

# Rosemount 2051 Pressure Transmitter Rosemount 2051CF Series Flowmeter Transmitter

with FOUNDATION™ fieldbus protocol



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## Note

Before installing the transmitter, confirm the correct device driver is loaded on the host systems. See “[System readiness](#)” on page 3.

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## NOTICE

This installation guide provides basic guidelines for Rosemount 2051 transmitters. It does not provide instructions for configuration, diagnostics, maintenance, service, troubleshooting, Explosion-Proof, Flame-Proof, or intrinsically safe (I.S.) installations. Refer to the 2051 reference manual (document number 00809-0200-4101) for more instruction. This manual is also available electronically on [www.emersonprocess.com/rosemount](http://www.emersonprocess.com/rosemount).

## ⚠ WARNING

### **Explosions could result in death or serious injury.**

Installation of this transmitter in an explosive environment must be in accordance with the appropriate local, national, and international standards, codes, and practices. Please review the approvals section of the 2051 reference manual for any restrictions associated with a safe installation.

- In an Explosion-proof/Flameproof installation, do not remove the transmitter covers when power is applied to the unit.

### **Process leaks may cause harm or result in death.**

- To avoid process leaks, only use the o-ring designed to seal with the corresponding flange adapter.

### **Electrical shock can result in death or serious injury.**

- Avoid contact with the leads and the terminals. High voltage that may be present on leads can cause electrical shock.

### **Conduit/cable entries**

- Unless marked, the conduit/cable entries in the transmitter housing use a  $1/2$ -14 NPT thread form. Only use plugs, adapters, glands, or conduit with a compatible thread form when closing these entries.

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# System readiness

## Confirm correct device driver

- Verify the correct device driver (DD/DTM™) is loaded on your systems to ensure proper communications.
- Download the correct device driver at your host vendor download site, [www.emersonprocess.com](http://www.emersonprocess.com) or [www.fieldbus.org](http://www.fieldbus.org).

## Rosemount 2051 device revisions and drivers

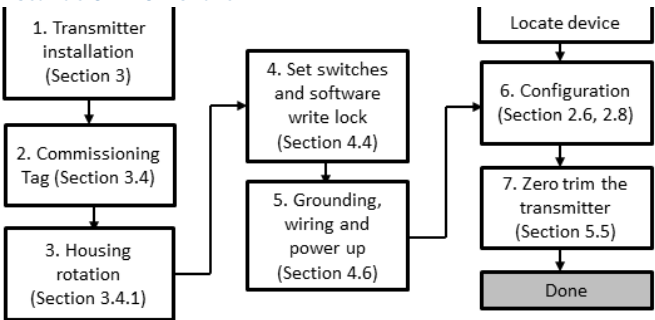
Table 1 provides the information necessary to ensure you have the correct device driver and documentation for your device.

**Table 1. Rosemount 2051 FOUNDATION fieldbus Device Revisions and Files**

Device revision (1)	Host	Device driver (DD)(2)	Obtain at	Device driver (DTM)	Manual document number
2	All	DD4: DD Rev 1	<a href="http://www.fieldbus.org">www.fieldbus.org</a>	<a href="http://www.emersonprocess.com">www.emersonprocess.com</a>	00809-0200-4101 Rev. BA or newer
	All	DD5: DD Rev 1	<a href="http://www.fieldbus.org">www.fieldbus.org</a>		
	Emerson	AMS V 10.5 or higher: DD Rev 2	<a href="http://www.emersonprocess.com">www.emersonprocess.com</a>		
	Emerson	AMS V 8 to 10.5: DD Rev 1	<a href="http://www.emersonprocess.com">www.emersonprocess.com</a>		
	Emerson	375 / 475: DD Rev 2	<a href="http://www.fieldcommunicator.com">www.fieldcommunicator.com</a>		
1	All	DD4: DD Rev 4	<a href="http://www.fieldbus.org">www.fieldbus.org</a>	<a href="http://www.emersonprocess.com">www.emersonprocess.com</a>	00809-0200-4101 Rev. AA
	All	DD5: NA	N/A		
	Emerson	AMS Rev 8 or higher: DD Rev 2	<a href="http://www.emersonprocess.com">www.emersonprocess.com</a>		
	Emerson	375 / 475: DD Rev 2	<a href="http://www.fieldcommunicator.com">www.fieldcommunicator.com</a>		

1. FOUNDATION fieldbus device revision can be read using a FOUNDATION fieldbus capable configuration tool.  
2. Device driver file names use device and DD revision. To access functionality, the correct device driver must be installed on your control and asset management hosts, and on your configuration tools.

**Figure 1. Installation Flowchart**

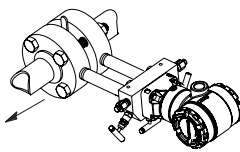
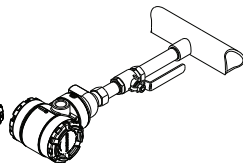


# Transmitter installation

## Step 1: Mount the transmitter

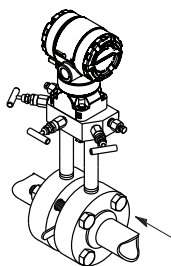
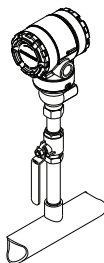
### Liquid applications

1. Place taps to the side of the line.
2. Mount beside or below the taps.
3. Mount the transmitter so that the drain/vent valves are oriented upward.

**Coplanar****In-Line**

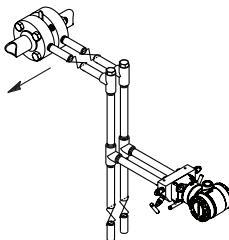
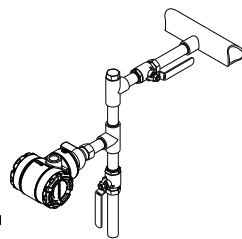
### Gas applications

1. Place taps in the top or side of the line.
2. Mount beside or above the taps.

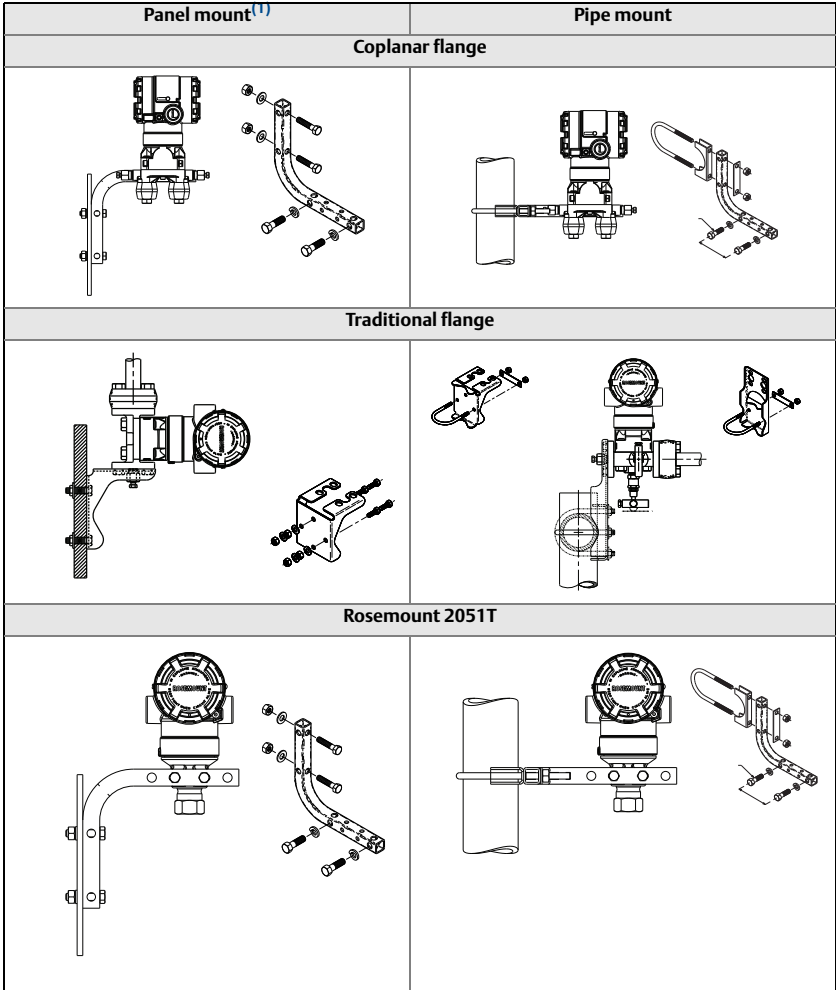
**Coplanar****In-Line**

### Steam applications

1. Place taps to the side of the line.
2. Mount beside or below the taps.
3. Fill impulse lines with water.

**Coplanar****In-Line**

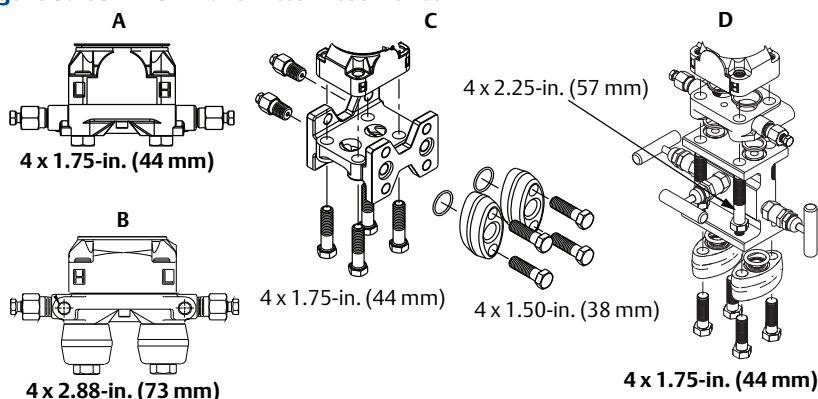
**Figure 2. Panel and pipe mounting**



*1.5/16 x 1 1/2 Panel Bolts are customer supplied.*

## Bolting considerations

If the transmitter installation requires assembly of the process flanges, manifolds, or flange adapters, follow the assembly guidelines to ensure a tight seal for optimal performance characteristics of the transmitters. Use only bolts supplied with the transmitter or sold by Emerson as spare parts. [Figure 3 on page 6](#) illustrates common transmitter assemblies with the bolt length required for proper transmitter assembly.

**Figure 3. Common Transmitter Assemblies**

- A. Transmitter with Coplanar Flange  
 B. Transmitter with Coplanar Flange and Optional Flange Adapters  
 C. Transmitter with Traditional Flange and Optional Flange Adapters  
 D. Transmitter with Coplanar Flange and Optional Manifold and Flange Adapters









Bolts are typically carbon steel or stainless steel. Confirm the material by viewing the markings on the head of the bolt and referencing [Table 2 on page 7](#). If bolt material is not shown in [Table 2](#), contact a local Emerson Process Management representative for more information.

Carbon steel bolts do not require lubrication and the stainless steel bolts are coated with a lubricant to ease installation. However, no additional lubricant should be applied when installing either type of bolt.

Use the following bolt installation procedure:

1. Finger tighten the bolts.
2. Torque the bolts to the initial torque value using a crossing pattern. See [Table 2](#) for initial torque value.
3. Torque the bolts to the final torque value using the same crossing pattern. See [Table 2](#) for final torque value.
4. Verify the flange bolts are protruding through the sensor module bolt holes before applying pressure.

**Table 2. Torque Values for the Flange and Flange Adapter Bolts**

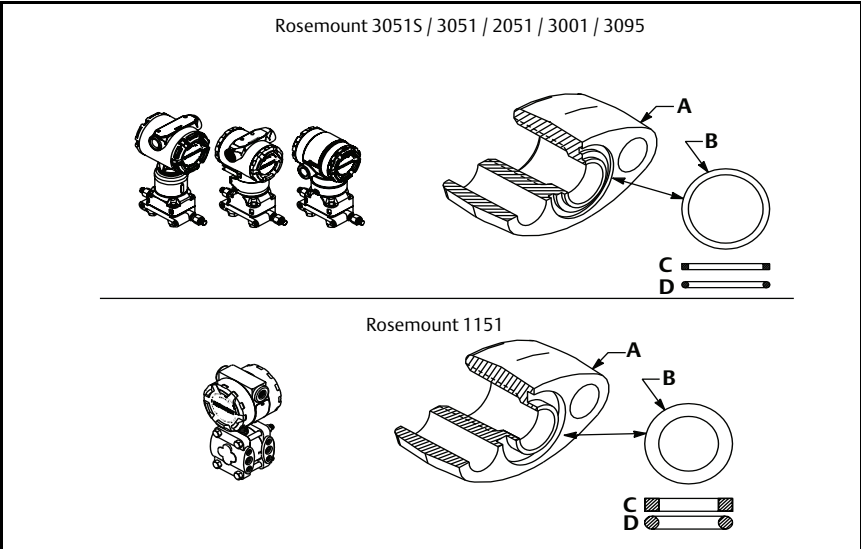
Bolt material	Head markings	Initial torque	Final torque
Carbon Steel (CS)	 	300 in.-lbs.	650 in.-lbs.
Stainless Steel (SST)	     	150 in.-lbs.	300 in.-lbs.

## O-rings with flange adapters

### ⚠ WARNING

Failure to install proper flange adapter O-rings may cause process leaks, which can result in death or serious injury. The two flange adapters are distinguished by unique O-ring grooves. Only use the O-ring that is designed for its specific flange adapter, as shown below.

**Figure 4. O-ring Location**



- A. Flange Adapter
- B. O-ring
- C. PTFE Based
- D. Elastomer

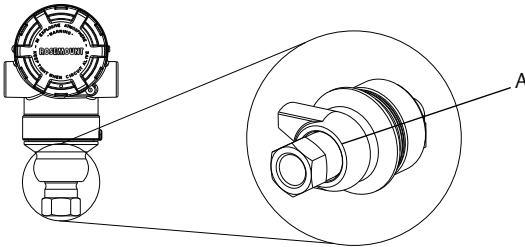
- ⚠ Whenever the flanges or adapters are removed, visually inspect the o-rings. Replace them if there are any signs of damage, such as nicks or cuts. If you replace the o-rings, re-torque the flange bolts and alignment screws after installation to compensate for seating of the PTFE o-ring.

## Inline gage transmitter orientation

The low side pressure port (atmospheric reference) on the inline gage transmitter is located in the neck of the transmitter, behind the housing. The vent path is 360° around the transmitter between the housing and sensor. (See [Figure 5](#).)

Keep the vent path free of any obstruction, including but not limited to paint, dust, and lubrication by mounting the transmitter so that fluids can drain away.

**Figure 5. Inline Gage Low Side Pressure Port**



A. Pressure port location

## Step 2: Tagging

### Commissioning (paper) tag

To identify which device is at a particular location use the removable tag provided with the transmitter. Ensure the physical device tag (PD Tag field) is properly entered in both places on the removable commissioning tag and tear off the bottom portion for each transmitter.

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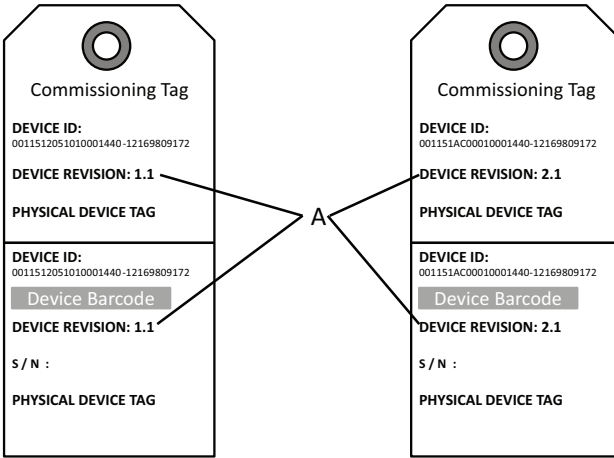
#### Note

The device description loaded in the host system must be at the same revision as this device, see [“System readiness” on page 3](#).

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**Figure 6. Commissioning Tag**



A. Device revision

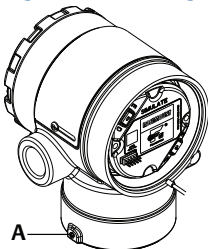
### Note

The device description loaded in the host system must be at the same revision as this device. The device description can be downloaded from the host system website or [www.rosemount.com](http://www.rosemount.com) by selecting Download Device Drivers under Product Quick Links. You can also visit [www.fieldbus.org](http://www.fieldbus.org) and select End User Resources.

## Step 3: Housing rotation

To improve field access to wiring or to better view the optional LCD display:

**Figure 7. Housing Rotation**



A. Housing rotation set screw (5/64-inch)

1. Loosen the housing rotation set screw.
2. First rotate the housing clockwise to the desired location.

3. If the desired location cannot be achieved due to thread limit, rotate the housing counter clockwise to the desired location (up to 360° from thread limit).
4. Re-tighten the housing rotation set screw to no more than 7 in-lbs when desired location is reached.

## Step 4: Set the switches

Set Simulate and Security switch configuration before installation as shown in Figure 8.

- The simulate switch enables or disables simulated alerts and simulated AI Block status and values. The default simulate switch position is enabled.
- The Security switch allows (unlocked symbol) or prevents (locked symbol) any configuration of the transmitter.
  - Default security is off (unlocked symbol).
  - The security switch can be enabled or disabled in software.

Use the following procedure to change the switch configuration:

1. If the transmitter is installed, secure the loop, and remove power.
2. Remove the housing cover opposite the field terminal side. Do not remove the instrument cover in explosive atmospheres when the circuit is live.
3. Slide the security and simulate switches into the preferred position.
4. Replace the housing cover.

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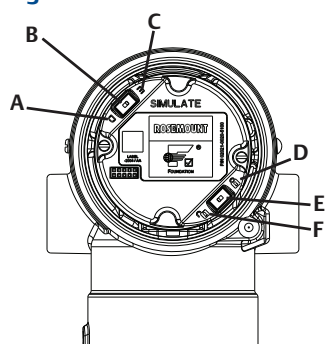
### Note

It is recommended the cover be tightened until there is no gap between the cover and housing.

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**Figure 8. Simulate and Security Switches**



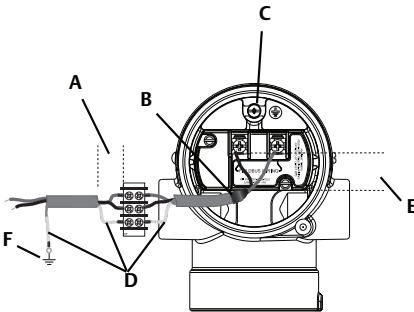
- A. Simulate disabled position
  - B. Simulate switch
  - C. Simulate enabled position (default)
  - D. Security locked position
  - E. Security switch
  - F. Security unlocked position (default)
-

## Step 5: Wire, ground, and power up

Use of copper wire of sufficient size to ensure that the voltage across the transmitter power terminals does not drop below 9 vdc. Power supply voltage can be variable, especially under abnormal conditions such as when operating on battery backup. A minimum of 12 vdc under normal operating conditions is recommended. Shielded twisted pair Type A cable is recommended.

1. To power the transmitter, connect the power leads to the terminals indicated on the terminal block label.

**Figure 9. Wiring Terminals**



- A. Minimize distance
- B. Trim shield and insulate
- C. Protective Grounding Terminal (do not ground cable shield at the transmitter)
- D. Insulate Shield
- E. Minimize distance
- F. Connect Shield Back to the Power Supply Ground

### Note

The 2051 power terminals are polarity insensitive, which means the electrical polarity of the power leads does not matter when connecting to the power terminals. If polarity sensitive devices are connected to the segment, terminal polarity should be followed. When wiring to the screw terminals, the use of crimped legs is recommended.

2. Tighten the terminal screws to ensure adequate contact. No additional power is needed.

## Signal wiring grounding

Do not run signal wiring in conduit or open trays with power wiring, or near heavy electrical equipment. Grounding terminations are provided on the outside of the electronics housing and inside the Terminal Compartment. These grounds are used when transient protect terminal blocks are installed or to fulfill local regulations.

1. Remove the Field Terminals housing cover.
2. Connect the wiring pair and ground as indicated in [Figure 9](#).
  - a. Trim the cable shield as short as practical and insulate from touching the transmitter housing.

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**Note**

Do NOT ground the cable shield at the transmitter; if the cable shield touches the transmitter housing, it can create ground loops and interfere with communications.

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- b. Continuously connect the cable shields to the power supply ground.
  - c. Connect the cable shields for the entire segment to a single good earth ground at the power supply.
- 

**Note**

Improper grounding is the most frequent cause of poor segment communications.

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- 3. Replace the housing cover. It is recommended that the cover be tightened until there is no gap between the cover and the housing.
- 4. Plug and seal unused conduit connections.

## Power supply

The transmitter requires between 9 and 32 V dc (9 and 30 V dc for intrinsic safety, and 9 and 17.5 V dc for FISCO intrinsic safety) to operate and provide complete functionality.

## Power conditioner

A fieldbus segment requires a power conditioner to isolate the power supply, filter, and decouple the segment from other segments attached to the same power supply.

## Grounding

Signal wiring of the fieldbus segment can not be grounded. Grounding out one of the signal wires will shut down the entire fieldbus segment.

## Shield wire ground

To protect the fieldbus segment from noise, grounding techniques for shield wire require a single grounding point for shield wire to avoid creating a ground loop. Connect the cable shields for the entire segment to a single good earth ground at the power supply.

## Signal termination

For every fieldbus segment a terminator should be installed at the beginning and at the end of each segment.

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## Locating devices

Devices are frequently installed, configured, and commissioned over time by different personnel. A “Locate Device” capability has been provided to assist personnel in finding the desired device.

From the device “Overview” screen, click the “Locate Device” button. This will launch a method allowing the user to display a “Find me” message or enter a custom message to display on the device LCD display.

When the user exits the “Locate Device” method, the device LCD display automatically returns to normal operation.

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### Note

Some hosts do not support “Locate Device” in the DD.

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## Step 6: Configure

Each FOUNDATION fieldbus host or configuration tool has a different way of displaying and performing configurations. Some use Device Descriptions (DD) or DD methods for configuration and to display data consistently across platforms. There is no requirement that a host or configuration tool support these features. Use the following block examples to do basic configuration to the transmitter. For more advanced configurations see the 2051 reference manual (document number 00809-0200-4101, Rev. BA).

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### Note

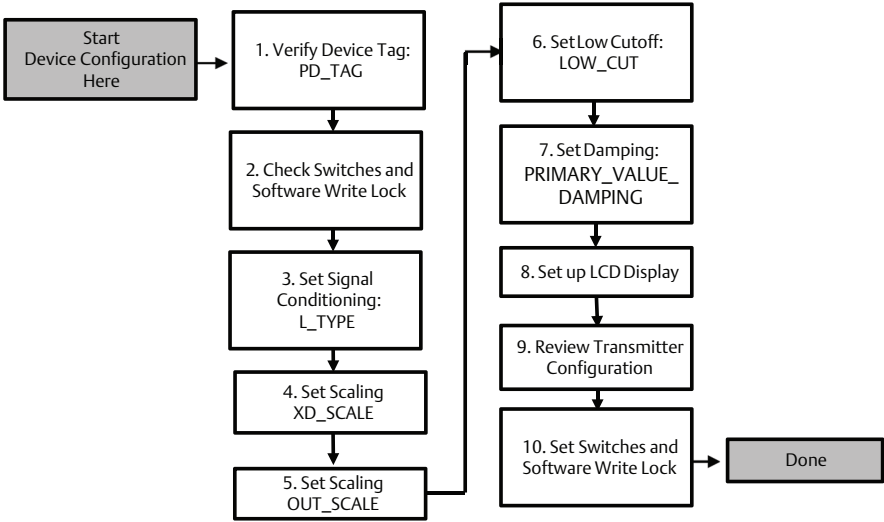
DeltaV users should use DeltaV Explorer for the Resource and Transducer blocks and Control Studio for the Function Blocks.

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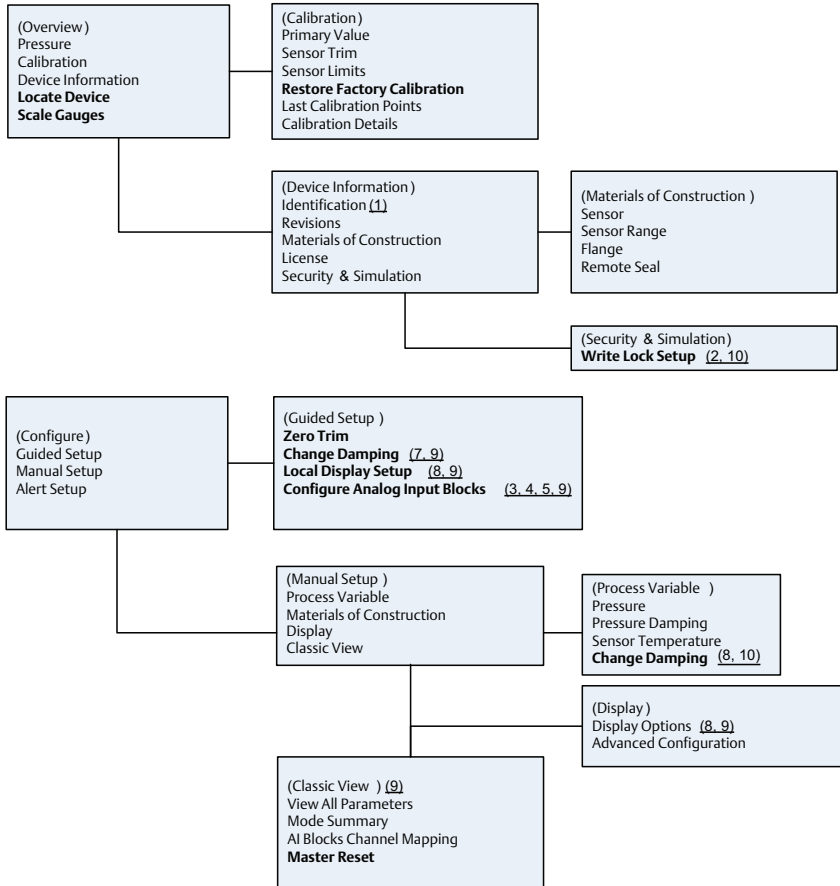
## Configure the AI block

If your configuration tool supports Dashboard DD's or DTM's you may use either guided setup or manual setup. If your configuration tools don't support Dashboard DD's or DTM's, use manual setup. Navigation instructions for each step are provided below. In addition the screens used for each step are shown in [Figure 11](#), Basic Configuration Menu Tree.

Figure 10. Configuration Flowchart



**Figure 11. Basic Configuration Menu Tree**



Standard Text – Navigation selections available

(Text) – Name of selection used on parent menu screen to access this screen

**Bold Text – Automated methods**

Underlined Text -- Configuration task numbers from configuration flow chart

## Before you begin

See Figure 10 to graphically view the step by step process for basic device configuration. Before beginning configuration you may need to verify the Device Tag or deactivate hardware or software write protection on the transmitter. To do this follow steps 1-3 below. Otherwise continue at “Navigating to AI Block Configuration” below.

1. To verify the device tag:

- a. Navigation: from the overview screen, select “Device Information” to verify the device tag.

2. To check the switches (see [Figure 8](#)):
  - a. The write lock switch must be in the unlocked position if the switch has been enabled in software.
  - b. To disable the Software Write Lock (devices ship from the factory with the software write lock disabled):
    - Navigation: from the overview screen, select “Device Information” and then select the “Security and Simulation” tab.
    - Perform “Write Lock Setup” to disable Software Write Lock.

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**Note**

Place the control loop in “Manual” mode before beginning Analog Input Block configuration.

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## AI block configuration

To use guided setup:

- Navigate to Configure, then Guided Setup.
- Select “AI Block Unit Setup”.

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**Note**

Guided setup will automatically go through each step in the proper order.

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**Note**

For convenience, AI Block 1 is pre-linked to the transmitter primary variable and should be used for this purpose. AI Block 2 is pre-linked to the transmitter sensor temperature.

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- Channel 1 is the primary variable.
  - Channel 2 is the sensor temperature.
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**Note**

[Step 3](#) through [Step 6](#) are all performed in a single step by step method under guided setup, or on a single screen using manual setup.

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**Note**

If the L\_TYPE selected in [Step 3](#) is “Direct”, [Step 4](#), [Step 5](#), and [Step 6](#) are not needed. If the L\_TYPE selected is “Indirect”, [Step 6](#) is not needed. Any unneeded steps will automatically be skipped.

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3. To select the Signal Conditioning “L\_TYPE” from the drop down menu:
  - a. Select L\_TYPE: “Direct” for pressure measurements using the device default units.
  - b. Select L\_TYPE: “Indirect” for other pressure or level units.
  - c. Select L\_TYPE: “Indirect Square Root” for flow units.
4. To set “XD\_SCALE” to the 0% and 100% scale points (the transmitter range):
  - a. Select the XD\_SCALE\_UNITS from the drop down menu.
  - b. Enter the XD\_SCALE 0% point. This may be elevated or suppressed for level applications.
  - c. Enter the XD\_SCALE 100% point. This may be elevated or suppressed for level applications.



- d. If L\_TYPE is "Direct", the AI Block may be placed in AUTO mode to return the device to service. Guided Setup does this automatically.
5. If L\_TYPE is "Indirect" or "Indirect Square Root", set "OUT\_SCALE" to change engineering units.
  - a. Select the OUT\_SCALE UNITS from the drop down menu.
  - b. Set the OUT\_SCALE low value. This may be elevated or suppressed for level applications.
  - c. Set the OUT\_SCALE high value. This may be elevated or suppressed for level applications.
  - d. If L\_TYPE is "Indirect", the AI Block may be placed in AUTO mode to return the device to service. Guided Setup does this automatically.
6. If L\_TYPE is "Indirect Square Root", a "LOW FLOW CUTOFF" function is available.
  - a. Enable LOW FLOW CUTOFF.
  - b. Set the LOW\_CUT VALUE in XD\_SCALE UNITS.
  - c. The AI Block may be placed in AUTO mode to return the device to service. Guided Setup does this automatically.
7. Change damping.
  - a. To use guided setup:
    - Navigate to Configure, Guided Setup, and select "Change Damping".

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**Note**

Guided Setup will automatically go through each step in the proper order.

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- Enter the desired damping value in seconds. The permitted range of values is 0.4 to 60 seconds.
  - b. To use manual setup:
    - Navigate to Configure, Manual Setup, Process Variable, and select "Change Damping".
    - Enter the desired damping value in seconds. The permitted range of values is 0.4 to 60 seconds.
8. Configure LCD display (if installed).
  - a. To use guided setup:
    - Navigate to Configure, Guided Setup, and select "Local Display Setup".

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**Note**

Guided setup will automatically go through each step in the proper order.

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- Check the box next to each parameter to be displayed to a maximum of four parameters. The LCD display will continuously scroll through the selected parameters.
  - b. To use manual setup:
    - Navigate to Configure, Manual Setup, and select "Local Display Setup".
    - Check each parameter to be displayed. The LCD display will continuously scroll through the selected parameters.
9. Review transmitter configuration and place in service.
  - a. To review the transmitter configuration navigate using the guided setup navigation sequences for "AI Block Unit Setup", "Change Damping", and "Set up LCD Display".

- b. Change any values as necessary.
- c. Return to the “Overview” screen.
- d. If Mode is “Not in Service”, click on the “Change” button, and then click on “Return All to Service”.

**Note**

If hardware or software write protection is not needed, [Step 10](#) can be skipped.

10. Set switches and software write lock.
  - a. Check switches (see [Figure 8](#)).

**Note**

The write lock switch can be left in the locked or unlocked position. The simulate enable/disable switch may be in either position for normal device operation.

### Enable software write lock

1. Navigate from the overview screen.
  - a. Select “Device Information”.
  - b. Select the “Security and Simulation” tab.
2. Perform “Write Lock Setup” to enable Software Write Lock.

### AI block configuration parameters

Use the Pressure, DP Flow, and DP Level examples for guides.

Parameters	Enter data				
Channel	1=Pressure, 2=Sensor Temp				
L_Type	Direct, Indirect, or Square Root				
XD_Scale	Scale and Engineering Units				
<b>Note</b> Select only the units that are supported by the device.	Pa	bar	torr @ 0 °C	ft H <sub>2</sub> O @ 4 °C	m H <sub>2</sub> O @ 4 °C
	kPa	mbar	kg/cm <sup>2</sup>	ft H <sub>2</sub> O @ 60 °F	mm Hg @ 0 °C
	mPa	psf	kg/m <sup>2</sup>	ft H <sub>2</sub> O @ 68 °F	cm Hg @ 0 °C
	hPa	Atm	in H <sub>2</sub> O @ 4 °C	mm H <sub>2</sub> O @ 4 °C	in Hg @ 0 °C
	Deg C	psi	in H <sub>2</sub> O @ 60 °F	mm H <sub>2</sub> O @ 68 °C	m Hg @ 0 °C
	Deg F	g/cm <sup>2</sup>	in H <sub>2</sub> O @ 68 °F	cm H <sub>2</sub> O @ 4 °C	
Out_Scale	Scale and Engineering Units				

### Pressure example

Parameters	Enter data
Channel	1
L_Type	Direct
XD_Scale	See list of supported engineering units.
<b>Note</b> Select only the units that are supported by the device.	
Out_Scale	Set values outside operating range.

### DP Flow example

Parameters	Enter data
Channel	1
L_Type	Square Root
XD_Scale	0 - 100 inH <sub>2</sub> O @ 68 °F
<b>Note</b> Select only the units that are supported by the device.	
Out_Scale	0 - 20 GPM
Low_Flow_Cutoff	inH <sub>2</sub> O @ 68 °F

### DP Level example

Parameters	Enter data
Channel	1
L_Type	Indirect
XD_Scale	0 - 300 inH <sub>2</sub> O @ 68 °F
<b>Note</b> Select only the units that are supported by the device.	
Out_Scale	0-25 ft.

## Display pressure on the LCD display meter

1. Select the “pressure” check box on the display configuration screen.

## Step 7: Zero trim the transmitter

### Note

Transmitters are shipped fully calibrated per request or by the factory default of full scale (span = upper range limit).

A zero trim is a single-point adjustment used for compensating mounting position and line pressure effects. When performing a zero trim, ensure that the equalizing valve is open and all wet legs are filled to the correct level. The transmitter will only allow 3-5% URL Zero error to be trimmed. For greater zero errors, compensate for the offset by using the XD\_Scaling, Out\_Scaling and Indirect L\_Type which are part of the AI Block.

1. To use guided setup:
  - a. Navigate to Configure, Guided Setup, and select "Zero Trim".
  - b. The method will execute the zero trim.
2. To use manual setup:
  - a. Navigate to Overview, Calibration, Sensor Trim, and select "Zero Trim".
  - b. The method will execute the zero trim.

**ROSEMOUNT**



## EC Declaration of Conformity

No: RMD 1071 Rev. D

We,

**Rosemount Inc.**  
**8200 Market Boulevard**  
**Chanhassen, MN 55317-6985**

*declare under our sole responsibility that the product,*

### **Model 2051 Pressure Transmitters**

*manufactured by,*

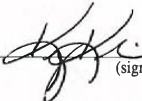
**Rosemount Inc.**  
**12001 Technology Drive**  
**Eden Prairie, MN 55344-3695**  
**USA**

*and*

**8200 Market Boulevard**  
**Chanhassen, MN 55317-9687**  
**USA**

*to which this declaration relates, is in conformity with the provisions of the European Community Directives, including the latest amendments, as shown in the attached schedule.*

*Assumption of conformity is based on the application of the harmonized standards and, when applicable or required, a European Community notified body certification, as shown in the attached schedule.*

  
(signature)

**KELLY KLEIN**  
(name - printed)

**VP - QUALITY**  
(function name - printed)

**8-May-14**  
(date of issue)

**ROSEMOUNT****EC Declaration of Conformity****No: RMD 1071 Rev. D****EMC Directive (2004/108/EC)****All Models 2051 Pressure Transmitters**

EN 61326:2006

**PED Directive (97/23/EC)****Models 2051CG2, 3, 4, 5; 2051CD2, 3, 4, 5 (also with P9 option); Pressure Transmitters**

QS Certificate of Assessment - EC No. PED-H-100

Module H Conformity Assessment

Non-harmonized Standards Used: ANSI/ISA 61010-1:2004, EC 60770-1:1999

**All other model 2051 Pressure Transmitters**

Sound Engineering Practice

**Transmitter Attachments: Diaphragm Seal - Process Flange - Manifold**

Sound Engineering Practice

**Model 2051CFx Flowmeter Transmitters (All 2051CFx models are SEP except as noted in the table below)**

QS Certificate of Assessment - CE-41-PED-H1-RMT-001-04-USA

Module H Conformity Assessment

Evaluation standards: ASME B31.3:2010

Model/Range	PED Category	
	Group 1 Fluid	Group 2 Fluid
2051CFA: 1500# & 2500# All Lines	II	SEP
2051CFA: Sensor Size 2 150# 6"to 24" Line	I	SEP
2051CFA: Sensor Size 2 300# 6"to 24" Line	II	I
2051CFA: Sensor Size 2 600# 6"to 16" Line	II	I
2051CFA: Sensor Size 2 600# 18"to 24" Line	III	II
2051CFA: Sensor Size 3 150# 12"to 44" Line	II	I
2051CFA: Sensor Size 3 150# 46"to 72" Line	III	II
2051CFA: Sensor Size 3 300# 12" to 72" Line	III	II
2051CFA: Sensor Size 3 600# 12"to 48" Line	III	II
2051CFA: Sensor Size 3 600# 60" to 72" Line	IV	III
2051CFP: 150#, 300#, 600# 1-1/2"	I	SEP
2051CFP: 300# & 600# 1-1/2"	II	I
2051CFP: 1-1/2" Threaded & Welded	II	I

**ROSEMOUNT****EC Declaration of Conformity****No: RMD 1071 Rev. D****ATEX Directive (94/9/EC)****Model 2051 Pressure Transmitter****Baseefa08ATEX0129X Intrinsic Safety Certificate**

Equipment Group II Category 1 G

Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +70°C)

Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +60°C) FISCO

Harmonized Standards Used:

EN60079-11:2012

Standards Used:

EN60079-0:2012

**Baseefa08ATEX0130X Type n Certificate**

Equipment Group II Category 3 G

Ex nA IIC T4 Gc (-40°C ≤ Ta ≤ +70°C)

Harmonized Standards Used:

EN60079-15:2010

Other Standards Used:

EN60079-0:2012

**KEMA08ATEX0090X Flameproof Certificate**

Equipment Group II Category 1/2 G

Ex d IIC T6 (-50°C ≤ Ta ≤ +65°C)

Ex d IIC T5 (-50°C ≤ Ta ≤ +80°C)

Harmonized Standards Used:

EN60079-1:2007; EN60079-26:2007

Other Standards Used:

EN60079-0:2006

(A review against EN60079-0:2009 which is harmonized, shows no significant changes relevant to this equipment so EN60079-0:2006 and continues to represent "State of the Art".)

**Baseefa08ATEX0182X Dust Certificate**

Equipment Group II Category 1 D

Ex ta IIIC T95°C T<sub>300</sub>105°C

Harmonized Standards Used:

EN60079-31:2009

Other Standards Used:

EN60079-0:2012

**PED Notified Body****Model 2051 Pressure Transmitters****Det Norske Veritas (DNV) [Notified Body Number: 0575]**

Veritasveien 1, N-1322

Hovik, Norway

**ROSEMOUNT****EC Declaration of Conformity**  
**No: RMD 1071 Rev. D****2051CFx Series Flowmeter Transmitters**

**Bureau Veritas UK Limited** [Notified Body Number: 0041]  
Parklands, Wilmslow Road, Didsbury  
Manchester M20 2RE  
United Kingdom

**ATEX Notified Bodies for EC Type Examination Certificate**

**DEKRA (KEMA)** [Notified Body Number: 0344]  
Meander 1051  
6825 MJ Arnhem  
The Netherlands

**Baseefa.** [Notified Body Number: 1180]  
Rockhead Business Park  
Staden Lane  
Buxton, Derbyshire  
SK17 9RZ United Kingdom

**ATEX Notified Body for Quality Assurance**

**Baseefa.** [Notified Body Number: 1180]  
Rockhead Business Park  
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Buxton, Derbyshire  
SK17 9RZ United Kingdom



**Quick Start Guide**  
**00825-0600-4101, Rev AA**  
**October 2014**

Device revision (1)	Host	Device driver (DD)(2)	Obtain at	Device driver (DTM)	Manual document number
2	All	DD4: DD Rev 1	www.fieldbus.org	www.emersonprocess.com	00809-0200-4101 Rev. BA or newer
	All	DD5: DD Rev 1	www.fieldbus.org		
	Emerson	AMS V 10.5 or higher: DD Rev 2	www.emersonprocess.com		
	Emerson	AMS V 8 to 10.5: DD Rev 1	www.emersonprocess.com		
	Emerson	375 / 475: DD Rev 2	www.fieldcommunicator.com		

1. FOUNDATION fieldbus device revision can be read using a FOUNDATION fieldbus capable configuration tool.

2. Device driver file names use device and DD revision. To access functionality, the correct device driver must be installed on your control and asset management hosts, and on your configuration tools.

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F (55) 15 3228-3300

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