■ Introduction

Yokogawa Differential Pressure transmitters are capable of measuring bi-directional flow. The direction of the flow is indicated in the analog output signal and the display.

■ Applicable Models

> EJA-E Series: EJA110E, EJA120E, and EJA130E
> EJX-A Series: EJX110A, EJX120A, and EJX130A

■ Setup

The Bi-directional Flow Measurement capability must be enabled. Once enabled, the transmitter assigns 50% of the 4 to 20 mA analog signal to the 0 DP measurement (No flow). This also sets the display to read –100% to +100%. The sign indicates the direction of the flow.

The Bi-directional Flow Measurement can be enabled via FieldMate.

Although FieldMate is highlighted here, any Hart Communicator has access to these functions. Refer to the User’s Manual for the HART menu tree.

The function is available on HART 5 and HART 7.

■ Setting when Shipped

<table>
<thead>
<tr>
<th>Item</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bi-dir mode</td>
<td>Off</td>
</tr>
</tbody>
</table>

■ BRAIN PROTOCOL

The feature described in this FieldGuide is also available for EJA-E and EJX-A transmitters with BRAIN Protocol communication. Please refer to the User’s Manual for details.

![Diagram of Analog Output and Display](image)

**Figure 1:** Bi-directional flow with Output mode “Linear”

![Diagram of Analog Output and Display](image)

**Figure 2:** Bi-directional flow with Output mode “Square Root”