

Test gauge, stainless steel

For on-site calibration, class 0.6, NS 160 [6"]

Model 332.11

WIKA data sheet PM 03.04



For further approvals,
see page 6

Applications

- Mobile precision measurement under special safety
- For gaseous and liquid aggressive media that are not highly viscous or crystallising, also in aggressive environments
- High-accuracy pressure measurement
- Testing of industrial type pressure gauges

Special features

- Safety version with solid baffle wall (Solidfront) designed in compliance with the requirements of EN 837-1 and ASME B40.100
- Completely from stainless steel
- Knife edge pointer for optimal accuracy of reading
- Wear-resistant precision movement from stainless steel
- QR code on dial links to instrument-specific information



Fig. left: model 332.11 with mounted shut-off valve
Fig. right: model 332.11 in service case

Description

The model 332.11 high-quality test gauge has been specifically designed for high-accuracy pressure measurement and is suited for on-site calibration tasks. The instrument is equipped with a shut-off valve to enable slow pressure loading. This instrument hook-up is leak tested and delivered ready for use.

With an accuracy class of 0.6, the Bourdon tube pressure gauge is suitable for testing industrial type pressure gauges.

The wear-resistant precision movement, the wetted parts and the case are made from high-grade stainless steel. WIKA manufactures and qualifies the pressure gauge in accordance with the standards EN 837-1 and ASME B40.100.

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 band scale can be chosen to avoid the parallax error.

This safety version 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 user is protected at the front side, as media or components can only be ejected via the back of the case.

Safe storage and readiness for use are ensured by a transport case with connection accessories. Additionally, a calibration certificate will be provided for this instrument.

The QR code on the dial allows instrument-specific information such as the serial number, the order number, certificates and other product data to be retrieved from the internet easily and in the long term.

Specifications

Basic information	
Standard	<ul style="list-style-type: none"> ■ EN 837-1 ■ ASME B40.100 <p>→ For information on the "Selection, installation, handling and operation of pressure gauges", see technical information IN 00.05</p>
Further version	<ul style="list-style-type: none"> ■ Oil- and grease-free ■ For oxygen, oil- and grease-free ■ Silicone-free
Nominal size (NS)	Ø 160 mm [6"]
Window	Laminated safety glass
Case	
Design	Safety level "S3" per EN 837: with solid baffle wall (Solidfront) and blow-out back
Material	Stainless steel
Ring	<ul style="list-style-type: none"> ■ Bayonet bezel, stainless steel ■ Bayonet bezel, stainless steel, polished
Movement	Stainless steel
Adjustment medium	<ul style="list-style-type: none"> ■ Liquid for scale ranges > 25 bar [400 psi]; gas for scale ranges ≤ 25 bar [400 psi] ■ Gas for all scale ranges

Measuring element	
Type of measuring element	Bourdon tube, C-type or helical type
Material	Stainless steel 1.4404 (316L)
Leak tightness	<ul style="list-style-type: none"> ■ Leakage rate: < $1 \cdot 10^{-3}$ mbar l/s ■ Helium tested, leakage rate: < $1 \cdot 10^{-6}$ mbar l/s

Accuracy specifications	
Accuracy class	
EN 837-1	<ul style="list-style-type: none"> ■ Class 0.6 ■ Class 0.25 (selectable for scale ranges ≤ 400 bar [6,000 psi])
ASME B40.100	<ul style="list-style-type: none"> ■ ±0.5 % of measuring span (grade A) ■ ±0.25 % of measuring span (grade 3A) (selectable for scale ranges ≤ 400 bar [6,000 psi])
Temperature error	On deviation from the reference conditions at the measuring system: ≤ ±0.4 % per 10 °C [≤ ±0.4 % per 18 °F] of full scale value
Reference conditions	
Ambient temperature	+20 °C [+68 °F]

Scale ranges

bar	
0 ... 0.6	0 ... 30
0 ... 1	0 ... 40
0 ... 1.6	0 ... 60
0 ... 2.5	0 ... 70
0 ... 4	0 ... 100
0 ... 6	0 ... 140
0 ... 7	0 ... 160
0 ... 10	0 ... 200
0 ... 14	0 ... 250
0 ... 16	0 ... 315
0 ... 20	0 ... 400
0 ... 25	0 ... 600

kPa	
0 ... 60	0 ... 2,500
0 ... 70	0 ... 3,000
0 ... 100	0 ... 4,000
0 ... 160	0 ... 6,000
0 ... 200	0 ... 7,000
0 ... 250	0 ... 10,000
0 ... 300	0 ... 14,000
0 ... 400	0 ... 16,000
0 ... 600	0 ... 20,000
0 ... 700	0 ... 25,000
0 ... 1,000	0 ... 31,500
0 ... 1,400	0 ... 40,000
0 ... 1,600	0 ... 60,000

kg/cm ²	
0 ... 0.6	0 ... 30
0 ... 1	0 ... 40
0 ... 1.6	0 ... 60
0 ... 2.5	0 ... 70
0 ... 4	0 ... 100
0 ... 6	0 ... 140
0 ... 7	0 ... 160
0 ... 10	0 ... 200
0 ... 14	0 ... 250
0 ... 16	0 ... 315
0 ... 20	0 ... 400
0 ... 25	0 ... 600

psi	
0 ... 10	0 ... 600
0 ... 15	0 ... 800
0 ... 30	0 ... 1,000
0 ... 60	0 ... 1,500
0 ... 100	0 ... 2,000
0 ... 150	0 ... 3,000
0 ... 160	0 ... 4,000
0 ... 200	0 ... 5,000
0 ... 250	0 ... 6,000
0 ... 300	0 ... 7,500
0 ... 400	-

MPa	
0 ... 0.06	0 ... 2.5
0 ... 0.1	0 ... 3
0 ... 0.16	0 ... 4
0 ... 0.20	0 ... 6
0 ... 0.25	0 ... 10
0 ... 0.4	0 ... 14
0 ... 0.6	0 ... 16
0 ... 0.7	0 ... 20
0 ... 1	0 ... 25
0 ... 1.4	0 ... 31.5
0 ... 1.6	0 ... 40
0 ... 2	0 ... 60

Vacuum and compound scale ranges

bar	
-0.6 ... 0	-1 ... +7
-1 ... 0	-1 ... +9
-1 ... +0.6	-1 ... +10
-1 ... +1	-1 ... +15
-1 ... +1.5	-1 ... +24
-1 ... +2	-1 ... +15
-1 ... +3	-1 ... +30
-1 ... +5	-

kPa	
-60 ... 0	-100 ... +700
-100 ... 0	-100 ... +900
-100 ... +60	-100 ... +1,000
-100 ... +150	-100 ... +1,500
-100 ... +200	-100 ... +1,500
-100 ... +300	-100 ... +2,400
-100 ... +400	-100 ... +3,000
-100 ... +500	-

kg/cm ²	
-0.6 ... 0	-1 ... +7
-1 ... 0	-1 ... +9
-1 ... +0.6	-1 ... +10
-1 ... +1	-1 ... +15
-1 ... +1.5	-1 ... +24
-1 ... +2	-1 ... +15
-1 ... +3	-1 ... +30
-1 ... +5	-

psi	
-15 inHg ... 0	-30 inHg ... +100
-30 inHg ... 0	-30 inHg ... +160
-30 inHg ... +15	-30 inHg ... +200
-30 inHg ... +30	-30 inHg ... +300
-30 inHg ... +60	-

MPa	
-0.06 ... 0	-0.1 ... +0.5
-0.1 ... 0	-0.1 ... +0.7
-0.1 ... +0.06	-0.1 ... +0.9
-0.1 ... +0.1	-0.1 ... +1
-0.1 ... +0.15	-0.1 ... +1.5
-0.1 ... +0.2	-0.1 ... +2.4
-0.1 ... +0.3	-0.1 ... +3
-0.1 ... +0.4	-

Further details on: scale ranges

Special scale ranges	→ Other scale ranges on request
Unit	<ul style="list-style-type: none"> ■ bar ■ psi ■ kg/cm² ■ kPa ■ MPa
Increased overload safety	<ul style="list-style-type: none"> ■ Without ■ 1.3 times <p>The possibility of selection depends on the scale range</p>
Vacuum resistance	Vacuum-resistant to -1 bar [-30 inHg]
Dial	
Scale colour	Black
Material	Aluminium
Special scale	→ Other scales or customer-specific dials, e.g. with red mark, circular arcs or circular sectors, on request

Further details on: scale ranges

Pointer

Instrument pointer	Knife edge pointer, aluminium, black
Mark pointer / drag pointer	<ul style="list-style-type: none">■ Without■ Red mark pointer on dial, fixed■ Red mark pointer on window, adjustable■ Red drag pointer on window, adjustable
Pointer stop pin	<ul style="list-style-type: none">■ Without■ At 6 o'clock

Process connection

Size	Angled shut-off valve with LH-RH adjusting nut M20 x 1.5
Material (wetted)	
Measuring element	Stainless steel 1.4404 (316L)
Process connection	Stainless steel 1.4404 (316L)

→ Other process connections on request



Operating conditions

Medium temperature	≤ +200 °C [+392 °F]
Ambient temperature	-40 ... +60 °C [-40 ... +140 °F]
Pressure limitation	
Steady	Full scale value
Fluctuating	0.9 x full scale value
Short time	1.3 x full scale value
Ingress protection per IEC/EN 60529	IP54



Packaging

Packaging	Transport case
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Approvals

Logo	Description	Country
	EU declaration of conformity	European Union
	Pressure Equipment Directive PS > 200 bar, module A, pressure accessory	
	UKCA	United Kingdom
	Pressure equipment (safety) regulations	
-	CRN	Canada
	Safety (e.g. electr. safety, overpressure, ...) For scale ranges ≤ 1,000 bar	

Optional approvals

Logo	Description	Country
	PAC Kazakhstan Metrology, measurement technology	Kazakhstan
-	MChS Permission for commissioning	Kazakhstan
-	PAC Ukraine Metrology, measurement technology	Ukraine
	PAC Uzbekistan Metrology, measurement technology	Uzbekistan
-	PAC China Metrology, measurement technology	China

Manufacturer's declaration

Logo	Description
-	Pressure Equipment Directive (PED) for maximum allowable pressure PS ≤ 200 bar
-	Suitability of wetted materials for drinking water in accordance with the European 4MS initiative

Certificates

Certificates	
Certificates	<ul style="list-style-type: none"> ■ 2.2 test report per EN 10204 (e.g. state-of-the-art manufacturing, indication accuracy) ■ 3.1 inspection certificate per EN 10204 (e.g. material proof for wetted metal parts, indication accuracy) ■ PCA calibration certificate (traceable and accredited in accordance with ISO/IEC 17025) ■ Calibration certificate by a national accreditation body (traceable and accredited in accordance with ISO/IEC 17025) on request
Recommended calibration interval	1 year (dependent on conditions of use)

Patents, property rights

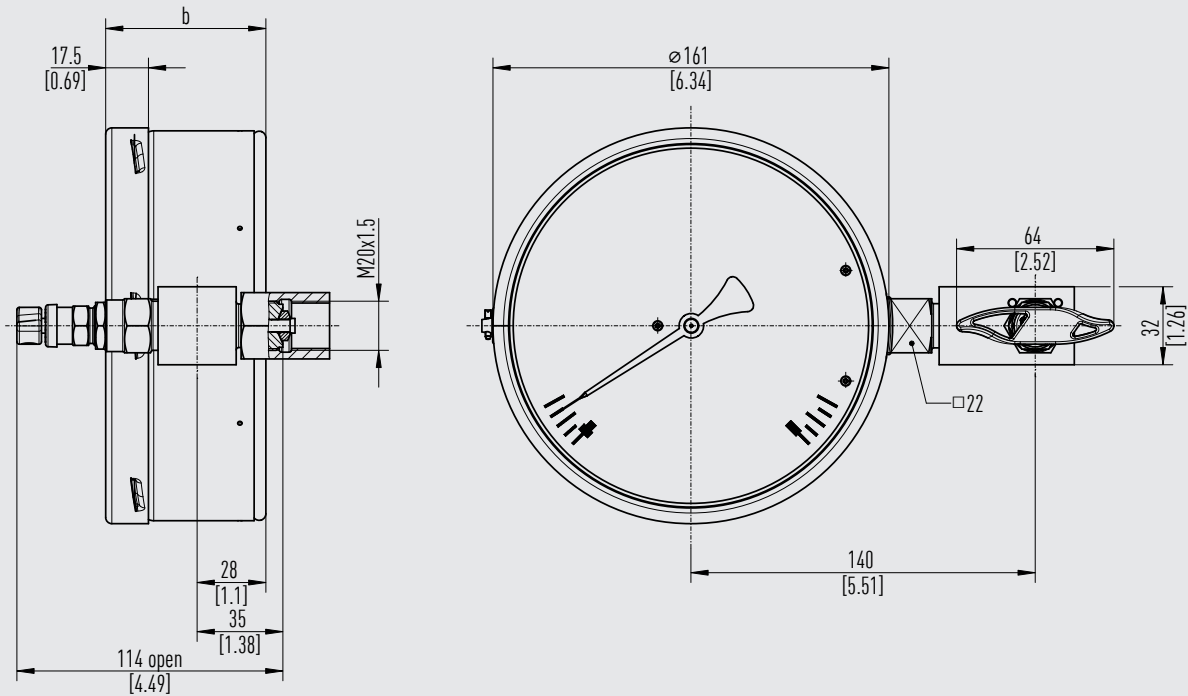
Patent number	Description
US Design D1051747S, CPC CN 01677074, DE Design 402022100171, EU Design 402022100171, IR Design DM/222416, EU 3D trademark 018659564	Design patent WIKA blue identity

The WIKA blue identity design is protected in various countries under various rights.

→ For approvals and certificates, see website

Dimensions in mm [in]

Test gauge, model 332.11



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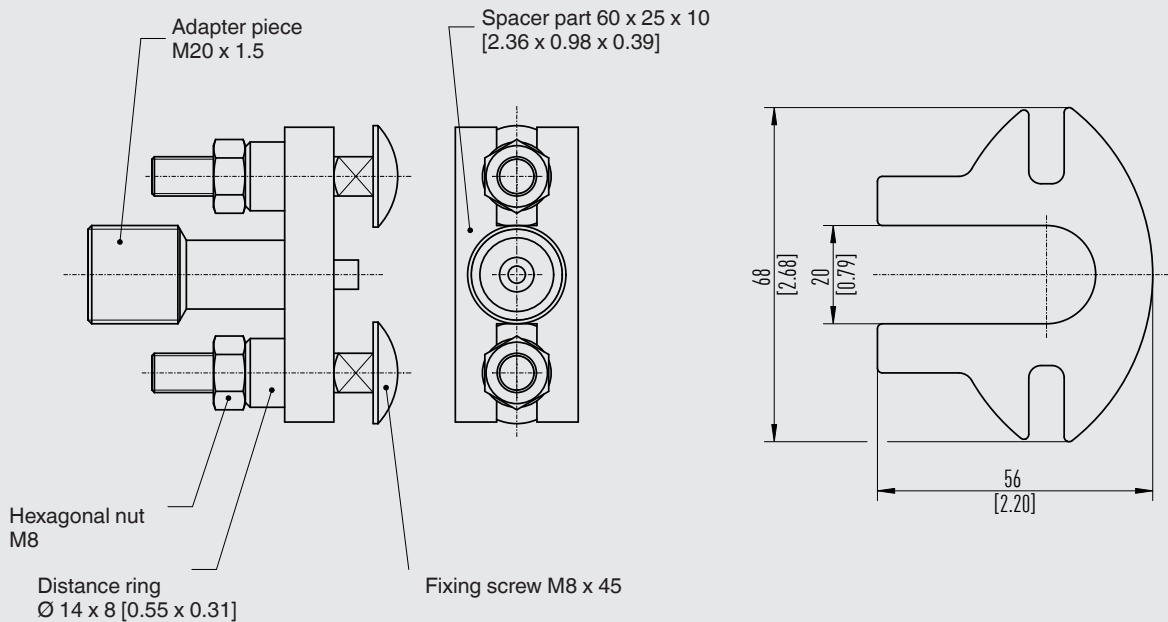
Case dimensions

Scale range	Dimensions in mm [in]
	$b \pm 0.5$ [0.02]
< 100 bar [1,500 psi]	58 [2.28]
≥ 100 bar [1,500 psi]	75.5 [2.97]

Accessories (included)

Adapter piece with test flange

Insert plate



14714342.02


Indicative image: connection with LH-RH adjusting nut



Indicative image: connection with adapter piece and test flange



Accessories and spare parts

Model	Description	Order number
 910.17	Seals → See data sheet AC 09.08	On request

Scope of delivery

- Test gauge, model 332.11
- Transport case
- LH-RH adjusting nut M20 x 1.5
- Adapter piece with test flange
- Insert plate
- 3 x seal 6.5 x D17
- Operating instructions
- Calibration certificate

Ordering information

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

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