

Bimetal Thermometers

Process Industry Series with Adjustable Stem and Dial • Model 55

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 16 203

Working range

Permanent: measuring range per DIN 16 203
Short time (≤ 1 h): 1.1 x measuring range per DIN 16 203

Pressure rating of stem

25 bar maximum (without thermowell)

Degree of protection

IP 56 per EN 60 529 / IEC 529

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 16 203

Pointer

Adjustable black aluminium pointer

Window

Instrument glass

Optional extras

- Case and stem with liquid damping (250 °C max.)
- Other scale ranges; scale °F, K; dual scale °F/°C , °C/°F or other
- Stem 6, 10 or 12 mm diameter
- Stem with integral thread connection
- Window of safety glass or non-splintering plastic
- Thermowells per DIN (see data sheet TM 90.01 and TM 90.03) or to user specifications
- Alarm contacts (see data sheet AE 08.01)



Scale-, measuring ranges¹⁾, limits of error per DIN 16 203, class 1

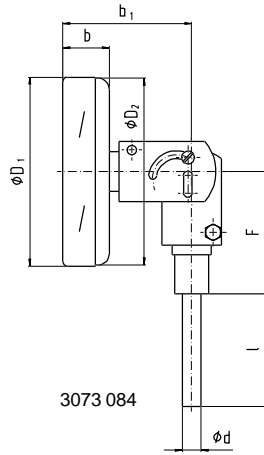
Scale range °C	Scale spacing °C	Measuring range ¹⁾ °C	Limit of error °C
- 70 ... + 30	1	- 60 ... + 20	1
- 50 ... + 50		- 40 ... + 40	
- 30 ... + 50		- 20 ... + 40	
- 20 ... + 60		- 10 ... + 50	
0 ... 60		+ 10 ... + 50	
0 ... 80		+ 10 ... + 70	
0 ... 100	2	+ 10 ... + 90	2
0 ... 120		+ 20 ... + 100	
0 ... 160		+ 20 ... + 140	
0 ... 200		+ 20 ... + 180	
0 ... 250	5	+ 30 ... + 220	2.5
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	

1) 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 16 203.

Dimensions



Nominal size	Dimensions [mm]												Weight [kg]
	alarm contacts of model								d	D ₁	D ₂	F	
	without		811 or 831 1 or 2		3		831.11 831.22						
b	b ₁	b	b ₁	b	b ₁	b	b ₁						
100	25	68	88	131	—	—	88	131	8 ¹⁾	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 per DIN

Connection no. 1

Plain stem

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

Stainless steel 1.4571

To fit compression fitting of connection no. 4

Connection no. 2

Male nut $G \frac{1}{2} A$

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

Stainless steel 1.4571

To fit DIN thermowells of form BD, BE, BS

Connection no. 3

- Union nut $G \frac{1}{2}$ or $G \frac{3}{4}$

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

Stainless steel 1.4571

To fit DIN thermowells of form CD, CE, CS

- Union nut $M 24 \times 1.5$ suitable to DIN 43 763
(stem 6 mm diameter only)

Connection no. 4

Compression fitting (sliding on stem)

$G \frac{1}{2} A$, $G \frac{3}{4} A$, $M 18 \times 1.5$, $\frac{1}{2}$ NPT or $\frac{3}{4}$ NPT

Minimum insertion l_{min} approx. 60 mm

Length of stem $l_1 =$ variable

Length $L = l_1 + 40$ mm

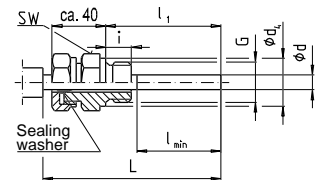
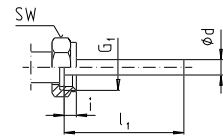
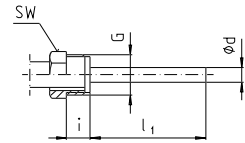
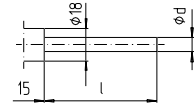
Stainless steel 1.4571

Dimensions [mm]

Male thread G	SW	i
$G \frac{1}{2} A$	27	20

Female thread G ₁	SW	i
$G \frac{1}{2}$	27	8.5
$G \frac{3}{4}$	32	10.5
$M 24 \times 1.5$	32	13.5

Male thread G	SW	d ₄	i
$G \frac{1}{2} A$	27	26	14
$G \frac{3}{4} A$	32	32	16
$M 18 \times 1.5$	24	23	12
$\frac{1}{2}$ NPT	22	—	19
$\frac{3}{4}$ NPT	30	—	20



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Ordering information

State: 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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