

Capsule pressure gauges Copper alloy, stainless steel cases Model: P160



The P160 capsule pressure gauge is suitable for the measurement of extremely low pressures. When pressurized, the capsule element will expand, and the degree of its expansion is directly proportional to the applied pressure. Then it transmits this pressure to the pointer movement mechanism to achieve pressure indication.

CE EN837-3

Applications

- Medical, vacuum, environmental, laboratory technology, for contents measurement and filter monitoring
- Gas measuring equipment; Burners and leak detectors
- OEM equipment

Features

- Zero point correction in front
- Case from stainless steel
- Robust design and ingress protection IP54

Specifications

Dial size(mm)

- Ø 63 mm [2 ½"]
- Ø 100 mm [4"]
- Ø 160 mm [6"]

Accuracy class

EN 837-3

- Class 1.6
- Class 1.0(Available when the dial diameter is 160 mm)

ASME B40.100

- ±2% | ±1% | ±2 % of measuring span (grade A)
- ±1% of measuring span (grade 1A)(Available when the dial diameter is 160 mm)

Scale Range

0...6kPa to 60kPa

Or all other equivalent vacuum or compound pressure and vacuum ranges

Permissible temperature

Ambient: -20 ... +60°C [-4 ... +140°F]

Medium: -20 ... +100°C [-4 ... +212°F]
≤ 80 °C [≤ 176 °F] with NS 160 [6"]

Temperature effect

When deviating from the reference conditions of the measurement system:
≤ ±0.6% of full scale per 10 °C [≤ ±0.6% of full scale per 18 °F]

Pressure limitation

Steady: full scale range
Fluctuation: 0.9X full scale range
Short Time: 1.3X full scale range



Model: P160

Specifications

Process connection

Copper alloy

EN 837-3

■ G 1/8 B, male thread

■ G 1/4 B, male thread

■ G 1/2 B, male thread

■ M20 x 1.5, male thread

ISO 7

■ R 1/4, male thread

■ R 1/2, male thread

ANSI/B1.20.1

■ 1/4 NPT, male thread

■ 1/2 NPT, male thread

Pressure element

Stainless steel

Movement

Copper alloy

Dial

Aluminum alloy, white

Single scale, black printing

Ingress protection

Degree of protection IP54 in accordance with IEC/EN 60529

Ring

Bayonet bezel, stainless steel

Pointer

Aluminium, black

Case

Stainless steel

Window

Instrument glass

Case filling liquid

■ Dry

■ Glycerin-water mixture

Process connection location

■ Bottom mount(radial)

■ Lower back mount(axial)

■ Center back mount(axial) (only for NS 63 [2 1/2"])

Capsule element

Copper alloy

Sealing

NBR

Pressure Unit

■ mbar

■ psi

■ kg/cm²

■ mmH₂O

■ kPa

■ inH₂O

■ Pa

■ oz/in²

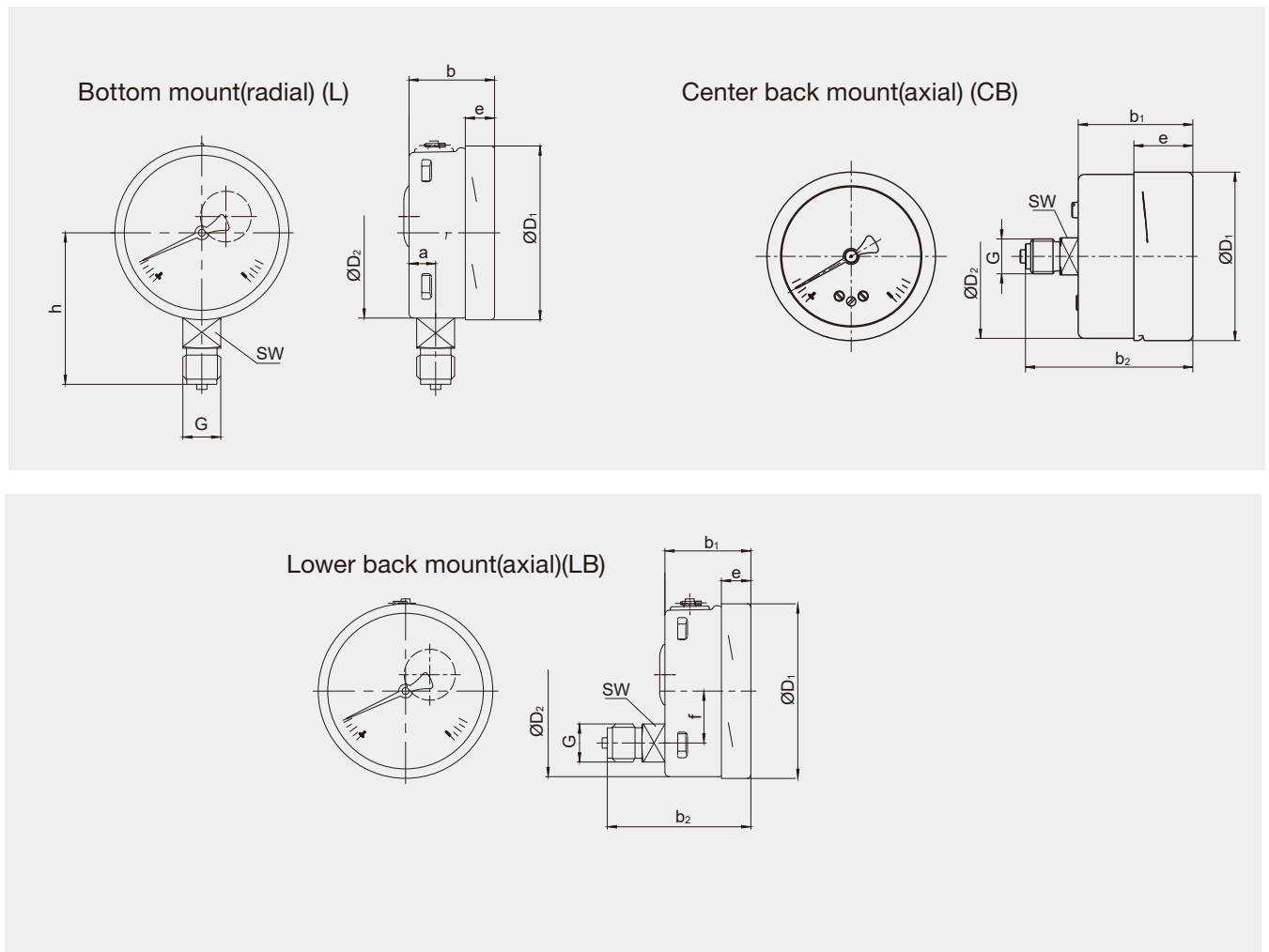
Other units on request



Model : P160

Dimensions in mm

Standard type



Dial size	Dimensions in mm											Weight(kg)
	a	b	b ₁	b ₂	D ₁	D ₂	e	f	G	h±1	SW	
63	9.5	42	42	63	64	62	22	- ¹⁾	G ¼ B	52	14	0.19
100	15.5	49.5	49.5	83	101	99	17.5	30	G ½ B	87	22	0.60
160	15.5	49.5	49.5	83	161	159	17.5	50	G ½ B	118	22	1.10

The pressure connection complies with the EN 837-3 / 7.3 standard

1) 63 dial circle: Process connection with axial center installation



Model: P160

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Model

P160

Dial size(mm)

(63) -63mm

(100) -100mm

(160) -160mm

Process connection location

(L)-Bottom mount(radial)

(LB) -Lower back mount(axial)

(CB) -Center back mount(axial) (only for NS 63 [2 1/2"])

Case filling

(D)-Dry

(L)-Glycerin-water mixture

Process connection sizes

(01) -G 1/8 B, male thread

(03) -G 1/4 B, male thread

(04) -G 1/2 B, male thread

(21) -M20 x 1.5, male thread

(10) -R 1/4, male thread

(12) -R 1/2, male thread

(06) -1/4 NPT, male thread

(08) -1/2 NPT, male thread

Option

(FF)- Front flange (axial)

(BF) -Rear flange (radial)

(SG) -Safety glass

(A1) -Accuracy class: 1.0 level

(N/A)-" "

Scale Range(coding examples only, see range table on page 5 for all standard ranges)

0.3BR=0...0.3bar

N=Vaccum range

0.3KG=0...0.3kg/cm²

N1/3BR="-1...3bar"

6KP=0...6kPa

0.6MP=0...0.6MPa

30#=0...30psi



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Pressure range selection table

Scale ranges						
Bar	Kg/cm ²	Psi	kPa	MPa	inH ₂ O	mbar
N0.3/0.3BR	N0.3/0.3KG	N4/4#	N30/30KP	N0.03/0.03MP	N125/125IH	N300/300MB
N0.2/0.2BR	N0.2/0.2KG	N3/3#	N20/20KP	N0.02/0.02MP	N75/75IH	N200/200MB
N0.125/0.125BR	N0.125/0.125KG	N2/2#	N12.5/12.5KP	N0.012/0.012MP	N50/50IH	N125/125MB
N0.08/0.08BR	N0.08/0.08KG	N1.25/1.25#	N8/8KP	N0.06/0MP	N30/30IH	N80/80MB
N0.05/0.05BR	N0.05/0.05KG	N8/0#	N5/5KP	N0.04/0MP	N20/20IH	N50/50MB
N0.6/0BR	N0.6/0KG	N6/0#	N3/3KP	N0.025/0MP	N12.5/12.5IH	N30/30MB
N0.4/0BR	N0.4/0KG	N2.5/0#	N2/2KP	N0.016/0MP	N8/8IH	N20/20MB
N0.25/0BR	N0.25/0KG	N1.5/0#	N1.25/1.25KP	N0.01/0MP	N5/5IH	N12.5/12.5MB
N0.16/0BR	N0.16/0KG	N1/0#	N0.8/0.8KP	0.01MP	N250/0IH	N8/8MB
N0.1/0BR	N0.1/0KG	1#	N60/0KP	0.016MP	N150/0IH	N600/0MB
N0.06/0BR	N0.06/0KG	1.5#	N40/0KP	0.025MP	N100/0IH	N400/0MB
0.06BR	0.06KG	2.5#	N25/0KP	0.04MP	N60/0IH	N250/0MB
0.1BR	0.1KG	4#	N16/0KP	0.06MP	N40/0IH	N160/0MB
0.16BR	0.16KG	6#	N10/0KP		N25/0IH	N100/0MB
0.25BR	0.25KG	8#	N6/0KP		N15/0IH	N60/0MB
0.4BR	0.4KG		N4/0KP		N10/0IH	N40/0MB
0.6BR	0.6KG		N2.5/0KP		N6/0IH	N25/0MB
			N1.6/0KP		6IH	N16/0MB
			1.6KP		10IH	16MB
			2.5KP		15IH	25MB
			4KP		25IH	40MB
			6KP		40IH	60MB
			10KP		60IH	100MB
			16KP		100IH	160MB
			25KP		150IH	250MB
			40KP		250IH	400MB
			60KP			600MB

Other ranges and engineering units available upon request

