

Bimetal Thermometers

Process Industry Series • 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

63, 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 or radial bottom

Case material

Stainless steel

Bezel

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

Connection

G $\frac{1}{2}$ A, 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
- Radial connection other than bottom
- Plain stem or thread other than G $\frac{1}{2}$ A
- Stem 6, 10 or 12 mm diameter
- 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) with nominal size 100 and 160 mm



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

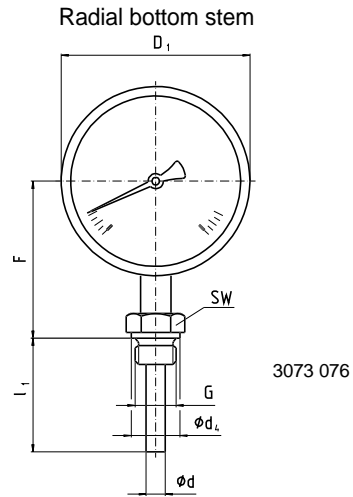
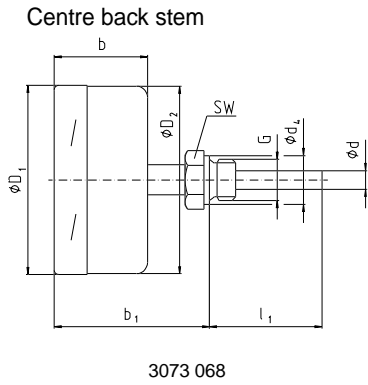
Scale range °C	Scale spacing °C	Measuring range ¹⁾ °C	Limit of error °C
- 70 ... + 30	1	- 60 ... + 20	1
- 50 ... + 50		- 40 ... + 40	
- 30 ... + 50		- 20 ... + 40	
- 20 ... + 60		- 10 ... + 50	
0 ... 60		+ 10 ... + 50	
0 ... 80	2	+ 10 ... + 70	2
0 ... 100		+ 10 ... + 90	
0 ... 120		+ 20 ... + 100	
0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

Models

Model	Nominal size	Location of stem
A 5525	63	Centre back
R 5526	63	Radial bottom
A 5500	100	Centre back
A 5501	160	
R 5502	100	Radial bottom
R 5503	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 in mm														Weight in kg	
	alarm contacts of model								d	d ₄	D ₁	D ₂	F	G		SW
	without		811 or 831		831.11		831.22									
b	b ₁	b	b ₁	b	b ₁	b	b ₁	d	d ₄	D ₁	D ₂	F	G	SW		
63	35	60	-				-		8 ¹⁾	26	64	62	57	G ½ A	27	0.250
100	50	83	88	121	-		88	121			101	99	83			0.800
160			100	133	115	148	115	148			161	159	113			1.100

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

Design of connection per DIN

Standard connection

Male thread G ½ A, G ¾ A, ½ NPT or ¾ NPT

Length of stem $l_1 = 63, 100, 160, 200$ or 250 mm

Stainless steel 1.4571

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 ½ 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 ½ or G ¾

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 x 1.5 suitable to DIN 43 763 (stem 6 mm diameter only)

Connection no. 4

Compression fitting (sliding on stem)

G ½ A, G ¾ A, M 18 x 1.5, ½ NPT or ¾ NPT

Minimum insertion l_{min} approx. 60 mm

Length of stem $l_1 =$ variable

Length $L = l_1 + 40$ mm

Stainless steel 1.4571

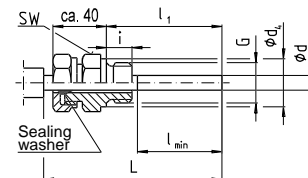
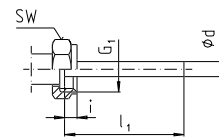
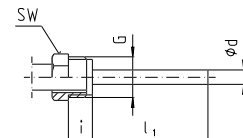
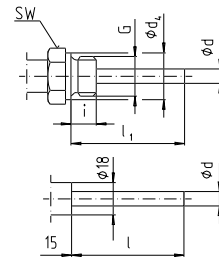
Dimensions in mm

Male thread G	SW	d ₄	i
G ½ A	27	26	14
G ¾ A	32	32	16
½ NPT	22	-	19
¾ NPT	30	-	20

Male thread G	SW	i
G ½ A	27	20

Female thread G ₁	SW	i
G ½	27	8.5
G ¾	32	10.5
M 24 x 1.5	32	13.5

Male thread G	SW	d ₄	i
G ½ A	27	26	14
G ¾ A	32	32	16
M 18 x 1.5	24	23	12
½ NPT	22	-	19
¾ NPT	30	-	20



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Ordering information

State: Model / Nominal size / Scale range / Location of stem / 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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