

Dwyer RMB-52-SSV

DWYER RMB-52-SSV Rate-Master Flow Meter

USER MANUAL

Model: RMB-52-SSV

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the Dwyer RMB-52-SSV Rate-Master Flow Meter. This device is designed for accurate measurement of air flow within a range of 0 to 50 Standard Cubic Feet per Hour (SCFH).



Figure 1: Dwyer RMB-52-SSV Rate-Master Flow Meter with its original packaging and mounting hardware.

Please read this manual thoroughly before attempting to install or operate the flow meter to ensure safe and efficient use.

2. Product Overview

The Dwyer RMB-52-SSV is a precision-engineered flow meter featuring a durable construction and clear, easy-to-read scale. It is specifically calibrated for air and includes 1/4 inch NPT fittings for connection to your system.



Figure 2: Front view of the RMB-52-SSV flow meter, highlighting the SCFH AIR scale and the float.



Figure 3: Bottom view of the flow meter, illustrating the 1/4 inch NPT threaded connections for system integration.



Figure 4: Detailed view of the product label, confirming the model number RMB-52-SSV and manufacturer information.

3. Specifications

Specification	Value
Model Number	RMB-52-SSV
Calibration Range	0 - 50 SCFH (Standard Cubic Feet per Hour)
Measured Medium	Air
Fitting Size	1/4 inch NPT
Product Dimensions (L x W x H)	9 x 3 x 1.75 inches
Item Weight	14.4 ounces
Manufacturer	DWYER

4. Setup and Installation

Proper installation is crucial for accurate readings and safe operation. The RMB-52-SSV flow meter is designed for vertical mounting.

- Unpacking:** Carefully remove the flow meter and all accessories from the packaging. Inspect for any signs of damage during transit.
- Mounting:** The flow meter should be mounted vertically with the inlet at the bottom and the outlet at the top. Ensure it is securely fastened using appropriate mounting hardware (included).
- Connections:** Connect your air supply line to the 1/4 inch NPT inlet fitting and your process line to the 1/4 inch NPT outlet fitting. Use thread sealant (e.g., PTFE tape) on all threaded connections to prevent leaks. Do not overtighten fittings, as this can damage the meter.
- System Integration:** Ensure the flow meter is installed in a section of the system where the air flow is stable and free from pulsations or turbulence for optimal accuracy.

5. Operating Instructions

The Dwyer RMB-52-SSV flow meter provides a direct reading of air flow.

- Flow Adjustment:** If your system includes a flow control valve, adjust it to achieve the desired flow rate. The flow meter's internal float will rise in the tapered tube in proportion to the flow rate.
- Reading the Scale:** Read the flow rate at the center of the float's widest point. The scale is marked in SCFH (Standard Cubic Feet per Hour) from 0 to 50.
- Pressure Considerations:** Ensure the operating pressure of your system is within the specified limits for the flow meter to prevent damage and ensure accurate readings.



Figure 5: The adjustment knob located at the bottom of the flow meter, used for fine-tuning the flow rate if the meter is equipped with an integral valve.

6. Maintenance

The Dwyer RMB-52-SSV flow meter requires minimal maintenance to ensure long-term accuracy and performance.

- **Cleaning:** Periodically inspect the flow tube for any accumulation of dust or debris that might impede the float's movement. If cleaning is necessary, use a soft, lint-free cloth and a mild, non-abrasive cleaning solution. Avoid harsh chemicals that could damage the plastic tube.
- **Leak Checks:** Regularly check all connections for air leaks. Leaks can lead to inaccurate readings and wasted air.
- **Storage:** If the flow meter is to be stored for an extended period, ensure it is clean, dry, and stored in a protective environment to prevent physical damage or contamination.

7. Troubleshooting

If you encounter issues with your Dwyer RMB-52-SSV flow meter, consider the following common problems and solutions:

Problem	Possible Cause	Solution
No flow indication	No air supply; Blockage in line; Incorrect installation direction.	Verify air supply; Check for obstructions; Ensure vertical mounting with correct inlet/outlet.
Inaccurate readings	Leaks in connections; Debris in tube; Pulsating flow; Incorrect gas type.	Check and seal all connections; Clean the flow tube; Install a dampener if flow is pulsating; Confirm air is the measured medium.

Problem	Possible Cause	Solution
Float sticking	Debris in tube; Physical damage to tube or float.	Clean the flow tube; Inspect for damage. If damaged, replacement may be necessary.

8. Warranty and Support

The Dwyer RMB-52-SSV Rate-Master Flow Meter is manufactured by DWYER, a reputable company known for quality industrial instruments. For specific warranty information, please refer to the documentation provided with your purchase or visit the official Dwyer website.

For technical support, troubleshooting assistance beyond this manual, or inquiries regarding parts and service, please contact Dwyer customer service. Always provide the model number (RMB-52-SSV) and any relevant serial numbers when seeking support.

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ASK A QUESTION ABOUT THIS MANUAL

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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