

Bimetal thermometer

For heating technology, special versions

Model A46

WIKA data sheet TM 46.02



for further approvals
see page 4

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

Description

The bimetal thermometer model A46 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.



Fig. top: Model A46.20, steel case, galvanised
Fig. centre: Model A46.11, surface thermometer, aluminium case
Fig. bottom: Model A46.30, plastic case, black

Standard version

Measuring element

Bimetal coil

Nominal size in mm

50, 63, 80, 100

Scale ranges

Scale range in °C	Scale spacing in °C
-30 ... +50	1
-20 ... +60	1
0 ... 60	1
0 ... 80	1
0 ... 120	2

Working range

Full scale value

Case

Model A46.11: Aluminium

Model A46.20: Steel, galvanised

Model A46.30: Plastic, black

Dial

Model A46.11: Aluminium, white, black lettering

Models A46.20, A46.30: Plastic, white, black lettering

Pointer

Models 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 A46.20, 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 ½ B

Zero adjustment

At bottom of stem

Stem

Ø 9 mm

Model A46.30: Aluminium

Model A46.20: Copper alloy

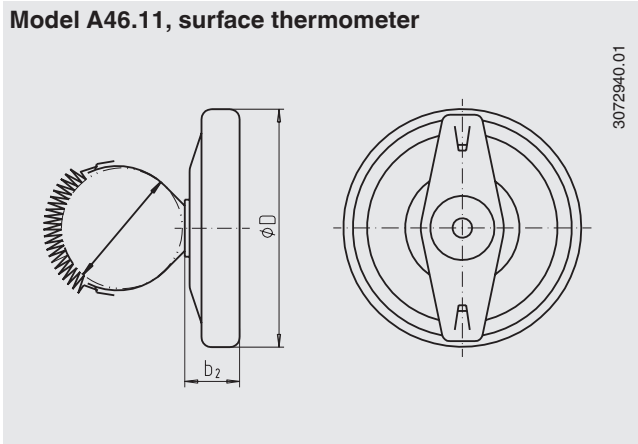
■ Clip-on design (model A46.11)

Clip-on plate with mounting clip

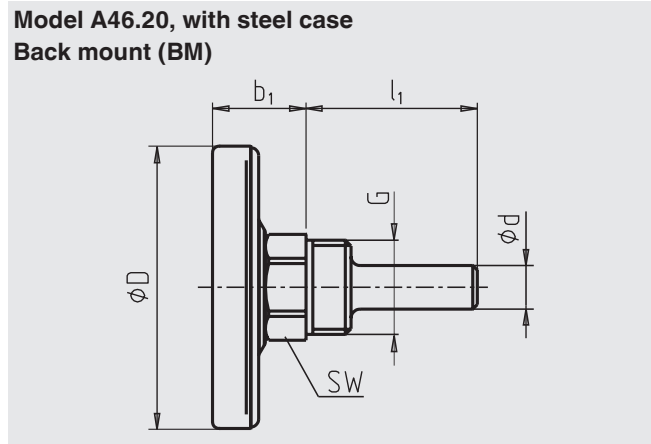
for pipe diameter of 1" ... 2"

Dimensions in mm

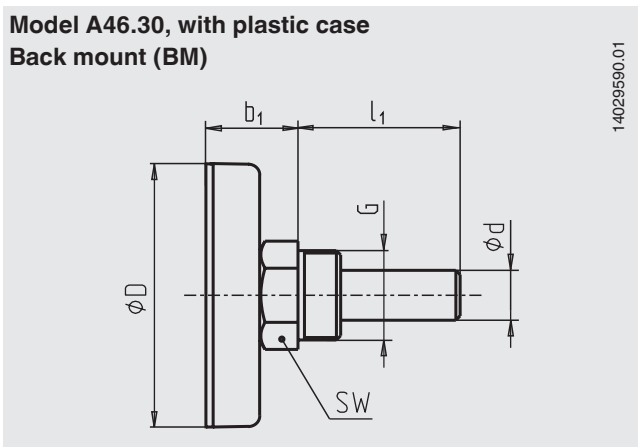
Model A46.11, surface thermometer



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



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





Model	NS	Dimensions in mm							Weight in kg
		b_1	b_2	ϕd	ϕD	G	l_1	SW	
A46.11	63	-	21	-	63	-	-	-	0.04
	80	-	22	-	80	-	-	-	0.06
A46.20	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
A46.30	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) $\phi d = 11$ mm for thermowell length > 100 mm

2) $l_1 = 160$ mm only for thermowell with retainer screw

Approvals

Logo	Description	Country
	EAC (option) Import certificate	Eurasian Economic Community
	GOST (option) Metrology, measurement technology	Russia
	KazInMetr (option) Metrology, measurement technology	Kazakhstan
-	MTSCHS (option) Permission for commissioning	Kazakhstan
	BelGIM (option) Metrology, measurement technology	Belarus
-	CRN (option) Safety (e.g. electr. safety, overpressure, ...)	Canada

Certificates (option)

- 2.2 test report

Approvals and certificates, see website

Ordering information

Model / Nominal size / Scale range / Connection / Length l₁ / Options

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