

DOUBLE DIAPHRAGM DIFFERENTIAL PRESSURE GAUGE

MODEL
M2.02



PRODUCT DESCRIPTION

Double Diaphragm Pressure Gauge are based on the proven Bourdon tube measuring system. On pressurization, the deflection of the Bourdon tube, proportional to the incident pressure, is transmitted to the movement via a link and indicated. These instruments are used to check filter obstructions, pressure drops, flow rate differences, level, measurements and generally the difference between two pressures of equal of different circuits.



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KEY FEATURES

- Case & measuring system in SS
- Static pressure up to 100 kg/cm²
- Dry & liquid filled
- Accuracy up to 1.6 % F.S
- CE & ATEX approved electrical contacts

SPECIFICATIONS

Design Standard	: According to EN 837-3
Sensing Element	: Double Diaphragm
Accuracy	: ± 1.6% of Span (Standard)
Dial Size	: 150mm (6")
Process Conn. Size & Type	: ¼" 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	: 40 kg/cm ² up to ranges 0.6 kg/cm ² & 100 kg/cm ² above ranges 1 kg/cm ²
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)
NACE Compliance	: Available as per MR 01 75/ MR 01 03 (ISO 15156) for wetted parts (Optional)
Approvals	: ATEX: Conformity acc. to RL 2014/34/EU II 2 GD Ex h T6 (Optional)

APPLICATION

- Chemical & Petrochemical
- Food & Beverages
- Pulp and paper
- Nuclear power plants & Refinery
- Fertilizer, cement, sugar

MATERIAL OF CONSTRUCTION

Case & Bezel Ring	: SS 304 SS (Bayonet type)
Process Connection	: Wetted: SS 316
Diaphragm	: SS 316L
Movement	: SS 304
Pointer	: Aluminum, Black colored Micrometer zero adjustable
Dial	: Aluminum, Black graduation on white background
Window	: Shatter proof safety
Window gasket & Blowout disk	: Neoprene
Element Chamber filling	: Silicon Oil (other on request)
Nut & Bolts	: SS 304

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

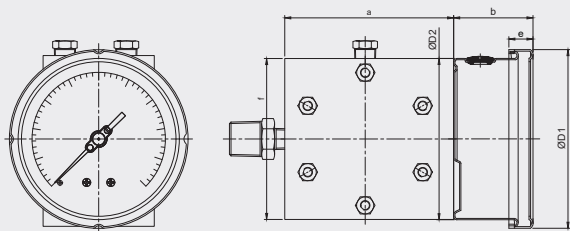
Note: The variation of indication caused by the effect of temperature shall not exceed: ± 0.4% / 10K FSV

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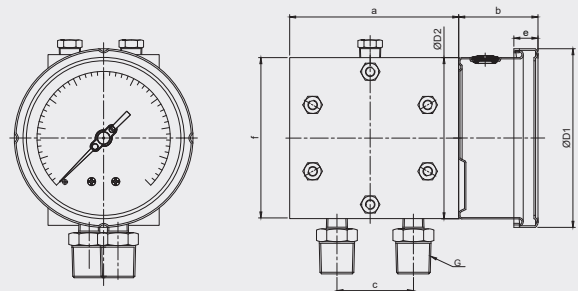
DIMENSIONAL DRAWINGS

Diaphragm DPG Back connection



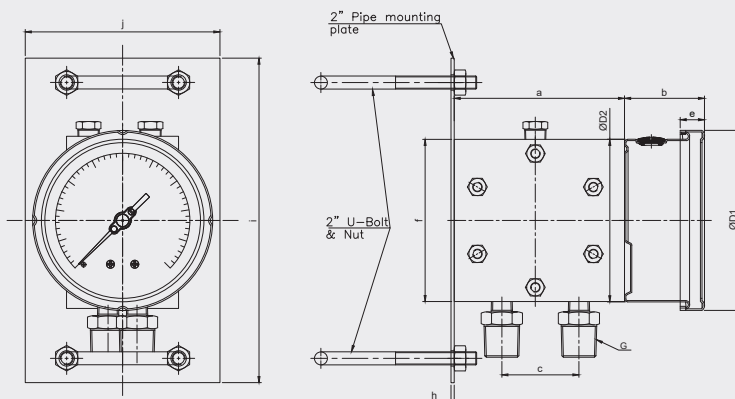
NS	Dimensions in mm								Weight in gm
	a	b	c	ØD1	ØD2	e	f	G	
100	105	50	54	111	100	15	100	1/2"	4420
150	105	50	54	166	150	15	100	1/2"	6620

Diaphragm DPG Bottom connection



NS	Dimensions in mm								Weight in gm
	a	b	c	ØD1	ØD2	e	f	G	
100	105	50	54	111	100	15	100	1/2"	4508
150	105	50	54	166	150	15	100	1/2"	6504

Diaphragm DPG 2" Pipe mounting Bottom connection



NS	Dimensions in mm											Weight in gm
	a	b	c	ØD1	ØD2	e	f	G	h	i	j	
100	105	50	54	111	100	15	100	1/2"	2	250	100	4710
150	105	50	54	166	150	15	100	1/2"	2	250	100	6720

TABLE-1 PRESSURE RANGE

bar		kg/cm2	
Code	Range	Code	Range
BR31	0...0.6	KG31	0...0.6
BR35	0...1	KG35	0...1
BR36	0...1.6	KG36	0...1.6
BR38	0...2.5	KG38	0...2.5
BR40	0...4	KG40	0...4
BR42	0...6	KG42	0...6
BR45	0...10	KG45	0...10
BR50	0...16	KG50	0...16
BR54	0...25	KG54	0...25
BR57	0...40	KG57	0...40

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

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MODEL M2.02

MODEL CODING & ORDERING INFORMATION

DESCRIPTION	CODE	M2.02	6	1	B	12NM	S4	S6	SL	XXX	X16
Model Double Diaphragm Differential Pressure Gauge	M2.02	M2.02									
Dial Size 100 mm (4") 150 mm (6")	4 6		6								
Version Dry (but fillable) Glycerin filled Silicon Oil filled	1 2 3			1							
Type of Mounting/Connection Orientation Direct Bottom connection Direct, Center back connection	B C				B						
Process Connection (Size & Type) ¼" NPT (M) ¼" BSP (M) ½" BSP (M) ½" NPT (M) M20 × 1.5 (M)	14NM 14BM 12BM 12NM M20M					12NM					
Side Chamber Material SS 304 SS 316 SS316L	S4 S6 SL						S4				
Center Chamber Material SS 304 SS 316 SS316L Monel 400 Hast C-276	S4 S6 SL M4 HC							S6			
Diaphragm Materials SS 316 SS316L Monel 400 Hast C-276	S6 SL M4 HC								SL		
Range To be selected from Table 1 (Other custom ranges available on request)	XXX									XXX	
Standard Options 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 Over range protection 150% FSD Calibration Certificate Material test certificate Wetted parts complied to NACE Custom Dial Design / Private labeling Case & Ring SS316	MB4 MB6 XBF XFF XTM XWT X10 X16 X17 X20 X29 X31										X16

SAMPLE ORDERING CODE:

M2.02-6.1.B.12NM.S4.S6.SL.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.

