

PHENOL CASE PRESSURE GAUGE

MODEL M1.03



PRODUCT DESCRIPTION

Phenolic gauges have a high level of operator safety. The safety design consists of a solid wall between the pressure sensing element and window, and often a blowout back which protects the user from fluid and particles in the event of failure. Phenolic pressure gauges are generally used within aggressive environments such as chemical and petrochemical processing, food and beverage processing industries, plastic and paper manufacturing plants, oceanographic engineering. They are generally manufactured with stainless steel wetted parts that provide corrosion resistance.



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KEY FEATURES

- Solid front phenolic case
- Accuracy $\pm 1\%$ of F.S
- Dry & Liquid Filled Version
- Turret design-solid front with full blow back
- Optional ATEX approved II 2 GD Ex h T6

SPECIFICATIONS

Design Standard	: According to EN 837-1
Sensing Element	: Bourdon Tube
Accuracy	: $\pm 1\%$ of FS
Dial Size	: 4 1/2" (115mm)
Range	: Vacuum/Compound: -1 to 1600 kg/cm ²
Process Conn. Location	: Direct Bottom & Lower back
Process Conn. Size & Type	: 1/2" NPT (M), Other on request
Weld Joints	: TIG Argon Arc Welding
Case	: Phenol
Ring	: Polypropylene
Glass	: Shatterproof Safety
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	: Phenol
Process Connection	: Wetted: SS 316L
Bourdon Tube	: Wetted: SS 316L (Optional Monel 400)
Movement	: SS 304 (Optional SS 316)
Pointer	: Aluminum, Black colored, Fixed
Dial	: Aluminum, Black graduation on white background
Window	: Plexi Glass
Window gasket & Blowout disk	: Neoprene

APPLICATION

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

PRESSURE LIMITS

Steady Pressure	: Up to FSV
Fluctuating Pressure	: 0.9 x FSV
Over Range Pressure (Short Term)	: ≤ 100 bar: 1.3 x FSV ≥ 100 bar: 1.15 x FSV

TEMPERATURE LIMITS

Version	Ambient	Process
Dry	-40 to 65 °C	-40 to 200 °C

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

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	: Available as per MR 01 75/ MR 01 03 (ISO 15156) for wetted parts (Optional)
Approvals Compliance	: ATEX: Conformity acc. to RL 2014/34/EU II 2 GD Ex h T6 (Optional)

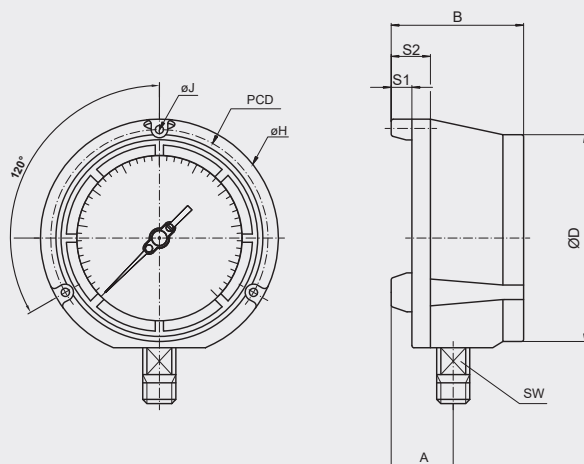


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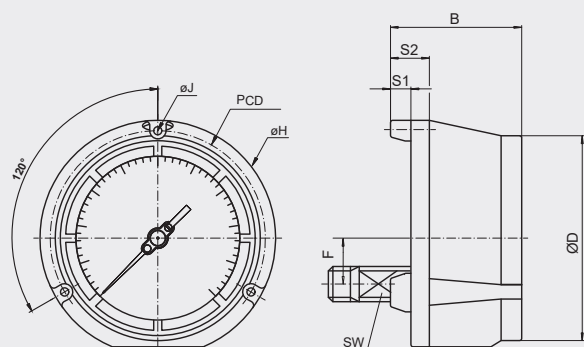
DIMENSIONAL DRAWINGS

Bottom Connection - B



NS	Dimension in mm							
	B	ø D	ø H	PCD	ø J	S1	S2	SW
115	84	128	148	136.5	6.3	12.5	25	22

Lower Back Connection - L



NS	Dimension in mm							
	B	ø D	ø H	PCD	ø J	S1	S2	SW
115	84	128	148	136.5	6.3	12.5	25	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

bar		kg/cm2		psi		kPa		MPa	
Code	Range	Code	Range	Code	Range	Code	Range	Code	Range
CB015	-1...0.6	CG015	-1...0.6	HP37	-30Hg/15psi	CK015	-100...60	CM015	-0.1...0.06
CB024	-1...1.5	CG024	-1...1.5	HP39	-30HG/30psi	CK024	-100...150	CM024	-0.1...0.15
CB004	-1...3	CG004	-1...3	HP41	-30HG/60psi	CK004	-100...300	CM004	-0.1...0.3
CB006	-1...5	CG006	-1...5	HP44	-30HG/100psi	CK006	-100...500	CM006	-0.1...0.5
CB010	-1...9	CG010	-1...9	HP46	-30HG/150psi	CK010	-100...900	CM010	-0.1...0.9
CB016	-1...15	CG016	-1...15	HP50	-30HG/220psi	CK016	-100...1500	CM016	-0.1...1.5
CB025	-1...24	CG025	-1...24	HP53	-30HG/300psi	CK025	-100...2400	CM025	-0.1...2.4
CB001	-1...0	CG001	-1...0	PS010	0...10	CK001	-100...0	CM001	-0.1...0
CB000	-0.6...0	CG000	-0.6...0	PS015	0...15	CK000	-60...0	CM000	-0.06...0
BR000	0...0.6	KG000	0...0.6	PS030	0...30	KP000	0...60	MP000	0...0.06
BR01	0...1	KG01	0...1	PS060	0...60	KP01	0...100	MP01	0...0.1
BR015	0...1.6	KG015	0...1.6	PS100	0...100	KP015	0...160	MP015	0...0.16
BR024	0...2.5	KG024	0...2.5	PS160	0...160	KP024	0...250	MP024	0...0.25
BR004	0...4	KG004	0...4	PS200	0...200	KP004	0...400	MP004	0...0.4
BR006	0...6	KG006	0...6	PS300	0...300	KP006	0...600	MP006	0...0.6
BR010	0...10	KG010	0...10	PS400	0...400	KP010	0...1000	MP010	0...1
BR016	0...16	KG016	0...16	PS500	0...500	KP016	0...1600	MP016	0...1,6
BR025	0...25	KG025	0...25	PS600	0...600	KP025	0...2500	MP025	0...2,5
BR040	0...40	KG040	0...40	PS800	0...800	KP040	0...4000	MP040	0...4
BR060	0...60	KG060	0...60	PS110	0...1000	KP060	0...6000	MP060	0...6
BR100	0...100	KG100	0...100	PS150	0...1500	KP100	0...10000	MP100	0...10
BR160	0...160	KG160	0...160	PS120	0...2000	KP160	0...16000	MP160	0...16
BR250	0...250	KG250	0...250	PS130	0...3000	KP250	0...25000	MP250	0...25
BR400	0...400	KG400	0...400	PS140	0...4000	KP400	0...40000	MP400	0...40
BR600	0...600	KG600	0...600	PS150	0...5000	KP600	0...60000	MP600	0...60
BR610	0...1000	KG610	0...1000	PS170	0...6000	KP610	0...100000	MP610	0...100
BR620	0...1600	KG620	0...1600	PS210	0...10000	KP620	0...160000	MP620	0...160
				PS215	0...15000				
				PS220	0...20000				

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MODEL CODING & ORDERING INFORMATION

DESCRIPTION	CODE	M1.03	45	2	B	12NM	BR040	X20	SL	SL	SL
Model											
PHENOL CASE PRESSURE GAUGE	M1.03	M1.03									
Dial Size											
115 mm (4.5")	45		45								
Version											
Dry (But Fillable)	1										
Glycerin Filled	2			2							
Silicon Oil Filled	3										
Type of Mounting / Connection Orientation											
Direct Bottom Connection	B				B						
Direct Lower Back Connection	L										
Process Connection (Size and Type)											
1/2" NPT (M)	12NM					12NM					
1/2" BSP (M)	12BM										
1/4" BSP (M)	14BM										
1/4" NPT (M)	14NM										
3/8" BSP (M)	38BM										
3/8" NPT (M)	38NM										
M20X1.5(M)	M20M										
Range											
To be selected from Table 1	XXXXX						BR040				
(Other Custom Ranges available on request)											
Other Options											
Bourdon and Socket in other Exotic Material	EXM										
Window in Toughened Glass	EXO										
Tag no Marking on Dial	XTM										
Over Range Protection 150% FSD	X10										
Wetted Parts Complied To NACE	X20							X20			
Custom Dial Design / Private Labeling	X29										
Accuracy Requirement -0.6%	XX5										
Quality Specific Requirement											
ATEX Conformity acc.to RL 2014/34/EU II 2 GD Ex h T6	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											
DEFAULT SELECTION											
MOC SELECTION	DEFAULT										CODE
BOURDON	SS316L	S6	MONEL	M4	INCONEL	IC	HC-276	HC	SL		
SOCKET	SS316L	S6	MONEL	M4	INCONEL	IC	HC-276	HC	SL		
MOVEMENT	SS316L	S6	SS304	S4							SL

SAMPLE ORDERING CODE:

M1.03-01-45-2-B-12NM-BR040-X20-SL-SL-SL

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.

For Lower Back Connection maximum pressure range is only 1000 bar.

