

Bourdon tube pressure gauges with fixed switch contacts, stainless steel case Model PGS21

WIKA data sheet PV 21.02

switchGAUGE

Applications

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

Special features

- High switching reliability and long service life
- Design per EN 837-1 and EN 12094-10
- Pressure indication over 270 angular degrees
- Switch contacts fixed according to customer specification
- Ingress protection IP 65



switchGAUGE model PGS21

Description

Design

per EN 837-1 and EN 12094-10

Nominal size in mm

40, 50

Accuracy class

1.6 / 2.5

Switch point tolerance

± 2.5 %

Scale ranges

NS 40: 0 ... 2.5 to 0 ... 400 bar

NS 50: 0 ... 0.6 to 0 ... 400 bar

NS 50 also 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

Operating 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. ±0.4 %/10 K of the span

Process connection

Cu-alloy, male thread

NS 40: centre back mount (CBM)

NS 50: lower mount (LM) or centre back mount (CBM)

Pressure element

Cu-alloy

≤ 60 bar: C-type

> 60 bar: helical type

Movement

Cu-alloy

Dial

Aluminium, white

Pointer

Plastic, black

Case

Stainless steel

Window

Polycarbonate

Ingress protection

IP 65 per EN 60529 / IEC 529

Helium leak testLeak rate 10-5 mbar^{*}l/s**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
12	Normally open / closed (NO-NC)		See switching function or setting direction for single contact	
11	Normally open / open (NO-NO)		See switching function or setting direction for single contact	
			See switching function or setting direction for single contact	
22	Normally closed / closed (NC-NC)		See switching function or setting direction for single contact	

Potential-free

Electrical connection

Flying leads, cable ends tinned for soldered joints (per standard IPC-WHMA-A-620A)

Single contact		Double contact	
red:	UB+ (common)	red:	UB+ (common)
black:	SP 1	orange:	SP 1
		black:	SP 2

Approval

Approval for VdS and CE per EN 12094-10

Options

- Other process connection
- Other scale ranges
- Double contact (NS 50)
- Adjustable contact (model PGS11, data sheet PV 21.01)
- Nominal size 63
- Electrical connection via connector (NS 50)

Option**Electrical connection via connector (NS 50)**

L-connector EN 175301-803-C



Single contact		Double contact	
1:	UB+ (common)	1:	UB+ (common)
2:	SP 1	2:	SP 1
		3:	SP 2

Circular connector M12 x 1



Single contact		Double contact	
1:	UB+ (common)	1:	UB+ (common)
4:	SP 1	4:	SP 1
		3:	SP 2

Circular connector M8 x 1

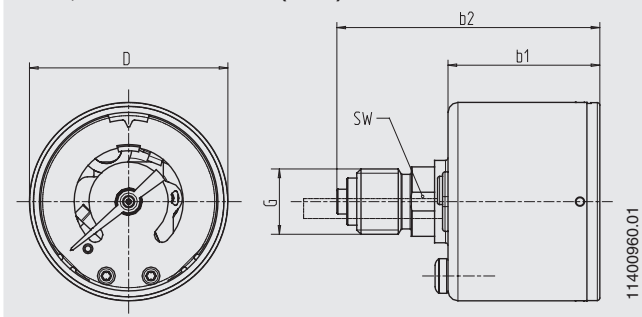


Single contact		Double contact	
1:	UB+ (common)	1:	UB+ (common)
3:	SP 1	3:	SP 1
		4:	SP 2

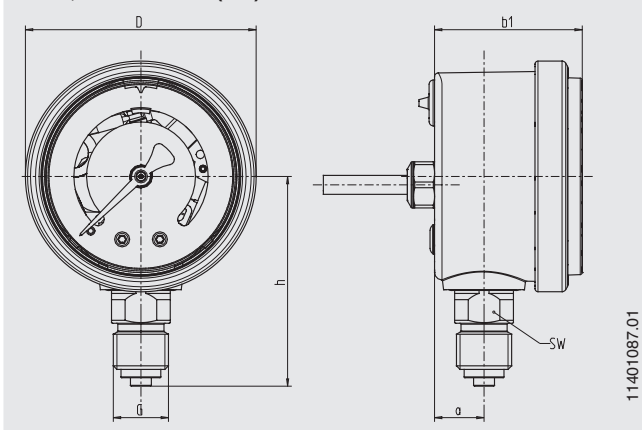
Dimensions in mm 1)

Standard version

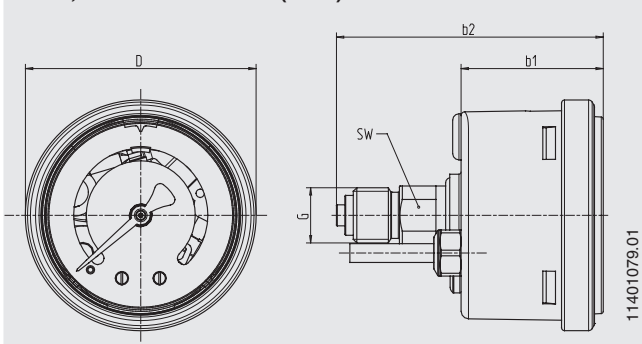
NS 40, centre back mount (CBM)



NS 50, lower mount (LM)



NS 50, centre back mount (CBM)



NS	Dimensions in mm 1)						Weight in kg
	D	b1 ± 0.5	b2 ± 1	G	h	SW	
40	40	30.5	53	G 1/8 B	-	14	0.10
50	55	35.5	63	G 1/4 B	50	14	0.18

Process connection per EN 837-1 / 7.3

1) Other dimensions for version with double contact

Ordering information

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

The specifications given in this document represent the state of engineering at the time of publishing.
We reserve the right to make modifications to the specifications and materials.



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