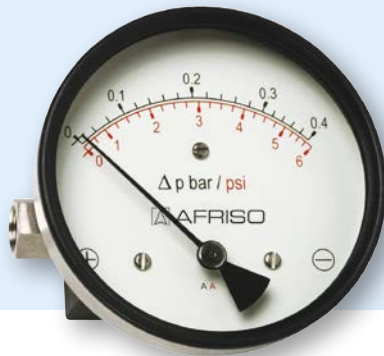
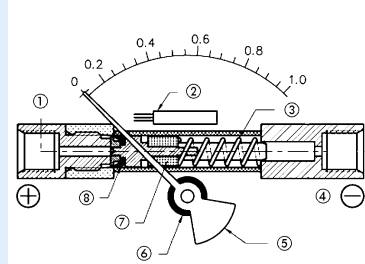


# Magnetic piston pressure gauge for differential pressure – high overload protection

1



- Extremely compact and robust stainless steel measuring system
- Max. static pressure PN 100, 250, 400
- Leak-proof due to mechanical separation of pressure chamber and display
- Various types of connections
- Easy retrofitting of electrical contacts without intervention in the measuring system



- |                    |                   |
|--------------------|-------------------|
| ① High pressure    | ⑤ Pointer         |
| ② Reed switch      | ⑥ Ring magnet     |
| ③ Measuring spring | ⑦ Magnetic piston |
| ④ Low pressure     | ⑧ Seal            |

**Application** For differential pressure measurements at very high static pressures. For gaseous and liquid, non-adhesive media that are not highly viscous. Particularly suitable for monitoring filters, pumps, pipe systems and cooling circuits.

**Description** The pressures act on two pressure chambers separated by a magnetic piston. If there are different pressures in the chambers, the magnetic piston is axially displaced against a compression spring. The magnetic piston transmits this displacement to the pointer by means of a ring magnet mounted to the pointer hub. The differential pressure is directly indicated. The complete mechanical separation of pressure chamber and display excludes the possibility of leaks.

## Technical specifications

**Type**  
MAG 80/100 Dif D312

**Nominal size**  
80–100 mm

**Accuracy**  
±3 % of full scale value  
(at increasing differential pressure)

**Ranges (EN 837-3/5)**  
0/0.25 bar to 0/10 bar

**Maximum static pressure**  
100 bar

**Overpressure safety**  
Up to the maximum static pressure at both sides

**Operating temperature range**  
Medium:  $T_{max} = 80\text{ °C}$   
Ambient:  $T_{min} = 0\text{ °C}$   
 $T_{max} = 80\text{ °C}$

**Degree of protection**  
IP 65 (EN 60529)

**Standard version Connection (wetted part)**  
Stainless steel 316, on left and right sides, opposite each other 2 x G $\frac{1}{4}$  female thread – spanner size SW 17 (EN 837-3/7.3)

**Connection cover**  
Plastic, glass-fibre reinforced, black

**Measuring element (wetted part)**  
Compression spring  
Stainless steel 301

**Magnetic piston (wetted part)**  
Stainless steel 316/strontium ferrite

**Seal (wetted part)**  
NBR (Perbunan)

**Dial**  
Aluminium, white  
Dial marking black/red (bar/psi)  
Scale angle 90°

**Pointer**  
Aluminium, black

**Housing**  
Stainless steel 304 with rubber sealing ring at the front

**Window**  
Instrument glass

**Mounting**  
Wall mounting via mounting plate (option) or pipe mounting by means of mounting plate and fixing clamp (option) for 2" pipe

## Options

- Mounting plate with fixing clamp
- 3-hole fixing, panel mounting bezel
- Max. static pressure PN 250/400
- Other connection threads
- Other connection designs
- Window acrylic glass
- Electrical contacts (Reed contacts)
- Filter in "plus" connection
- Glycerine filling
- Max. pointer
- Special scales

**i**  
See page 147 for prices.

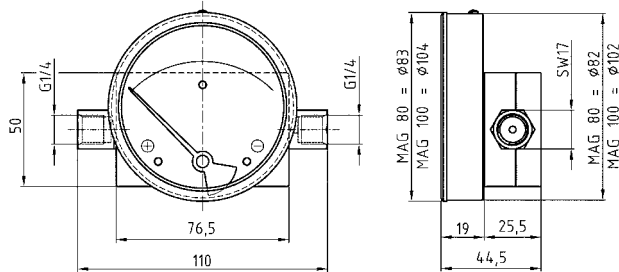
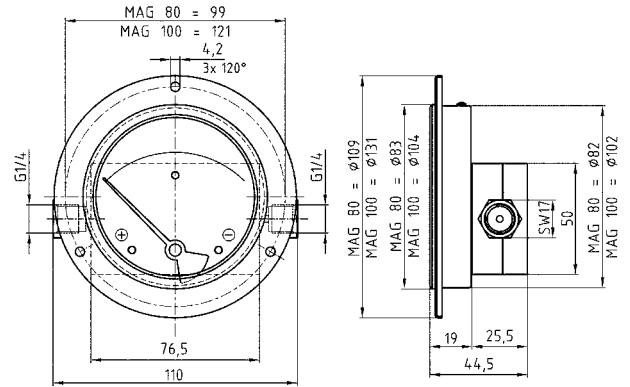
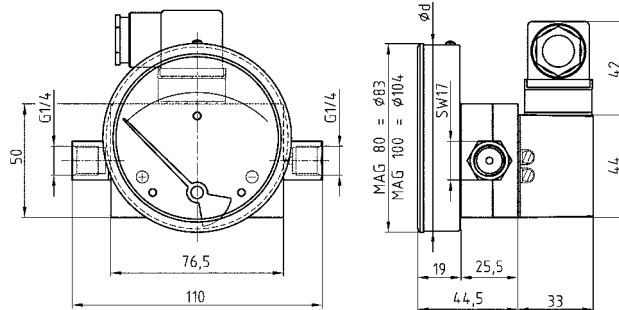
# Magnetic piston pressure gauge for differential pressure – high overload protection

Type D 3 NG 80/100

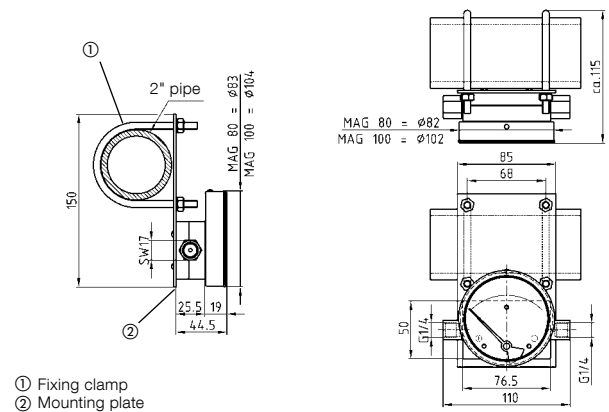
Types and dimensions (mm)

1

Connection on right and left sides

Connection on right and left sides 3-hole fixing,  
panel mounting bezelConnection on right and left sides  
With electrical contact

Mounting plate and fixing clamp

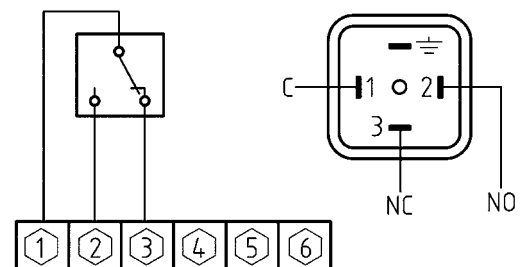
① Fixing clamp  
② Mounting plate

Technical specifications electrical contact

Version: Reed contact, single, changeover contact (SPDT)

Max. switching voltage: AC/DC 30 V  
 Max. switch rating: AC 3 VA -- DC 3 W  
 Max. current: AC/DC 300 mA  
 Switching hysteresis: approx. 5 %  
 Adjustment range: 20–80 % of full scale value  
 Electrical connection: ISO 4400 connector (DIN 43650-A)

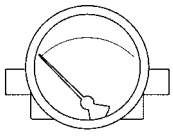
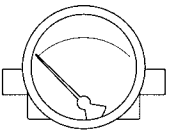
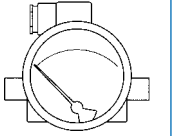
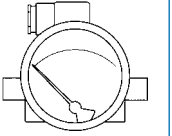
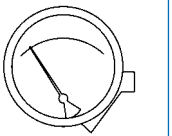
Wiring diagram



# Magnetic piston pressure gauges/magnetic diaphragm pressure gauges for differential pressure

DG: M, PG: 3

1

Type	MAG 80 Dif, D 312	MAG 100 Dif, D 312	MAG 80 Dif, RK1.W, D 312	MAG 100 Dif, RK1.W, D 312	MAG 115 Dif, D 311	MAG 115 Dif, RK1.W, D 311
Version						
Housing Ø	80	100	80	100	115	115
Housing	Stainless steel 304 with rubber sealing ring at the front					
Measuring element	See data sheet					
Accuracy	±3 % of full scale value (at increasing differential pressure)					
Connection	2 x G¼ female thread				2 x ½ NPT female thread	
Max. static pressure	100 bar				2.4 bar	
Contact type	---	---	Reed, single, changeover contact*	Reed, single, changeover contact*	---	Reed, single, changeover contact*
Electrical connection	---	---	Connector and junction box as per ISO 4400 (DIN 43650-A)	Connector and junction box as per ISO 4400 (DIN 43650-A)	---	Connector and junction box as per ISO 4400 (DIN 43650-A)
Range	Part no.	Part no.	Part no.	Part no.	Part no.	Part no.
<b>Price €</b>						
0/2.5 mbar	---	---	---	---	88002311	88013311
0/4 mbar	---	---	---	---	88003311	88014311
0/6 mbar	---	---	---	---	88004311	88015311
0/10 mbar	---	---	---	---	88005311	88016311
0/16 mbar	---	---	---	---	88006311	88017311
0/25 mbar	---	---	---	---	88007311	88018311
0/40 mbar	---	---	---	---	88008311	88019311
0/60 mbar	---	---	---	---	88009311	88020311
0/100 mbar	---	---	---	---	88010311	88021311
0/160 mbar	---	---	---	---	---	---
<b>Price €</b>						
0/0.25 bar	88002312	88013312	88022312	88033312	---	---
0/0.4 bar	88003312	88014312	88023312	88034312	---	---
0/0.6 bar	88004312	88015312	88024312	88035312	---	---
0/1 bar	88005312	88016312	88025312	88036312	---	---
0/1.6 bar	88006312	88017312	88026312	88037312	---	---
0/2.5 bar	88007312	88018312	88027312	88038312	---	---
0/4 bar	88008312	88019312	88028312	88039312	---	---
0/6 bar	88009312	88020312	88029312	88040312	---	---
0/10 bar	88010312	88021312	88030312	88041312	---	---

\* Please specify required switching point!

Blue part no. = in-stock items



Please enquire for prices for magnetic piston pressure gauges.