**Quick Start Guide**
00825-0200-4774, Rev BD
February 2017

# Rosemount™ 3051 Pressure Transmitter and Rosemount 3051CF Series Flowmeters

## with FOUNDATION™ Fieldbus Protocol



**Note**
Before installing the transmitter, confirm the correct device driver is loaded on the host systems. See "System readiness" on page 3.

EMERSON.

## NOTICE

This guide provides basic guidelines for Rosemount 3051 Transmitters. It does not provide instructions for configuration, diagnostics, maintenance, service, troubleshooting, Explosion-proof, Flameproof, or intrinsically safe (I.S.) installations. Refer to the Rosemount 3051 FOUNDATION Fieldbus Reference Manual for more instruction. This manual is also available electronically on Emerson.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 Rosemount 3051 FOUNDATION Fieldbus 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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# 1.0 System readiness

## 1.1 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, Emerson.com/Rosemount or Fieldbus.org.

### Rosemount 3051 device revisions and drivers

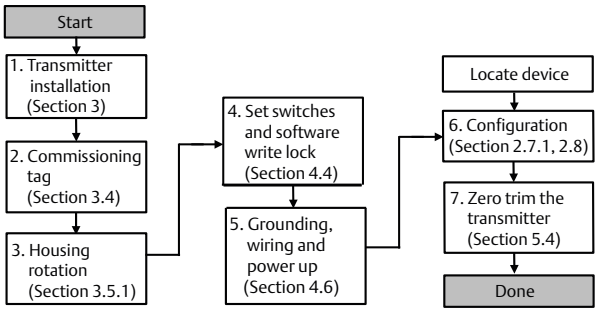
Table 1 provides the information necessary to ensure you have the correct device driver and documentation for your device.

**Table 1. Rosemount 3051 FOUNDATION Fieldbus Device Revisions and Files**

| Device revision (1) | Host | Device driver (DD)(2) | Obtain at | Device driver (DTM) | Manual document number |
|---|---|---|---|---|---|
| 8 | All | DD4: DD Rev 1 | Fieldbus.org | Emerson.com | 00809-0100-4774, Rev, CA or newer |
| | All | DD5: DD Rev 1 | Fieldbus.org | | |
| | Emerson | AMS™ Device Manager V 10.5 or higher: DD Rev 2 | Emerson.com | | |
| | Emerson | AMS Device Manager V 8 to 10.5: DD Rev 1 | Emerson.com | | |
| | Emerson | 375/475: DD Rev 2 | Easy Upgrade Utility | | |
| 7 | All | DD4: DD Rev 3 | Fieldbus.org | Emerson.com | 00809-0100-4774, Rev, BA |
| | All | DD5: NA | N/A | | |
| | Emerson | AMS Device Manager V 10.5 or higher: DD Rev 6 | Emerson.com | | |
| | Emerson | AMS Device Manager V 8 to 10.5: DD Rev 4 | Emerson.com | | |
| | Emerson | 375 / 475: DD Rev 6 | Easy Upgrade Utility | | |

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**

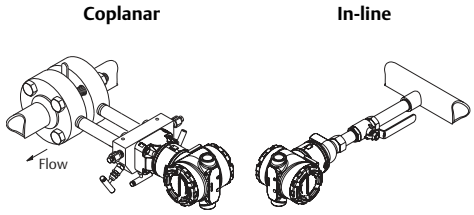


# 2.0 Transmitter installation

## 2.1 Mount the transmitter

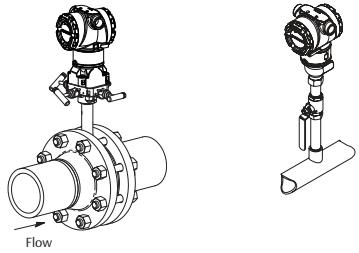
### Liquid applications

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.



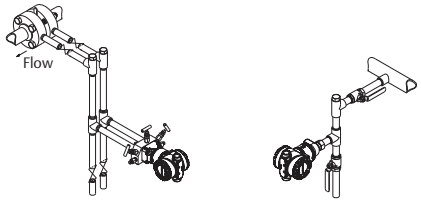

### Gas applications

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




### Steam applications

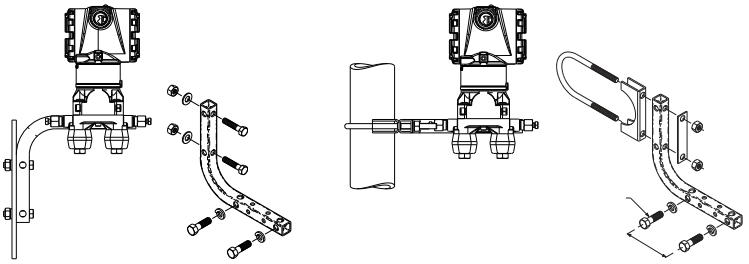
1. Place taps to the side of the line.
2. Mount beside or below the taps.
3. Fill impulse lines with water.



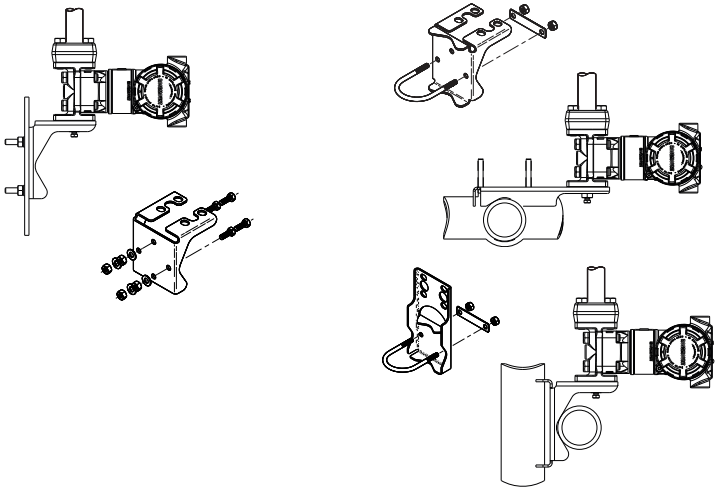
## Figure 2. Panel and Pipe Mounting

**Panel mount(1)** **Pipe mount**

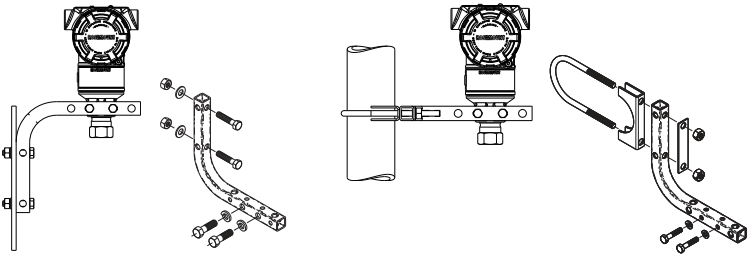
**Coplanar flange**



**Traditional flange**



**Rosemount 3051T**

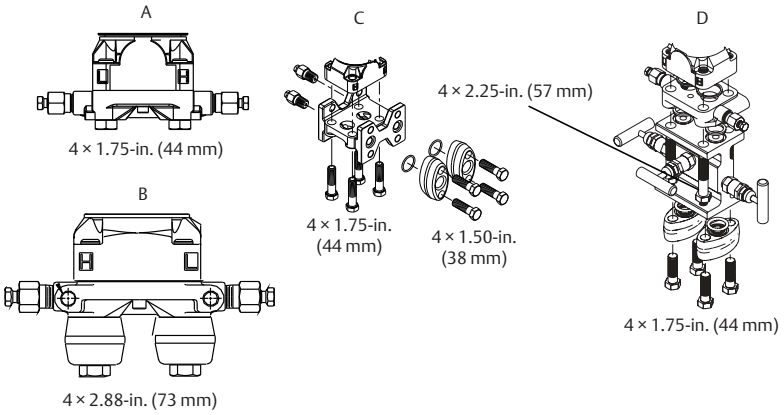


1. $^{5}/_{16} \times 1^{1}/_{2}$ panel bolts are customer supplied.

## 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**



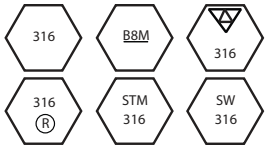

A. Transmitter with coplanar flange
B. Transmitter with coplanar flange and optional flange adapters
C. Transmitter with traditional flange and optional flange adapters
D. Transmitter with coplanar flange and optional manifold and flange adapters

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 representative for more information.

Use the following bolt installation procedure:

1. 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.
2. Finger tighten the bolts.
3. Torque the bolts to the initial torque value using a crossing pattern. See Table 2 for initial torque value.
4. Torque the bolts to the final torque value using the same crossing pattern. See Table 2 for final torque value.
5. 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

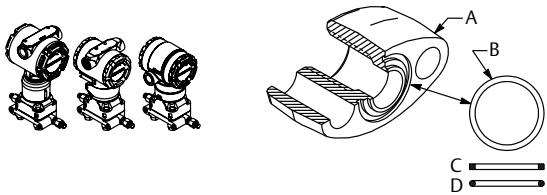
| Bolt material | Head markings | Initial torque | Final torque |
|---|---|---|---|
| Carbon Steel (CS) |   | 300 in-lb | 650 in-lb |
| Stainless Steel (SST) |   | 150 in-lb | 300 in-lb |

## 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:

Rosemount 3051S/3051/2051




A. Flange adapter
B. O-ring
C. PTFE-based profile (square)
D. Elastomer profile (round)

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.

## Environmental seal for housing

Thread sealing (PTFE) tape or paste on male threads of conduit is required to provide a water/dust tight conduit seal and meets requirements of NEMA® Type 4X, IP66, and IP68. Consult factory if other Ingress Protection ratings are required.

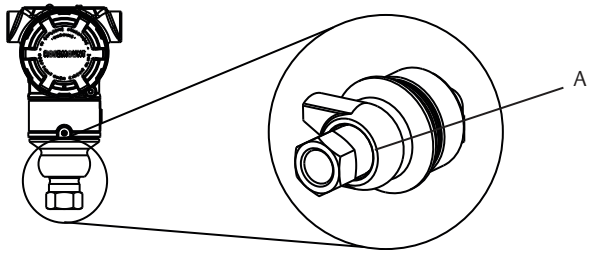
For M20 threads, install conduit plugs to full thread engagement or until mechanical resistance is met.

## In-line gage transmitter orientation

The low side pressure port (atmospheric reference) on the in-line 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 4.)

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

**Figure 4. In-line Gage Low Side Pressure Port**




A. Pressure port location

## Installing high pressure coned and threaded connection

The transmitter comes with an autoclave connection designed for high pressure applications. Follow the steps below to properly connect the transmitter to your process:

1. Apply a process-compatible lubricant to the gland nut threads.
2. Slip the gland nut onto the tube, then thread the collar onto the tube end (the collar is reverse threaded).
3. Apply a small amount of process-compatible lubricant applied to the tube cone to help prevent galling and facilitate sealing. Insert the tubing into the connection and tighten finger tight.
4. Tighten the gland nut to a torque of 25 ft-lb.

**Note**

A weep hole has been designed into the transmitter for safety and leak detection. If fluid begins to leak from the weep hole, isolate the process pressure, disconnect the transmitter, and reseal until the leak is resolved.

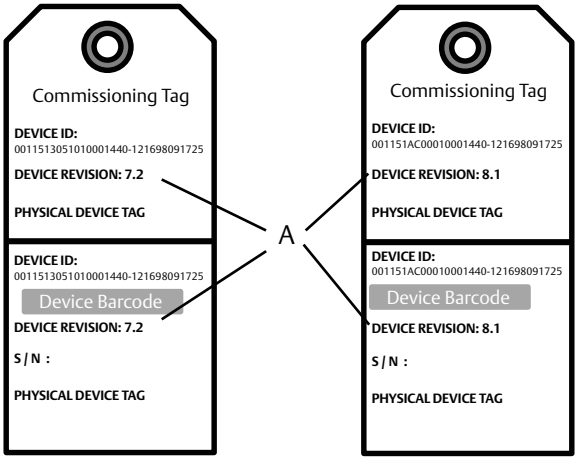
# 2.2 Tagging

## 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.

**Note**
The device description loaded in the host system must be at the same revision as this device, see "System readiness" on page 3.

**Figure 5. Commissioning Tag**




A. Device revision

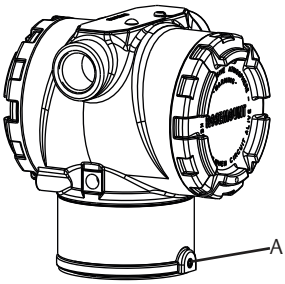
**Note**
The device description loaded in the host system must be at the same revision as this device. The device description can be downloaded from the host system website or Emerson.com/Rosemount by selecting **Download Device Drivers** under *Product Quick Links*. You can also visit Fieldbus.org and select **End User Resources**.

## 2.3 Consider housing rotation

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

1. Loosen the housing rotation set screw using a $^{5}/_{64}$ -in. hex wrench.
2. Rotate the housing clockwise to the desired location.
3. If the desired location cannot be achieved due to thread limit, rotate the housing counterclockwise to the desired location (up to 360° from thread limit).
4. Re-tighten the housing rotation set screw to no more than 7 in-lb when desired location is reached.

**Figure 6. Housing Rotation**




A. Housing rotation set screw ($^{5}/_{64}$ -in.)

## 2.4 Set the switches

Set simulate and security switch configuration before installation as shown in Figure 7.

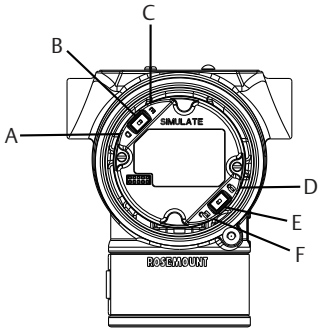
- The simulate switch enables or disables simulated alerts and simulated AI block status and values. The default simulate switch position is enabled.
- The security switch allows (unlocked symbol) or prevents (locked symbol) any configuration of the transmitter.
  - Default security is off (unlocked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

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

**Figure 7. Simulate and Security Switches**



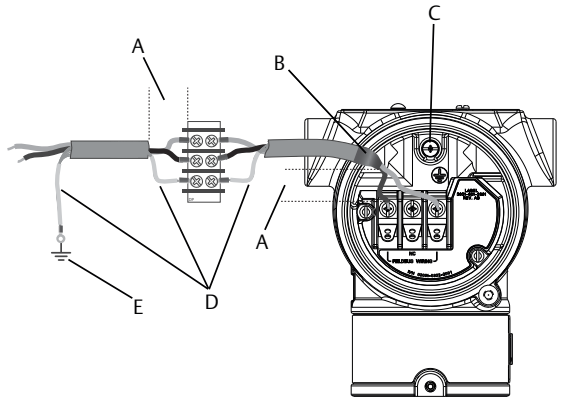

A. Simulate disabled position
B. Simulate switch
C. Simulate enabled position (default)
D. Security locked position
E. Security switch
F. Security unlocked position (default)

## 2.5 Wire, ground, and power up

Use of copper wire of sufficient size to ensure 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 8. 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. Connect shield back to the power supply ground

**Note**
The Rosemount 3051 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. Ensure full contact with Terminal Block screw and washer. When using a direct wiring method, wrap wire clockwise to ensure it is in place when tightening the terminal block screw. No additional power is needed. The use of a pin or ferrule wire terminal is not recommended as the connection may be more susceptible to loosening over time or under vibration.

## 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 8.
   a. Trim the cable shield as short as practical and insulate from touching the transmitter housing.

**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.

   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.

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 Vdc (9 and 30 Vdc for intrinsic safety, and 9 and 17.5 Vdc 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.

### Locating devices

Devices are frequently installed, configured, and commissioned over time by different personnel. A "Locate Device" capability uses the LCD display (when installed) to assist personnel in finding the desired device.

From the device *Overview* screen, select 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.

**Note**
Some hosts do not support "Locate Device" in the DD.

## 2.6 Configure

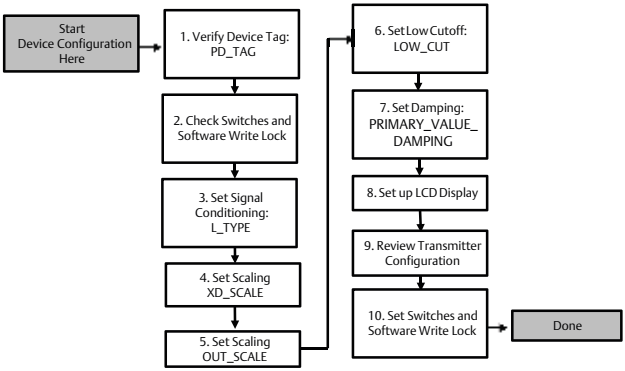
Each FOUNDATION Fieldbus host or configuration tool has a different way of displaying and performing configurations. Some use device descriptions (DD) or DD methods for configuration and to display data consistently across platforms. There is no requirement that a host or configuration tool support these features. Use the following block examples to do basic configuration to the transmitter. For more advanced configurations, see the Rosemount 3051 FOUNDATION Fieldbus Reference Manual.

**Note**
DeltaV™ users should use DeltaV Explorer for the resource and transducer blocks and Control Studio for the function blocks.

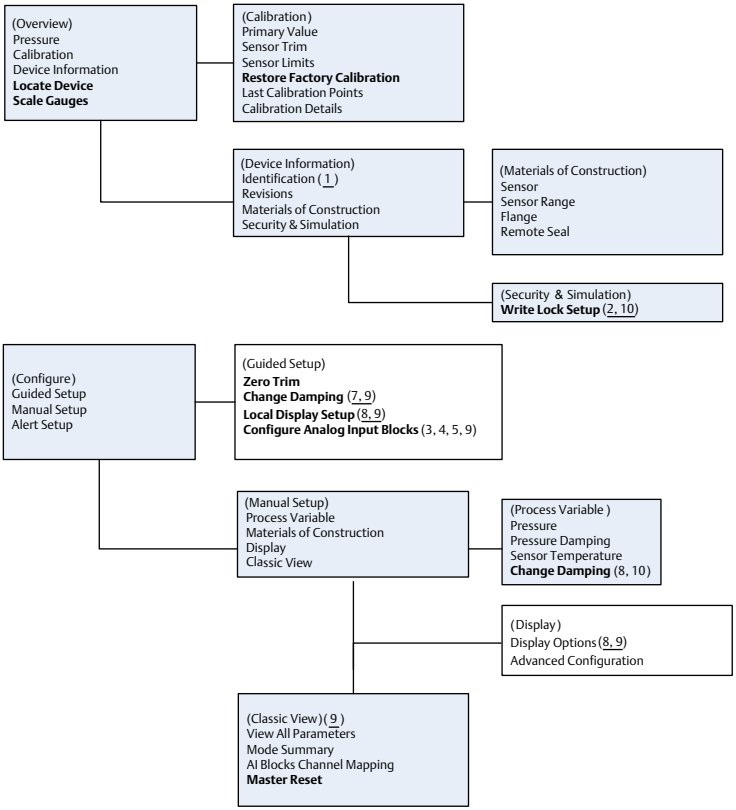
### Configure the AI block

Navigation instructions for each step are provided below. In addition, the screens used for each step are shown in "Basic Configuration Menu Tree" on page 14.

## Figure 9. Configuration Flowchart




## Figure 10. 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 9 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 and software write protection on the transmitter. To do this follow Step 1 and Step 2 below. Otherwise continue at "AI block configuration ".

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 7):
   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.

**Note**
Place the control loop in "Manual" mode before beginning analog input block configuration.

## AI block configuration

To use guided setup:

- Navigate to *Configure* > *Guided Setup*.
- Select **AI Block Unit Setup**.

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

**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. The channel must be selected for AI blocks 3 and 4.

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

If the **FOUNDATION Fieldbus Diagnostics Suite Option Code D01** is enabled, these additional channels are available.

- Channel 12 is the SPM mean.
- Channel 13 is the SPM standard deviation.

To configure SPM, refer to the Rosemount 3051 FOUNDATION Fieldbus Reference Manual.

**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.

**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.

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*.
      - Select **Change Damping**.

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

- 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*.
- Select **Change Damping**.
- Enter the desired damping value in seconds. The permitted range of values is 0.4 to 60 seconds.

8. Configure optional LCD display (if installed).
   a. To use guided setup:
   - Navigate to *Configure* > *Guided Setup*.
   - Select **Local Display Setup**.

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

- 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* > *Guided Setup*.
   - 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 manual 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”, select the **Change** button, and then select **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 7).

**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, 12 = SPM mean, 13 = SPM standard deviation | | | | |
| L-Type | Direct, indirect, or square root | | | | |
| XD_Scale | Scale and engineering units | | | | |
| **Note** Select only the units that are supported by the device. | Pa | bar | torr @ 0 °C | ft $H_2O$ @ 4°C | m $H_2O$ @ 4 °C |
| | kPa | mbar | kg/cm$^2$ | ft $H_2O$ @ 60 °F | mm Hg @ 0 °C |
| | mPa | psf | kg/m$^2$ | ft $H_2O$ @ 68 °F | cm Hg @ 0 °C |
| | hPa | Atm | in $H_2O$ @ 4°C | mm $H_2O$ @ 4 °C | in Hg @ 0 °C |
| | °C | psi | in $H_2O$ @ 60 °F | mm $H_2O$ @ 68 °C | m Hg @ 0 °C |
| | °F | g/cm$^2$ | in $H_2O$ @ 68 °F | cm $H_2O$ @ 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. |
| **Note** 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 in$H_2O$ @ 68 °F |
| **Note** Select only the units that are supported by the device. | |
| Out_Scale | 0–20 GPM |
| Low_Cut | in$H_2O$ @ 68 °F |

### DP Level example

| Parameters | Enter data |
|---|---|
| Channel | 1 |
| L_Type | Indirect |
| XD_Scale | 0–300 in$H_2O$ @ 68 °F |
| **Note**<br>Select only the units that are supported by the device. | |
| Out_Scale | 0–25 ft |

### Display pressure on the LCD display

Select the **Pressure** check box on the *Display Configuration* screen.

## 2.7 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 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*.
   b. Select **Zero Trim**.
   c. The method will execute the zero trim.
2. To use manual setup:
   a. Navigate to *Overview* > *Calibration* > *Sensor Trim*.
   b. Select **Zero Trim**.
   c. The method will execute the zero trim.

# 3.0 Product Certifications

Rev 1.2

## 3.1 European Directive Information

A copy of the EU Declaration of Conformity can be found at the end of the Quick Start Guide. The most recent revision of the EU Declaration of Conformity can be found at Emerson.com/Rosemount.

## 3.2 Ordinary Location Certification

As standard, the transmitter has been examined and tested to determine that the design meets the basic electrical, mechanical, and fire protection requirements by a nationally recognized test laboratory (NRTL) as accredited by the Federal Occupational Safety and Health Administration (OSHA).

## 3.3 North America

**E5** USA Explosionproof (XP) and Dust-Ignitionproof (DIP)
Certificate: 0T2H0.AE
Standards: FM Class 3600 – 2011, FM Class 3615 – 2006, FM Class 3810 – 2005, ANSI/NEMA 250 – 2003
Markings: XP CL I, DIV 1, GP B, C, D; DIP CL II, DIV 1, GP E, F, G; CL III; T5(–50 °C ≤ $T_a$ ≤ +85 °C); Factory Sealed; Type 4X

**I5** USA Intrinsic Safety (IS) and Nonincendive (NI)
Certificate: 1Q4A4.AX
Standards: FM Class 3600 – 2011, FM Class 3610 – 2010, FM Class 3611 – 2004, FM Class 3810 – 2005
Markings: IS CL I, DIV 1, GP A, B, C, D; CL II, DIV 1, GP E, F, G; Class III; DIV 1 when connected per Rosemount drawing 03031-1019; NI CL 1, DIV 2, GP A, B, C, D; T4(–50 °C ≤ $T_a$ ≤ +70 °C) [HART®], T5(–50 °C ≤ $T_a$ ≤ +40 °C) [HART]; T4(–50 °C ≤ $T_a$ ≤ +60 °C) [Fieldbus/PROFIBUS®]; Type 4x

***Special Conditions for Safe Use (X):***

1. The Rosemount 3051 Transmitter housing contains aluminum and is considered a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact and friction.
2. The Rosemount 3051 Transmitter with the transient terminal block (Option codeT1) will not pass the 500 Vrms dielectric strength test and this must be taken into account during installation.

**IE** USA FISCO
Certificate: 1Q4A4.AX
Standards: FM Class 3600 – 2011, FM Class 3610 – 2010, FM Class 3611 – 2004, FM Class 3810 – 2005
Markings: IS CL I, DIV 1, GP A, B, C, D when connected per Rosemount drawing 03031-1019 (–50 °C ≤ $T_a$ ≤ +60 °C); Type 4x

***Special Conditions for Safe Use (X):***

1. The Rosemount 3051 Transmitter housing contains aluminum and is considered a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact and friction.
2. The Rosemount 3051 Transmitter with the transient terminal block (Option code T1) will not pass the 500 Vrms dielectric strength test and this must be taken into account during installation.

**C6** Canada Explosionproof, Dust-Ignitionproof, Intrinsic Safety and Nonincendive
Certificate: 1053834
Standards: ANSI/ISA 12.27.01-2003, CSA Std. C22.2 No. 30-M1986, CSA Std. C22.2 No.142-M1987, CSA Std. C22.2. No.157-92, CSA Std. C22.2 No. 213-M1987
Markings: Explosionproof for Class I, Division 1, Groups B, C and D; Suitable for Class I, Zone 1, Group IIB+H2, T5; Dust-Ignitionproof Class II, Division 1, Groups E, F, G; Class III Division 1; Intrinsically Safe Class I, Division 1 Groups A, B, C, D when connected in accordance with Rosemount drawing 03031-1024, Temperature Code T3C; Suitable for Class I, Zone 0; Class I Division 2 Groups A, B, C and D, T5; Suitable for Class I Zone 2, Group IIC; Type 4X; Factory Sealed; Single Seal (See drawing03031-1053)

**E6** Canada Explosionproof, Dust-Ignitionproof and Division 2
Certificate: 1053834
Standards: ANSI/ISA 12.27.01-2003, CSA Std. C22.2 No. 30-M1986, CSA Std. C22.2 No.142-M1987, CSA Std. C22.2 No. 213-M1987
Markings: Explosionproof Class I, Division 1, Groups B, C and D; Suitable for Class I, Zone 1, Group IIB+H2, T5; Dust-Ignitionproof for Class II and Class III, Division 1, Groups E, F and G; Class I, Division 2, Groups A, B, C and D; Suitable for Class I Zone 2, Group IIC; Type 4X; Factory Sealed; Single Seal (See drawing 03031-1053)

## 3.4 Europe

**E8** ATEX Flameproof and Dust
Certificate: KEMA00ATEX2013X; Baseefa11ATEX0275X
Standards: EN60079-0:2012 + A11:2013, EN60079-1:2014, EN60079-26:2015, EN60079-31:2009
Markings:  II 1/2 G Ex d IIC T6...T4 Ga/Gb, T6(–60 °C ≤ $T_a$ ≤ +70 °C), T4/T5(–60 °C ≤ $T_a$ ≤ +80 °C);  II 1 D Ex ta IIIC T95 °C $T_{500}$ 105 °C Da (–20 °C ≤ $T_a$ ≤ +85 °C)

**Table 3. Process Temperature**

| Temperature class | Process temperature |
|---|---|
| T6 | –60 °C to +70 °C |
| T5 | –60 °C to +80 °C |
| T4 | –60 °C to +120 °C |

***Special Conditions for Safe Use (X):***

1. This device contains a thin wall diaphragm. Installation, maintenance and use shall take into account the environmental conditions to which the diaphragm will be subjected. The manufacturer's instructions for installation and maintenance shall be followed in detail to assure safety during its expected lifetime.
2. Flameproof joints are not intended for repair.
3. Non-standard paint options may cause risk from electrostatic discharge. Avoid installations that could cause electrostatic build-up on painted surfaces, and only clean the painted surfaces with a damp cloth. If paint is ordered through a special option code, contact the manufacturer for more information.
4. Some variants of the equipment have reduced markings on the nameplate. Refer to the Certificate for full equipment marking.

**I1** ATEX Intrinsic Safety and Dust
Certificate: BAS97ATEX1089X; Baseefa11ATEX0275X
Standards: EN60079-0:2012, EN60079-11:2012, EN60079-31:2009
Markings: HART: Ex II 1 G Ex ia IIC T5/T4 Ga, T5(–60 °C ≤ $T_a$ ≤ +40 °C), T4(–60 °C ≤ $T_a$ ≤ +70 °C) Fieldbus/PROFIBUS: Ex II 1 G Ex ia IIC Ga T4(–60 °C ≤ $T_a$ ≤ +60 °C)
DUST: Ex II 1 D Ex ta IIIC T95 °C $T_{500}$ 105 °C Da (–20 °C ≤ $T_a$ ≤ +85 °C)

## Table 4. Input Parameters

| Parameter | HART | Fieldbus/PROFIBUS |
|---|---|---|
| Voltage $U_i$ | 30 V | 30 V |
| Current $I_i$ | 200 mA | 300 mA |
| Power $P_i$ | 0.9 W | 1.3 W |
| Capacitance $C_i$ | 0.012 µF | 0 µF |
| Inductance $L_i$ | 0 mH | 0 mH |

***Special Conditions for Safe Use (X):***

1. The apparatus is not capable of withstanding the 500 V insulation test required by clause 6.3.12 of EN60079-11:2012. This must be taken into account when installing the apparatus.
2. The enclosure may be made of aluminum alloy and given a protective polyurethane paint finish; however care should be taken to protect it from impact or abrasion if located in Zone 0.
3. Some variants of the equipment have reduced markings on the nameplate. Refer to the Certificate for full equipment marking.

**IA** ATEX FISCO
Certificate: BAS97ATEX1089X
Standards: EN60079-0:2012, EN60079-11:2009
Markings: Ex II 1 G Ex ia IIC T4 Ga (–60 °C ≤ $T_a$ ≤ +60 °C)

### Table 5. Input Parameters

| Parameter | FISCO |
|---|---|
| Voltage $U_i$ | 17.5 V |
| Current $I_i$ | 380 mA |
| Power $P_i$ | 5.32 W |
| Capacitance $C_i$ | <5 nF |
| Inductance $L_i$ | <10 µH |

***Special Conditions for Safe Use (X):***

1. The apparatus is not capable of withstanding the 500 V insulation test required by clause 6.3.12 of EN60079-11:2012. This must be taken into account when installing the apparatus.
2. The enclosure may be made of aluminum alloy and given a protective polyurethane paint finish; however care should be taken to protect it from impact or abrasion if located in Zone 0.

**N1** ATEX Type n and Dust
Certificate: BAS00ATEX3105X; Baseefa11ATEX0275X
Standards: EN60079-0:2012, EN60079-15:2010, EN60079-31:2009
Markings: Ⓔx II 3 G Ex nA IIC T5 Gc (–40 °C ≤ $T_a$ ≤ +70 °C);
Ⓔx II 1 D Ex ta IIIC T95 °C $T_{500}$ 105 °C Da (–20 °C ≤ $T_a$ ≤ +85 °C)

***Special Conditions for Safe Use (X):***

1. This apparatus is not capable of withstanding the 500 V insulation test that is required by clause 6.8.1 of EN60079-15. This must be taken into account when installing the apparatus.
2. Some variants of the equipment have reduced markings on the nameplate. Refer to the Certificate for full equipment marking.

## 3.5 International

**E7** ECEx Flameproof and Dust
Certificate: IECEx KEM 09.0034X; IECEx BAS 10.0034X
Standards: IEC60079-0:2011, IEC60079-1:2014-06, IEC60079-26:2014-10, IEC60079-31:2008
Markings: Ex d IIC T6...T4 Ga/Gb, T6(–60 °C ≤ $T_a$ ≤ +70 °C), T4/T5(–60 °C ≤ $T_a$ ≤ +80 °C);
Ex ta IIIC T95 °C $T_{500}$ 105 °C Da (–20 °C ≤ $T_a$ ≤ +85 °C)

### Table 6. Process Temperature

| Temperature class | Process temperature |
|---|---|
| T6 | –60 °C to +70 °C |
| T5 | –60 °C to +80 °C |
| T4 | –60 °C to +80 °C |

***Special Conditions for Safe Use (X):***

1. This device contains a thin wall diaphragm. Installation, maintenance and use shall take into account the environmental conditions to which the diaphragm will be subjected. The manufacturer's instructions for installation and maintenance shall be followed in detail to assure safety during its expected lifetime.
2. Flameproof joints are not intended for repair.
3. Non-standard paint options may cause risk from electrostatic discharge. Avoid installations that could cause electrostatic build-up on painted surfaces, and only lean the painted surfaces with a damp cloth. If paint is ordered through a special option code, contact the manufacturer for more information.
4. Some variants of the equipment have reduced markings on the nameplate. Refer to the Certificate for full equipment marking.

**I7** IECEx Intrinsic Safety
Certificate: IECEx BAS 09.0076X
Standards: IEC60079-0:2011, IEC60079-11:2011
Markings: HART: Ex ia IIC T5/T4 Ga, T5(–60 °C ≤ $T_a$ ≤ +40 °C), T4(–60 °C ≤ $T_a$ ≤ +70 °C)
Fieldbus/PROFIBUS: Ex ia IIC T4(–60 °C ≤ $T_a$ ≤ +60 °C)

## Table 7. Input Parameters

| | HART | Fieldbus/PROFIBUS |
|---|---|---|
| **Voltage $U_i$** | 30 V | 30 V |
| **Current $I_i$** | 200 mA | 300 mA |
| **Power $P_i$** | 0.9 W | 1.3 W |
| **Capacitance $C_i$** | 0.012 µF | 0 µF |
| **Inductance $L_i$** | 0 mH | 0 mH |

***Special Conditions for Safe Use (X):***

1. If the apparatus is fitted with optional 90 V transient suppressor, it is not capable of withstanding the 500 V insulation test required by clause 6.3.12 of IEC60079-11. This must be taken into account when installing the apparatus.
2. The enclosure may be made of aluminum alloy and given a protective polyurethane paint finish; however, care should be taken to protect it from impact or abrasion if located in Zone 0.

IECEx Mining (Special A0259)
Certificate: IECEx TSA 14.0001X
Standards: IEC60079-0:2011, IEC60079-11:2011
Markings: Ex ia I Ma (–60 °C ≤ $T_a$ ≤ +70 °C)

## Table 8. Input Parameters

| Parameter | HART | Fieldbus/PROFIBUS | FISCO |
|---|---|---|---|
| Voltage $U_i$ | 30 V | 30 V | 17.5 V |
| Current $I_i$ | 200 mA | 300 mA | 380 mA |
| Power $P_i$ | 0.9 W | 1.3 W | 5.32 W |
| Capacitance $C_i$ | 0.012 µF | 0 µF | <5 nF |
| Inductance $L_i$ | 0 mH | 0 mH | <10 µH |

***Special Conditions for Safe Use (X):***

1. If the apparatus is fitted with optional 90 V transient suppressor, it is not capable of withstanding the 500 V insulation test required by IEC60079-11. This must be taken into account when installing the apparatus.
2. It is a condition of safe use that the above input parameters shall be taken into account during installation.
3. It is a condition of manufacture that only the apparatus fitted with housing, covers and sensor module housing made out of stainless steel are used in Group I applications.

**N7** IECEx Type n
Certificate: IECEx BAS 09.0077X
Standards: IEC60079-0:2011, IEC60079-15:2010
Markings: Ex nA IIC T5 Gc ($-40\ °C \le T_a \le +70\ °C$)

***Special Condition for Safe Use (X):***

1. The apparatus is not capable of withstanding the 500 V insulation test required by IEC60079-15. This must be taken into account when installing the apparatus.

## 3.6 Brazil

**E2** INMETRO Flameproof
Certificate: UL-BR 13.0643X
Standards: ABNT NBR IEC60079-0:2008 + Errata 1:2011,
ABNT NBR IEC60079-1:2009 + Errata 1:2011,
ABNT NBR IEC60079-26:2008 + Errata 1:2008
Markings: Ex d IIC T6...T4 Ga/Gb, T6($-60\ °C \le T_a \le +70\ °C$),
T4/T5($-60\ °C \le T_a \le +80\ °C$)

***Special Conditions for Safe Use (X):***

1. This device contains a thin wall diaphragm less than 1 mm thickness that forms a boundary between zone 0 (process connection) and zone 1 (all other parts of the equipment). The model code and datasheet are to be consulted for details of the diaphragm material. Installation, maintenance and use shall take into account the environmental conditions to which the diaphragm will be subjected. The manufacturer's instructions for installation and maintenance shall be followed in detail to assure safety during its expected lifetime.
2. Flameproof joints are not intended for repair.
3. Non-standard paint options may cause risk from electrostatic discharge. Avoid installations that could cause electrostatic build-up on painted surfaces, and only clean the painted surfaces with a damp cloth. If paint is ordered through a special option code, contact the manufacturer for more information.

**I2** INMETRO Intrinsic Safety
Certificate: UL-BR 13.0584X
Standards: ABNT NBR IEC60079-0:2008 + Errata 1:2011,
ABNT NBR IEC60079-11:2009
Markings: HART: Ex ia IIC T5/T4 Ga, T5($-60\ °C \le T_a \le +40\ °C$), T4($-60\ °C \le T_a \le +70\ °C$)
Fieldbus/PROFIBUS: Ex ia IIC T4 Ga ($-60\ °C \le T_a \le +60\ °C$)

### Table 9. Input Parameters

| Parameter | HART | Fieldbus/PROFIBUS |
|---|---|---|
| Voltage $U_i$ | 30 V | 30 V |
| Current $I_i$ | 200 mA | 300 mA |
| Power $P_i$ | 0.9 W | 1.3 W |
| Capacitance $C_i$ | 0.012 µF | 0 µF |
| Inductance $L_i$ | 0 mH | 0 mH |

***Special Conditions for Safe Use (X):***

1. If the equipment is fitted with an optional 90 V transient suppressor, it is not capable of withstanding the 500 V insulation test required by ABNT NBR IRC 60079-11. This must be taken into account when installing the equipment.
2. The enclosure may be made of aluminum alloy and given a protective polyurethane paint finish; however, care should be taken to protect it from impact or abrasion if located in Zone 0.

**IB** INMETRO FISCO
Certificate: UL-BR 13.0584X
Standards: ABNT NBR IEC60079-0:2008 + Errata 1:2011, ABNT NBR IEC60079-11:2009
Markings: Ex ia IIC T4 Ga (–60 °C ≤ $T_a$ ≤ +60 °C)

### Table 10. Input Parameters

| Parameter | FISCO |
|---|---|
| Voltage $U_i$ | 17.5 V |
| Current $I_i$ | 380 mA |
| Power $P_i$ | 5.32 W |
| Capacitance $C_i$ | <5 nF |
| Inductance $L_i$ | <10 µH |

***Special Conditions for Safe Use (X):***

1. If the equipment is fitted with an optional 90 V transient suppressor, it is not capable of withstanding the 500 V insulation test required by ABNT NBR IEC 60079-11. This must be taken into account when installing the equipment.
2. The enclosure may be made of aluminum alloy and given a protective polyurethane paint finish; however, care should be taken to protect it from impact or abrasion if located in Zone 0.

## 3.7 China

**E3** China Flameproof
Certificate: GYJ14.1041X; GYJ15.1368X [Flowmeters]
Standards: GB12476-2000; GB3836.1-2010, GB3836.2-2010, GB3836.20-2010
Markings: Ex d IIC T6/T5 Ga/Gb, T6(–50 °C ≤ $T_a$ ≤ +65 °C), T5(–50 °C ≤ $T_a$ ≤ +80 °C)

***Special Conditions for Safe Use (X):***

1. The relation between ambient temperature arrange and temperature class is as follows:

| $T_a$ | Temperature class |
|---|---|
| –50 °C ~ +80 °C | T5 |
| –50 °C ~ +65 °C | T6 |

When used in a combustible dust environment, the maximum ambient temperature is 80 °C.

2. The earth connection facility in the enclosure should be connected reliably.
3. Cable entry certified by notified body with type of protection Ex d IIC in accordance with GB3836.1-2000 and GB3836.2-2000, should be applied when installed in a hazardous location. When used in combustible dust environment, cable entry in accordance with IP66 or higher level should be applied.
4. Obey the warning "Keep tight when the circuit is alive."
5. End users are not permitted to change any internal components.
6. During installation, use and maintenance of this product, observe the following standards: GB3836.13-1997, GB3836.15-2000, GB3836.16-2006, GB50257-1996, GB12476.2-2006, GB15577-2007.

**I3** China Intrinsic Safety
Certificate: GYJ13.1362X; GYJ15.1367X [Flowmeters]
Standards: GB3836.1-2010, GB3836.4-2010, GB3836.20-2010, GB12476.1-2000

Markings: Ex ia IIC Ga T4/T5

***Special Conditions for Safe Use (X):***

1. Symbol "X" is used to denote specific conditions of use:
   a. If the apparatus is fitted with an optional 90 V transient suppressor, it is not capable of withstanding the 500 V insulation test for 1 minute. This must be taken into account when installing the apparatus.
   b. The enclosure may be made of aluminum alloy and given a protective polyurethane paint finish; however, care should be taken to protect it from impact or abrasion if located in Zone 0.\
2. The relation between T code and ambient temperature range is:

| Model | T code | Temperature range |
|---|---|---|
| HART | T5 | –60 °C ≤ $T_a$ ≤ +40 °C |
| HART | T4 | –60 °C ≤ $T_a$ ≤ +70 °C |
| Fieldbus/PROFIBUS/FISCO | T4 | –60 °C ≤ $T_a$ ≤ +60 °C |

3. Intrinsically Safe parameters:

| Parameter | HART | Fieldbus/PROFIBUS | FISCO |
|---|---|---|---|
| Voltage $U_i$ | 30 V | 30V | 17.5 V |
| Current $I_i$ | 200 mA | 300 mA | 380 mA |
| Power $P_i$ | 0.9 W | 1.3 W | 5.32 W |
| Capacitance $C_i$ | 0.012 µF | 0 µF | <5 nF |
| Inductance $L_i$ | 0 mH | 0mH | <10 µH |

Note 1: FISCO parameters apply to both Group IIC and IIB.

Note 2: [For Flowmeters] When Rosemount 644 Temperature Transmitter is used, the transmitter should be used with Ex-certified associated apparatus to establish explosion protection system that can be used in explosive gas atmospheres. Wiring and terminals should comply with the instruction manual of both Rosemount 644 and associated apparatus. The cables between Rosemount 644 and associated apparatus should be shielded cables (the cables must have insulated shield). The shielded cable has to be grounded reliably in a non-hazardous area.

4. Transmitters comply with the requirements for FISCO field devices specified in IEC60079-27:2008. For the connection of an intrinsically safe circuit in accordance with FISCO Model, FISCO parameters are listed in the table above.
5. The product should be used with Ex-certified associated apparatus to establish explosion protection system that can be used in explosive gas atmospheres. Wiring and terminals should comply with the instruction manual of the product and associated apparatus.
6. The cables between this product and associated apparatus should be shielded cables (the cables must have insulated shield). The shielded cable has to be grounded reliably in a non-hazardous area.
7. End users are not permitted to change any intern components but to settle the problem in conjunction with the manufacturer to avoid damage to the product.
8. During installation, use and maintenance of this product, observe the following standards: GB3836.13-1997, GB3836.15-2000, GB3836.16-2006, GB50257-1996, GB12476.2-2006, GB15577-2007.

**N3** China Type n
Certificate: GYJ15.11
Standards: GB3836.1-2010, GB3836.8-2003
Markings: Ex nA nL IIC T5 Gc ($-40\ °C \le T_a \le +70\ °C$)

***Special Condition for Safe Use (X):***

1. Symbol “X” is used to denote specific conditions of use: The apparatus is not capable of withstanding the 500 V test to earth for one minute. The must be taken into consideration during installation.

## 3.8 Japan

**E4** Japan Flameproof
Certificate: TC20577, TC20578, TC20583, TC20584 [HART]; TC20579, TC20580,TC20581,TC20582 [Fieldbus]
Markings: Ex d IIC T5

## 3.9 Technical Regulations Customs Union (EAC)

**EM** EAC Flameproof
Certificate: RU C-US.GB05.B.01197
Markings: Ga/Gb Ex d IIC T5/T6 X, T5($-60\ °C \le T_a \le +80\ °C$), T6($-60\ °C \le T_a \le +65\ °C$)

***Special Condition for Safe Use (X):***

1. See certificate for special conditions.

**M** EAC Intrinsically Safe
Certificate: RU C-US.GB05.B.01197
Markings: HART: 0Ex ia IIC T4/T5 Ga X, T4($-60\ °C \le T_a \le +70\ °C$), T5($-60\ °C \le T_a \le +40\ °C$) Fieldbus/PROFIBUS: 0Ex ia IIC T4 Ga X ($-60\ °C \le T_a \le +60\ °C$)

***Special Condition for Safe Use (X):***

1. See certificate for special conditions.

## 3.10 Combinations

**K2** Combination of E2 and I2
**K5** Combination of E5 and I5
**K6** Combination of C6, E8, and I1
**K7** Combination of E7, I7, and N7
**K8** Combination of E8, I1, and N1
**KB** Combination of E5, I5, and C6
**KD** Combination of E8, I1, E5, I5, and C6
**KM** Combination of EM and IM

## 3.11 Conduit Plugs and Adapters

IECEx Flameproof and Increased Safety
Certificate: IECEx FMG 13.0032X
Standards: IEC60079-0:2011, IEC60079-1:2007, IEC60079-7:2006-2007
Markings: Ex de IIC Gb

ATEX Flameproof and Increased Safety
Certificate: FM13ATEX0076X
Standards: EN60079-0:2012, EN60079-1:2007, IEC60079-7:2007
Markings:  II 2 G Ex de IIC Gb

### Table 11. Conduit Plug Thread Sizes

| Thread | Identification mark |
|---|---|
| M20 × 1.5 | M20 |
| 1/2–14 NPT | 1/2 NPT |

### Table 12. Thread Adapter Thread Sizes

| Male thread | Identification mark |
|---|---|
| M20 × 1.5–6H | M20 |
| 1/2–14 NPT | 1/2–14 NPT |
| 3/4–14 NPT | 3/4–14 NPT |
| **Female thread** | **Identification mark** |
| M20 × 1.5–6H | M20 |
| 1/2–14 NPT | 1/2–14 NPT |
| G1/2 | G1/2 |

***Special Conditions for Safe Use (X):***

1. When the thread adapter is used with an enclosure in type of protection increased safety "e" the entry thread shall be suitably sealed in order to maintain the ingress protection rating (IP) of the enclosure.
2. The blanking plug shall not be used with an adapter.
3. Blanking Plug and Threaded Adapter shall be either NPT or Metric thread forms. G1/2 thread forms are only acceptable for existing (legacy) equipment installations.

## 3.12 Additional Certifications

**SBS** American Bureau of Shipping (ABS) Type Approval
Certificate: 09-HS446883A-5-PDA
Intended Use: Marine and Offshore Applications — Measurement of either gauge or absolute pressure for liquid, gas, and vapor.

**SBV** Bureau Veritas (BV) Type Approval
Certificate: 23155
Requirements: Bureau Veritas Rules for the Classification of Steel Ships
Application: Class notations: AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS; Pressure transmitter type 3051 cannot be installed on diesel engines

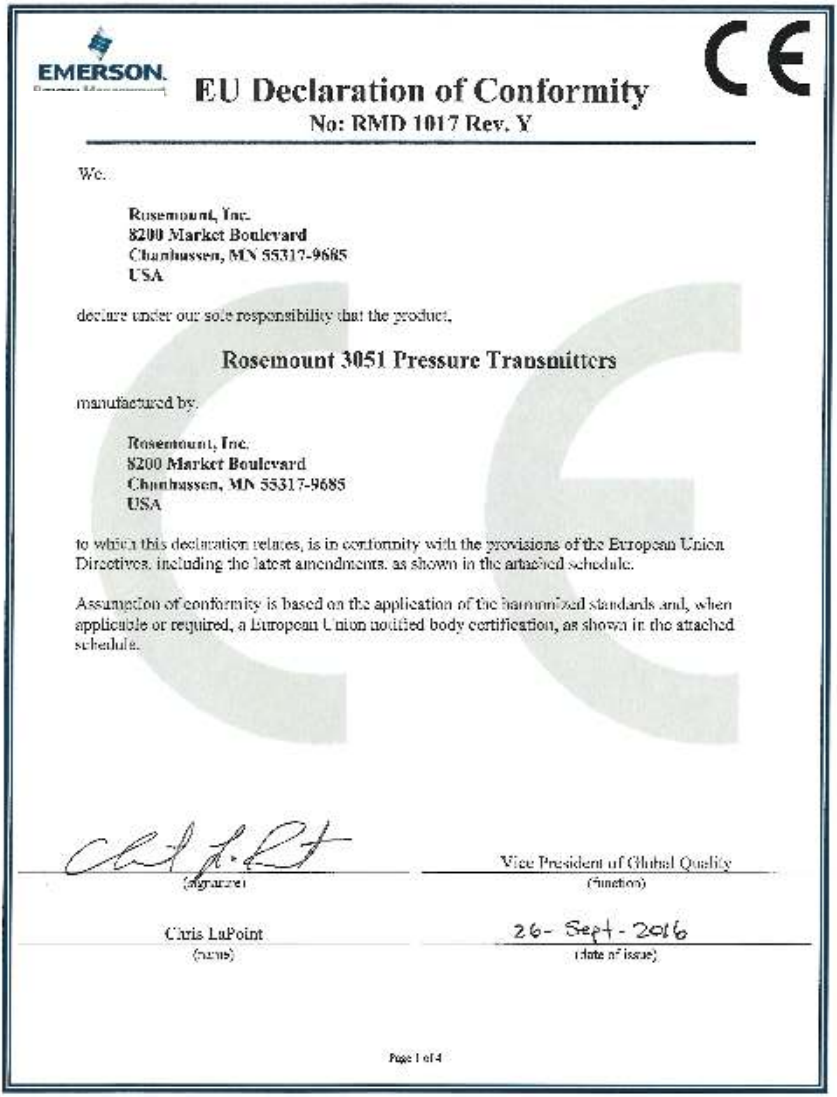
**SDN** Det Norske Veritas (DNV) Type Approval
Certificate: TAA000004F
Intended Use: DNV GL Rules for Classification — Ships and offshore units
Application:

| Location classes | |
|---|---|
| Temperature | D |
| Humidity | B |
| Vibration | A |
| EMC | B |
| Enclosure | D |

**SLL** Lloyds Register (LR) Type Approval
Certificate: 11/60002
Application: Environmental categories ENV1, ENV2, ENV3, and ENV5

**C5** Custody Transfer - Measurement Canada Accuracy Approval
Certificate: AG-0226; AG-0454; AG-0477

**Figure 11. Rosemount 3051 EC Declaration of Conformity**



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# EU Declaration of Conformity

**No: RMD 1017 Rev. Y**

We,

**Rosemount, Inc.**
**8200 Market Boulevard**
**Chanhassen, MN 55317-9685**
**USA**

declare under our sole responsibility that the product,

**Rosemount 3051 Pressure Transmitters**

manufactured by,

**Rosemount, Inc.**
**8200 Market Boulevard**
**Chanhassen, MN 55317-9685**
**USA**

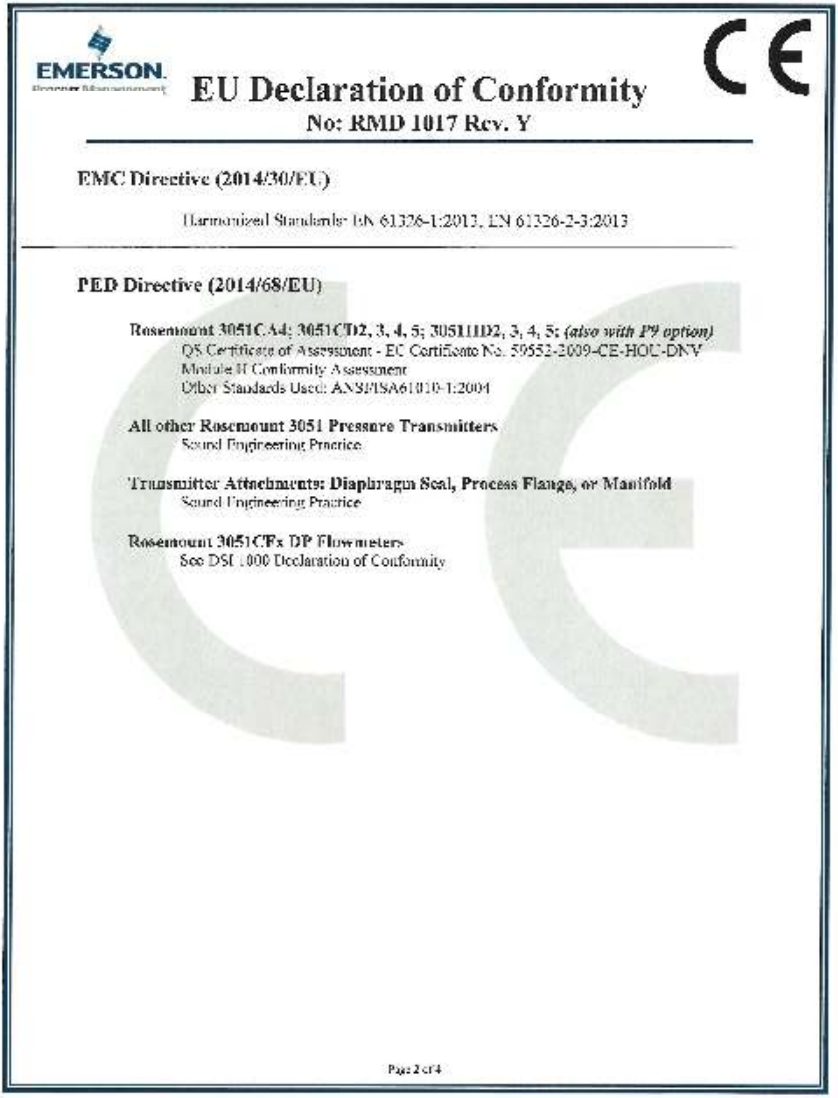
to which this declaration relates, is in conformity with the provisions of the European Union Directives, including the latest amendments, as shown in the attached schedule.

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

(signature) | Vice President of Global Quality (function)

Chris LaPoint (name) | 26-Sept-2016 (date of issue)

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# EU Declaration of Conformity

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**EMC Directive (2014/30/EU)**

Harmonized Standards: EN 61326-1:2013, EN 61326-2-3:2013

**PED Directive (2014/68/EU)**

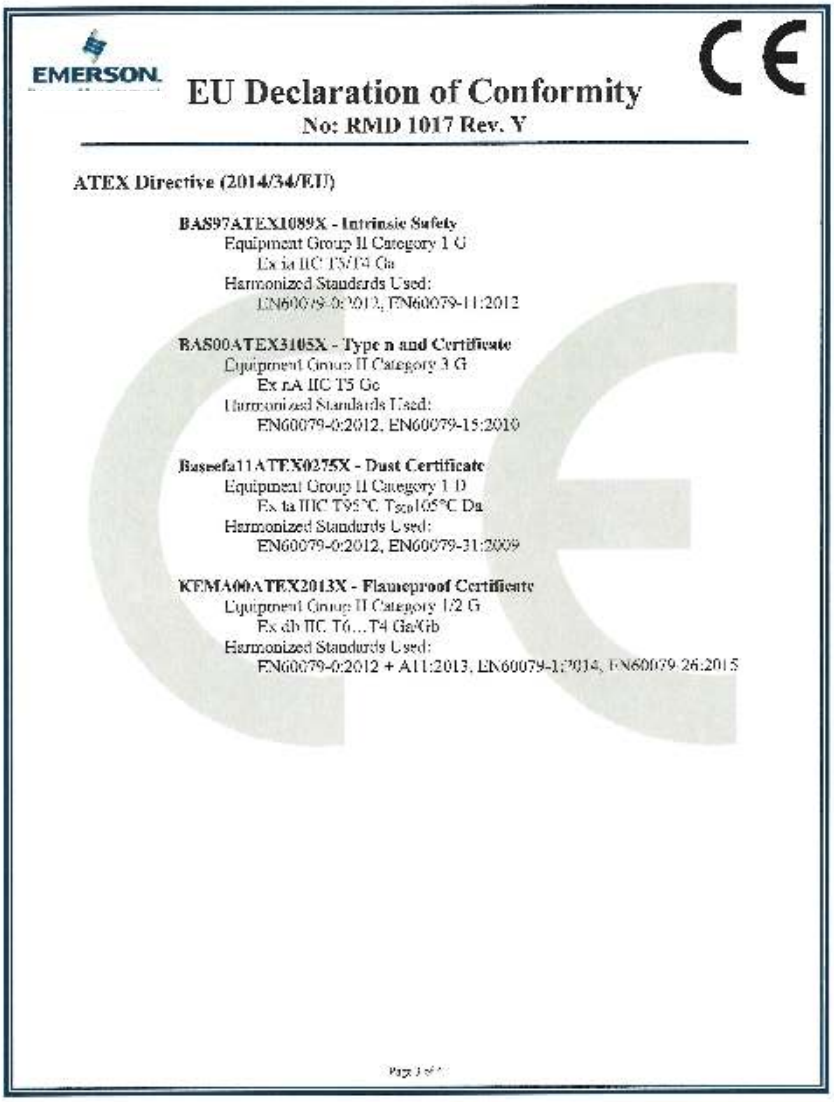
**Rosemount 3051CA4; 3051CD2, 3, 4, 5; 3051HD2, 3, 4, 5; *(also with P9 option)***
QS Certificate of Assessment - EC Certificate No. 59552-2009-CE-HOU-DNV
Module H Conformity Assessment
Other Standards Used: ANSI/ISA61010-1:2004

**All other Rosemount 3051 Pressure Transmitters**
Sound Engineering Practice

**Transmitter Attachments: Diaphragm Seal, Process Flange, or Manifold**
Sound Engineering Practice

**Rosemount 3051CFx DP Flowmeters**
See DSI 1000 Declaration of Conformity

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# EU Declaration of Conformity

**No: RMD 1017 Rev. Y**

**ATEX Directive (2014/34/EU)**

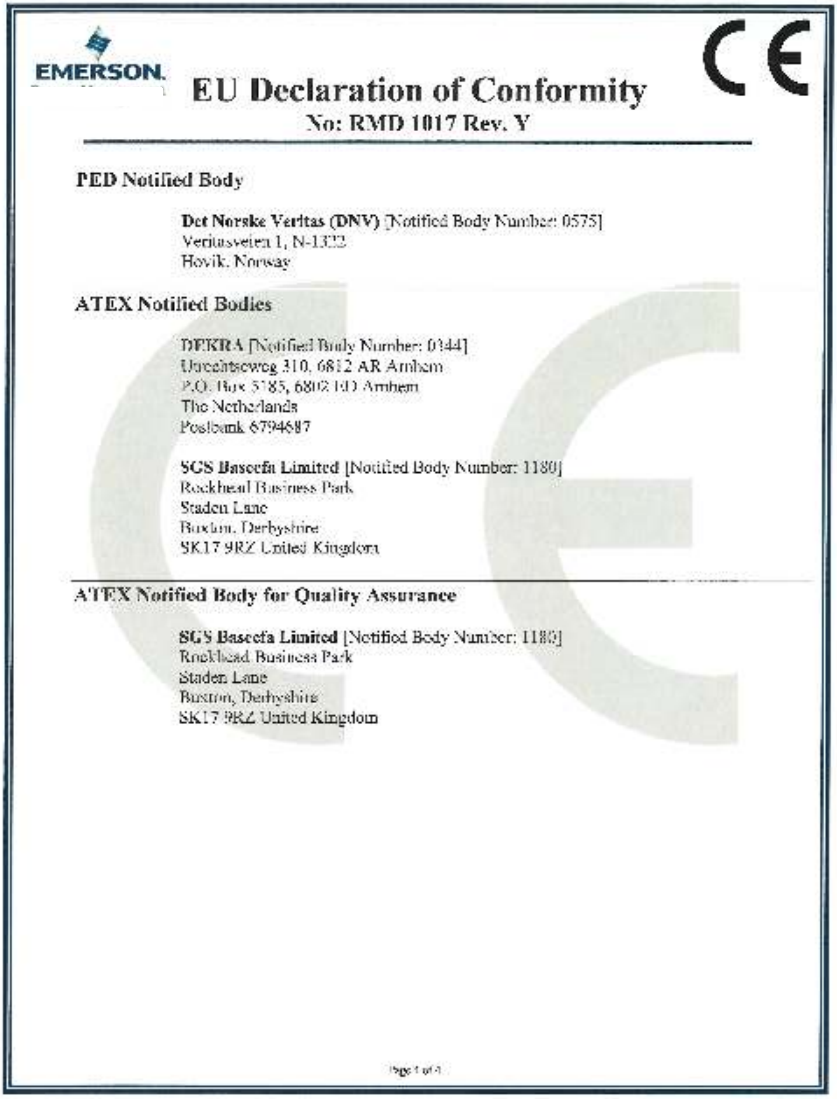
**BAS97ATEX1089X - Intrinsic Safety**
Equipment Group II Category 1 G
Ex ia IIC T5/T4 Ga
Harmonized Standards Used:
EN60079-0:2013, EN60079-11:2012

**BAS00ATEX3105X - Type n and Certificate**
Equipment Group II Category 3 G
Ex nA IIC T5 Gc
Harmonized Standards Used:
EN60079-0:2012, EN60079-15:2010

**Baseefa11ATEX0275X - Dust Certificate**
Equipment Group II Category 1 D
Ex ta IIIC T95°C Tsc105°C Da
Harmonized Standards Used:
EN60079-0:2012, EN60079-31:2009

**KEMA00ATEX2013X - Flameproof Certificate**
Equipment Group II Category 1/2 G
Ex db IIC T6…T4 Ga/Gb
Harmonized Standards Used:
EN60079-0:2012 + A11:2013, EN60079-1:2014, EN60079-26:2015

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# EU Declaration of Conformity

**No: RMD 1017 Rev. Y**

CE

**PED Notified Body**

**Det Norske Veritas (DNV)** [Notified Body Number: 0575]
Veritasveien 1, N-1322
Hovik, Norway

**ATEX Notified Bodies**

DEKRA [Notified Body Number: 0344]
Utrechtseweg 310, 6812 AR Arnhem
P.O. Box 5185, 6802 ED Arnhem
The Netherlands
Postbank 6794687

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

**ATEX Notified Body for Quality Assurance**

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

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***含有China RoHS管控物质超过最大浓度限值的部件型号列表 Rosemount 3051***
***List of Rosemount 3051 Parts with China RoHS Concentration above MCVs***

| 部件名称 Part Name | 有害物质 / Hazardous Substances | | | | | |
|---|---|---|---|---|---|---|
| | 铅 Lead (Pb) | 汞 Mercury (Hg) | 镉 Cadmium (Cd) | 六价铬 Hexavalent Chromium (Cr +6) | 多溴联苯 Polybrominated biphenyls (PBB) | 多溴联苯醚 Polybrominated diphenyl ethers (PBDE) |
| 电子组件 Electronics Assembly | X | O | O | O | O | O |
| 壳体组件 Housing Assembly | X | O | O | X | O | O |
| 传感器组件 Sensor Assembly | X | O | O | X | O | O |

*本表格系依据SJ/T11364的规定而制作.*
*This table is proposed in accordance with the provision of SJ/T11364.*

*O: 意为该部件的所有均质材料中该有害物质的含量均低于GB/T 26572所规定的限量要求.*
*O: Indicate that said hazardous substance in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.*

*X: 意为在该部件所使用的所有均质材料里，至少有一类均质材料中该有害物质的含量高于GB/T 26572所规定的限量要求.*
*X: Indicate that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.*

*00825-0200-4774

**Quick Start Guide**
00825-0200-4774, Rev BD
February 2017

### Global Headquarters
**Emerson Automation Solutions**
6021 Innovation Blvd.
Shakopee, MN 55379, USA
+1 800 999 9307 or +1 952 906 8888
+1 952 949 7001
RFQ.RMD-RCC@Emerson.com

### North America Regional Office
**Emerson Automation Solutions**
8200 Market Blvd.
Chanhassen, MN 55317, USA
+1 800 999 9307 or +1 952 906 8888
+1 952 949 7001
RMT-NA.RCCRFQ@Emerson.com

### Latin America Regional Office
**Emerson Automation Solutions**
1300 Concord Terrace, Suite 400
Sunrise, FL 33323, USA
+1 954 846 5030
+1 954 846 5121
RFQ.RMD-RCC@Emerson.com

### Europe Regional Office
**Emerson Automation Solutions**
Neuhofstrasse 19a P.O. Box 1046
CH 6340 Baar
Switzerland
+41 (0) 41 768 6111
+41 (0) 41 768 6300
RFQ.RMD-RCC@Emerson.com

### Asia Pacific Regional Office
**Emerson Automation Solutions**
1 Pandan Crescent
Singapore 128461
+65 6777 8211
+65 6777 0947
Enquiries@AP.Emerson.com

### Middle East and Africa Regional Office
**Emerson Automation Solutions**
Emerson FZE P.O. Box 17033
Jebel Ali Free Zone - South 2
Dubai, United Arab Emirates
+971 4 8118100
+971 4 8865465
RFQ.RMTMEA@Emerson.com

Linkedin.com/company/Emerson-Automation-Solutions

Twitter.com/Rosemount_News

Facebook.com/Rosemount

Youtube.com/user/RosemountMeasurement

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