

iTHERM MultiSens Slim TMS21

Multipoint thermometer

Low invasive bendable TC temperature profiling solution for petrochemical and chemical applications



More information and current pricing:

www.endress.com/TMS21

Benefits:

- High number of measuring points in a small diameter
- Low invasiveness temperature profiling probe
- Easy mounting and cabling

Specs at a glance

- **Accuracy** class 2 acc. to IEC 60584 ASTM E230 and ANSI MC 96.1
- **Response time** $t_{50} = 3 \text{ s}$ $t_{90} = 9 \text{ s}$
- **Max. process pressure (static)** at 20 °C: 90 bar (1305 psi)
- **Operating temperature range** Type K: max. 920 °C (max. 1.688 °F) Type J: max. 440 °C (max. 824 °F) Type N: max. 920 °C (max. 1.688 °F) Type E: max. 510 °C (max. 950 °F)
- **Max. immersion length on request** up to 13.000,00 mm (511,81")

Field of application: Specially designed for applications where small size of the probe and light weight are crucial. The TMS21 can be highly customized due to its versatility. It can monitor the temperature on a very high number of points along a line just by using one process connection. It is composed of several low diameters thermocouples protected by one overall primary tube thermowell. Two different product configurations are available, with or without flexible upper thermowell-hose (for axial centering).

Features and specifications

Thermometer

Measuring principle

Thermocouple

Characteristic / Application

metric style
imperial style
easy-to-use
suitable for hazardous areas
compression fitting as process connection
without neck
light chemical processes

Thermowell / protection tube

without (not intended to use with thermowell)

Insert / probe

mineral insulated (MI), flexible

Outer diameter protection tube / Insert

6,0 mm (0,24")
3,2 mm (0,126")
8,0 mm (0,31")
9,5 mm (0,37")
6,35 mm (1/4")

Max. immersion length on request

up to 13.000,00 mm (511,81")

Material protection tube/ thermowell

1.4401 (316)
1.4435 (316L)
1.4571 (316Ti)
1.4541 (321)
1.4550 (347)
Alloy 600 (2.4816)

Thermometer

Process connection

Compression fitting threaded 1/4"

Compression fitting threaded 1/2"

Compression fitting threaded 3/4"

Compression fitting threaded 1"

Flange as an accessory

Tip shape

straight

Operating temperature range

Type K:

max. 920 °C

(max. 1.688 °F)

Type J:

max. 440 °C

(max. 824 °F)

Type N:

max. 920 °C

(max. 1.688 °F)

Type E:

max. 510 °C

(max. 950 °F)

Max. process pressure (static)

at 20 °C: 90 bar (1305 psi)

Accuracy

class 2 acc. to IEC 60584

ASTM E230 and ANSI MC 96.1

Response time

t₅₀ = 3 s

t₉₀ = 9 s

Integration head transmitter

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

Thermometer

Ex - approvals

ATEX Ex ia

IECEX Ex ia

IECEX ATEX Ex ia

NEPSI Ex ia

UKCA Ex ia

EAC Ex ia

UL

CSA

Certification

SIL (transmitter only)

More information www.endress.com/TMS21