

# Differential Pressure Gauge

## Bourdon Tube Type

Model 179

The Model 179 Differential Pressure Gauge consists essentially of two opposing bourdon tubes, each having its own connection but operating a common pointer that shows the difference between the two pressures.

Used in applications that require an instrument to measure the difference between two pressures where the system pressure is up to 4x greater than the differential range.

The gauge is designed to withstand full working pressure, applied separately to either connection or together. The maximum working pressure should not be exceeded even temporarily, so the possibility of surging pressures should be considered when selecting the instrument. These instruments can also be supplied with a central zero scale if necessary, e.g. 1 to 0 to 1 bar (corresponding to a differential pressure range of 2 bar in the table below). Please contact our sales office regarding higher graduations.



### Sizes

150mm dial diameter

### Mounting

Surface Mounting - Model 179F

Flush Mounting - Model 11/179

### Case & Bezel

Die cast Aluminium, Grey finish to IP55

### Scale Ranges

0 to 1 Bar up to 16 Bar Pressure

Equivalent units of pressure / vacuum available

Option: Central Zero Scales e.g. 1-0-1 bar

### Pressure Element

Beryllium Copper Bourdon Tubes and Brass

(Suffix BC)

316 St Steel Bourdon Tubes and 316 St Steel body

(Suffix Z)

Monel Bourdon Tubes and Monel body (Suffix M)

### Pressure Connection

3/8" BSP as Standard - 46mm Apart

Option: 1/4" NPT (API), and 1/2" NPT

### Accuracy Class

1.5% of FSD as defined in EN837-1

### Temperature

Operating: -20 to +90 °C

Storage: -40 up to +100 °C

Options: for lower or higher operating temperatures

### Dial

White Anodised Aluminium with black scales

Option: Dual scales or special dial markings

### Maximum Working Pressures

Differential Pressure (Bar)	Beryllium Copper Tube (Bar)	Stainless Steel Tube (Bar)
0 – 1	6	6
0 – 1.6	8	8
0 – 2	10	10
0 – 2.5	14	14
0 – 4	16	16
0 – 6	28	28
0 – 10	40	40
0 – 16	50	50

### Traceability

All instruments are individually calibrated and have a unique Serial Number printed on the dial. A Certificate of Conformity Traceable to National Standards is Supplied Free of Charge

### Certification

BS EN 10204 3.1B Material Certification

Point by Point Test Certificate

### Safety

All units are manufactured to comply with EN 837-1, to S1 specification and other regulatory standards including P.E.D.

### Installation Instructions

Refer to EN 837-2

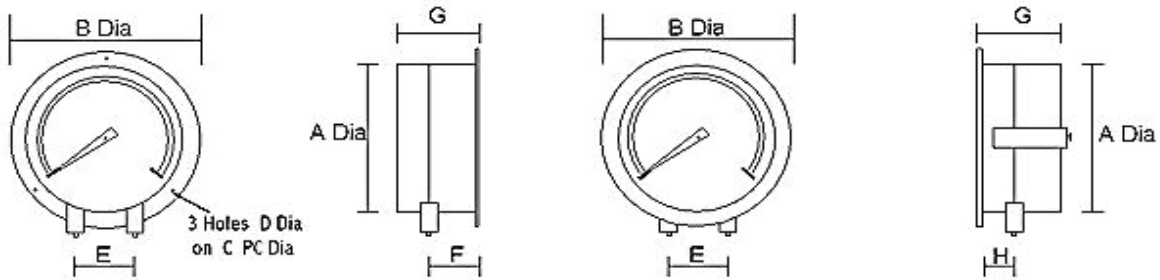
### Temperature Effect

Variation in indication caused by temperature shall not exceed  $\pm 0.04 \times (t_2 - t_1)\%$  of the span where:

t1 is the reference ambient temperature in degrees Celsius

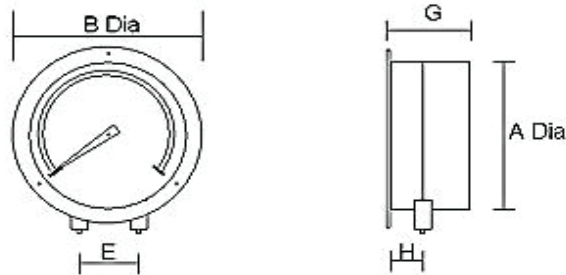
t2 is the ambient temperature in degrees Celsius

## Dimensions



**Surface Mounting 179F**

**Flush Panel Mounting 11/179**



**3 Hole Front Mounting 11/179**

Model No	Type of Mounting	A	B	C	D	E	F	G	H	Weight
179F	150mm Surface	155mm	180mm	164mm	6mm	48mm	40mm	80mm		1.7kg
11/179	150mm Flush Panel	155mm	172mm			48mm	40mm	80mm	39mm	1.7kg
11/179	150mm 3 Hole Fixing	155mm	172mm	164mm	6mm	48mm	40mm	80mm	39mm	1.7kg

## Accessories

### Electric Contacts

Model 144 Magnetically assisted contacts can be fitted as Single or Double units - See separate Datasheet on Electric Contacts.

### Valves

We can supply 3 or 5 Valve manifolds with our differentials – See separate Datasheet on 3 & 5 Valve manifolds. The manifolds in addition to allowing the instrument to operate normally allows the following: -

- Checking of gauge zero at line pressure.
- Complete isolation of the instrument.
- De-pressurisation of the instrument or controlled purging.
- Damping of pressure pulsations and surges.

### Diaphragm Seals

The Model 179 type instruments may be fitted with distance reading diaphragm seals and capillaries, this allows use on hot viscous fluids, slurries and highly corrosive mediums. The maximum recommended lengths of capillary is 5 Metres.

Authorised Australian distributor for



Procon Instrument Technology

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