

SCHAFFER DIAPHRAGM PRESSURE GAUGE

MODEL M1.05



PRODUCT DESCRIPTION

The schaffer diaphragm gauge is used for measurement of gas or liquids, and is well suited for use on corrosive, polluted or highly viscous mediums. These instruments are more reliable and easy to protect against overpressure than the Bourdon tube type. The measuring element consists of one circular diaphragm clamped between a pair of flanges. It has a diaphragm whose displacement is transferred via a link to the movement.



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KEY FEATURES

- Stainless steel case & measuring system
- Flanged or Screw connection
- Optional ATEX approved II 2 GD Ex h T6
- Standard followed in general EN 837-3

SPECIFICATIONS

Design Standard:	: According to EN 837-3
Sensing Element:	: Diaphragm
Accuracy:	: ± 1.6 % of FS
Dial Size:	: 100mm (4"), 160mm (6")
Range:	: -250 to 0 & 0 to 6000 mmWC
Process Conn. Location:	: Direct Bottom
Process Conn. Size & Type	: $\frac{1}{2}$ " NPT Male / $\frac{1}{2}$ " BSP Male
Weld Joints:	: TIG Argon Arc Welding
Case	: 304 SS (Bayonet Type)
Ingress Protection	: IP68
Approvals	: ATEX: Conformity acc. to RL 2014/34/EU Article 13 paragraph 1 for mechanical equipment in potential hazardous areas II 2 GD Ex h T6 (Optional)

MATERIAL OF CONSTRUCTION

Case & Bezel Ring	: SS 304 (Optional SS 316)
Process Connection	: SS 316L
Diaphragm	: Wetted: 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

APPLICATION

- Liquid & gaseous medium
- Corrosive/hazardous
- Oil & gas application
- Food & Beverages
- Nuclear power plants
- Chemical/Petrochemical, Power stations

PRESSURE LIMITS

Operating pressure	: 75% of scale value
Over pressure	: 125% of scale value °C

TEMPERATURE LIMITS

Ambient temperature	: -25 °C to +65 °C
Process temperature	: Max 100 °C

CERTIFICATION & APPROVALS

Calibration Certificate	: Gauges are factory calibrated to full range by default 5/10-Point Calibration Cert. (Optional)
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)

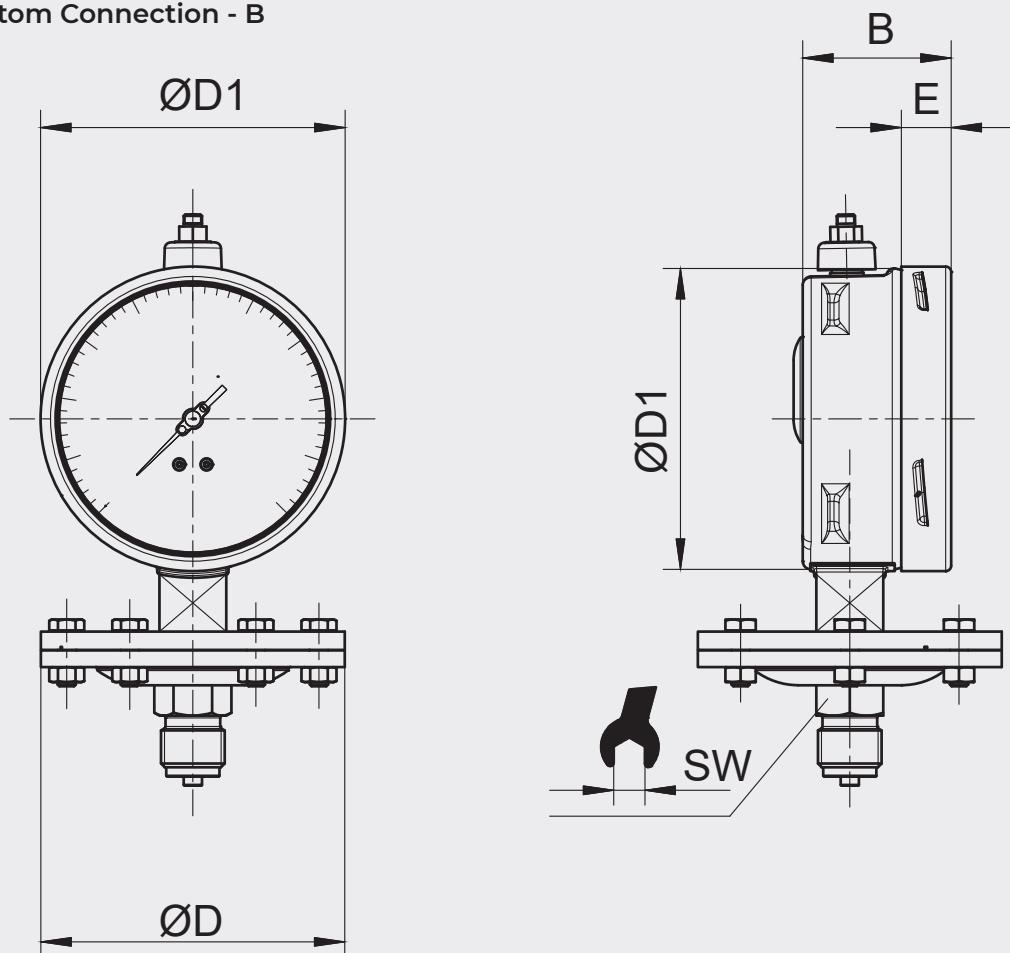


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DIMENSIONAL DRAWINGS

Bottom Connection - B



NS	Dimension in mm					
	$\varnothing D$	B	E	$\varnothing D1$	$\varnothing D2$	SW
100	160	49.5	17.5	101	99	52
160	160	49.5	17.5	161	159	22

Important Notes:

Above drawings are not to scale.

All Dimension are in mm

NS = Nominal size

Weights mentioned are approximate and for standard product.

Weight can be different after selection of options.



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TABLE-1 PRESSURE RANGE

Code	mmWC	Code	mBar
WB025	0...250	MB025	0...25
WB040	0...400	MB040	0...40
WB060	0...600	MB060	0...60
WB100	0...1000	MB100	0...100
WB160	0...1600	MB160	0...160
WB250	0...2500	MB250	0...250
WB400	0...4000	MB400	0...400
WB600	0...6000	MB600	0...600
WC600	-6000...0	MC600	-600...0
WC400	-4000...0	MC400	-400...0
WC250	-2500...0	MC250	-250...0
WC160	-1600...0	MC160	-160...0
WC100	-1000...0	MC100	-100...0
WC060	-600...0	MC060	-60...0
WC040	-400...0	MC040	-40...0
WC025	-250...0	MC025	-25...0

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MODEL CODING & ORDERING INFORMATION

DESCRIPTION	CODE	M1.05	04	1	B	12NM	MB400	SL	SL	SL	X20	S6	SL	S6
Model														
Schaffer Diaphragm Pressure Gauge	M1.05	M1.05												
Dial Size														
100 mm (4")	04		04											
160 mm (6")	06													
Version														
Dry	1			1										
Type of Mounting / Connection Orientation														
Direct Bottom Connection	B				B									
Process Connection (Size and Type)														
½" NPT (M)	12NM					12NM								
½" BSP (M)	12BM													
¼" BSP (M)	14BM													
¼" NPT (M)	14NM													
¾" BSP (M)	38BM													
¾" NPT (M)	38NM													
M20X1.5(M)	M20M													
Range														
To be selected from Table 1	XXXXX						MB400							
(Other Custom Ranges available on request)														
Top Chamber														
SS 304	S4													
SS 316	S6													
SS 316L	SL							SL						
Diaphragm														
Hast C-276	HC													
Monel 400	M4													
SS 316L	SL								SL					
Bottom Chamber														
SS 304	S4													
SS 316	S6													
SS 316L	SL								SL					
Hast C-276	HC													
Monel 400	M4													
Other Options														
Window in Toughened Glass	EXO													
Tag no Marking on Dial	XTM													
Wetted Parts Complied To NACE	X20										X20			
Custom Dial Design / Private Labeling	X29													
Quality Specific Requirement														
ATEX Conformity acc.to RL 2014/34/EU II 2 GD Ex h 1	XAT													
IBR Certification	X18													
Certificate for Oxygen Service	X21													
IGC Certificate	X79													
Leak Test Certificates	XLC													
DP Test for Socket and Case Welding	XDP													
Default Certification														
Calibration Certificates														
MTC for Wetted Parts														
	MOC SELECTION	DEFAULT							ON REQUEST					CODE
	CASE AND RING	SS316L	SL	SL	SS304	S4	INCONEL	IC	HC-276	HC				S6
	SOCKET	SS316L	SL	SL	MONEL	M4								SL
	MOVEMENT	SS316L	SL	SL	SS304	S4								S6

SAMPLE ORDERING CODE:

M1.05-04-1.B-12NM-MB400-SL-SL-SL-X20-S6-SL-S6

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.