

## Test gauge, stainless steel Standard version, class 0.6, NS 160 Models 332.50, 333.50

WIKA data sheet PM 03.06



for further approvals  
see page 3

### Applications

- With liquid-filled case for applications with high dynamic pressure loads or vibrations
- For gaseous and liquid aggressive media that are not highly viscous or crystallising, also in aggressive environments
- Precision measurement in laboratories
- High-accuracy pressure measurement
- Testing of industrial type pressure gauges

### Special features

- Completely from stainless steel
- Knife edge pointer for optimal accuracy of reading
- Wear-resistant precision movement from stainless steel
- Scale ranges from 0 ... 0.6 to 0 ... 1,600 bar



Test gauge, stainless steel, model 332.50

### Description

The model 33x.50 high-quality test gauge has been specifically designed for the measurement of pressures with high accuracy. With its accuracy class of 0.6, the Bourdon tube pressure gauge is suitable for testing industrial type pressure gauges or for precision measurement in laboratories. Optionally, an accuracy class of 0.25 is available for pressures  $\leq 400$  bar.

For the respective measuring requirement, a scale range between 0 ... 0.6 and 0 ... 1,600 bar can be selected.

The optimal readability of the instrument, with a nominal size of 160 mm, is achieved via a knife edge pointer and a dial with fine divisions. Supported through the optional mirror band scale, the parallax error can be eliminated.

The wear-resistant precision movement, the wetted parts and the case are made from high-grade stainless steel. The instrument meets the requirements of the international industry standard EN 837-1 for Bourdon tube pressure gauges and has a blow-out device with blow-out plug on the back of the case. In the event of a failure, overpressure can escape there and the operator is protected at the front side. For harsh operating conditions (e.g. vibrations), the instruments are also available with an optional liquid filling.







For this instrument, an optional DKD/DAkkS calibration certificate can be generated. Safe storage and transport is ensured by a transport case (accessory).

## Specifications

Models 332.50 and 333.50	
<b>Design</b>	EN 837-1 For information on the "Selection, installation, handling and operation of pressure gauges", see Technical information IN 00.05.
<b>Nominal size in mm</b>	160
<b>Accuracy class</b>	0.6 Option: ■ 0.25 (scale ranges ≤ 400 bar) ■ Grade 3A per ASME B40.100 (scale ranges ≤ 400 bar)
<b>Scale ranges</b>	0 ... 0.6 bar [0 ... 8.7 psi] to 0 ... 1,600 bar [0 ... 23,200 psi] other units (e.g. psi, kPa) available or all other equivalent vacuum or combined pressure and vacuum ranges
<b>Scale</b>	Single scale Option: Mirror band scale
<b>Pressure limitation</b>	
Steady	Full scale value
Fluctuating	0.9 x full scale value
Short time	1.3 x full scale value
<b>Connection location</b>	■ Lower mount (radial) ■ Lower back mount
<b>Process connection</b>	G ½ B Others on request
<b>Permissible temperature</b>	
Medium	■ +200 °C [+392 °F] maximum with unfilled instruments ■ +100 °C [+212 °F] maximum with filled instruments (model 333.50)
Ambient	■ -40 ... +60 °C [-40 ... +140 °F] with unfilled instruments ■ -20 ... +60 °C [-4 ... +140 °F] with instruments with glycerine filling (model 333.50)
<b>Temperature effect</b>	When the temperature of the measuring system deviates from the reference temperature (+20 °C): max. ±0.4 %/10 K of full scale value
<b>Case filling</b>	Without Option: Glycerine
<b>Wetted materials</b>	
Process connection	Stainless steel 316L
Pressure element	Stainless steel 316L < 100 bar: Copper alloy, C-type ≥ 100 bar: Stainless steel 316L, helical type ≥ 1,000 bar: Ni-Fe alloy, helical type
<b>Non-wetted materials</b>	
Case	Stainless steel Version S1 per EN 837: With blow-out device in case back Scale ranges ≤ 0 ... 10 bar with compensating valve to vent case
Bayonet ring	Stainless steel Option: Triangular bezel, polished stainless steel, with clamp
Movement	Stainless steel
Dial	Aluminium, white, black lettering
Pointer	Knife edge pointer, aluminium, black
Window	Laminated safety glass Option: Zero point setting from outside through adjustable dial

Models 332.50 and 333.50	
Ingress protection per IEC/EN 60529	IP65
Adjustment medium	≤ 25 bar: Gas > 25 bar: Liquid Option: Gas from scale range ≥ 25 bar

## Approvals

Logo	Description	Country
	<b>EU declaration of conformity</b> Pressure equipment directive, PS > 200 bar; module A, pressure accessory	European Union
	<b>GOST (option)</b> Metrology, measurement technology	Russia
	<b>KazInMetr (option)</b> Metrology, measurement technology	Kazakhstan
-	<b>MTSCHS (option)</b> Permission for commissioning	Kazakhstan
	<b>BelGIM (option)</b> Metrology, measurement technology	Belarus
	<b>UkrSEPRO (option)</b> Metrology, measurement technology	Ukraine
	<b>Uzstandard (option)</b> Metrology, measurement technology	Uzbekistan
-	<b>CPA (option)</b> Metrology, measurement technology	China
-	<b>CRN</b> 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 metal parts, indication accuracy)
- DKD/DAkkS certified accuracy

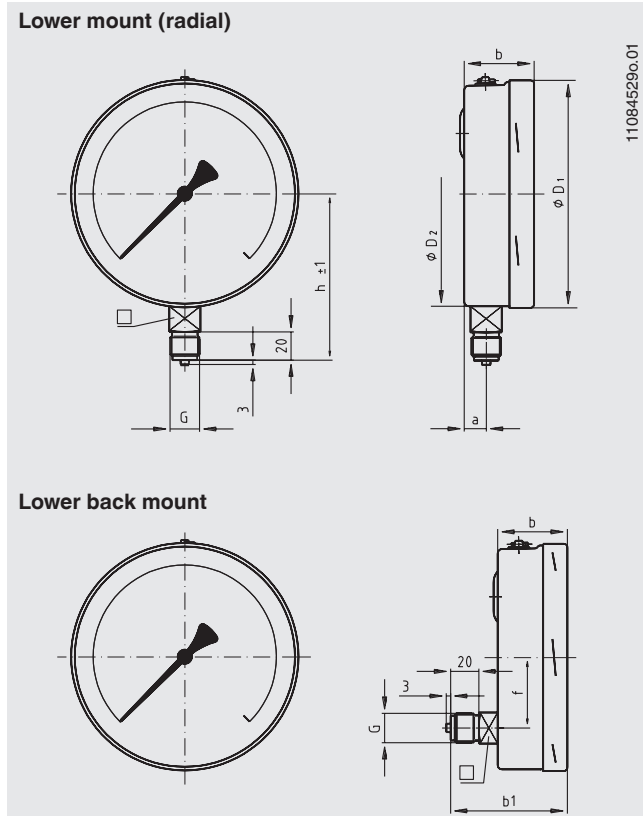
Approvals and certificates, see website

## Accessories

- Sealings (model 910.17, see data sheet AC 09.08)
- Panel or surface mounting flange, stainless steel
- Transport case

# Dimensions in mm [in]

## Standard version



NS	Dimensions in mm [in]									Weight in kg [lbs]
	a	b	b1	D <sub>1</sub>	D <sub>2</sub>	f	G	h ± 1	SW	
<b>160</b>	15.5 [0.61]	49.5 [1.949] <sup>1)</sup>	83 [3.268] <sup>1)</sup>	161 [6.339]	159 [6.26]	50 [1.969]	G ½ B	118 [4.646]	22	1.10 [2.947]

1) Plus 16 mm with scale ranges ≥ 100 bar

Process connection per EN 837-1 / 7.3

## Ordering information

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