

DOUBLE BELLOW DIFFERENTIAL PRESSURE GAUGE

MODEL
M2.03



PRODUCT DESCRIPTION

These gauges are more sensitive than bourdon gauges. The bellows are made up of an alloy with high strength and ductility. Each bellow of the pressure Gauge can withstand the full static pressure without any damage or shifting being caused to the instrument. System pressure is applied to the internal volume of a bellows and mechanical linkage assembly. As pressure changes, the bellows and linkage assembly move to cause an electrical signal to be produced or to cause a gauge pointer to move.



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KEY FEATURES

- Standard followed in general EN 837-3
- Dry & liquid filled
- Case & measuring system in SS

SPECIFICATIONS

Design Standard	: According to EN 837-3
Sensing Element	: Bellow
Accuracy	: $\pm 1.6\%$ of Span (Standard)
Dial Size	: 150mm (6")
Process Conn. Size & Type	: $\frac{1}{2}$ " NPT (F) x 2 Nos (Other sizes on request)
Mounting	: Direct bottom Connection
Ambient Temperature	: -25°C to 65°C
Process Temperature	: Max. 100°C
Static Pressure	: 6 kg/cm ² up to ranges 0.6 bar & 25 kg/cm ² for ranges 1 bar to 2.5 bar 40 kg/cm ² for ranges 4 bar to 6 bar
Ingress Protection	: IP68

PRESSURE LIMITS

Steady Pressure	: Up to FSD
Fluctuating Pressure	: 90% x FSD
Over Range Pressure	: 130% FSD

SPECIFICATIONS

Calibration Certificate	: Gauges are factory calibrated to full range by default 5 Point Calibration Cert.
Material Certification	: Available as per EN10204 3.1 for wetted parts (Optional) Available as per EN10204 2.1 for non-wetted parts (Optional)
Approvals	: ATEX: Conformity acc. to RL 2014/34/EU II 2 GD Ex h T6 (Optional)

APPLICATION

- Pharmaceutical
- Chemical
- Petrochemicals
- Refinery
- Aerospace
- Food & Beverages
- Pulp and paper
- Nuclear power plants
- Fertilizer
- Cement
- Sugar

MATERIAL OF CONSTRUCTION

Case & Bezel Ring	: SS 304 (Bayonet type)
Process Connection	: Wetted: SS 316
Movement	: SS 304
Diaphragm	: SS 316L
Pointer	: Aluminum, Black colored Micrometer zero adjustable
Dial	: Aluminum, Black graduation on white background
Window	: Shatter proof safety (Optional: Toughened glass)
Window gasket & Blowout disk	: Neoprene

CASE FILLING (OPTIONAL)

The gauges can be filled with different kind of fill fluids. Available fill fluids are:

- Glycerin fluid (99.7%)
- Silicon fluid
- Other fill fluids can be offered on request

TEMPERATURE LIMITS

Version	Ambient	Process
Dry	-40 to 65°C	Max. 200°C
Glycerin filled	Max. 65°C	Max. 65°C
Silicon filled	Max. 165°C	Max. 165°C

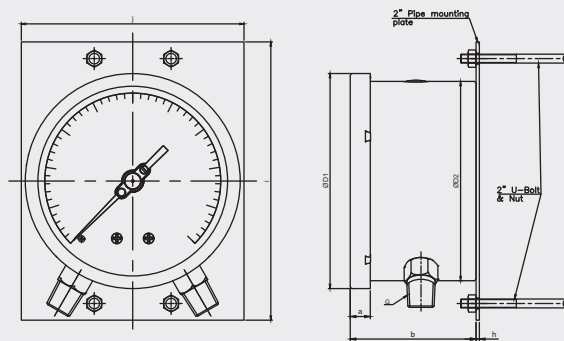
Note: The variation of indication caused by the effect of temperature shall not exceed: $\pm 0.4\%$ / 10K FSV

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DIMENSIONAL DRAWINGS

M2.03_Bellow Type DPG



NS	Dimensions in mm								Weight in gm
	a	b	ØD1	ØD2	h	i	j	G	
150	16	95	166	150	2	250	200	1/2"	6620

Important Notes: Above drawings are not to scale. All Dimension are in mm

TABLE-1 PRESSURE RANGE

bar		kg/cm ²		psi		kPa		mmWC	
Code	Range	Code	Range	Code	Range	Code	Range	Code	Range
BR31	0...0.6	KG31	0...0.6	PS32	0...10	KP31	0...60	MP31	0...6000
BR35	0...1	KG35	0...1	PS35	0...15	KP35	0...100	MP35	0...10000
BR36	0...1.6	KG36	0...1.6	PS36	0...25	KP36	0...160	MP36	0...16000
BR38	0...2.5	KG38	0...2.5	PS38	0...35	KP38	0...250	MP38	0...25000
BR40	0...4	KG40	0...4	PS38	0...60	KP40	0...400	MP40	0...40000
BR42	0...6	KG42	0...6	PS38	0...90	KP42	0...600	MP42	0...60000

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MODEL CODING & ORDERING INFORMATION

DESCRIPTION	CODE	M2.03	6	1	B	12NM	XXX	X16
Model Double Bellow Differential Pressure Gauge	M2.03	M2.03						
Dial Size 150 mm (6")	6		6					
Version Dry (but fillable) Glycerin filled Silicon Oil filled	1 2 3			1				
Type of Mounting/Connection Orientation Bottom connection	B				B			
Process Connection (Size & Type) ½" BSP (M) ½" NPT (M) M20 × 1.5 (M)	12BM 12NM M20M					12NM		
Range To be selected from Table 1 (Other custom ranges available on request)	XXX						XXX	
Standard Options Back flange for bottom mounting (SS 304) 2" Pipe mounting bracket for bottom mounting (SS 304) 2" Pipe mounting bracket for bottom mounting (SS 316) Back flange for bottom mounting (SS 304) Front flange for lower back/center back mounting (SS 304) Tag number marking on Dial Window in Toughened glass Calibration Certificate Material test certificate Wetted parts complied to NACE Custom Dial Design / Private labeling Case & Ring SS 316	XBF MB4 MB6 XBF XFF XTM XWT X16 X17 X20 X29 X31							X16

SAMPLE ORDERING CODE:

M2.03-6.1.B.12NM.XXX.X16

Note: Specifications and dimensions given in this product catalogue represents the state of engineering at the time of printing. Modifications may take place and material specified may be replaced by others without prior notice.