

Diaphragm Pressure Gauges

Industrial Series, Grey Cast Iron • Model 422.12

Pressure Gauges

Service intended

Suitable for all gaseous and liquid media.
With optional flange connection also for viscous and contaminated media.

Design

EN 837-3

Nominal size

100 and 160 mm

Accuracy class per EN 837-3 /6

1.6

Scale ranges per EN 837-3 /5

0 ... 16 mbar to 0 ... 250 mbar (flange Ø 160 mm)
0 ... 400 mbar to 0 ... 40 bar (flange Ø 100 mm)
or other equivalent units of pressure or vacuum.

Working pressure

Steady: full scale value
Fluctuating: 0.9 x full scale value

Overpressure safety

≤ 0.4 bar: 5 x full scale value
> 0.4 bar: 3 x full scale value, 40 bar maximum

Operating temperature

Ambient: -20 ... +60 °C
Medium: +100 °C maximum

Temperature effect

When temperature of the pressure element deviates from reference temperature (+20 °C):
max. ±0.8%/10 K of true scale value

Ingress protection

IP 54 per EN 60 529 / IEC 529

Standard features

Pressure connection

Lower diaphragm housing
Material: Carbon steel
Threaded entry per EN 837-3 /7.3
G ½ B (male), 27 mm flats

Pressure element

≤ 2.5 bar: stainless steel 1.4571
> 2.5 bar: stainless steel 1.4568

Diaphragm sealing ring

NBR

Movement

Material: Cu-alloy, wear parts argentan

Dial

White aluminium with black lettering

Pointer

Black aluminium pointer



Case

Case with integral upper diaphragm housing of grey cast iron

Window

Instrument glass

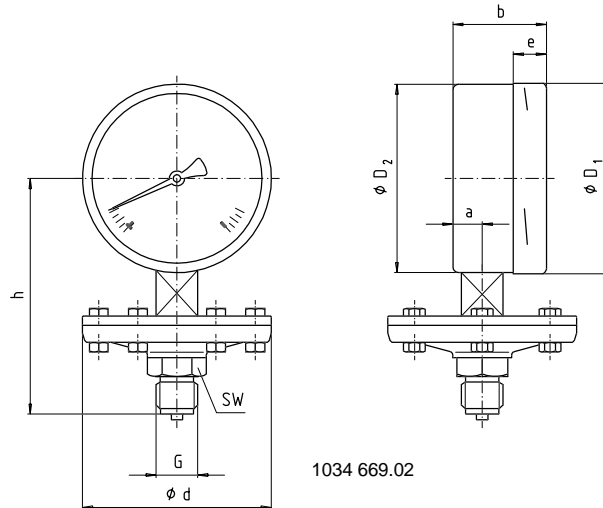
Bezel ring

Cam ring (bayonet type) bezel, black finish stainless steel

Optional extras

- Other threaded pressure connection
- Liquid filling (**model 4X3.12**)
- Wetted parts made of stainless steel (**model 432.12**)
- 10 x overpressure safe, maximum 40 bar
- Vacuum safe
- Pressure connection with DIN or ASME flange DN 15 to DN 80 (preferably DN 25, DN 50 or DN 1", DN 2" see data sheet IN 00.10)
- Pressure element > 2.5 bar: Duratherm,
- Diaphragm and wetted parts lined or coated with special materials such as:
 - PTFE (Teflon) foil (**model 452.12**)
 - Hastelloy B2
 - Hastelloy C4
 - Monel
 - Nickel
 - Tantalum
 - Titanium
- Alarm contacts (see data sheet AC 08.01)

Dimensions
Standard version



| Nominal size | Pressure range [bar] | Dimensions [mm] | | | | | | | | | Weight [kg] |
|--------------|----------------------|-----------------|------|------|----------------|----------------|------|-------|-------|----|-------------|
| | | d | a | b | D ₁ | D ₂ | e | G | h ± 2 | SW | |
| 100 | ≤ 0.25 | 160 | 15.5 | 49.5 | 101 | 99 | 17.5 | G ½ B | 135 | 27 | 3.4 |
| 160 | | | 15.5 | 49.5 | 161 | 159 | 17.5 | G ½ B | 165 | 27 | 4.3 |
| 100 | > 0.25 | 100 | 15.5 | 49.5 | 101 | 99 | 17.5 | G ½ B | 135 | 27 | 2.1 |
| 160 | | | 15.5 | 49.5 | 161 | 159 | 17.5 | G ½ B | 165 | 27 | 3.0 |

Standard pressure entry with parallel thread and seating to EN 837-3 / 7.3.

Ordering information

State:
Model / Nominal size / Scale range / Size and location of connection / Optional extras required

Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.



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