

Diaphragm pressure gauge for the process industry

Model 432.56, high overload safety up to 100 bar

Model 432.36, safety version, high overload safety up to 400 bar

WIKA data sheet PM 04.07



for further approvals
see page 3

Applications

- For measuring points with increased overload
- For gaseous, liquid and aggressive media, also in aggressive ambience
- With the open connecting flange option also for contaminated and viscous media
- Process industry: Chemical, petrochemical, power plants, mining, on-/offshore, environmental technology, machine building and general plant construction

Special features

- High overload safety, optionally 40, 100 or 400 bar, due to metallic diaphragm cushion, without liquid-filled measuring cell
- Wide choice of special materials
- Compatible with switch contacts
- All stainless steel construction
- Scale ranges from 0 ... 16 mbar

Description

Design

EN 837-3

Nominal size in mm

100, 160

Accuracy class

1.6

Scale ranges ¹⁾

0 ... 16 mbar to 0 ... 250 mbar

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

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 ¹⁾

- 40 bar
- 100 bar
- 400 bar (only for scale ranges $\geq 0 \dots 400$ mbar ²⁾)

Permissible temperature

Ambient: -20 ... +60 °C

Medium: ≤ 100 °C

Temperature effect

When the temperature of the measuring system deviates from the reference temperature (+20 °C): $\leq \pm 0.8 \text{ \%}/10 \text{ K}$ of full scale value

Ingress protection per IEC/EN 60529

- IP54
- IP65 for models with liquid filling

¹⁾ Depending on scale range and overload safety, different flange Ø apply.
Dimensions, see page 4.

²⁾ 400 bar overload safety for scale ranges < 400 mbar on request



Diaphragm pressure gauge, model 432.56

Standard version

Process connection with lower measuring flange

Stainless steel, G ½ B (male)

Pressure element

≤ 0.25 bar: Stainless steel

> 0.25 bar: NiCr-alloy (Inconel)

Pressure chamber sealing

FPM/FKM

Movement

Stainless steel

Dial

Aluminium, white, black lettering

Pointer

- Adjustable pointer, aluminium, black
- Standard pointer, aluminium, black (for models with liquid filling)

Case

Stainless steel, instruments with liquid filling with compensating valve to vent case

Model 432.56: With blow-out device

Model 432.36: Safety version with solid baffle wall (Solid-front) and blow-out back

Upper measuring flange and flange connecting screws

Stainless steel

Window

Laminated safety glass

Bezel ring

Bayonet ring, stainless steel

Options

- Other process connection
- Sealings (model 910.17, see data sheet AC 09.08)
- Liquid filling (models 433.56, 433.36, ingress protection IP65)
- 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, DN 15 to DN 80 (preferred nominal widths DN 25 and 50 or DN 1" and 2" per data sheet IN 00.10)
- Wetted parts made of special materials, high overload safety up to 10 bar (flange Ø 160 mm) or 40 bar (flange Ø 100 mm): PTFE (models 452.56, 452.36), Hastelloy, Monel, nickel, tantalum, titanium (accuracy class 2.5)
- Additional wall bracket for model 432.36, high overload safety up to 400 bar ¹⁾
- Diaphragm pressure gauge with switch contacts, see data sheet PV 24.07
- Diaphragm pressure gauge with electrical output signal, see model PGT43HP, data sheet PV 14.07

1) Recommendation with vibration load > 0.5 g

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

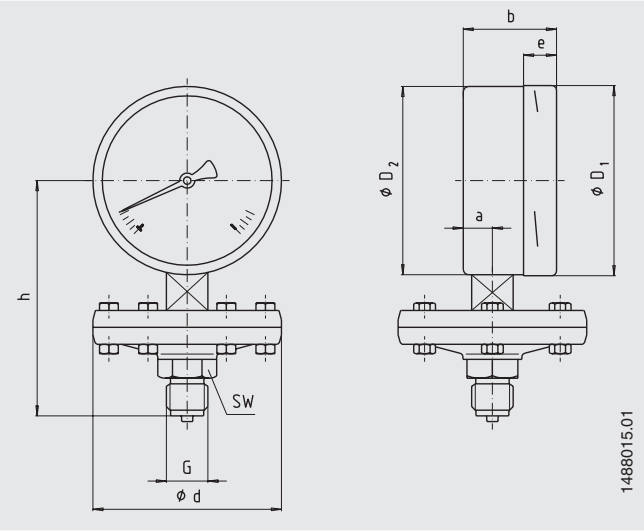
Certificates (option)

- 2.2 test report per EN 10204
(e.g. state-of-the-art manufacturing, material proof, indication accuracy)
- 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 ranges	Overload safety	Dimensions in mm									Weight in kg
	in bar	up to ... bar	d	a	b	D ₁	D ₂	e	G	h ±2	SW	
100	≤ 0.25	40	160	15.5	49.5	101	99	17.5	G ½ B	135	27	3.4
		100	160	15.5	49.5	101	99	17.5	G ½ B	143	22	6.3
	> 0.25	40	100	15.5	49.5	101	99	17.5	G ½ B	135	27	1.7
		100	100	15.5	49.5	101	99	17.5	G ½ B	135	27	1.8
		400	128	23.5	59	101	100	17.5	G ½ B	169	22	6.3
160	≤ 0.25	40	160	15.5	49.5	161	159	17.5	G ½ B	165	27	4.0
		100	160	15.5	49.5	161	159	17.5	G ½ B	173	22	6.9
	> 0.25	40	100	15.5	49.5	161	159	17.5	G ½ B	165	27	2.2
		100	100	15.5	49.5	161	159	17.5	G ½ B	165	27	2.3
		400	128	23.5	65	161	160	17.5	G ½ B	199	22	6.9

Process connection per EN 837-3 / 7.3

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WIKAL Alexander Wiegand SE & Co. KG
Alexander-Wiegand-Straße 30
63911 Klingenberg/Germany
Tel. +49 9372 132-0
Fax +49 9372 132-406
info@wika.de
www.wika.de