Rosemount™ 8732EM Transmitter with HART Protocol
1 Safety

**WARNING**

- Failure to follow these installation guidelines could result in serious injury or death.
- Installation and servicing instructions are for use by qualified personnel only. Do not perform any servicing other than that contained in the operating instructions, unless qualified.
- Rosemount Magnetic Flowmeters ordered with non-standard paint options or non-metallic labels may be subject to electrostatic discharge. To avoid electrostatic charge build-up, do not rub the flowmeter with a dry cloth or clean with solvents.
- Verify that the operating environment of the sensor and transmitter is consistent with the appropriate Agency Approval.
- If installed in an explosive atmosphere, verify that the device certification and installation techniques are suitable for that particular environment.
- To prevent ignition of flammable or combustible atmosphere, disconnect power before servicing circuits.
- Explosion hazard—Do not disconnect equipment when a flammable or combustible atmosphere is present.
- Do not connect a Rosemount Transmitter to a non-Rosemount sensor when installed in an “Ex” environment, explosive atmosphere, hazardous area, or classified area.
- Follow national, local, and plant standards to properly earth ground the transmitter and sensor. The earth ground must be separate from the process reference ground.

**CAUTION**

- In cases where high voltage/high current are present near the meter installation, ensure proper protection methods are followed to prevent stray voltage/current from passing through the meter. Failure to adequately protect the meter could result in damage to the transmitter and lead to meter failure.
- Completely remove all electrical connections from both sensor and transmitter prior to welding on the pipe. For maximum protection of the sensor, consider removing it from the pipeline.
2 Introduction

This document provides basic installation guidelines for the Rosemount 8732EM field-mount transmitter.

- For sensor installation refer to the *Rosemount™ 8700 Magnetic Flow Meter Sensor Quick Installation Guide*

- For additional installation information, configuration, maintenance, and troubleshooting, refer to the *Rosemount™ 8732EM Transmitter with HART Protocol Reference Manual*

All user documentation can be found at [www.emerson.com](http://www.emerson.com). For more contact information see Emerson Flow customer service.

2.1 Return policy

Emerson procedures must be followed when returning equipment. These procedures ensure legal compliance with government transportation agencies and help provide a safe working environment for Emerson employees. Failure to follow Emerson procedures will result in your equipment being refused delivery.
2.2 Emerson Flow customer service

Email:
- Worldwide: flow.support@emerson.com
- Asia-Pacific: APflow.support@emerson.com

Telephone:

<table>
<thead>
<tr>
<th>North and South America</th>
<th>Europe and Middle East</th>
<th>Asia Pacific</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>800 522 6277</td>
<td>800 158 727</td>
</tr>
<tr>
<td>Canada</td>
<td>+1 303 527 5200</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>+41 (0) 41 7686 111</td>
<td></td>
</tr>
<tr>
<td>Argentina</td>
<td>+54 11 4837 7000</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>+55 15 3413 8000</td>
<td></td>
</tr>
<tr>
<td>Venezuela</td>
<td>+58 26 1731 3446</td>
<td></td>
</tr>
<tr>
<td>Russia/CIS</td>
<td>+7 495 981 9811</td>
<td>South Korea</td>
</tr>
<tr>
<td>Egypt</td>
<td>0800 000 0015</td>
<td>Singapore</td>
</tr>
<tr>
<td>Oman</td>
<td>800 70101</td>
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<td>Qatar</td>
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<td>Kuwait</td>
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<tr>
<td>South Africa</td>
<td>800 991 390</td>
<td></td>
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<tr>
<td>Saudi Arabia</td>
<td>800 844 9564</td>
<td></td>
</tr>
<tr>
<td>UAE</td>
<td>800 0444 0684</td>
<td></td>
</tr>
</tbody>
</table>
3 Pre-installation

Before installing the transmitter, there are several pre-installation steps that should be completed to make the installation process easier:

- Identify options and configurations that apply to your application
- Set the hardware switches if necessary
- Consider mechanical, electrical, and environmental requirements

**Note**
Refer to the product reference manual for more detailed requirements.

**Identify options and configurations**

The typical transmitter installation includes a device power connection, a 4-20mA output connection, and sensor coil and electrode connections. Other applications may require one or more of the following configurations or options:

- Pulse output
- Discrete input/discrete output
- HART multidrop configuration

**Hardware switches**

The transmitter may have up to four user-selectable hardware switches. These switches set the alarm mode, internal/external analog power, internal/external pulse power, and transmitter security. The standard configuration for these switches when shipped from the factory is as follows:

<table>
<thead>
<tr>
<th>Setting</th>
<th>Factory configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm mode</td>
<td>High</td>
</tr>
<tr>
<td>Internal/external analog power</td>
<td>Internal</td>
</tr>
<tr>
<td>Internal/external pulse power</td>
<td>External</td>
</tr>
<tr>
<td>Transmitter security</td>
<td>Off</td>
</tr>
</tbody>
</table>

The analog power switch and pulse power switches are not available when ordered with intrinsically safe output, ordering code B.

In most cases, it is not necessary to change the setting of the hardware switches. If the switch settings need to be changed, refer to the product reference manual.
Be sure to identify any additional options and configurations that apply to the installation. Keep a list of these options for consideration during the installation and configuration procedures.

**Mechanical considerations**

The mounting site for the transmitter should provide enough room for secure mounting, easy access to conduit entries, full opening of the transmitter covers, and easy readability of the Local Operator Interface (LOI) screen (if equipped).

*Figure 3-1: Rosemount 8732EM Dimensional Drawing*

- **A.** Conduit entry ½–14 NPT or M20
- **B.** LOI cover
- **C.** Mounting screws

**Electrical considerations**

Before making any electrical connections to the transmitter, consider national, local, and plant electrical installation requirements. Be sure to have
the proper power supply, conduit, and other accessories necessary to comply with these standards.

The transmitter requires external power. Ensure access to a suitable power source.

**Table 3-2: Electrical Data**

<table>
<thead>
<tr>
<th>Rosemount 8732EM Flow Transmitter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power input</td>
</tr>
<tr>
<td>AC power:</td>
</tr>
<tr>
<td>90–250VAC, 0.45A, 40VA</td>
</tr>
<tr>
<td>Standard DC power:</td>
</tr>
<tr>
<td>12–42VDC, 1.2A, 15W</td>
</tr>
<tr>
<td>Low power DC:</td>
</tr>
<tr>
<td>12–30VDC, 0.25A, 3W</td>
</tr>
<tr>
<td>Pulsed circuit</td>
</tr>
<tr>
<td>Internally powered (Active): Outputs up to 12VDC, 12.1mA, 73mW</td>
</tr>
<tr>
<td>Externally powered (Passive): Input up to 28VDC, 100mA, 1W</td>
</tr>
<tr>
<td>4-20mA output circuit</td>
</tr>
<tr>
<td>Internally Powered (Active): Outputs up to 25mA, 24VDC, 600mW</td>
</tr>
<tr>
<td>Externally Powered (Passive): Input up to 25mA, 30VDC, 750mW</td>
</tr>
<tr>
<td>Um</td>
</tr>
<tr>
<td>250V</td>
</tr>
<tr>
<td>Coil excitation output</td>
</tr>
<tr>
<td>500mA, 40V max, 9W max</td>
</tr>
</tbody>
</table>

**Environmental considerations**

To ensure maximum transmitter life, avoid extreme temperatures and excessive vibration. Typical problem areas include the following:

- High-vibration lines with integrally mounted transmitters
- Tropical or desert installations in direct sunlight
- Outdoor installations in arctic climates

Remote mounted transmitters may be installed in the control room to protect the electronics from the harsh environment and to provide easy access for configuration or service.
4 Mounting

Remote-mount transmitters are shipped with a mounting bracket for use on a 2-in. pipe or a flat surface.

Figure 4-1: Rosemount 8732 transmitter mounting hardware

A. U-bolt
B. Mounting bracket
C. Transmitter
D. Fasteners (example configuration)

1. Assemble the hardware as needed to accommodate the mounting configuration.
2. Secure the transmitter to the mounting hardware.

The LOI/Display can be rotated in 90 degree increments up to 180 degrees if desired. Do not rotate more than 180 degrees in any one direction.
5  
Wiring

5.1 Conduit entries and connections

Transmitter conduit entry ports can be ordered with \( \frac{1}{2} \)-14NPT or M20 female threaded connections. Conduit connections should be made in accordance with national, local, and plant electrical codes. Unused conduit entries should be sealed with the appropriate certified plugs. The plastic shipping plugs do not provide ingress protection.

5.2 Conduit requirements

- For installations with an intrinsically safe electrode circuit, a separate conduit for the coil cable and the electrode cable may be required. Refer to the product reference manual.
- For installations with non-intrinsically safe electrode circuit, or when using the combination cable, a single dedicated conduit run for the coil drive and electrode cable between the sensor and the remote transmitter may be acceptable. Removal of the barriers for intrinsic safety isolation is permitted for non-intrinsically safe electrode installations.
- Bundled cables from other equipment in a single conduit are likely to create interference and noise in the system. See Figure 5-1.
- Electrode cables should not be run together in the same cable tray with power cables.
- Output cables should not be run together with power cables.
- Select conduit size appropriate to feed cables through to the flowmeter.
5.3 Sensor to transmitter wiring

**Integral mount transmitters**

Integral mount transmitters ordered with a sensor will be shipped assembled and wired at the factory using an interconnecting cable. Use only the factory supplied cable provided with the instrument. For replacement transmitters use the existing interconnecting cable from the original assembly. Replacement cables, if applicable, are available (see Figure 5-2).
Remote mount transmitters

Cable kits are available as individual component cables or as a combination coil/electrode cable. Remote cables can be ordered directly using the kit numbers shown in Table 5-1, Table 5-2, and Table 5-3. Equivalent Alpha cable part numbers are also provided as an alternative. To order cable, specify length as quantity desired. Equal length of component cables is required.

Examples:
- 25 feet = Qty (25) 08732-0065-0001
- 25 meters = Qty (25) 08732-0065-0002

Table 5-1: Component cable kits - standard temperature (-20°C to 75°C)

<table>
<thead>
<tr>
<th>Cable kit #</th>
<th>Description</th>
<th>Individual cable</th>
<th>Alpha p/n</th>
</tr>
</thead>
<tbody>
<tr>
<td>08732-0065-0001</td>
<td>Kit, component cables, Std temp (includes Coil and Electrode)</td>
<td>Coil Electrode</td>
<td>2442C 2413C</td>
</tr>
<tr>
<td>08732-0065-0002</td>
<td>Kit, component cables, Std temp (includes Coil and Electrode)</td>
<td>Coil Electrode</td>
<td>2442C 2413C</td>
</tr>
<tr>
<td>08732-0065-0003</td>
<td>Kit, component cables, Std temp (includes Coil and I.S. Electrode)</td>
<td>Coil I.S. Safe Blue Electrode</td>
<td>2442C Not available</td>
</tr>
<tr>
<td>08732-0065-0004</td>
<td>Kit, component cables, Std temp (includes Coil and I.S. Electrode)</td>
<td>Coil I.S. Safe Blue Electrode</td>
<td>2442C Not available</td>
</tr>
</tbody>
</table>
Table 5-2: Component cable kits - extended temperature (-50°C to 125°C)

<table>
<thead>
<tr>
<th>Cable kit #</th>
<th>Description</th>
<th>Individual cable</th>
<th>Alpha p/n</th>
</tr>
</thead>
<tbody>
<tr>
<td>08732-0065-1001</td>
<td>Kit, Component Cables, Ext Temp. (includes Coil and Electrode)</td>
<td>Coil Electrode</td>
<td>Not available</td>
</tr>
<tr>
<td>08732-0065-1002</td>
<td>Kit, Component Cables, Ext Temp. (includes Coil and Electrode)</td>
<td>Coil Electrode</td>
<td>Not available</td>
</tr>
<tr>
<td>08732-0065-1003</td>
<td>Kit, Component Cables, Ext Temp. (includes Coil and I.S. Electrode)</td>
<td>Coil Intrinsically Safe Blue Electrode</td>
<td>Not available</td>
</tr>
<tr>
<td>08732-0065-1004</td>
<td>Kit, Component Cables, Ext Temp. (includes Coil and I.S. Electrode)</td>
<td>Coil Intrinsically Safe Blue Electrode</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Table 5-3: Combination cable kits - coil and electrode cable (-20°C to 80°C)

<table>
<thead>
<tr>
<th>Cable kit #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>08732-0065-2001</td>
<td>Kit, Combination Cable, Standard</td>
</tr>
<tr>
<td>08732-0065-2002</td>
<td>Kit, Combination Cable, Submersible (80°C dry/60°C Wet) (33ft Continuous)</td>
</tr>
</tbody>
</table>

Cable requirements

Shielded twisted pairs or triads must be used. For installations using the individual coil drive and electrode cable, see Figure 5-3. Cable lengths should be limited to less than 500 feet (152 m). Consult factory for length between 500–1000 feet (152–304 m). Equal length cable is required for each. For installations using the combination coil drive/electrode cable, see Figure 5-4. Combination cable lengths should be limited to less than 330 feet (100 m).
Figure 5-3: Individual component cables

A. **Coil drive**
B. **Electrode**
C. **Twisted, stranded, insulated 14 AWG conductors**
D. **Drain**
E. **Overlapping foil shield**
F. **Outer jacket**
G. **Twisted, stranded, insulated 20 AWG conductors**

- 1 = Red
- 2 = Blue
- 3 = Drain
- 17 = Black
- 18 = Yellow
- 19 = White
A. Electrode shield drain  
B. Overlapping foil shield  
C. Outer jacket

- 1 = Red  
- 2 = Blue  
- 3 = Drain  
- 17 = Reference  
- 18 = Yellow  
- 19 = White

**Cable preparation**

Prepare the ends of the coil drive and electrode cables as shown in Figure 5-5. Remove only enough insulation so that the exposed conductor fits completely under the terminal connection. Best practice is to limit the unshielded length (D) of each conductor to less than one inch. Excessive removal of insulation may result in an unwanted electrical short to the transmitter housing or other terminal connections. Excessive unshielded length, or failure to connect cable shields properly, may also expose the unit to electrical noise, resulting in an unstable meter reading.
Figure 5-5: Cable ends

A. Unshielded length  
B. Coil  
C. Electrode  
D. Combination  

⚠️ WARNING  

Shock hazard! Potential shock hazard across remote junction box terminals 1 and 2 (40V).
**WARNING**

Explosion hazard! Electrodes exposed to process. Use only compatible transmitter and approved installation practices. For process temperatures greater than 284°F (140°C), use a wire rated for 257°F (125°C).

**Remote junction box terminal blocks**

**Figure 5-6: Remote junction box views**

A. Sensor  
B. Transmitter

**Table 5-4: Sensor/transmitter wiring**

<table>
<thead>
<tr>
<th>Wire color</th>
<th>Sensor terminal</th>
<th>Transmitter terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Blue</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Coil drain</td>
<td>3 or float</td>
<td>3</td>
</tr>
<tr>
<td>Black</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Yellow</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>White</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Electrode drain</td>
<td>☺ or float</td>
<td>☻</td>
</tr>
</tbody>
</table>

**Note**  
For hazardous locations, refer to the product reference manual.
5.4 Wiring sensor to transmitter

Figure 5-7: Wiring 8732EM using component cable
Figure 5-8: Wiring 8732EM using combination cable
5.5 Power and I/O terminal blocks

Remove the back cover of the transmitter to access the terminal block.

Note
To connect pulse output and/or discrete input/output, and for installations with intrinsically safe outputs, refer to the product reference manual.

Figure 5-9: Terminal blocks

A. AC version
B. DC version

Table 5-5: Power and I/O terminals

<table>
<thead>
<tr>
<th>Terminal number</th>
<th>AC version</th>
<th>DC version</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Analog (mA output)</td>
<td>Analog (mA output)</td>
</tr>
<tr>
<td>2</td>
<td>Analog (mA output)</td>
<td>Analog (mA output)</td>
</tr>
<tr>
<td>3</td>
<td>Pulse (–)</td>
<td>Pulse (–)</td>
</tr>
<tr>
<td>4</td>
<td>Pulse (+)</td>
<td>Pulse (+)</td>
</tr>
<tr>
<td>5&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>Discrete I/O 1 (–)</td>
<td>Discrete I/O 1 (–)</td>
</tr>
<tr>
<td>6&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>Discrete I/O 1 (+)</td>
<td>Discrete I/O 1 (+)</td>
</tr>
<tr>
<td>7&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>Discrete I/O 2 (–)</td>
<td>Discrete I/O 2 (–)</td>
</tr>
<tr>
<td>8&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>Discrete I/O 2 (+)</td>
<td>Discrete I/O 2 (+)</td>
</tr>
<tr>
<td>9</td>
<td>AC (Neutral)/L2</td>
<td>DC (–)</td>
</tr>
<tr>
<td>10</td>
<td>AC L1</td>
<td>DC (+)</td>
</tr>
</tbody>
</table>

<sup>(1)</sup> Only available with ordering code AX.
5.6 Powering the transmitter

Before connecting power to the transmitter, be sure to have the necessary electrical supplies and required power source:

- The AC powered transmitter requires 90–250V AC (50/60Hz).
- The DC (standard) powered transmitter requires 12–42V DC.
- The DC **low power** transmitter requires 12–30V DC.

Wire the transmitter according to national, local, and plant electrical requirements.

If installing in a hazardous location, verify that the meter has the appropriate hazardous area approval. Each meter has a hazardous area approval tag attached to the top of the transmitter housing.

**AC power supply requirements**

Units powered by 90 - 250VAC have the following power requirements. Peak inrush is 35.7A at 250VAC supply, lasting approximately 1ms. Inrush for other supply voltages can be estimated with: Inrush (Amps) = Supply (Volts) / 7.0

**Figure 5-10: AC current requirements**

![AC current requirements graph]

A. Supply current (amps)  
B. Power supply (VAC)
DC power supply requirements

Standard DC units powered by 12VDC power supply may draw up to 1.2A of current steady state. Low power DC units may draw up to 0.25A of current steady state. Peak inrush is 42A at 42VDC supply, lasting approximately 1ms. Inrush for other supply voltages can be estimated with: Inrush (Amps) = Supply (Volts) / 1.0

A. Apparent power (VA)
B. Power supply (VAC)

Figure 5-12: DC current requirements

A. Supply current (amps)
B. Power supply (VDC)
Supply wire requirements

Use 10–18 AWG wire rated for the proper temperature of the application. For wire 10–14 AWG use lugs or other appropriate connectors. For connections in ambient temperatures above 122 °F (50 °C), use a wire rated for 194 °F (90 °C). For DC powered transmitters with extended cable lengths, verify that there is a minimum of 12VDC at the terminals of the transmitter with the device under load.

Electrical disconnect requirements

Connect the device through an external disconnect or circuit breaker per national and local electrical code.

Installation category

The installation category for the transmitter is OVERVOLTAGE CAT II.

Overcurrent protection

The transmitter requires overcurrent protection of the supply lines. Fuse rating and compatible fuses are shown in Table 5-6.

Table 5-6: Fuse requirements

<table>
<thead>
<tr>
<th>Power system</th>
<th>Power supply</th>
<th>Fuse rating</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC power</td>
<td>90–250VAC</td>
<td>2 Amp quick acting</td>
<td>Bussman AGC2 or equivalent</td>
</tr>
<tr>
<td>DC power</td>
<td>12–42VDC</td>
<td>3 Amp quick acting</td>
<td>Bussman AGC3 or equivalent</td>
</tr>
</tbody>
</table>
Table 5-6: Fuse requirements (continued)

<table>
<thead>
<tr>
<th>Power system</th>
<th>Power supply</th>
<th>Fuse rating</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC low power</td>
<td>12–30VDC</td>
<td>3 Amp quick acting</td>
<td>Bussman AGC3 or equivalent</td>
</tr>
</tbody>
</table>

**Power terminals**

For AC powered transmitter (90–250VAC, 50/60 Hz):

- Connect AC Neutral to terminal 9 (AC N/L2) and AC Line to terminal 10 (AC/L1).

For DC powered transmitter:

- Connect negative to terminal 9 (DC -) and positive to terminal 10 (DC +).
- DC powered units may draw up to 1.2A.

**Cover jam screw**

For flow meters shipped with a cover jam screw, the screw should be installed after the instrument has been wired and powered up. Follow these steps to install the cover jam screw:

1. Verify the cover jam screw is completely threaded into the housing.
2. Install the housing cover and verify the cover is tight against the housing.
3. Using a 2.5 mm hex wrench, loosen the jam screw until it contacts the transmitter cover.
4. Turn the jam screw an additional ½ turn counterclockwise to secure the cover.

**Note**

Application of excessive torque may strip the threads.

5. Verify the cover cannot be removed.

5.7 **Analog output**

The analog output signal is a 4-20mA current loop. Depending on the IS output option, the loop can be powered internally or externally via a hardware switch located on the front of the electronics stack. The switch is set to internal power when shipped from the factory. For units with a display, the LOI must be removed to change switch position. Intrinsically safe analog output requires a shielded twisted pair cable. For HART communication, a minimum resistance of 250 ohms is required. It is recommended to use individually shielded twisted pair cable. The minimum conductor size is 24
AWG (0.51mm) diameter for cable runs less than 5,000 feet (1,500m) and 20 AWG (0.81mm) diameter for longer distances.

**Note**
For more information about the analog output characteristics, refer to the product reference manual.

**Internal Power**

**Figure 5-14: Analog output wiring, internal power**

A. 4–20 mA (–) to Terminal #2
B. 4–20 mA (+) to Terminal #1

**Note**
Terminal polarity for the analog output is reversed between internally and externally powered.
External power

Figure 5-15: Analog output wiring, external power

A. Power supply
   • (+) to Terminal #2
   • (−) to Terminal #1

Note
Terminal polarity for the analog output is reversed between internally and externally powered.
Figure 5-16: Analog loop load limitations

A. Load (ohms)
B. Power supply (volts)
C. Operating region

- $R_{\text{max}} = 31.25 \times (V_{\text{ps}} - 10.8)$
- $V_{\text{ps}}$ = power supply voltage (volts)
- $R_{\text{max}}$ = maximum loop resistance (ohms)
6 Basic Configuration

Once the magnetic flowmeter is installed and power has been supplied, the transmitter must be configured through the basic setup. These parameters can be configured through either an LOI or a HART communication device. Configuration settings are saved in nonvolatile memory within the transmitter. Descriptions of more advanced functions are included in the product reference manual.

6.1 Basic Setup

Tag
Tag is the quickest and shortest way of identifying and distinguishing between transmitters. Transmitters can be tagged according to the requirements of your application. The tag may be up to eight characters long as standard, or 32 characters long when ordered with HART 7.

Flow units (PV)
The flow units variable specifies the format in which the flow rate will be displayed. Units should be selected to meet your particular metering needs.

Line size
The line size (sensor size) must be set to match the actual sensor connected to the transmitter. The size must be specified in inches.

Upper range value (URV)
The URV sets the 20 mA point for the analog output. This value is typically set to full-scale flow. The units that appear will be the same as those selected under the flow units parameter. The URV may be set between –39.3 ft/s to 39.3 ft/s (–12 m/s to 12 m/s). There must be at least 1 ft/s (0.3 m/s) span between the URV and LRV.

Lower range value (LRV)
The LRV sets the 4 mA point for the analog output. This value is typically set to zero flow. The units that appear will be the same as those selected under the flow units parameter. The LRV may be set between –39.3 ft/s to 39.3 ft/s (–12 m/s to 12 m/s). There must be at least 1 ft/s (0.3 m/s) span between the URV and LRV.

Calibration number
The sensor calibration number is a 16-digit number generated at the factory during flow calibration, is unique to each sensor, and is located on the sensor tag.
6.2 Local operator interface (LOI)

To activate the optional LOI, press the DOWN arrow.

Use the UP, DOWN, LEFT(E), and RIGHT arrows to navigate the menu structure.

A complete map of the LOI menu structure is shown in the product reference manual.

The display can be locked to prevent unintentional configuration changes. The display lock can be activated through a HART communication device, or by holding the UP arrow for three seconds and then following the on-screen instructions.

6.3 Field Communicator interface

Use the menu paths to configure basic setup of the transmitter using a field communicator.

Table 6-1: Basic setup menu paths

<table>
<thead>
<tr>
<th>Function</th>
<th>Menu path</th>
</tr>
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<tbody>
<tr>
<td>Basic Setup</td>
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<td>Flow Units</td>
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<td>PV Upper Range Value (URV)</td>
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<tr>
<td>PV Lower Range Value (LRV)</td>
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<tr>
<td>Calibration Number</td>
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<td>Line Size</td>
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<td>Tag</td>
<td>Configure → Manual Setup → Device Info → Identification → Tag</td>
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<tr>
<td>Long Tag</td>
<td>Configure → Manual Setup → Device Info → Identification → Long Tag</td>
</tr>
<tr>
<td>Overview</td>
<td>Overview</td>
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