

TECHNICAL THERMOMETER STRAIGHT TR, ANGULAR TU

TR, TU

Description

Thermometers can be used for temperature measurement in any position. Thermometer head can be placed in environment with temperature range $-30\text{ }^{\circ}\text{C}$ to $+110\text{ }^{\circ}\text{C}$. The maximum permissible deviation is for TR $\pm 2\%$ and for TU $\pm 2,5\%$ ($L > 60\text{ mm}$) or $\pm 4\%$ ($L = 45\text{ mm}$) from scale range. Measured temperature must not exceed maximum scale range.

Thermometers are manufactured with various stem lengths as shown in the table. The whole measuring system must be placed in measured environment to ensure accurate measurement. Recommended installation depth P is 100 mm, or the whole length of shorter stems. In some cases, especially at pressure bigger than 0,3 MPa

or in liquid environment, stem must be placed in thermometer well. Maximum pressure when well is used is 0,6 MPa. Thermometers TR with stem length 45 and 60 mm and thermometers with range $0\text{ }^{\circ}\text{C} - 350\text{ }^{\circ}\text{C}$ and $0\text{ }^{\circ}\text{C} - 450\text{ }^{\circ}\text{C}$ can be used only with thermometer well.

Thermometer consists from head and stem made of stainless steel class 17. Scale is protected by glass.



Technical Data

| Type | Head diameter [mm] | Scale division [$^{\circ}\text{C}$] | Scale range [$^{\circ}\text{C}$] | Measuring range [$^{\circ}\text{C}$] | Stem length ... L [mm] | | | | | | | | | |
|--------|--------------------|---------------------------------------|------------------------------------|--|--|----|-----|-----|-----|-----|--|------|------|----|
| | | | | | $\varnothing d = 8\text{ mm}$ (stainless (AKVS)) | | | | | | $\varnothing d = 10\text{ mm}$ (steel cl. 11 or AKVS) x* AKVS only | | | |
| | | | | | 45 | 60 | 100 | 160 | 250 | 400 | 630 | 1000 | 1500 | |
| TR 60 | 60 | 1 | $-30 \div 50$ | $-20 \div 40$ | | | x | x | x | x | | | | |
| | | 1 | $0 \div 120$ | $20 \div 100$ | x | x | x | x | x | | | | | |
| | | 2 | $0 \div 200$ | $20 \div 180$ | x | x | x | x | | | | | | |
| | | 5 | $0 \div 350$ | $50 \div 300$ | | | x | x | x | | | | | |
| | | 10 | $0 \div 450$ | $50 \div 400$ | | | | x | x | x | | | | |
| TR 100 | 100 | 1 | $-30 \div 50$ | $-20 \div 40$ | | | x | x | x | x | x | x | x | x |
| | | 1 | $0 \div 120$ | $20 \div 100$ | x | x | x | x | x | x | x | x | x | |
| | | 2 | $0 \div 160$ | $20 \div 140$ | | | x | x | x | x | x | x | x | |
| | | 2 | $0 \div 200$ | $20 \div 180$ | x | x | x | x | x | x | x | x | x | |
| | | 5 | $0 \div 350$ | $50 \div 300$ | | | | x | x | x | x | x | x | |
| 10 | $0 \div 450$ | $50 \div 400$ | | | | | x | x | x | x* | x* | x* | | |
| TR 120 | 120 | 1 | $-30 \div 50$ | $-20 \div 40$ | | | x | x | x | x | x | x | x | x |
| | | 1 | $0 \div 120$ | $20 \div 100$ | | | x | x | x | x | x | x | x | x |
| | | 2 | $0 \div 200$ | $20 \div 180$ | | | x | x | x | x | x | x | x | x |
| | | 5 | $0 \div 350$ | $50 \div 300$ | | | | | x | x | x | x | x | x |
| | | 10 | $0 \div 450$ | $50 \div 400$ | | | | | x | x | x | x* | x* | x* |

| Type | Head diameter [mm] | Scale division [°C] | Scale range [°C] | Measuring range [°C] | Stem length ... L [mm] | | | | | | | | |
|---------------|--------------------|---------------------|------------------|----------------------|-------------------------------|----|-----|-----|-----|-----|---|------|------|
| | | | | | ø d = 8 mm (stainless (AKVS)) | | | | | | ø d = 10 mm (steel cl. 11 or AKVS) x* AKVS only | | |
| | | | | | 45 | 60 | 100 | 160 | 250 | 400 | 630 | 1000 | 1500 |
| TU 60 | 60 | 1 | -30 ÷ 50 | -20 ÷ 40 | | | x | x | x | x | | | |
| | | 1 | 0 ÷ 120 | 20 ÷ 100 | | | x | x | x | x | | | |
| | | 2 | 0 ÷ 200 | 20 ÷ 180 | | | x | x | x | x | | | |
| | | 5 | 0 ÷ 350 | 50 ÷ 300 | | | x | x | x | x | | | |
| | | 10 | 0 ÷ 450 | 50 ÷ 400 | | | x | x | x | x | | | |
| TU 100 | 100 | 1 | -30 ÷ 50 | -20 ÷ 40 | | | x | x | x | x | x | x | x |
| | | 1 | 0 ÷ 120 | 20 ÷ 100 | | | x | x | x | x | x | x | x |
| | | 2 | 0 ÷ 160 | 20 ÷ 140 | | | x | x | x | x | x | x | x |
| | | 2 | 0 ÷ 200 | 20 ÷ 180 | | | x | x | x | x | x | x | x |
| | | 5 | 0 ÷ 350 | 50 ÷ 300 | | | x | x | x | x | x | x | x |
| | | 10 | 0 ÷ 450 | 50 ÷ 400 | | | x | x | x | x | x* | x* | x* |
| TU 120 | 120 | 1 | -30 ÷ 50 | -20 ÷ 40 | | | x | x | x | x | x | x | x |
| | | 1 | 0 ÷ 120 | 20 ÷ 100 | | | x | x | x | x | x | x | x |
| | | 2 | 0 ÷ 200 | 20 ÷ 180 | | | x | x | x | x | x | x | x |
| | | 5 | 0 ÷ 350 | 50 ÷ 300 | | | x | x | x | x | x | x | x |
| | | 10 | 0 ÷ 450 | 50 ÷ 400 | | | x | x | x | x | x* | x* | x* |

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