# Differential Pressure Gauge

# **Bellows Type**

The M24 range of Differential Pressure Gauges have been designed for applications which require the measurement of low differential pressures whilst accommodating very highstatic pressures.

Designed around a balanced bellows system, which converts the differential pressure into a rotary movement by way of a torsion tube assembly and mechanical linkages. The entire assemblyis liquid filled, producing a hydraulic self lubricating measurement system which allows for full line pressure to be applied to either side of the unit without damage to the device.

Model M24-6

Instruments are available in a range of differential ranges and static pressures and can be manufactured in a wide variety ofmaterials, connection sizes and installation options.

#### Size

150 mm (6")

#### Case

316 Stainless Steel

#### Mounting

**Direct Mounting** 

Surface Mounting via a stainless steel wall bracket or a standard 2" pipe Yoke mount with 'U' Bolts Panel Mount via a special stainless steel bracket

# Scale Ranges

0 to 75 mBar up to 70 Bar or equivalent units of pressure Option: Zero based, elevated zero, suppressed zero calibrations

#### Pressure Element

Brass / Bronze 75 mBar to 7.6 Bar differential pressure 316 Stainless Steel 150 mBar to 27.5 Bar differential pressure Inconel / St St 150 mBar to 69 Bar differential pressure Option: Other bellows materials are available, including Hastelloy

#### Overload

The unit will withstand the maximum line pressure to either side of the unit and up to 750 Bar static pressure

#### **Pressure Connection**

The process connections are duplicated on the top and bottomof the differential cell to facilitate gas or liquid measurement connection and venting.

#### **Standard Connection**

1/2" x 1/2" BSP (P) Female 1/2" x 1/2" NPT Female

#### **Accuracy Class**

 $\pm 0.75\%$  FSD on ranges up to 1 Bar differential  $\pm 100\%$  FSD on ranges from 1 to 30 Bar differential  $\pm 150\%$  FSD on ranges from 31 to 69 Bar differential

#### Dial

White Anodised Aluminium marked in black finish Single or Dual scale

#### Pointer

Black Micrometer knife edge pointer

#### Movement

316L Stainless Steel Construction
Option: Viscous Damped movement to overcome the effects of minor pressure pulsations

#### Window

3mm laminated Safety Glass (Standard)
Option: Acrylic Plastic Window

## **Environmental Rating**

IP66 as defined in EN 60 529

#### Calibration

Instruments will maintain their original calibration for over 100,000 cycles\* before any change to span would be evident or require adjustment (\* this will vary upon application)

#### Certification Available

BS EN 10204 3.1 Material Certification Point by Point Test Certificate

#### Safety

All units are manufactured to comply with EN 837-1, All cases are fitted with a blow-out vent

# Installation Instrucitons

Refer to EN 837-2

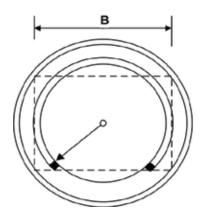
# **Temperature**

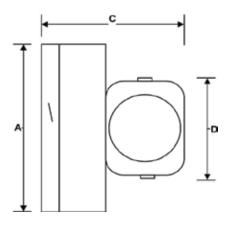
Operating: -40 to +200 °C Storage: -50 up to +250°C





# **Dimensions**





Model No	Α	В	С	D	Weight
M24 150mm (6")	162mm	120mm	120mm	86mm	5 Kg

# **DP** Ranges

Tortion Tube Type	Safe Working Pressure		Minimum DP		Maximum DP	
	Psi	Bar	mBar	Ins Wc	Bar	
Standard	500	35	150	60	0 to 28	
Extended	500	35	150	60	0 to 28	
Standard	3000	200	150	60	0 to 69	
Extended	3000	200	150	60	0 to 69	
Standard	6000	400	2000	80	0 to 69	
Extended	6000	400	2000	80	0 to 69	
Standard	10000	700	2800	110	0 to 69	
Extended	10000	700	2800	110	0 to 69	

# **Mounting Options**

Case Mounting
Wall mounted from the DP Cell
Yoke mount 2" pipe with U-bolts

# **Process Connections**

Where possible, connect liquid process lines to the bottomof the unit, and gas process lines to the top of the unit. This allows for venting and draining.

# Accessories

Venting and draining plugs

Male to male and male to female adaptors.

We can supply Needle3 or 5 Valve manifolds for the Model M24 – See separate Datasheet. The manifolds in addition to allowing the instrument to operate normally allows the following: -

- a). Checking of gauge zero at line pressure.
- b). Complete isolation of the instrument.
- c). De-pressurisation of the instrument or controlled purging.
- d). Damping of pressure pulsations and surges.
- e). Inline calibration, allows in situation calibration

Specifications and dimensions in this leaflet, are subject to change without prior notice.



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