

Bourdon tube pressure gauge with electronic pressure switch

Plastic case, ingress protection IP41

Model PGS06

WIKA data sheet PV 21.05



for further approvals
see page 3

switchGAUGE

Applications

- General machine building

Special features

- Non-contact sensor (wear-free)
- Nominal size 40, 50
- Scale ranges 0 ... 1.6 bar to 0 ... 400 bar
- NPN or PNP switching outputs
- Both switch points factory-programmable between 5 ... 95 % of the scale range



Bourdon tube pressure gauge model PGS06

Description

The model PGS06 switchGAUGE is a combination of a Bourdon tube pressure gauge and a pressure switch. It offers the usual analogue display, which enables reading the process pressure on-site, and in addition the possibility to switch up to two electrical signals. The switch contacts are pre-programmed at the factory between 5 ... 95 % of the scale range.

The robust Bourdon tube measuring system produces a pointer rotation proportional to the pressure. An electronic angle encoder, proven in safety-critical automotive applications, determines the position of the pointer shaft. The sensors work without contact and are therefore completely free from wear and friction. Depending on the signal of the angle encoder, the circuit is opened or closed.

As standard, the switchGAUGE is supplied with scale ranges from 0 ... 1.6 bar to 0 ... 400 bar in the accuracy class 2.5, and with a cable length of 2 m. The plastic case of nominal sizes 40 and 50 fulfils the requirements for IP41 ingress protection.

Through various options (e.g. other process connection, other cable length) the pressure gauge can be matched exactly to the customer-specific requirements of each application.

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

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, C-type

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 12 ... 32 V

Switching output

■ NPN

■ PNP

Normally closed (NC) or normally open (NO)

NS 40: 1 switching output

NS 50: 1 or 2 switching outputs selectable

Electrical connection

Cable outlet, standard length 2 m

Colour	Assignment
red	U_B
black	GND
orange	SP1
brown	SP2





Switching current

Max. 1 A, short-circuit-proof

Options

- Other process connection (with adapter, copper alloy)
- 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) EMC directive	Eurasian Economic Community
	GOST (option) Metrology, measurement technology	Russia
	UkrSEPRO (option) Metrology, measurement technology	Ukraine

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.

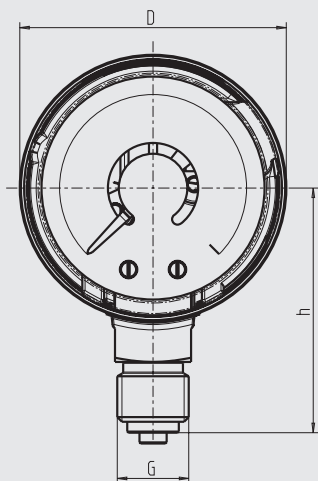
Certificates (option)

- 2.2 test report
- 3.1 inspection certificate

Dimensions in mm

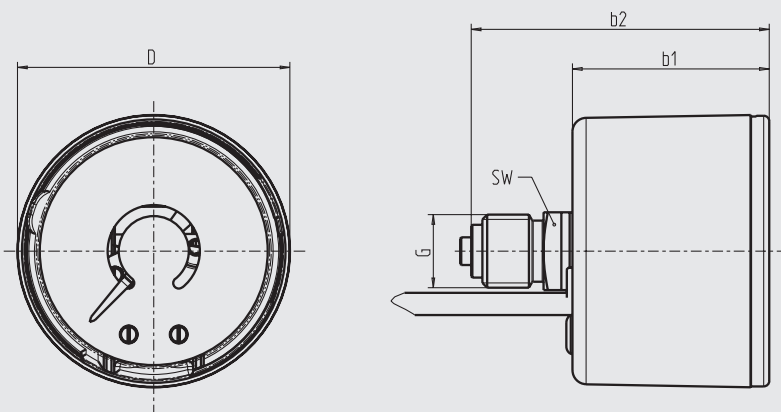
Standard version

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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