

Differential pressure gauge

Compact version NS 80, class 2.5 to 4.0

Model 716.05, high overload safety

WIKA data sheet PM 07.12



for further approvals see
page 3

Applications

- Differential pressure measurement at measuring points with very low differential pressures and very high one-sided or reciprocal overload
- For transparent, clean, non-sticky, non-aggressive media
- Control of ventilator and blast pressures
- Filter monitoring in ventilation and heating systems
- Level measurement on closed vessels

Special features

- Differential pressure measuring ranges from 0 ... 16 mbar
- High working pressure (static pressure) and high overload safety up to 16 bar
- Numerous options for installation, connection form and connection location



Differential pressure gauge model 716.05

Description

The compact differential pressure gauge, model 716.05 with a nominal size of 80 mm, has been specifically designed for measuring points at which differential pressure measurements with low differential pressures take place. In addition, an overload safety of up to 16 bar is guaranteed, on either side.

Depending on the accuracy classes of 2.5 % and 4 %, different scale ranges can be specified. Differential pressures of 0 to 16 mbar and 0 to 600 mbar can be measured.

The differential pressure gauge offers a wide variety of connection options, as well as panel mounting, and can therefore be used in many applications for level measurement.

Specifications

Version

Small compact design

Nominal size in mm

80

Accuracy class

4.0: Scale ranges 0 ... 16 mbar and 0 ... 25 mbar

2.5: Scale ranges from 0 ... 40 mbar to 0 ... 600 mbar

Scale ranges

0 ... 16 mbar to 0 ... 600 mbar

or all other equivalent vacuum or combined pressure and vacuum ranges

Pressure limitation

Steady: Full scale value

Fluctuating: Full scale value

Overload safety

Either side max. 16 bar

Max. working pressure (static pressure)

16 bar

Permissible temperature

Ambient: -15 ... +60 °C

Medium: +70 °C maximum

Temperature effect

When the temperature of the measuring system deviates from the reference temperature (+20 °C): max. $\pm 0.5 \%$ /10 K of true scale value

Ingress protection

IP66 per IEC/EN 60529

Process connections (wetted)

Lower mount or back mount, 2 x G 1/8 female

Case (wetted)

Aluminium, black, pressure-tight

Ring

Aluminium, black

Pressure element (wetted)

Stainless steel

Separating diaphragm of measuring chamber (wetted)

Diaphragm, silicone rubber

Sealings (wetted)

NBR

Movement (wetted)

Copper alloy, wear parts argentan

Dial (wetted)

Aluminium, white, black lettering

Pointer (wetted)

Aluminium, black

Window (wetted)

Glass

Weight

0.64 kg

Installation

According to affixed symbols, \oplus high pressure,

\ominus low pressure

Mounting

Rigid measuring lines





Design and operating principle

- Pressure-tight case interior with diaphragm (secondary pressure element) and metallic measuring range springs (primary pressure element)
- Positive \oplus and negative \ominus media chambers are separated by the diaphragm
- The pressure difference between the \oplus and \ominus media chambers causes an axial deflection (measuring path) of the diaphragm against the measuring range springs
- The deflection is transmitted to the movement via the link
- Overload safety is provided by metal bolsters resting against the elastic diaphragm

Options

- Triangular bezel with fastening elements for panel mounting
- Panel or surface mounting flange (steel, black)
- Lateral mount connections
- Connections via male thread (wetted)
- Scale ranges $< 0 \dots 16$ mbar and $> 0 \dots 600$ mbar (on request)
- Overload safety > 16 bar
- Max. working pressure (static pressure) > 16 bar

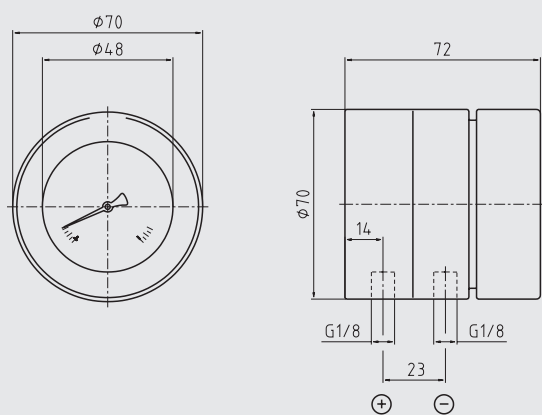
Approvals

Logo	Description	Country
	EAC (option) Pressure equipment directive	Eurasian Economic Community
	GOST Metrology, measurement technology	Russia
-	MTSCHS (option) Permission for commissioning	Kazakhstan
	UkrSEPRO Metrology, measurement technology	Ukraine
	Uzstandard (option) Metrology, measurement technology	Uzbekistan
-	CPA Metrology, measurement technology	China
-	CRN Safety (e.g. electr. safety, overpressure, ...)	Canada

Dimensions in mm

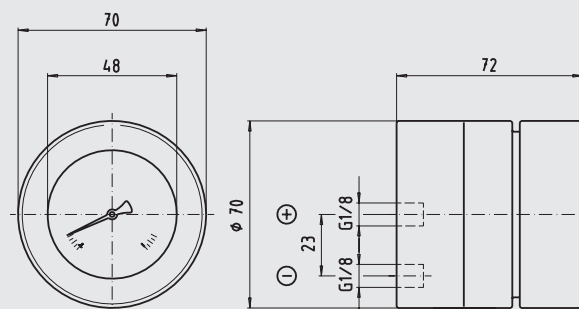
Standard version

Lower mount (radial)



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Back mount

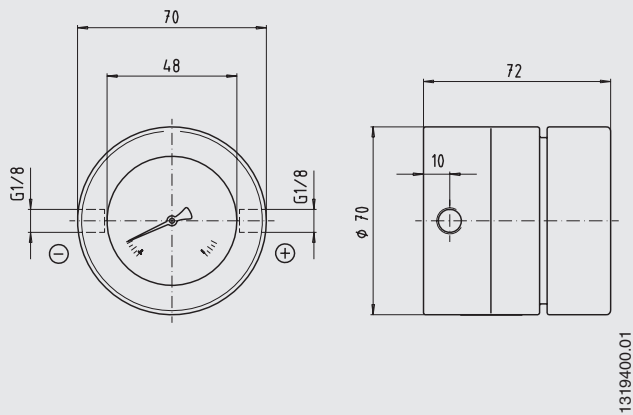


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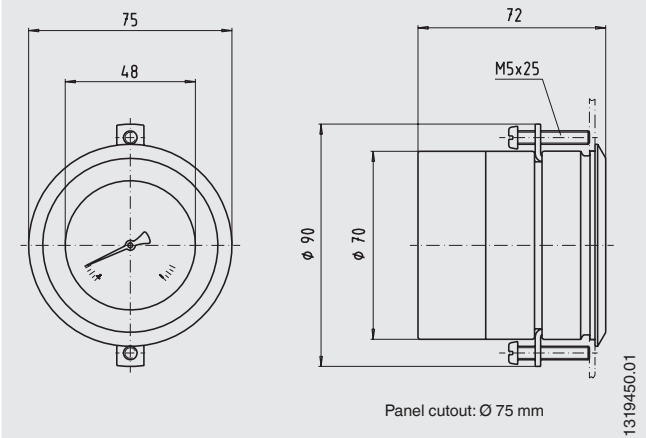
Dimensions in mm

Options

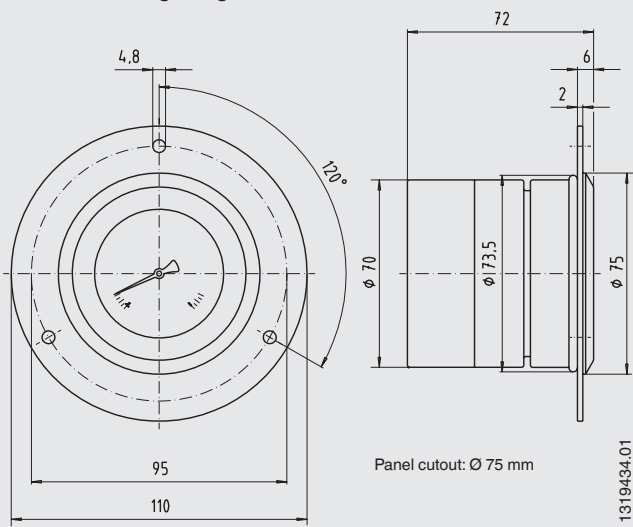
Lateral mount (radial)



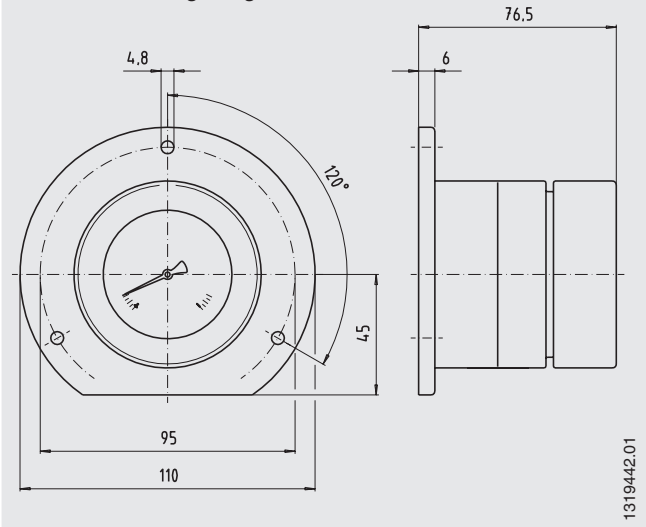
Triangular bezel with fastening elements



Panel mounting flange



Surface mounting flange



Ordering information

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

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