



## DP1

Differential Pressure Gauge
Piston Operated With Optional Reed Switch







Gauge With Reed Switch

#### **Special Features**

- Simple and compact design.
- High operating pressure up to 400 bar. (700 bar On Request)
- Over pressure safe from either side to maximum working pressure.
- Indicating mechanism isolated from pressure chamber.
- Suitable for Air / Gas media.

#### **Application**

- Filters
- Hydraulic systems
- Water treatment plants
- Chemical plants
- Natural gas processing
- Heat exchanger
- Gasoline / diesel engine filters
- Pumps
- Valves
- Compressors



CE

#### **Specifications**

#### Standard Version: 40mm, 50mm, 63 mm, 100 mm & 150 mm

Accuracy ± 2.5% of F.S. (For ascending order) Switching Accuracy ±4% of F.S.

Ambient temperature : Max. 65°C Process temperature : Max. 80°C

Static pressure (on request) upto 400 kg/cm² for ranges 1 bar & Above

Over pressure range : same as Static Pressure Connection : 1/4" NPT (F) x 2 Nos.

Case : AISI 304 SS

Wetted parts : Teflon, Ceramic Magnet & SS Spring

Body : AISI 316 SS Protection : IP 65

Dial : Aluminum, black Colored, Fixed

Window : Plain Glass

#### Glycerine filled version (option py)

Accuracy : ±4.0% of F. S. (For ascending order)

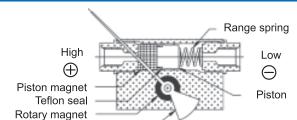
Ambient temperature : Maximum 65°C Process temperature : Maximum 65°C Window : Plexi Glass

Dampening liquids : Glycerin 99.7% (others available as option)
Other features : Refer Specification of Standard Version

#### Temperature effect :

The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement: Formula:  $\pm 0.04 \times (t2 - t1) \%$  of F. S. where t1 = reference temperature ( $\pm 0.04 \times (t2 - t1) \%$ ) and t2 = ambient temperature in °C.

#### **Operating Principle**



High and Low pressures are separated by **a**ensor 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 cavity 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.

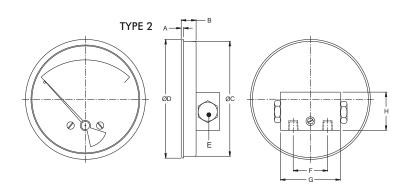
Pointer



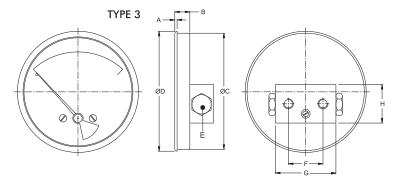
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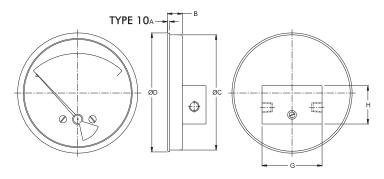
## **Dimensions - standard version**



NS	Α	В	øс	ØD	Е	F	G	Н	Weight in gram (With Box)
63	12	17.0	62.5	70.0	25	54	77.5	50	430
100	12	22.0	100	111	25	54	77.5	50	460
150	15	22.0	148.5	161	25	54	77.5	50	560



NS	Α	В	øс	ØD	Е	F	G	Н	Weight in gram (With Box)
63	12	17.0	62.5	70.0	25	54	77.5	50	400
100	12	22.0	100.0	111	25	54	77.5	50	450
150	15	22.0	148.5	161	25	54	77.5	50	540



NS	Α	В	øс	ØD	Е	G	Н	Weight in gram (With Box)
63	12	17.0	62.5	70.0	25	77.5	50	400
100	12	22.0	100.0	111	25	77.5	50	450
150	15	22.0	148.5	161	25	77.5	50	540

Notes: • Drawings are not to scale. • All Dimensions are in mm. • NS = Nominal Size.

## Range Table

Note: We offer National / International Scales like kPa, bar, psi, kg/cm², mbar, mmWC, inWC or Equivalent scales as per the requirement can be provided on request. Following are the example tables for kPa & kg/cm²

### **Gauge Pressure Range**

Single scale										
kPa	kPa	kPa	kg/cm²	kg/cm²	kg/cm²					
0 / 100	0 / 350	0 / 900	0 / 1.00	0 / 3.50	0 / 9.00					
0 / 160	0 / 400	0 / 1000	0 / 1.60	0 / 4.00	0 / 10.00					
0 / 200	0 / 500		0 / 2.00	0 / 5.00						
0 / 250	0 / 600		0 / 2.50	0 / 6.00						
0 / 300	0 / 700		0 / 3.00	0 / 7.00						

Note: Other Scale are available on customer request.



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## Differential Pressure Gauge Piston Operated With Optional Reed Switch

How To	Order Order								Exam
Basic M	lodel								DP
Code									
Nominal	I Size			15	20	25	40	60	
				40 mm	50 mm	63 mm	100 mm	150 mm	XX
Case Ty	pe								
DM	Case without front flange	PM	Case with front flange						XX
Mountin	ng								X
2	Direct bottom entry	3	Direct back entry	10	In line entry				OR
Body M	laterial								XX
AL	Aluminium	S6	AISI 316 SS	МО	Monel				XX
Gauge C	Connection								
2NF	1/4" NPT (F) X 2 Nos. (Standar	rd)	<b>2BF</b> 1/4" BSP	(F) X 2 No	s.				XXX
if Red	quired Other Process Connect	ion l	Possible Through Adaptor	-					_
Range									0/2
Refer rar	nge table								kg/cr
Options	·								_
CDD	Custom designed dial								
TND	Tag No Marking on Dial								
STP	SS tag plate								XX
CLC	Calibration certificate								
LGF	Dampening liquid glycerine								
PY4	2" pipe/yoke mounting brack		*						
MRP	Maximum Reading Pointer \	With	Plexi Glass						
RS1	Reed Switch SPTD (One S	witc	h )						
RS2	Reed Switch SPTD (Two St	witcl	n )						

Ordering Example: DP1 - XX - XX - X OR XX - XX - XXX -  $0/2 \text{ kg/cm}^2$  - XXX

For other optional items, please contact factory for delivery and minimum quantity of order.

Note: Specifications and dimensions given in this product catalogue represents the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.