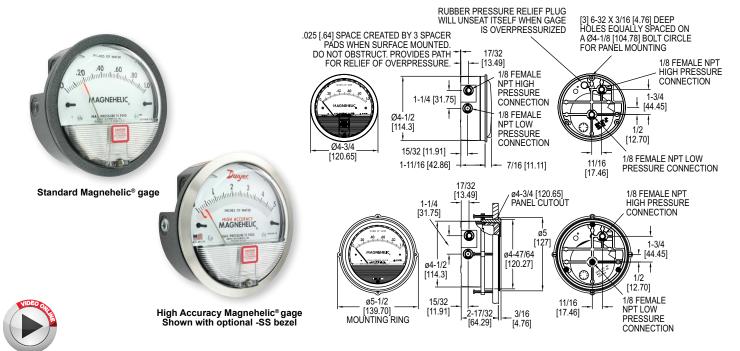
### Dwyer. **SERIES 2000 MAGNEHELIC® DIFFERENTIAL PRESSURE GAGES** Indicate Positive, Negative or Differential, Accurate within 1%



CALIBRATION SERVICES AVAILABLE



Select the Series 2000 Magnehelic® Differential Pressure Gages for a versatile low differential pressure gage with a wide choice of 81 models and 27 options to choose from. Using Dwyer's simple, frictionless Magnehelic® gage movement, it quickly indicates air or non-corrosive gas pressures--either positive, negative (vacuum) or differential. The design resists shock, vibration, over-pressures and is weatherproof to IP67

Select the –HA High Accuracy Magnehelic<sup>®</sup> gage option for an accuracy within 1% of full-scale. Also included with the –HA option at no extra cost are a mirrored scale overlay and a 6 point calibration certificate.

#### **BENEFITS/FEATURES**

- Easy to read gage through undistorted plastic face permits viewing from far away
   Patented design provides quick response to pressure changes means no delay in
- assessing critical situations Durable and rugged housing and high-quality components combine to provide long-service life and minimized down-time
- · High accuracy option is twice as accurate as the standard Magnehelic® gage

#### APPLICATIONS

- Filter monitoring
  Air velocity with Dwyer<sup>®</sup> pitot tube
- Blower vacuum monitoring
- Fan pressure indication
- Duct, room or building pressures
- Clean room positive pressure indication

#### ACCESSORIES

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A-605

#### 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.

Wetted Materias: 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% (-HA model ±1) of FS (±3% (-HA ±1.5%) on -0, -100PA, -125PA, -10MM and ±4% (-HA ±2%) on -00, -60PA, -6MM ranges), throughout range at 70°F

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). Enclosure Rating: IP67.

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). -20°F (-28°C) with low

temperature option.

Size: 4<sup>--</sup> (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

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 adaptor, and three flush mounting adapters with screws. (Mounting and snap ring retainer substituted for three adapters in MP & HP Compliance: Meets the technical requirements of EU Directive 2011/65/EU (RoHS

II). Note: -SP models not RoHS approved.

\*Low temperature models available as special options.

Note: For applications with high cycle rate within gage total pressure rating, next higher rating is recommended. See Medium and High pressure options.

California Proposition 65

▲ WARNING: This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

**Differential Pressure Gages** 

RESSURE

## SERIES 2000 **MAGNEHELIC® DIFFERENTIAL PRESSURE GAGES** Indicate Positive, Negative or Differential, Accurate within 1%



PRESSURE

CALIBRATION SERVICES AVAILABLE

Dwyer

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 read.

Calibrated range spring is flat spring steel. Small amplitude of on diaphragm. Live length adjustable for calibration.

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.

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.

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

#### O-ring seal for cover assures pressure integrity of case.

#### 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 psig (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" of water pressure, medium or high pressure models, or on gages which require an elastomer other than silicone for the diaphragm. The 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 of any component

**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 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.

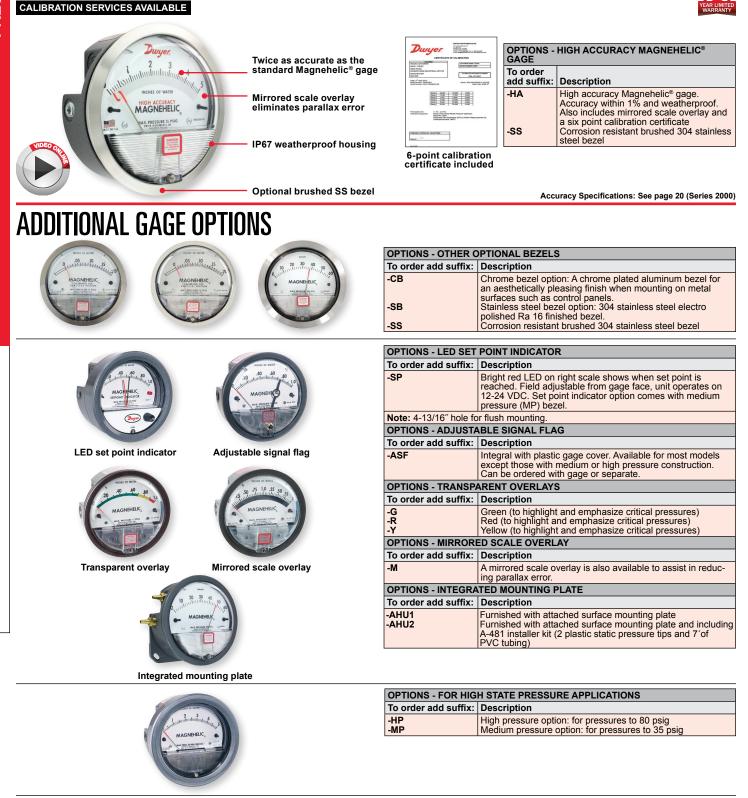
MODEL CH	MODEL CHART									
	Range,		_		Range,		_			
Model	Inches of Water	Model	Range, PSI	Model	MM of Water	Model	Range, kPa	For use with pi	r Velocity Units	
2000-00N+	.05-02		0-1	2000-6MM+••	0-6	2000-0.5KPA		I of use with pi	Range, in w.c./	
2000-00+	025 050 0-1.0		0-2	2000-10MM+•	0-10	2000-1KPA	0-1	Model	Velocity F.P.M.	
2000-0+•	050		0-3	2000-15MM	0-15	2000-1.5KPA		2000-00AV+••	025/300-2000	
2001	0-1.0	2204	0-4	2000-25MM	0-25	2000-2KPA	0-2		050/500-2800	
2002	0-2.0		0-5	2000-30MM	0-30	2000-2.5KPA			0-1.0/500-4000	
2003 2004	0-3.0 0-4.0		0-10 0-15	2000-50MM 2000-80MM	0-50 0-80	2000-3KPA 2000-4KPA	0-3 0-4	2002AV	0-2.0/1000-5600	
2004	0-4.0	2220*	0-15	2000-100MM	0-00	2000-4KPA	0-4		0-5.0/2000-8800	
2006	0-6.0		0-30	2000-125MM	0-125	2000-8KPA	0-8	2010AV	0-10/2000-12500	
2008	0-8.0		Range,	2000-150MM	0-150	2000-10KPA	0-10			
2010	0-10		CM of	2000-200MM	0-200	2000-15KPA	0-15			
2012	0-12	Model	Water	2000-250MM	0-250	2000-20KPA	0-20			
2015	0-15		0-15	2000-300MM	0-300	2000-25KPA	0-25			
2020	0-20		0-20			2000-30KPA	0-30			
2025 2030	0-25 0-30		0-25							
2030	0-30		0-50	Zene Orate D		Zama Canton				
2050	0-40	2000-80CM 2000-100CM	0-80	Zero Center Ra		Zero Center I		_		
2060	0-60	2000-150CM		2300-6MM†•• 2300-10MM†•	3-0-3 5-0-5	2300-1KPA 2300-2KPA	.5-05 1-0-1			
2080	0-80	2000-200CM		2300-20MM†•	10-0-10	2300-2.5KPA				
2100	0-100	2000-250CM	0-250	2000-2011111		2300-3KPA	1.5-0-1.5	'		
2120	0-120	2000-300CM	0-300	Model	Range, Pa					
2150 2160	0-150 0-160		_	2000-60NPA†••	10-0-50					
2160	0-160	Zero Center			0-30	Dual Scale E	nglish/Metri	ic Models		
2250*	0-250		2-0-2	2000-60PA†••	0-60		Range,	Range,		
2200	0 200		5-0-5 15-0-15	2000-100PA+• 2000-125PA+•	0-100 0-125	Model	in w.c.	Pa or kPa		VELOCITY AND
Zero Center	Panges	2300-3001	15-0-15	2000-1250PA	0-125	2000-00D+••	025	0-62 Pa		VOLUMETRIC FLOW UNITS
2300-00+**	0.125-0-0.125	-		2000-300PA	0-300	2000-0D+•	0-0.5	0-125 Pa		Scales are available on the
2300-0+•	.25-025			2000-500PA	0-500	2001D	0-1.0	0-250 Pa		Magnehelic <sup>®</sup> gage that read in velocity units (FPM, m/s) or
2301	.5-05			2000-750PA	0-750	2002D	0-2.0	0-500 Pa		volumetric flow units (SCFM,
2302	1-0-1			2000-1000PA	0-1000	2003D 2004D	0-3.0 0-4.0	0-750 Pa 0-1.0 kPa		$m^3/s$ , $m^3/h$ ).
2304	2-0-2 5-0-5			Zero Center Ra			0-4.0	0-1.25 kPa		Stocked velocity units with dual
2310				Model	Range, Pa	2006D	0-6.0	0-1.5 kPa		range scales in inches w.c.
2320 2330	10-0-10 15-0-15			2300-60PA†••	30-0-30 50-0-50	2008D	0-8.0	0-2.0 kPa		and feet per minute are shown
2330	15-0-15			2300-100PA†• 2300-120PA	60-0-50	2010D	0-10	0-2.5 kPa		above. For other ranges contact
				2300-200PA	100-0-100	2015D	0-15	0-3.7 kPa		the factory.
				2300-250PA	125-0-125	2020D	0-20	0-5 kPa		When ordering volumetric flow scales please specify
				2300-300PA	150-0-150	2025D	0-25	0-6.2 kPa		the maximum flow rate and its
				2300-500PA	250-0-250	2050D	0-50 0-60	0-12.4 kPa		
				2300-1000PA	500-0-500	2060D		0-15 kPa		corresponding pressure. Example: 0.5 in w.c. = 16,000
		or vertical scale	position	<ol> <li>Accuracy ±3%</li> </ol>	6. •• Accurac	<u>cy ±4%. *MP o</u>	ption standar	rd. **HP option s	standard.	CFM.
ACCESSOR	IES									
	scription									
	A-135 Rubber gasket for panel mounting									
				pressure is conti				A-310A		
con	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 USA: California Proposition 65							oposition 65		
		s to connect ga	age. Pres	ssure can then b	e removed t	o check or re-z	ero the gage		MARNING: This p	product can expose you to chemicals
	A-321 Safety relief valves to connect gage. Pressure can then be removed to check of re-2ero the gage A-401 Plastic carry case									
A-401 Plastic carry case cause cancer and birth defects or other reproductive harm. A-448 3-piece magnet kit for mounting Magnehelic <sup>®</sup> gage directly to magnetic surface cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.										
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Differential Pressure Gages

PRESSURE

# IIGH ACCURACY MAGNEHELIC® DIFFERENTIAL PRESSURE GAGE





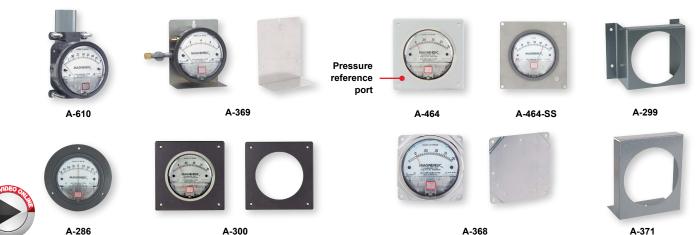
OPTIONS	
To order add suffix:	Description
-LT	Factory calibration certificate Low temperatures to -20°F (-28°C) NIST traceable calibration certificate

USA: California Proposition 65

WARNING: This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



## MAGNEHELIC<sup>®</sup> GAGE MOUNTING ACCESSORIES



ACCESSORIES

Model

A-286

A-299

A-300

A-368

A-369

A-371

A-464

A-610

A-464-SS

Description

Flush mounting bracket

pressure (-HP) models only

Flush mount kit for Magnehelic® gage

Magnehelic<sup>®</sup> gage panel mounting flange

Mounting bracket, flush mount for Magnehelic® gage, bracket is then

Surface mounting bracket, use with medium pressure (-MP) or high

Pipe mounting kit for installing on 1-1/4" to 2" horizontal or vertical pipe

surface mounted, steel with gray hammerloid epoxy finish

Surface mounting plate, aluminum, for Magnehelic® gage

Stand-hang bracket, aluminum, for Magnehelic® gage

Stainless steel flush mount kit for Magnehelic® gage

A single case size is used for most models of Magnehelic<sup>®</sup> gages. They can be flush or surface mounted with standard hardware supplied. Complete mounting and connection fittings plus instructions are furnished with each instrument. A 4-9/16" hole is required for flush panel mounting.

Flush mounting is easily accomplished with the new A-300 Flush Mounting bracket. This bracket provides a solution to quickly and conveniently flush mount the Magnehelic<sup>®</sup> gage. The A-300 is ideal for mounting the Magnehelic<sup>®</sup> gage on control panel doors.

The A-368 is a simple bracket for quickly surface mounting the Magnehelic<sup>®</sup> gage. After securing the Magnehelic<sup>®</sup> gage to the A-368 bracket, mount the bracket on any flat surface.

The A-369 allows the Magnehelic<sup>®</sup> gage to be easily carried to locations where pressure readings need to be taken. The A-369 can stand on its own or hang on a nail or hook.

SER	ES	A-320	

### INSTRUMENT ENCLOSURES Protects Various Instruments



The **Series A-320 Instrument Enclosures** protect instruments in all applications. The enclosures, available in plastic and stainless steel, fit a variety of gages including the Series 605 transmitter, DM-2000, 3000MR/MRS and DH3. All models include silicone tubing, Banjo fittings, and threaded pressure connections pre-installed. The threaded pressure connections allow the user to easily change the connection type through the use of fittings or adapters. This modification can be implemented to allow connection to a wide variety of plastic or metal tubing.

MODEL CHART		
Model	Description	
A-320-A1	2000 Magnehelic <sup>®</sup> gage	
A-320-B1*	3000MR/MRS Photohelic <sup>®</sup> switch/gage, Series 605 Magnehelic <sup>®</sup>	
	differential pressure transmitter, DH3 Digihelic® pressure controller,	
	2000 Magnehelic <sup>®</sup> gage with medium and high pressure options	
A-320-BC	2000 Magnehelic <sup>®</sup> gage, DM-1000 DigiMag <sup>®</sup> digital differential	
	pressure gage, DM-2000 differential pressure transmitter, instruments	
	with backwards compatible bezel option	
A-320-A-SS	2000 Magnehelic <sup>®</sup> gage	
A-320-B-SS	2000 Magnehelic <sup>®</sup> gage, DM-2000 differential pressure transmitter	
*For DH3 to fit on A-320-B1 the casing on the electrical plug must be removed.		

#### SPECIFICATIONS

Housing Material: ABS plastic or 304 SS. Process Connection: 1/8" female NPT (-SS models: 1/8" BSPT).

Enclosure Rating: Plastic models: IP66.

Weight: A-320-A1: 1.1 lb (0.5 kg); A-320-B1: 1.4 lb (0.65 kg); A-320-BC: 1.4 lb (0.65 kg); A-320-A-SS: 2.3 lb (1.05kg); A-320-B-SS: 3.0 lb (1.35 kg).

ACCESSORIES			
Model	Description		
A-339-SS	1/8" male BSPT to 3/16" hose barb		

Differential Pressure Gages

PRESSURE