



PM-100N

Bourdon Pressure Gauge



Features

- / Quality class 1.0
- / Stainless steel housing
- / Brass or SS movement
- / Filled or unfilled
- / Protection class IP65 / IP54

Description:

Bourdon pressure gauges in the PM-100N series can be supplied in brass or stainless steel versions in filled or unfilled condition. A drawn brass or stainless steel pipe shaped into a spiral is filled with the medium which deforms irrespective of the pressure. This movement is indicated by a measuring instrument which can be attenuated by the glycerin filling available optionally so that vibrations are heavily mellowed down. The natural lubricating action of glycerin reduces the wear and tear of moving parts and penetration of corrosive gases and prevents formation of water condensation. The stainless steel design allows measurement of pressure even in the most hostile fluids and gases. The pressure gauges are selectively equipped with a G1/4 B threaded connection at the bottom or eccentrically at the back. On request, they can be fitted with up to two magnetic spring or inductive contacts. We supply also pressure gauges in larger nominal sizes such as 6" (160 mm) or 10" (250 mm), or special designs of 4" (100 mm) and 2.5" (63 mm) devices. Please contact us in this regard.

Application:

Bourdon pressure gauges are used across all types of industrial applications. They are particularly suited for measuring points where no electrical power supply is available. The PM-100N.1 series of pressure gauges is widely used in machine and equipment manufacturing, in pumps, compressors or block-type thermal power plants, since often the requirements on the consistency of media must necessarily be moderate. On the other hand, the PM-100N.2 series of chemical pressure gauges is capable of resisting more hostile media and, therefore, are used frequently in chemical and petrochemical industries, in the food-processing segment, in pharmaceutical production or in power stations where they have a proven record of unflinching service for decades. The PM-100N pressure gauges optionally equipped with switching contacts can also be used for electronic pressure monitoring.



Technical Specifications:

Accuracy class /	Quality class 1.0
Protection class /	PM-100N.x.1 - IP54 as per EN 60529 PM-100N.x.2 - IP65 as per EN 60529
Seal and Plug /	PUR
Damping /	glycerine
Options /	other attenuation fluids, special type scales with customer's logo, other process connections

Load /

Pressure	steady	dynamic	burst
PM-100N.x.x..	1.00 x FSV	0.90 x FSV	1.30 x FSV

Temperature /

Temperature	max. Media temperature	Ambient temperature
PM-100N.1.1..	+80 (>100 bar +120°C)	-40...+60°C
PM-100N.2.1..	+200°C	-40...+60°C
PM-100N.1.2..	+60°C (>100 bar +100°C)	-25...+60°C
PM-100N.2.2..	+100°C	-25...+60°C

Temperature error /

Temperature error, T _{Ref} 20°C
rising: + 0.3% FS / 10K
falling: - 0.3% FS / 10K

Material /

Material	Housing	Window
PM-100N.1.1.x.	st. steel	instrument glass
PM-100N.1.2.x.	st. steel	laminated safety-glass
PM-100N.2.x.x.	st. steel	laminated safety-glass

Material	Sensor element	Dial
PM-100N.1.x..	up to 100 bar, CuSn8 - 2.1030, soft soldered from 100 bar, st. steel - 1.4404, hard soldered	white aluminium, black scale and lettering as per EN 837-1
PM-100N.2.x..	st. steel 1.4404	white aluminium, black scale and lettering as per EN 837-1

Material	Motion work	Pointer
PM-100N.1.x..	Bottom and cover-parts from brass, moving parts argentan	black aluminium (PM-100N.1.1 plastic)
PM-100N.2.x..	stainless steel	black aluminium

Ordering Codes:

Order number **PM-100N. 2. 2. 1. 0. Q**

PM-100N Bourdon Pressure Gauge

Version /

- 1 = brass measuring instrument
- 2 = full stainless steel version for chemical applications

Damping /

- 1 = no glycerin filling
- 2 = with glycerin filling

Process connection /

- 1 = G1/2 B at the bottom
- 2 = G1/2 B eccentrically at the back

Fastening rim (see table for possible combination) /

- 0 = none
- 1 = 3 hole front ring
- 2 = rear edge for wall-mounting
- 3 = 3 rimmed front ring with clamp

Operating range /

- A = 0...0.6 bar
- B = 0...1 bar
- C = 0...1.6 bar
- D = 0...2.5 bar
- E = 0...4 bar
- F = 0...6 bar
- G = 0...10 bar
- H = 0...16 bar
- I = 0...25 bar
- J = 0...40 bar
- K = 0...60 bar
- L = 0...100 bar
- M = 0...160 bar
- N = 0...250 bar
- O = 0...400 bar
- P = 0...600 bar
- Q = 0...1000 bar
- R = 0...1600 bar*
- R2 = 0...2500 bar*
- S = -1...0 bar
- T = -1...+0.6 bar
- U = -1...+1.5 bar
- V = -1...+3 bar
- W = -1...+5 bar
- X = -1...+9 bar
- Y = -1...+15 bar

* only for chemical version (PM-100N.2.x.x.x)

Front ring /

	3-hole Front ring	rear edge	3-rimmed-Front ring
PM-100N.1.1.1..	OK	OK	-
PM-100N.1.1.2.	OK	OK	OK
PM-100N.1.2.1..	OK	OK	-
PM-100N.1.2.2..	OK	OK	OK
PM-100N.2.1.1..	OK	OK	-
PM-100N.2.1.2..	OK	OK	OK
PM-100N.2.2.1..	OK	OK	-
PM-100N.2.2.2..	OK	OK	OK