

# Bourdon tube pressure gauge with output signal

## Plastic case, NS 40, 50

### Model PGT10

WIKA data sheet PV 11.05



for further approvals  
see page 3

**intelliGAUGE®**

#### Applications

- General machine building

#### Special features

- Non-contact sensor (wear-free)
- Plastic case
- Nominal size 40, 50
- Scale ranges 0 ... 1.6 bar to 0 ... 400 bar
- Current signal 4 ... 20 mA or voltage signal, e.g. DC 0.5 ... 4.5 V



Bourdon tube pressure gauge model PGT10

## Description

The model PGT10 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 either as a current signal (4 ... 20 mA, 2-wire) or as a voltage signal (e.g. DC 0.5 ... 4.5 V ratiometric with supply voltage DC 5 V or non-ratiometric with supply voltage DC 12 ... 32 V). In conjunction with the options for the electrical connection (round cable or connector), this variety enables the customer-specific definition of the instrument for the respective application.

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 and 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, 50

### Accuracy class

2.5

### Scale ranges

0 ... 1.6 to 0 ... 400 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

Lower mount (radial) or centre back mount

NS 40: G 1/8 B (male), SW 14

NS 50: G 1/4 B (male), SW 14

### Pressure element

Copper alloy

### Movement

Copper alloy

### Dial

Plastic, white, black lettering

### Pointer

Plastic, black

### Case

Plastic

### Window

Plastic, crystal-clear (PC)

### Ingress protection

IP41 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
DC 12 ... 32 V	0.5 ... 2.5 V, 0.5 ... 3.5 V or 0.5 ... 4.5 V, non-ratiometric or 4 ... 20 mA, 2-wire

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

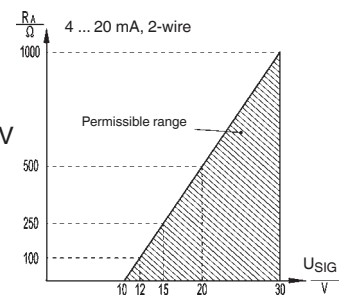
### Output signal and permissible load

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  $\Omega$  and  $U_{SIG}$  in DC V



## Options

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

## Approvals

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

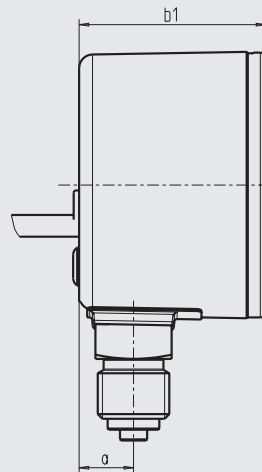
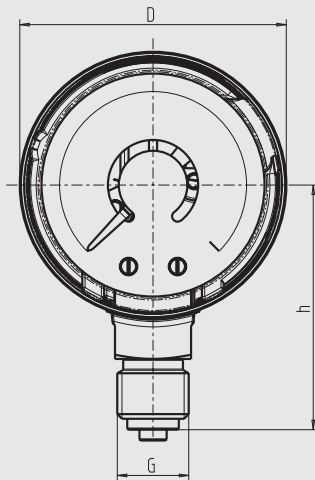
## Certificates (option)

- 2.2 test report
- 3.1 inspection certificate

# Dimensions in mm

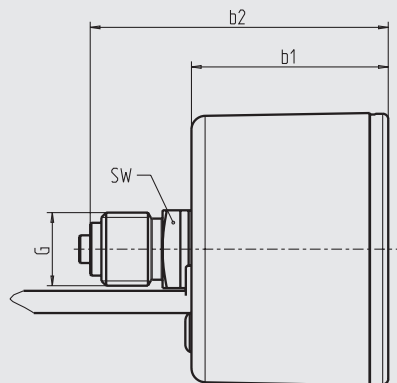
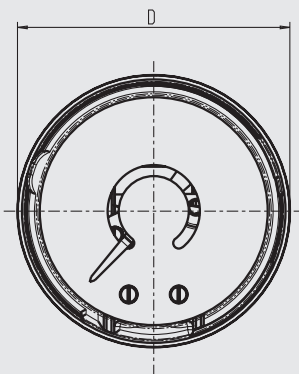
## Standard version

### 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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