

## Differential Pressure Gauges with magnetic piston Type DPG 200 DS 63-80-100-125-150

- ✓ - Cost effective
- ✓ - Compact dimensions
- ✓ - High static pressure: 200 bar
- ✓ - Dial size: DS 63-80-100-125-150
- ✓ - PTFE piston seal cup
- ✓ - Glycerine filled version
- ✓ - Water tight (IP65) enclosure



Piston type differential pressure gauge is mainly used for liquid application and where small migration between high and low input is permissible. It is recommended to monitor differential pressures on cartridge filters, pipeline systems, valves, pumps, brand flows, condensers of those media without any magnetic substances.

### Functional and constructive characteristics

- Accuracy :**  $\pm 2\%$  of full scale ascending.
- Ambient temperature :**  $-20^{\circ}\text{C} \dots +60^{\circ}\text{C}$ .
- Medium temperature :**  $80^{\circ}\text{C}$  maximum.
- Static pressure :** 200 bar.
- Overpressure safe :** 200 bar maximum.
- Protection:** IP 65 as per IEC 529.
- Body material:** black anodized aluminium (AISI 316 st.st. with sand Blast finish or Brass black powder coated are available).
- End connections:** Axial.
- Seals:** Buna-N and Viton.
- Magnetic piston:** Aluminium with PTFE sealing (AISI 316 st.st. or brass available) with ceramic magnet.
- Case material:** AISI 304 st.st. with push in rubber ring.
- Window:** Plain float glass, (acrylic or toughened glass as option).
- Dial:** White aluminium with black marking.
- Options:** Glycerine filled, follower pointer, customer logo, dual scale, colour bands, strainer integrated in high port.

### Switch: reed contacts

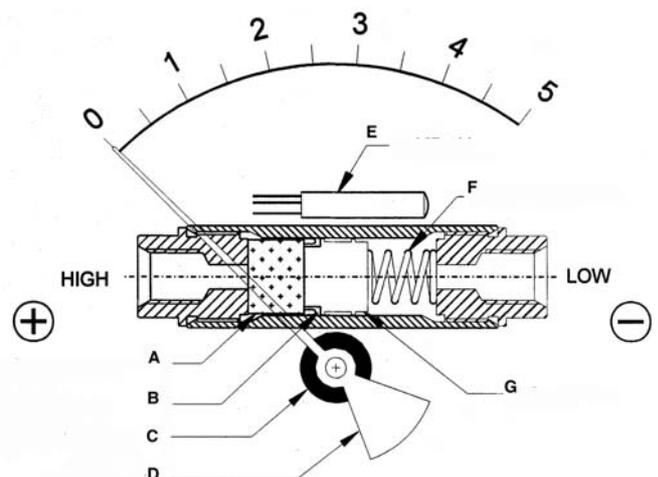
These instruments may be equipped with 1 or 2 SPST or SPDT reed contacts externally adjustable over 20% to 90% of the range.

**Switch rating for SPST :** 10VA AC (rms) or DC (max), 50V AC (rms) or 100 V DC (max), 0,5 Amp AC (rms) or DC (max).

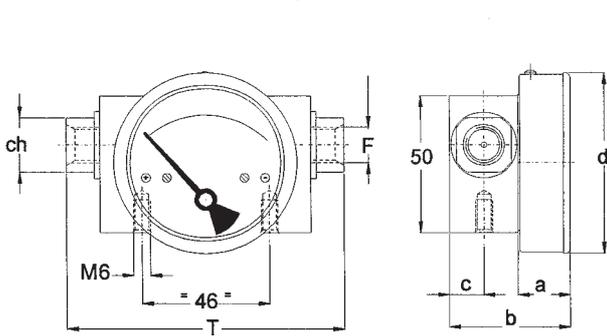
**Switch rating for SPDT :** 3VA AC (rms) or DC (max), 28V AC (rms) or 28 V DC (max), 0,25 Amp AC (rms) or DC (max).

### Operating principle

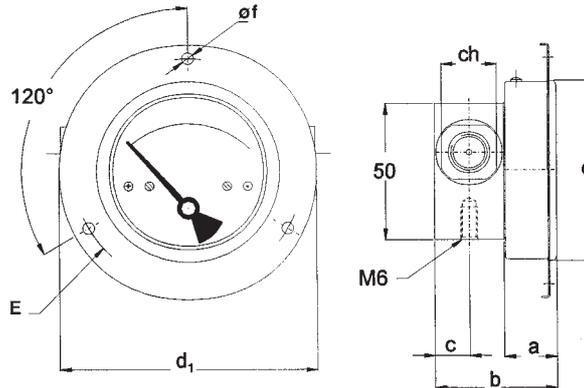
- The high (+) pressure and low (-) pressure ports are separated by a system assembly consisting of a ceramic magnet (A) and a piston (G) with a PTFE sealing (B).
- The difference in pressure causes axial movement of the piston supported by a measuring range spring (F).
- A rotary magnet (C), located in a separated body cavity, is actuated by the magnetic coupling of the axial piston movement. The pointer (D) attached to the rotary magnet indicates differential pressure on the dial.
- The safety for the operator is achieved by a mechanical separation between the pressure chambers and the instrument case.
- They can be equipped with one or two reed contacts (E).



TYPES, WEIGHTS AND DIMENSIONS (mm.)



**TYPE I**  
Stem mounting,  
"in-line" connection



**TYPE L**  
flush mounting, front flange;  
"in-line" connection.

DS	F	a	b	b <sub>1</sub>	c	c <sub>1</sub>	d	d <sub>1</sub>	T	ch	E	ø f	Weight
63	1/4" BSP F - 1/4" NPT F	18	44	79	12,5	47,5	66	93	100	20	83	4,2	0,3 Kg.
80	1/4" BSP F - 1/4" NPT F	18	44	79	12,5	47,5	83	109	100	20	99	4,2	0,35 Kg.
100	1/4" BSP F - 1/4" NPT F	18	44	79	12,5	47,5	104,3	131	100	20	121	4,2	0,40 Kg.
125	1/4" BSP F - 1/4" NPT F	18	44	79	12,5	47,5	119,7	146	100	20	136	4,2	0,45 Kg.
150	1/4" BSP F - 1/4" NPT F	18	44	79	12,5	47,5	154,3	181	100	20	171	4,2	0,50 Kg.

RANGES

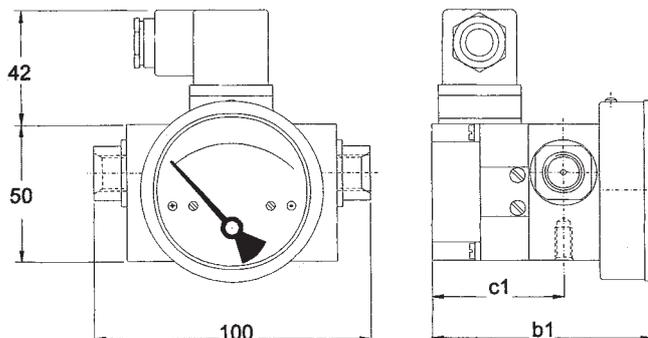
TAB. 1

Ranges	bar	kg/cm <sup>2</sup>
0...0,5	◆	◆
0...1	◆	◆
0...0,75	◆	◆
0...1,6	◆	◆
0...2	◆	◆
0...2,5	◆	◆
0...4	◆	◆
0...5	◆	◆
0...6	◆	◆
0...7	◆	◆
0...9	◆	◆
0...10	◆	◆

TAB. 2

Ranges	psi
0...5	◆
0...8	◆
0...15	◆
0...20	◆
0...30	◆
0...40	◆
0...50	◆
0...60	◆
0...80	◆
0...100	◆

REED SWITCH OPTION



HOW TO ORDER  
CODES & DESCRIPTIONS

<b>DPG 200</b>	Differential Pressure Gauge with magnetic piston
<b>I</b>	I - axial connection - stem mounting L - axial connection - flush mounting, front flange
<b>E</b>	C - DS 63 D - DS 80 E - DS 100 F - DS 125 G - DS150
<b>0</b>	0 - all ranges
<b>0/10 bar</b>	see ranges table
<b>23F</b>	21F - 1/4" BSP F 23F - 1/4 NPT F
<b>GS5</b>	GS1 - Switch type - One SPST GS3 - Switch type - Two SPST GS5 - Switch type - One SPDT GS7 - Switch type - Two SPDT
<b>R10</b>	T34 - Acrylic window T33 - Toughened glass 316 - St. St. 316 body and wetted parts BRS - Brass body and wetted parts R10 - Glycerine filled L25 - Acrylic window with maximum pointer (not available with R10 option)



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