

Quick Installation Guide

00825-0100-4833, Rev AA

January 2004

Rosemount Eagle Eye

Rosemount Eagle Eye

Step 1: Location and Orientation

Step 2: Mounting

Step 3: Operation

Step 4: Calibration

Step 5: Removal From Service (if needed)

Approval



ROSEMOUNT[®]

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Process Management

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IMPORTANT NOTICE

This installation guide provides basic guidelines for Rosemount Eagle Eye Fire Pump. It does not provide instructions for configuration, diagnostics, maintenance, service, troubleshooting, Explosion-proof, Flame-Proof, or intrinsically safe (I.S.) installations. Refer to the Rosemount Eagle Eye Series Product Data Sheet (document number 00813-0100-4830) or the Eagle Eye QIG (document number 00825-0100-4833) for more information. These documents are also available electronically on www.rosemount.com.

WARNING

Process leaks may cause harm or result in death. To avoid process leaks, only use gaskets designed to seal with the corresponding flange and o-rings to seal process connections. Flowing medium may cause the 485 Annubar assembly to become hot and could result in burns.

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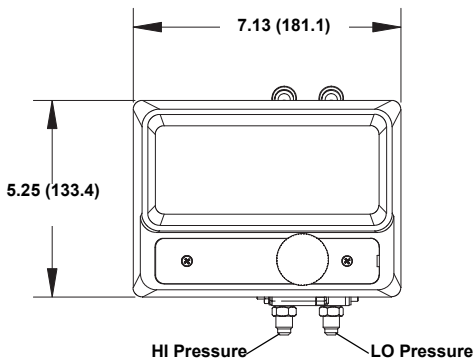
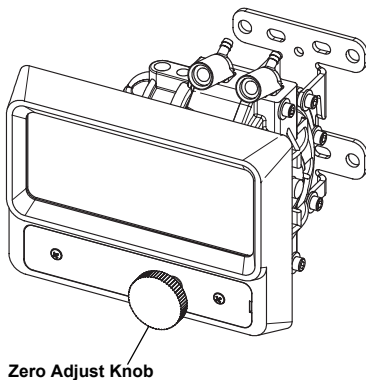
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EXPLODED VIEW

Front View



Dimensions are in inches (millimeters)

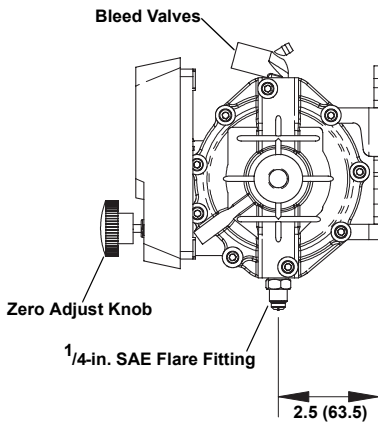
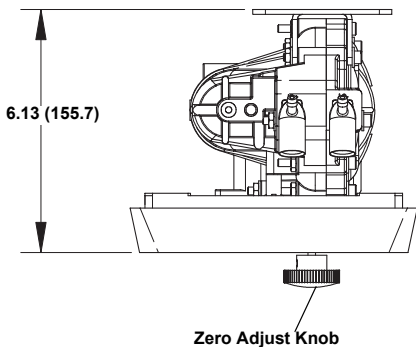
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Side View



Dimensions are in inches (millimeters)

STEP 1: LOCATION AND ORIENTATION

Orientation

Horizontal

For proper venting and draining, the sensor should be located in the upper half of the pipe for air and gas applications. For liquid applications, the sensor should be located in the bottom half of the pipe.

Figure 1. Gas

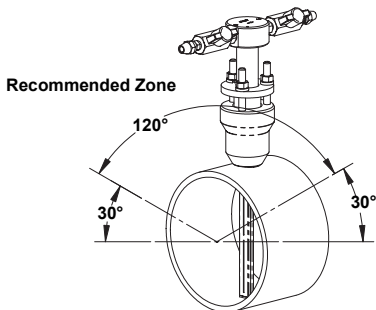
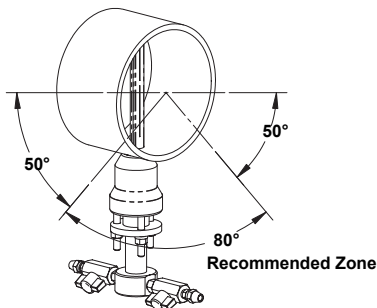


Figure 2. Liquid



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STEP 1 CONTINUED...

Vertical

The sensor can be installed in any position around the circumference of the pipe provided the vents are positioned properly for bleeding or venting. Optimal results for liquid are obtained when the flow is up. The preferred orientation for air or gas is when the flow is down, but upwards flow is acceptable.

Figure 3. Liquid

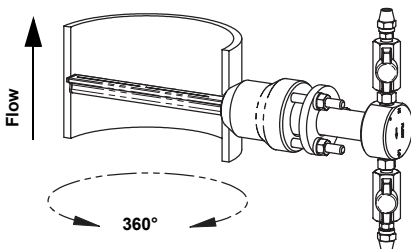
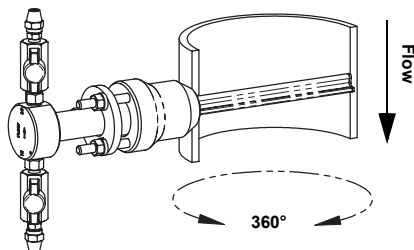


Figure 4. Gas



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STEP 1 CONTINUED...

Permanent Meters

Install the meter with the dial face in a level horizontal position. This can easily be checked with a level. Meter must be installed within $\pm 30^\circ$ from the vertical position.

Figure 5. Horizontal

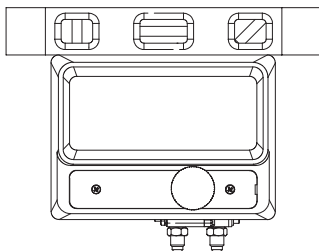
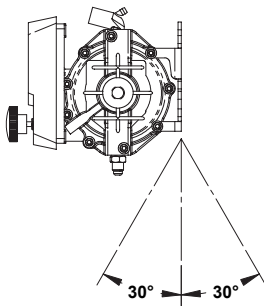


Figure 6. Vertical



NOTE

Use in any other position requires recalibration.

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STEP 1 CONTINUED...

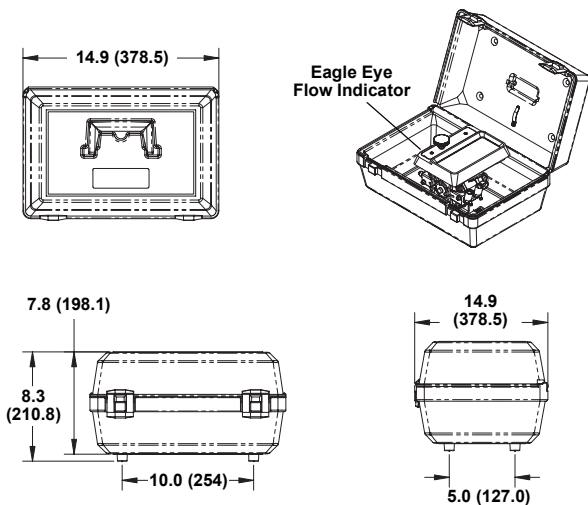
Portable Meters

Portable meters must be used with the dial face in a vertical position.

NOTE

Use in any other position requires recalibration.

Figure 7. Portable Meter Case



Dimensions are in inches (millimeters)

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STEP 2: MOUNTING

Pipe

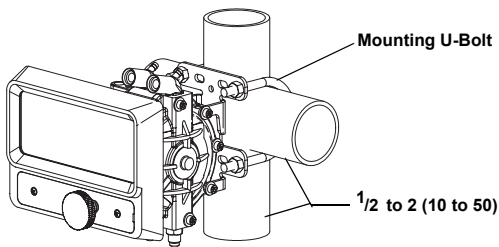
The Eagle Eye can be mounted on any $\frac{1}{2}$ to 2-in. (10 to 50 mm) vertical or horizontal pipe.

NOTE

A wood spacer of 2 x 4 x $\frac{3}{4}$ -in. (50 x 100 x 20 mm) is required for mounting on pipe $\frac{1}{2}$ to 1-in. (10 to 25 mm). Screw holes are provided in the pipe mounting bracket to attaching the spacer

1. Insert the two "U" bolts through the large holes in the meter bracket.
2. Torque the flange bolts to only 50 in/lb (56 kg/cm).

Figure 8. Pipe Mounting



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STEP 2 CONTINUED...

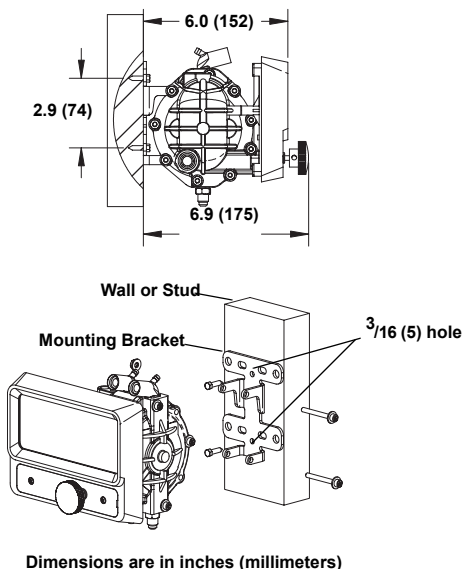
Wall

The Eagle Eye can be wall mounted by removing the mounting bracket from the meter. This permits access to the $\frac{3}{16}$ -in. (5 mm) holes in the bracket

NOTE

Only remove the two flange bolts attaching the bracket to the meter body

Figure 9. Wall Mount



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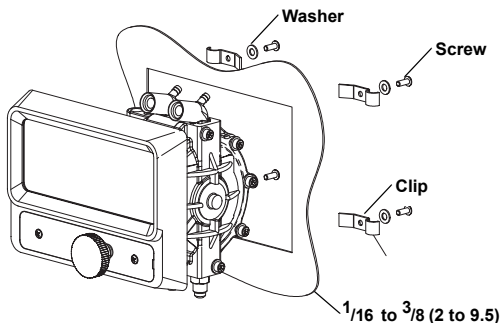
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STEP 2 CONTINUED...

Flush Panel

The meter can be flush mounted in panels $\frac{1}{16}$ to $\frac{1}{4}$ -in. (2 to 6 mm) thick. The exact panel cutout size is $4\frac{3}{4}$ -in. (12 mm) high by $6\frac{7}{16}$ -in. (16.5 mm) wide. Clips are furnished for flush panel mounting.

Figure 10. Flush Panel Mount



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STEP 3: OPERATION

Equalize the system

1. Mount the Eagle Eye Indicator in the vertical position, but do not connect it to the Annubar.
2. Remove the cover access plate by unscrewing the two front cover screws and gently prying the cover from the right side. (This give access to the equalizer valve)

The equalizer valve provides a path between the high- and low-pressure sides of the meter.

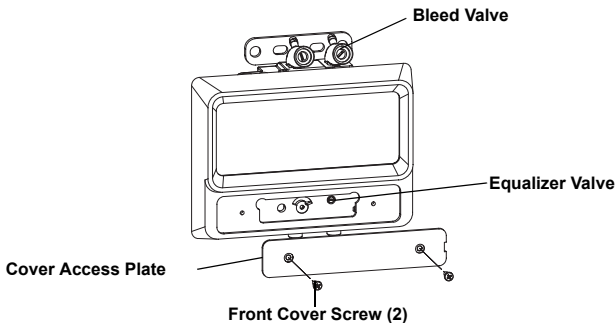
- Clockwise rotation of the screw closes the valve
- Counter-clockwise rotation of the screw opens the valve
- Full closed to full open required 1 ½ to 2 turns

The equalizer valve is used during the bleeding process, (see “Bleeding or Draining the System”)

NOTE

Portable meters come with an external equalizer knob (standard).

Figure 11. Equalizer Valve



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STEP 3 CONTINUED...

Instrument Connection

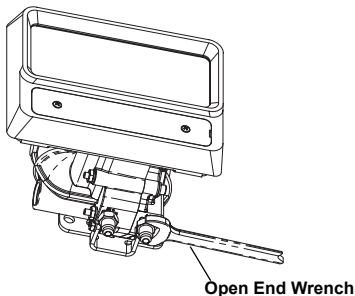
To the Rosemount 485 Annubar

1. Close all Annubar valves.
2. Connect the meter tubing to the Annubar.

To the Rosemount Eagle Eye

1. Close all system valves.
2. Insure that all connections are installed correctly.
3. Secure the tubing to the meter.
4. Use an open-end wrench to hold the meter fittings from rotating while making the connections.

Figure 12. Connection



CAUTION

Be sure to connect the HI-pressure side of the Eagle Eye meter to the HI-pressure side of the Annubar. The HI-pressure side is clearly marked on the Annubar and the Eagle Eye Indicator.

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STEP 3 CONTINUED...

Bleeding or Draining the System

After all connections are installed and secured, the system should be bled of all air. In air applications, any water or condensate must be drained from the connecting tubing and meter before taking readings. In water applications, all air in the connecting lines and meter must be bled with cool water.

1. Install plastic drain tubing onto the bleed valves and run tubing to a drain.
2. Open the equalizer valve.
3. Open both bleed valves one turn-counter clockwise.
4. Open the Annubar LO-pressure valve slowly and just enough to send a slow, but constant stream of water through the Eagle Eye Indicator.
5. Similarly open the Annubar HI pressure valve.
6. When the liquid exiting the bleed valve is free of air, close the LO-pressure bleed valve first. Close the HI-pressure bleed valve last.
7. Slowly close the equalizer valve.
8. Replace the access plate.

NOTE

The pointer may register above zero even though the equalizer is open. This indicates the pressure drop across the equalizer.

The meter must be bled after each system shutdown.

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STEP 4: CALIBRATION

The Eagle Eye is calibrated at the factory and should not need to be recalibrated in the field. The full scale calibration point is shown on the backside of the meter. (See the slot opposite "Scale/Reading" on the black and silver tag.)

STEP 5: REMOVAL FROM SERVICE (IF NEEDED)

1. Shut down the system valves at the Annubar.
2. Open the equalizer by turning the equalizer valve counter clockwise
3. Disconnect all the tubing if necessary

CAUTION

If the Eagle Eye is going to be subject to freezing temperatures, all water must be drained or damage will occur

To prevent injury, when the Annubar sensor is removed from the pipe, eliminate any pipeline pressure and drain the pipeline before loosening the Pak-Lok compression fitting.

APPROVAL

Rosemount 415 Fire Pump approved by Factory Mutual

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