

Diaphragm Pressure Gauges Stainless Steel Series Model 432.50/433.50, without/with Liquid Filling

WIKA Data Sheet PM 04.03



Applications

- For measuring points with increased overpressure
- With liquid-filled case for applications with high dynamic pressure pulsations or vibrations
- For gaseous and liquid, aggressive and highly viscous or particulates-containing media, also in aggressive ambience
- Process industries: chemical/petro-chemical, power stations, mining, on- and offshore, environmental technology, mechanical engineering and plant construction

Special Features

- Wide choice of special materials
- Compatible with alarm contacts
- All stainless steel construction
- Scale ranges from 0 ... 16 mbar



Diaphragm Pressure Gauge Model 432.50

Description

Design

EN 837-3

Nominal size in mm

100, 160

Accuracy class

1.6

Scale ranges

0 ... 16 mbar to 0 ... 250 mbar (flansch-Ø 160 mm)
0 ... 400 mbar to 0 ... 40 bar (flansch-Ø 100 mm)
or all other equivalent vacuum or combined pressure and vacuum ranges

Pressure limitation

Steady: full scale value
Fluctuating: 0.9 x full scale value

Overpressure safety

5 x full scale value, 40 bar maximum

Operating temperature

Ambient: -20 ... +60 °C
Medium: +100 °C maximum

Temperature effect

When the temperature of the measuring system deviates from the reference temperature (+20 °C):
max. ±0.8 %/10 K of full scale value

Ingress protection

IP 54 per EN 60 529 / IEC 529
(with liquid filling IP 65)

Standard version

Process connection with lower diaphragm housing

Stainless steel 316L, G 1/2 B (male), 22 mm flats

Pressure element

≤ 0.25 bar: stainless steel 316L
> 0.25 bar: NiCrCo-alloy (Duratherm)

Diaphragm sealing ring

FPM/FKM

Movement

Stainless steel

Dial

Aluminium, white, black lettering

Pointer

Aluminium, black

Case with upper diaphragm housing

Stainless steel, with pressure vent in case back

Window

Laminated safety glass

Bezel ring

Cam ring (bayonet type), stainless steel

Liquid filling (for model 433.50)

Glycerine 86.5 %

Options

- Other process connection
- Safety pattern version (model 43X.30)
- 10 x overpressure safe, maximum 40 bar
- Vacuum safe up to -1 bar
- Medium temperature +200 °C maximum

Further options

- Accuracy class higher, class 1.0 and 0.6
- Open connection flanges to DIN/ASME from DN 15 to DN 80 (Preferred nominal widths DN 25 and 50 or DN 1" and DN 2"; see data sheet IN 00.10)
- Wetted parts lined/coated with special materials such as PTFE (model 45X.50), Hastelloy B2, Hastelloy C4, Monel, Nickel, Tantalum, Titanium, Silver
- Alarm contacts (data sheet AC 08.01), liquid filled: insulating oil
- Pressure gauge with electrical output signal, see model PGT43.100/160, data sheet PV 14.03
- Version per ATEX Ex II 2 GD c

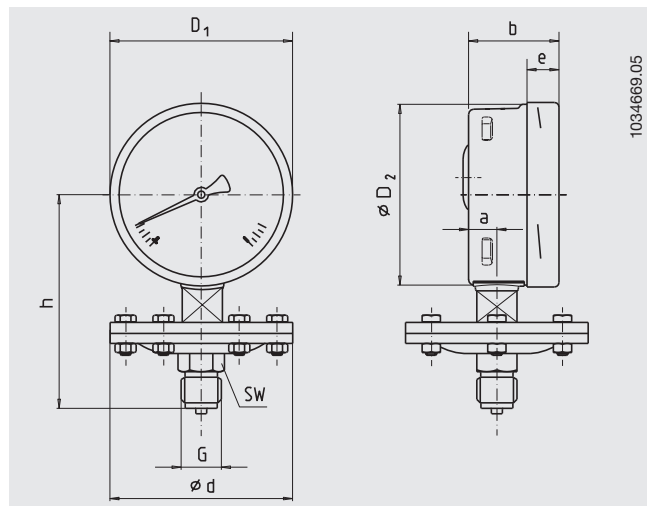
Instruments with special approvals: 1)

- DVGW declaration for the use in gas supply systems
- DIN/DVGW registration: pressure switch per EN 1854
- Pressure switch per VdTÜV codes of practice 100/1
- Gosstandart approval (Russia)
- Design approval for connection to hazardous zone 0

1) Specification on request

Dimensions in mm

Standard version



| NS | Scale range in bar | Dimensions in mm | | | | | | Weight in kg | | | |
|-----|-----------------------|------------------|------|------|----------------|----------------|------|--------------|-------|----|------|
| | | d | a | b | D ₁ | D ₂ | e | G | h ± 2 | SW | |
| 100 | ≤ 0.25 | 160 | 15.5 | 49.5 | 101 | 99 | 17.5 | G 1/2 B | 119 | 22 | 2.50 |
| 160 | ≤ 0.25 | 160 | 15.5 | 49.5 | 161 | 159 | 17.5 | G 1/2 B | 149 | 22 | 2.90 |
| 100 | > 0.25 | 100 | 15.5 | 49.5 | 101 | 99 | 17.5 | G 1/2 B | 117 | 22 | 1.30 |
| 160 | > 0.25 | 100 | 15.5 | 49.5 | 161 | 159 | 17.5 | G 1/2 B | 147 | 22 | 1.70 |

Process connection per EN 837-3 / 7.3

Ordering information

Model / Nominal size / Scale range / Connection size / Connection location / Options

Modifications may take place and materials specified may be replaced by others without prior notice.
Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing.



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