



Product Datasheet

Phenolic pressure gauge

Phenolic pressure gauge



Category	Item	Details
Product Overview	Alternative Names	Phenolic Resin Safety Pressure Gauge, Bakelite Case Pressure Gauge
	Core Positioning	A safety-oriented pressure measuring instrument designed for harsh industrial environments. It integrates safety, corrosion resistance and measurement stability, and is the preferred choice for high-risk scenarios such as chemical industry and flammable and explosive sites.

Core Structure & Material	Case	Phenolic resin (bakelite), black high-strength, flame-retardant, insulating, corrosion-resistant and anti-aging, without deformation.
	Internal Structure	Integrated safety isolation baffle, effectively preventing frontal medium jet and ensuring operational safety.
	Back Cover	Pressure-relief explosion-proof type, discharging medium from the back to protect personnel and equipment.
	Wetted Parts	Standard 304/316L stainless steel; optional Monel/titanium alloy for strong corrosive media.
	Gauge Glass	Safety tempered glass / shatterproof acrylic, pressure-resistant and impact-resistant, with clear reading.
	Sealing Parts	Oil-resistant and corrosion-resistant rubber, fully sealed for dustproof, waterproof and moisture-proof.
	Internal Movement	High-precision copper alloy movement, sensitive response, stable operation and strong anti-interference.

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Core
Advantages

- 1. Safety & Explosion-proof: Pressure-relief structure avoids frontal medium jet, complying with hazardous area safety standards.
- 2. Strong Corrosion Resistance: Phenolic case and special wetted materials resist acid, alkali and chemical erosion.
- 3. Insulation & Flame Retardancy: Non-conductive, self-extinguishing, suitable for flammable and explosive areas.
- 4. Anti-vibration: Optional liquid-filled design, stable pointer without jitter.
- 5. High Protection: IP65 grade, suitable for outdoor and harsh field environments.
- 6. Complete Specifications: Multiple ranges and installation methods to meet diverse needs.



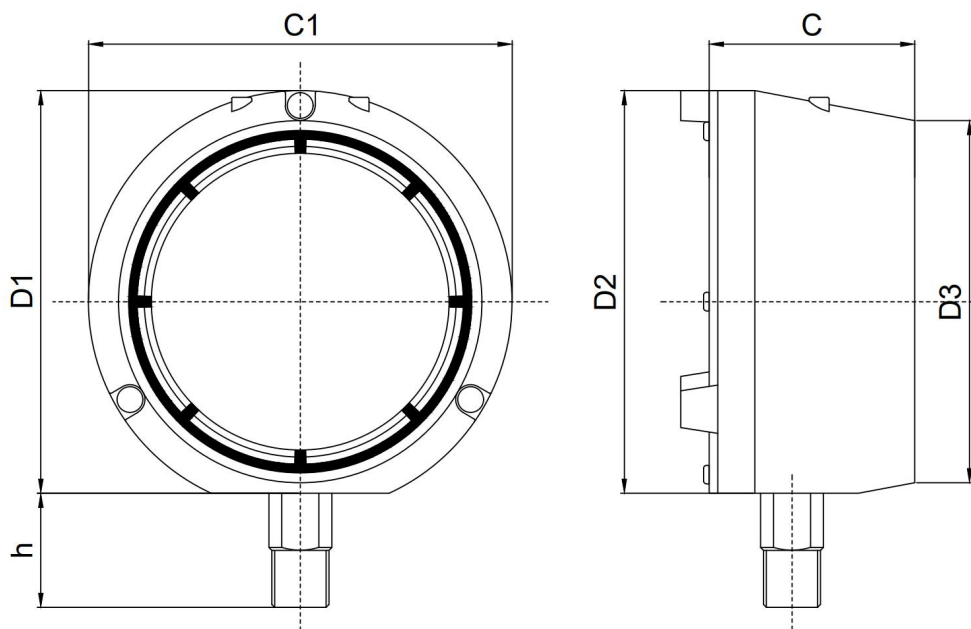
Products to be packaged

Main Technical Parameters	Dial Specification	Φ100mm, Φ112mm (mainstream safety size)
	Accuracy Class	Class 0.5, Class 1.0, Class 1.6
	Measurement Range	−0.1–100Mpa. Full range of negative pressure, micro–pressure, low pressure, medium pressure and high pressure, customizable.
	Connection Thread	M20×1.5, 1/2NPT, BSP1/2 and other conventional & customized threads.
	Operating Temperature	Environment: −40℃ ~ +65℃ ; Medium: Max 100℃
	Protection Level	IP65
	Installation Method	Radial direct installation, axial flanged installation
	Liquid Filling Option	Dry type, glycerin–filled (anti–vibration), silicone oil–filled (high–temperature resistance)

Product Series Classification	Ordinary Dry Type	No liquid filling, cost–effective, suitable for stable environments with no obvious vibration.
	Vibration–resistant Liquid–filled Type	Filled with damping liquid, resistant to vibration and pressure fluctuation, suitable for pumps, compressors and other vibrating equipment.
	Special Anti–corrosion Type	Upgraded anti–corrosion wetted parts, suitable for strong corrosive media such as strong acid and alkali.
	Explosion–proof Safety Type	Complete explosion–proof and pressure–relief structure, suitable for flammable and explosive hazardous areas.

Applicable Industries & Scenarios	Industries: Petrochemical, fine chemical, environmental protection, papermaking, printing and dyeing, mining, pharmaceutical, food processing, etc. Scenarios: Corrosive medium sites, flammable and explosive workshops, outdoor open–air installation, vibrating equipment pipelines, high–humidity environments.
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Installation & Operation Instructions	Prefer vertical installation, keep away from severe impact, high temperature and strong corrosive spray.
	For vibrating pipelines, select liquid-filled anti-vibration models and install buffer tubes if necessary.
	Confirm the wetted material matches the medium to avoid corrosion damage.
	Regularly inspect and calibrate to ensure measurement accuracy and operational safety.
	Follow on-site explosion-proof regulations when used in flammable and explosive areas.
Customization Services	Color Dial
	Customized thread, range and installation method;
	Special material customization for strong corrosive media
	Customized liquid filling and high-temperature resistance requirements.



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Dimensions in mm					
D1	D2	D3	C	C1	h
141[5.55]	141[5.55]	127[5]	72[2.83]	148[5.82]	40[1.57]

British Standard Pipe Thread 55° G Parallel Pipe Thread (Non-Sealing)

Specification	Major Diameter	Pitch	Dial Size	Application
G1/8"	9.728	0.907	Φ40/Φ50	Mini gauges
G1/4"	13.157	1.337	Φ50/Φ60	Small gauges
G3/8"	16.662	1.337	Φ60/Φ100	Small-medium gauges
G1/2"	20.955	1.814	Φ100/Φ150	Standard gauges
G3/4"	26.441	1.814	Φ150	Large-bore gauges

R/ZG Conical Pipe Thread (Sealed)Dental angle 55 °

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R1/4" (ZG)	13.157	1.337	Φ50/Φ60	Small sealed gauges
R3/8" (ZG)	16.662	1.337	Φ60/Φ100	Small-medium sealed gauges
R1/2" (ZG)	20.955	1.814	Φ100/Φ150	Standard sealed gauges

American NPT taper pipe thread 60 °

1/8 NPT	27	10.242	0.941	Φ40/Φ50	Mini sealed gauges
1/4 NPT	18	13.616	1.411	Φ50/Φ60	Small sealed gauges
3/8 NPT	18	17.055	1.411	Φ60/Φ100	Small-medium sealed gauges
1/2 NPT	14	21.223	1.814	Φ100/Φ150	Standard sealed gauges
3/4 NPT	14	26.568	1.814	Φ150	Large-bore sealed gauges

Accuracy specifications

Accuracy class	1.6 1.0 0.5
Zero point setting	
Instruments with case filling	Without External setting
Instruments without case filling	Without Setting by means of adjustable pointer
Influence of static pressure	Depending on scale range and pressure rating

Scale ranges

mbar	
0...60	0...1,000
0...100	0...1,100
0...160	0...1,200
0...250	0...1,600
0...400	0...2,500
0...600	—

psi	
0...10	0...200
0...15	0...250
0...30	0...300
0...60	0...400
0...100	0...500
0...150	0...600
0...160	—

bar	
0...0.25	0...7
0...0.4	0...10
0...0.6	0...14
0...1	0...16
0...1.6	0...20
0...2.5	0...25
0...4	0...30
0...6	0...40

kPa	
0...6	0...300
0...10	0...400
0...16	0...600
0...25	0...700
0...40	0...800
0...60	0...1,000
0...70	0...1,400
0...100	0...1,600
0...160	0...2,500
0...200	0...3,000
0...250	0...4,000

Further details on : scale ranges

Unit	Mbar Bar Psi kPa Mpa	mmH ₂ O inH ₂ O Kg/cm ² Oz/cm ²
Overload safety and max. working pressure (static pressure)		
Pressure ratings PN 40 ... PN 400	Max. 40, 100, 250 or 400 bar [580, 1,450, 3,625 or 5,800 psi]On one, both and alternatingly on the and sides	
Pressure rating PN 650	Max. 400 bar [5,800 psi] on one side and alternatingly on the und sidesMax. 650 bar [9,425 psi] on both sides on the and sides	
Dial		
Scale layout	Single scale Dual scale	
Scale colour	Single scale	Black
	Dual scale	Black/red
Material	Aluminium	
Customer-specific version	Without With special scale, e.g. linear pressure root incrementation	
	Other scales, e.g. with red mark, circular arcs or circular sectors, on request	
Pointer		
Instrument pointer	With case filling	Standard pointer, aluminium, black
	Without case filling	Adjustable pointer, aluminium, black
Mark pointer/drag pointer	Without Mark pointer on bayonet ring, adjustable	
Pointer stop pin	Without At 6 o'clock	

Installation method	schematic diagram
Bottom mounting	
Back mounting	
Side mounting, 9 or 3 o'clock	
Bottom with back flange	
Back with U clamp	
Bottom panel With front flange	
Side panel with front flange	

Product Introduction

Photo of phenolic pressure gauge

