

GOWE GWE-1005998

GOWE LUGB Vortex Street Flow Meter Instruction Manual

Model: GWE-1005998

INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of the GOWE LUGB vortex street flow meter. This device is designed for precise measurement of various media including air, gas, steam, and low viscosity liquids, with integrated temperature and pressure compensation.

PRODUCT OVERVIEW



Image: GOWE LUGB Vortex Street Flow Meter. This image displays the complete assembly of the vortex street flow meter, featuring the main body with flanges for pipe connection, the vertical stem leading to the integrated display unit at the top, and a coiled tube for temperature/pressure compensation connected to the display unit.

The GOWE LUGB vortex street flow meter is a robust instrument designed for industrial applications requiring accurate flow measurement. Its integrated design allows for temperature and pressure compensation, ensuring high precision across varying conditions. The device features a clear display for instantaneous flow, flow rate, and cumulative percentage flow, along with programmable pulse output and sensor vortex street frequency output.

KEY FEATURES

- **Versatile Measurement:** Capable of measuring air, gas, steam, and low viscosity liquids.
- **Corrosion Resistance:** Designed to measure various corrosive media.
- **Wide Temperature Range:** Operates effectively in temperatures from -50°C to +400°C.
- **High Accuracy:** Liquid measurement accuracy of $\pm 1\%$ (ordinary) or $\pm 0.5\%$ (special), Gas measurement accuracy of $\pm 1\%$.
- **Robust Construction:** Body material 1Cr18Ni9Ti, sensor seal with graphite gaskets, IP67 protection grade.
- **Flexible Power:** Requires 12-36 VDC power supply.
- **Multiple Outputs:** Features two-wire system 4-20mA current output, programmable pulse output, and sensor vortex street frequency output.
- **On-site Display:** Programmable display for instantaneous flow, flow rate, and cumulative percentage flow.

SPECIFICATIONS

Parameter	Value
Measuring Quantity Interface Mass	Air, gas, steam, gas and water, low viscosity liquid
Corrosion Type Flowmeter Measurement	All kinds of corrosive medium
Intermediate Mass Viscosity	Less than 10 cP
Intermediate Mass Temperature	-50°C to +400°C
Body Material	1Cr18Ni9Ti (other materials by agreement)
Sensor Seal	Graphite gaskets
Environment Temperature	-30°C to +80°C (special request)
Nominal Diameter (DN)	DN15-DN1200
Measuring Accuracy (Liquid)	$\pm 1\%$ (ordinary), $\pm 0.5\%$ (special)
Measuring Accuracy (Gas)	$\pm 1\%$
Pressure Level	PN25, PN40 (high pressure can be special manufacturing)
Connection Type	Holding type: DN15-600; Flange: DN15-1200
Protection Grade	IP67
Converter Shell	Die casting aluminum, paint
Power Supply	12-36 VDC

Parameter	Value
Output Signal	Two-wire system 4-20mA current output, Programmable pulse output, Sensor vortex street frequency output
Display	Programmable set display instantaneous flow, flow rate and cumulative percentage flow

SETUP AND INSTALLATION

Proper installation is crucial for the accurate and reliable operation of the GOWE LUGB vortex street flow meter. It is recommended that installation be performed by qualified personnel.

- Site Selection:** Choose a location with stable temperature and minimal vibration. Ensure sufficient straight pipe lengths upstream and downstream as per industry standards (typically 10-20D upstream and 5D downstream, where D is the nominal diameter).
- Mounting Orientation:** Install the flow meter in a horizontal or vertical pipeline, ensuring the flow direction arrow on the meter body aligns with the actual fluid flow.
- Flange Connection:** Use appropriate gaskets and tighten bolts evenly to prevent leaks. Ensure the meter is properly aligned with the pipeline.
- Electrical Connections:** Connect the power supply (12-36 VDC) and output signals (4-20mA, pulse) according to the wiring diagram provided with the product. Ensure proper grounding to prevent electrical interference.
- Pressure and Temperature Compensation Lines:** If applicable, connect the pressure and temperature compensation lines to the appropriate points on the pipeline and the meter's compensation unit.
- Initial Power-Up:** After installation, apply power and observe the display. Verify basic functionality before introducing process fluid.

Note: Refer to the detailed wiring diagrams and specific installation guidelines included in the product packaging for precise instructions.

OPERATING INSTRUCTIONS

Once installed and powered, the GOWE LUGB vortex street flow meter is designed for continuous operation. The integrated display provides real-time data.

- Display Navigation:** Use the buttons on the display unit (if present) to cycle through different readings such as instantaneous flow, totalized flow, and percentage flow.
- Parameter Configuration:** Access the configuration menu (refer to the product's specific manual for access method) to set parameters such as fluid type, pipe diameter, and output scaling.
- Monitoring Output:** Monitor the 4-20mA current output or pulse output at your control system to integrate the flow data into your process control.
- Data Logging:** If connected to a data logging system, ensure data is being recorded correctly.

Always ensure the process fluid is within the specified temperature and pressure limits of the flow meter.

MAINTENANCE

Regular maintenance ensures the longevity and accuracy of your flow meter.

- **Routine Inspection:** Periodically inspect the meter for any signs of leakage, corrosion, or physical damage. Check electrical connections for tightness.
- **Cleaning:** Keep the exterior of the meter clean. Avoid using abrasive cleaners.
- **Sensor Check:** While the vortex sensor is generally robust, ensure there are no obstructions or build-up within the flow path that could affect accuracy. This may require temporary removal from the pipeline.
- **Recalibration:** Depending on application and regulatory requirements, periodic recalibration may be necessary to maintain accuracy. Consult a qualified technician for recalibration services.
- **Gasket Replacement:** If the meter is removed from the pipeline for any reason, always replace the gaskets before reinstallation.

Before performing any maintenance, ensure the process fluid flow is stopped, the pipeline is depressurized, and the meter's power supply is disconnected.

TROUBLESHOOTING

This section provides common issues and their potential solutions.

Problem	Possible Cause	Solution
No display/Meter not powering on	No power supply; Incorrect wiring; Blown fuse	Check power source (12-36 VDC); Verify wiring connections; Replace fuse if necessary.
Inaccurate readings	Incorrect installation (e.g., insufficient straight pipe); Sensor fouling; Air bubbles/cavitation in fluid; Incorrect parameter settings	Review installation guidelines; Clean sensor; Ensure stable fluid conditions; Verify configuration parameters.
No output signal (4-20mA/pulse)	Wiring error; Faulty output module; Incorrect output settings	Check output wiring to control system; Consult technical support if module is suspected faulty; Verify output settings in meter configuration.
Leakage at connections	Improperly tightened flanges; Damaged gaskets	Retighten flange bolts evenly; Replace gaskets.

If the problem persists after attempting these solutions, contact GOWE technical support.

WARRANTY AND SUPPORT

GOWE products are manufactured to high standards. For information regarding product warranty, please refer to the warranty card included with your purchase or contact the seller directly. Protection plans are also available for extended coverage.

For technical assistance, troubleshooting beyond this manual, or spare parts inquiries, please contact Gowegroup, the manufacturer and seller of this product. You can visit their store on Amazon for more information: [GOWE Amazon Store](#).

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

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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