

Diaphragm pressure gauge Stainless steel version Models 432.50, 433.50

WIKA data sheet PM 04.03



for further approvals
see page 2

Applications

- For measuring points with increased overload
- With liquid-filled case suitability for high dynamic pressure loads and vibrations
- For gaseous and liquid, aggressive and highly viscous or contaminated media, also in aggressive ambience
- Process industry: Chemical, petrochemical, power plants, mining, on-/offshore, environmental technology, machine building and general plant construction

Special features

- All stainless steel construction
- High overload safety
- Process connection thread or open flange
- Wide choice of special materials
- Scale ranges from 0 ... 16 mbar

Description

Design

EN 837-3

Nominal size in mm

100, 160

Accuracy class

1.6

Scale ranges

0 ... 16 mbar to 0 ... 250 mbar (flange Ø 160 mm)
0 ... 400 mbar to 0 ... 25 bar (flange 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

Overload safety

5 x full scale value, however max. 40 bar

Permissible temperature

Ambient: -20 ... +60 °C

Medium: ≤ 100 °C

Storage: -40 ... +70 °C

(scale ranges ≤ 60 mbar: -20 ... +70 °C)

Temperature effect

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

Ingress protection per IEC/EN 60529

IP54 for model 432.50

IP65 for model 433.50 (with liquid filling)



Diaphragm pressure gauge model 432.50

Standard version

Process connection with lower measuring flange

Stainless steel 316L, G ½ B (male), SW 22

Pressure element

≤ 0.25 bar: Stainless steel 316L

> 0.25 bar: NiCr-alloy (Inconel)

Pressure chamber sealing

FPM/FKM

Movement

Stainless steel

Dial

Aluminium, white, black lettering

Pointer

Aluminium, black

Case with upper measuring flange

Stainless steel, with blow-out device

Gauges with liquid filling with compensating valve to vent case

Window

Laminated safety glass

Bezel ring

Bayonet ring, stainless steel








Filling liquid (for model 433.50)

Glycerine 86.5 %

Options

- Other process connection
- Sealings (model 910.17, see data sheet AC 09.08)
- Safety version (model 43x.30)
- Overload safety: 10 x full scale value, max. 40 bar
- Vacuum safe to -1 bar
- Max. medium temperature +200 °C
- Permissible ambient temperature -40 ... +60 °C (silicone oil filling)
- Higher indication accuracy, class 1.0
- Open connecting flanges per DIN/ASME from DN 15 to DN 80 (preferred nominal widths DN 25 and 50 or DN 1" and 2"; see data sheet IN 00.10)
- Wetted parts lined/coated with special materials such as PTFE (model 45x.50), Hastelloy, Monel, nickel, tantalum, titanium, silver (accuracy class 2.5, overload safety on request)
- Pressure gauge with switch contacts, see model PGS43.1x0, data sheet PV 24.03
- Pressure gauge with electrical output signal, see model PGT43.1x0, data sheet PV 14.03

Approvals

Logo	Description	Country
	EU declaration of conformity ATEX directive (option) Hazardous areas - Ex c Zone 1 gas II 2 G c IIC TX X (for instruments without PTFE lining) II 2 G c IIB TX X (for instruments with PTFE lining) Zone 21 dust II 2 D c TX X	European Union
	EAC (option) ■ Pressure equipment directive ■ Hazardous areas	Eurasian Economic Community
	GOST (option) Metrology, measurement technology	Russia
	KazInMetr (option) Metrology, measurement technology	Kazakhstan
-	MTSCHS (option) Permission for commissioning	Kazakhstan
	BelGIM (option) Metrology, measurement technology	Belarus
	Uzstandard (option) Metrology, measurement technology	Uzbekistan
-	CPA (option) Metrology, measurement technology	China
	KCS (KOSHA) (option) Hazardous areas - Ex i Zone 1 gas [Ex ia IIC T6]	South Korea
-	CRN Safety (e.g. electr. safety, overpressure, ...)	Canada

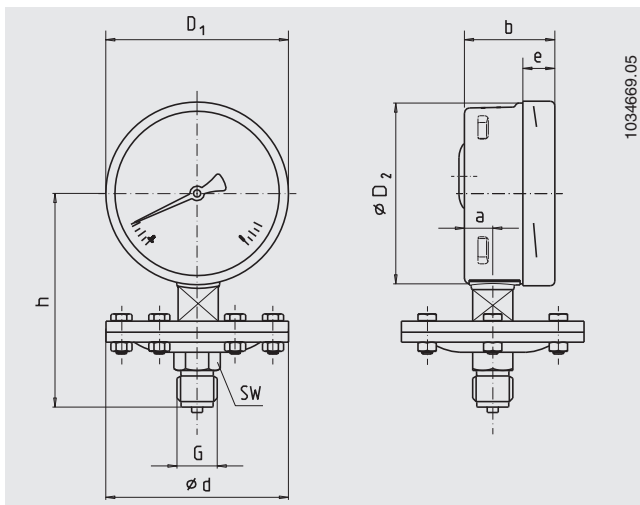
Certificates (option)

- 2.2 test report per EN 10204
(e.g. state-of-the-art manufacturing, material proof, indication accuracy, free from substances of animal origin)
- 3.1 inspection certificate per EN 10204
(e.g. material proof for wetted metallic parts, indication accuracy)
- Others on request

Approvals and certificates, see website

Dimensions in mm

Standard version



NS	Scale range	Dimensions in mm									Weight in kg
	in bar	d	a	b	D_1	D_2	e	G	$h \pm 2$	SW	
100	≤ 0.25	160	15.5	49.5	101	99	17.5	G $\frac{1}{2}$ B	119	22	2.50
160	≤ 0.25	160	15.5	49.5	161	159	17.5	G $\frac{1}{2}$ B	149	22	2.90
100	> 0.25	100	15.5	49.5	101	99	17.5	G $\frac{1}{2}$ B	117	22	1.30
160	> 0.25	100	15.5	49.5	161	159	17.5	G $\frac{1}{2}$ B	147	22	1.70

Process connection per EN 837-3 / 7.3

Ordering information

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

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