

Bourdon tube pressure gauge with output signal

Standard version, cable outlet

Model PGT02

WIKA data sheet PV 11.02



for further approvals
see page 3

intelliGAUGE®

Applications

- For monitoring water pressure changes in heating systems (wall-type boilers, free-standing boilers)

Special features

- Non-contact sensor (wear-free)
- Plastic case with snap-fit cams for panel mounting
- Nominal size 40
- Scale ranges 0 ... 2.5 bar to 0 ... 10 bar
- Current signal 4 ... 20 mA or voltage signal, e.g. DC 0.5 ... 4.5 V



Bourdon tube pressure gauge model PGT02

Description

The model PGT02 intelliGAUGE® is a combination of a Bourdon tube pressure gauge and a pressure sensor. On the one hand, the instrument offers the usual analogue display needing no external power, which makes it possible to read the process pressure on site, and on the other hand an additional electrical analogue signal is output.

The output signal is available as a voltage signal (e.g. DC 0.5 ... 4.5 V ratiometric with DC 5 V supply voltage) or as a current signal (4 ... 20 mA, 2-wire).

The mechanical measuring system with Bourdon tube fulfils the requirements of EN 837-1 and the electronic components have been tested in accordance with EN 61000-4-3 und EN 61000-4-6.

Individual customer variants

Based on many years of experience in manufacturing and development, WIKA is happy to offer support in the construction and production of customer-specific solutions.

Specifications

Design

EN 837-1

Nominal size in mm

40

Accuracy class

2.5

Scale ranges

0 ... 2.5 to 0 ... 10 bar

or all other equivalent vacuum or combined pressure and vacuum ranges

Pressure limitation

Steady: 3/4 x full scale value

Fluctuating: 2/3 x full scale value

Short time: Full scale value

Permissible temperature

Ambient: -20 ... +60 °C

Medium: +60 °C maximum

Storage temperature: -40 ... +70 °C

Temperature effect

When the temperature of the measuring system deviates from the reference temperature (+20 °C): max. $\pm 0.4\%$ /10 K of the span

Process connection

Copper alloy

Centre back mount, capillary, length 450 mm, with male thread G 1/4 connection

Pressure element

Copper alloy

Movement

Copper alloy

Dial

Plastic, white, black lettering

Pointer

Plastic, black

Case

Plastic, black (PA)

Window

Plastic, crystal-clear (PC)

Ingress protection

IP40 per IEC/EN 60529

Electronics

Supply voltage (U_B)

DC 5 V / DC 12 ... 32 V

Electrical connection

Cable outlet, standard length 2 m

U_B	Output signal U_{SIG}
DC 5 V	0.5 ... 2.5 V, 0.5 ... 3.5 V or 0.5 ... 4.5 V, ratiometric, 3-wire
DC 12 ... 32 V	4 ... 20 mA, 2-wire

Colour	2-wire	3-wire
red	U_B	U_B
black	GND	GND
orange	-	U_{SIG}

Output signal and permissible load

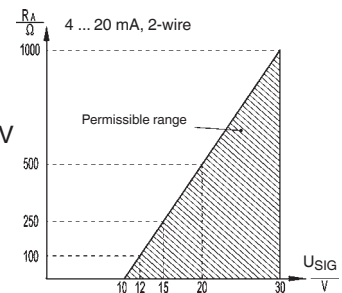
Voltage output (3-wire): $R_A > 5\text{ k}\Omega$

Current output (2-wire)

4 ... 20 mA:

$R_A \leq (U_{SIG} - 10\text{ V}) / 0.02\text{ A}$





with R_A in Ω and U_{SIG} in DC V



Options

- Other process connection
- Sealings (model 910.17, see data sheet AC 09.08)
- Other capillary length
- Other cable length

Approvals

Logo	Description	Country
	EU declaration of conformity <ul style="list-style-type: none"> ■ EMC directive ¹⁾ EN 61326 emission (group 1, class B) and immunity (industrial application) Per test standards EN 61000-4-6 / EN 61000-4-3 ■ Pressure equipment directive 	European Union
	EAC (option) <ul style="list-style-type: none"> ■ EMC directive ■ Pressure equipment directive 	Eurasian Economic Community
	GOST (option) Metrology, measurement technology	Russia
	BelGIM (option) Metrology, measurement technology	Belarus

1) In the case of electrostatic discharge per IEC 61000-4-2 and fast transients per IEC 61000-4-4, the measuring signal can deviate by up to $\pm 75\%$ of the measuring span for the duration of the failure. After the failure, the instrument will operate within the specification again. For cable lengths of > 3 m, shielded wires have to be used in order to efficiently reduce the effects of failures in the form of fast transients.

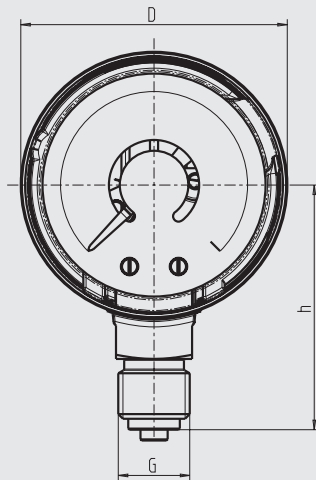
Certificates (option)

- 2.2 test report
- 3.1 inspection certificate

Dimensions in mm

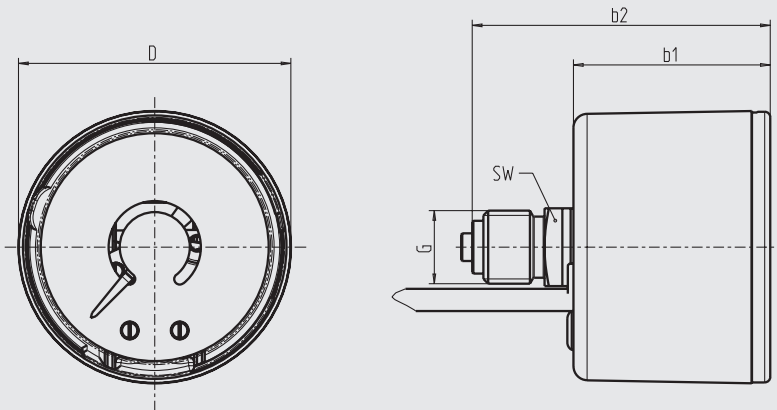
Standard version

Lower mount (radial)



1155573.01

Centre back mount



1155581.01

NS	Dimensions in mm							Weight in kg
	a	b1	b2	D	G	h	SW	
40	9	34.1	48.5	40	G 1/8 B	36	14	0.1
50	10	34.5	53.6	49	G 1/4 B	45	14	0.2

Process connection per EN 837-1 / 7.3

Ordering information

Model / Nominal size / Scale range / Process connection / Connection location / Output signal / Options

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