

Mechanical
pressure measurement

Bourdon tube pressure gauge Model 212.20, industrial series

WIKA data sheet PM 02.01



for further approvals
see page 2

Applications

- Sturdy industrial pressure gauge designed in compliance with the operational safety requirements of EN 837-1
- Reliable pressure gauge for the machine and plant construction industry as well as building services industry
- For gaseous and liquid media that are not highly viscous or crystallising and will not attack copper alloy parts
- Proven in refrigeration technology

Special features

- Long service life, robust
- Cost-effective and reliable
- To combine with WIKA diaphragm seals
- German Lloyd and Gosstandart approval
- Scale ranges up to 0 ... 1,000 bar



Bourdon tube pressure gauge model 212.20

Description

Design
EN 837-1

Nominal size in mm
100, 160

Accuracy class
1.0

Scale ranges
0 ... 0.6 to 0 ... 1,000 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
Short time: 1.3 x full scale value

Permissible temperature

Ambient: -40 ... +60 °C
Medium: +80 °C maximum

Temperature effect

When the temperature of the measuring system deviates from the reference temperature (+20 °C):
max. ±0.4 %/10 K of full scale value

Ingress protection

IP 54 per EN 60529 / IEC 60529

WIKA data sheet PM 02.01 · 02/2015

Page 1 of 3

Data sheets showing similar products:
Industrial series NS 250; model 211.11; see data sheet PM 02.17



Standard version

Process connection

Cu-alloy,
lower mount (LM) or lower back mount (LBM)
G ½ B (male), 22 mm flats

Pressure element

< 100 bar: Cu-alloy, C-type
≥ 100 bar: Stainless steel 316L, helical type

Movement

Cu-alloy, wear parts argentan

Dial

Aluminium, white, black lettering

Pointer

Aluminium, black

Case

Stainless steel

Window

Instrument glass

Bezel ring

Cam ring (bayonet type), stainless steel

Options

- Other process connection
- Sealings (model 910.17, see data sheet AC 09.08)
- NS 100: Liquid filling (model 213.53, data sheet PM 02.12)
- NS 160: Liquid filling (model 233.50, data sheet PM 02.02)
- Increased medium temp. to 100 °C with special soft solder
- Increased medium temperature up to 200 °C (data sheet PM 02.02)
- Panel or surface mounting flange, stainless steel
- Panel mounting flange, polished stainless steel
- Triangular bezel, stainless steel, polished, with clamp
- Pressure gauge with switch contacts, see model PGS21.1x0, data sheet PV 22.01

Special versions

Refrigerant gauges

NS 100: With temperature scale for refrigerants in °C,
Refrigerants: R 744, R 764, R 40, R 22 or R 134a

CE conformity

Pressure equipment directive

97/23/EC, PS > 200 bar, module A, pressure accessory

Approvals

- GL, ships, shipbuilding (e.g. offshore), Germany
- EAC, import certificate, customs union Russia/Belarus/
Kazakhstan
- GOST, metrology/measurement technology, Russia
- CRN, safety (e.g. electr. safety, overpressure, ...), Canada

Certificates ¹⁾

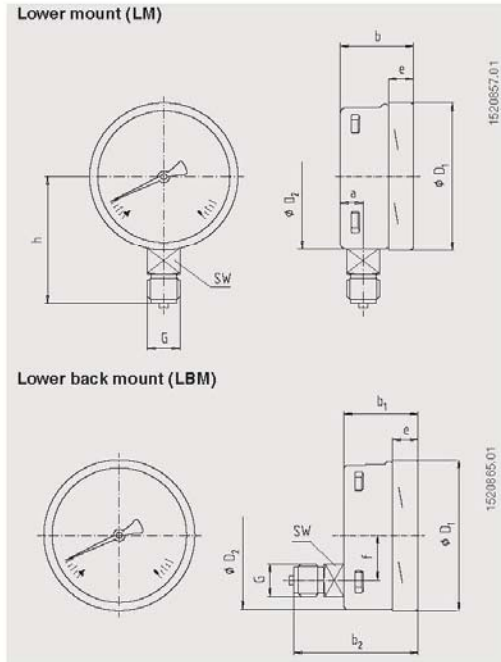
- 2.2 test report per EN 10204 (e.g. state-of-the-art manufacturing, material proof, indication accuracy)
- 3.1 inspection certificate per EN 10204 (e.g. indication accuracy)

¹⁾ Option

Approvals and certificates, see website

Dimensions in mm

Standard version



NS	Dimensions in mm											Weight in kg
	a	b	b ₁	b ₂	D ₁	D ₂	e	f	G	h ±1	SW	
100	15.5	49.5	49.5	83	101	100	17.5	30	G ½ B	87	22	0.60
160	15.5	49.5	49.5 ¹⁾	83 ¹⁾	161	160	17.5	50	G ½ B	118	22	1.10

Process connection per EN 837-1 / 7.3
1) Plus 16 mm with scale ranges ≥ 100 bar

Ordering information

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

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We reserve the right to make modifications to the specifications and materials.

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WIKAL data sheet PM 02.01 - 02/2015

Page 3 of 3



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Art. No.	Type No
102016	500
102017	500/1
102018	500/2
102019	500/3
102020	500/4
102021	500/5
102022	501
102023	502
102024	503
102025	504
102026	505
102027	506
102028	507
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102042	523
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102044	525
102045	526
102046	527
102047	528
102048	529
102049	530
102050	531
102051	532
102052	533
102053	534
102054	535
102055	536

Art. No.	Type No.
102056	600
102057	601
102058	602
102059	603
102060	604
102061	605
102062	606
102063	607
102064	608
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102601	2207
102602	2208
102603	2209
102604	2210
102605	2211
102606	2212
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102608	3300/1
102609	3301
102610	3303
102611	3304
102612	3305
102613	3307
102614	3313