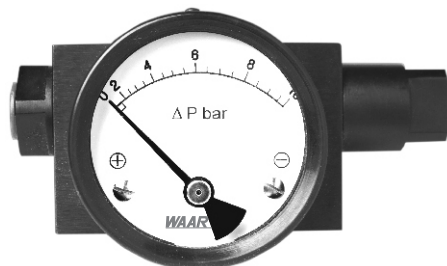


### SPECIAL FEATURES

- SIMPLE AND COMPACT DESIGN.
- HIGH OPERATING PRESSURE UP TO 200 bar.
- OVER PRESSURE SAFE FROM EITHER SIDE TO MAXIMUM WORKING PRESSURE.
- INDICATING MECHANISM ISOLATED FROM PRESSURE CHAMBER.

### APPLICATIONS

FILTERS, HYDRAULIC SYSTEMS, WATER TREATMENT PLANTS, CHEMICAL PLANTS, NATURAL GAS PROCESSING, HEAT EXCHANGERS, GASOLINE / DIESEL ENGINE FILTERS, PUMPS & VALVES, COMPRESSORS.



### SPECIFICATIONS

#### STANDARD VERSION : 63 mm, 100 mm & 150 mm

|                     |                              |
|---------------------|------------------------------|
| Accuracy            | : ± 2% of F. S. (Ascending)  |
| Ambient temperature | : Max. 65°C                  |
| Process temperature | : Max. 80°C                  |
| Over Pressure Range | : Up to the Full Scale Value |
| 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)

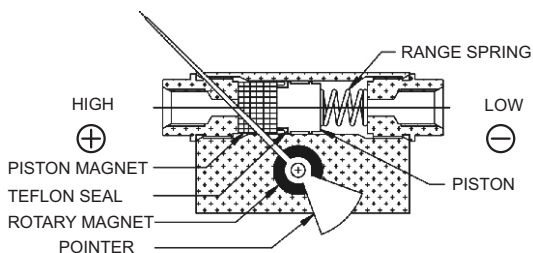
|                     |   |
|---------------------|---|
| Accuracy            | : ±4.0% of F. S. (Ascending)                  |
| Ambient Temperature | : Maximum 65°C                                |
| Process Temperature | : Maximum 65°C                                |
| Window              | : Plain 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 :  $\pm 0.04 \times (t_2 - t_1) \% \text{ of F. S.}$

where  $t_1$  = reference temperature (+20°C) and  $t_2$  = ambient temperature in °C.



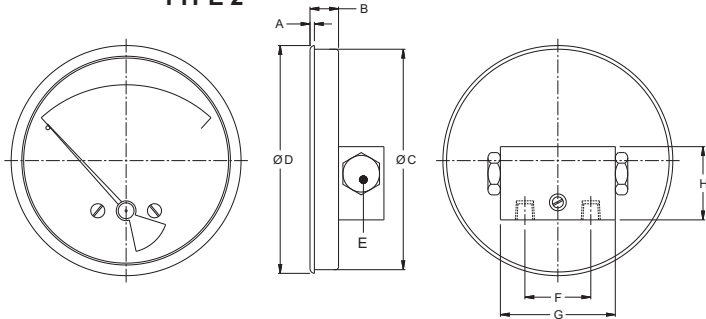
### OPERATING PRINCIPLE

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 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.

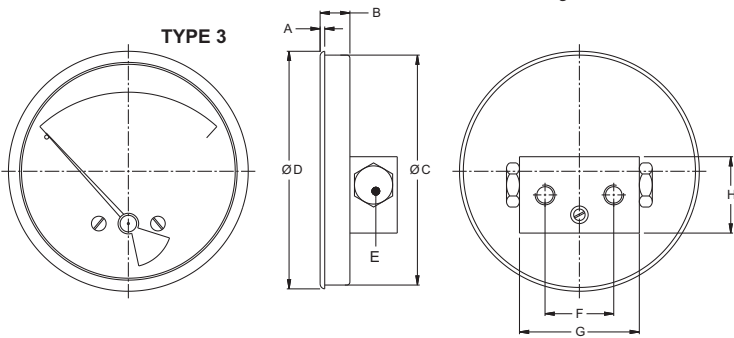
**DIMENSIONS - STANDARD VERSION**

**TYPE 2**



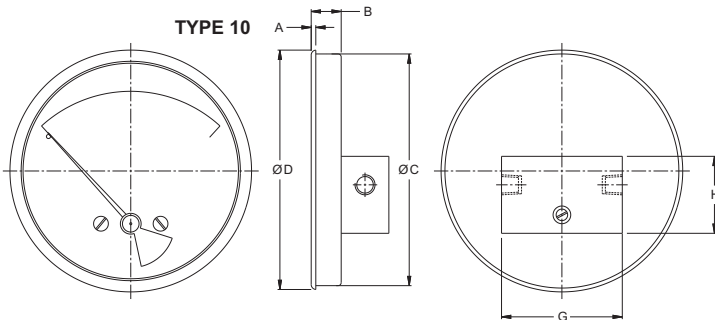
| NS  | A   | B    | ØC    | ØD    | E  | F  | G  | H  | Weight in gram (With Box) |
|-----|-----|------|-------|-------|----|----|----|----|---------------------------|
| 63  | 3.2 | 19.5 | 62.5  | 66.5  | 20 | 46 | 76 | 50 | 430                       |
| 100 | 3.2 | 19.5 | 101.5 | 104   | 20 | 46 | 76 | 50 | 460                       |
| 150 | 3.2 | 19.5 | 151.5 | 155.5 | 20 | 46 | 76 | 50 | 560                       |

**TYPE 3**



| NS  | A   | B    | ØC    | ØD    | E  | F  | G  | H  | Weight in gram (With Box) |
|-----|-----|------|-------|-------|----|----|----|----|---------------------------|
| 63  | 3.2 | 19.5 | 62.5  | 66.5  | 20 | 46 | 76 | 50 | 400                       |
| 100 | 3.2 | 19.5 | 101.5 | 104   | 20 | 46 | 76 | 50 | 450                       |
| 150 | 3.2 | 19.5 | 151.5 | 155.5 | 20 | 46 | 76 | 50 | 540                       |

**TYPE 10**



| NS  | A   | B    | ØC    | ØD    | G  | H  | Weight in gram (With Box) |
|-----|-----|------|-------|-------|----|----|---------------------------|
| 63  | 3.2 | 19.5 | 62.5  | 66.5  | 76 | 50 | 410                       |
| 100 | 3.2 | 19.5 | 101.5 | 104   | 76 | 50 | 460                       |
| 150 | 3.2 | 19.5 | 151.5 | 155.5 | 76 | 50 | 550                       |

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

**RANGE TABLE**

**Note :** Waaree offers National / International Scales like kPa, bar, psi, kg/cm<sup>2</sup>, mbar, mmWC, inWC or Equivalent scales as per the requirement can be provided on request.

Following are the example tables for kPa & kg/cm<sup>2</sup>.

**GAUGE PRESSURE RANGE**

| SINGLE SCALE |         |          |                    |                    |                    |
|--------------|---------|----------|--------------------|--------------------|--------------------|
| kPa          | kPa     | kPa      | kg/cm <sup>2</sup> | kg/cm <sup>2</sup> | kg/cm <sup>2</sup> |
| 0 / 25       | 0 / 200 | 0 / 500  | 0 / 0.25           | 0 / 2.00           | 0 / 5.00           |
| 0 / 50       | 0 / 250 | 0 / 600  | 0 / 0.50           | 0 / 2.50           | 0 / 6.00           |
| 0 / 75       | 0 / 300 | 0 / 700  | 0 / 0.75           | 0 / 3.00           | 0 / 7.00           |
| 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          |

Note : Other Scale are available on customer request.

## HOW TO ORDER

BASIC MODEL  
CODE

Example

|                     | D     | F      | H      |
|---------------------|-------|--------|--------|
| <b>NOMINAL SIZE</b> | 63 mm | 100 mm | 150 mm |

## CASE TYPE

|                                     |                                  |
|-------------------------------------|----------------------------------|
| <b>HN</b> CASE WITHOUT FRONT FLANGE | <b>HO</b> CASE WITH FRONT FLANGE |
|-------------------------------------|----------------------------------|

## TYPE OF MOUNTING

|                              |                            |                         |
|------------------------------|----------------------------|-------------------------|
| <b>2</b> DIRECT BOTTOM ENTRY | <b>3</b> DIRECT BACK ENTRY | <b>10</b> IN LINE ENTRY |
|------------------------------|----------------------------|-------------------------|

## BODY MATERIAL

|                     |                       |                 |
|---------------------|-----------------------|-----------------|
| <b>HU</b> ALUMINIUM | <b>CL</b> AISI 316 SS | <b>CN</b> MONEL |
|---------------------|-----------------------|-----------------|

## GAUGE CONNECTION

|            |                                 |
|------------|---------------------------------|
| <b>2NF</b> | 1/4" NPT (F) X 2 Nos.(Standard) |
| <b>2BF</b> | 1/4" BSP (F) X 2 Nos.           |

Note : Connections like Metric/ PT/ PF/ Flaired/ UNF/ G/ R etc. can be provided on request.

## RANGE

REFER RANGE TABLE

## OPTIONS

|           |   |
|-----------|---|
| <b>RH</b> | CUSTOM DESIGNED DIAL                                    |
| <b>SW</b> | DIAL TAG MARKING  |
| <b>SX</b> | SS TAG PLATE  |
| <b>NG</b> | CALIBRATION CERTIFICATE                                 |
| <b>PY</b> | DAMPENING LIQUID GLYCERINE FILLED                       |
| <b>JU</b> | 2" PIPE/YOKE MOUNTING BRACKET & 'U' CLAMP (AISI 304 SS) |

**Ordering Example: BF - X - XX - X OR XX - XX - XXX - 0/2 kg/cm<sup>2</sup> - XX**

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.