

Mechanical
pressure measurement

Bourdon tube pressure gauge Model 213.40, liquid filling, forged brass case

WIKA data sheet PM 02.06



for further approvals
see page 2

Applications

- For measuring points with high dynamic pressure loads or vibrations
- For gaseous and liquid media that are not highly viscous or crystallising and will not attack copper alloy parts
- Mining
- Hydraulics
- Shipbuilding

Special features

- Vibration and shock resistant
- Especially robust design
- NS 63 and 100 with Germanischer Lloyd and Gosstandart approval
- Scale range up to 0 ... 1,000 bar



Bourdon tube pressure gauge model 213.40

Description

Design

EN 837-1

Nominal size in mm

63, 80, 100

Accuracy class

NS 63, 80: 1.6

NS 100: 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

NS 63, 80: Steady: 3/4 x full scale value

Fluctuating: 2/3 x full scale value

Short time: Full scale value

NS 100: Steady: Full scale value

Fluctuating: 0.9 x full scale value

Short time: 1.3 x full scale value

Permissible temperature

Ambient: -20 ... +60 °C

Medium: +60 °C maximum

Temperature effect

When the temperature of the measuring system deviates from the reference temperature (+20 °C): max. $\pm 0.4 \%$ /10 K of the span

Ingress protection

IP 65 per EN 60529 / IEC 60529

WIKA data sheet PM 02.06 - 05/2015

Page 1 of 3

Data sheets showing similar products:
Liquid filling, stainless steel case; model 213.53; see data sheet PM 02.12



Standard version

Process connection

Copper alloy, lower mount (LM) or back mount (BM)

NS 63: G ¼ B (male), 14 mm flats

NS 80, 100: G ½ B (male), 22 mm flats

Pressure element

NS 63:

Copper alloy, C-type or helical type

NS 80, 100:

Copper alloy, C-type

Stainless steel 1.4571 or 1.4404, helical type

Movement

Copper alloy

Dial

NS 63: Plastic ABS, white, with pointer stop pin

NS 80, 100: Aluminium, white

Black lettering

Pointer

Aluminium, black

Window

Clear non-splintering plastic

Case

Solid forged brass, with blow-out device at case

circumference, 12 o'clock.

Scale ranges ≤ 0 ... 16 bar with compensating valve to vent case.

Bezel ring

Crimp ring, stainless steel

NS 63, 80: Natural finish

NS 100: Polished

Filling liquid

Glycerine

Options

- Other process connection
- Sealings (model 910.17, see data sheet AC 09.08)
- Internal pressure compensation (pressure compensation foil)
- Increased medium temperature up to 100 °C with special soft solder
- Ambient temperature resistant -40 ... +60 °C with silicone oil filling
- Panel or surface mounting flange
- Triangular bezel with clamp
- Centre back mount (CBM) for NS 80 with scale range ≥ 60 bar

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 (Option)

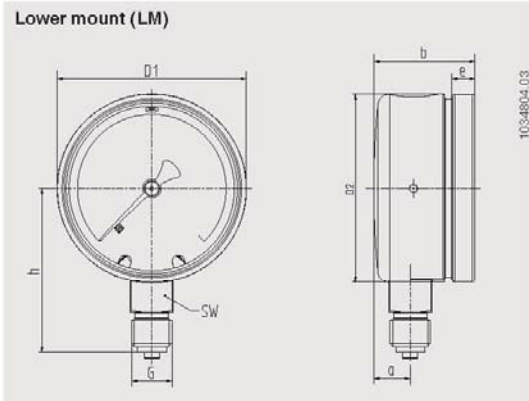
- 2.2 test report per EN 10204 (e.g. state-of-the-art manufacturing, material proof, indication accuracy)
- 3.1 inspection certificate per EN 10204 (e.g. indication accuracy)

Approvals and certificates, see website

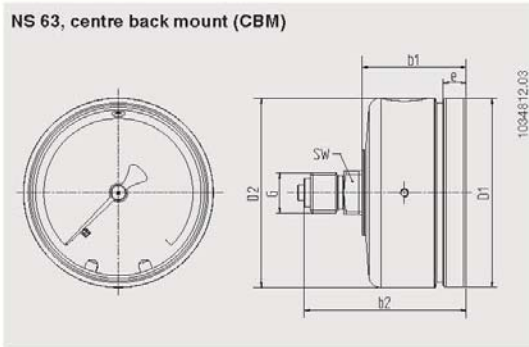
Dimensions in mm

Standard version

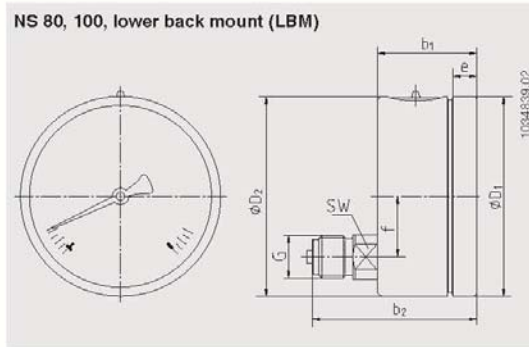
Lower mount (LM)



NS 63, centre back mount (CBM)



NS 80, 100, lower back mount (LBM)



NS	Dimensions in mm											Weight in kg
	a	b	b ₁	b ₂	D ₁	D ₂	e	f	G	h ±1	SW	
63	12	36	36	56	62	62	10.5	-	G ¼ B	54	14	0.30
80	14	38.5	38.5	69.5	79	79	8.5	23	G ½ B	76	22	0.80
100	13.5	49	49	81	99	99	11.5	30	G ½ B	87	22	1.10

Process connection per EN 837-1 / 7.3

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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WIKAI data sheet PM 02.06 · 05/2015

Page 3 of 3



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Art. No.	Type No.
102160	700
102161	700/1
102162	700/2
102163	700/3
102164	700/4
102165	700/5
102166	700/6
102167	701
102168	702
102169	703
102170	704
102171	705
102172	706
102173	707
102174	708
102175	709
102176	710
102177	711
102178	712
102179	713
102180	714
102181	715
102182	716
102183	720
102184	720/1
102185	720/2
102186	720/3
102187	720/4
102188	720/5
102189	720/6
102190	721
102191	722
102192	723
102193	724
102194	725
102195	726
102196	727
102197	728

Art. No.	Type No.
102198	729
102199	730
102200	731
102201	732
102202	733
102203	734
102204	735
102205	736
102206	737
102207	800
102208	800/1
102209	800/2
102210	800/3
102211	800/4
102212	800/5
102213	800/6
102214	801
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102217	804
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102230	820
102231	821
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102234	824

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102247	900/1
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102249	902
102250	903
102251	904
102252	905
102253	906
102254	907
102255	908
102256	909
102257	910
102258	911
102259	950
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102270	961
102271	962

Art.-No.	Type No.
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102277	1000/2
102278	1000/3
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102280	1003
102281	1004
102282	1005
102283	1006
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102302	1030
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