



## DP 360/460 SERIES

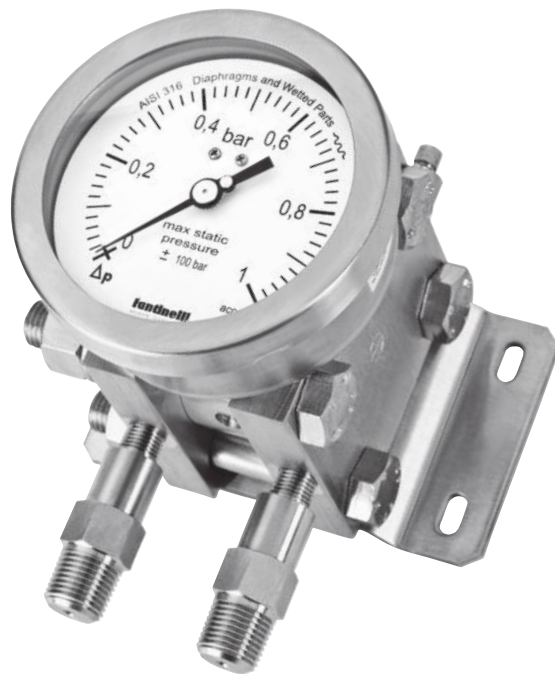
### Independent diaphragms differential pressure gauges

#### ■ DP 360

- ◆ ranges included between 100 mbar and 25 bar;
- ◆ static pressure 100 bar;
- ◆ scale angle 270°;
- ◆ accuracy class 1,6.

#### ■ DP 460

- ◆ ranges included between 25 and 100 mbar;
- ◆ static pressure 25 bar;
- ◆ scale angle 270°;
- ◆ accuracy class 1,6.



made in  
ITALY



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



## TECHNICAL FEATURES

### • Nominal sizes

- 100 and 150.

### • Execution

- A... direct mounting;
- B... surface mounting with clamp;
- C... back panel flush mounting;
- D... 2" pipe mounting;
- ...D dry;
- ...F liquid filled;
- ...P illable.

### • Casing

- case and ring in AISI 304 stainless steel (AISI 316 on request - option V61) with bayonet bezel.

### • Protection degree

(according to EN 60529)

- IP 55 for execution D;
- IP 67 or execution F and P.

### • Window

- glass for execution D;
- methacrylate for execution F and P;
- laminated safety glass (on request - option V17).

### • Casing filling liquid

- glycerine (standard);
  - silicone fluid (on request - option V64).
- note:** all instruments with filled casing have the external zero adjustment standard.

### • Pressure connections

(according EN 837)

- o AISI 316L stainless steel:
  - 1/4-18 NPT (1/4 NPT female) - standard;
  - G 1/2 B (1/2 Gas or BSP male) or 1/2-14 NPT EXT (1/2 NPT male) (on request - option V43).
- o exotic materials (options W04 or W06).

### • Pressure element

- AISI 316Ti or AISI 316L st. st. independent diaphragm, according with selected ranges;
- exotic materials (options M04 o M06)

### • Static pressure

for all scale ranges, apart from the pressure entry in one or both connections:

- 100 bar for model DP 360;
- 25 bar for model DP 460;
- 250 bar for model DP 360 (on request - option V47);
- 400 bar for model DP 360 (on request - option V45);
- 100 bar for model DP 460 (on request - option V44).

### • Differential cell

o material:

- AISI 316L stainless steel;
- Monel 400 (option W04);
- Hastelloy C276 (option W06).

o sizes:

- DP 360, mm 100 x 100;
- DP 460, mm 150 x 150.

### • Differential element filling liquid

- silicone fluid (standard);
- food compatible fluid (on request).

### • Differential cell bolts and nuts

- stainless steel AISI 304;
- galvanized steel for DP 360 static 600.

### • Differential cell gaskets

- nitril rubber (NBR), standard;
- FPM (Viton) on request.

### • Movement

- stainless steel.

### • Torsion shaft

- stainless steel.

### • Ranges (according EN 837)

o Scale ranges for pressure values between 16 mbar and 25 bar:

- see table C1 at page P04;
- (divisions as per table C1 at page P04).
- other graduations not normalized for single or double range (on request).



- **Unit of pressure:**
  - mbar, bar, kPa, kg/cm<sup>2</sup> and psi for single or double range.
- **Scale angle:**
  - 270 °.
  - nota:** scale angle is 180° with ranges 0 ÷ 25 mbar for model DP 460 and 0 ÷ 100 mbar for model DP 360.
- **Pointer**
  - aluminium with micrometer adjustment.
- **Dial**
  - white aluminium with black figures (for dial modifications see available options).
- **Accuracy (according EN 837)**
  - classe 1,6 ( $\pm 1,6\%$  of full scale deflection).
  - note1:** accuracy indicated on the pressure gauge does not consider the interference of an eventually applied electric contact.
  - note2:** diaphragm seal can affect instrument accuracy according with the service conditions because of the pressure/temperature ratio.
- **Ambient temperature**
  - -30 ÷ +60 °C.
- **Operating temperature**
  - max 120 °C.
- **Thermal drift**
  - with reference to the ambient temperature of 20°C, thermal drift affects the instrument accuracy as  $\pm 0,6\%$  every 10°C of variations.

## APPLICATIONS

- **Diaphragm seals (see FP series)**
  - with stainless steel or exotic materials diaphragm, are applicable to the instruments with ranges included between 60 mbar and 25 bar; in this case the instrument can be identified by the number of the chosen model, adding the reference of the suitable diaphragm seal among those of FP series.
  - (identification FP...)**
- **Electric contact (see CE series)**
  - the instrument can be identified by the number of the chosen model, adding the reference of the switching action as shown in tables of CE series. Differential pressure gauges equipped with electric contacts are available in dry execution only.
  - (identification CE...)**
- **Accessories (see AM series)**
  - manifold valve.

## OPTIONS

- **Maximum pointer**
  - to indicate the maximum pressure reached:
  - zero setting on the window (suitable also for liquid filled instruments).
  - (identification V11)**
- **Window**
  - laminated safety glass.
  - (identification V17)**
- **External zero adjustment**
  - (identification V20)**
- **Oxygen service**
  - in this case the pressure gauge is degreased and the differential element filling liquid is fluoride fluid.
  - (identification V31)**
- **Accuracy class 1**
  - $\pm 1\%$  of full scale deflection (only rising pressure and for dry execution only).
  - (identification V37)**
- **Not standard connections**
  - (identification V42)**
- **Male or female threaded pressure connections (according EN 837)**
  - G 1/2 B (1/2 Gas or BSP);
  - 1/2-14 NPT (1/2 NPT);
  - others (on request - option V42).
  - (identification V43)**
- **Static pressure 100 bar**
  - for model DP 460.
  - (identification V44)**
- **Static pressure 400 bar**
  - for model DP 360.
  - (identification V45)**
- **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 (Fantinielli + customer);
  - (identification V57)**
  - customer's logo.
  - (identification V58)**
- **Fluoride fluid**
  - as alternative to glycerine fluid for case filling and added to option V31.
  - (identification V60)**
- **AISI 316 stainless steel case and ring**
  - as alternative to AISI 304 stainless steel.
  - (identification V61)**
- **AISI 316 complete kit**
  - (identification K61)**
- **Silicone fluid**
  - as alternative to glycerine.
  - (identification V64)**
- **Solid front execution casing**
  - (identification V65)**
- **Metal tag plate**
  - AISI 316 stainless steel for tag number.
  - (identification V82)**

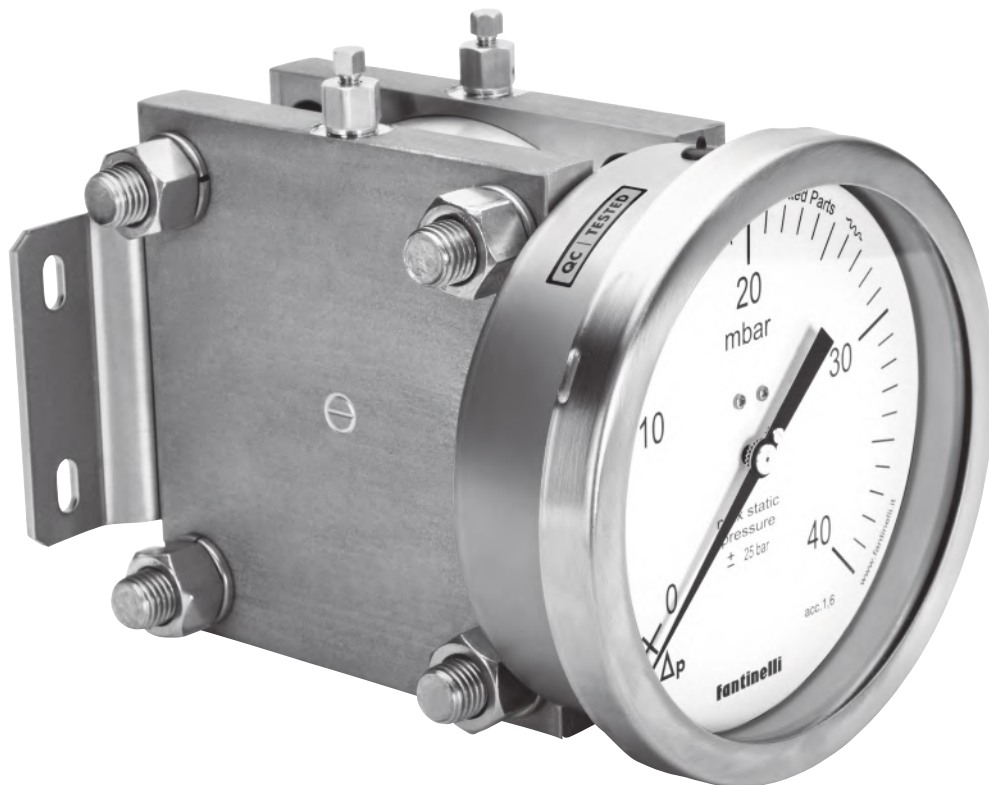


- **Exotic materials diaphragm**
  - Monel 400 (for ranges see option W04) (**identification M04**)
  - Hastelloy C276 (for ranges see option W06) (**identification M06**)
- **Monel 400 wetted parts**
  - minimum pressure range available:
    - 0 ÷ 250 mbar on 180° for DP 360 (for range 160 mbar is foreseen model DP 460);**note:** for range 250 and 400 mbar, maximum static pressure is 100 bar.
- 0 ÷ 60 mbar on 180° for DP 460. (**identification W04**)
- **Hastelloy C276 wetted parts**
  - minimum pressure range available:
    - 0 ÷ 250 mbar on 180° for DP 360 (for range 160 mbar is foreseen model DP 460);**note:** for range 250 and 400 mbar, maximum static pressure is 100 bar.
  - 0 ÷ 60 mbar on 180° for DP 460. (**identification W06**)

## DOCUMENTATION

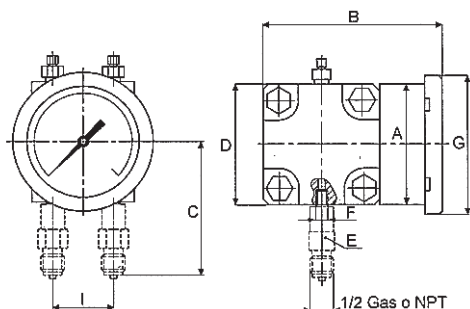
- **Fantinelli calibration certificate**
  - rising pressure:
    - class 1; (**identification V92**)
    - class 1,6; (**identification V93**)
- **Complementary documents**
  - o certificate of compliance with the order EN 10204-2.2.
  - o technical documentation including:
    - drawings and technical informations;
    - installation and maintenance instructions.
  - o inspection and test certificate EN 10204-3.1.
  - o material certificates.
  - o PED declaration.
  - o ATEX declaration (II 2 G/D).

## DP 460-B





## TECHNICAL INFORMATION

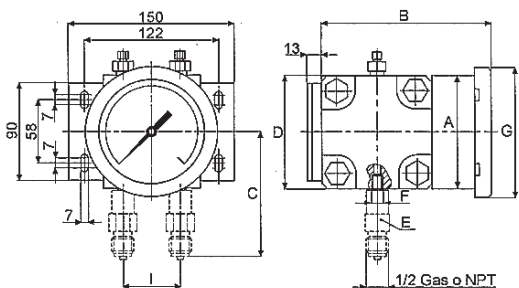


**Table DP 360/460-A**

| Model    | DN  | A   | B   | C   | D   | E  | F   | G   | H | I  | L | M | N | Ø fori 120° | PESO ~ kg<br>es. D es. F |     |
|----------|-----|-----|-----|-----|-----|----|-----|-----|---|----|---|---|---|-------------|--------------------------|-----|
| DP 360-A | 100 | 103 | 150 | 112 | 100 | 22 | 1/4 | 118 |   | 54 |   |   |   |             | 48                       | 51  |
|          | 150 | 150 | 150 | 112 | 100 | 22 | 1/4 | 166 |   | 54 |   |   |   |             | 50                       | 57  |
| DP 460-A | 100 | 103 | 200 | 137 | 150 | 22 | 1/4 | 118 |   | 54 |   |   |   |             | 107                      | 110 |
|          | 150 | 150 | 200 | 137 | 150 | 22 | 1/4 | 166 |   | 54 |   |   |   |             | 109                      | 116 |

**Execution A**

Pressure gauge for direct mounting.

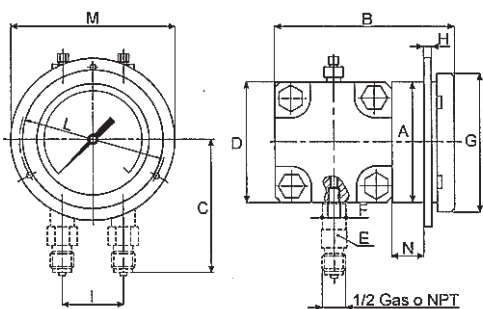


**Table DP 360/460-B**

| Model    | DN  | A   | B   | C   | D   | E  | F   | G   | H | I  | L | M | N | Ø fori 120° | PESO ~ kg<br>es. D es. F |     |
|----------|-----|-----|-----|-----|-----|----|-----|-----|---|----|---|---|---|-------------|--------------------------|-----|
| DP 360-B | 100 | 103 | 150 | 112 | 100 | 22 | 1/4 | 118 |   | 54 |   |   |   |             | 5,1                      | 54  |
|          | 150 | 150 | 150 | 112 | 100 | 22 | 1/4 | 166 |   | 54 |   |   |   |             | 5,3                      | 60  |
| DP 460-B | 100 | 103 | 200 | 137 | 150 | 22 | 1/4 | 118 |   | 54 |   |   |   |             | 11,0                     | 113 |
|          | 150 | 150 | 200 | 137 | 150 | 22 | 1/4 | 166 |   | 54 |   |   |   |             | 11,2                     | 119 |

**Execution B**

Pressure gauge for surface mounting with clamp.

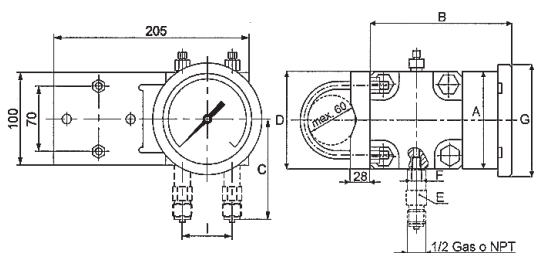


**Table DP 360/460-C**

| Model    | DN  | A   | B   | C   | D   | E  | F   | G   | H | I  | L   | M   | N  | Ø fori 120° | PESO ~ kg<br>es. D es. F |     |
|----------|-----|-----|-----|-----|-----|----|-----|-----|---|----|-----|-----|----|-------------|--------------------------|-----|
| DP 360-C | 100 | 103 | 150 | 112 | 100 | 22 | 1/4 | 118 | 7 | 54 | 126 | 140 | 27 | 5           | 49                       | 52  |
|          | 150 | 150 | 150 | 112 | 100 | 22 | 1/4 | 166 | 7 | 54 | 178 | 192 | 27 | 5           | 51                       | 58  |
| DP 460-C | 100 | 103 | 200 | 137 | 150 | 22 | 1/4 | 118 | 7 | 54 | 126 | 140 | 27 | 5           | 108                      | 111 |
|          | 150 | 150 | 200 | 137 | 150 | 22 | 1/4 | 166 | 7 | 54 | 178 | 192 | 27 | 5           | 110                      | 117 |

**Execution C**

Pressure gauge for back panel flush mounting with 3 fixing holes.



**Table DP 360/460-D**

| Model    | DN  | A   | B   | C   | D   | E  | F   | G   | H | I  | L | M | N | Ø fori 120° | PESO ~ kg<br>es. D es. F |     |
|----------|-----|-----|-----|-----|-----|----|-----|-----|---|----|---|---|---|-------------|--------------------------|-----|
| DP 360-D | 100 | 103 | 150 | 112 | 100 | 22 | 1/4 | 118 |   | 54 |   |   |   |             | 54                       | 57  |
|          | 150 | 150 | 150 | 112 | 100 | 22 | 1/4 | 166 |   | 54 |   |   |   |             | 56                       | 63  |
| DP 460-D | 100 | 103 | 200 | 137 | 150 | 22 | 1/4 | 118 |   | 54 |   |   |   |             | 113                      | 116 |
|          | 150 | 150 | 200 | 137 | 150 | 22 | 1/4 | 166 |   | 54 |   |   |   |             | 115                      | 122 |

**Execution D**

Pressure gauge for 2" pipe mounting with AISI 304 st. st. support.

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