
Section 1 Introduction

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USING THIS MANUAL

This product manual provides installation, configuration, calibration, troubleshooting, and maintenance instructions for the Annubar Flowmeter Series.

Section 2: Installation

- Installation flowchart and checklist
- Orienting, mounting, and installing the flowmeter
- Connecting the Wiring

Section 3: Commissioning

- Calibrating the flowmeter

Section 4: Operation and Maintenance

- Troubleshooting information
- Disassembly
- RTD maintenance

Appendix A: Specifications and Reference Data

- Specifications
- Dimensional drawings

Appendix B: Approvals

- Approvals certifications
- Installation drawings

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RECEIVING AND INSPECTION

Flowmeters are available in different models and with different options, so it is important to inspect and verify that the appropriate model was delivered before installation.

Upon receipt of the shipment, check the packing list against the material received and the purchase order. All items are tagged with a sales order number, serial number, and customer tag number. Report any damage to the carrier.

RETURNING THE PRODUCT

To expedite the return process, call the Rosemount National Response Center toll-free at 800-654-7768. This center, available 24 hours a day, will assist you with any needed information or materials.

 The center will ask for the following information:

- Product model
- Serial numbers
- The last process material to which the product was exposed

The center will provide:

- A Return Material Authorization (RMA) number
- Instructions and procedures that are necessary to return goods that were exposed to hazardous substances

NOTE

If a hazardous substance is identified, a Material Safety Data Sheet (MSDS), required by law to be available to people exposed to specific hazardous substances, must be included with the returned materials.

CONSIDERATIONS

Information in this manual applies to circular pipes only. Consult Rosemount Customer Central for instructions regarding use in square or rectangular ducts.

Limitations

Structural

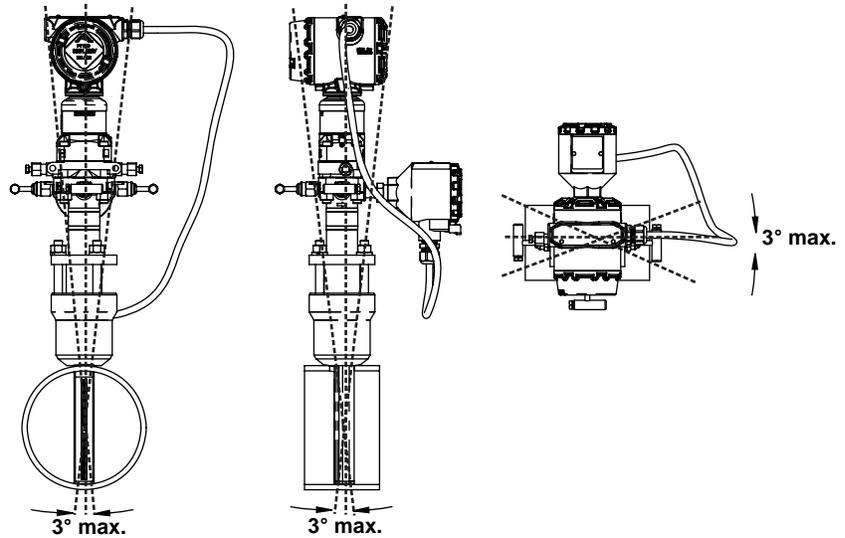
Structural limitations are printed on the sensor tag. Exceeding structural limitations may cause sensor failure.

Functional

The most accurate and repeatable flow measurement occurs in the following conditions:

- The structural limit differential pressure, as printed on the sensor tag, is not exceeded.
- The instrument is not used for two-phase flow or for steam service below saturation temperature.
- Install the flowmeter in the correct location within the piping branch to prevent measurement inaccuracies caused by flow disturbances.
- The flowmeter can be installed with a maximum misalignment of 3 degrees (see Figure 1-1). Misalignment beyond 3 degrees will cause flow measurement errors.

Figure 1-1. Permissible Misalignment



Environmental

Mount the flowmeter in a location with minimal ambient temperature changes. Appendix A: Specifications and Reference Data lists the temperature operating limits. Mount to avoid vibration, mechanical shock, and external contact with corrosive materials.

Access Requirements

Consider the need to access the flowmeter when choosing an installation location and orientation.

Process Flange Orientation

Orient the process flanges on a remote mounted flowmeter so that process connections can be made. For safety reasons, orient the drain/vent valves so that process fluid is directed away from technicians when the valves are used. In addition, consider the possible need for a testing or calibration input.

Housing Rotation

The electronics housing may be rotated up to 180 degrees (left or right) to improve field access to the two compartments or to better view the optional LCD meter. To rotate the housing, release the housing rotation set screw and turn the housing up to 180 degrees.

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Electronics Housing

Terminal Side

The circuit compartment should not routinely need to be opened when the unit is in service. Wiring connections are made through the conduit openings on the top or side of the housing. The field terminal side is marked on the electronics housing. Mount the flowmeter so that the terminal side is accessible. A 0.75-in. (19 mm) clearance is required for cover removal. Use a conduit plug on the unused side of the conduit opening. A 3-in. (76 mm) clearance is required for cover removal if a meter is installed.

Cover Installations

Always install the electronics housing covers metal-to-metal to ensure a proper seal.

Figure 1-2. Transmitter Housing

