

**TITAN**

**TITAN FLOW  
CONTROL, INC.**

**DIFFERENTIAL PRESSURE  
INDICATOR + SWITCH  
MODEL: GP-25/GP-200 - MAGNETIC PISTON TYPE**



DIFFERENTIAL PRESSURE GAUGE

DPGIOM0125

**MODEL: GP - 25 • 4.0" Dial, ALUMINUM CONSTRUCTION**  
**MODEL: GP- 200 • 4.0" Dial, ALL STAINLESS STEEL CONSTRUCTION**  
**MAGNETIC PISTON TYPE**

- Magnetic Piston Operated
- Single Sided Dials (Front Side)
- Cost Effective and Reliable Design
- Compact Design with Field Installable Features
- Light Weight

***YOUR PIPELINE TO THE FUTURE!***

Tel: 910-735-0000 ◇ Fax: 910-738-3848 ◇ titan@titanfci.com ◇ www.titanfci.com  
290 Corporate Drive ◇ PO Box 7408 ◇ Lumberton, NC 28358



# TITAN FLOW CONTROL, INC.

## DIFFERENTIAL PRESSURE INDICATOR + SWITCH MODEL: GP-25/GP-200 - MAGNETIC PISTON TYPE

### SPECIFICATIONS & MOUNTING DIMENSIONS

- Maximum Safe Working Pressure: 25 Bar
- Different C/C Distances between ports (optional)
- In-line Entry, Range 0-30 PSID
- Tri-Color Band Indication
- 0-10 PSID – Green, 10-15 PSID - Yellow, and 15-30 PSID Red.
- Standard / Fixed Dial Size : 4.0" [ 100 mm ]
- Accuracy :  $\pm 5\%$  (Ascending)
- Inline Side Port: 1/4" NPT

### APPLICATIONS:

- Compressed Air Filters
- CNG Filters
- Gas Filters
- Hydraulic Oil Filters
- Filtration Plants
- OEM Applications

### DIFFERENTIAL PRESSURE INDICATOR + SWITCH

MODEL: GP-25 - ALUMINUM CONSTRUCTION

MODEL: GP-200- ALL STAINLESS STEEL CONSTRUCTION  
MAGNETIC PISTON TYPE

#### Principal of Operation:

A magnet equipped piston moves back and forth in the precision honed bore, separating high & low chambers by a teflon seal. The resultant differential pressure is indicated on a single gauge dial via a rotary magnet, located separately in the chamber, thus isolating the service media chambers totally.

Both piston and rotary magnets are magnetically coupled to separate the service media coming in contact with the dial side or operator viewing from front, hence no fluid migration possible in the bezel ring.

Switching (optional) can be incorporated with one or two encapsulated reed switches located outside the pressure chambers. These switches are activated by the magnetic field and are most suitable for explosion-proof models due their being inert gas filled and encapsulated, and thus non-sparking.



Figure 1: Aluminum Titan Differential Pressure Gauge - front view



Figure 2: Aluminum Titan Differential Pressure Gauge - bottom view

**Note:** Differential pressure indicators are calibrated for ascending order only, helping to maintain an accuracy of 2% of FSR ascending.

DIFFERENTIAL PRESSURE GAUGE

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**INSTALLATION**



Before installation, depressurize the entire process and connect high and low ports to the respective sides, for the process under control.

- Flow direction is from inlet nozzle (marked “high”) to outlet nozzle (marked “low”). Reversing the directions of high & low ports will not indicate any needle movement on the dial. Correct this by reversing position of the high and low ports such that flow enters via port marked “high”.
- For high performance, DP - Indicator must be installed horizontally by keeping the dial horizontal. Mounting other than specified will affect calibration.
- Lubrication of any part of the differential pressure indicator is not required.
- Due to their effect on calibration and swithing accuracy, differential pressure indicator should be kept at a distance equal to 50 mm around from strong external electric fields, magnetic fields, and MS structures.
- Reed switch electrical ratings must be checked properly before connecting to the required load to avoid permanent damage.
- Surge - protection circuits must be provided wherever essential. For different loads & circuits, contact factory. Piston type differential pressure indicators are meant for high static pressure applications with low DP range.
- Model:GP-250/GP-251 can withstand maximum operating pressure up to 250 bar and temperatures up to 80 °C for all ranges. For temperature ranges exceeding 80 °C, we recommend using impulse piping. Consult factory for details.

Unlike pressure gauges, piston type differential pressure instruments will not be damaged if pressure exceeds the instrument range. Pressure beyond the instrument range is indicated by needle going beyond the instrument range, to the extreme right end of the scale. Once pointer retracts to origin, no calibration changes are needed. This is the special design feature incorporated making the instrument, very sturdy/failsafe.

The VA rating of the Reed Switch is defined as the product of Voltage (‘V’) and Current (‘A’). VA must not exceed the ‘Max VA’ rating of the specified switch.

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