

Datasheet

Bourdon tube pressure gauge Back mount, standard version Model 111.12

- For gaseous and liquid media that are not highly viscous or crystallising and will not attack copper alloy parts
- Pneumatics
- Heating and air-conditioning technology
- Small-capacity compressors
- Medical engineering

Special features

- Reliable and cost-effective
- Design per EN 837-1
- Nominal size 40, 50, 63, 80 and 100
- Scale ranges up to 0 ... 400 bar



Bourdon tube pressure gauge model 111.12

Description

Design

EN 837-1

Nominal size in mm

40, 50, 63, 80 and 100

Accuracy class

2.5

Scale ranges

0 ... 0.6 to 0 ... 400 bar

or all other equivalent vacuum or combined pressure and vacuum ranges

Pressure limitation

Steady: 3/4 x full scale value

Fluctuating: 2/3 x full scale value

Short time: 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. $\pm 0.4 \text{ } \%$ /10 K of the span

Standard version

Process connection

Copper alloy,

centre back mount (CBM)

NS 40: G 1/8 B (male), 14 mm flats

NS 50, 63: G 1/4 B (male), 14 mm flats

NS 80, 100: G 1/4 B (male), 14 mm flats

Pressure element

Copper alloy,

≤ 60 bar: C-type

> 60 bar: Helical type

Movement

Copper alloy

Dial

NS 40, 50, 63: Plastic, white, with pointer stop pin

NS 80, 100: Aluminium, white, with pointer stop pin

Black lettering

Pointer

Plastic, black

Case

Plastic, black

NS 100: Steel, black

Window

Plastic, crystal-clear, snap-fitted in case

Options

- Other process connection
- Accuracy class 1.6
- Case steel, black
- Triangular bezel with mounting bracket

Special versions

For closed heating systems

NS 63, 80

with red mark pointer and adjustable green sector,
scale range 0 ... 4 bar, red mark at 2.5 or 3 bar

For water-level indication (hydrometer)

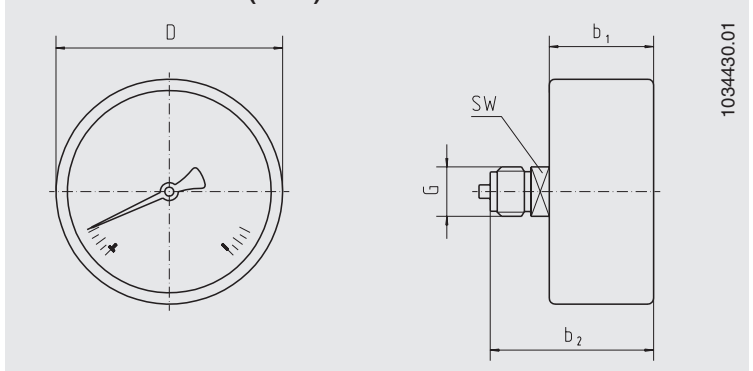
NS 80

Scale ranges 0 ... 0.6 to 0 ... 40 bar, with second scale in
mWS

Dimensions in mm

Standard version

Centre back mount (CBM)



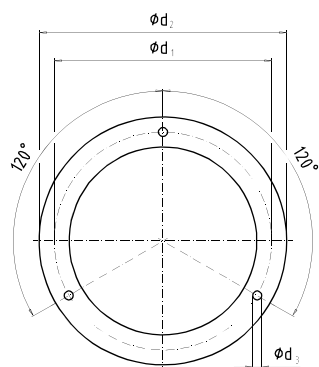
NS	Dimensions in mm		D	G	SW	Weight in kg
	b ₁ ±0.5	b ₂ ±1				
40	26	42	39	G 1/8 B	14	0.06
50	29.5	47.5	49	G 1/4 B	14	0.07
63	29	47	62	G 1/4 B	14	0.08
80	32	49	79	G 1/4 B	14	0.11
100	31	49	99	G 1/4 B	14	0.26

Process connection per EN 837-1 / 7.3

3-hole panel or surface mounting flanges for round case gauges

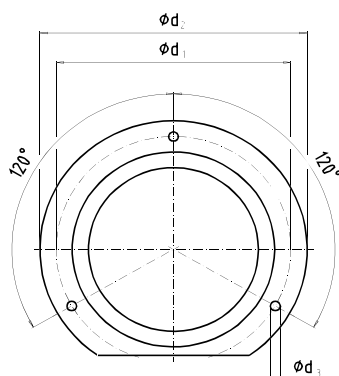
Not applicable for gauges with electrical accessories

3-hole panel mounting flange ¹⁾



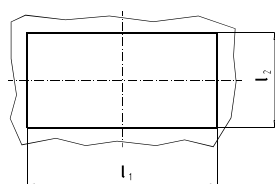
1035 886

3-hole panel mounting flange ²⁾



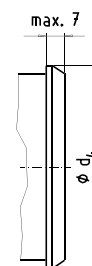
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Panel cut-out dimensions per DIN 43 700 for square and edgewise panel mounting gauges



1035 878

Narrow rim bezel with clamp ¹⁾



1241 800

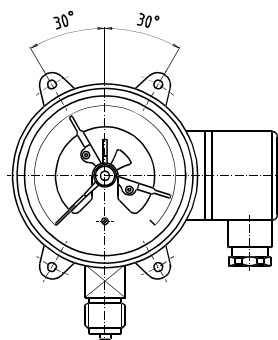
Size	Dimensions [mm]					
	d_1	d_2	d_3	d_4 max.	Panel cut-out to suit back entry gauges	
					3-hole mounting	Clamp mounting
40	51	61	3.6	44	44 ± 0.3	$41.5 + 0.5$
50	60	71	3.6	55.5	54 ± 0.3	51 ± 0.5
63	75	85	3.6	69	67 ± 0.3	$64.5 + 0.5$
80	95	110	4.8	88	84 ± 0.3	82 ± 1
100	116	132	4.8	108	104 ± 0.5	$102 + 1$
160	178	196	5.8	168	164 ± 0.5	$162 + 1$
250	270	285	5.8	-	254 ± 0.5	-

2) Some gauges may feature lugs instead of a full size rim.

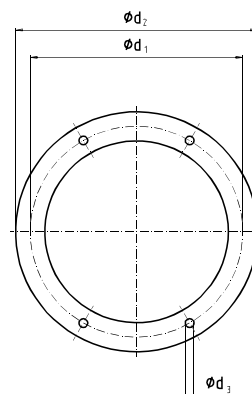
Size	Dimensions [mm]			
	l_1		l_2	
		Tolerance + ... 0		Tolerance + ... 0
48 x 24	45	+ 0.6	22.2	+ 0.3
72 x 36	68	+ 0.7	33	+ 0.6
72 x 72	68	+ 0.7	68	+ 0.7
96 x 96	92	+ 0.8	92	+ 0.8
144 x 144	138	+ 1.0	138	+ 1.0
144 x 72	138	+ 1.0	68	+ 0.7

3-hole panel mounting flange Round case gauges with electrical accessories

Mounting lugs at case of gauge
(holding gauge in panel)



Outer panel ring
(covering panel cut-out)



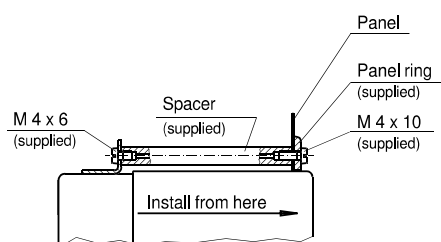
1294 687

Size	Dimensions [mm]			
	d_1	d_2	d_3	Panel cut-out ϕ
100	116	132	4.8	105
160	178	196	5.8 ¹⁾	165

1) Mounting lugs with internal thread M 5.

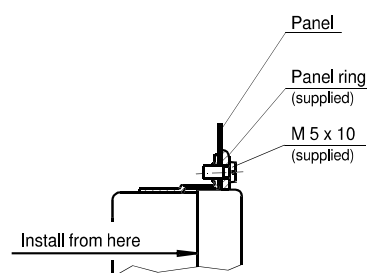
Panel assembly for gauges with inbuilt electrical accessories

100 mm diameter



1294 695

160 mm diameter



1294 709

The assembly consists of
Outer panel ring
4 spacers
8 screws M 4

The assembly consists of
Outer panel ring
4 spacers
Additionally required
4 screws M 5 x 10

Note: In addition to this data sheet, mounting drawings referring to the respective models can be supplied.

Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing.
Modifications may take place and materials specified may be replaced by others without prior notice.