

Mechanical
temperature measurement

Bimetal thermometer For industrial heating Model 46

WIKA data sheet TM 46.02

Applications

- Heating systems
- Hot water tanks
- Solar power systems
- Heat transfer stations

Special features

- Reliable and cost-effective
- Nominal size 50, 63, 80 and 100
- Scale ranges from -30 ... +120 °C



Bimetal thermometer model A46.20.063



Bimetal thermometer model A46.11.063



Bimetal thermometer model A46.30.063

Description

The bimetal thermometer model 46 is mainly used in the heating, air-conditioning and refrigeration equipment to monitor the process temperature.

The bimetal thermometers are screwed with thermowells in the respective application. On the one hand, this protects the instrument, on the other hand, the measuring instrument can be exchanged without prior emptying of the heating circuit.

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Standard version

Measuring element
Bimetal coil

Nominal size in mm
50, 63, 80, 100

Working range
Full scale value

Case

Models A46.10, A46.11: Aluminium
Model A46.20: Steel, galvanised
Model A46.30: Plastic, black

Dial

Models A46.10, A46.11: Aluminium, white, black lettering
Models A46.20, A46.30: Plastic, white, black lettering

Pointer

Models A46.10, A46.20, A46.30: Plastic, black
Model A46.11: Aluminium, black

Window

Clear non-splintering plastic

Connection location

Back mount

Options

- Other measuring ranges
- Special scales
- Window: Instrument glass
- Designs for special applications on request

Connection designs

- **With thermowell (models A46.10, A46.20, A46.30)**
Thermowell is removable, friction fit
Copper alloy
Length $l_1 = 40, 60, 100$ mm
Permissible working pressure at thermowell max. 6 bar

Connection

thermowell G $\frac{1}{2}$ B

Zero adjustment

At bottom of stem

Stem

$\varnothing 9$ mm

Models A46.10, A46.30: Aluminium

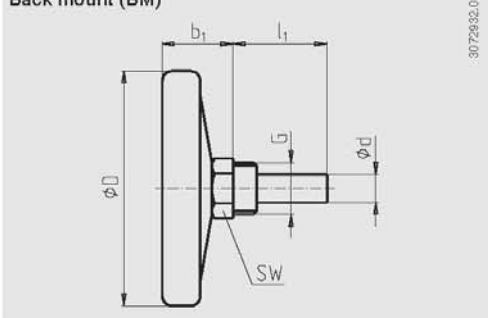
Model A46.20: Copper alloy

- **Clip-on design (model A46.11)**
Clip-on plate with mounting clip
for pipe diameter of 1" ... 2"

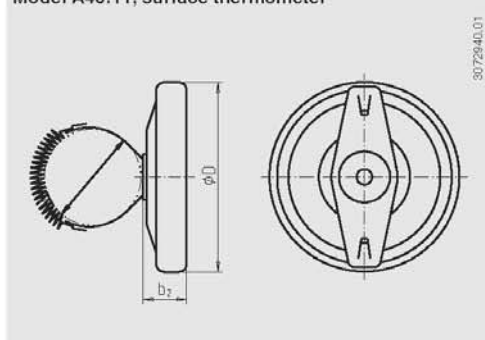
Dimensions in mm

Standard version

Model A46.10, with aluminium case
Back mount (BM)



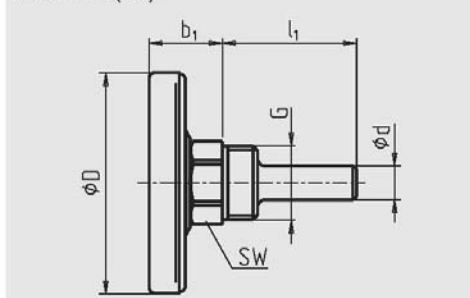
Model A46.11, surface thermometer



NS	Dimensions in mm			$\varnothing d$	$\varnothing D$	G	l_1	SW	Weight in kg	
	b_1	b_2							Model A46.10	Model A46.11
63	23	21	12 ¹⁾	63		G $\frac{1}{2}$ B	40, 60, 100	21	0.07	0.04
80	25	22	12 ¹⁾	80		G $\frac{1}{2}$ B	40, 60, 100	21	0.08	0.06
100	30	-	12 ¹⁾	100		G $\frac{1}{2}$ B	40, 60, 100	21	0.11	-

1) $\varnothing d = 11$ mm for thermowell length $l_1 = 100$ mm

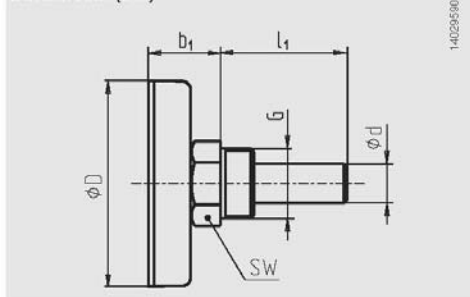
Model A46.20, with steel case
Back mount (BM)



NS	Dimensions in mm						Weight in kg
	b ₁	Ø d	Ø D	G	l ₁	SW	
63	23	12 ¹⁾	63	G ½ B	40, 60, 100, 160	21	0.04
80	23	12 ¹⁾	80	G ½ B	40, 60, 100, 160	21	0.06
100	23	12 ¹⁾	100	G ½ B	40, 60, 100, 160	21	0.08

1) Ø d = 11 mm for thermowell length l₁ = 100 mm

Model A46.30, with plastic case
Back mount (BM)



NS	Dimensions in mm						Weight in kg
	b ₁	Ø d	Ø D	G	l ₁	SW	
50	23	12 ¹⁾	50	G ½ B	40, 60, 100, 160 ²⁾	21	0.06
63	23	12 ¹⁾	63	G ½ B	40, 60, 100, 160 ²⁾	21	0.07
80	24.5	12 ¹⁾	80	G ½ B	40, 60, 100, 160 ²⁾	21	0.08
100	24.5	12 ¹⁾	100	G ½ B	40, 60, 100, 160 ²⁾	21	0.10

1) Ø d = 11 mm for thermowell length > 100 mm
2) l₁ = 160 mm only for thermowell with retainer screw

Approvals (option)

- CRN, safety (e.g. electr. safety, overpressure, ...), Canada

Certificates

- 2.2 test report
- 3.1 inspection certificate

Approvals and certificates, see website

Ordering information

Model / Nominal size / Scale range / Connection / Length l_1 / Options

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Art. No.	Type No.
102759	4601
102760	4602
102761	4603
102762	4604
102763	4605
102764	4606
102765	4611
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