Note
Before installing the transmitter, confirm the correct device driver is loaded on the host systems. See Section 1: System readiness.
NOTICE

This installation 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 Reference Manual (document number 00809-0100-5007) for more instruction. This manual is also available electronically on www.emerson.com.

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. Review the approvals section of the Rosemount 3051 Reference Manual for any restrictions associated with a safe installation.

- Before connecting a HART-based communicator in an explosive atmosphere, make sure the instruments in the loop are installed in accordance with intrinsically safe or non-incendive field wiring practices.
- 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 \( \frac{3}{8} \)-14 NPT thread form. Only use plugs, adapters, glands, or conduit with a compatible thread form when closing these entries.

Contents

System readiness ................. 3  Connect the wiring and power up ........ 8
Confirm HART revision capability ... 3  Verify configuration .................. 10
Confirm correct device driver ........ 3  Trim the transmitter .................... 14
Transmitter installation ............. 4  Safety instrumented systems installation 15
Mount the transmitter ............. 4  Rosemount 3051G Product Certifications 16
Set the switches ..................... 7
System readiness

Confirm HART revision capability

- If using HART based control or asset management systems, please confirm the HART capability of those systems prior to transmitter installation. Not all systems are capable of communicating with HART Revision 7 protocol. This transmitter can be configured for either HART Revision 5 or 7.
- For instructions on how to change the HART revision of your transmitter, see page 12.

Confirm correct device driver

- Verify the latest device driver (DD/DTM™) is loaded on your systems to ensure proper communications.
- Download the latest device driver at www.emerson.com or www.fieldcommgroup.org.

Rosemount 3051 device revisions and drivers

Table 1 provides the information necessary to verify the correct device driver and documentation for your device.

<table>
<thead>
<tr>
<th>Software release date</th>
<th>Identify device</th>
<th>Find device driver</th>
<th>Review instructions</th>
<th>Review functionality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec-11</td>
<td>1.0.0</td>
<td>01</td>
<td>7 10</td>
<td>00809-0100-4007</td>
</tr>
<tr>
<td>Jan-98</td>
<td>N/A</td>
<td>178</td>
<td>5 3</td>
<td>00809-0100-4001</td>
</tr>
</tbody>
</table>

1. NAMUR Software Revision is located on the hardware tag of the device. HART Software Revision can be read using a HART capable configuration tool.
2. Device driver file names use Device and DD Revision, e.g. 10_01. HART Protocol is designed to enable legacy device driver revisions to continue to communicate with new HART devices. To access new functionality, the new device driver must be downloaded. It is recommended to download new device driver files to ensure full functionality.
3. HART Revision 5 and 7 Selectable, Safety Certified, Local Operator Interface, Process Alerts, Scaled Variable, Configurable Alarms, Expanded Engineering Units.
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.

Figure 1. In-Line Liquid Applications

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

Figure 2. In-Line Gas Applications
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 3. In-Line Steam Applications
Figure 4. Panel and Pipe Mounting

| Rosemount 3051G |
|-----------------|----------------|
| Panel mount(1)  | Pipe mount     |

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

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 the process can drain away.

Figure 5. Inline Gage Low Side Pressure Port

A. Low side pressure port (atmospheric reference)
Step 2: Set the switches

Set Alarm and Security switch configuration before installation as shown in Figure 6.
- The Alarm switch sets the analog output alarm to high or low.
  - Default alarm is high.
- The Security switch allows (unlocked symbol) or prevents (locked symbol) any configuration of the transmitter.
  - Default security is off (unlocked symbol).

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 alarm switches into the preferred position using a small screwdriver.
4. Reattach the transmitter cover. The cover must be fully engaged to comply with explosion-proof requirements.

Figure 6. Transmitter Electronics Board

<table>
<thead>
<tr>
<th>Without LCD display</th>
<th>With LCD/LoI display</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Transmitter Electronics Board" /></td>
<td></td>
</tr>
</tbody>
</table>

A. Alarm
B. Security
Step 3: Connect the wiring and power up

Figure 7. Transmitter Wiring Diagrams (4–20 mA)

A. 24 Vdc supply
B. R \geq 250
C. Current Meter (optional)

Shielded twisted pair cable should be used for best results. Use 24 AWG or larger wire that does not exceed 5,000 feet (1500 meters) in length. If applicable, install wiring with a drip loop. Arrange the drip loop so the bottom is lower than the conduit connections and the transmitter housing.

**CAUTION**

- Installation of the transient protection terminal block does not provide transient protection unless the Rosemount 3051 case is properly grounded.
- Do not run signal wiring in conduit or open trays with power wiring, or near heavy electrical equipment.
- Do not connect the powered signal wiring to the test terminals. Power could damage the test diode in the terminal block.

Use the following steps to wire the transmitter:

1. Remove the housing cover on the FIELD TERMINALS side.
2. Connect the positive lead to the “+” terminal (PWR/COMM) and the negative lead to the “–” terminal.
3. Ground housing to fulfill local grounding regulations.
4. Ensure proper grounding. It is important that the instrument cable shield be:
   - Trimmed close and insulated from touching the transmitter housing
   - Connected to the next shield if cable is routed through a junction box
   - Connected to a good earth ground at the power supply end
5. If transient protection is needed, refer to section **Grounding for transient terminal block** for grounding instructions.
6. Plug and seal unused conduit connections.
7. Replace the housing cover.
Figure 8. Wiring

A. Insulate shield and shield drain wire
B. Insulate exposed shield drain wire
C. Connect shield back to the power supply ground

Grounding for transient terminal block

Ground termination is provided on the outside of the electronics housing and inside the terminal compartment. These grounds are used when the transient protection terminal blocks are installed. It is recommended that 18 AWG or larger wire is used to connect housing ground to earth ground (internal or external).

If the transmitter is currently not wired for power up and communication, follow Step 1-Step 7 of Connect the wiring and power up. When the transmitter is properly wired, reference Figure 8 for internal and external transient grounding locations.
Quick Start Guide

February 2019

Step 4: Verify configuration

Verify configuration using any HART capable configuration tool or Local Operator Interface (LOI) - option code M4

Configuration instructions for a Field Communicator and LOI are included in this step. See Rosemount 3051 Reference Manual (00809-0100-5007) for configuration instructions using AMS™ Device Manager.

Verifying configuration with a Field Communicator

A Rosemount 3051 DD must be installed on the Field Communicator to verify configuration. Fast Key sequences for the latest DD are shown in Table 2 on page 10. For Fast Key sequences using legacy DD’s, contact your local Emerson representative.

Note

Emerson recommends installing the latest DD to access the complete functionality. Visit www.fieldcommgroup.org for information on updating the DD Library.

1. Verify device configuration using the Fast Key sequences in Table 2.
   - A check (✓) in the first column indicates the basic configuration parameters. At minimum, these parameters should be verified as part of configuration and startup.
   - A (7) in the first column indicates availability only in HART revision 7 mode.

Table 2. Device Revision 9 and 10 (HART7), DD Revision 1 Fast Key Sequence

<table>
<thead>
<tr>
<th>Function</th>
<th>Fast Key sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HART 7</td>
</tr>
<tr>
<td>✓ Alarm and Saturation Levels</td>
<td>2, 2, 2, 5, 7</td>
</tr>
<tr>
<td>✓ Damping</td>
<td>2, 2, 1, 1, 5</td>
</tr>
<tr>
<td>✓ Range Values</td>
<td>2, 2, 2</td>
</tr>
<tr>
<td>✓ Tag</td>
<td>2, 2, 7, 1, 1</td>
</tr>
<tr>
<td>✓ Transfer Function</td>
<td>2, 2, 1, 1, 6</td>
</tr>
<tr>
<td>✓ Units</td>
<td>2, 2, 1, 1, 4</td>
</tr>
<tr>
<td>Burst Mode</td>
<td>2, 2, 5, 3</td>
</tr>
<tr>
<td>Custom Display Configuration</td>
<td>2, 2, 4</td>
</tr>
<tr>
<td>Date</td>
<td>2, 2, 7, 1, 4</td>
</tr>
<tr>
<td>Descriptor</td>
<td>2, 2, 7, 1, 5</td>
</tr>
<tr>
<td>Digital to Analog Trim (4 - 20 mA Output)</td>
<td>3, 4, 2</td>
</tr>
</tbody>
</table>
Verifying configuration with Local Operator Interface (LOI)

The optional LOI can be used for commissioning the device. The LOI is a two button design with internal and external buttons. The internal buttons are located on the display of the transmitter, while the external buttons are located underneath the top metal tag. To activate the LOI push any button. LOI button functionality is shown on the bottom corners of the display. See Table 2 and Figure 10 for button operation and menu information.

<table>
<thead>
<tr>
<th>Function</th>
<th>Fast Key sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disable Configuration Buttons</td>
<td>2, 2, 6, 3</td>
</tr>
<tr>
<td>Rerange with Keypad</td>
<td>2, 2, 2, 1</td>
</tr>
<tr>
<td>Loop Test</td>
<td>3, 5, 1</td>
</tr>
<tr>
<td>Lower Sensor Trim</td>
<td>3, 4, 1, 2</td>
</tr>
<tr>
<td>Message</td>
<td>2, 2, 7, 1, 6</td>
</tr>
<tr>
<td>Scaled D/A Trim (4 - 20 mA Output)</td>
<td>3, 4, 2</td>
</tr>
<tr>
<td>Sensor Temperature/Trend (Rosemount 3051S)</td>
<td>3, 3, 3</td>
</tr>
<tr>
<td>Upper Sensor Trim</td>
<td>3, 4, 1, 1</td>
</tr>
<tr>
<td>Digital Zero Trim</td>
<td>3, 4, 1, 3</td>
</tr>
<tr>
<td>Password</td>
<td>2, 2, 6, 5</td>
</tr>
<tr>
<td>Scaled Variable</td>
<td>3, 2, 2</td>
</tr>
<tr>
<td>HART revision 5 to HART revision 7 switch</td>
<td>2, 2, 5, 2, 3</td>
</tr>
<tr>
<td>7 Long Tag</td>
<td>2, 2, 7, 1, 2</td>
</tr>
<tr>
<td>7 Find Device</td>
<td>3, 4, 5</td>
</tr>
<tr>
<td>7 Simulate Digital Signal</td>
<td>3, 4, 5</td>
</tr>
</tbody>
</table>

Figure 9. Internal and External LOI Buttons

A. Internal buttons
B. External buttons
Note
See Figure 10 to confirm external button functionality.

Table 3. LOI Button Operation

<table>
<thead>
<tr>
<th>Button</th>
<th>Left</th>
<th>Right</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Button</th>
<th>Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>'EXIT MENU?'</td>
<td>SCROLL</td>
</tr>
<tr>
<td></td>
<td>ENTER</td>
</tr>
</tbody>
</table>

Figure 10. LOI Menu

Switch HART revision mode

If the HART configuration tool is not capable of communicating with HART Revision 7, the Rosemount 3051 will load a generic menu with limited capability. The following procedures will switch the HART revision mode from the generic menu:

1. Manual Setup > Device Information > Identification > Message
   a. To change to HART Revision 5, Enter: “HART5” in the Message field
   b. To change to HART Revision 7, Enter: “HART7” in the Message field
Note
See Table 2 on page 10 to change HART revision when the correct device driver is loaded.
Step 5: Trim the transmitter

Devices are calibrated by the factory. Once installed, it is recommended to perform a zero trim on gage pressure transmitters to eliminate error due to mounting position or static pressure effects. A zero trim can be performed using either a Field Communicator or configuration buttons.

For instructions using AMS Device Manager, see the Rosemount 3051 HART 7 Reference Manual (00809-0100-5007).

Note
When performing a zero trim, ensure that the equalization valve is open and all wet legs are filled to the correct level.

1. Choose your trim procedure.
   a. Analog Zero Trim – Sets the analog output to 4 mA.
      • Also referred to as a “rerange,” it sets the Lower Range Value (LRV) equal to the measured pressure.
      • The display and digital HART output remains unchanged.
   b. Digital Zero Trim – Recalibrates the sensor zero.
      • The LRV is unaffected. The pressure value will be zero (on display and HART output). 4 mA point may not be at zero.
      • This requires that the factory calibrated zero pressure is within a range of 3% of the URL [0 + 3% x URL].

Example
URV = 250 inH2O
Applied Zero Pressure = + 0.03 * 250 inH2O = + 7.5 inH2O (compared to factory settings) values outside this range will be rejected by the transmitter.

Trimming with a Field Communicator
1. Connect the Field Communicator (see Connect the wiring and power up on page 8 for instructions).
2. Follow the HART menu to perform the desired zero trim.

Table 4. Zero Trim Fast Keys

<table>
<thead>
<tr>
<th>Fast Key sequence</th>
<th>Analog zero (Set 4 mA)</th>
<th>Digital zero</th>
</tr>
</thead>
<tbody>
<tr>
<td>3, 4, 2</td>
<td>3, 4, 1, 3</td>
<td></td>
</tr>
</tbody>
</table>
Use the following procedures to perform a Zero Trim:

**Perform trim with LOI (option M4)**
1. Set the transmitter pressure.
2. See Figure 10 on page 12 for the operating menu.
   a. Perform an analog zero trim by selecting Rerange.
   b. Perform a digital zero trim by selecting Zero Trim.

**Perform trim with analog zero and span (option D4)**
1. Set the transmitter pressure.
2. Press and hold the zero button for two seconds to perform an analog zero trim.

**Perform trim with digital zero (option DZ)**
1. Set the transmitter pressure.
2. Press and hold the zero button for two seconds to perform a digital zero trim.

**Safety instrumented systems installation**

For Safety Certified installations, please refer to reference manual (00809-0100-5007) for installation procedure and system requirements.
Quick Start Guide

February 2019

Rosemount 3051G Product Certifications

European Directive Information

A copy of the EC Declaration of Conformity can be found at the end of the Quick Start Guide. The most recent revision of the EC Declaration of Conformity can be found at www.emerson.com.

Ordinary Location Certification from FM Approvals

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

Hazardous Locations Certifications

North America

E5  FM Explosionproof and Dust Ignitionproof
Certificate: 0T2HO.AE
Markings: XP CL I, DIV 1, GP B, C, D; DIP CL II, DIV 1, GP E, F, G; CL III;
T5(-50 °C ≤ T2 ≤ +85 °C); Factory Sealed; Type 4X

I5  FM Intrinsic Safety and Nonincendive
Certificate: 1Q4AA.AX
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 ≤ T2 ≤ +40 °C), T3(-50 °C ≤ T2 ≤ +85 °C); Type 4X

Special Conditions for Safe Use (X):
1. The Model 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 Model 3051 transmitter with the transient terminal block (Option code T1) will not pass the 500Vrms dielectric strength test and this must be taken into account during installation.

C6  CSA Explosionproof, Dust-Ignitionproof, Intrinsic Safety and Division 2
Certificate: 1053834
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 drawing 03031-1053)
**Europe**

**E6**  CSA Explosionproof, Dust-Ignitionproof, and Division 2  
Certificate: 1053834  
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; 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 drawing 03031-1053)

**Europe**

**E8**  ATEX Flameproof and Dust  
Certificate: KEMA97ATEX2378X; BAS01ATEX1427X  
Markings:  II ¹ ¹ G Ex d IIC T6 or T4, T6(−40 °C ≤ Ta ≤ +40 °C), T4(−40 °C ≤ Ta ≤ +80 °C);  II ¹ ¹ D Ex t IIIC T50 °C T 50 °C Da  
**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. For information on the dimensions of the flameproof joints the manufacturer shall be contacted.  
3. The user must ensure that the maximum rated voltage and current (36 volts, 24 milliamp, d.c.) are not exceeded. All connections to other apparatus or associated apparatus' hall have control over this voltage and current equivalent to a category 'ib' circuit according to EN 50020.  
4. Cable entries must be used which maintain the ingress protection of the enclosure to at least 1P66.  
5. Unused cable entries must be filled with suitable blanking plugs which maintain the ingress Protection of the enclosure to at least IP66.  
6. Cable entries and blanking plugs must be suitable for the ambient range of the apparatus and capable of withstanding a 7J impact test.

**I1**  ATEX Intrinsic Safety  
Certificate No.: BAS00ATEX1166X  
Standards used: EN60079-0:2012, EN60079-11:2012  
Markings:  II ¹ ¹ G, Ex ia IIC T5/T4 Ga, T5(−55 °C ≤ Ta ≤ +40 °C), T4(−55 °C ≤ Ta ≤ +70 °C)  
**Special Condition for Safe Use (X):**  
1. The apparatus is not capable of withstanding the 500 V insulation test required by EN60079-11. This must be taken into account when installing the apparatus.

<table>
<thead>
<tr>
<th>Voltage $U_i$</th>
<th>30V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current $I_i$</td>
<td>200 mA</td>
</tr>
<tr>
<td>Power $P_i$</td>
<td>0.9 W</td>
</tr>
<tr>
<td>Capacitance $C_i$</td>
<td>0.012 μF</td>
</tr>
<tr>
<td>Inductance $L_i$</td>
<td>0 mH</td>
</tr>
</tbody>
</table>

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

1. The apparatus is not capable of withstanding the 500 V insulation test required by EN60079-11. This must be taken into account when installing the apparatus.
Quick Start Guide

N1 ATEX Type n and Dust
Certificate: BAS00ATEX3167X; BAS01ATEX1427X
Markings: II 3 G Ex nA IIC T5 C (-40 °C ≤ T_a ≤ +70 °C); II 1D Ex IIC T50 °C T 50060 °C Da

Special Condition for Safe Use (X):
1. This apparatus is not capable of withstanding the 500V insulation test that is required by EN60079-15. This must be taken into account when installing the apparatus.
2. The user must ensure that the maximum rated voltage and current (36 volts, 24 milliamps, d.c.) are not exceeded. All connections to other apparatus or associated apparatus shall have control over this voltage and current equivalent to a category ‘ib’ circuit according to EN 50020.
3. Cable entries must be used which maintain the ingress protection of the enclosure to at least IP66.
4. Unused cable entries must be filled with suitable blanking plugs which maintain the ingress Protection of the enclosure to at least IP66.
5. Cable entries and blanking plugs must be suitable for the ambient range of the apparatus and capable of withstanding a 7J impact test.

International

I7 IECEx Intrinsic Safety
Certificate: IECEx BAS 12.0071X
Markings: Ex ia IIC T5/T4 Ga, T5(-55 °C ≤ T_a ≤ +40 °C); T4(-55 °C ≤ T_a ≤ +70 °C)

<table>
<thead>
<tr>
<th>Voltage U_i</th>
<th>30V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current I_i</td>
<td>200 mA</td>
</tr>
<tr>
<td>Power P_i</td>
<td>0.9 W</td>
</tr>
<tr>
<td>Capacitance C_i</td>
<td>0.012 μF</td>
</tr>
<tr>
<td>Inductance L_i</td>
<td>0 mH</td>
</tr>
</tbody>
</table>

Special Conditions for Safe Use (X):
1. When fitted with a transient suppression terminal block, the Model 3051G is incapable of passing the 500V isolation test. This must be taken into account during installation.
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.

N7 IECEx Type n
Certificate: IECEx BAS 12.0072X
Standards used: IEC60079-0:2011, IEC60079-15:2010
Markings: Ex na IIC T5 C (-40 °C ≤ T_a ≤ +70 °C)

Special Condition for Safe Use (X):
1. When fitted with a transient suppression terminal block, the Model 3051G is incapable of passing the 500V isolation test. This must be taken into account during installation.
**China**

**E3** China Flameproof  
Certificate: GYJ101240  
Standards used: GB3836.1-2000, GB3836.2-2000  
Markings: Ex d IIB+H2 T5 (-20 °C ≤ +85 °C)

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

1. The ambient temperature range is: -20 °C ≤ +85 °C.  
2. The earth connection facility in the enclosure should be connected reliably.  
3. During installation, there should be no present mixture harmful to the flameproof housing.  
4. Cable entry and conduit, certified by NEPSI with type of protection Ex d IIC and appropriate thread form, should be applied when installed in hazardous locations. Blanking elements should be used on the redundant cable entries.  
5. During installation, use and maintenance of the product, observe the warning “Don’t open the cover when the circuit is alive”.  
6. End users are not permitted to change any internal components, but to settle problems in conjunction with the manufacturer to avoid damage to the product.  
7. Maintenance should be done in non-hazardous locations.  
8. During installation, use and maintenance of this product, observe the instruction manual and the following standards:  
   GB3836.13-1997 “Electrical apparatus for explosive gas atmospheres Part 13: Repair and overhaul for apparatus used in explosive gas atmospheres”  
   GB3836.15-2000 “Electrical apparatus for explosive gas atmospheres Part 15: Electrical installations in hazardous area (other than mines)”  
   GB3836.16-2006 “Electrical apparatus for explosive gas atmospheres Part 16: Inspection and maintenance of electrical installation (other than mines)”  
   GB50257-1996 “Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering”.

**N3** China Type n Non-Sparking  
Certificate no.: GYJ13.1305X(3051G Series)  
Applicable standards: GB3836.1-2000, GB3836.8-2000  
Markings: Ex na n IIC T5(-40 °C ≤ Tamb ≤ +70 °C)  
Refer to Appendix B of the 3051G Reference Manual (document number 00809-0100-5007) for Special Conditions for Safe Use.

**I3** China Intrinsic Safety  
Certificate: GYJ101245  
Standards used: GB3836.1-2000, GB3836.4-2000  
Markings: Ex ia IIC T4/T3, T4(-50 °C ≤ +40 °C), T3(-50 °C ≤ +85 °C)
**Special Conditions for Safe Use (X):**

1. The ambient temperature is:

<table>
<thead>
<tr>
<th>Type</th>
<th>Configuration</th>
<th>T Code</th>
<th>Maximum Ta</th>
</tr>
</thead>
<tbody>
<tr>
<td>3051GabA2821cdef</td>
<td>Output Option A=A</td>
<td>T4</td>
<td>40 °C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>T3</td>
<td>85 °C</td>
</tr>
<tr>
<td></td>
<td>Transmitter Option f=TR and</td>
<td>T4</td>
<td>70 °C</td>
</tr>
<tr>
<td></td>
<td>Output Option A=A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. The earth connection facility in the enclosure should be connected reliably.

3. The cables between field signal indicator and associated apparatus should be shielded cables (the cables must have insulated shields). The shield has to be grounded reliably in a non-hazardous area.

4. Associated apparatus should be installed in a safe location, and during installation, operation and maintenance, the regulations of the instruction manual have to be strictly observed.

5. Intrinsically safe parameters and maximum internal parameters are:

<table>
<thead>
<tr>
<th>Group</th>
<th>Maximum input voltage: $U_i$ (V)</th>
<th>Maximum input current: $I_i$ (mA)</th>
<th>Maximum input power: $P_i$ (W)</th>
<th>Maximum internal parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$C_i$ ($\mu$F)</td>
</tr>
<tr>
<td>A output with no T1 option</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II C</td>
<td>30</td>
<td>165</td>
<td>1.0</td>
<td>0.01</td>
</tr>
<tr>
<td>II B</td>
<td>30</td>
<td>225</td>
<td>1.0</td>
<td>0.01</td>
</tr>
<tr>
<td>A output with T1 option</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II C</td>
<td>30</td>
<td>160</td>
<td>1.0</td>
<td>0.01</td>
</tr>
<tr>
<td>II B</td>
<td>30</td>
<td>225</td>
<td>1.0</td>
<td>0.01</td>
</tr>
<tr>
<td>TR Transmitter option</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II C</td>
<td>30</td>
<td>165</td>
<td>1.0</td>
<td>0.01</td>
</tr>
</tbody>
</table>

6. End users are not permitted to change any internal components, but to settle problems in conjunction with the manufacturer to avoid damage to the product.

7. During installation, use and maintenance of this product, observe the following standards:


9. GB3836.15-2000 “Electrical apparatus for explosive gas atmospheres Part 15: Electrical installations in hazardous area (other than mines)."

10. GB3836.16-2006 “Electrical apparatus for explosive gas atmospheres Part 16: Inspection and maintenance of electrical installation (other than mines)."

11. GB50257-1996 “Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering.”
Combinations of certifications

**K3** Combination of E3 and I3
**K5** Combination of E5 and I5
**K6** Combination of C6, E8 and I1
**K8** Combination of E8, I1 and N1
**KB** Combination of C6 and K5
**KD** Combination of C6, K5, E8 and I1
We, Rosemount Inc.
8200 Market Boulevard
Chanhassen, MN 55317-9685
USA
decide under our sole responsibility that the product,

**Rosemount**

*Models 3051D and 3051G 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 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.

(Vice President of Global Quality)

Chris LaPoint

1-Feb-19; Shakopee, MN USA

(signature)

(name - printed)

(date of issue)
EMC Directive (2014/30/EU)

All Models 3051D and 3051G Pressure Transmitters
EN 61326-1:2013
EN 61326-2-3:2013

PED Directive (2014/68/EU)

Models 3051DP2, 3, 4, 5 with C-276 Isolators or options P7 or P9 Pressure Transmitters
Module H Conformity Assessment
Other Standards Used: ANSI/ISA61010-1:2004
Note – previous PED Certificate No. 59552-2009-CE-HOEF-DNV

All other model 3051D and 3051G Pressure Transmitters
Sound Engineering Practice
Transmitter Attachments: Diaphragm Seal - Process Flange - Manifold
Sound Engineering Practice

ATEX Directive (2014/34/EU)

Model 3051D Pressure Transmitter
Baseefa12ATEX0189X - Intrinsic Safety Certificate
Equipment Group II Category 1 G
Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +70°C)
Ex ia IIC T5 Ga (-60°C ≤ Ta ≤ +40°C)
Harmonized Standards Used:

Baseefa12ATEX0190X - Type n Certificate
Equipment Group II Category 3 G
Ex na IIC T5 Gc (-40°C ≤ Ta ≤ +70°C)
Harmonized Standards Used:
EU Declaration of Conformity
No: RMD 1089 Rev. 1

Equipment Group II Category 1 D
Ex ta IIC T95°C Tdis105°C Da (-20°C ≤ Ta ≤ +85°C)
Harmonized Standards Used:

DEKRA12ATEX0212X - Flameproof Certificate
Equipment Group II Category 1/2 G
Ex db IIC T6 Ga/Gb (-50°C ≤ Ta ≤ +65°C)
T5 Ga/Gb (-50°C ≤ Ta ≤ +70°C)
Harmonized Standards Used:

Model 3051G Pressure Transmitter

BAS00ATEX1166X - Intrinsic Safety Certificate
Equipment Group II Category 1 G
Ex ia IIC T5 Ga (-55°C ≤ Ta ≤ +40°C)
Ex ia IIC T4 Ga (-55°C ≤ Ta ≤ +70°C)
Harmonized Standards Used:

BAS00ATEX3167X - Type n Certificate
Equipment Group II Category 3 G
Ex na IIC T5 Ge (-40°C ≤ Ta ≤ +70°C)
Harmonized Standards Used:

BAS01ATEX1427 - Dust Certificate
Equipment Group II Category 1 D
Ex t IIIIC T50°C Tdis60°C Da
Harmonized Standards Used:

KEMA97ATEX2378X Flameproof Certificate
Equipment Group II Category 1/2 G
Ex db IIC T6.. T4 Ga/Gb
Harmonized Standards Used:
EU Declaration of Conformity
No: RMD 1089 Rev. 1

PED Notified Body

DNV GL Business Assurance Italia S.r.l. [Notified Body Number: 0496]
Via Energy Park, 14, N-20871
Vimercate (MB), Italy

Note – equipment manufactured prior to 20 October 2018 may be marked with previous PED Notified Body number; previous PED Notified Body information was as follows:
Det Norske Veritas (DNV) [Notified Body Number: 0575]
Veritasveien 1, N-1322
Hovik, Norway

ATEX Notified Bodies for EC Type Examination Certificate

DEKRA [Notified Body Number: 0344]
Meander 1051, 6825 MJ Arnhem
P.O. Box 5185, 6802 ED Arnhem
The Netherlands
Postbank 6794687

SGS FIMCO OY [Notified Body Number: 0598]
P.O. Box 30 (Särkiniementie 3)
00211 HELSINKI
Finland

ATEX Notified Body for Quality Assurance

SGS FIMCO OY [Notified Body Number: 0598]
P.O. Box 30 (Särkiniementie 3)
00211 HELSINKI
Finland