Test gauge, safety version
Class 0.6, NS 160 [6"]
Models 332.30, 333.30

for further approvals
see page 3

Applications

- 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
- Increased safety requirements for personal protection
- With liquid-filled case for applications with high dynamic pressure loads or vibrations

Special features

- Safety pressure gauge with solid baffle wall designed in compliance with the requirements and test conditions of EN 837-1
- 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 [0 ... 10 psi to 0 ... 20,000 psi]

Test gauge series, safety version, model 332.30

Description

The model 33x.30 high-quality test gauge has been specifically designed for increased safety requirements during high-accuracy pressure measurements and is suited for calibration tasks. With an 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 possible for pressures ≤ 400 bar [6,000 psi].

The wear-resistant precision movement, the wetted parts and the case are made from high-grade stainless steel. WIKA manufactures and qualifies the Bourdon tube pressure gauge in accordance with the requirements of the EN 837-1 European standard in the “S3” safety level. This safety level is made up of a non-splintering window, a solid baffle wall between measuring system and dial and a blow-out back.

In the event of a failure, the operator is protected at the front side, as media or components can only be ejected via the back of the case. For harsh operating conditions (e.g. vibrations), all instruments are also available with an optional liquid filling.

The optimal readability of the instrument, with a nominal size of 160 mm [6"], is achieved via a knife edge pointer and a dial with fine divisions. In addition, a mirror scale can be chosen to avoid the parallax error.

On request, a calibration certificate will be provided for this instrument.
Safe storage and transport is ensured by a transport case (accessory).

Data sheets showing similar products:
Test instrument, safety version; model 332.11; see data sheet PM 03.04
Test gauge, copper alloy or stainless steel; NS 250; model 311.11; see data sheet PM 03.02

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Specifications

Models 332.30 and 333.30	
Standard	EN 837-1
	See Technical Information IN 00.05 for information on “Selection, installation, handling and operation of pressure gauges”.
Nominal size (NS)	Ø 160 mm [6"]
Accuracy class	■ 0.6 ■ 0.25 (selectable for scale ranges ≤ 400 bar) ■ Grade 3A per ASME B40.100 (selectable for scale ranges ≤ 400 bar)
Scale ranges	0 ... 0.6 bar to 0 ... 1,600 bar [0 ... 10 psi to 0 ... 20,000 psi] other units (e.g. psi, kPa) available or all other equivalent vacuum or combined pressure and vacuum ranges
Scale	■ Single scale ■ Mirror band scale
Pressure limitation	
Steady	Full scale value
Fluctuating	0.9 x full scale value
Short time	1.3 x full scale value
Connection location	Lower mount (radial)
Process connection	G ½ B Others on request
Permissible temperature	
Medium	■ +200 °C [392 °F] maximum with unfilled instruments ■ +100 °C [212 °F] maximum with filled instruments (model 333.30)
Ambient	■ -40 … +60 °C [-40 ... +140 °F] with unfilled instruments ■ -20 … +60 °C [-4 ... +140 °F] with instruments with glycerine filling (model 333.30)
Temperature effect	When the temperature at the measuring system deviates from the reference temperature +20 °C [+68 °F]: ≤ ±0.4 %/10 °C [≤ ±0.4 %/18 °F] of full scale value
Case filling	■ Without ■ Glycerine
Wetted materials	
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
Non-wetted materials	
Case	Stainless steel Safety level “S3” per EN 837: With solid baffle wall (Solidfront) and blow-out back
Ring	■ Bayonet ring, stainless steel ■ Triangular profile ring, polished stainless steel, with clamp
Movement	Stainless steel
Dial	Aluminium, white, black lettering
Instrument pointer	Aluminium, black (knife edge pointer)
Set pointer	■ Without ■ Aluminium, red
Window	Laminated safety glass
Ingress protection per IEC/EN 60529	IP65
Adjustment medium	■ Liquid for scale ranges > 25 bar; gas for scale ranges ≤ 25 bar ■ Gas for all scale ranges

Approvals

Logo	Description	Country
CE	**EU declaration of conformity** Pressure equipment directive, PS > 200 bar; module A, pressure accessory	European Union
	GOST (option) Metrology, measurement technology	Russia
	KazInMetr (option) Metrology, measurement technology	Kazakhstan
-	**MTSCHS (option)** Permission for commissioning	Kazakhstan
	BelGIM (option) Metrology, measurement technology	Belarus
	UkrSEPRO (option) Metrology, measurement technology	Ukraine
	Uzstandard (option) Metrology, measurement technology	Uzbekistan
-	**CPA (option)** Metrology, measurement technology	China
-	**CRN** Safety (e.g. electr. safety, overpressure, ...) For scale ranges ≤ 1,000 bar	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. indication accuracy)
- PCA calibration certificate, traceable and accredited in accordance with ISO/IEC 17025
- Calibration certificate by the national accreditation body, traceable and accredited in accordance with ISO/IEC 17025 on request

Approvals and certificates, see website

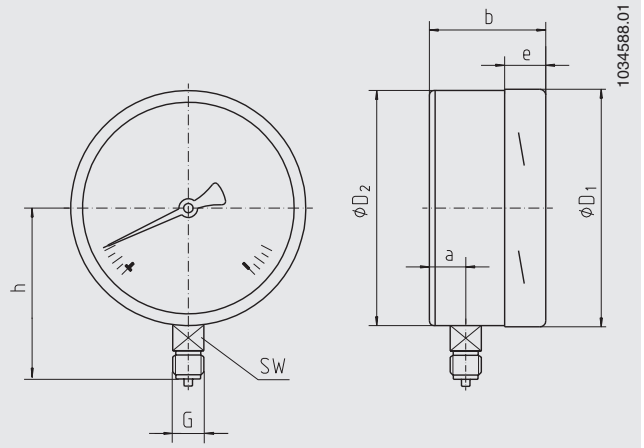
Accessories

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

Dimensions in mm [in]

Standard version

Lower mount (radial)



Scale range	Dimensions in mm [in]								Weight in kg [lbs]	
	a	b	D_1	D_2	e	G	h ±1	SW	Model 332.30	Model 333.30
< 100 bar [1,500 psi]	27 [1.063]	65 [2.559]	161 [6.339]	159 [6.26]	17.5 [0.689]	G ½ B	118 [4.646]	22	1.30 [3.483]	2.34 [6.269]
≥ 100 bar [1,500 psi]	41.5 [4.634]	79 [3.11]	161 [6.339]	159 [6.26]	17.5 [0.689]	G ½ B	118 [4.646]	22	1.50 [4.019]	2.70 [7.234]

Process connection per EN 837-1 / 7.3

Ordering information

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

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