

iTHERM SurfaceLine TM611

Surface thermometer

Non-invasive RTD/TC thermometer with high measurement performance for demanding applications



More information and current pricing:

www.endress.com/TM611

Benefits:

- Measurement accuracy and response time **comparable with invasive measurements**
- No process opening required, **no leakage risk**
- **Increased safety** for personnel, plant and the environment
- **User-friendly** from product selection to installation and maintenance
- **Significant cost savings:** shorter development and project planning times, reduced expenses for installation, certification and inspections as well as no costs for thermowells, nozzles and flanges, weld seam inspections and pipe extensions.
- iTEMP temperature transmitter with all **standard communication protocols** and **optional Bluetooth® connectivity**
- **International certification:** e.g. explosion protection according to ATEX, IECEx, CSA and NEPSI; functional safety (SIL)

Specs at a glance

- **Accuracy** depending on application Class AA acc. to IEC 60751 Class A acc. to IEC 60751 Class B acc. to IEC 60751 Class special or standard acc. to ASTM E230 Class 1 or 2 acc. to IEC 60584-2
- **Response time** depending on application
- **Operating temperature range** -196 °C...400 °C (-320,8 °F...752 °F)

Field of application: The non-invasive thermometer iTHERM SurfaceLine TM611 is used across all industries to measure temperature without the risk of leakage and process disruption. The device is safe and easy to install and provides the same accuracy and response time as invasive temperature measurement. A specially designed thermal

coupling element provides ideal thermal conductivity to the sensor and reduces ambient influences, resulting in superior measurement performance even compared to electronic compensation.

Features and specifications

Thermometer

Measuring principle

Resistance Temperature Detector

Characteristic / Application

non-invasive thermometer
cable probe or modular thermometer
suitable for high process pressures
surface mounting

Thermowell / protection tube

without (not intended to use with thermowell)

Insert / probe

non exchangeable RTD or TC insert

Outer diameter protection tube / Insert

Geometry of coupling element is designed according to diameter of process piping

Process connection

surface mounting

Operating temperature range

-196 °C...400 °C (-320,8 °F...752 °F)

Accuracy

depending on application
Class AA acc. to IEC 60751
Class A acc. to IEC 60751
Class B acc. to IEC 60751
Class special or standard acc. to ASTM E230
Class 1 or 2 acc. to IEC 60584-2

Thermometer

Response time

depending on application

Integration head transmitter

yes (4 ... 20 mA; HART; iO-Link, PROFINET, PROFIBUS PA;
FOUNDATION FIELDBUS)

Ex - approvals

ATEX IECEx Ex tb, Ex ia, Ex db
CSA C/US IS, NI
UKCA Ex tb, Ex ia, Ex db

Certification

SIL, MID, Marine

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