Gas actuated thermometer
Highly vibration resistant
Model 75, stainless steel version

Applications

- For the local measurement of exhaust gas temperatures or oil temperatures in diesel engines, turbines, compressors and strongly vibrating machinery

Special features

- Instruments meet the highest mechanical and measurement-technology standards
- Very high vibration resistance
- Extremely robust design with cushioning fluid for a long service life
- All stainless steel design

Gas actuated thermometer model R75.100

Description

This series of thermometers has been designed for applications where strong shocks and vibrations occur. These thermometers measure accurately and reliably, even when exposed to extremely high mechanical loads. They are also resistant to high ambient temperatures and humidity.

The thermometers are completely made of stainless steel. Various insertion lengths and process connections are available to optimally match the requirements of each process.

Standard version

Temperature element
Inert gas expansion system (non-toxic)

Nominal size in mm
100

Design of connection
2 Male nut
3 Union nut
4 Compression fitting (sliding on stem)

Location of stem
A75.100 center back (axial)
R75.100 bottom (radial)

Accuracy class
Class 1 per DIN EN 13190
(0 ... 40 °C ambient temperature)

Working range
Normal (1 year): measuring range per DIN EN 13190
Short time (24 h max.): scale range per DIN EN 13190

Nominal use
DIN EN 13190

Case, bezel ring, stem, process connection
Stainless steel

Stem diameter
13 mm

Dial
Aluminium, white, black lettering

Window
Laminated safety glass

Pointer
Aluminium, black, adjustable pointer

Liquid damping
Silicon oil, M10.000

Temperature limits for storage and transport
-50 … +70 °C

Ambient temperature limit at the case
0 ... +70 °C max.

Pressure rating of stem
max. 25 bar, static with design 4
max. 40 bar, static with design 2 and 3

Ingress protection
IP 66 per EN 60529 / IEC 529

Options

- Scale range °F, °C/°F (dual scale)
- With fabricated or solid machined thermowell
- Various extension neck an insertion length available
- Various process connections available
- Thermometers with electrical output signal (data sheet TV 17.02)

Scale, measuring ranges[1], limits of error (DIN EN 13190)
Scale graduation per WIKA standard

Scale range in ˚C	Measuring range in ˚C	Scale spacing in ˚C	Limit of error ± ˚C
50 ... 600	+150 ...+500	10	10
50 ... 650	+150 ... +550	10	10
50 ... 700	+150 ... +600	10	10

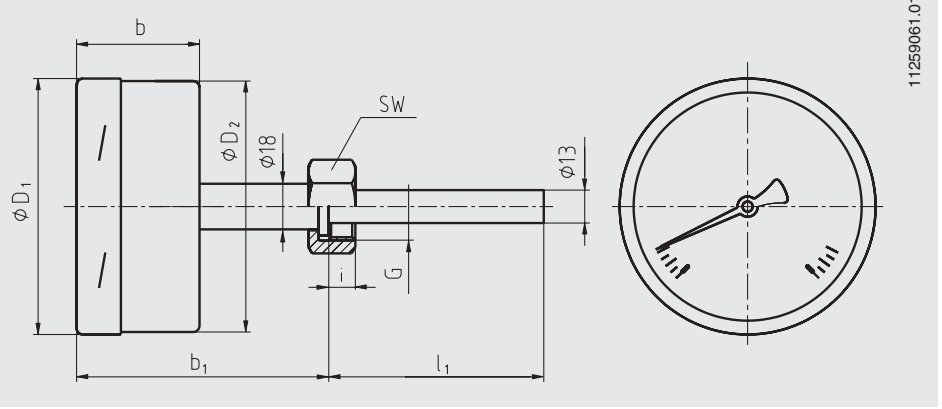
1) The measuring range is indicated on the dial by two triangular marks.
Only within this range the stated limit of error is valid according to DIN EN 13190.

Models

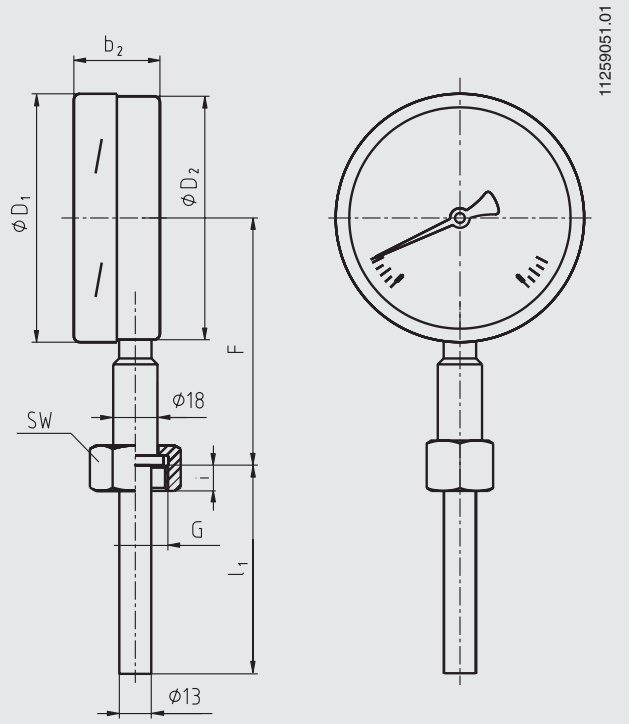
Model	NS	Location of stem
A75.100	100	center back
R75.100	100	lower mount

Dimensions in mm

Model A75.100, centre back



Model R75.100, lower mount



Nominal size	Dimensions in mm						Weight in kg
NS	b	b1 1)	b2	F 1)	D1	D2	
100	50	110	35	110	101	99	0.75

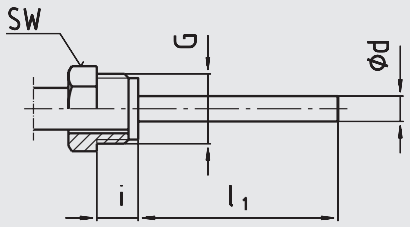
1) Others on request

Design of connection

Design 2, male nut

Standard stem lengths: l_1 = 120, 140, 180, 230 mm

Nominal size NS	Process connection G	i	SW	Dimensions in mm Ød
100	G ½ B	20	27	13
	G ¾ B	22	32	13

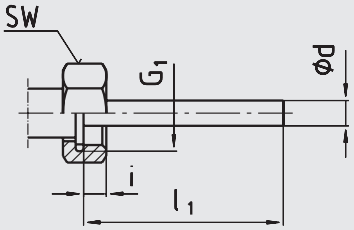


Legend:
G Male thread
i Thread length incl. plain
SW Flats
Ød Stem diameter

Design 3, union nut

Standard stem lengths: l_1 = 89, 126, 186, 226, 276 mm

Nominal size NS	Process connection G_1	i	SW	Dimensions in mm Ød
100	G ½	8.5	27	13
	G ¾	10.5	32	13

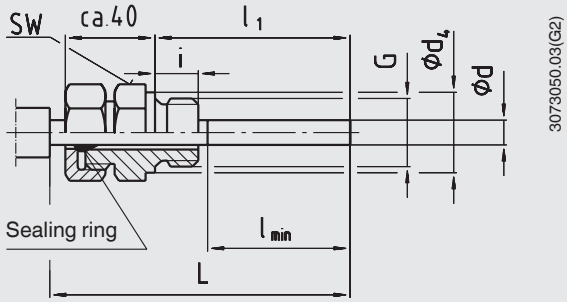


Legend:
G_1 Female thread
i Thread length
SW Flats
Ød Stem diameter

Design 4, compression fitting (sliding on stem)

Length of stem l_1 = variable
Length L = l_1 + 40 mm

Nominal size NS	Process connection G	i	SW	Dimensions in mm $Ød_4$	Ød
100	G ½ B	14	27	26	13
	G ¾ B	16	32	32	13
	½ NPT	19	22	-	13
	¾ NPT	20	30	-	13



Legend:
G Male thread
i Thread length
$Ød_4$ Diameter of the sealing collar
SW Flats
Ød Stem diameter

Ordering information

Model / Nominal size / Scale range / Design of connection / Process connection / Length l_1 / Options

11/2010 GB

WIKA Alexander Wiegand SE & Co. KG
Alexander-Wiegand-Straße 30
63911 Klingenberg/Germany
Tel. (+49) 9372/132-0
Fax (+49) 9372/132-406
E-mail info@wika.de
www.wika.de