Differential Pressure Gauges
with Compression Spring and Magnetic Piston
With Magnetic Piston • Type 700.01
With Piston and Separation Diaphragm • Type 700.02

Pressure Gauges

- Differential ranges from 0/6 to 0/145 PSI for Type 700.01
- Differential ranges from 0/3 to 0/60 PSI for Type 700.02
- Sturdy stainless steel pressure ports
- High static pressure ratings
- Modular design with field-installable components
- Reed alarm contacts can be easily added

Application
For monitoring differential pressures in filter plants, pipeline systems, valves and pumps, particularly in the gas, water and air supply markets and the preparation of such media without any magnetic substances. The Type 700.02 is suitable for measuring liquids, such as water treatment and supply systems.

Size
3" (80 mm)

Accuracy
±3% of span (on rising pressure) - Type 700.01
±5% of span (on rising pressure) - Type 700.02

Scale Ranges
0/6 to 0/145 PSID - Type 700.01
0/3 to 0/60 PSID - Type 700.02
or other equivalent units of pressure

Maximum Static Pressure (either side)
1500, 4000, or 6000 PSI - Type 700.01
1500 PSI only - Type 700.02

Operating Temperature
Ambient: 32°F (0°C) to 140°F (60°C)
Medium: max. + 212°F (+100°C)

Weather Protection
Weather resistant (NEMA 4 / IP 54)

Standard Features
Pressure chamber and connections (exposed to pressure medium)
316 stainless steel, 2 x 1/4" NPT female

Pressure element (exposed to pressure medium)
Compression spring: 304 stainless steel

Magnetic piston (exposed to pressure medium)
Piston: 316 stainless steel
Magnet: barium-ferrit (iron)

Separation Diaphragm (exposed to pressure medium)
NBR (Model 700.02 only)

Dial
White aluminum with black lettering

Pointer
Black aluminum

Gauge Case
Black-painted aluminum

Window
Snap-in acrylic

Gauge Mounting
Pressure entries identified ☀ and ☐
☀ high pressure, ☐ low pressure
Gauge should be mounted to study piping. Optional bracket for surface or pipe mounting is available.

Order Options
Drag pointer (max. hand) (field installable)
Reed alarm contacts, UL/CSA approved (field installable)
Front flange (field installable) for Type 700.01
Rear flange (field installable) for Type 700.01
Higher accuracy
Lower mount or back mount connection
Sintered filter in ☀ side
Other threaded connections (limited to wrench flat area)
**Dimensions:**

**Type 700.01**

- **Dimensions:**
  - 3.11
  - 0.98
  - 0.67
  - 0.37
  - 0.01
  - 0.03

**Type 700.02**

- **Dimensions:**
  - 3.11
  - 1.06
  - 0.73
  - 0.67
  - 0.37
  - 0.51

**Optional version**

Reed contacts (single and/or double change over contact)

**Type 700.01**

- **Adjustment screws for contacts**

**Type 700.02**

- **Terminal box**

**Electric wiring diagram and technical data**

**Reed contact:**

- Designed to allow low current circuits to be switched directly. Switch point can be set between 10% and 100% of the full scale value using the external adjustment in the back of the case.

- **Max. switching voltage:** 250 VDC / VAC
- **Max. load:** 60 W / 3 W
- **Max. strength of current:** 1 A / 0.2 A
- **Switching hysteresis:** 5% of full scale value

**Design and operating principle**

- Pressure p1 and p2 are applied to the ⊙ and ⊙ pressure chambers which are separated by a magnetic piston.
- The piston rests on the measuring range spring. The difference in pressure causes the piston to move.
- A magnetic ring mounted on the instrument pointer follows the magnets built into the piston so that each piston position corresponds to a defined pointer position.
- This design ensures complete mechanical separation of the measuring system and the case and eliminates external leakage.
- The displacement volume from the ⊙ measuring chamber to the ⊙ measuring chamber is limited by the constructive design and will not interfere with the process.
- An optional microfilter must be used in the ⊙ measuring chamber for dirty and heavily contaminated media.

**THE MEASURE OF Total Performance™**

**Ordering Information:**

State computer part number (if available) / type number / size / range / connection size and location / options required.

Specifications given in this price list represent the state of engineering at the time of printing. Modifications may take place and the specified materials may change without prior notice.

03/04
APM 700.01