

Bourdon tube pressure gauge with switch contact

Stainless steel case, with VdS approval

Model PGS11.040

WIKA data sheet SP 21.01



for further approvals,
see page 3

switchGAUGE

Applications

- For use in high-pressure gas fire-extinguishing systems for monitoring vessels filled with liquefied inert gases or with halogenated hydrocarbons with superposition of pressure
- For the display and monitoring of the vessel pressure and for alerting the loss of contents from the vessel

Special features

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



Bourdon tube pressure gauge model PGS11.040 with VdS approval

Description

The model PGS11.040 switchGAUGE with VdS approval 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 a potential-free electrical signal.

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 measuring instrument'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, WIKAL 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.

Specifications

Version

Per EN 12094-10 and in line with EN 837-1

Nominal size in mm

40

Accuracy class

1.6

Scale ranges

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

Pressure limitation

Steady¹⁾: 3/4 x full scale value
Fluctuating: 2/3 x full scale value
Short time: Full scale value

1) Maximum allowable pressure PS per European pressure equipment directive

Permissible temperature range

5 ... 25 °C

Temperature effect

When the temperature of the measuring system deviates from the reference temperature (+20 °C): max. ±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 per IEC/EN 60529

IP54

Helium leak test

Leakage rate 10⁻⁵ mbar·l/s

Switch point setting

Fixed ex-works

If the switch point is changed, the VdS approval becomes void.

Switch point selection depending on scale range; see certificate.

Electrical data

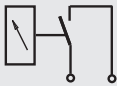
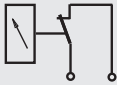
Switching voltage U_{B+}: DC / AC 4.5 ... 24 V

Switching current: 5 ... 100 mA

Contact load: max. 2.4 W/VA

Contact version: 1 x normally closed (NC) or 1 x normally open (NO), potential-free contact

Switch point SP 1: Fixed ex-works

Index	Switching function	Symbol	Switch point/reset point	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

Electrical connection and pin assignment



Cable outlet, length 1 m (standard)

Pin assignment	Wire colour
U ₊	Red
SP 1	Black

Other versions

- Ingress protection IP65, only for model PGS21.050-VdS ; see data sheet SP 21.03
- Other cable length

Approvals

Logo	Description	Country		
	EU declaration of conformity Declaration of performance per construction products regulation (EU) no. 305/2011 Pressure equipment directive PS > 200 bar, module A, pressure accessory	European Union		
	-		CRN Safety (e.g. electr. safety, overpressure, ...)	Canada
			VdS Fire-extinguishing systems Recognition per VDS 2344 and DIN EN 12094-10	European Union

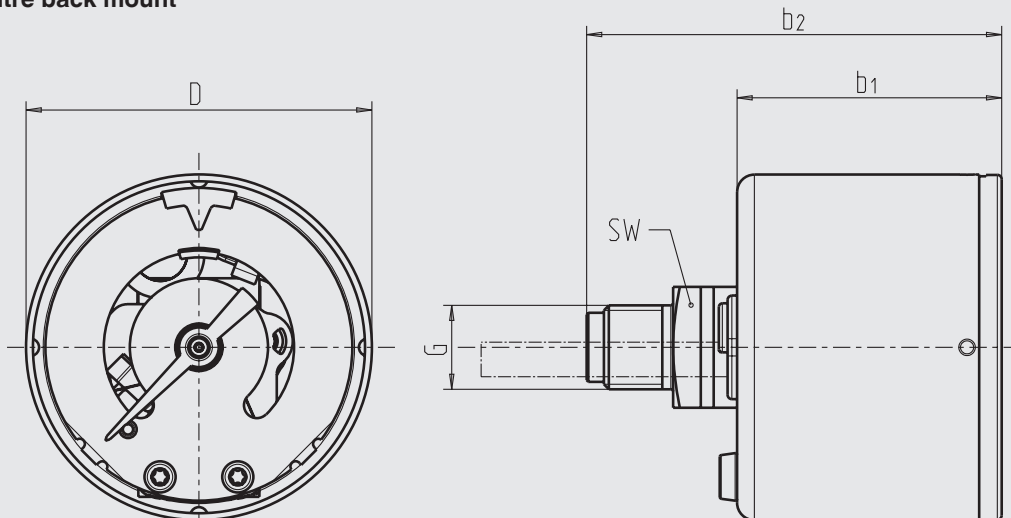
Certificates (option)

- 2.2 test report
- 3.1 material certificate for the wetted parts

For approvals and certificates, see website

Dimensions in mm

NS 40, centre back mount



11321474.02

Dimensions in mm					Weight in kg
D	b ₁ ±0.5	b ₂ ±1	G	SW	
40	30.6	48	G 1/8 B - EN 837-1	14	0.10
40	30.6	53	G 1/4 B - EN 837-1	14	0.12
40	30.6	48	1/8 NPT - ANSI/B1.20.1	14	0.10
40	30.6	51	1/4 NPT - ANSI/B1.20.1	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 - EN 837-1	14	0.15

Process connection per EN 837-1 / 7.3

Ordering information

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

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