Dwyer MSX-W13-PA-LCD

Dwyer MSX-W13-PA-LCD Differential Pressure Sensor User Manual

Model: MSX-W13-PA-LCD

1. Introduction

This manual provides essential information for the safe and efficient operation, installation, and maintenance of the Dwyer MSX-W13-PA-LCD Differential Pressure Sensor. Please read this manual thoroughly before using the device to ensure proper functionality and to prevent potential hazards.
The Dwyer MSX-W13-PA-LCD is designed for accurate measurement of differential pressure in various industrial and HVAC applications. It features an integrated LCD for direct reading of pressure values.

2. Safety Information

WARNING:

- Always disconnect power before installation or maintenance to prevent electrical shock.
- Ensure all pressure connections are secure to prevent leaks and inaccurate readings.
- Installation and servicing should only be performed by qualified personnel.
- Do not exceed the specified pressure range or power supply voltage.
- Protect the device from extreme temperatures, moisture, and corrosive environments.

3. Product Overview

The Dwyer MSX-W13-PA-LCD differential pressure sensor is a compact device designed for precise pressure measurement. Key features include a clear LCD for local indication and robust construction for reliable performance.

Figure 3.1: Front view of the Dwyer MSX-W13-PA-LCD sensor, highlighting the MAGNESENSE MSX branding and the integrated LCD display.

Figure 3.2: Detailed front view of the sensor, displaying the Dwyer logo and the LCD screen, which typically shows pressure readings.

Figure 3.3: Side view of the sensor, featuring a label that specifies the model (MSX-W13-PA-LCD), pressure range (0 to 7000 Pa), and power requirements (24V AC/DC).

4. Setup and Installation

Proper installation is crucial for accurate performance. Follow these general guidelines:

1. **Mounting:** Securely mount the sensor in the desired location using the integrated mounting bracket. Ensure it is free from vibrations and excessive heat.
2. **Pressure Connections:** Connect the high and low pressure lines to the appropriate ports on the sensor. Use suitable tubing and ensure connections are airtight.
3. **Electrical Wiring:** Connect the power supply (24V AC/DC) to the sensor's terminals. Refer to the wiring diagram (if available in product packaging) for correct polarity and connections. Ensure all wiring complies with local electrical codes.
4. **Power On:** Once all connections are secure, apply power to the sensor. The LCD should illuminate and display readings.

5. Operating Instructions

The Dwyer MSX-W13-PA-LCD sensor is designed for straightforward operation:

- **Power-Up:** Upon applying power, the sensor will initiate and display the current differential pressure reading on the LCD.
- **Reading Display:** The LCD provides a direct digital readout of the measured pressure. The unit of measurement (e.g., Pa) may be indicated on the display or specified in the product documentation.
- **Zeroing (if applicable):** Some models may feature a zeroing function. Consult specific product documentation or the device itself for instructions on how to perform a zero adjustment, typically done at no pressure differential.

6. Maintenance

The Dwyer MSX-W13-PA-LCD sensor requires minimal maintenance to ensure long-term accuracy and reliability:

- **Cleaning:** Periodically clean the exterior of the sensor with a soft, damp cloth. Do not use abrasive cleaners or solvents. Ensure the LCD screen remains clear for visibility.
- **Pressure Port Inspection:** Regularly inspect pressure ports and tubing for any blockages, kinks, or leaks. Clear any debris that may affect pressure readings.
- **Calibration Check:** For critical applications, periodic calibration checks against a known standard are recommended to verify accuracy.

7. Troubleshooting

If you encounter issues with your sensor, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No display on LCD	No power or incorrect wiring.	Check power supply connections and voltage. Ensure correct polarity.
Inaccurate readings	Pressure leaks, blocked ports, incorrect zeroing, or sensor malfunction.	Inspect pressure connections for leaks. Clear any blockages. Perform zero adjustment if available. If problem persists, consider professional calibration or replacement.

Problem	Possible Cause	Solution
Fluctuating readings	Unstable pressure source, vibrations, or electrical interference.	Ensure stable pressure source. Mount sensor away from vibration sources. Check for proper grounding.

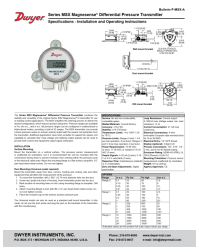
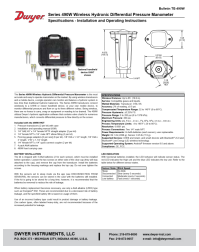
8. Specifications

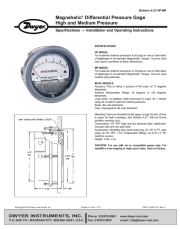
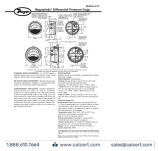
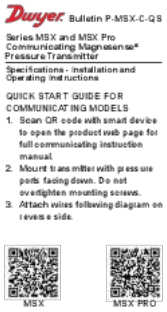
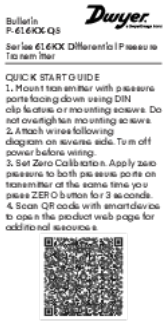
- **Model:** MSX-W13-PA-LCD
- **Pressure Range:** 0 to 7000 Pa (0 to 7 kPa)
- **Power Supply:** 24V AC/DC
- **Manufacturer:** Dwyer (as indicated on product)
- **ASIN:** B0CTCFNK5L
- **Date First Available:** January 26, 2024

9. Warranty and Support

This Dwyer MSX-W13-PA-LCD differential pressure sensor comes with a**180-day warranty** from the date of purchase, covering defects in materials and workmanship under normal use.
For technical support, troubleshooting assistance beyond this manual, or warranty claims, please contact your supplier or the manufacturer's authorized service center. Please have your model number (MSX-W13-PA-LCD) and purchase information ready when contacting support.

Related Documents - MSX-W13-PA-LCD

	Dwyer Series MSX Magnesense® Differential Pressure Transmitter: Specifications and Installation Guide Comprehensive guide to the Dwyer Series MSX Magnesense® Differential Pressure Transmitter, covering specifications, installation, operation, and configuration for building control applications. Learn about its features, output options, and setup.
	Dwyer Series 490W Wireless Hydronic Differential Pressure Manometer: Installation & Operation Guide Comprehensive guide for the Dwyer Series 490W Wireless Hydronic Differential Pressure Manometer, covering specifications, installation, operation, troubleshooting, and maintenance. Features wireless transducers for accurate hydronic system balancing.

	[Dwyer Magnehelic® Differential Pressure Gage (HP/MP) - Specifications & Instructions] Technical specifications, installation, and operating instructions for Dwyer's Magnehelic® High and Medium Pressure Differential Pressure Gages (Bulletin A-27-HP-MP). Includes model details, accuracy, temperature range, mounting, connections, and accessories.
	[Dwyer Magnehelic Differential Pressure Gage Bulletin A-27] Technical bulletin detailing the Dwyer Magnehelic Differential Pressure Gage, including specifications, installation, operation, and troubleshooting for various models.
 Dwyer Bulletin P-MSX-C-QS Series MSX and MSX Pro Communicating Magnesense® Pressure Transmitter Specifications - Installation and Operating Instructions QUICK START GUIDE FOR COMMUNICATING MODELS 1. Scan QR code with smart device to open the product web page for full communicating instruction manual. 2. Mount transmitter with pressure ports facing down. Do not overtighten mounting screws. 3. Attach wires following diagram on reverse side. MSX MSX PRO	[Dwyer Series MSX and MSX Pro Communicating Magnesense Pressure Transmitter Installation Guide] Installation and operating instructions for Dwyer Series MSX and MSX Pro Communicating Magnesense Pressure Transmitters, including wiring diagrams for common and local supply.
 Bulletin P-616KX-QS Series 616KX Differential Pressure Transmitter QUICK START GUIDE 1. Mount transmitter with pressure ports facing down using DIN clip feature or mounting screws. Do not overtighten mounting screws. 2. Attach wires following diagram on reverse side. Turn off power before wiring. 3. Set Zero Calibration. Apply zero pressure to both pressure ports on transmitter at the same time, press ZERO button for 3 seconds. 4. Scan QR code with smartdevice to open the product web page for additional resources.	[Dwyer Series 616KX Differential Pressure Transmitter - Quick Start Guide] Quick start guide for the Dwyer Series 616KX Differential Pressure Transmitter, covering mounting, wiring, and zero calibration. Includes wiring diagrams for 2-wire and 3-wire configurations.