

Bimetal Thermometers

Heavy Duty Series • Model 54

Adjustable Stem and Dial

Thermometers

Service intended

Universally suitable for plant, machinery, tank and apparatus construction.

Nominal size

63, 80 and 100 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

Ingress protection

IP 56 / IP 65 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

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

Black aluminium pointer

Zero adjustment

On back of case, externally

Window

Instrument glass

Optional extras

- Case and stem with liquid damping (250 °C max.)
- Ingress protection IP 66
- Scale °F; dual scale °C/°F
- Window of laminated safety glass or non-splintering plastic
- Stem 8 or 10 mm diameter
- Stem with integrated thread connection
- Thermowells per DIN 43 772 or to user specifications



Scale, measuring ranges¹⁾, limits of error per DIN EN 13 190, class 1

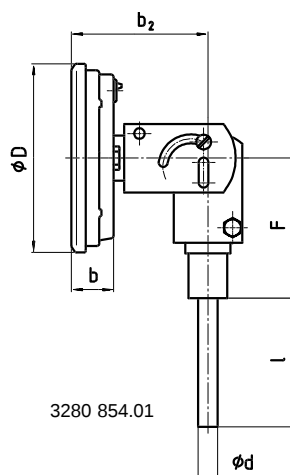
Scale range °C	Scale spacing °C	Measuring range ¹⁾ °C	Limit of error °C
- 70 ... + 30	1	- 60 ... + 20	1
- 50 ... + 50		- 40 ... + 40	
- 30 ... + 50		- 20 ... + 40	
- 20 ... + 60		- 10 ... + 50	
0 ... 60		+ 10 ... + 50	
0 ... 80	2	+ 10 ... + 70	2
0 ... 100		+ 10 ... + 90	
0 ... 120		+ 10 ... + 110	
0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

Models

Model	Nominal size	Location of stem / Case
S 5410	63	Centre back / adjustable every angle
S 5411	80	
S 5412	100	

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 EN 13 190.

Dimensions



Nominal size	Dimensions in mm					Weight in kg
	b	b ₂	ø D	ø d	F	
63	20	126	68	8 ¹⁾	68	0.350
80	20	126	77			0.400
100	22	128	107			0.500

1) Option: stem diameter 6 mm or 10 mm

Design of connection

Connection 1

Plain stem

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

Stainless steel 1.4571

To suit compression fitting of connection 4

Connection 2

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

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

Stainless steel 1.4571

Connection 3

Union nut $G \frac{1}{2}$, $G \frac{3}{4}$ or $M 24 \times 1.5$

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

Stainless steel 1.4571

Connection 4

Compression fitting (sliding on stem)

$G \frac{1}{2} B$, $G \frac{3}{4} B$, $M 18 \times 1.5$, $\frac{1}{2}$ 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

Connection 5

- Union nut $G \frac{1}{2}$

with fitting $G \frac{1}{2} B$, $G \frac{3}{4} B$, $\frac{1}{2}$ NPT or $\frac{3}{4}$ NPT

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

Stainless steel 1.4571

- Union nut $M 24 \times 1.5$ with fitting $M 18 \times 1.5$

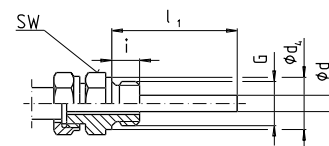
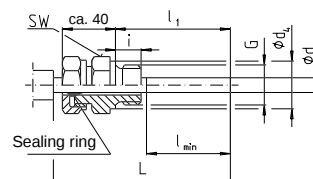
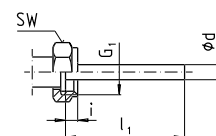
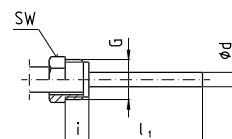
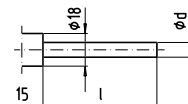
Dimensions in mm

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

Male thread G	SW	d ₄	i
$G \frac{1}{2} B$	27	26	14
$G \frac{3}{4} B$	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

Model / Nominal size / Scale range / Design 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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