

Walfront WALFRONT2xqbayknhg-12

Walfront Pressure Transducer Sensor User Manual

Model: WALFRONT2xqbayknhg-12

Brand: Walfront

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the Walfront Pressure Transducer Sensor. Please read this manual thoroughly before using the product to ensure proper function and safety.

2. PRODUCT OVERVIEW

The Walfront Pressure Transducer Sensor is a high-sensitivity device designed for accurate pressure measurement in various applications, including oil, fuel, gas, water, or air pressure systems. It features a G1/4 thread for easy installation and provides a 0.5-4.5V linear voltage output.



Figure 2.1: Front view of the Walfront Pressure Transducer Sensor, showing the main body, G1/4 thread, and attached cable with exposed wires.

3. SPECIFICATIONS

Parameter	Value
Item Type	Pressure Transducer
Material	Stainless Steel
Output	0.5-4.5V (Linear Voltage Output)
Thread	G1/4
Accuracy	Within 2% Of Reading (Full Scale)
Product Supply Voltage	5-12V

Parameter	Value
Rated Pressure Range	0.5Mpa (also available in 1.6Mpa variant)
Breaking Pressure	3 Times Rated Pressure
Overload Pressure	2 Times Rated Pressure
Operating Temperature	-40°C to 125°C (-40°F to 257°F)

4. PACKAGE CONTENTS

The package should contain the following item:

- 1 x Pressure Transducer Sensor

5. SETUP AND INSTALLATION

5.1. Installation Guidelines

1. Choose an installation location that allows for easy operation and maintenance.
2. Install the sensor as far away as possible from sources of vibration to ensure accurate readings.
3. Avoid installing the sensor near heat sources to prevent damage and maintain performance.
4. It is recommended to connect the sensor to the measuring pipeline through a valve for isolation and maintenance purposes.
5. When installing, use a wrench clamped at the transmitter's hexagonal body to tighten the G1/4 thread. Do not overtighten.



Figure 5.1: Side view of the sensor, highlighting the G1/4 thread for connection to the pipeline.

5.2. Electrical Wiring

The sensor features a straight-out cable with three wires for connection. Follow the wiring diagram below:

- **Red Wire:** Connect to +5V to +12V Power Supply (Positive)
- **Black Wire:** Connect to Ground (Common Terminal)
- **Green Wire:** Output Signal (0.5-4.5V Linear Voltage)

ELECTRICAL WIRING DIAGRAMS

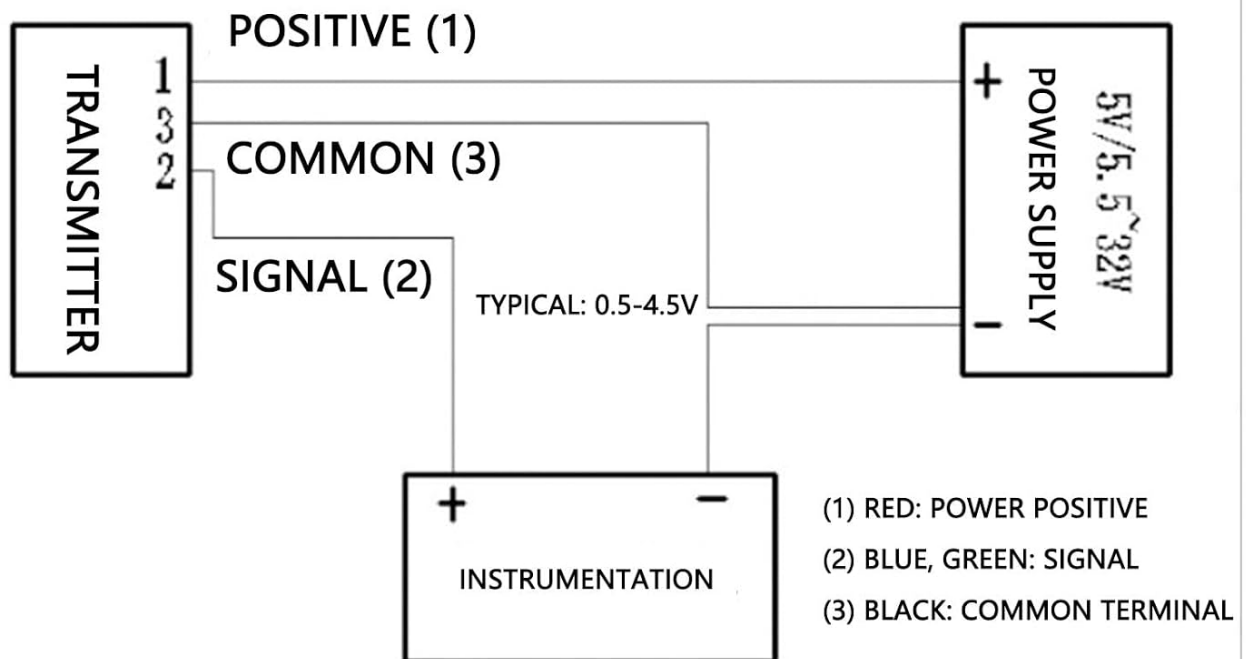


Figure 5.2: Electrical wiring diagram for the pressure transducer sensor. Red is for positive power, Black is for ground/common, and Green is for the 0.5-4.5V signal output.

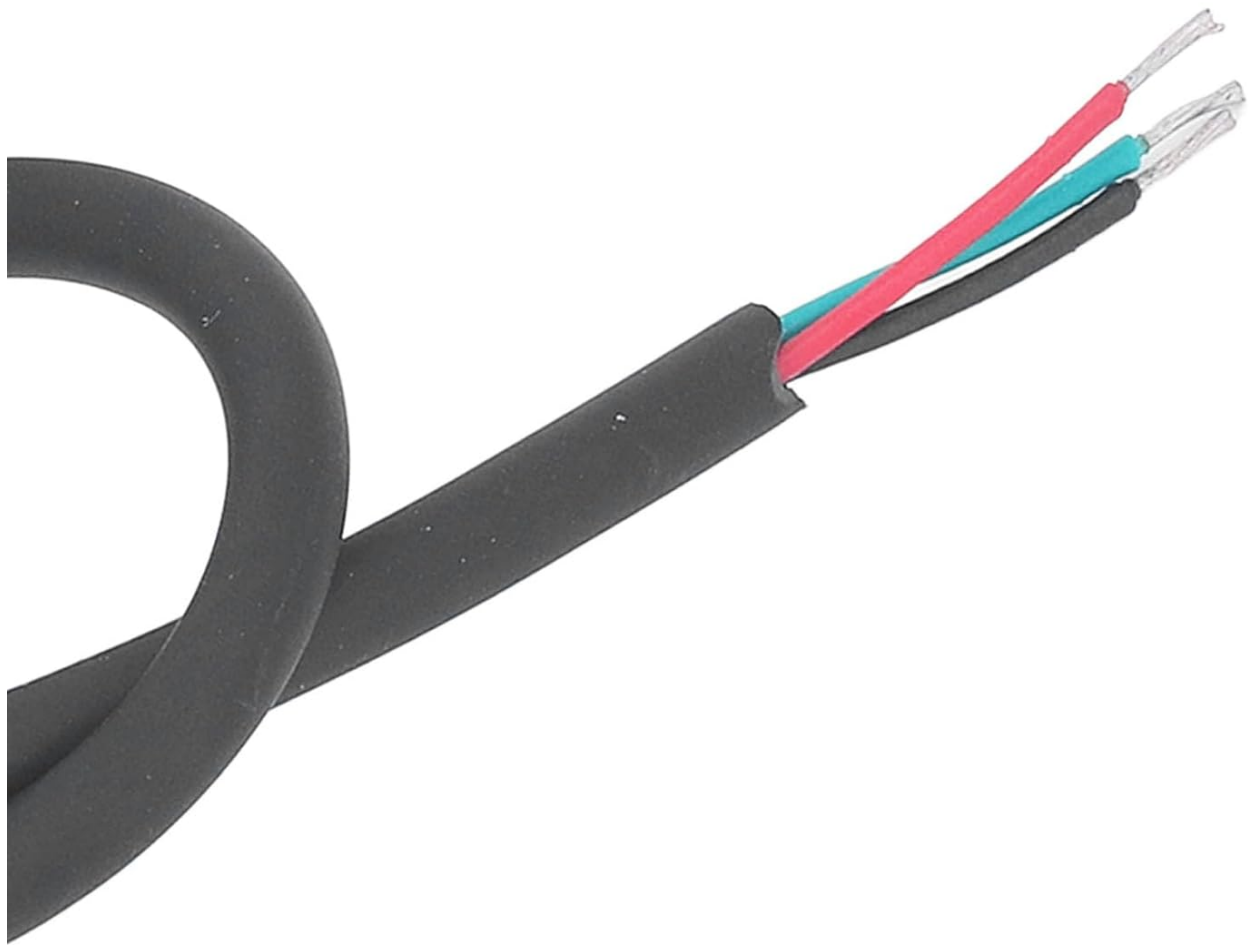


Figure 5.3: Close-up view of the sensor's cable, showing the red, black, and green wires for electrical connection.

6. OPERATING INSTRUCTIONS

Once properly installed and wired, the pressure transducer will provide a linear voltage output corresponding to the measured pressure. The output voltage ranges from 0.5V to 4.5V, representing the full pressure range (e.g., 0 to 0.5Mpa or 0 to 1.6Mpa depending on the specific model variant).

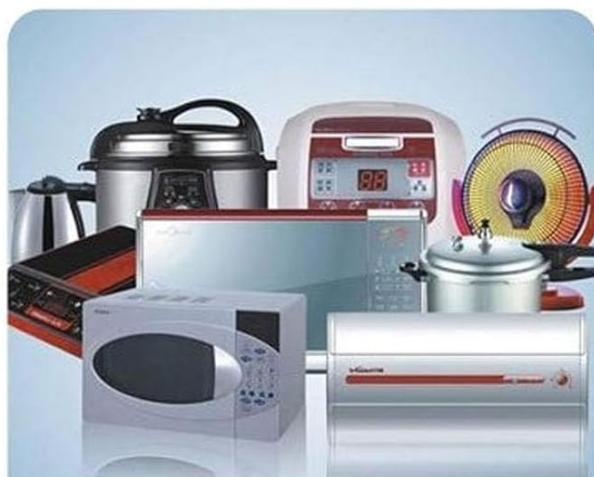
Connect the green output wire to an appropriate measurement device (e.g., a microcontroller's analog input, a PLC, or a display unit) that can interpret a 0.5-4.5V signal. Ensure your measurement device is calibrated to the sensor's specific pressure range for accurate readings.

7. APPLICATIONS

The Walfront Pressure Transducer Sensor is versatile and suitable for a wide range of industrial and domestic applications where accurate pressure monitoring is required. Common applications include:

- Detecting oil, fuel, gas, water, or air pressure in various systems.

- Integration into small appliances for pressure control.
- Use in coffee makers for precise pressure regulation.
- Monitoring pressure in water purification systems.
- Incorporation into direct drinking machines.



SMALL APPLIANCES INDUSTRY



COFFEE MAKER



WATER PURIFIER



DIRECT DRINKING MACHINES

Figure 7.1: Examples of applications for the pressure transducer sensor, including small appliances, coffee makers, water purifiers, and direct drinking machines.

8. MAINTENANCE

The Walfront Pressure Transducer Sensor is designed for durability and long service life with minimal maintenance. Follow these guidelines:

- **Regular Inspection:** Periodically check the sensor and its connections for any signs of damage, corrosion, or leaks.
- **Cleaning:** If necessary, gently clean the exterior of the sensor with a soft, damp cloth. Do not use abrasive cleaners or solvents.

- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature range (-40°C to 125°C) to prevent performance degradation or damage.
- **Pressure Limits:** Do not expose the sensor to pressures exceeding its overload pressure (2 times rated pressure) or breaking pressure (3 times rated pressure) to prevent permanent damage.

9. TROUBLESHOOTING

If you encounter issues with your pressure transducer sensor, consider the following common problems and solutions:

Problem	Possible Cause	Solution
No output or incorrect reading	Incorrect wiring; Insufficient power supply; Sensor damage; Clogged pressure port.	Verify wiring according to Section 5.2; Ensure power supply is within 5-12V; Inspect sensor for physical damage; Check pressure port for obstructions.
Unstable or fluctuating readings	Vibration at installation site; Electrical interference; Air bubbles in fluid (for liquid applications).	Relocate sensor away from vibration sources; Ensure proper grounding and shielding; Bleed air from the system.
Sensor not fitting thread	Incorrect thread size.	Ensure the mating thread is G1/4.

10. WARRANTY AND SUPPORT

For warranty information and technical support, please contact Walfront customer service through the retailer where the product was purchased or visit the official Walfront website. Please have your model number (WALFRONT2xqbayknhg-12) and purchase details ready when contacting support.

For more information about Walfront products, you can visit the Walfront Store on Amazon:[Walfront Store](#)

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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