



APPLICATIONS

- For direct installation into the process
- Machine building
- Pipelines and vessels
- Any application where temperature needs to be measured inside a pipe or tank and in which a stem-type thermometer is suitable.

SPECIFICATIONS

Type Thermometer

Remote-Reading Thermometers

Available lengths

50 ... 50.000 mm

Available diameters

63, 80, 100 & 160 mm

Process connection

1/2" BSP sliding standard, other connections available.

Temperature ranges

From -200 up to +800 ° C, with a minimum span of 60 ° C.

DESCRIPTION

The remote reading thermometers are well suited for any general application where temperature can be measured through installing the stem into the process. With the option of back, bottom and every-angle connections, there is always a way to connect the thermometer while ensuring readability.

TUVO thermometers can also be tested in house to ensure and check the accuracy of the instrument. This is done in house at our production facility in Rotterdam to ensure quality and quick handling.

If there is a chemically aggressive medium or abrasion present in the process, the TUVO TW-type thermowells should be used to protect the instrument. Another main advantage of using a thermowell is that in case of a failing sensor or thermometer, the instrument can be removed without interrupting the process. This decreases downtime and increases overall efficiency in the process.



REMOTE READING
THERMOMETERS

OPTIONS

- Test certificate, traceable to national and international standards.
- Glycerine filling
- With back, bottom or every-angle connection
- With TUVO TW-type thermowell.

STANDARD VERSION

Measuring principle

Bourdon tube system

Nominal size in mm

63, 100, 160

Design of connection

- 1 Plain stem (without thread)
- 2 Male nut
- 3 Union nut
- 4 Compression fitting (sliding on stem)
- 5 Union nut with fitting
- 6 Compression fitting (sliding on capillary)

Instrument version and type of mounting

- B Instruments with capillary; centre back mount triangular bezel with bracket
- H Instruments with capillary; lower mount (radial) surface mounting flange
- M Instruments with capillary; lower mount (radial) surface mounting bracket, aluminium die cast
- V Instruments with capillary; back mount 1) panel mounting flange
- A Back mount 1), fix plain stem, threaded connection or thermowell
- R Lower mount (radial), fix plain stem, threaded connection or thermowell
- S Back mount 1), fix plain stem, threaded connection or thermowell; swivelling approx. 90°

Fill medium measuring system

Xylol or silicon oil

Accuracy class

Class 2

Rated operating ranges and conditions

EN 13190

Capillary entry

Lower or back

Case

Stainless steel

Bezel ring

Stainless steel

Connection

Stainless steel 1.4571

Capillary

Length to customer specifications (max. 10 m), Ø 2 mm, stainless steel 1.4571, bending radius not less than 6 mm

Stem

Ø 8 mm, stainless steel 1.4571

Active length of sensor

Depending on Ø d and scale range

Dial

Aluminium, white, black lettering

Pointer

Aluminium, black

Window

NS 100, 160: Instrument glass
NS 63: Transparent plastic

Temperature limits for storage and transport

- 50 ... +70 °C (EN 13190) without liquid damping
- 20 ... +60 °C (EN 13190) with food-compatible liquid damping
- 50 ... +60 °C (EN 13190) with liquid damping

Ambient temperature limit at the case

0 ... 40 °C max. (others on request)

Pressure rating of stem

25 bar max., static

Ingress protection

IP 65 per EN 60529 / IEC 529

Options

- Scale range °F, °C/°F (dual scale)
- Laminated safety glass, clear plastic
- Ambient temperature compensation
- Accuracy class 1.0
- Thermowell per DIN or to customer specification
- Surface mounting bracket from other materials and lengths
- Liquid filling case with
NS 63: Model X70.53.063
NS 100: Model X70.53.100
NS 160: Model X70.53.160
Filling medium: glycerine
- Spiral protecting hose stainless steel
- Designs per DIN EN ISO 13485, medical appl. on request
- Stem diameter 6, 10 mm