**Differential Pressure Gages**

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, levels with bubbler systems and pressures in fluid amplifier or fluidic systems. It also resists shock, vibration and over-pressures. No manometer fluid to evaporate, freeze or cause toxic or leveling problems. It’s inexpensive, too.

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 or surface mounted with standard hardware supplied. Although calibrated for vertical position, many ranges above 1˝ may be used at any angle by simply re-zeroing.

Flush, Surface or Pipe Mounted

A single case size is used for most models of Magnehelic® gages. They can be flush or surface mounted with standard hardware supplied. 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. See pages 6 and 7 for more information on mounting accessories.

**SPECIFICATIONS**

- **Service:** Air and non-combustible, compatible gases (natural gas option available).
- **Note:** May be used with hydrogen. Order a Buna-N diaphragm. Pressures must be less than 35 psi.
- **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 FS (+33% on -0, -100 Pa, -125 Pa, 10MM and ±4% on -0, -60 Pa, -6MM ranges), throughout range at 70°F (21.1°C).
- **Pressure Limits:** -20 in Hg to 15 psig† (-0.677 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. See Overpressure Protection Note on next page.
- **Temperature Limits:** 20 to 140°F (-6.67 to 60°C), -20°F (-28°C) with low temperature option.
- **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 three adapters in MP & HP gage accessories.)
- **Agency Approval:** RoHS. Note: -SP models not RoHS approved. 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.

**ACCESSORIES**

**Model 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˝ ID rubber tubing, standhng bracket and terminal tube with holder.

**Model 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.

**A-605B Air Filter Gage Accessory Kit**

Air filter kit with two plastic open/close valves, two 4˝ steel static tips, plastic tubing and mounting flange.

**A-605C Air Filter Gage Accessory Kit**

Air filter kit with two plastic open/close valves, two plastic static tips, plastic tubing and mounting flange.
### Scales are available on the Magnehelic® that read in velocity units (FPM, m/s) or volumetric flow units (SCFM, m³/s, m³/h). Stocked velocity units with dual range scales in inches w.c. and feet per minute are shown above. For other ranges contact the factory.

### VELOCITY AND VOLUMETRIC FLOW UNITS

<table>
<thead>
<tr>
<th>Model</th>
<th>Range Inches of Water</th>
<th>Model</th>
<th>Range FPM</th>
<th>Model</th>
<th>Range MM of Water</th>
<th>Model</th>
<th>Range SCFM</th>
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### ACCESSORIES

- **A-321**, Safety Relief Valve
- **A-448**, 3-piece magnet kit for mounting Magnehelic® gage directly to magnetic surface.
- **A-135**, Rubber gasket for panel mounting

### OVERPRESSURE PROTECTION

Blowout plug is comprised of a rubber plug on the rear which functions as a relief valve by unseating and venting the gage interior when over pressure reaches approximately 25 psi (1.7 bar). To provide a free path for pressure relief, there are four spacer pads which maintain 0.023” clearance when gage is surface mounted. Do not obstruct the gap created by these pads. The blowout plug is not used on models above 180° water pressure, medium or high pressure models, or on gages which require an elastomer other than silicone for the diaphragm.

Blowout plug should not be used as a system overpressure control. High supply pressures may still cause the gage to fail due to over pressurization, resulting in property damage or serious injury. Good engineering practices should be utilized to prevent your system from exceeding the ratings or any component.

### Die cast aluminum case is precision made and ridge-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 mounting.

### 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.

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