

## Bourdon tube pressure gauge, standard type, all-stainless steel structure Model: P200



The P200 series features a robust all-stainless steel structure and is suitable for applications in the chemical and process industries. This instrument has a safety function against spraying, and there is a pressure relief device on the back of the housing. In case of a failure, overpressure can dissipate from here.



### Applications

- Used for measuring gases and liquids, and also suitable for corrosive media and environments
- Petrochemical industry, chemical industry, power engineering, as well as water and sewage treatment
- Mechanical manufacturing and ordinary factories
- Instruments and control systems

### Features

- Excellent cycle load stability and impact resistance
- All stainless steel structure
- Suitable for high dynamic pressure loads and vibration occasions
- Withstand overpressure of 130%

## Specifications

### Dial size(mm)

63, 100, 160mm

### Accuracy class

1.0, 1.6

### Scale Range

-0.1...0 to 0...1600bar  
Or all other equivalent vacuum or compound pressure and vacuum ranges

### Pressure limitation

63mm  
Steady: 3/4X full scale range  
Fluctuation: 2/3X full scale range  
Short Time: 1.0X full scale range  
100mm  
Steady: 1X full scale range  
Fluctuation: 0.9X full scale range  
Short Time: 1.3X full scale range

### Permissible temperature

Ambient: -40 to +60 °C [-40 to +140 °F], dry  
-20 to +60 °C [-4 to +140 °F], glycerin  
-40 to +60 °C [-40 to +140 °F], silicone oil  
Medium: -40 to +200 °C [-40 to +392 °F], dry  
-20 to +100 °C [-4 to +212 °F], glycerin  
-40 to +100 °C [-40 to +212 °F], silicone oil

### Temperature effect

When deviating from the reference conditions of the measurement system:  
≤ ±0.04% of full scale per °C (reference temperature: 20 °C)  
≤ ±0.4% of full scale per °F (reference temperature: 68 °F)



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### Specifications

#### Process connection

Stainless steel 316L (63: 1.4571)  
Radial or axial eccentric installatio  
■ 63: G1/4B (male thread), SW 14  
■ 100, 160: G1/4B (male thread), SW 22

#### Pressure element

Stainless steel 316L  
C-type or helical type

#### Movement

Stainless steel

#### Dial

Aluminum, white background, black printing  
63mm with pointer stop pin

#### Ingress protection

IP 65, comply with EN 60529 / IEC 529 standard

#### Pointer

Aluminium, black

#### Case

Stainless steel, The housing is equipped with a safety flameproof layer and a safety pressure relief rear cover  
When the measuring range is  $\leq 0 \dots 1.6$  MPa (radial), it is used for internal pressure balance ventilation and resealing

#### Window

Multi-layer safety gauge glass (NS 63: polycarbonate)

#### Case filling liquid

■ Glycerin  
(Glycerin-water mixture, measuring range  $\leq 0 \dots 0.25$  MPa)  
■ Silicone oil

#### Options

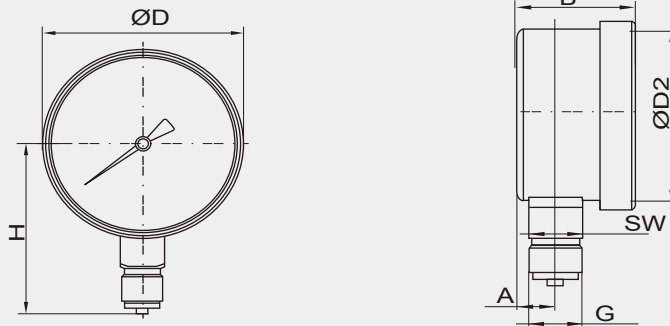
■ Front flange (axial)  
■ Rear flange (radial)  
■ " "



## Model: P200

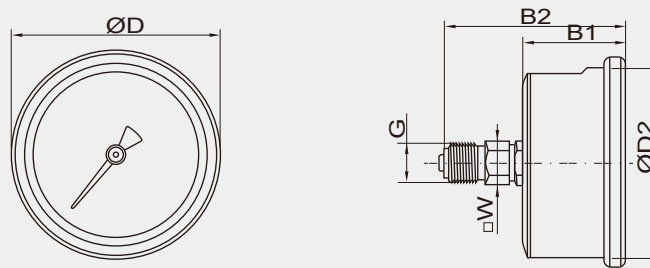
### Dimensions in mm

#### Bottom mount(radial)



| Dial size | Dimensions in mm |       |     |       |     |    | Weight(kg) |
|-----------|------------------|-------|-----|-------|-----|----|------------|
|           | A                | B±0.5 | D   | G     | H±1 | SW |            |
| 63        | 17.5             | 42    | 63  | G ¼ B | 54  | 14 | 0.25       |
| 100       | 25               | 60    | 100 | G ¼ B | 87  | 22 | 1.05       |
| 100       | 27               | 65    | 160 | G ¼ B | 118 | 22 | 2.30       |

#### Back mount(axial)



| Dial size | Dimensions in mm |        |     |       |     |    | Weight(kg) |
|-----------|------------------|--------|-----|-------|-----|----|------------|
|           | B1               | B2±0.5 | D   | G     | D2  | SW |            |
| 63        | 42               | 61     | 63  | G ¼ B | 60  | 14 | 0.25       |
| 100       | 60               | 93     | 100 | G ¼ B | 100 | 22 | 1.05       |
| 160       | 65               | -      | 160 | G ¼ B | 159 | 22 | 2.30       |



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| ORDERING CODE                                                                        |                             |  |  |  |  |  |
|--------------------------------------------------------------------------------------|-----------------------------|--|--|--|--|--|
| Model<br>P200                                                                        |                             |  |  |  |  |  |
| Dial size(mm)                                                                        |                             |  |  |  |  |  |
| (63)-63mm                                                                            |                             |  |  |  |  |  |
| (100)-100mm                                                                          |                             |  |  |  |  |  |
| (160)-160mm                                                                          |                             |  |  |  |  |  |
| Process connection location                                                          |                             |  |  |  |  |  |
| (L)-Bottom mount(radial)                                                             |                             |  |  |  |  |  |
| (LB)-Lower back mount(axial) (100mm)                                                 |                             |  |  |  |  |  |
| (CB)-Center back mount(axial) (63mm)                                                 |                             |  |  |  |  |  |
| Case filling                                                                         |                             |  |  |  |  |  |
| (L)-Glycerin                                                                         |                             |  |  |  |  |  |
| (S)-Silicone oil                                                                     |                             |  |  |  |  |  |
| Process connection sizes                                                             |                             |  |  |  |  |  |
| (01)-G 1/8 B, male thread                                                            | (10)-R 1/4, male thread     |  |  |  |  |  |
| (03)-G 1/4 B, male thread                                                            | (12)-R1/2, male thread      |  |  |  |  |  |
| (04)-G 1/2 B, male thread                                                            | (06)-1/4NPT, male thread    |  |  |  |  |  |
| (18)-M14 x 1.5, male thread                                                          | (21)-M20 x 1.5, male thread |  |  |  |  |  |
| (08)-1/2NPT, male thread                                                             |                             |  |  |  |  |  |
| Option                                                                               |                             |  |  |  |  |  |
| (FF)-Front flange (axial)                                                            |                             |  |  |  |  |  |
| (BF)-Rear flange (radial)                                                            |                             |  |  |  |  |  |
| (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/cm <sup>2</sup>                                                      | 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 <sup>2</sup> | Psi        | kPa          | MPa         |
| 0.6BR        | 0.6KG              | 10#        | 60KP         | 0.06MP      |
| 1BR          | 1KG                | 15#        | 100KP        | 0.1MP       |
| 1.6BR        | 1.6KG              | 30#        | 160KP        | 0.16MP      |
| 2.5BR        | 2.5KG              | 60#        | 250KP        | 0.25MP      |
| 4BR          | 4KG                | 100#       | 400KP        | 0.4MP       |
| 6BR          | 6KG                | 160#       | 600KP        | 0.6MP       |
| 10BR         | 10KG               | 200#       | 1,000KP      | 1MP         |
| 16BR         | 16KG               | 300#       | 1,600KP      | 1.6MP       |
| 25BR         | 25KG               | 400#       | 2,500KP      | 2.5MP       |
| 40BR         | 40KG               | 600#       | 4,000KP      | 4MP         |
| 60BR         | 60KG               | 800#       | 6,000KP      | 6MP         |
| 100BR        | 100KG              | 1,000#     | 10,000KP     | 10MP        |
| 160BR        | 160KG              | 1,500#     | 16,000KP     | 16MP        |
| 250BR        | 250KG              | 2,000#     | 25,000KP     | 25MP        |
| 400BR        | 400KG              | 3,000#     | 40,000KP     | 40MP        |
| 600BR        | 600KG              | 4,000#     | 60,000KP     | 60MP        |
| 1,000BR      | 1,000KG            | 5,000#     | 100,000KP    | 100MP       |
| 1,600BR      | 1,600KG            | 6,000#     | 160,000KP    | 160MP       |
| N0.6BR       | —                  | 7,500#     | N60KP        | N0.06MP     |
| N1BR         | —                  | 10,000#    | N100KP       | N0.1MP      |
| N1/ 0.6BR    | —                  | 15,000#    | N100/60KP    | N0.1/0.06MP |
| N1/1.5BR     | —                  | 20,000#    | N100/150KP   | N0.1/0.15MP |
| N1/ 3BR      | —                  | N30HG      | N100/300KP   | N0.1/0.3MP  |
| N1/5BR       | —                  | N30HG&15#  | N100/500KP   | N0.1/0.5MP  |
| N1/ 9BR      | —                  | N30HG&30#  | N100/900KP   | N0.1/0.9MP  |
| N1/15BR      | —                  | N30HG&60#  | N100/1,500KP | N0.1/1.5MP  |
| N1/24BR      | —                  | N30HG&100# | N100/2,400KP | N0.1/2.4MP  |
| —            | —                  | N30HG&160# | —            | —           |
| —            | —                  | N30HG&200# | —            | —           |
| —            | —                  | N30HG&300# | —            | —           |

