iTHERM TMS11 MultiSens Linear Multipoint

Modular straight TC and RTD multipoint with primary thermowell

More information and current pricing:
www.endress.com/TMS11

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

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: t50 = 21 s t90 = 52 s RTD: t50 = 42 s t90 = 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

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")

Thermometer

Material protection tube/ thermowell

1.4401 (316)
1.4435 (316L)
1.4541 (321)
1.4845 (310L)
1.4301 (304)
1.4307 (304L)

Process connection

flange:
1 1/2 " ASME/ANSI B16.5 150
...900
2" ASME/ANSI B16.5 150
...900
3" ASME/ANSI B16.5 150
..900
DN40 EN/DIN 1092.1 PN10
...PN150
DN50 EN/DIN 1092.1 PN10
...PN150
DN80 EN/DIN 1092.1 PN10
...PN150

Tip shape

straight

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

Response time

depending on configuration:
TC:
t50 = 21 s
t90 = 52 s
RTD:
t50 = 42 s
t90 = 108 s

Integration head transmitter

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

Thermometer

Ex - approvals

ATEX
IECEX
UL
FM
CSA

Certification

SIL (transmitter only)

More information **www.endress.com/TMS11**

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