Bourdon Tube Pressure Gauge
Model 213.53, with Liquid Filling and Stainless Steel Case

Applications

- Intended for adverse service conditions where pulsating or vibration exists
- Suitable for all gaseous and liquid media that will not obstruct the pressure system or attack copper alloy parts
- Hydraulics
- Compressors
- Shipbuilding industry

Special Features

- Vibration and shock resistant
- Especially sturdy design
- NS 63, 100 approved by German Lloyd and Gosstandart
- Scale ranges up to 0 ... 1000 bar

Bourdon Tube Pressure Gauge Model 213.53, radial connection

Description

Design
EN 837-1

Nominal size
40, 50, 63 and 100 mm

Accuracy class
NS 40: 2.5
NS 50, 63: 1.6
NS 100: 1.0

Scale range
NS 40, 50: 0 ... 1 up to 0 ... 600 bar
NS 63, 100: 0 ... 0.6 up to 0 ... 1000 bar
or other equivalent units of pressure or vacuum

Working pressure

NS 40, 50, 63:	Steady:	¾ of scale range
	Fluctuating:	⅔ of scale range
	Short time:	full scale range

NS 100:	Steady:	full scale range
	Fluctuating:	0.9 x full scale range
	Short time:	1.3 x full scale range

Operating Temperature
Ambient:
NS 40, 50, 63: 0 ... +60 °C
NS 100: -20 ... +60 °C
Medium: +60 °C maximum

Temperature effect
When temperature of the pressure element deviates from reference temperature (+20 °C):
max. ±0.4 %/10 K of the span

Ingress protection
IP 65 (EN 60 529 / IEC 529)

Pressure connection
Material: Cu-alloy
Lower mount (LM), centre back mount (CBM) or lower back mount (LBM)
NS 40: G ⅛ B, 14 mm flats
NS 50, 63: G ¼ B, 14 mm flats
NS 100: G ½ B, 22 mm flats

Pressure element
NS 40, 50, 63:
< 60 bar: Cu-alloy, C-type, soft soldered
≥ 60 bar: Cu-alloy, helical type, soft soldered
NS 100:
< 100 bar: Cu-alloy, C-type, soft soldered
≥ 100 bar: stainless steel 316L, helical type, brazed

Movement
Cu-alloy

Dial
NS 40, 50, 63: white plastic, with pointer stop pin
NS 100: white aluminium
with black lettering

Pointer
NS 40, 50, 63: black plastic
NS 100: black aluminium

Window
Clear plastic

Case
Natural finish stainless steel, with pressure relief in case top
O-Ring seal between case and entry stem
Ranges ≤ 0 ... 16 bar with case venting provision

Bezel ring
Triangular bezel, roll formed, glossy finish stainless steel

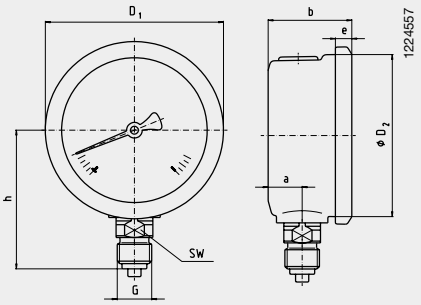
Liquid filling
Glycerine 99,7 %

Optional extras

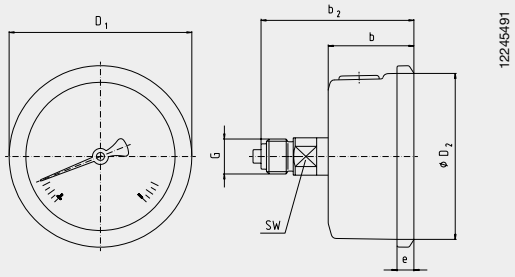
- NS 50, 63: stainless steel pressure system (model 233.53)
- NS 100: zero point adjustment in front
- Medium temperature to 100 °C with special soft solder
- Ambient temperature -40 ... +60 °C: silicon oil filling
- 3-hole panel mounting flange, stainless steel, back entry only (not NS 40)
- 3-hole surface mounting flange, stainless steel (not NS 40)
- With clamp (back entry only)

Dimensions in mm

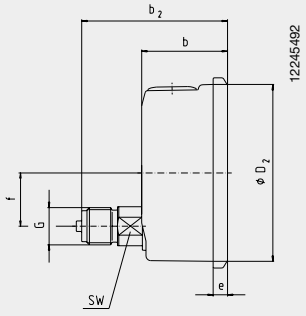
Radial bottom pressure entry (LM)



40, 50, 63, centre back pressure entry (CBM)



100 mm, lower back pressure entry (LBM)



NS	a	b_1 ± 0,5	b_2 ± 1	D_1	D_2	e	f	G	h ± 1	SW	Weight in kg
40	9.5	30	50	46.5	40	6	-	G ⅛ B	40	14	0.10
50	12	30	55	55	50	5.5	-	G ¼ B	48	14	0.15
63	13	32	56	68	62	6.5	-	G ¼ B	54	14	0.21
100	15.5	48	81.5	107	100	8	30	G ½ B	87	22	0.80

Standard pressure entry with parallel thread and sealing to EN 837-1 / 7.3

Ordering information
Pressure gauge model / Nominal size / Scale range / Size of connection / Optional extras required

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