# BP SERIES

**Pressure gauges for low pressures generally used for gas**

- ◆ capsule pressure element;
- ◆ copper-berillium or stainless steel capsule;
- ◆ NS 63 - 100 - 150;
- ◆ ranges included between -6 and 400 mbar.


made in ITALY

PED 2014/68/EU
ATEX 2014/34/EU

## TECHNICAL FEATURES

- **Nominal sizes**
  - 63 (minimum range 60 mbar);
  - 100 (minimum range 6 mbar);
  - 150 (minimum range 6 mbar).

- **Execution**
  - A... direct vertical mounting;
  - B... surface mounting;
  - C... flush mounting;
  - D... direct horizontal mounting;
  - ...2 stainless steel capsule, brass movement, AISI 316L stainless steel pressure connection (NS 100 and 150);
  - ...3 copper-berillium capsule, brass movement, brass pressure connection (NS 63 and 100).

- **Casing**
  - case and ring in AISI 304 stainless steel with bayonet bezel for execution 2 as an alternative for execution 3 NS 100;
  - black painted steel case for execution 3.

- **Protection degree (according to EN 60529)**
  - IP 55 for dry execution 2;
  - IP 43 for execution 3.
  - IP 67 (option V66 and V72) for execution 2;

- **Window**
  - glass for NS 100 and 150;
  - plastic snap-fit for NS 63.

- **Blow-out device**
  - blow out plug for NS 100 and 150.

- **Pressure connection (according EN 837-3)**
  Gas (BSP) or NPT thread as F dimension shown in BP tables:
  - brass (execution 3);
  - AISI 316L (execution 2).

- **Pressure element**
  - copper-berillium capsule (execution 3);
  - stainless steel capsule AISI 316Ti (execution 2).

- **Movement**
  - stainless steel.

- **Zero adjustment**
  - on the dial.

- **Ranges (according to EN 837-3)**
  - o **Graduation:**
    - pressure gauges: 0 ÷ 6; 0 ÷ 10; 0 ÷ 16; 0 ÷ 25; 0 ÷ 40; 0 ÷ 60; 0 ÷ 100; 0 ÷ 160; 0 ÷ 250; 0 ÷ 400;
    - vacuum gauges: -6 ÷ 0; -10 ÷ 0; -16 ÷ 0; -25 ÷ 0; -40 ÷ 0; -60 ÷ 0; -100 ÷ 0; -160 ÷ 0; -250 ÷ 0; -400 ÷ 0;
    - compound gauges: on request. (divisions as per table C1 at page P04)
    - other graduations not normalized.
  - o **Unit of pressure:**
    - mbar, kPa, and psi for single or double range.
  - o **Scale angle:**
    - 270 °.

- **Working pressure (referred to full scale deflection)**
  - from 1/10 to 2/3.

- **Over-pressure (referred to full scale deflection)**
  - not allowed.

- **Pointer**
  - aluminium not adjustable.

- **Dial**
  - white aluminium with black figures (for dial modifications see available options).

- **Accuracy (according to EN 837-3)**
  - class 1,6 (± 1,6% of full scale deflection).

- **Ambient temperature**
  - -10 ÷+50 °C.

- **Thermal drift**
  - out of optimum ambient temperature values included within +15 ÷ +25 °C, the thermal drift affects the instruments accuracy of 0,5% every 10 °C.

- **Operating temperature**
  - -10 ÷ +60 °C for execution 3;
  - -10 ÷ +120 °C for execution 2.

## APPLICATIONS

- **Accessories (see AM series)**
  - cooling siphons, recommended when high temperature are involved;
  - valves;
  - dampers for control of process fluid entry speed into the instrument;
  - adjusting over-pressure protectors to cut automatically off the instrument from the circuit.

## OPTIONS

- **Window**
  laminated safety glass for NS 100 and 150.
  **(identification V17)**
- **Degreasing for oxygen service**
  for execution 2. **(identification V31)**
- **Screwed pressure connection**
  different from standard. **(identification V42)**
- **Changes to the dial**
  - serial number; **(identification V50)**
  - specific dial; **(identification V51)**
  - red mark; **(identification V52)**
  - writings; **(identification V53)**
  - TAG number; **(identification V54)**
  - dial without logo; **(identification V56)**
  - double logo (Fantinelli + customer); **(identification V57)**
  - customer's logo. **(identification V58)**
- **AISI 316 stainless steel case and ring**
  as alternative to AISI 304 stainless steel for execution 2.
  **(identification V61)**
- **Liquid filling**
  silicone fluid filled casing
  (minimum range 100 mbar pressure).
  **(identification V66)**
- **IP 67 casing**
  not fillable.
  **(identification V72)**
- **Metal tag plate**
  AISI 316 stainless steel for tag number.
  **(identification V82)**

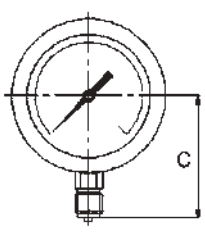
## DOCUMENTATION

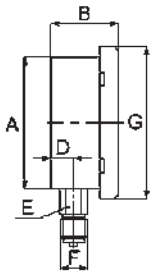
- **Fantinelli calibration certificate class 1,6**
  rising pressure.
  **(identification V93)**
- **ACCREDIA calibration certificate**
  **(identification V98)**
- **Complementary documents**
  - o certificate of compliance with the order EN 10204 2.2.
  - o technical documentation including;
    - drawings and technical informations ;
    - installation and maintenance instructions.
  - o inspection and test certificate EN 10204-3.1.
  - o material certificates (execution 2 only).
  - o PED declaration.
  - o ATEX declaration (II 2 G/D).

## TECHNICAL INFORMATIONS

### Capsule pressure gauge

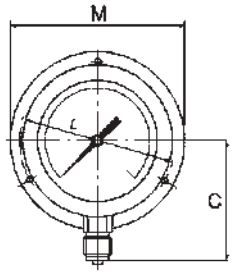
**execution A2/A3:** bottom connection for direct mounting.
**execution B2:** bottom connection for surface mounting with 3-hole fixing.
**execution C2/C3:** back connection for flush mounting with 3-hole fixing.
**execution D2/D3:** back connection for direct mounting.

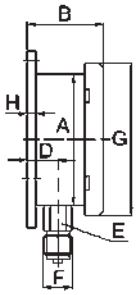



### Table BP 322-A2/A3

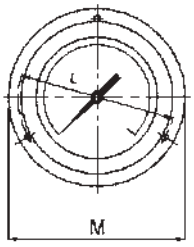
| Model BP322 | DN | A | B | C | D | E | F | G | H | I | L | M | N | Ø fori 120° | PESO ~ kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A3 | 63 | 63 | 34 | 52 | 10 | 14 | 1/4 | 63 | | | | | | | 0,17 |
| A2 | 100 | 103 | 50 | 92 | 16,5 | 22 | 1/2 | 118 | | | | | | | 0,51 |
| A3 | 100 | 98 | 49 | 85 | 16 | 22 | 1/2 | 100 | | | | | | | 0,49 |
| A2 | 150 | 150 | 50 | 116 | 16,5 | 22 | 1/2 | 166 | | | | | | | 0,78 |

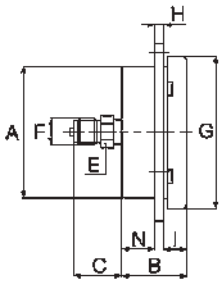



## Table BP 322-B2

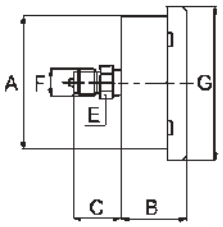
| Model BP322 | DN | A | B | C | D | E | F | G | H | I | L | M | N | Ø fori 120° | PESO ~ kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B2 | 100 | 103 | 57 | 92 | 23,5 | 22 | 1/2 | 118 | 7 | | 126 | 140 | | 5 | 0,64 |
| B2 | 150 | 150 | 57 | 116 | 23,5 | 22 | 1/2 | 166 | 7 | | 178 | 192 | | 5 | 1,02 |




## Table BP 322-C2/C3

| Model BP322 | DN | A | B | C | D | E | F | G | H | I | L | M | N | Ø fori 120° | PESO ~ kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C3 | 63 | 64 | 38 | 15 | | 14 | 1/4 | 62 | 2 | 1,5 | 75 | 85 | 34,5 | 3,6 | 0,21 |
| C2 | 100 | 103 | 50 | 38 | | 22 | 1/2 | 118 | 7 | 19 | 126 | 140 | 24 | 5 | 0,60 |
| C2 | 150 | 150 | 50 | 38 | | 22 | 1/2 | 166 | 7 | 19 | 178 | 192 | 24 | 5 | 0,91 |




## Table BP 322-D2/D3

| Model BP322 | DN | A | B | C | D | E | F | G | H | I | L | M | N | Ø fori 120° | PESO ~ kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D3 | 63 | 63 | 38 | 15 | | 14 | 1/4 | 63 | | | | | | | 0,14 |
| D2 | 100 | 103 | 50 | 38 | | 22 | 1/2 | 118 | | | | | | | 0,51 |
| D3 | 100 | 98 | 49 | 38 | | 22 | 1/2 | 100 | | | | | | | 0,49 |
| D2 | 150 | 150 | 50 | 38 | | 22 | 1/2 | 166 | | | | | | | 0,78 |

**note:** informations shown in this series may be changed at any time without prior notice.