

Capillar thermometer

Case: stainless steel

Model T4700



Description

The equipment in this product line is made from stainless steel. This provides safety and protection from a multitude of aggressive substances and environmental influences.

Measurements are recorded by the liquid-filled measuring system, which consists of a temperature sensor, a capillary tube and a Bourdon spring. These three components combine to form a closed tube system.

The internal pressure in this system changes depending on the temperature, which causes the pointer axle connected to the spring to rotate and display the temperature value on the scale.

Temperatures of between -40°C and +400°C are rapidly and accurately indicated by the closed system.

The capillary tube, which is between 500 mm and 10000 mm in length, allows measurements to be taken at any point using a mechanical remote display.

Features

- Fast response time
- Stainless steel housing for aggressive measuring substances
- Measuring point and display in different locations
- Wide range of standard versions

Measuring ranges

-40 . . . 60 °C up to 0 . . . 400 °C

Options

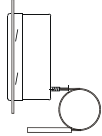
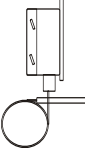
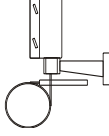
- Display range °F, °C/°F (two different scales)
- Connection on the back
- Laminated safety glass, acrylic
- Accuracy class 1.0
- Stainless steel measuring device holder
- Liquid damping

Applications

Mechanical engineering
Refrigeration engineering
Process technology
Food industry

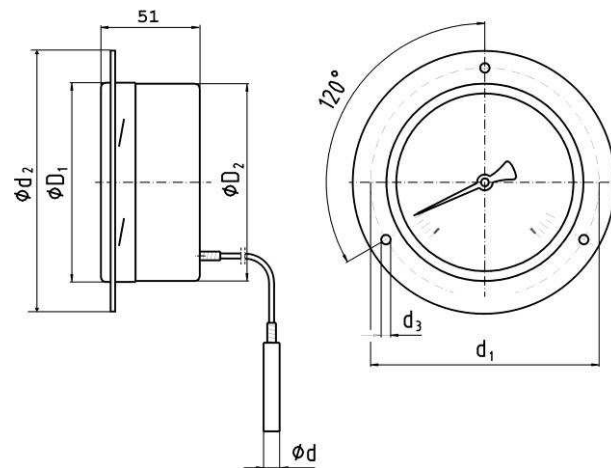
Model: T4700

Technical data

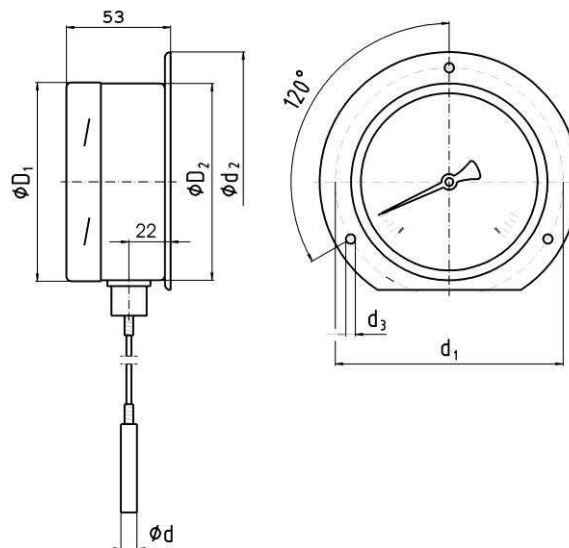
| Model | T4700 | | | Options |
|-------------------------------------|---|---|--|---------|
| Symbol |  |  |  | |
| Nominal size | 100 | | | |
| Type of mounting | bezel on bottom | bezel on back | device holder | |
| Accuracy class | Class 2 (EN13 190) | | | Class 1 |
| Measuring ranges and scale division | Measuring range in °C | limit of error ± °C | scale division in °C | |
| | -40... +40 | 2 | 1 | |
| | -40... +60 | 2 | 1 | |
| | -30... +50 | 2 | 1 | |
| | -20... +60 | 2 | 1 | |
| | -20... +80 | 2 | 1 | |
| | 0... 60 | 2 | 1 | |
| | 0... 80 | 2 | 1 | |
| | 0... 100 | 2 | 1 | |
| | 0... 120 | 4 | 2 | |
| | 0... 160 | 4 | 2 | |
| | 0... 200 | 4 | 2 | |
| | 0... 250 | 5 | 5 | |
| 0... 300 | 10 | 5 | | |
| 0... 400 | 10 | 5 | | |
| Case / Bezel | stainless steel 1.4571 | | | |
| Window | glas lens | | | |
| Dial | Aluminium white, scale and black imprint | | | |
| Pointer | Aluminium black, adjustable pointer | | | |
| Scale angle | approx. 270 ° | | | |
| Connection | capillary tube back | plain, capillary tube on the bottom | | |
| - Material | stainless steel 1.4571 | | | |
| Capillary tube | Ø 2 mm, stainless steel 1.4571, smallest bending radius 6 mm | | | |
| Stem | stainless steel 1.4571 | | | |
| Filled media | < 350°C Xylol, >350°C silicone oil | | | |
| Measuring principle | fluid expansion | | | |
| Protection class | IP 56 (EN 60529/ IEC 529) | | | |
| Weight (kg) | approx. 1,4 kg | | | |

Dimensions

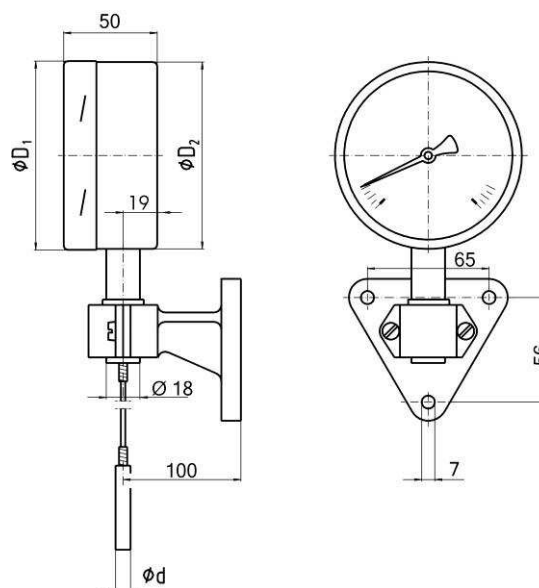
Model T4700 front bezel



Model T4700 back bezel



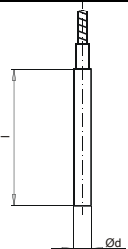
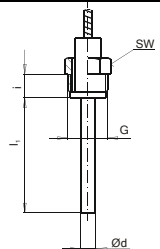
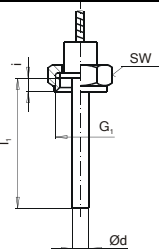
Model T4700 with device holder

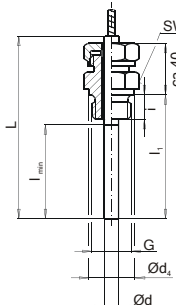
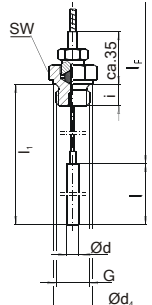
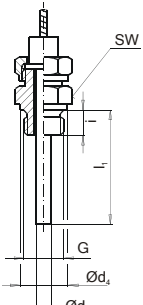


| ND | Dimensions in mm | | | | | | Weight in kg |
|-----|------------------|----------------|----------------|----------------|----------------|----------------|--------------|
| | d | d ₁ | d ₂ | d ₃ | D ₁ | D ₂ | |
| 100 | 8 | 116 | 132 | 4,8 | 101 | 99 | 1,400 |

Stem



| Type of connection: | plain without thread | turnable; male thread | union nut; female thread | | |
|---------------------|---|---|---|-----------|----------|
| Material | 1.4571 | 1.4571 | 1.4571 | | |
| Stem length l_1 | 140 mm 200 mm 240 mm 290 mm | 80 mm 140 mm 180 mm 230 mm | 89 mm 126 mm 186 mm 226 mm 276 mm | | |
| Stem diameter | $d = 8$ mm | $d = 8$ mm | $d = 8$ mm | | |
| Dimensions |  |  |  | | |
| G | | SW | i | SW | i |
| G 1/2 | | 27 | 20 | 27 | 8,5 |
| G 3/4 | | --- | --- | 32 | 10,5 |
| M24x1,5 | | --- | --- | 32 | 13,5 |

| Type of connection: | adjustable compression fitting, adjustable on stem | adjustable compression fitting, adjustable on capillary tube length: $L = l_1 + \text{ca. } 35$ mm | union nut with lose connection G 1/2 / G 1/2, G 1/2 / G 3/4 M24x1,5 / M18x1,5 | | | | | | |
|---------------------|---|---|---|-----------|-----------|----------|-----------|-----------|----------|
| Material | 1.4571 | 1.4571 | 1.4571 | | | | | | |
| Stem length l_1 | 140 mm 200 mm 240 mm 290 mm $l_{\text{min}} = 60$ mm | 140 mm 200 mm 240 mm 290 mm | 63 mm 100 mm 160 mm 200 mm 250 mm | | | | | | |
| Stem diameter | $d = 8$ mm | $d = 8$ mm | $d = 8$ mm | | | | | | |
| Dimensions |  |  |  | | | | | | |
| G | SW | d4 | i | SW | d4 | i | SW | d4 | i |
| G 1/2 | 27 | 26 | 14 | 27 | 26 | 14 | 27 | 26 | 14 |
| G 3/4 | 32 | 32 | 16 | 32 | 32 | 16 | 32 | 32 | 16 |
| M18x1,5 | 24 | 23 | 12 | --- | --- | --- | 24 | 23 | 12 |
| 1/2 NPT | 22 | --- | 19 | 22 | --- | 19 | 22 | --- | 19 |

Ordering informations

Model / Measuring range / length of capillary tube / stem / options

Subject to technical changes