

# Bimetal thermometer

## Standard version



### Description

The measuring element of the bimetal thermometer is a quick reacting bimetal coil.

Special designs are available for measuring waste gas, with display ranges of 0...400 °C and 0...500 °C, coloured control panels and drag pointers. A plain stem with magnet, tapered thread, or without thread, serves as a process connection.

A comprehensive range of standard versions enables a wide range of applications and uses. Special versions are also manufactured to customer specifications.

### Features

- Short response time
- Wide selection of standard versions
- Special versions to customer specifications
- Special version: control thermometer for waste gas measurements

### Ranges

-30 ... 50 °C to 0 ... 200 °C  
0 ... 400 °C  
0 ... 500 °C

### Applications

Heating systems,  
general temperature measurements and  
waste gas measurements

**Models: TM176, TM177, TM186, TM187, TM188, TM189, TM198**

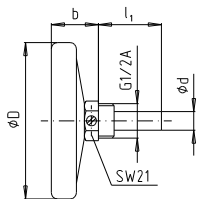
## Technical data

Models	TM186	TM187	TM188	TM189	TM198	TM176	TM177	
Nominal size	63	80	100	160	100	63	80	
Symbol								
Display ranges and scale spacing 1)	-30 ... 50 °C -20 ... 60 °C -10 ... 50 °C 0 ... 60 °C 0 ... 80 °C 0 ... 120 °C 0 ... 160 °C 0 ... 200 °C				1 °C  2 °C  5 °C	0 ... 400 °C 5 °C  with coloured control panels and drag pointer	0 ... 500 °C 5 °C	
Accuracy class	2 (to DIN 16203)							
Scale angle	ca. 270 °							
Application	full scale value							
Permissible op. pressure	max. 6 bar					----		
Measuring element	Bimetal coil							
Display correction	at plain stem end				Adjusting pointer			
Case	Aluminium							
Connection	back, central			radial, bottom		Plain stem, back central		
-design	Thermowell G 1/2 A detachable, with locking screw				with tapered thread	with magnet	without thread	
-dimensions	l <sub>1</sub> = 40, 60, 100, 160, 200 mm			l <sub>1</sub> = 60, 100, 160, 200 mm		l <sub>1</sub> = 100 mm	l <sub>1</sub> = 160 mm	
-material	Copper alloy				1.4571		steel	
Window	Acrylic glass 2)				Glass lens			
Dial	Aluminium, white, scale and markings black							
Pointer	Aluminium black							
Weight (kg)	0.08	0.1	0.13	0.28	0.4	0.1	0.12	

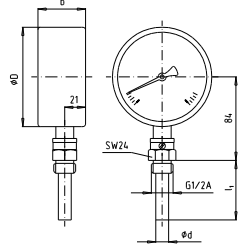
1) Other display ranges on request

2) Display ranges ≥ 160 °C with glass lens

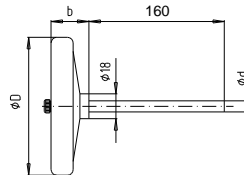
## Dimensions (mm)



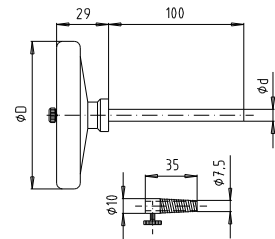
Model TM186 - TM189



Model TM198



Model TM176, TM177



Model TM176

Model	Dimensions (mm)			
	D (NG)	b	l <sub>1</sub>	d
TM176	63	22	----	6
TM177	80	24	----	6
TM186	63	23	see technical data table	12 1)
TM187	80	25		
TM188	100	30		
TM189	160	32		
TM198	100	48		

1) l<sub>1</sub> = 100 mm

d = dia. 11 mm

## Order details

1. Model
2. Display range
3. Length l<sub>1</sub>
4. Options