

# Bimetal Thermometers

## Process Industry Series • Model 55 with Adjustable Stem and Dial

### Thermometers

#### Service intended

All stainless steel thermometer. Suitable for corrosive media and environments in chemical process, petroleum and food industry. The instruments meet the highest standards of measurement technique.

#### Nominal size

100 and 160 mm

#### Temperature element

Coiled bimetal

#### Accuracy

Class 1 per DIN EN 13 190

#### Working range

Permanent (1 year): measuring range per DIN EN 13 190  
Short time (24 h max.): scale range per DIN EN 13 190

#### Pressure rating of stem

25 bar maximum

#### Nominal use

DIN EN 13 190

#### Ingress protection

IP 56 / IP 65 per EN 60 529 / IEC 529

IP 65 per EN 60 529 / IEC 529 for gauges with alarm contacts

#### Standard features

##### Location of stem

Centre back

##### Case

Rotatable on stem 360°  
Stem adjustable every angle  
Material: stainless steel

##### Bezel

Cam ring (bayonet type) bezel, natural finish stainless steel

##### Connection

Plain stem, stainless steel 1.4571

##### Stem

8 mm diameter, stainless steel 1.4571

##### Dial

White aluminium with black lettering per DIN EN 13 190

##### Pointer

Adjustable black aluminium pointer

##### Window

Instrument glass

#### Optional extras

- Case and stem with liquid damping (250 °C max.)
- Ingress protection IP 66 (not for gauges with alarm contacts)
- Scale °F, K; dual scale °C/°F
- Window of laminated safety glass or non-splintering plastic
- Stem 6, 10 or 12 mm diameter
- Stem with integral thread connection
- Thermowells per DIN 43 772 or to user specifications
- Alarm contacts (see data sheet AC 08.01)



Scale, measuring ranges <sup>1)</sup>, limits of error per DIN EN 13 190, class 1

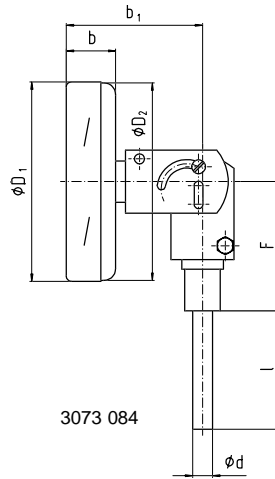
Scale range °C	Scale spacing °C	Measuring range <sup>1)</sup> °C	Limit of error °C
- 70 ... + 30	1	- 60 ... + 20	1
- 50 ... + 50		- 40 ... + 40	
- 30 ... + 50		- 20 ... + 40	
- 20 ... + 60		- 10 ... + 50	
0 ... 60		+ 10 ... + 50	
0 ... 80	2	+ 10 ... + 70	2
0 ... 100		+ 10 ... + 90	
0 ... 120		+ 10 ... + 110	
0 ... 160		+ 20 ... + 140	
0 ... 200	5	+ 20 ... + 180	2.5
0 ... 250		+ 30 ... + 220	
0 ... 300		+ 30 ... + 270	
0 ... 400		+ 50 ... + 350	
0 ... 500		+ 50 ... + 450	
0 ... 600	10	+ 100 ... + 500	10

#### Models

Model	Nominal size	Location of stem / Case
S 5550	100	Centre back / adjustable every angle
S 5551	160	

<sup>1)</sup> The measuring range is indicated on the dial by two triangular marks.  
Within this range the stated limit of error is valid according to DIN EN 13 190.

## Dimensions



Nominal size	Dimensions [mm]												Weight [kg]
	alarm contacts of model								d	D <sub>1</sub>	D <sub>2</sub>	F	
	without		811 or 831 1 or 2		3		831.11 831.22						
b	b <sub>1</sub>	b	b <sub>1</sub>	b	b <sub>1</sub>	b	b <sub>1</sub>						
100	25	68	88	131	—	—	88	131	8 <sup>1)</sup>	101	99	68	0.500
160			100	143	115	158	115	158		161	159		0.700

1) Option: stem diameter 6, 10, 12 mm

### Design of connection

### Dimensions [mm]

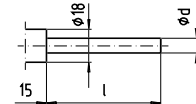
#### Connection 1

Plain stem

Length of stem  $l = 140, 200, 240$  or  $290$  mm

Stainless steel 1.4571

To fit compression fitting of connection 4



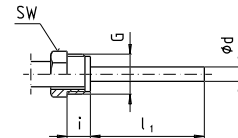
#### Connection 2

Male nut G 1/2 B

Length of stem  $l_1 = 80, 140, 180$  or  $230$  mm

Stainless steel 1.4571

Male thread G	SW	i
G 1/2 B	27	20



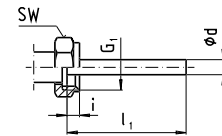
#### Connection 3

- Union nut G 1/2, G 3/4 or M 24 x 1.5

Length of stem  $l_1 = 89, 126, 186, 226$  or  $276$  mm

Stainless steel 1.4571

Female thread G <sub>1</sub>	SW	i
G 1/2	27	8.5
G 3/4	32	10.5
M 24 x 1.5	32	13.5



#### Connection 4

Compression fitting (sliding on stem)

G 1/2 B, G 3/4 B, M 18 x 1.5, 1/2 NPT or 3/4 NPT

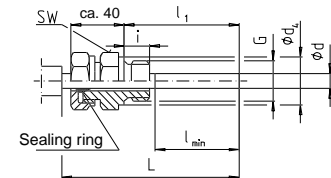
Minimum insertion  $l_{min}$  approx. 60 mm

Length of stem  $l_1 =$  variable

Length  $L = l_1 + 40$  mm

Stainless steel 1.4571

Male thread G	SW	d <sub>4</sub>	i
G 1/2 B	27	26	14
G 3/4 B	32	32	16
M 18 x 1.5	24	23	12
1/2 NPT	22	—	19
3/4 NPT	30	—	20



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### Ordering information

Model / Nominal size / Scale range / No. and size of connection / Length of stem  $l, l_1$  / Optional extras required

Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.



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