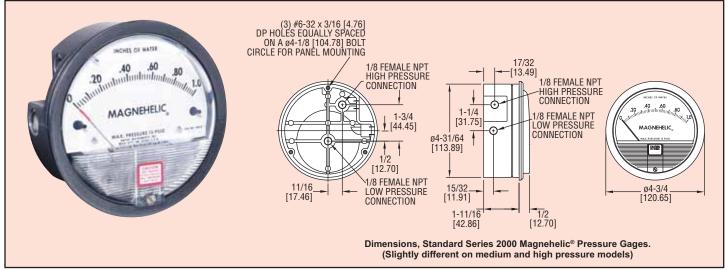


Series

Magnehelic® Differential Pressure Gages Indicate Positive, Negative or Differential, Accurate within 2%



Select the Dwyer® Magnehelic® gage for high accuracy – guaranteed within 2%of full scale - and for the wide choice of 81 models available to suit your needs precisely. Using Dwyer's simple, frictionless Magnehelic® gage movement, it quickly indicates low air or non-corrosive gas pressures - either positive, negative (vacuum) or differential. The design resists shock, vibration and over-pressures. No manometer fluid to evaporate, freeze or cause toxic or leveling problems. It's inexpensive, too.

The Magnehelic® gage is the industry standard to measure fan and blower pressures, filter resistance, air velocity, furnace draft, pressure drop across orifice plates, liquid levels with bubbler systems and pressures in fluid amplifier or fluidic systems. It also checks gas-air ratio controls and automatic valves, and monitors blood and respiratory pressures in medical care equipment.

Note: May be used with Hydrogen. When ordering a Buna-N diaphragm pressures must be less than 35 psi.

Mounting

A single case size is used for most models of Magnehelic® gages. They can be flush or surface mounted with standard hardware supplied. With the optional A-610 Pipe Mounting Kit they may be conveniently installed on horizontal or







Flush...Surface... or Pipe Mounted

vertical 1-1/4" - 2" pipe. Although calibrated for vertical position, many ranges above 1" may be used at any angle by simply re-zeroing. However, for maximum accuracy, they must be calibrated in the same position in which they are used. These characteristics make Magnehelic® gages ideal for both stationary and portable applications. A 4-9/16" hole is required for flush panel mounting. Complete mounting and connection fittings plus instructions are furnished with each instrument.



Vent Valves

In applications where pressure is continuous and the Magnehelic® gage is connected by metal or plastic tubing which cannot be easily removed, we suggest using Dwyer A-310A vent valves to connect gage. Pressure can then be removed to check or re-zero the gage.



High and Medium Pressure Models

Installation is similar to standard gages except that a 4-13/16" hole is needed for flush mounting. The medium pressure construction is rated for internal pressures up to 35 psig and the high pressure up to 80 psig. Available for all models. Because of larger case, the medium pressure and high pressure models will not fit in a portable case size. Installation of the A-321 safety relief valve on standard Magnehelic® gages often provides adequate protection against infrequent overpressure.

SPECIFICATIONS

Service: Air and non-combustible, compatible gases. (Natural Gas option available.)

Wetted Materials: Consult factory.

Housing: Die cast aluminum case and bezel, with acrylic cover. Exterior finish is coated gray to withstand 168 hour salt spray corrosion test.

Accuracy: ±2% of full scale (±3% on - 0, -100 Pa, -125 Pa, 10MM and ±4% on - 00, -60 Pa, -6MM ranges), throughout range at 70°F (21.1°C).

Pressure Limits: -20" Hg. to 15 psig.† (-0.677 bar to 1.034 bar); MP option: 35 psig (2.41 bar), HP option: 80 psig (5.52 bar).

Overpressure: Relief plug opens at approximately 25 psig (1.72 bar), standard gages only.

Temperature Limits: 20 to 140°F.* (-6.67 to 60°C).

Size: 4" (101.6 mm) Diameter dial face.

Mounting Orientation: Diaphragm in vertical position. Consult factory for other position orientations.

Process Connections: 1/8" female NPT duplicate high and low pressure taps - one pair side and one pair back.

Weight: 1 lb 2 oz (510 g), MP & HP 2 lb 2 oz (963 g).

Standard Accessories: Two 1/8" NPT plugs for duplicate pressure taps, two 1/8" pipe thread to rubber tubing adapter and three flush mounting adapters with screws. (Mounting and snap ring retainer substituted for 3 adapters in MP & HP gage accessories.)

*Low temperature models available as special option.

†For applications with high cycle rate within gage total pressure rating, next higher rating is recommended. See Medium and High pressure options at lower left.

OPTIONS AND ACCESSORIES



Transparent Overlays

Furnished in red and green to highlight and emphasize critical pressures.

Adjustable Signal Flag

Integral with plastic gage cover. Available for most models except those with medium or high pressure construction. Can be ordered with gage or separate.



LED Setpoint Indicator

Bright red LED on right of scale shows when setpoint is reached. Field adjustable from gage face, unit operates on 12-24 VDC. Requires MP or HP style cover and



A-432 Portable Kit

Combine carrying case with any Magnehelic® gage of standard range, except high pressure connection. Includes 9 ft (2.7 m) of 3/16" I.D. rubber tubing, standhang bracket and terminal tube with holder.



A-605 Air Filter Gage Accessory Kit Adapts any standard Magnehelic® gage for use as an air filter gage. Includes aluminum surface mounting bracket with screws, two 5 ft (1.5 m) lengths of 1/4" aluminum tubing two static pressure tips and two molded plastic vent valves, integral compression fittings on both tips and valves.

Quality design and construction features

Bezel provides flange for flush mounting in panel.

Clear plastic face is highly resistant to breakage Provides undistorted viewing of pointer and scale.

Precision litho-printed scale is accurate and easy to

Red tipped pointer of heat treated aluminum tubing is easy to see. It is rigidly mounted on the helix shaft.

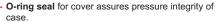
Pointer stops of molded rubber prevent pointer over-travel without damage.

"Wishbone" assembly provides mounting for helix, helix bearings and pointer shaft.

Jeweled bearings are shock-resistant mounted; provide virtually friction-free motion for helix. Motion damped with high viscosity silicone fluid.

Zero adjustment screw is conveniently located in the plastic cover, and is accessible without removing cover. O-ring seal provides pressure tightness.

Helix is precision made from an alloy of high magnetic permeability. Mounted in jeweled bearings, it turns freely, following the magnetic field to move the pointer across the scale.



Blowout plug of silicone rubber protects against overpressure on 15 psig rated models. Opens at approximately 25 psig.

Die cast aluminum case is precision made and iridite-dipped to withstand 168 hour salt spray corrosion test. Exterior finished in baked dark gray hammerloid. One case size is used for all standard pressure options, and for both surface and flush

Silicone rubber diaphragm with integrally molded O-ring is supported by front and rear plates. It is locked and sealed in position with a sealing plate and retaining ring. Diaphragm motion is restricted to prevent damage due to overpressures.

Calibrated range spring is flat spring steel. Small amplitude of motion assures consistency and long life. It reacts to pressure on diaphragm. Live length adjustable for calibration

Samarium Cobalt magnet mounted at one end of range spring rotates helix without mechanical linkages.

Series 2000 Magnehelic® Gage — Models and Ranges
Page V shows examples of special models built for OEM customers. For special scales furnished in ounces per square inch, inches of mercury, metric units, square root scales for volumetric flow, etc., contact the factory.

Model Of Water Model PSI Model Of Water Model KPa Of Water Model KPa	Dual Scale Air Velocity Units For use with pitot tube							I i		
2000-00N†** 0.5-0-2 2201 01 2000-6MM†** 06 2000-0.5KPA 00.5 2000-0.5 2000-00** 025 2202 02 2000-10MM†** 010 2000-15KPA 01 2000-25KPA 02 2000-15KPA 02 2000-25KPA 02 2000-25KPA 02 2000-25KPA 02 2000-25KPA 02 2000-00AV†** 02501 2000-3KPA 03 2000-25KPA 02 2000-00AV†** 02501 2000-3KPA 03 2000-00AV†** 050/5 2000-3KPA 04 2000-00AV†** 050/5 2000-10MM 010 2000-5KPA 04 2000-00AV†** 050/5 2000-15KPA 05 2000-15KPA 01 2000-25KPA 02 2000-25KPA							Range			
2000-00++-										
2000										
2000-07+	ge in W.C./									
2001	city F.P.M.									
2002 0-2.0 2210* 0-10 2000-50MM 0-50 2000-3KPA 0-3 0-50/50 0-50/50 0-150 0-1	5/300-2000		0-2							
2004 0-4.0 2215* 0-15 2000-80MM 0-80 2000-4KPA 0-4 2000-9AVT* 0-30/50/50 2000-125MM 0-100 2000-5KPA 0-8 2000-10KPA 0-10 2000-15KPA 0-8 2000-10KPA 0-10 2000-15KPA 0-10 2000-25KPA 0-25 2000-25KPA	7000 2000	2000 007101	0-2.5							
2004)/500-2800	2000-04V+•								
2006 0-6.0 2008 0-8.0 2008 0-8.0 2000-150MM 0-150MM 0-150MM 0-150MM 0-100 2000-10KPA 0-10 2000-10KPA 0-10 2000-20VMM 0-200 2000-10KPA 0-10 2000-20VMA 0-20 2000-10KPA 0-10 2000-20VMA 0-20 2000-20KPA 0-20 2000-20KPA 0-20 2000-20KPA 0-20 2000-20KPA 0-20 2000-20KPA 0-25 2000-20KPA 0-010 2000-25KPA 1-0-10 2000-25KPA 1-0-10 2000-25KPA 1-0-10 2000-25KPA 1-0-10 2000-25KPA 1-0-10 2000-25KPA 1-0-10 2000-25KPA 1-25-0-1.25 2000-25KPA 1-25-0-1.25 2000-25KPA 1-25-0-1.25 2000-25KPA 1-25-0-1.5 2000-25KPA	7000 2000	2000 0/10	0-4							
2006)/500-4000	2001ΔV								
Range	7000 4000	LOUIA	0-8				0-30	2230**		
2010	0/1000-5600	2002 4\/								
Description of the image of t	71000-3000	2002AV	0-15	2000-15KPA			Range,			
2015	1/2000 8800	2005 4\/	0-20	2000-20KPA		2000-250MM	CM of			
2025 0-25 2000-20CM 0-20 2300-6MM†** 3-0-3 2300-10FA 5-0-5 2300-10FA 5-0-5 2300-10FA 10-0-10 2300-2FA 1-0-1 2300-2FA	12000-0000	2003AV	0-25	2000-25KPA			Water	Model		
2005 0-25 2000-29CM 0-25 2300-10MM†* 5-0-5 2300-1KPA 5-0-5 2300-2KPA 1-0-1 2300-3KPA 1-0-1 2300-3KPA	/2000-12500	2010 6\/	0-30	2000-30KPA	nter Ranges	Zero Cei	0-15	2000-15CM	0-20	2020
2040 0-40 2000-50CM 0-50 2000-80CM 0-80 2000-80CM 0-80 2000-100CM 0-100 2000-60PA↑+ 0-100 2000-200CM 0-200 2000-100CM 0-200 2000-100PA 0-100 2000-200CM 0-200 2000-100PA 0-250 2000-100PA 0-250 2000-00P↑ 0-0.5 0-125 Pa 2000-100PA 0-500 2000-00P↑ 0-0.5 0-125 Pa 2000-100PA 0-500 2001D 0-1.0 0-250 Pa 2000-100PA 0-100 X 10 2003D 0-3.0 0-750 Pa	2000-12300	ZUTUAV	inter Kanges		3-0-3	2300-6MM†••	0-20	2000-20CM	0-25	2025
2050 0-50 2000-80CM 0-80 2000-100CM 0-100 2000-60NPA†** 10-0-50 2000-30CM 0-250 2000-250CM 0-250 2000-300CM 0-300 2000-300PA 2000-300PA 2000-300PA 2000-500PA 2000-500PA 2000-500PA 2000-250PA 2000-250PA 2000-250PA 2000-250PA 2000-250PA 2000-250PA 2000-250PA 2000-300PA 2000					5-0-5	2300-10MM†•	0-25	2000-25CM	0-30	2030
2000 0-60 2000-100CM 0-100 2000-60NPA†** 10-0-50 2000-60NPA†** 10-0-50 2000-200CM 0-250 2000-250CM 0-250 2000-250PA 2000					10-0-10	2300-20MM†•	0-50	2000-50CM	0-40	2040
2000 0-60 0-60 2000-100CM 0-100 2000-60NPA†** 10-0-50 0-60 0-100 2000-200CM 0-200 2000-100PA†** 0-100 2000-250CM 0-250 2000-125PA†* 0-125 2000-125PA†* 0-125 2000-250CM 0-300 2000-250PA 0-250 2					Range, Pa	Model	0-80	2000-80CM	0-50	2050
2080			1.5-0-1.5	2300-3KPA			0-100	2000-100CM	0-60	2060
2100	Dual Scale English/Metric Models					0-150	2000-150CM	0-80	2080	
2120							0-200	2000-200CM	0-100	2100
2150				Model			0-250	2000-250CM	0-120	2120
2160							0-300	2000-300CM	0-150	2150
2180							nter Ranges	Zero Cer	0-160	2160
2250 0-250 2300-40 M 2-0-2 2000-750 PA 0-750 2002 D 0-2.0 0-500 Pa 2300-30 CM 15.0.15 2500-100 PA 0-100 x 10 2003 D 0-3.0 0-750 Pa 2002 D 0-750 Pa 2002 D 0-750 Pa 2003 D 2003									0-180	2180
Zero Center Ranges 2300-30CM 15-0-15 2000-1000PA 0-100 x 10 2003D 0-3.0 0-750 Pa									0-250	2250
									Center Ranges	Zero
2300-00†•• 0.125-0-0.125 Zero Center Ranges 2004D 0-4.0 0-1.0 kPa					nter Ranges		15-0-15	2300-30CM		
	0-1.25 kPa									
	0-1.5 kPa						nges calibrated	†These ran		
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	0-2.5 kPa						The second second processes			
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7100dracy 1/ 4/0		0-5.7 KFa 0-5 kPa					*MP option standard			
10 0 10	0-5 KPa 0-6.2 kPa									
2330 15-0-15 **HP option standard 2300-300PA 150-0-150 2025D 0-25 0-6.2 kPa 2300-500PA 250-0-250 2050D 0-50 0-12.4 kPa							standard	HP option	15-0-15	2330
2300-1000PA 500-0-500 2000D 0-60 0-154 PPa										

ACCESSORIES

A-299, Surface Mounting Bracket

A-300, Flat Flush Mounting Bracket A-310A, 3-Way Vent Valve A-321, Safety Relief Valve

A-432, Portable Kit
A-448, 3-piece magnet kit for mounting Magnehelic® gage directly to magnetic surface

A-610, Pipe Mount Kit

OPTIONS - To order, add suffix: I.E. 2001-ASF

ASF, Adjustable Signal Flag
HP, High Pressure Option
LT, Low Temperatures to -20°F
MP, Med. Pressure Option

SP, Setpoint Indicator

Scale Overlays, Red, Green, Mirrored or Combination, Specify Locations