

Oumefar Bre400

Oumefar 1/2-inch Digital Fuel Flowmeter (Model Bre400) User Manual

Your guide to accurate liquid measurement

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1. INTRODUCTION

This manual provides detailed instructions for the safe and efficient use of your Oumefar 1/2-inch Digital Fuel Flowmeter, Model Bre400. This device is designed for accurate measurement of various liquids in industrial and commercial applications. Please read this manual thoroughly before installation and operation.

2. SAFETY INFORMATION

Observe the following safety precautions to prevent damage to the device or injury to personnel:

- Ensure the flowmeter is installed by qualified personnel in accordance with local codes and regulations.
- Verify compatibility of the flowmeter's materials with the liquid being measured to prevent corrosion or damage.
- Do not exceed the maximum working pressure of 70 BAR.
- Always depressurize the pipeline before attempting installation, maintenance, or battery replacement.
- Avoid exposing the device to extreme temperatures or direct impact.

3. PRODUCT OVERVIEW

The Oumefar Bre400 Digital Fuel Flowmeter features an LCD display for clear readings, an aluminum alloy body for durability, and a high-precision circuit board for accurate measurement. It is suitable for measuring urea, kerosene, gasoline, and other liquids.

3.1 Components

- **LCD Display:** Shows current and total flow readings.
- **RESET Button:** Resets the current batch measurement.
- **CAL Button:** Used for calibration and unit selection.

- **Battery Compartment:** Houses two 1.5V batteries.
- **Inlet/Outlet Ports:** 1/2-inch threaded connections for pipeline integration.

3.2 Product Diagram



Figure 1: Front view of the Oumefar Bre400 Digital Fuel Flowmeter. The display shows '0.000' for current flow and '0.2' for total flow. Buttons for 'RESET' and 'CAL' are visible at the bottom. Battery indicators for two 1.5V 1N size batteries are on the right side.



Figure 2: Angled view of the flowmeter, highlighting the 1/2-inch inlet/outlet port on the side, designed for pipeline connection.

4. SETUP

4.1 Battery Installation

1. Locate the battery compartment cover on the side of the flowmeter.
2. Carefully remove the cover.
3. Insert two 1.5V batteries (1N size) according to the polarity markings inside the compartment.
4. Replace the battery compartment cover securely.

4.2 Physical Installation

1. Ensure the pipeline is depressurized and drained before installation.
2. Identify the flow direction in your pipeline. The flowmeter has an arrow indicating the correct flow direction.

3. Connect the flowmeter to the pipeline using the 1/2-inch threaded inlet and outlet ports. Use appropriate thread sealant to ensure a leak-free connection.
4. Tighten connections securely, but do not overtighten to avoid damaging the threads or the meter body.
5. After installation, slowly repressurize the pipeline and check for any leaks.

5. OPERATING INSTRUCTIONS

5.1 Power On/Off

The device automatically powers on when flow is detected or a button is pressed. It enters standby mode after a period of inactivity to conserve battery life. The standby time is approximately 2 years.

5.2 Display Readings

The LCD display shows two main readings:

- **Upper Display:** Current batch measurement (e.g., '0.000 L'). This value represents the volume of liquid dispensed in the current operation.
- **Lower Display:** Total accumulated measurement (e.g., '0.2 L'). This value represents the grand total volume of liquid measured since the last total reset.

5.3 Resetting Measurements

- **Resetting Current Batch:** Press the **RESET** button briefly. The upper display (current batch measurement) will reset to zero. This is useful for measuring individual dispensing operations.
- **Resetting Total Accumulated Measurement:** To reset the total accumulated measurement (lower display), press and hold the **RESET** button for approximately 5 seconds until the lower display value flashes and then resets to zero. This action clears the grand total.

5.4 Calibration

The flowmeter is factory calibrated to an accuracy of $\pm 1\%$. If recalibration is required:

1. With the display on, press and hold the **CAL** button for approximately 3 seconds until the display enters calibration mode.
2. The display will show a calibration factor. Use the **RESET** button to adjust the value up and the **CAL** button to confirm the digit and move to the next.
3. Refer to a known volume standard to accurately adjust the calibration factor.
4. Once the desired calibration factor is set, press and hold the **CAL** button again to save and exit calibration mode.

5.5 Unit Selection

To change the measurement unit (e.g., Liters, Gallons):

1. In normal display mode, press the **CAL** button briefly.
2. The unit will cycle through available options (e.g., L, GAL). Select your desired unit.
3. The display will automatically save the selected unit after a few seconds of inactivity.

5.6 Product in Use

Video 1: Demonstration of the Oumefar Digital Fuel Flowmeter. This video shows the physical appearance of the flowmeter, including its

display and the inlet/outlet ports, providing a visual reference for its design and components.

6. MAINTENANCE

6.1 Cleaning

Wipe the exterior of the flowmeter with a soft, damp cloth. Do not use abrasive cleaners or solvents, as these may damage the display or housing.

6.2 Battery Replacement

When the battery indicator on the display shows low power, replace the batteries promptly to ensure continuous accurate operation. Follow the battery installation steps in Section 4.1.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
No display or dim display	Low or dead batteries; incorrect battery installation.	Replace batteries; ensure correct polarity.
Inaccurate readings	Needs calibration; air in the line; sensor obstruction.	Perform calibration (Section 5.4); purge air from the system; check for debris in the flow path.
Flowmeter not measuring	No flow; incorrect installation direction; sensor failure.	Verify liquid flow; check installation arrow; contact support if sensor failure is suspected.
Cannot reset total measurement	RESET button not held long enough.	Press and hold the RESET button for approximately 5 seconds until the total value resets.

8. SPECIFICATIONS

- **Inlet and Outlet:** 1/2 inch
- **Material:** Aluminum Alloy
- **Measurement Accuracy:** ±1%
- **Repeatability:** ±0.2%
- **Maximum Working Pressure:** 70 BAR
- **Working Voltage:** 2 * 1.5V (Batteries)
- **Standby Time:** 2 Years
- **Flow Range:** 1-30 L/Min
- **Product Dimensions:** Approximately 0.39 x 0.39 x 0.39 inches
- **Product Weight:** Approximately 14.07 ounces

9. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the product packaging or contact Oumefar customer service through your point of purchase. Keep your purchase receipt for warranty claims.

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

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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