
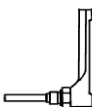


# INDUSTRIAL THERMOMETERS

## Straight type and angle type 90°

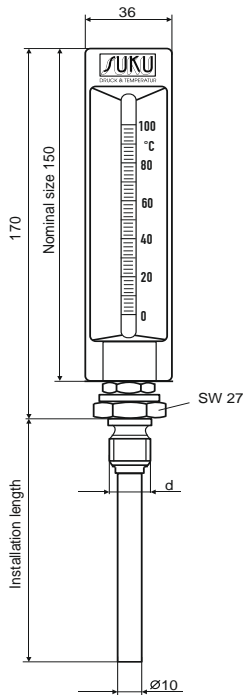


A robust thermometer for an accurate measurement of temperatures, especially in industrial processing plants.

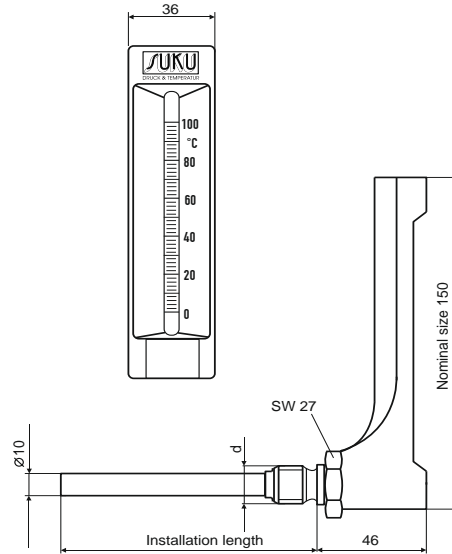
Model	22	21	27	24	23	29	Options
Size of case	110x36	150x36	200x36	110x36	150x36	200x36	
Symbol							Connector at an angle 135° Size 110 = Typ 26...7 Size 150 = Typ 26...8 Size 200 = Typ 26...9
Stem length in mm	30 40 63 100 160 250 400	63	63	30 40 63 100 160 250 400	63	63	45, 250 Other on request
Accuracy class	according DIN 16195						
Ranges °C	-60...+40, -30...+50, 0...100, 0...120, 0...160, 0...200						
Case	Aluminium , V-shaped, brass-colored anodised, Numbers on the right cheek scales , black printed						Rotatable type, case made of plastic
Glass insert	Solid class, calibration is deeply burned, in black						
Filling liquid	Blue fluid for standard executions 0 +250°C, red fluid -60 bis +40 °C						0...250°C blue, moisted
Immersion tube	Standard brass, diameter 10 mm, thickness 1 mm, hard soldered						Steel or stainless steel 1.4571
Thread connection	G ½ B, M20x1,5						G ¾ B, M27x2
Immersion tube type	Threaded socket with integral hexagonal nut						Insertion form, union nut

## Dimensions

### Type 21



### Type 23

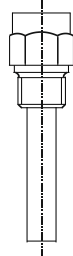


= G 1/2 B or M20x1,5

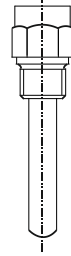
Installation instructions: It will be pointed out especially that the immersion pipe of the thermometer in the whole length of the media to be measured must be lapped.

### Protecting tubes for industrial thermometers

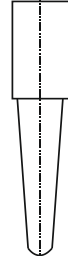
Protecting tube  
screw-in type  
Typ "BD"



Protecting tube  
screw-in type  
Typ "BE"



Protecting tube  
weld-in type  
Typ "BS"



Model	Typ (DIN)	Material			Dimensions in mm	
		Pressure load (PN)			Immersion tube	Protecting tube
B 976	(BD)	Steel	Brass 58	1.4571	63	45
		PN 25	PN 6	PN 25	100	82
					160	142
					250	232
E 978	(BE)	Steel	Brass 58	1.4571	63	50
		PN 160		PN 150	100	87
					160	147
					250	237
S 977	(BS)	Steel 15Mo3	Steel C22.8	1.4571	63	48
		PN 250	PN 150	PN 150	100	73
					160	133
					250	223

**Case 110 x 30 mm**

Displayed range °C	Scale division value °C	Margin of error °C	thermo-metrical fluid
-60 ... +40	2	2	red, moisted
0 ... 100	2	2	blue, moisted
0 ... 120	2	2	

**Case 150 x 36 mm**

Displayed range °C	Scale division value °C	Margin of error °C	thermo-metrical fluid
-60 ... +40	2	2	red, moisted
0 ... 100	2	2	blue, moisted
0 ... 120	2	2	
0 ... 160	2	4*	
0 ... 200	2	4*	
0 ... 250	2	4/2	

**Case 200 x 36 mm**

Displayed range °C	Scale division value °C	Margin of error °C	thermo-metrical fluid
-60 ... +40	1	2	red, moisted
-30 ... +50	1	2	blue, moisted
0 ... 100	2	2	
0 ... 120	1	2	
0 ... 160	2	4*	
0 ... 200	2	4*	
0 ... 250	2	4/2	

Thermometers with V - shaped housing with the display range of 0 to 160 ° C and 0 to 200 ° C may be carried out by agreement with mercury as a thermometric liquid ; the error limits are halved then