
G1 1/2"  
adjustable Flange

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**Tip shape**

straight

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**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)

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## Thermometer

### Max. process pressure (static)

at 20 °C: 1 bar (15 psi)

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### Accuracy

class 2 acc. to IEC 60584

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### Integration head transmitter

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

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### Certification

SIL (transmitter only)

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