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› Dwyer Magnehelic Differential Pressure Gage, 2010AV User Manual

Dwyer 2010AV

Dwyer® Magnehelic® Differential Pressure Gage

Model: 2010AV



INTRODUCTION

The Dwyer Magnehelic® Differential Pressure Gage is designed for high accuracy--guaranteed within 2% of full scale. It offers a wide range of models to precisely suit various application needs.

Utilizing Dwyer's simple, frictionless Magnehelic gage movement, this instrument provides quick indications of low air or non-corrosive gas pressures, whether positive, negative (vacuum), or differential. Its robust design ensures resistance to shock, vibration, and over-pressures. Unlike traditional manometers, it contains no fluid, eliminating issues such as evaporation, freezing, or toxic and leveling problems.

Key Features:

- **Service Compatibility:** Suitable for air and non-combustible, compatible gases. A natural gas option is also available.
- **Pressure Limits:** Operates within -20 in Hg. to 15 psig.
- **Temperature Limits:** Designed for use in temperatures ranging from 20 to 140°F (-6.67 to 60°C).
- **Process Connections:** Features 1/8" female NPT duplicate high and low pressure taps, with one pair located on the side and another on the back for flexible installation.

SETUP AND INSTALLATION

Proper installation is crucial for accurate readings and optimal performance of your Magnehelic® gage.

Mounting Orientation:

The standard mounting orientation for the Magnehelic® gage is with the diaphragm in a vertical position. This ensures the most accurate readings. If an alternative mounting position is required, please consult the manufacturer.

for specific guidance and potential calibration adjustments.

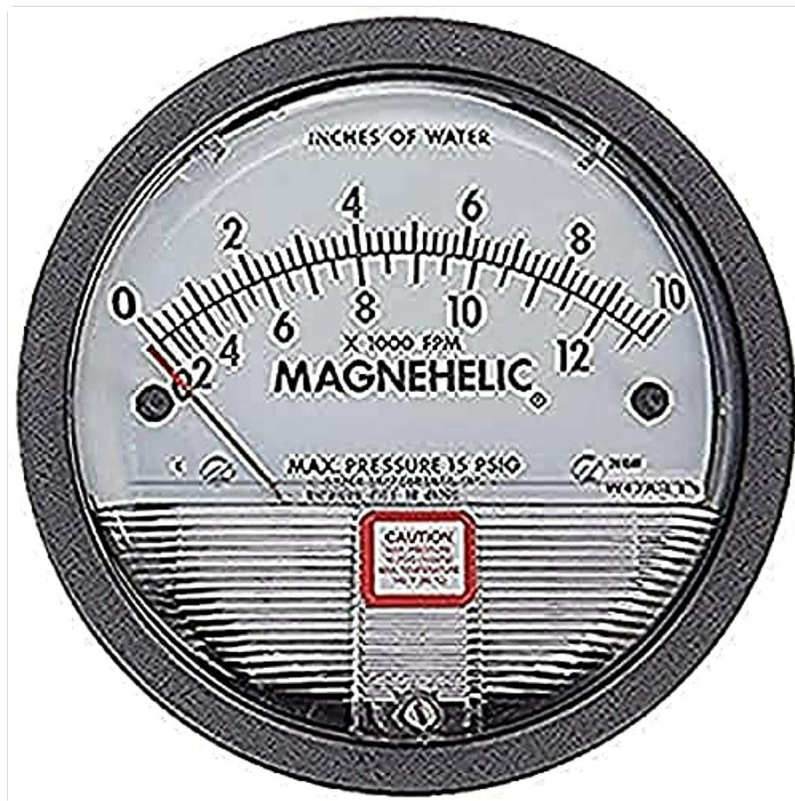


Figure 1: Front view of the Magnehelic® Gage, showing the dual scale for inches of water and FPM.

Process Connections:

The gage is equipped with 1/8" female NPT (National Pipe Taper) duplicate high and low pressure taps. These connections are provided on both the side and the back of the unit, offering flexibility for plumbing. Ensure all connections are sealed properly to prevent leaks, which can affect measurement accuracy.



Figure 2: Side view illustrating the 1/8" female NPT process connections for pressure input.

OPERATING INSTRUCTIONS

The Magnehelic® gage provides direct readings of differential pressure. Once installed and connected to the pressure source, the needle will indicate the pressure difference on the dial.

The Model 2010AV features a dual scale: 0 to 10 inches of water column (w.c.) and 2000 to 12500 FPM (Feet Per Minute). Read the appropriate scale based on your application. The frictionless movement ensures a quick and stable reading.

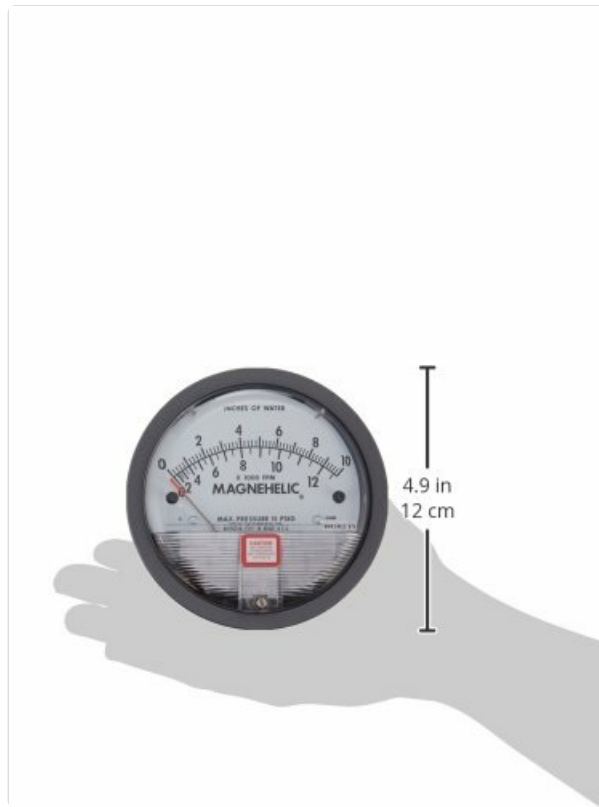


Figure 3: The compact size of the Magnehelic® Gage, shown with approximate dimensions for reference.

MAINTENANCE

The Dwyer Magnehelic® gage is designed for long-term, reliable operation with minimal maintenance. Due to its frictionless design, there are no moving parts that require lubrication or frequent adjustment.

- **Cleaning:** Periodically wipe the exterior of the gage with a soft, damp cloth to remove dust and grime. Avoid using harsh chemicals or abrasive cleaners, which could damage the casing or the clear viewing window.
- **Inspection:** Regularly inspect the pressure connections for any signs of wear, corrosion, or leaks. Ensure all fittings remain tight.
- **Storage:** If the gage is to be stored for an extended period, ensure it is kept in a clean, dry environment within its specified temperature limits.

TROUBLESHOOTING

While the Magnehelic® gage is highly reliable, certain issues may arise. Here are some common troubleshooting tips:

- **No Reading or Incorrect Reading:**
 - Verify that the pressure taps are correctly connected to the high and low pressure sources.
 - Check for any blockages in the pressure lines or the gage's taps.
 - Ensure there are no leaks in the connections.
 - Confirm the pressure being measured is within the gage's specified range.
- **Erratic or Fluctuating Readings:**
 - Check for pulsations in the pressure source. A snubber may be required for highly pulsating pressures.
 - Ensure the gage is mounted securely and not subject to excessive vibration.

- **Gage Appears Damaged:**
 - If the gage has been subjected to pressures exceeding its limits, internal damage may have occurred. The design resists over-pressures, but extreme conditions can still cause issues.
 - Contact Dwyer customer support for repair or replacement options.

For issues not covered here, or for advanced troubleshooting, please refer to the official Dwyer support resources or contact their technical support team.

SPECIFICATIONS

Attribute	Detail
Model Number	2010AV
Product Dimensions	24 x 24 x 24 inches (approximate shipping dimensions); 1.3 Pounds
Pressure Limits	-20 in Hg. to 15 psig
Temperature Limits	20 to 140°F (-6.67 to 60°C)
Service	Air and non-combustible, compatible gases (Natural Gas option available)
Mounting Orientation	Diaphragm in vertical position (consult factory for others)
Process Connections	1/8" female NPT duplicate high and low pressure taps - one pair side and one pair back
Manufacturer	Dwyer Instruments, Inc.
Material	Aluminum
UPC	094700981103

WARRANTY AND SUPPORT

Dwyer Instruments, Inc. products are manufactured under strict quality control standards. For specific warranty information regarding your Magnehelic® Differential Pressure Gage Model 2010AV, please refer to the documentation included with your purchase or visit the official Dwyer Instruments website.

For technical assistance, product inquiries, or service, please contact Dwyer Instruments customer support. Ensure you have your model number (2010AV) and any relevant purchase details ready when contacting support.

Online Resources: For additional information, product manuals, and FAQs, visit the official Dwyer Instruments website. You may also find helpful resources on the product's Amazon listing page.



