

# Bailey & Mackey Ltd

## Type 91, Type 92 & Type 93

Differential Pressure Gauges are used to monitor the difference in pressure between two points. They can be used to monitor the condition of a filter indicating the contamination level through diminished flow causing a drop in differential pressure.

When these low pressure gauges are used on liquids both connections and the tapping points should be in one horizontal plan. If not, allowance should be made for differences in the height of liquid in the connecting pipes. Bleed ports can be provided at the highest point of the pressure chambers required.

- 100mm and 160mm Diameter
- Maximum Differential Pressure 400 mbar
- Out of balance pressure 7 bar Max
- Accuracy 2% full scale deflection
- All Metal Construction

### Mechanical Specifications

#### Standard Calibrations

0 to 0.6 bar or 0 to 10 lbf/in

0 to 1 bar or 0 to 15 lbf/in

0 to 1.6 bar or 0 to 20 lbf/in

0 to 2 bar or 0 to 30 lbf/in

0 to 2.5 bar or 0 to 40 lbf/in

0 to 4 bar or 0 to 60 lbf/in

0 to 6 bar or 0 to 100 lbf/in

Maximum Line Pressure 34 bar (500 PSI)

All ranges can be calibrated to have a centre zero for reading in both directions

For lower pressure ranges see Type 95, 96 & 97 Gauges.



#### Standard Materials

Wetted Parts	Brass with Beryllium
	Copper Diaphragm
Seals	Nitrile Rubber
Case 80 & 100mm dia.	Mild Steel Black Enamelled
Case 160mm dia.	Aluminium Black Enamelled
Bezel 80mm dia.	Brass Black Enamelled
Bezel 100 & 160mm dia.	Mild Steel Black Enamelled

#### Alternatives Available

Wetted Parts	Stainless Steel
Seals	Viton
Case & Bezel	Stainless Steel
Accuracy	+/- 1.6% full scale deflection
Temperature	60°C Maximum

(A temperature coefficient of 2% over 30°C can be expected)

## Special Dial Markings

Dials calibrated in other pressure units such as kN/m<sup>2</sup>, MN/m<sup>2</sup>, kPa, kg/cm<sup>2</sup>, cm/H<sub>2</sub>O, mH<sub>2</sub>O, cm/Hg, inches Hg etc. single scale, dual scale or with square root markings can be supplied if required. An extra charge is made for special dial marking.

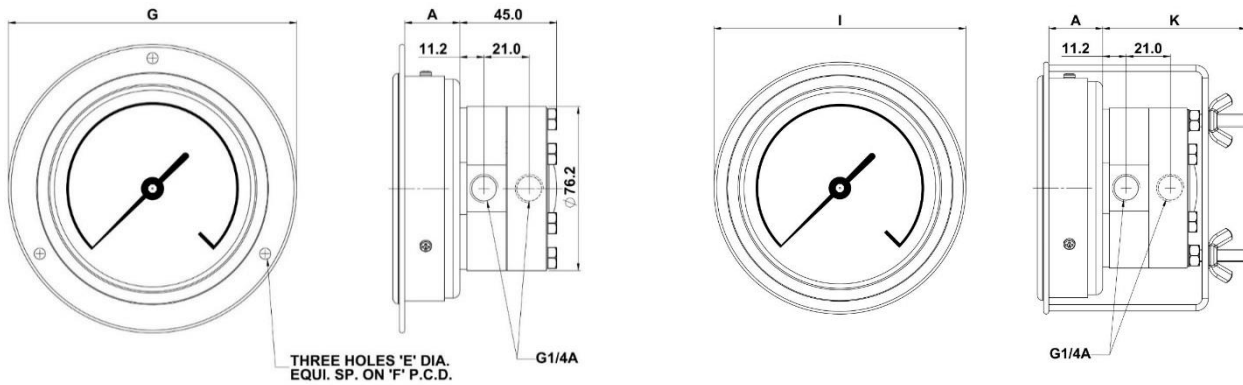
## Overload

Dimensions of the Diaphragm housing are such that the movement of the diaphragm is stopped when the pressure difference exceeds the full scale deflection. The gauge will accept the accidental application of up to 4 times the range without damage except for a small calibration error. Under working conditions the pressure difference should not exceed the full scale value of the gauge. This overload should not preclude the installation of a balancing valve in all applications where differential pressure gauges are used.

- Type 91 is Panel Mounting 3 Hole Fixing
- Type 92 is Panel Mounting Clamp Fixing
- Type 93 is Surface Mounting via brackets
- For Stainless Steel add a Suffix S to the above Parts Numbers (Type 92 & Type 93 only)
- For Glycerine Filled Gauges add a Suffix G to the above part numbers (Type 92 & Type 93 only)

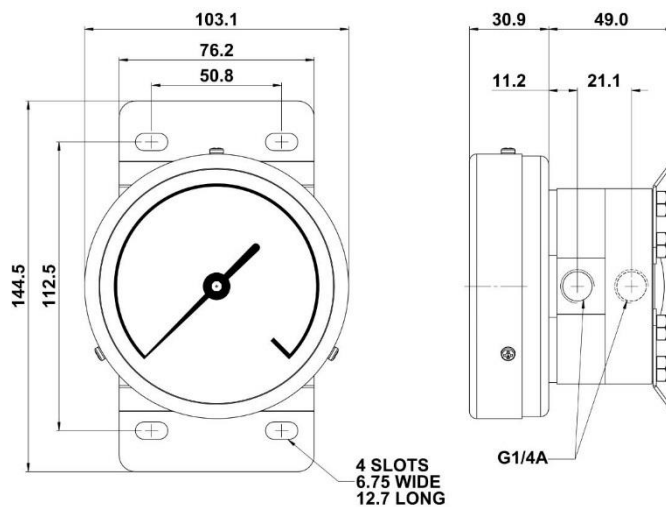
## Technical Drawings

### Type 91 & 92



Nominal Size	A	E	F	G	I	K	No of Clamps	Panel Cut Out	Weight
80mm	21.0mm	4.8mm	94.0mm	102.0mm	95.0mm	70.0mm	1	86.0mm	1.1kg
100mm	27.0mm	5.2mm	121.0mm	134.0mm	118.4mm	70.0mm	1	112.0mm	1.8kg
160mm	36.5mm	5.2mm	175.0mm	184.2mm	169.1mm	45.2mm	3	165.0mm	1.8kg

### Type 93



For Type 93 all other Dimensions are as for the Type 91 above except the Panel Mounting Bezel is replaced by a Plain Bezel.