



Budenberg

Made in Britain

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Model: M24-2

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

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

Size

100 mm (4")

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

Scales down to 25mBar optional with larger bellows.

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 bottom of 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

±0.75% FSD on ranges up to 1 Bar differential

±1.00% FSD on ranges from 1 to 30 Bar differential

±1.50% FSD on ranges from 31 to 69 Bar differential

DIFFERENTIAL PRESSURE GAUGE BELLOWS TYPE



Dial

White Anodised Aluminium marked in black finish
Single or dual scale

Pointer

Black Micro Adjustable 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 3.1B 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

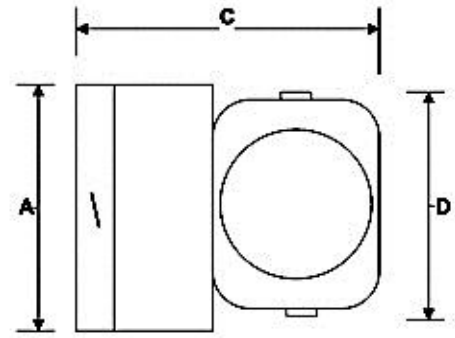
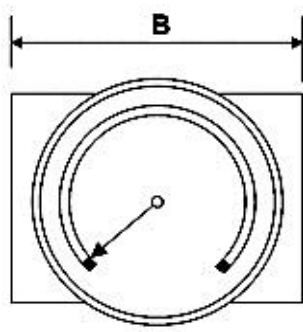
Installation Instructions

Refer to EN 837-2

Temperature Effect

Operating -40°C up to +200°C

Storage -50° up to +250°C



Model No	A	B	C	D	Weight
M24 100mm (4")	105mm	120mm	120mm	86mm	4.4 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
- Switches 4-20 Ma - ATX
- Second Red Pointer indicating Static Pressure as well as differential pressure.

Process Connections

Where possible, connect liquid process lines to the bottom of 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