

iTHERM TMS11 MultiSens Linear Multipoint

Modular straight TC and RTD multipoint with primary thermowell



Benefits:

- Features a primary thermowell for superior mechanical strength and an easy replacement of individual inserts, which are available either with TC or RTD technology
- Easy integration with inserts according to standards as per IEC 60584, ASTM E230 and IEC 60751
- Electrical and Pressure Directive compliance for an easy and fast process integration
- High degree of customization thanks to a modular product design for maximum flexibility, easy installation and maintenance
- Compliance to various protection classes for use in hazardous areas
- Possibility to replace individual inserts, even during operation
- Continuous thermowell integrity monitoring thanks to a pressure port for maximum process safety

More information and current pricing:

www.at.endress.com/TMS11

Specs at a glance

- **Accuracy** class 1 acc. to IEC 60584 class Special ASTM E230 and ANSI MC 96.1 IEC60751 Class A IEC60751 Class AA
- **Response time** depending on configuration: TC: $t_{50} = 21$ s $t_{90} = 52$ s RTD: $t_{50} = 42$ s $t_{90} = 108$ s
- **Max. process pressure (static)** at 20 °C: 240 bar (3481 psi)
- **Operating temperature range** Type K: -270 °C ...1.100 °C (-454 °F ...2.012 °F) Type J: -210 °C ...760 °C (-346 °F ...1.382 °F) Type N: -270 °C ...1100 °C (-454 °F ...2.012 °F) Pt100 WW; 3mm; 316L; -200...600oC Pt100 TF; 3mm; 316L; -50...400oC
- **Max. immersion length on request** up to 15.000,00 mm (590")

Field of application: The iTHERM TMS11 MultiSens Linear Multipoint thermometer for oil & gas and chemical applications can be customized

for various scenarios in compliance with the highest safety standards. It increases process safety by monitoring the temperature on a high number of measuring points along a line using only a single process connection. Easy process integration reduces installation time and thus maximizes plant availability.

Features and specifications

Thermometer

Measuring principle

Resistance Temperature Detector

Characteristic / Application

metric style

imperial style

easy-to-use

suitable for hazardous areas

process connection: flanged

light chemical processes

linear sensor distribution

modular design

replaceable sensors during operation

Thermowell / protection tube

with one primary thermowell (for replaceable sensors and increased mechanical protection)

Insert / probe

mineral insulated (MI) sensors in a primary thermowell

Thermometer

Outer diameter protection tube / Insert

48,3mm (1 1/2")

60,3mm (2")

76,1mm (2 1/2")

88,9mm (3")

Max. immersion length on request

up to 15.000,00 mm (590")

Material protection tube/ thermowell

1.4401 (316)

1.4435 (316L)

1.4541 (321)

1.4845 (310L)

1.4301 (304)

1.4307 (304L)

Thermometer

Process connection

flange:

1 1/2 " ASME/ANSI B16.5 150
...9002" ASME/ANSI B16.5 150
...9003" ASME/ANSI B16.5 150
..900DN40 EN/DIN 1092.1 PN10
...PN150DN50 EN/DIN 1092.1 PN10
...PN150DN80 EN/DIN 1092.1 PN10
...PN150

Tip shapestraight

Thermometer

Operating temperature range

Type K:

-270 °C ...1.100 °C

(-454 °F ...2.012 °F)

Type J:

-210 °C ...760 °C

(-346 °F ...1.382 °F)

Type N:

-270 °C ...1100 °C

(-454 °F ...2.012 °F)

Pt100 WW; 3mm; 316L; -200...600oC

Pt100 TF; 3mm; 316L; -50...400oC

Max. process pressure (static)

at 20 °C: 240 bar (3481 psi)

Accuracy

class 1 acc. to IEC 60584

class Special ASTM E230 and ANSI MC 96.1

IEC60751 Class A

IEC60751 Class AA

Thermometer

Response time

depending on configuration:

TC:

$t_{50} = 21 \text{ s}$

$t_{90} = 52 \text{ s}$

RTD:

$t_{50} = 42 \text{ s}$

$t_{90} = 108 \text{ s}$

Integration head transmitter

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

Ex - approvals

ATEX

IECEX

UL

FM

CSA

Certification

SIL (transmitter only)

More information www.at.endress.com/TMS11