

# Bourdon tube pressure gauge with switch contact

## Stainless steel case, with VdS approval

### Model PGS11.040

WIKA data sheet SP 21.01



**switchGAUGE**

#### Applications

- Pressure gauge for indicating and monitoring the pressure in tanks and for signalling leaks
- Pressure gauge for use in gas extinguishing systems according to EN 12094-10 (VdS/CE)

#### Special features

- High switching reliability and long service life
- Design per EN 837-1 and EN 12094-10
- Pressure indication over 270 angular degrees
- One preset contact



**Bourdon tube pressure gauge model PGS11.040 with VdS approval**

#### Description

The model PGS11.040 with VdS approval switchGAUGE is a combination of a Bourdon tube pressure gauge and a pressure switch. It offers the usual analogue display, which can be read on-site irrespective of the power supply, and in addition the possibility to switch an electrical signal potential-free.

The switch point is factory-set to customer requirements (in line with the switch points approved by VdS) and indicated on the dial by a red mark pointer. Depending on the pressure gauge's pointer position, the circuit will be opened or closed. Thus the switchGAUGE can be actively used for signalling shortages in order to monitor the level of the extinguishant of the fire protection system.

For the model PGS11.040 switchGAUGE, approval from VdS Schadenverhütung GmbH in accordance with DIN EN 12094-10 has been achieved. Among experts within the fire protection industry, this approval is increasingly being recognised as an important safety feature and creates confidence among producers and operators of fire protection systems. With the offer of VdS approved pressure measuring instruments, WIKA is supporting its customers in the fire protection industry to fulfil the criteria required by authorities and insurance companies.

The certificate is available for download online, on the Products page.

## Standard version

### Design

EN 837-1 and EN 12094-10

### Nominal size in mm

40

### Accuracy class

1.6

### Scale ranges

0 ... 40 to 0 ... 400 bar

### 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, male thread, centre back mount (CBM), for thread sizes see table on page 3

### Pressure element

Copper alloy, helical type

### Movement

Copper alloy

### Dial

Aluminium, white

### Pointer

Plastic, black

### Case

Stainless steel

### Window

Polycarbonate

### Ingress protection

IP 54 per EN 60529 / IEC 529

### Helium leak test

Leak rate  $10^{-5}$  mbar<sup>3</sup>/s

## Electrical connection

Cable outlet, standard length 1 m

Single contact	
red:	U <sub>B</sub> +
black:	SP 1

## Approval

Approval for VdS and CE per EN 12094-10

## Switch point tolerance

Factory-set, fixed

If the switch point is altered by the customer, then the VdS approval is invalidated.

## Scale ranges/switch points

see certificate

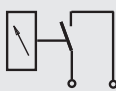
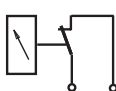
## Electrical data

Switching voltage: DC/AC 4.5 ... 24 V

Switching current: 5 ... 100 mA

Contact load: max. 2.4 W

Switch contact: Normally closed (NC) or normally open (NO)

Index	Designation	Symbol	Switching function / setting direction	Code
1	Normally open (NO)		Contact makes with rising pressure or clockwise pointer motion (standard)	1
			Contact breaks with falling pressure or anticlockwise pointer motion	5
2	Normally closed (NC)		Contact breaks with rising pressure or clockwise pointer motion (standard)	2
			Contact makes with falling pressure or anticlockwise pointer motion	4

Potential-free

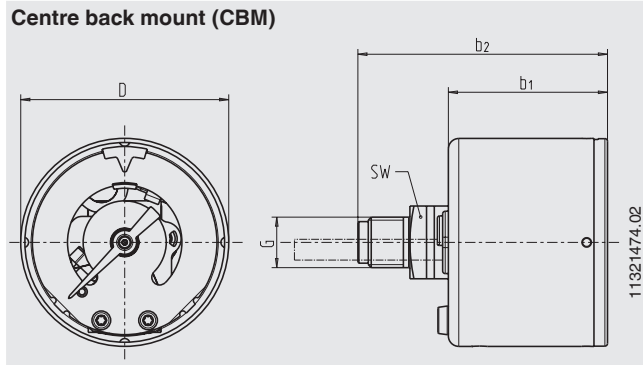
## Options

- Ingress protection IP 65, only for model PGS21.050-VdS (see data sheet SP 21.03)
- Other cable length

## Dimensions in mm

### Standard version

#### Centre back mount (CBM)



NS	Dimensions in mm				Weight	
	D	b <sub>1</sub>	b <sub>2</sub>	G	SW	in kg
40	40	30.6	48	G 1/8 B	14	0.10
	40	30.6	53	G 1/4 B	14	0.12
	40	30.6	48	1/8 NPT	14	0.10
	40	30.6	51	1/4 NPT	14	0.11
	40	30.6	49	R 1/8 ISO 7	14	0.10
	40	30.6	52	R 1/4 ISO 7	14	0.12
	40	30.6	58	M10 x 1	14	0.15

### Ordering information

Model / Nominal size / Scale range / Connection size / Connection location / Switch point and function / Options

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