## INSTALLATION INSTRUCTIONS <br> Model 200 DPG

## PISTON INSTRUMENTS

DIFFERENTIAL PRESSURE INSTRUMENT / SWITCH

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For efficient working of your instrument, please read all instructions carefully before attempting to install.
CAUTION : Do not exceed maximum operating pressure given on the instrument label.
Check fluid compatibility with wetted parts before use.

## OPERATING PRINCIPLE

High and Low pressures are separated by a sensor assembly consisting of a magnet, piston, Teflon seal and a range spring. The difference in pressure causes the sensor assembly to move in proportion to the change against a range spring.
A rotary magnet, located in a separate body compartment and isolated from the acting pressures, is rotated by magnetic coupling as per the linear movement of the sensor assembly. A pointer attached to the rotary magnet indicates differential pressure on the dial.
SWITCH : Reed switches are located adjacent to the pressure chamber and are activated by the magnetic field of the sensor assembly.
Note : The instruments are calibrated to give $\pm 2 \%$ full scale accuracy on ascending readings.

## INSTALLATION

For better performance the instrument should be mounted horizontally by keeping the dial vertical.
Depressurize the system and connect the high and low pressure lines of your system to the " High" $\oplus$ \& "Low" $\Theta$ ports of the instrument, respectively.
It is recommended to use " O " rings with male connectors to avoid excessive tightening and to prevent leakage (For parallel threads). The instrument is now ready for operation.
Apply "High" and "Low" pressures simultaneously, to avoid damage to the internal parts.
Model 200 DPG consists of a piston type mechanism to sense the pressure difference. It can withstand maximum operating pressure up to 200 bar for all ranges. If pressure exceeds the rated maximum pressure, "O" rings used on male connectors, and the Teflon seal inside the pressure chamber, will be damaged. If maximum operating pressure is within the allowable limit of 200 bar, but the differential pressure exceeds instrument range, there will be no damage to the instrument. Pointer will only go the extreme right end of the scale.

## SWITCH SETTING (200 DPG)

Please follow these instructions when your differential pressure instruments are supplied with switch.
The switches are normally factory set to save time at customer's end. However they are field adjustable.
CAUTION : Supply should not exceed switch rating.
For higher supply, use of relay circuit is recommended.

## SWITCH ADJUSTMENT

Switch adjustment screw is located on plastic cover.
Rotate the screw clockwise to increase the set point and anti-clockwise to decrease the set point.
One or two trials may be necessary to attain the exact set point.
Above procedure to be followed by putting the instrument on test bed or while in actual service.


View from high pressure side

## SPST SWITCH

## Specifications

Contact Rating
Switching Current Switch Voltage
: 10 VAAC (rms) or DC (max)
: 0.5 Amp AC (rms) or DC (max)
: 150 V AC (rms) or DC (max)


Reed switches \& Din plug connection
View of socket for supply connections


View of plug after removing the socket


Two SPST switches

Reed switches \& terminal strip connection

(1) (2) (3) (4) 5


L N L N
(+) (-) (+) (-)

Reed switches \& Din plug connection
View of socket for supply connections


View of plug after removing the socket


## SPDT SWITCH

## Specifications

Contact Rating
: 5 VAAC (rms) or DC (max) Switching Current : 0.25 Amp AC (rms) or DC (max) Switch Voltage : 175 V AC (rms) or DC (max)

R=Red, B=Black, Y=Yellow, L=Live or +ve supply, N=Nutral or -ve supply

* Body to be suitably earthed while using gauge + switch and only switch.

