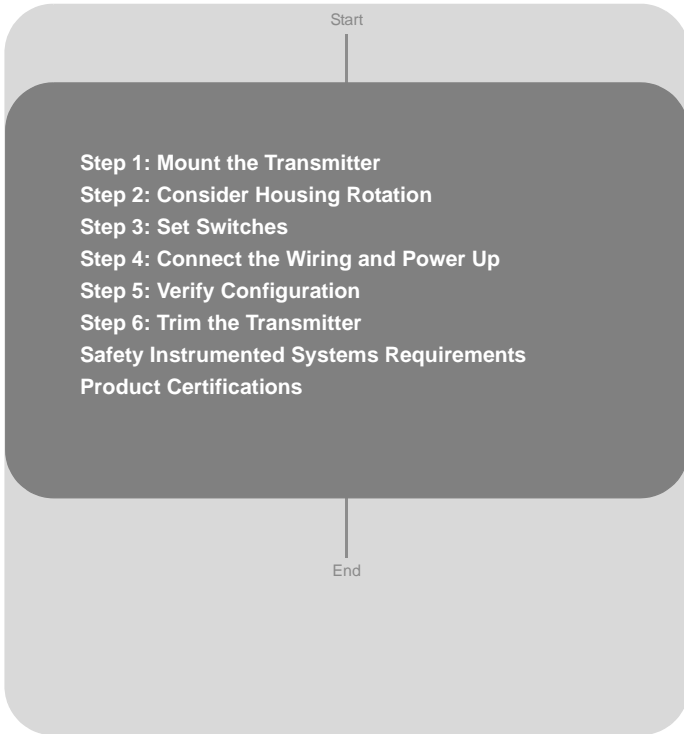


Rosemount 3051 Pressure Transmitter Includes Transmitter Option TR

Product Discontinued



HART® CE



ROSEMOUNT

www.rosemount.com



EMERSON
Process Management

Rosemount 3051

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⚠ IMPORTANT NOTICE

This installation guide provides basic guidelines for Rosemount 3051C/T transmitters (reference manual document number 00809-0100-4051). It does not provide instructions for diagnostics, maintenance, service, or troubleshooting. This document is also available electronically on 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 3051C/T reference manual for any restrictions associated with a safe installation.

- Before connecting a HART communicator in an explosive atmosphere, ensure the instruments in the loop are installed in accordance with intrinsically safe or non-incendive field wiring practices.
- In an Explosion-Proof/Flame-Proof installation, do not remove the transmitter covers when power is applied to the unit.

Process leaks may cause harm or result in death.

- Install and tighten process connectors before applying pressure.

Electrical shock can result in death or serious injury.

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

Quick Installation Guide

00825-0100-4051, Rev BA

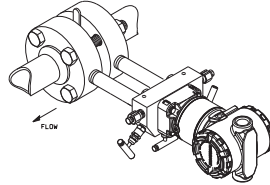
June 2009

Rosemount 3051

STEP 1: MOUNT THE TRANSMITTER

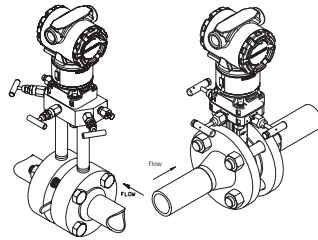
Liquid Flow Applications

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.



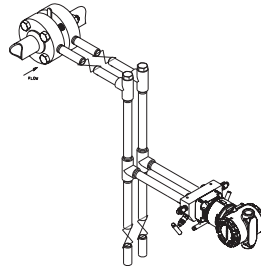
Gas Flow Applications

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



Steam Flow Applications

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



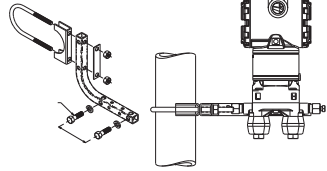
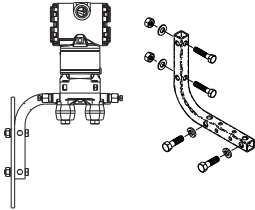
Rosemount 3051

STEP 1 CONTINUED...

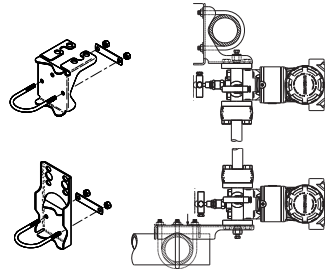
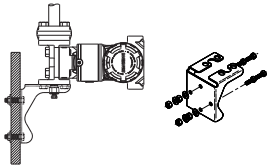
Panel Mount

Coplanar™ Flange

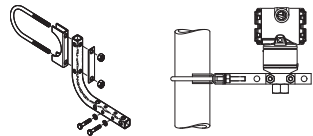
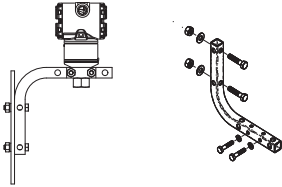
Pipe Mount



Traditional Flange



In-line

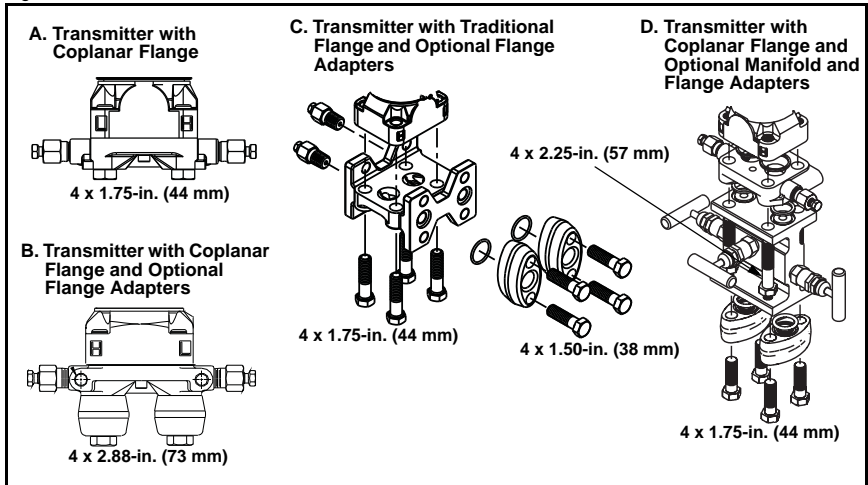


STEP 1 CONTINUED...

Bolting Considerations

If the transmitter installation requires assembly of the process flanges, manifolds, or flange adapters, follow these 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 1 illustrates common transmitter assemblies with the bolt length required for proper transmitter assembly.

Figure 1. Common Transmitter Assemblies



Bolts are typically carbon steel or stainless steel. Confirm the material by viewing the markings on the head of the bolt and referencing Figure 2. If bolt material is not shown in Figure 2, contact the local Emerson Process Management 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 Figure 2 for initial torque value.
4. Torque the bolts to the final torque value using the same crossing pattern. See Figure 2 for final torque value.
5. Verify that the flange bolts are protruding through the isolator plate before applying pressure.

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STEP 1 CONTINUED...

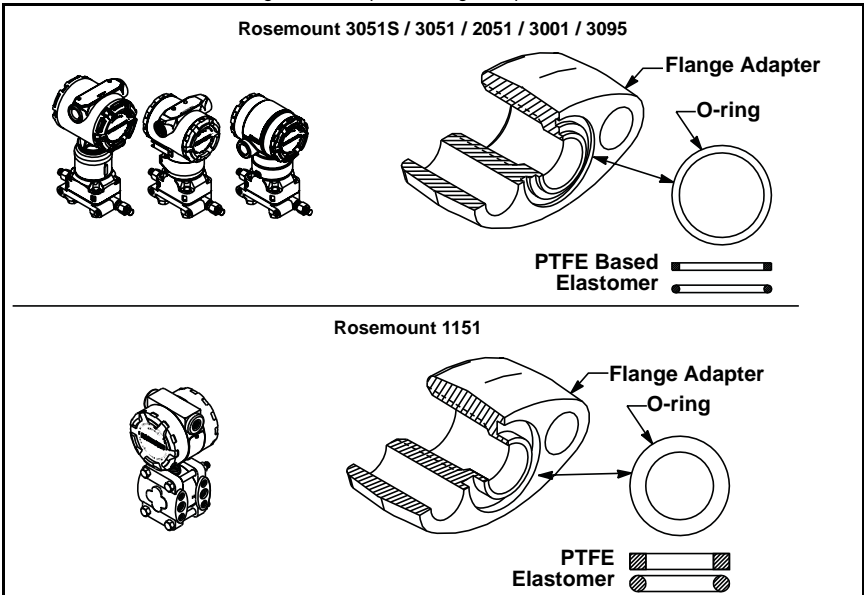
Figure 2. Torque values for the flange and flange adapter bolts

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.



⚠ 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.

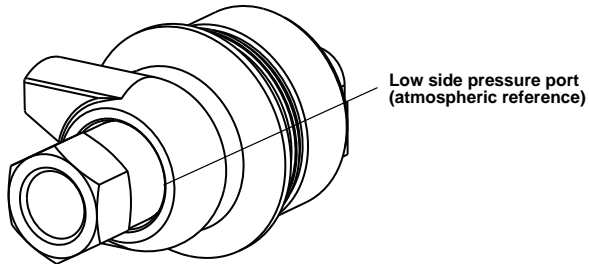
STEP 1 CONTINUED...

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 3.)

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 3. Inline Gage Transmitter

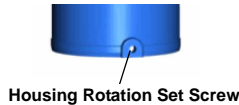


STEP 2: CONSIDER HOUSING ROTATION

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

1. Loosen the housing rotation set screw.
2. First, using a ⁵/₆₄-in. hex wrench, rotate the housing clockwise to the desired location. If the desired location cannot be achieved due to thread limit, rotate the housing counter clockwise to the desired location (up to 180° from thread limit).
3. Retighten the housing rotation set screw.

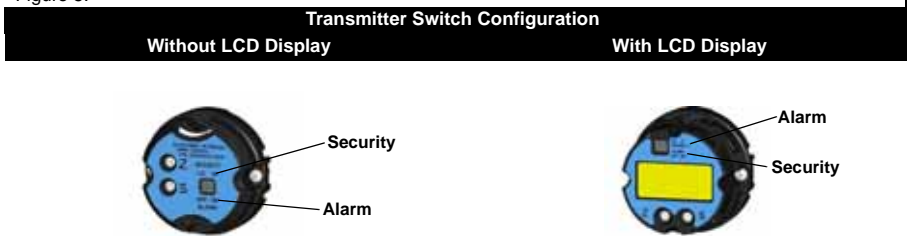
Figure 4.



STEP 3: SET SWITCHES (OPTION D1)

If alarm and security adjustment option is not installed, the transmitter will operate normally with the default alarm condition alarm *high* and the security *off*.

Figure 5.



Slide the security and alarm switches into the preferred position by using a small screwdriver.

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STEP 4: CONNECT WIRING AND POWER UP

Use the following steps to wire the transmitter:

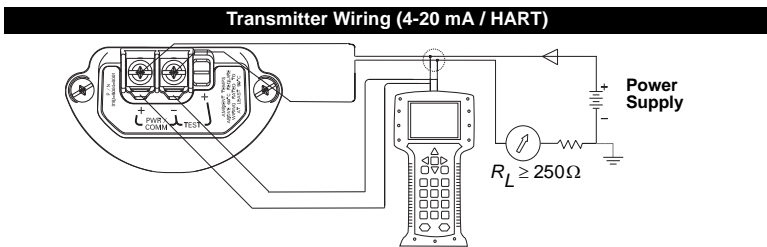
1. Remove the housing cover labeled "Field Terminals."
2. Connect the positive lead to the "+" terminal, and the negative lead to the "-" terminal.

NOTE

Do not connect the power across the test terminals. Power could damage the test diode in the test connection. Twisted pairs yield best results; shielded signal wiring is not necessary. Use 24 AWG or larger wire and do not exceed 5,000 feet (1500 meters).

3. Plug and seal unused conduit connections.
4. 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.
5. Replace the housing cover.

The figures below show the wiring connections necessary to power a 3051C/T and enable communications with a hand-held HART communicator.



Installation of the transient protection terminal block does not provide transient protection unless the 3051 case is properly grounded.

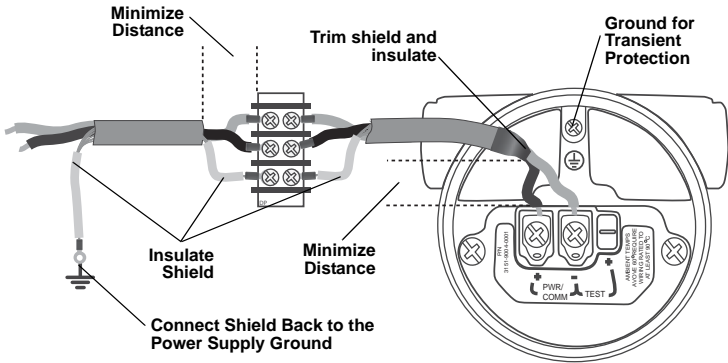
STEP 4 CONTINUED...

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 sensor module and inside the Terminal Compartment. These grounds are used when transient protect terminal blocks are installed or to fulfill local regulations. See Step 2 below for more information on how the cable shield should be grounded.

1. Remove the Field Terminals housing cover.
2. Connect the wiring pair and ground as indicated in Figure 6. The cable shield should:
 - a. Be trimmed close and insulated from touching the transmitter housing.
 - b. Continuously connect to the termination point.
 - c. Be connected to a good earth ground at the power supply end.

Figure 6. Wiring



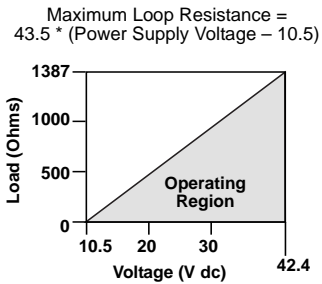
3. Replace the housing cover. It is recommended that the cover be tightened until there is no gap between the cover and the housing.
4. Plug and seal unused conduit connections.

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STEP 4 CONTINUED...**Power Supply**

The dc power supply should provide power with less than two percent ripple. The total resistance load is the sum of the resistance of the signal leads and the load resistance of the controller, indicator, and related pieces. Note that the resistance of intrinsic safety barriers, if used, must be included.

Figure 7. Load Limitation



The HART communicator requires a minimum loop resistance of 250Ω for communication.

STEP 5: VERIFY CONFIGURATION

A check (✓) indicates the basic configuration parameters. At minimum, these parameters should be verified as part of the configuration and startup procedure.

Table 1. HART Fast Key Sequence

Function	Fast Key Sequence
Alarm Level Configuration	1, 4, 2, 7, 7
Alarm and Saturation Levels Configuration	1, 4, 2, 7
Analog Output Alarm Direction Configuration	1, 4, 2, 7, 6
Analog Output Trim	1, 2, 3, 2
Burst Mode On/Off	1, 4, 3, 3, 3
Burst Options	1, 4, 3, 3, 4
✓ Damping	1, 3, 6
Date	1, 3, 4, 1
Descriptor	1, 3, 4, 2
Digital To Analog Trim (4-20 mA Output)	1, 2, 3, 2, 1
Field Device Information	1, 4, 4, 1
LCD Meter Configuration	1, 3, 7
Loop Test	1, 2, 2
Lower Sensor Trim	1, 2, 3, 3, 2
Message	1, 3, 4, 3
Number of Requested Preambles	1, 4, 3, 3, 2
Pressure Alert Configuration	1, 4, 3, 5, 3
Poll Address	1, 4, 3, 3, 1
Poll a Multidropped Transmitter	Left Arrow, 4, 1, 1
Remapping	1, 4, 3, 6, 4
Rerange- Keypad Input	1, 2, 3, 1, 1
Saturation Level Configuration	1, 4, 2, 7, 8
Scaled D/A Trim (4–20 mA Output)	1, 2, 3, 2, 2
Scaled Variable Configuration	1, 4, 3, 4, 7
Self Test (Transmitter)	1, 2, 1, 1
Sensor Information	1, 4, 4, 2
Sensor Temperature	1, 1, 4
Sensor Trim	1, 2, 3, 3
Sensor Trim Points	1, 2, 3, 3, 5
Status	1, 2, 1, 2
✓ Tag	1, 3, 1
Temperature Alert Configuration	1, 4, 3, 5, 4
✓ Transfer Function (Setting Output Type)	1, 3, 5
Transmitter Security (Write Protect)	1, 3, 4, 5
✓ Units (Process Variable)	1, 3, 2
Upper Sensor Trim	1, 2, 3, 3, 3
Zero Trim	1, 2, 3, 3, 1

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STEP 6: TRIM THE TRANSMITTER

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

Zero Trim

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.

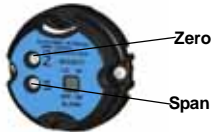
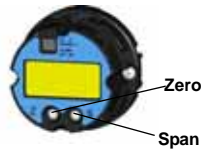
If zero offset is less than 3% of true zero, follow the “Using the HART Communicator” instructions below to perform a zero trim. If zero offset is greater than 3% of true zero, follow the “Using the Transmitter Zero Adjustment Button” instructions below to rerange. If hardware adjustments are not available, see the 3051 Reference Manual (document number 00809-0100-4051) to perform a rerange using the HART Communicator.

Using the HART Communicator**HART Fast Keys Steps**

- | | |
|---------------|---|
| 1, 2, 3, 3, 1 | <ol style="list-style-type: none"> 1. Equalize or vent the transmitter and connect HART communicator. 2. At the menu, input the HART Fast Key sequence. 3. Follow the commands to perform a zero trim. |
|---------------|---|

Using the Transmitter Zero Adjustment Button

Push and hold the zero adjustment button for at least two seconds but no longer than ten seconds.

Without LCD Display**With LCD Display**

SAFETY INSTRUMENTED SYSTEMS

Additional Safety Instrumented Systems information is available in the Rosemount 3051 reference manual (document number 00809-0100-4051). The manual is available electronically on www.emersonprocess.com/rosemount or by contacting an Emerson Process Management representative.

3051 Safety Certified Identification

All 3051 transmitters must be identified as safety certified before installing into SIS systems. To identify a safety certified 3051, verify that QT is included in the transmitter model code.

Installation

No special installation is required in addition to the standard installation practices outlined in this document. Always ensure a proper seal by installing the electronics housing cover(s) so that metal contacts metal.

Environmental limits are available in the 3051 Product Data Sheet (document number 00813-0100-4051). This document can be found at www.emersonprocess.com/rosemount/safety/certtechdocumentation.htm.

The loop should be designed so the terminal voltage does not drop below 10.5 Vdc when the transmitter output is 22.5 mA.

If hardware security switches are installed, the security switch should be in the "ON" position during normal operation. See Figure 5 on page 7. If hardware security switches are not installed, security should be "ON" in the software to prevent accidental or deliberate change of configuration data during normal operation.

Configuration

Use any HART-compliant master to communicate with and verify configuration of the 3051 SIS (see Table 1 on page 11 and 9 to verify configuration). User-selected damping will affect the transmitters ability to respond to changes in the applied process. The *damping value + response time* should not exceed the loop requirements.

NOTE

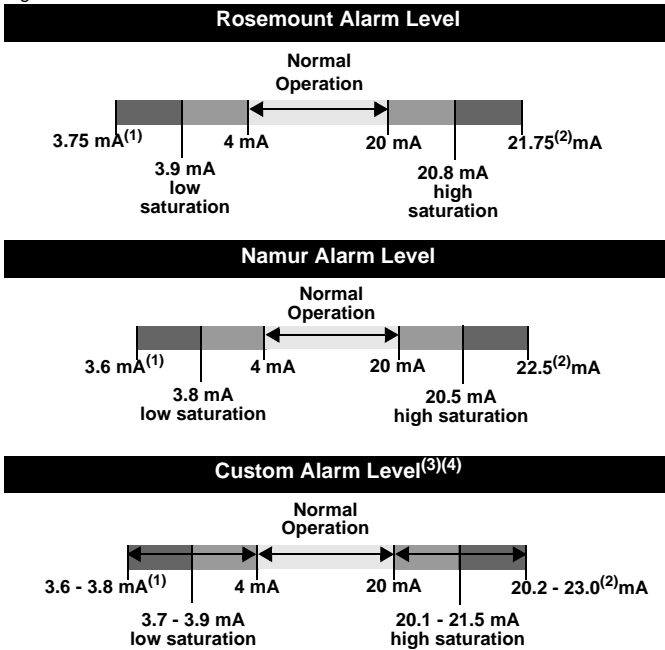
Transmitter output is not safety-rated during the following: configuration changes, multidrop, and loop test. Alternative means should be used to ensure process safety during transmitter configuration and maintenance activities.

Alarm and Saturation Levels

DCS or safety logic solver should be configured to match transmitter configuration. Figure 8 identifies the three alarm levels available and their operation values.

Rosemount 3051

Figure 8. Alarm Levels



(1) Transmitter Failure, hardware or software alarm in LO position.

(2) Transmitter Failure, hardware or software alarm in HI position.

(3) High alarm must be at least 0.1 mA higher than the high saturation value.

(4) Low alarm must be at least 0.1 mA lower than the low saturation value.

Setting the alarm values and direction is dependent on whether or not the hardware switch option is installed. You can use a HART master or communicator to set the Alarm and Saturation values.

Switches installed

- If using a communicator, use the following fast key sequence to set the Alarm and Saturation values.
Alarm Levels - Fast Key; 1, 4, 2, 7, 7
Saturation Levels - Fast Key; 1, 4, 2, 7, 8
- Manually set the direction for the Alarm to HI or LO using the ALARM switch as shown in Figure 5 on page 7.

Switches not installed

- If using a communicator, use the following fast key sequence to set the Alarm and Saturation values and the Alarm Direction:
Alarm Levels - Fast Key; 1, 4, 2, 7, 7
Saturation Levels - Fast Key; 1, 4, 2, 7, 8
Alarm Direction Fast Key; 1, 4, 2, 7, 6

Operation and Maintenance

Proof Test and Inspection

The following proof tests are recommended. Proof test results and corrective actions taken must be documented at www.emersonprocess.com/rosemount/safety/certtechdocumentation.htm in the event that an error is found in the safety functionality.

Use "Table 1: HART Fast Key Sequence" to perform a Loop Test, Analog Output Trim, or Sensor Trim. See the 3051 reference manual for additional information.

Five-Year⁽¹⁾ Proof-Test

Conducting an analog output Loop Test satisfies the proof test requirements and will detect more than 52% of DU failures not detected by the 3051C or 3051L automatic diagnostics, and more than 62% of DU failures not detected by the 3051T automatic diagnostics.

Required tools: HART host/communicator and mA meter.

1. On HART host/communicator enter the Fast Key Sequence 1, 2, 2.
2. Select "4 Other."
3. Enter the milliampere value representing a high alarm state.
4. Check the reference meter to verify the mA output corresponds to the entered value.
5. Enter the milliampere value representing a low alarm state.
6. Check the reference meter to verify the mA output corresponds to the entered value.
7. Document the test results per your requirements.

Ten-Year Proof-Test

This proof test, when combined with the Five-Year Proof-Test, will detect over 92% of DU failures not detected by the 3051C or 3051L automatic diagnostics, and over 95% of DU failures not detected by the 3051T automatic diagnostics.

Required tools: HART host/communicator and pressure calibration equipment.

1. Perform a minimum two point sensor calibration check using the 4-20mA range points as the calibration points.
2. Check the reference mA meter to verify the mA output corresponds to the pressure input value.
3. If necessary, use one of the "Trim" procedures available in the 3051 reference manual to calibrate.
4. Document the test results per your requirements.

NOTE

The user determines the proof-test requirements for impulse piping.

Visual Inspection

Not required.

(1) May be a longer proof test interval as justified by PFDavg calculation.

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Special Tools

Not required.

Product Repair

All failures detected by the transmitter diagnostics or by the proof-test must be reported.

Feedback can be submitted electronically at

www.emersonprocess.com/rosemount/safety/certtechdocumentation.htm.

The 3051 is repairable by major component replacement. Follow the instructions in the 3051 reference manual (document number 00809-0100-4051) for additional information.

Reference

Certification

The 3051 SIS was designed, developed, and audited to be compliant to IEC 61508 Safety certified SIL 2 Claim Limit.

Specifications

The 3051 SIS must be operated in accordance to the functional and performance specifications provided in the 3051 reference manual.

Failure Rate Data

The FMEDA report includes failure rates and common cause Beta factor estimates. Contact your Emerson Process Management representative to obtain a copy.

3051 SIS Safety Failure Values

Safety accuracy: 2.0%⁽¹⁾

Safety response time: 1.5 second

Product Life

50 years – based on worst case component wear-out mechanisms – not based on wear-out process wetted materials

(1) A 2% variation of the transmitter mA output is allowed before a safety trip. Trip values in the DCS or safety logic solver should be derated by 2%.

PRODUCT CERTIFICATIONS

Approved Manufacturing Locations

Emerson Process Management - Rosemount Inc. — Chanhassen, Minnesota, USA

Emerson Process Management — Wessling, Germany

Emerson Process Management Asia Pacific Private Limited — Singapore

Emerson Process Management — Beijing, China

Emerson Process Management — Daman, India

Emerson Process Management — Sorocaba, Brazil

European Directive Information

The EC declaration of conformity can be found on page 22. The most recent revision can be found at www.emersonprocess.com.

Ordinary Location Certification for Factory Mutual

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

Hazardous Locations Certifications

North American Certifications

Factory Mutual (FM)

- E5** Explosion-Proof for Class I, Division 1, Groups B, C, and D. Dust-Ignition-Proof for Class II, Division 1, Groups E, F, and G. Dust-Ignition-Proof for Class III, Division 1. T5 (Ta = 85 °C), Factory Sealed, Enclosure Type 4x
- I5** Intrinsically Safe for use in Class I, Division 1, Groups A, B, C, and D; Class II, Division 1, Groups E, F, and G; Class III, Division 1 when connected per Rosemount drawing 03031-1019; Non-incendive for Class I, Division 2, Groups A, B, C, and D. Temperature Code:T4 (Ta = 70 °C), T5 (Ta = 40 °C), Enclosure Type 4x
For input parameters see control drawing 03031-1019.



Canadian Standards Association (CSA)

All CSA hazardous approved transmitters are certified per ANSI/ISA 12.27.01-2003.

- E6** Explosion-Proof for Class I, Division 1, Groups B, C, and D. Dust-Ignition-Proof for Class II and Class III, Division 1, Groups E, F, and G. Suitable for Class I, Division 2 Groups A, B, C, and D. Enclosure Type 4X, factory sealed; Single Seal. Class I Zone 1 Ex d IIC T5.
- C6** Explosion-Proof and Intrinsically Safe approval. Intrinsically Safe for Class I, Division 1, Groups A, B, C, and D when connected in accordance with Rosemount drawings 03031-1024. Temperature Code T3C; Single Seal.
Explosion-Proof for Class I, Division 1, Groups B, C, and D. Dust-Ignition-Proof for Class II and Class III, Division 1, Groups E, F, and G. Suitable for Class I, Division 2 Groups A, B, C, and D hazardous locations. Enclosure type 4X, factory sealed; Single Seal.

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European Certifications

- I1** ATEX Intrinsic Safety and Dust
Certification No.: BAS 97ATEX1089X  II 1 GD
Ex ia IIC T4 ($T_{amb} = -60$ to $+70$ °C)
Ex tD A20 T80 °C ($T_{amb} -20$ to 40 °C) IP66/IP68
 1180

ATEX I1 Input Parameters

$U_i = 30$ V

$I_i = 200$ mA



$P_i = 0.9$ W

$C_i = 0.012$ μ F

$L_i = 0.0$

Special Conditions for Safe Use (X):

When the optional transient protection terminal block is installed, the apparatus is not capable of withstanding the 500V insulation test required by Clause 6.3.12 of EN60079-11. This must be taken into account when installing the apparatus.

- N1** ATEX Non-incendive/Type n and Dust
Certification No.: BAS 00ATEX3105X  II 3 GD
Ex nL IIC T5 ($T_{amb} = -40$ to $+70$ °C)
 $U_i = 42.4$ Vdc max
Ex tD A22 T80 °C ($T_{amb} = -20$ to 40 °C) IP66/IP68


Special Conditions for Safe Use (X):

When the optional transient protection terminal block is installed, the apparatus is not capable of withstanding a 500V r.m.s. by Clause 6.8.1 of EN60079-15 test to case. This must be taken into account on any installation in which it is used, for example by assuring that the supply to the apparatus is galvanically isolated.


Quick Installation Guide

00825-0100-4051, Rev BA

June 2009

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E8 ATEX Flameproof and Dust

Certification No.: KEMA 00ATEX2013X  II 1/2 GD

Ex d IIC T6 ($T_{amb} = -50$ to 65 °C)

Ex d IIC T5 ($T_{amb} = -50$ to 80 °C)

Ex tD A20/A21 T90 °C, IP66/IP68

 1180

$V_{max} = 42.4$ V dc

Special Conditions for Safe Use (X):

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.

Japanese Certifications

Approvals pending, consult factory for availability.

E4 TIIS Flameproof

Ex d IIC T6

Certificate	Description
TC18213	3051CD/CG/L 4-20mA HART (with meter)
TC18214	3051CD/CG/L 4-20 mA HART (no meter)
TC18215	3051CA 4-20mA HART (with meter)
TC18216	3051CA 4-20 mA HART (no meter)
TC18217	3051T 4-20mA HART (with meter)
TC18218	3051T 4-20 mA HART (no meter)
TC18219	3051CD/CG/L 4-20mA HART (with meter), Dual Housing

I4 TIIS Intrinsic Safety

Pending

Rosemount 3051

Australian Certifications**I7 SAA Intrinsic Safety**

Certification No.: AUS EX 1249X

Ex ia IIC T4 ($T_{amb} = 70\text{ }^{\circ}\text{C}$)

Ex ia I

IP66

When connected per Rosemount drawing 03031-1026

Special Conditions for Safe Use (X):

The apparatus may only be used with a passive current limited power source Intrinsic Safety application. The power source must be such that $P_o \leq (U_o * I_o) / 4$.

Modules using transient protection in the terminal assembly (T1 transient protection models) the apparatus enclosure is to be electrically bonded to the protective earth. The conductor used for the connection shall be equivalent to a copper conductor of 4 mm² minimum cross-sectional area.

It is a condition of safe use that the following parameters are to be taken into account for Intrinsic Safety Applications.

SAA Approved Input Parameters

 $U_i = 30\text{ V}$ $I_i = 200\text{ mA}$ $I_i = 160\text{ mA}$ (Option Code T1) $P_i = 0.9\text{ W}$ $C_i = 0.01\text{ }\mu\text{F}$ (Output Code A) $L_i = 10\text{ }\mu\text{H}$ $L_i = 1,05\text{ mH}$ (Output Code A with T1)**E7 SAA Flame-Proof and Dust**

Certification No.: AUS Ex 03.1347X

Ex d IIC T6 ($T_{amb} = 40\text{ }^{\circ}\text{C}$)Ex d IIC T5 ($T_{amb} = 80\text{ }^{\circ}\text{C}$)DIP A21 T6 ($T_{amb} = 40\text{ }^{\circ}\text{C}$)DIP A21 T5 ($T_{amb} = 80\text{ }^{\circ}\text{C}$)

IP66

Special Conditions for Safe Use (X):

It is a condition of safe use for transmitter enclosures having cable entry thread other than metric conduit thread that the equipment be utilized with an appropriate certified thread adaptor or cable gland.

It is a condition of safe use, where only one entry is used for connection to external circuits, that the unused entry shall be closed by means of the blanking plug supplied by the manufacturer or a suitable certified blanking plug.

It is a condition of safe use that the irrelevant explosion protection marking code shall be permanently scribed off the certification marking label upon completion of commissioning, where the equipment is supplied with a certification marking label showing more than one explosion protection marking code.

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- N7** SAA Type n (Non-sparking)
Certification No.: AUS EX 1249X
Ex n IIC T4 ($T_{amb} = 70\text{ }^{\circ}\text{C}$) / T5
IP66

Special Conditions for Safe Use (X):

Where the equipment is installed such that there is an unused conduit entry, it must be sealed with a suitable blanking plug to maintain the IP66 degree of protection. Any blanking plug used with the equipment shall be of a type which requires the use of a tool to effect its removal.

Inmetro Certifications

- E2** Flame-Proof
BR-Ex d IIC T6/T5
- I2** Intrinsic Safety
BR-Ex ia IIC T4

China (NEPSI) Certifications

- E3** Flame-Proof and Dust
Certificate No.: GYJ091065X
Ex d IIC T5/T6
DIP A21 T_A T90 $^{\circ}\text{C}$
IP66

Special Conditions for Safe Use (X):

The symbol "X" placed after the certificate number indicates special conditions for safe use, that is the transmitter contains a thin wall diaphragm. Installation maintenance and use shall not only take into account the environmental conditions but also follow the manufacturer's instructions.

- I3** Intrinsic Safety
Certificate No.: GYJ091066X
Ex ia IIC T4/T5
DIP A21 T_A T80 $^{\circ}\text{C}$

Special Conditions for Safe Use (X):


The symbol "X" placed after the certificate number indicates special conditions for safe use, that is the transmitter contains a thin wall diaphragm. Installation maintenance and use shall not only take into account the environmental conditions but also follow the manufacturer's instructions.

Combinations of Certifications

Stainless steel certification tag is provided when optional approval is specified. Once a device labeled with multiple approval types is installed, it should not be reinstalled using any other approval types. Permanently scratch off or mark unused approval types on the approval label.

- K5** E5 and I5 combination
KB K5 and C6 combination
K6 C6, I1, and E8 combination
K8 E8 and I1 combination
K7 E7, I7, and N7 combination
KD K5, C6, I1, and E8 combination

∞

ROSEMOUNT		CE	
EC Declaration of Conformity			
No: RMD 1017 Rev. L			
<i>We,</i>			
Rosemount Inc. 8200 Market Boulevard Chanhassen, MN 55317-6985			
<i>declare under our sole responsibility that the product,</i>			
Models 3051 & 3001 Pressure Transmitters			
<i>manufactured by,</i>			
Rosemount Inc. 12001 Technology Drive Eden Prairie, MN 55344-3695 USA	<i>and</i>	8200 Market Boulevard Chanhassen, MN 55317-9687 USA	
<i>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.</i>			
<i>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.</i>			
 _____ (signature)		Approvals <i>MANAGER</i> _____ (function name - printed)	
LARRELL DE VING _____ (name - printed)		April 16, 2009 _____ (date of issue)	

ROSEMOUNT		
EC Declaration of Conformity No: RMD 1017 Rev. L		
EMC Directive (2004/108/EC) All Models 3051 and 3001 Pressure Transmitters EN 61326:1997 with Amendments A1, A2 and A3		
PED Directive (97/23/EC) Models 3051CA4; 3051CG2, 3, 4, 5; 3051CD2, 3, 4, 5 (also with P9 option); 3051HD2, 3, 4, 5; 3051HG2, 3, 4, 5; 3051PD2, 3; and 3051PG2, 3, 4, 5 Pressure Transmitters QS Certificate of Assessment - EC No. PED-H-100 Module H Conformity Assessment All other model 3051/3001 Pressure Transmitters Sound Engineering Practice Transmitter Attachments: Diaphragm Seal - Process Flange - Manifold Sound Engineering Practice		
ATEX Directive (94/9/EC) Model 3051/3001 Pressure Transmitter with 4-20mA/Hart Output Certificate: BAS97ATEX1089X Intrinsically Safe - Group II Category 1 G Ex ia IIC T5 (Ta = -60°C to +40°C) Ex ia IIC T4 (Ta = -60°C to +70°C) Ex iD A20 T70°C (Tamb = -20°C to +40°C) Harmonized Standards Used: EN60079-0:2006; EN60079-11:2007 Other Standards Used: EN50281-1-1: 1998 + A1 Certificate: BAS00ATEX3105X Type n and Dust - Group II Category 3 GD Ex nA nL IIC T5;(Ta = -40°C to +70°C) Ex iD A22 T80°C (Tamb = -20°C to +40°C) Harmonized Standards Used: EN60079-0:2006; EN60079-15:2005 Other Standards Used: EN50281-1-1: 1998 +A1		
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ROSEMOUNT	CE	
EC Declaration of Conformity No: RMD 1017 Rev. L		
Model 3051/3001 Pressure Transmitter with Fieldbus/Profibus Output/FISCO		
Certificate: BAS98ATEX1355X Intrinsically Safe - Group II Category 1 GD Ex ia IIC T4 (-60°C ≤ Ta ≤ +60°C) Ex tD A20 T70°C (Tamb -20°C to 40°C)		
Harmonized Standards Used: EN60079-0:2006; EN60079-1:2007;		
Other Standards Used: EN50281-1-1: 1998 + A1		
Certificate: BAS98ATEX3356X Type n and Dust - Group II Category 3 GD Ex nA nL IIC T5 (Ta = -40°C to +70°C) Ex tD A22 T80°C (Tamb -20°C to 40°C)		
Harmonized Standards Used: EN60079-0:2006; EN60079-15:2005		
Other Standards Used: EN50281-1-1: 1998 + A1		
Model 3051/3001 Pressure Transmitters		
Certificate: KEMA00ATEX2013X Flameproof - Group II Category 1/2 GD Ex d IIC T6 (-20°C ≤ Ta ≤ +60°C) Ex tD A20/A21 T90°C (-20°C ≤ Ta ≤ +60°C)		
Harmonized Standards Used: EN60079-0:2006; EN60079-1:2004; EN50284: 1999		
Other Standards Used: EN50281-1-1: 1998 + A1		
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ROSEMOUNT



EC Declaration of Conformity
No: RMD 1017 Rev. L

PED Notified Body

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

ATEX Notified Bodies for EC Type Examination Certificate

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

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
Staden Lane
Buxton, Derbyshire
SK17 9RZ United Kingdom

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