

# TECHNICAL THERMOMETER STRAIGHT TR, ANGULAR TU

## DESCRIPTION

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

Thermometers are manufactured with various stem lengths as show 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 45 and 60 mm and thermometers range  $0^{\circ}\text{C}$  to  $350^{\circ}\text{C}$  and  $0^{\circ}\text{C}$  to  $450^{\circ}\text{C}$  can be used only with thermometer well.

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

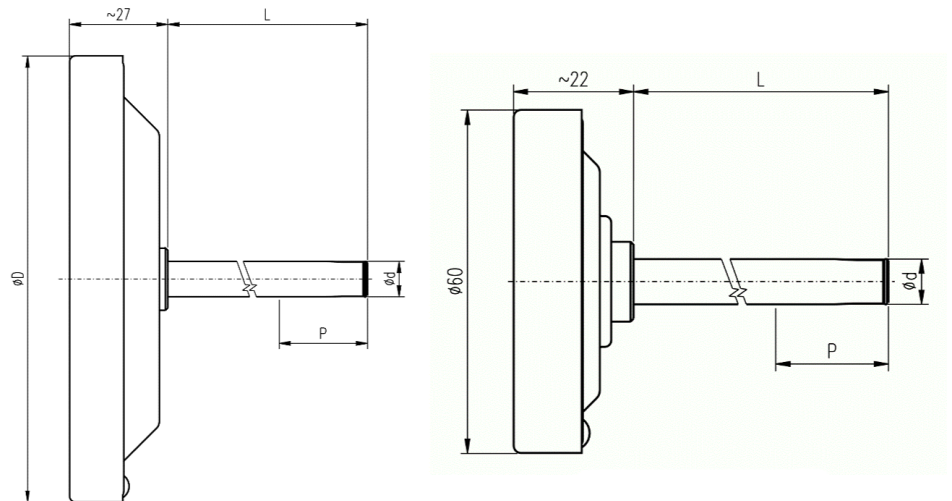


## TECHNICAL DATA

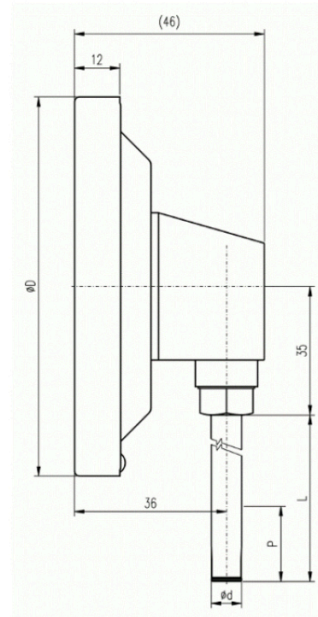
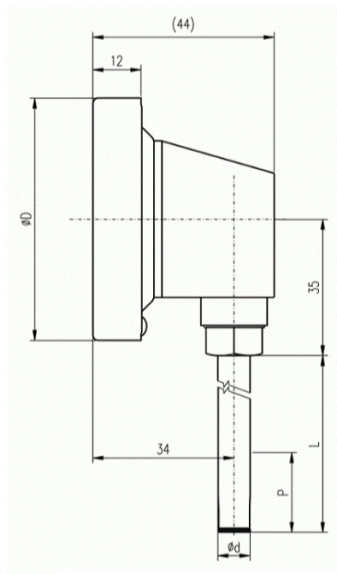
Type	Head diameter [mm]	Scale division [ $^{\circ}\text{C}$ ]	Scale range [ $^{\circ}\text{C}$ ]	Measuring range [ $^{\circ}\text{C}$ ]	Stem length... L [mm]								
					$\varnothing d = 8$ mm - stainless (AKVS)						$\varnothing d = 10$ mm (steel cl. 17 or AKVS); * AKVS only		
					45	60	100	160	250	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	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		
		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	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	X
		10	$0 \div 450$	$50 \div 400$			X	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	$20 \div 100$	$20 \div 100$		X	X	X	X	X	X	X	X
		2	$20 \div 180$	$20 \div 180$		X	X	X	X	X	X	X	X
		5	$50 \div 300$	$50 \div 300$			X	X	X	X	X	X	X
		10	$50 \div 400$	$50 \div 400$			X	X	X	X	X	X*	X*

Typ	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				
		1	0÷120	20÷100			X	X	X				
		2	0÷200	20÷180			X	X	X				
		5	0÷350	50÷300			X	X	X				
		10	0÷450	50÷400			X	X	X				
TU 100	100	1	-30÷50	-20÷40			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	20÷100	20÷100			X	X	X	X	X	X	X
		2	20÷180	20÷180			X	X	X	X	X	X	X
		5	50÷300	50÷300			X	X	X	X	X	X	X
		10	50÷400	50÷400			X	X	X	X	X*	X*	X*

TECHNICAL DRAWINGS



Technical thermometers straight TR



Technical thermometers angular TU

## CONTACTS

**APATOR METRA s.r.o.**

Havlíčková 919/24

787 01 Šumperk

Czech Republic

Tel.: +420 583 718 261

E-mail: [prodej@metra-su.cz](mailto:prodej@metra-su.cz)

Web: [www.metra-su.cz](http://www.metra-su.cz)

Your distributor:

The manufacturer reserves the right to change design, technical specifications and accessories without prior notice.

K2024/04a