

**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.

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 1/2 B

Zero adjustment

At bottom of stem

Stem

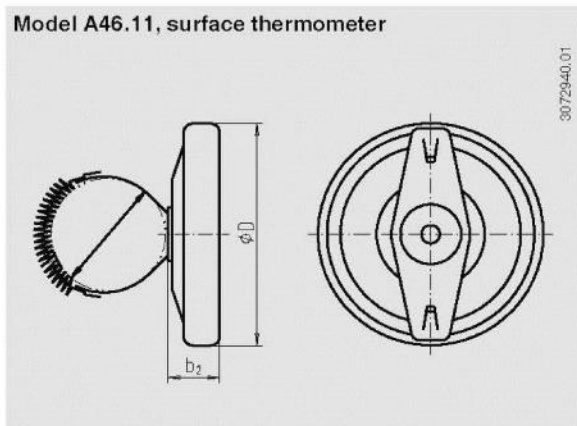
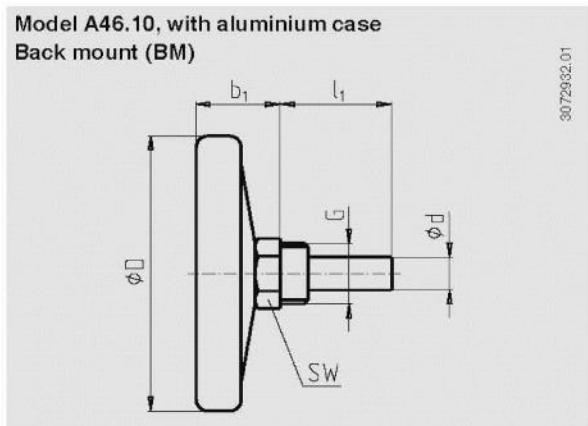
Ø 9 mm
Models A46.10, A46.30: Aluminium
Model A46.20: Copper alloy

- **Clip-on design (model A46.11)**

Clip-on plate with mounting clip
for pipe diameter of 1" ... 2"

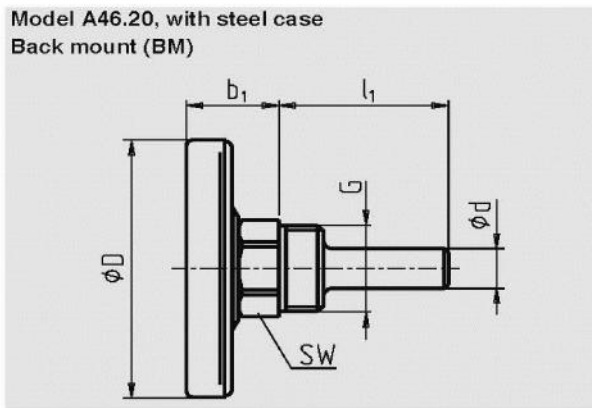
Dimensions in mm

Standard version



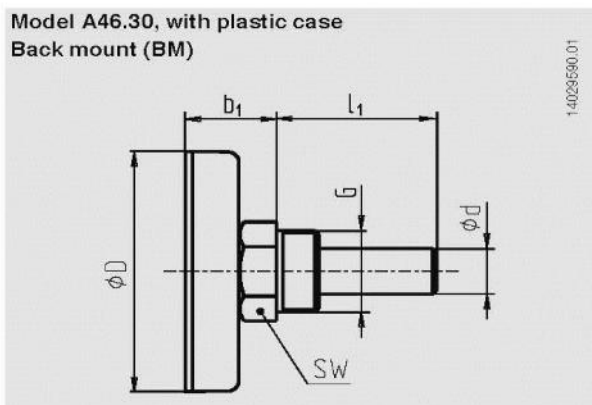
NS	Dimensions in mm							Weight in kg	
	b ₁	b ₂	Ø d	Ø D	G	l ₁	SW	Model A46.10	Model A46.11
63	23	21	12 ¹⁾	63	G 1/2 B	40, 60, 100	21	0.07	0.04
80	25	22	12 ¹⁾	80	G 1/2 B	40, 60, 100	21	0.08	0.06
100	30	-	12 ¹⁾	100	G 1/2 B	40, 60, 100	21	0.11	-

1) Ø d = 11 mm for thermowell length l₁ = 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.	Ident No.
4601	102759
4602	102760
4603	102761
4604	102762
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4606	102764
4611	102765
4612	102766
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