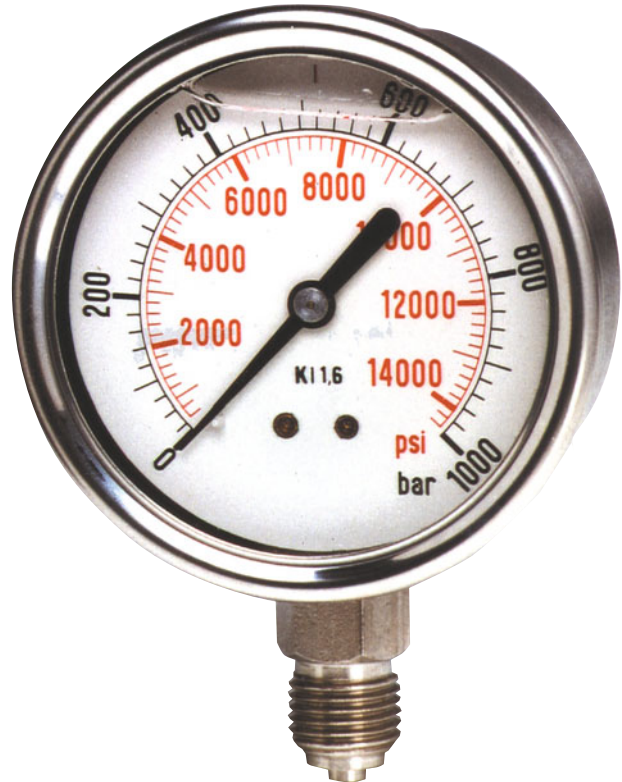


# PMR02

## Bourdon Tube Pressure Gauge

- Housing diameter 60 mm
- Accuracy class 1.6
- Steel or stainless steel housing
- Measuring mechanism and connection of brass or stainless steel
- Filled or unfilled
- Protection type IP 65



### Description:

Model series PMR02 Bourdon tube pressure gauges can be supplied in brass or stainless steel versions, with filled or unfilled gauges. A coiled, drawn brass or stainless steel tube filled with the fluid or gas being monitored is deformed to an extent depending on the pressure exerted by the fluid or gas. The resulting movement of the coil is transmitted to an indicator mechanism with a graduated display. This movement can be dampened by means of an optionally available glycerin filling so that any vibrations have far less impact on the accuracy and stability of the reading. The natural lubricating properties of this glycerin filling also reduce wear to moving parts, entry of caustic/corrosive gases and accumulation of condensation. The stainless steel version allows pressure measurement of even the most caustic liquids and gases. These pressure gauges can be optionally fitted with a G1/4 A threaded connection at the bottom or on the back.

### Applications:

Bourdon tube gauges are used throughout industry and are especially suitable for taking measurements at locations where there is no supply of electrical power available. Model series PMR02 Bourdon tube pressure gauges, of either steel or brass, are frequently used in industrial machinery and systems, on pumps, compressors, or block-type thermal power stations (BTTPs) since in these applications they only need to meet minimal requirements for withstanding the effects of the media being monitored. In contrast, chemical-service grade PMR02 Bourdon tube pressure gauges of stainless steel are designed to withstand contact with the very caustic/corrosive media often encountered in the chemical and petrochemical industries, the food and beverage industries, pharmaceutical production processes or in power plants, where they have provided the best service for decades.

## Designs:

### Nominal Sizes and Materials:

**Housing diameter:** 60 mm

**PMR02.K:** housing of carbon steel, black, connection of brass

**PMR02.M:** Housing of stainless steel, connection of brass with glycerin filling available only.

**PMR02.E:** Housing of stainless steel, connection of stainless steel

**Process connection:** G 1/4 at bottom or centered on back (carbon steel and brass version) or eccentric on back (stainless steel version)

### Measuring Ranges: PMR02

Measuring range (bar)	Order code					
For all nominal sizes						
-1200...0 mbar**	A17	B17	C17 <sup>1</sup>	D17 <sup>1</sup>	E17	F17 <sup>2</sup>
-1...0	A16	B16	C16	D16	E16	F16
-0.6...+1.0	A18	B18	C18	D18	E18	F18
-1...+0.6	A42	B42	C42	D42	E42	F42
-1...+1.5	A43	B43	C43	D43	E43	F43
-1...+3	A44	B44	C44	D44	E44	F44
-1...+5	A45	B45	C45	D45	E45	F45
-1...+9	A46	B46	C46	D46	E46	F46
-1...+15	A49	B49	C49	D49	E49	F49
0.2...1**	A50	B50	C50	D50	E50	F50
0...0.6**	A67	B67	C67	D67	E67	F67
0...1	A69	B69	C69	D69	E69	F69
0...1.6	A70	B70	C70	D70	E70	F70
0...2.5	A72	B72	C72	D72	E72	F72
0...4	A73	B73	C73	D73	E73	F73
0...6	A74	B74	C74	D74	E74	F74
0...10	A75	B75	C75	D75	E75	F75
0...16	A76	B76	C76	D76	E76	F76
0...25	A78	B78	C78	D78	E78	F78
0...40	A79	B79	C79	D79	E79	F79
0...60	A80	B80	C80	D80	E80	F80
0...100	A81	B81	C81	D81	E81	F81
0...160	A82	B82	C82	D82	E82	F82
0...250	A84	B84	C84	D84	E84	F84
0...400	A86	B86	C86	D86	E86	F86
0...600*	A87	B87	C87	D87	E87	F87
0...1000*	A88	B88	C88	D88	E88	F88

\* measuring range not for PMR02.K

\*\* measuring range not for PMR02.M

1 table section 65 mm

2 table section 63 mm

3 PMR02.M: frame coated black, optional chromed steel  
PMR02.E: stainless steel frame

## Model Coding:

**Order number:** PMR02. M. 1. 0. A49. 0

**Bourdon tube pressure gauge**

### Materials:

K\* = Housing of carbon steel, connection of brass  
M = Housing of stainless steel, connection of brass<sup>3</sup>  
E = Housing of stainless steel, connection of stainless steel  
S = Special materials (please specify in writing)

### Process connection:

1 = G 1/4 at bottom  
2 = G 1/4 centered on back (PMR02.K and M only)  
3 = G 1/4 eccentric on back (PMR02.E only)  
9 = Custom connection

### Vibration dampening:

0 = None  
1 = With glycerin filling (for PMR02.M,E only)

### Design and measuring ranges:

A17...F88 = see "Measuring Ranges" table

### Options and accessories (more than one may be selected)

0 = None  
xx = see "Options and Accessories" table

\*) with glycerin filling only

## Technical Details:

**Housing:** Round gauge housing of carbon steel, black, or stainless steel  
d = 60 mm  
Protection type IP45 (unfilled version)  
Protection type IP65 (filled version)

**Vibration dampening:** Glycerin filling, with pressure-relief opening and inside pressure equalization

### Pressure responsive element:

**PMR02.K:** Circular Bourdon tube up to 60 bar. Coiled Bourdon tube as of 60 bar

**PMR02.M:** Circular Bourdon tube, copper alloy, soldered in the connection shank  
As of 100 bar, coiled Bourdon tube, stainless steel 1.4571, brazed in the connection shank

**PMR02.E:** Circular Bourdon tube  
As of 100 bar, coiled Bourdon tube, stainless steel 1.4571

### Indicator element:

**PMR02.K,M:** Brass, moving parts of nickel silver  
**PMR02.E:** Stainless steel 1.4571/1.4301

### Dial face:

aluminum, white face, black characters, as per EN 837-1

### Viewing window:

**PMR02.K:** Instrument plexiglas  
**PMR02.M:** Polycarbonate  
**PMR02.E:** Multilayer safety glass

### Accuracy:

Class 1.6

### Maximum liquid temperature:

**PMR02.K:** 60°C  
**PMR02.M:** - 25°C to 60°C  
**PMR02.E:** 100°C

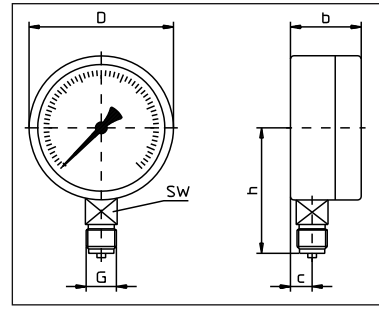
### Overload protection:

**PMR02.K:** Short-term 1.0 times  
**PMR02.M,E:** Short-term 1.3 times

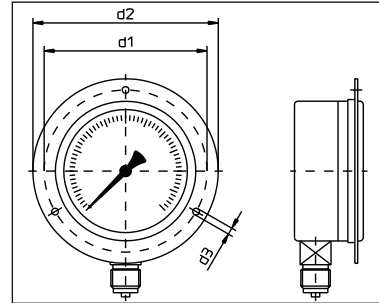
## Options and Accessories:

Description	Code	for model PMR02...
Protective cap of red rubber	GR	K
Protective cap of blue rubber	GB	K,M
Double-scale dial (e.g. bar/psi)	SD	all models
Refrigerant double-scale dial for pressure / R717 (NH3)	SK7	E
Print plate for creating special scale	SS1	all models
Measuring system free of oil and grease for use with oxygen	MO	all models
Measuring system free of silicone	MS	M,E
Measuring system with excess pressure protection >1.3 times	U	M,E
Connection shank: 1/4" NPT	Px	E
Red graduations on dial face	MR	all models
Red gliding mark pointer in the viewing window	ZR	all models
Red gliding mark pointer on the dial face	ZR1	all models

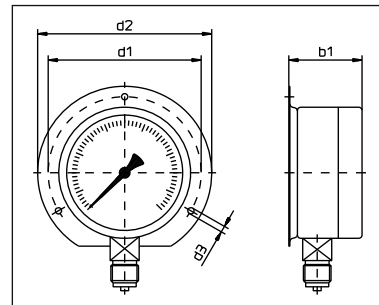
## Designs:



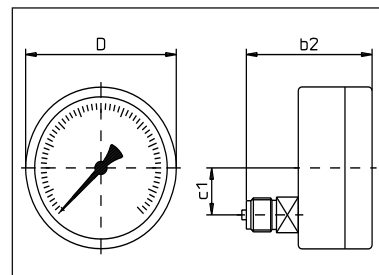
Design A:  
Connection at bottom



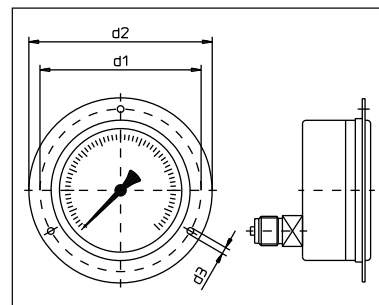
Design B:  
Connection at bottom,  
rim at front



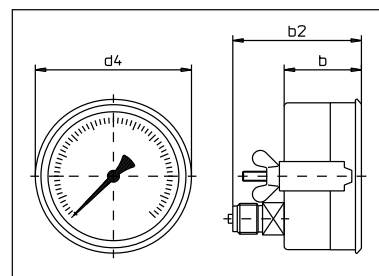
Design C:  
Connection at bottom,  
rim at back



Design D:  
Connection on back



Design E:  
Connection on back,  
rim at front



Design F:  
Triangular front ring  
and retaining clip

## Dimensions:

Measurement:	Dimensions in mm
	PMR02
b	28.5
b1	46.5
b2	32.5
c	11
c1	18
D	63
d1	75
d2	85
d3	3.5
d4	67
h	84
SW	14
Weight (kg)	0.12