

Dwyer DM-2004

Dwyer Series DM-2000 Differential Pressure Transmitter User Manual

Model: DM-2004

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the Dwyer Series DM-2000 Differential Pressure Transmitter. The DM-2000 is designed to accurately sense the pressure of air and compatible gases, providing a standard 4-20 mA output signal. Its robust design and user-friendly features make it suitable for various industrial and scientific applications.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent personal injury and damage to the instrument:

- Ensure the power supply is disconnected before installation or maintenance.
- Only qualified personnel should perform installation and servicing.
- Do not exceed the specified pressure ratings.
- Use the transmitter only with air and compatible non-combustible gases.
- Protect the device from extreme temperatures, vibrations, and corrosive environments.

3. PRODUCT OVERVIEW

The Dwyer Series DM-2000 Differential Pressure Transmitter is engineered for precision and ease of use. Key features include:

- Measures differential pressure of air and compatible gases.
- Provides a standard 4-20 mA output signal.
- Designed for mounting in the same diameter cutout as a standard Magnehelic® gage.
- Features digital push-button zero and span for simplified calibration.
- Optional 3.5 digit LCD for displaying process and engineering units.

- Field-selectable engineering units (4 to 6 depending on range).
- Integrated pressure connections for quick installation.



Figure 1: Front view of the Dwyer Series DM-2000 Differential Pressure Transmitter. The display shows "1.000 IN WC" and the model "DM-2000 Pressure Transmitter" is visible below the display. Two circular buttons labeled "ZERO" and "SPAN" are located at the bottom.

4. SETUP AND INSTALLATION

Follow these steps for proper installation of the DM-2000 transmitter:

1. **Mounting:** The DM-2000 is designed for vertical mounting and fits into the same diameter cutout as a standard Magnehelic® gage. Ensure the mounting surface is stable and free from excessive vibration.
2. **Pressure Connections:** Connect the pressure tubing to the inherent pressure connections on the molded housing. Ensure connections are secure and leak-free.
3. **Electrical Wiring:** Connect the power supply and output signal wiring to the screw-type terminal block. Refer to the wiring diagram provided with your specific model for correct polarity and connections. Ensure power is off during wiring.

4. **Power On:** Once all connections are secure, apply power to the transmitter.

5. OPERATION

The DM-2000 is designed for straightforward operation. After installation and power-up, the transmitter will begin measuring differential pressure.

5.1. Zero and Span Calibration

The digital push-button zero and span features simplify calibration:

- **Zero Adjustment:** To set the zero point, ensure there is no pressure applied to the transmitter (or equal pressure on both ports for differential measurement). Press and hold the **ZERO** button until the display indicates zero or the output signal is 4 mA.
- **Span Adjustment:** To set the span, apply a known full-scale pressure to the transmitter. Press and hold the **SPAN** button until the display reads the correct full-scale value or the output signal is 20 mA.

Note: For precise calibration, refer to the detailed calibration procedure in the full technical manual or consult the factory.

5.2. Engineering Unit Selection (Optional LCD Models)

For models equipped with the 3.5 digit LCD, a single push button allows field selection of engineering units. The available units (typically 4 to 6) depend on the specific pressure range of your model. Consult the product's data sheet for the exact sequence and available units.

6. MAINTENANCE

The Dwyer Series DM-2000 Differential Pressure Transmitter requires minimal maintenance to ensure long-term reliable operation.

- **Cleaning:** Periodically clean the exterior of the transmitter with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Recalibration:** Regular recalibration is recommended to maintain accuracy, especially in critical applications. The frequency of recalibration depends on the application and environmental conditions.
- **Inspection:** Routinely inspect pressure connections and electrical wiring for any signs of wear, damage, or leaks.

7. TROUBLESHOOTING

This section provides solutions to common issues encountered with the DM-2000 transmitter.

Problem	Possible Cause	Solution
No display/No output	No power or incorrect wiring.	Check power supply and wiring connections. Ensure correct polarity.
Inaccurate readings	Needs calibration; pressure leaks; sensor damage.	Perform zero and span calibration. Check pressure connections for leaks. If problem persists, contact technical support.
Fluctuating readings	Unstable pressure source; electrical interference; vibration.	Ensure stable pressure. Check for sources of electrical noise. Secure mounting to reduce vibration.

If you encounter issues not listed here or if the suggested solutions do not resolve the problem, please contact Dwyer

8. SPECIFICATIONS

Parameter	Value
Model Number	DM-2004
Brand	Dwyer
Measurement Type	Differential Pressure
Compatible Gases	Air and non-combustible, compatible gases
Output Signal	4-20 mA
Calibration	Digital push-button zero and span
Electrical Connection	Screw-type terminal block
Mounting Orientation	Vertical
Material	Glass, Plastic
Package Dimensions	5.8 x 5.5 x 3.1 inches
Weight	1.1 Pounds
UPC	094704511443

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact Dwyer Instruments directly. Refer to the official Dwyer Instruments website or the product packaging for the most current contact details and warranty terms.

Manufacturer: Dwyer Instruments

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question