

Rosemount™ 3051 Pressure Transmitter



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1 About this guide

This guide provides basic guidelines for Rosemount 3051 Pressure Transmitters. It does not provide instructions for configuration, diagnostics, maintenance, service, troubleshooting, Explosion-proof, Flameproof, or intrinsically safe (I.S.) installations. Refer to Rosemount 3051 [Reference Manual](#) for more instructions. This guide is also available electronically at Emerson.com/Rosemount.

1.1 Safety messages

▲ WARNING

Explosions

Explosions could result in death or serious injury.

Installation of device in an explosive environment must be in accordance with 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.

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

Process leaks

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

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.

Conduit/cable entries

Unless otherwise marked, the conduit/cable entries in the housing enclosure use a ½–14 NPT form. Only use plugs, adapters, glands, or conduit with a compatible thread form when closing these entries.

Entries marked M20 are M20 x 1.5 thread form. On devices with multiple conduit entries, all entries will have the same thread form.

When installing in a hazardous location, use only appropriately listed or Ex certified plugs, glands, or adapters in cable/conduit entries.

⚠ WARNING**Physical access**

Unauthorized personnel may potentially cause significant damage to and/or misconfiguration of end users' equipment. This could be intentional or unintentional and needs to be protected against.

Physical security is an important part of any security program and fundamental to protecting your system. Restrict physical access by unauthorized personnel to protect end users' assets. This is true for all systems used within the facility.

2 System readiness

Confirm HART revision capability

- If using HART-based control or asset management systems, confirm the HART capability of those systems prior to transmitter installation. Not all systems are capable of communicating with HART Revision 7. 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 [Switch HART revision mode](#).

2.1 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 Emerson.com or Fieldcommgroup.org.

Rosemount 3051 device revisions and drivers

[Table 2-1](#) provides the information necessary to ensure you have the correct device driver and documentation for your device.

Table 2-1: Rosemount 3051 with 4-20 mA HART Protocol Device Revisions and Files

Release date	Device identification			Device driver identification		Review instructions	Review functionality
	NAMUR hardware revision (1)	(1)	HART software revision (2)	HART universal revision	Device revision (3)	Rosemount 2088, 2090P, and 2090F Pressure transmitters	Change description
Aug-16	1.1.xx	1.0.x x	3	7	10	with HART and 1–5 Vdc Low Power Protocol Reference Manual with 4–20 mA HART and 1–5 Vdc Low Power Protocol Reference Manual	(4)
				5	9		
Jan-13	N/A	1.0.x x	1	7	10		(5)
				5	9		

Table 2-1: Rosemount 3051 with 4-20 mA HART Protocol Device Revisions and Files (continued)

Release date	Device identification			Device driver identification		Review instructions	Review functionality
	NAMUR hardware revision (1)	(1)	HART software revision (2)	HART universal revision	Device revision (3)	Rosemount 2088, 2090P, and 2090F Pressure transmitters	Change description
Jan-98	N/A	N/A	178	5	3		N/A

- (1) NAMUR revision is located on the hardware tag of the device. Differences in level 3 changes, signified above by xx, represent minor product changes as defined per NES3. Compatibility and functionality are preserved and product can be used interchangeably.
- (2) HART software revision can be read using a HART capable configuration tool. Value shown is minimum revision that could correspond to NAMUR revisions.
- (3) 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.
- (4) HART revision 5 and 7 Selectable, local operator interface (LOI), scaled variable, configurable alarms, and expanded engineering units.
- (5) Rosemount 3051G Pressure Transmitter updated electronics hardware design. Intrinsic Safety temperature classification change.

3 Transmitter installation

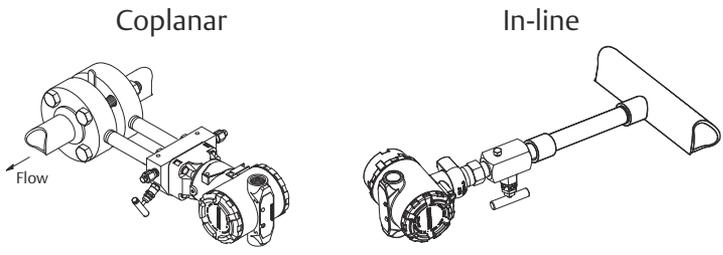
3.1 Mount the transmitter

3.1.1 Liquid applications

Procedure

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 3-1: Coplanar and In-line Liquid Applications

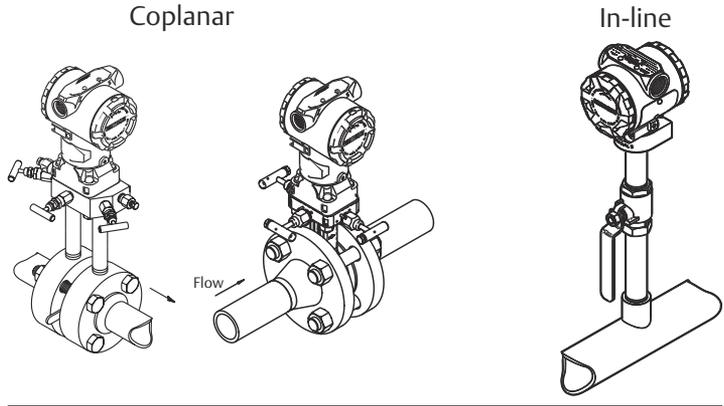


3.1.2 Gas applications

Procedure

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

Figure 3-2: Coplanar and In-line Gas Applications



3.1.3 Steam applications

Procedure

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

Figure 3-3: Coplanar and In-line Steam Applications

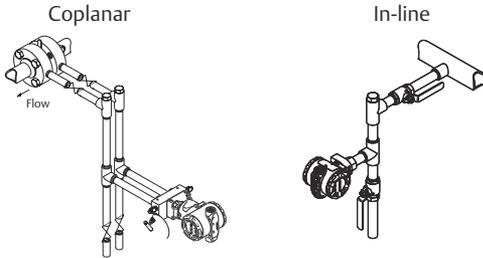
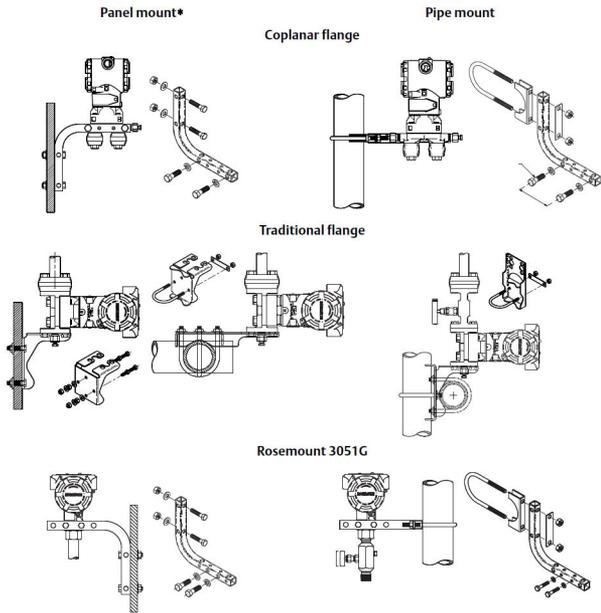


Figure 3-4: Panel and Pipe Mounting

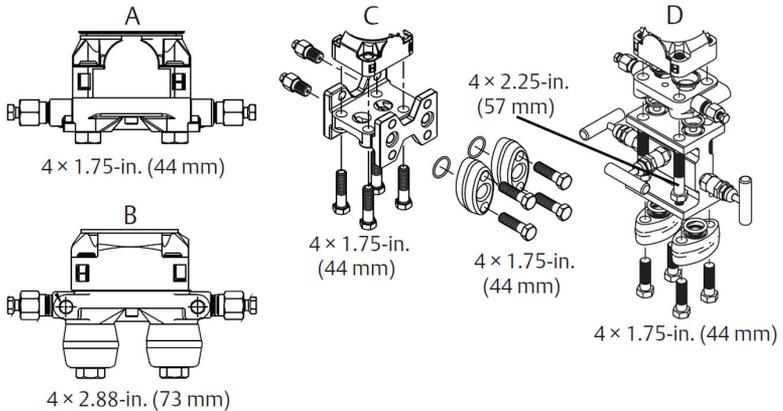


*5/6 x 1 1/2 panel bolts are customer supplied

3.1.4 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 3-5](#) illustrates common transmitter assemblies with the bolt length required for proper transmitter assembly.

Figure 3-5: 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 (CS) or stainless steel (SST). Confirm the material by viewing the markings on the head of the bolt and referencing [Table 3-1](#). If bolt material is not shown in [Table 2-1](#), contact a local Emerson representative for more information.

Use the following bolt installation procedure:

Procedure

1. CS bolts do not require lubrication and the SST 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 3-1](#) for initial torque value.

4. Torque the bolts to the final torque value using the same crossing pattern. See [Table 3-1](#) for final torque value.
5. Verify that the flange bolts are protruding through the isolator plate before applying pressure.

Table 3-1: Torque Values for the Flange and Flange Adapter Bolts

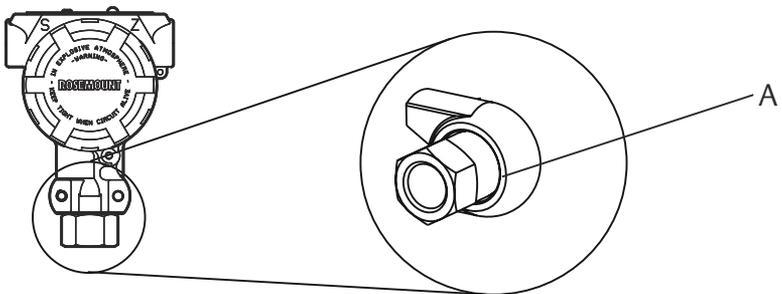
Bolt material	Head markings	Initial torque	Final torque
CS		300 in-lb	650 in-lb
SST		150 in-lb	300 in-lb

3.1.5 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 3-6](#))

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 3-6: In-line Gage Low Side Pressure Port



A. Low side pressure port (atmospheric reference)

3.1.6 Consider housing rotation

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

Procedure

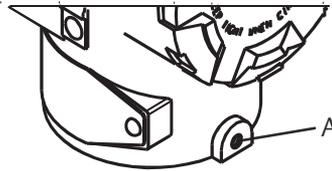
1. Loosen the housing rotation set screw using a $\frac{1}{8}$ -in. hex wrench.
2. Turn the housing left or right maximum up to 180° from its original position.⁽¹⁾

Note

Over-rotating can damage the transmitter.

3. Re-tighten the housing rotation set screw to no more than 7 in-lb when desired location is reached.
-

Figure 3-7: Housing Rotation Set Screw



A. Housing rotation set screw ($\frac{5}{64}$ -in.)

CAUTION

Over rotation of housing may cause damage to module communication cable.

3.2 Set the switches

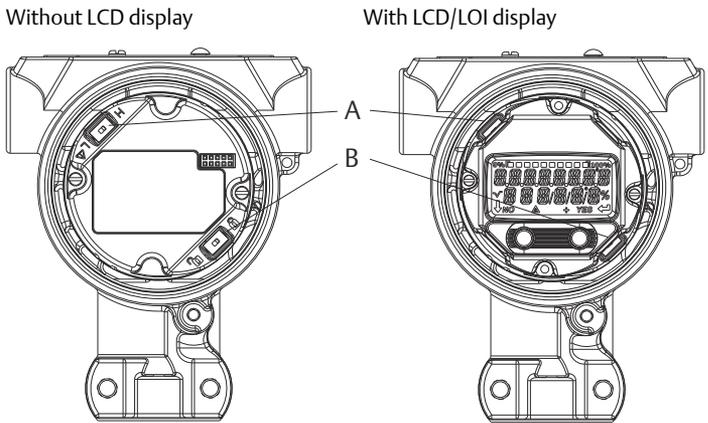
Procedure

1. Set alarm and security switch configuration before installation as shown in [Figure 3-8](#).
2. The alarm switch sets the analog output alarm to high or low.
3. Default alarm is high.
4. The security switch allows (unlocked symbol) or prevents (locked symbol) any configuration of the transmitter.
5. Default security is off (unlocked symbol).

(1) Rosemount 3051D original position aligns with “H” side; Rosemount 3051G original position is the opposite side of bracket holes.

6. If the transmitter is installed, secure the loop, and remove power.
7. Remove the housing cover opposite the field terminal side. Do not remove the instrument cover in explosive atmospheres when the circuit is live.
8. Slide the security and alarm switches into the preferred position using a small screwdriver.
9. Reattach the transmitter cover. The cover must be fully engaged to comply with explosion-proof requirements.

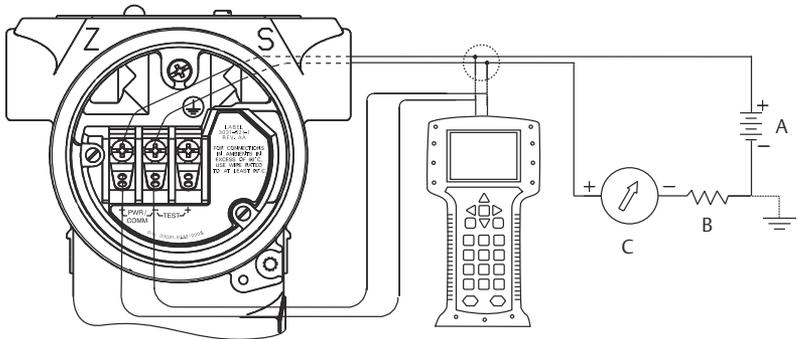
Figure 3-8: Transmitter Electronics Board



- A. Alarm
- B. Security

3.3 Connect the wiring and power up

Figure 3-9: Transmitter Wiring Diagrams (4–20 mA)



- A. 24 Vdc supply
- B. $R_L \geq 250$
- 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 ft. (1500 m) 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.

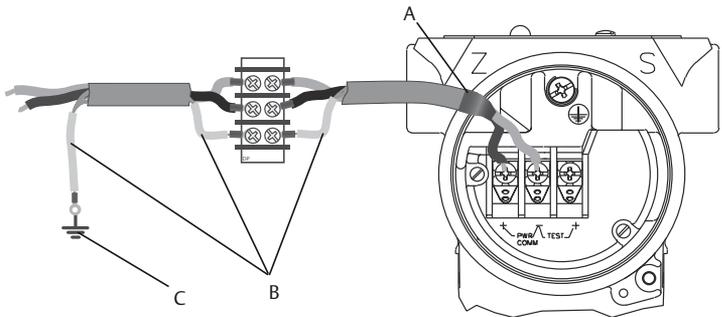
Use the following steps to wire the transmitter:

Procedure

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:

- a) Trimmed close and insulated from touching the transmitter housing
 - b) Connected to the next shield if cable is routed through a junction box
 - c) Connected to a good earth ground at the power supply end
5. If transient protection is needed, refer to "[Grounding for transient terminal block](#)" for grounding instructions.
 6. Plug and seal unused conduit connections.
 7. Replace the housing cover.

Figure 3-10: Wiring



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

3.3 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 [Connect the wiring and power up](#). When the transmitter is properly wired, refer to [Figure 3-10](#) for internal and external transient grounding locations.

3.4 Verifying configuration

Verify the configuration using any HART-capable configuration tool. Configuration instructions for a Field Communicator are included in this

step. See Rosemount 3051 [Reference Manual](#) for configuration instructions using AMS Device Manager.

3.4.1 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 2-2](#). 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 [Field Communicator](#) for information on updating the DD library.

Procedure

Verify device configuration using the Fast Key sequences in [Table 3](#).

- a) A check (✓) indicates the basic configuration parameters. At minimum, these parameters should be verified as part of configuration and startup.
- b) A (7) indicates availability only in HART Revision 7 mode.

	Function	Fast Key sequence	
		HART 7	HART 5
✓	Alarm and Saturation Levels	2, 2, 2, 5, 7	2, 2, 2, 5, 7
✓	Damping	2, 2, 1, 1, 5	2, 2, 1, 1, 5
✓	Range Values	2, 2, 2,	2, 2, 2
✓	Tag	2, 2, 7, 1, 1	2, 2, 7, 1, 1
✓	Transfer Function	2, 2, 1, 1, 6	2, 2, 1, 1, 6
✓	Units	2, 2, 1, 1, 4	2, 2, 1, 1, 4
	Burst Mode	2, 2, 5, 3	2, 2, 5, 3
	Custom Display Configuration	2, 2, 4	2, 2, 4
	Date	2, 2, 7, 1, 4	2, 2, 7, 1, 3
	Descriptor	2, 2, 7, 1, 5	2, 2, 7, 1, 4
	Digital to Analog Trim (4–20 mA output)	3, 4, 2	3, 4, 2
	Disable Configuration Buttons	2, 2, 6, 3	2, 2, 6, 3
	Rerange with Keypad	2, 2, 2, 1	2, 2, 2, 1
	Loop Test	3, 5, 1	3, 5, 1
	Lower Sensor Trim	3, 4, 1, 2	3, 4, 1, 2

	Function	Fast Key sequence	
		HART 7	HART 5
	Message	2, 2, 7, 1, 6	2, 2, 7, 1, 5
	Scaled D/A Trim (4–20 mA output)	3, 4, 2	3, 4, 2
	Sensor Temperature/Trend (Rosemount 3051S)	3, 3, 3	3, 3, 3
	Upper Sensor Trim	3, 4, 1, 1	3, 4, 1, 1
	Digital Zero Trim	3, 4, 1, 3	3, 4, 1, 3
	Password	2, 2, 6, 5	2, 2, 6, 4
	Scaled Variable	3, 2, 2	3, 2, 2
	HART revision 5 to HART Revision 7 switch	2, 2, 5, 2, 3	2, 2, 5, 2, 3
✓	Long Tag	2, 2, 7, 1, 2	N/A
✓	Find Device	3, 4, 5	N/A
✓	Simulate Digital Signal	3, 4, 5	N/A

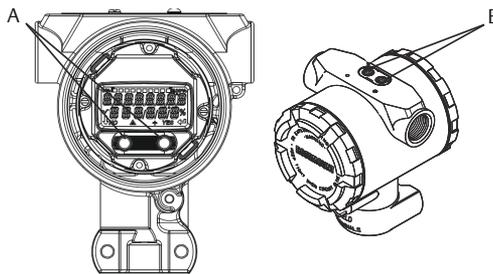
Note

See [Figure 3-10](#) to confirm external button functionality.

3.4.2 Verify configuration with 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 3-2](#) and [Figure 3-12](#) for button operation and menu information.

Figure 3-11: Internal and External LOI Buttons



- A. Internal buttons
- B. External buttons

Table 3-2: LOI Button Operation

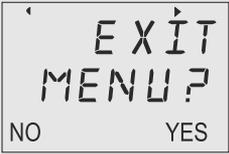
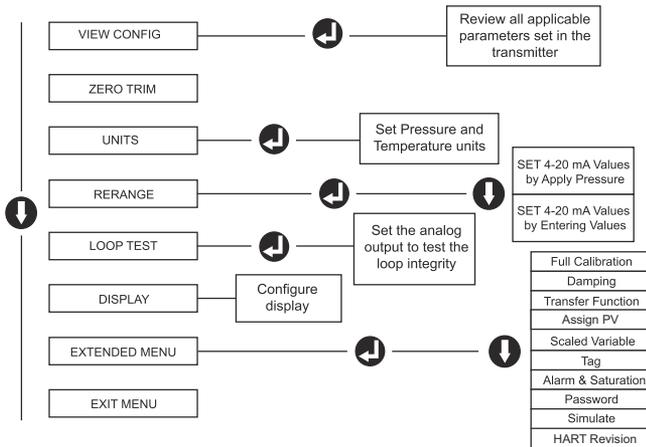
Button		
Left	No	SCROLL
Right	Yes	ENTER

Figure 3-12: LOI Menu



3.4.3 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:

Procedure

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

3.5 Trim the transmitter

Devices are calibrated by the factory. Once installed, it is recommended to perform a zero trim on gage and differential 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 [Reference Manual](#).

Note

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

Procedure

1. Choose your trim procedure.
 - a) Analog zero trim – Sets the analog output to 4 mA.
2. Also referred to as a “rerange,” it sets the lower range value (LRV) equal to the measured pressure.
3. The display and digital HART output remains unchanged.
 - a) Digital zero trim – Recalibrates the sensor zero.
4. The LRV is unaffected. The pressure value will be zero (on display and HART output). 4 mA point may not be at zero.
5. This requires that the factory calibrated zero pressure is within a range of 3% of the URV $[0 + 3\% \times URV]$.
 Example: URV = 250 inH₂O Applied Zero Pressure = $+ 0.03 \times 250$ inH₂O = + 7.5 inH₂O (compared to factory settings) values outside this range will be rejected by the transmitter.

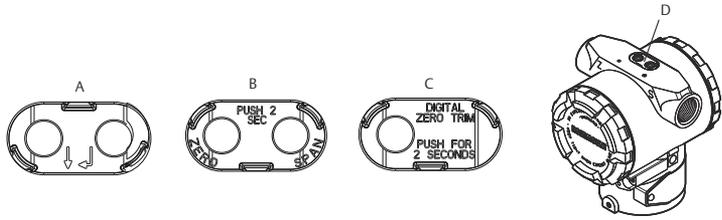
3.5.1 Trimming with a Field Communicator

Procedure

1. Connect the Field Communicator. See "[Connect the wiring and power up](#)" for instructions.
2. Follow the HART menu to perform the desired zero trim.

Table 3-3: Zero Trim Fast Keys

	Analog zero (Set 4 mA)	Digital zero
Fast Key sequence	3, 4, 2	3, 4, 1, 3

Figure 3-13: External Configuration Buttons

- A. *LOI*
- B. *Analog zero and span*
- C. *Digital zero*
- D. *Configuration buttons*

Perform trim with LOI (option M4) for a zero trim.

3. Set the transmitter pressure.
4. See [Figure 3-12](#) for the operating menu.
 - a) Perform an analog zero trim by selecting Rerange.
 - b) Perform a digital zero trim by selecting **Zero Trim**.

4 Safety instrumented systems installation

For safety certified installations, refer to [Reference Manual](#) for installation procedure and system requirements.

5 Product certifications

5.1 Rosemount 3051D Pressure Transmitter

Rev 3.2

5.1.1 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.

5.1.2 Europe

E8 ATEX Flameproof and Dust

Certificate DEKRA12ATEX0212X (Ex d); Baseefa12ATEX0191 (Ex ta)

Standards EN60079-0:2012+A11:2013, EN60079-1:2014,
EN60079-26:2015, EN60079-31:2009

Markings  II 1/2 G Ex db IIC T6...T4 Ga/Gb, T6(-60 °C ≤ T_a ≤ +70 °C),
T5/T4(-60 °C ≤ T_a ≤ +80 °C)
 II 1 D Ex ta IIIC T95 °C T₅₀₀ 105 °C Da (-20 °C ≤ T_a ≤ +85 °C)
V_{max} = 42.4 Vdc

Table 5-1: Process Temperature

Temperature class	Process connection temperature	Ambient temperature
T6	-60 to +70 °C	-60 to +70 °C
T5	-60 to +80 °C	-60 to +80 °C
T4	-60 to +120 °C	-60 to +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 Category 1 (process connection) and Category 2(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.
4. Some variants of the equipment have reduced markings on the nameplate. Refer to the Certificate for full equipment marking.
5. Appropriate cable, glands and plugs need to be suitable for a temperature of 5°C greater than maximum specified temperature for location where installed.

I1 ATEX Intrinsic Safety and Dust

Certificate Baseefa12ATEX0189X; Baseefa12ATEX0191

Standards: EN60079-0:2012+A11:2013, EN60079-11:2012, EN60079-31:2009

Markings:  II 1 G Ex ia IIC T5/T4 Ga, T5(-60 °C ≤ T_a ≤ +40 °C), T4(-60 °C ≤ T_a ≤ +70 °C),  II 1 D Ex ta IIIC T95 °C T₅₀₀10°C Da (-20 °C ≤ T_a ≤ +85 °C)

Table 5-2: Input Parameters

Parameters	HART
Voltage U _i	30 V
Current I _i	200 mA
Power P _i	0.9 W
Capacitance C _i	0.012 μF
Inductance L _i	0 mH

Special Conditions for Safe Use (X):

1. The equipment is not capable of withstanding the 500 V insulation test required by clause 6.3.13 of EN60079-11:2012. 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. Some variants of the equipment have reduced markings on the nameplate. Refer to the Certificate for full equipment marking.

N1 ATEX Type n and Dust

Certificate Baseefa12ATEX0190X; Baseefa12ATEX0191

Standards EN60079-0:2012+A11:2013, EN60079-15:2010, EN60079-31:2009

Markings  II 3 G Ex nA IIC T5 Gc ($-40\text{ °C} \leq T_a \leq +70\text{ °C}$),  II 1 D Ex ta IIC T95 °C T₅₀₀ 105 °C Da ($-20\text{ °C} \leq T_a \leq +85\text{ °C}$)

Special Conditions for Safe Use (X):

1. The equipment is not capable of withstanding the 500 V insulation test required by clause 6.5.1 of EN60079-15:2010. This must be taken into account when installing the equipment.
2. Some variants of the equipment have reduced markings on the nameplate. Refer to the Certificate for full equipment marking.

5.1.3 International

E7 IECEx Flameproof and Dust

Certificate IECEx DEK 12.0067X (Ex d); IECEx BAS 12.0109 (Ex ta)

Standards IEC60079-0:2011, IEC60079-1:2014, IEC60079-26:2014, IEC60079-31:2008

Markings  db IIC T6...T4 Ga/Gb, T6 ($-60\text{ °C} \leq T_a \leq +70\text{ °C}$), T5/T4 ($-60\text{ °C} \leq T_a \leq +80\text{ °C}$);  ta IIIC T95 °C T₅₀₀ 105 °C Da ($-20\text{ °C} \leq T_a \leq +85\text{ °C}$) V_{max} = 42.4 Vdc

Table 5-3: Process Temperature

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

Special Conditions for Safe Use (X):

1. This device contains a thin wall diaphragm less than 1mm 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. Some variants of the equipment have reduced markings on the nameplate. Refer to the Certificate for full equipment marking.
4. Some variants of the equipment have reduced markings on the nameplate. Refer to the Certificate for full equipment marking.
5. Appropriate cable, glands and plugs need to be suitable for a temperature of 5 °C greater than maximum specified temperature for location where installed.

I7 IECEx Intrinsic Safety

Certificate IECEx BAS 12.0107X

Standards IEC60079-0:2011, IEC60079-11:2011

Markings  ia IIC T5/T4 Ga, T5(-60 °C ≤ T_a ≤ +40 °C), T4(-60 °C ≤ T_a ≤ +70 °C)

Table 5-4: Input Parameters

Parameters	HART
Voltage U _i	30 V
Current I _i	200 mA
Power P _i	0.9 W
Capacitance C _i	0.012 μF
Inductance L _i	0 mH

Special Conditions for Safe Use (X):

1. The equipment is not capable of withstanding the 500 V insulation test required by clause 6.3.13 of IEC60079-11:2011. 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.

N7 IECEx Type n

Certificate IECEx BAS 12.0108X

Standards IEC60079-0:2011, IEC60079-15:2010

Markings Ex nA IIC T5 Gc (-40 °C ≤ T_a ≤ +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.

5.1.4 China

E3 China Flameproof

Certificate GYJ18.1023X

Standards GB3836.1-2010, GB3836.2-2010, GB3836.20-2010

Markings Ex d IIC T6/T5 Ga/Gb, Ex tD A20 IP66 T95 °C T₅₀₀ 105 °C

产品安全使用特殊条件:

证书编号后缀“X”表明产品具有安全使用特殊条件：涉及隔爆接合面的维修须联系产品制造商。

产品使用注意事项:

1. 用于爆炸性气体环境中，产品使用环境温度与温度组别和介质温度的关系为：

温度组别	环境温度	过程温度
T6	$-50\text{ °C} \leq T_a \leq +65\text{ °C}$	$-50\text{ °C} \leq T_a \leq +65\text{ °C}$
T5	$-50\text{ °C} \leq T_a \leq +70\text{ °C}$	$-50\text{ °C} \leq T_a \leq +70\text{ °C}$

2. 用于爆炸性粉尘环境中，产品使用环境温度为： $-20\text{ °C} \leq T_a \leq +85\text{ °C}$ 。
3. 产品外壳设有接地端子，用户在使用时应可靠接地。
4. 安装现场应不存在对产品外壳有腐蚀作用的有害气体。
5. 现场安装时，电缆引入口须选用国家指定的防爆检验机构按检验认可、具有 Ex d IIC, Ex tD A20 IP66 防爆等级的电缆引入装置或堵封件，冗余电缆引入口须用堵封件有效密封。
6. 用于爆炸性气体环境中，现场安装、使用和维护必须严格遵守“断电后开盖！”的警告语。用于爆炸性粉尘环境中，现场安装、使用和维护必须严格遵守“爆炸性粉尘场所严禁开盖！”的警告语。
7. 用于爆炸性粉尘环境中，产品外壳表面需保持清洁，以防粉尘堆积，但严禁用压缩空气吹扫。
8. 用户不得自行更换该产品的零部件，应会同产品制造商共同解决运行中出现的故障，以杜绝损坏现象的发生。

- 产品的安装、使用和维护应同时遵守产品使用说明书、GB3836.13-2013“爆炸性环境 第 13 部分：设备的修理、检修、修复和改造”、GB3836.15-2000“爆炸性气体环境用电气设备 第 15 部分：危险场所电气安装（煤矿除外）”、GB3836.16-2006“爆炸性气体环境用电气设备 第 16 部分：电气装置的检查和维护（煤矿除外）”、GB50257-2014“电气装置安装工程爆炸和火灾危险环境电力装置施工及验收规范”和 GB15577-2007“粉尘防爆安全规程”、GB12476.2-2010“可燃性粉尘环境用电气设备 第 2 部分：选型和安装”的有关规定。

I3 China Intrinsic Safety

Certificate GYJ17.1509X

Standards GB3836.1-2010, GB3836.4-2010, GB3836.20-2010

Markings Ex ia IIC T5/T4 Ga

产品安全使用特殊条件:

证书编号后缀“X”表明产品具有安全使用特殊条件：

- 产品外壳含有轻金属，用于 0 区时需注意防止由于冲击或摩擦产生的点燃危险。
- 此设备不能承受 GB3836.4-2010 标准中第 6.3.12 条规定的 500 V 交流有效值试验电压的介电强度试验。

产品使用注意事项:

- 产品使用环境温度为:

温度组别	环境温度
T5	$-60^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$
T4	$-60^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$

- 本安电气参数:

最高输入电压 U_i (V)	最大输入电流 I_i (mA)	最大输入功率 P_i (W)	最大内部等效参数	
			C_i (nF)	L_i (μH)
30	200	0.9	12	0

- 该产品必须与已通过防爆认证的关联设备配套共同组成本安防爆系统方可用于爆炸性气体环境。其系统接线必须同时遵守本产品 and 所配关联设备的使用说明书要求，接线端子不得接错。

4. 用户不得自行更换该产品的零部件，应会同产品制造商共同解决运行中出现的故障，以杜绝损坏现象的发生。
5. 产品的安装、使用和维护应同时遵守产品使用说明书、GB3836.13-2013“爆炸性环境 第 13 部分：设备的修理、检修、修复和改造”、GB3836.15-2000“爆炸性气体环境用电气设备 第 15 部分：危险场所电气安装（煤矿除外）”、GB3836.16-2006“爆炸性气体环境用电气设备 第 16 部分：电气装置的检查和维修（煤矿除外）”、GB3836.18-2010“爆炸性环境 第 18 部分：本质安全系统”和 GB50257-2014“电气装置安装工程爆炸和火灾危险环境电力装置施工及验收规范”的有关规定。

N3 China Type n

Certificate	GJY17.1510X
Standards	GB3836.1-2010, GB3836.8-2014
Markings	Ex nA IIC T5 Gc

产品安全使用特殊条件:

产品防爆合格证号后缀“X”代表产品安全使用有特殊条件：此设备不能承受 GB3836.8-2014 标准中第 6.5.1 条规定的 500 V 对地电压试验 1 分钟，安装时需考虑在内。

产品使用注意事项:

1. 产品使用环境温度范围为： $-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ 。
2. 最高输入电压：42.4 Vdc。
3. 现场安装时，电缆引入口须选用经国家指定的防爆检验机构检验认可的、具有 Ex eIIC Gb 或 Ex nA IIC Gc 防爆等级及 IP66 外壳防护等级的的电缆引入装置或堵封件，冗余电缆引入口须用堵封件有效密封。电缆引入装置或封堵件的安装使用必须遵守其使用说明书的要求并保证外壳防护等级达到 IP54（符合 GB4208-2008 标准要求）以上。
4. 用户不得自行更换该产品的零部件，应会同产品制造商共同解决运行中出现的故障，以杜绝损坏现象的发生。
5. 产品的安装、使用和维护应同时遵守产品使用说明书、GB3836.13-2013“爆炸性环境 第 13 部分：设备的修理、检修、修复和改造”、GB3836.15-2000“爆炸性气体环境用电气设备 第 15 部分：危险场所电气安装（煤矿除外）”、GB3836.16-2006“爆炸性气体环境用电气设备 第 16 部分：电气装置的检查和维修（煤矿除外）”、GB50257-2014“电气装置安装工程爆炸和火灾危险环境电力装置施工及验收规范”的有关规定。

5.1.5 Combinations

K7 Combination of E7, I7, and N7

K8 Combination of E8, I1, and N1

5.2 Rosemount 3051G Pressure Transmitter

Rev 3.2

5.2.1 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.

5.2.2 Ordinary Certification Location

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).

5.2.3 North America

E5 USA Explosionproof (XP) and Dust-Ignitionproof (DIP)

Certificate 0T2H0.AE

Standards FM Class 3600 - 2011, FM Class 3615 - 2006, FM Class 3616 - 2011, FM Class 3810 - 2005, ANSI/NEMA 250 - 2008

Markings XP CL I, DIV 1, GP B, C, D; DIP CL II, DIV 1, GP E, F, G; CL III; T5(-40 °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, ANSI/NEMA 250 - 2008

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; Temp code T4; Type 4x; Factory Sealed

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 drawing 03031-1053)

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)

5.2.4 Europe

E8 ATEX Flameproof and Dust

Certificate KEMA97ATEX2378X; BAS01ATEX1427X

Standards EN60079-0:2012 + A11:2013, EN60079-1:2013, EN60079-26:2015, EN60079-31:2009

Markings  II 1/2 G Ex db IIC T6...T4 Ga/Gb, T6(-60 °C ≤ T_a ≤ +70 °C), T5/T4(-60 °C ≤ T_a ≤ +80°C);  II 1 D Ex t IIIC T50 °C T₅₀₀ 60 °C Da

Table 5-5: Process Connection Temperature

Temperature class	Process connection temperature	Ambient temperature
T6	-60 to +70 °C	-60 to +70 °C
T5	-60 to +80 °C	-60 to +80 °C
T4	-50 to +120 °C	-60 to +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.
4. Appropriate cable, glands and plugs need to be suitable for a temperature of 5 °C greater than maximum specified temperature for location where installed.
5. 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.
6. Cable entries must be used which maintain the ingress protection of the enclosure to at least IP66.
7. Unused cable entries must be filled with suitable blanking plugs which maintain the ingress protection of the enclosure to at least IP66.
8. Cable entries and blanking plugs must be suitable for the ambient range of the apparatus and capable of withstanding a 7J impact test.
9. Rosemount 2088/2090 sensor module must be securely screwed in place to maintain the ingress protection of the enclosure.

- 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 BAS00ATEX1166X
Standards EN60079-0:2012+A11:2013, EN60079-11:2012
Markings  II 1 G Ex ia IIC T4 Ga (-55 °C ≤ T_a ≤ +70 °C)

Table 5-6: Input Parameters

Parameters	HART
Voltage U _i	30 V
Current I _i	200 mA
Power P _i	0.9 W
Capacitance C _i	0.012 μF
Inductance L _i	0 mH

Special Conditions for Safe Use (X):

- When fitted with a transient suppression terminal block, the equipment is not capable of withstanding the 500 V insulation test. This must be taken into account during installation.
- The enclosure may be made of aluminium alloy and given a protective polyurethane paint finish; however, care should be taken to protect it from impact or abrasion if located in a Zone 0 area.

N1 ATEX Type n and Dust

Certificate BAS00ATEX3167X; BAS01ATEX1427X
Standards EN60079-0:2012, EN60079-15:2010, EN60079-31:2009
Markings  II 3 G Ex nA IIC T5 Gc (-40 °C ≤ T_a ≤ +70 °C);  II 1 D Ex t IIC T50 °C T₅₀₀ 60 °C Da

Special Conditions for Safe Use (X):

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

5.2.5 International

E7 IECEx Flameproof

Certificate IECEx KEM 06.0021X

Standards IEC 60079-0:2011, IEC 60079-1:2014, IEC 60079-26:2014

Markings Ex db IIC T6...T4 Ga/Gb T6($-60\text{ °C} \leq T_a \leq +70\text{ °C}$), T5/T4($-60\text{ °C} \leq T_a \leq +80\text{ °C}$)

Temperature class	Process connection temperature	Ambient temperature
T6	-60 to +70 °C	-60 to +70 °C
T5	-60 to +80 °C	-60 to +80 °C
T4	-50 to +120 °C	-60 to +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.
4. Appropriate cable, glands and plugs need to be suitable for a temperature of 5 °C greater than maximum specified temperature for location where installed.

I7 IECEx Intrinsic Safety

Certificate IECEx BAS 12.0071X

Standards IEC60079-0:2011, IEC60079-11:2011

Markings Ex ia IIC T4 Ga ($55\text{ °C} \leq T_a \leq +70\text{ °C}$)

Table 5-7: Input Parameters

Parameters	HART
Voltage U_i	30 V
Current I_i	200 mA
Power P_i	0.9 W
Capacitance C_i	0.012 μ F
Inductance L_i	0 mH

Special Conditions for Safe Use (X):

1. If the apparatus is fitted with optional 90V 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. 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	IEC60079-0:2011, IEC60079-15:2010
Markings	Ex nA IIC T5 Gc ($-40\text{ }^{\circ}\text{C} \leq T_a \leq +70\text{ }^{\circ}\text{C}$)

Special Condition for Safe Use (X):

1. When fitted with a transient suppression terminal block, the Rosemount 2088 is incapable of passing the 500 V isolation test. This must be taken into account when installing the apparatus.

5.2.6 Brazil**E2 INMETRO Flameproof**

Certificate	UL-BR 15.0728X
Standards	ABNT NBR IEC60079-0:2013, ABNT NBR IEC 60079-1:2016, ABNT NBR IEC 60079-26:2016
Markings	Ex db IIC T6...T4 Ga/Gb T4/T5 ($-60\text{ }^{\circ}\text{C} \leq T_a \leq +80\text{ }^{\circ}\text{C}$), T6 ($-60\text{ }^{\circ}\text{C} \leq T_a \leq +70\text{ }^{\circ}\text{C}$)

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.

5.2.7 China

E3 China Flameproof

Certificate	GYJ15.1300X
Standards	GB3836.1-2010, GB3836.2-2010
Markings	Ex d IIB+H ₂ T5 Gb

Special Conditions for Safe Use (X):

1. Ambient temperature range: -20 °C ~ +85 °C.
2. The earth connection facility in the enclosure should be connected reliably.
3. During installation, there should be no mixture harmful to housing.
4. During installation in hazardous location, Cable glands and blanking plugs, certified by state-appointed inspection bodies with Ex d IIC Gb type of protection should be used. Redundant cable entries should be blocked with blanking plugs.
5. During installation, use and maintenance of the product in explosive gas atmosphere, observe the warning "Don't open the cover when the circuit is alive".
6. End users is not permitted to change any components insides, but to settle the problem in conjunction with manufacturer to avoid damage to the product.
7. When installation, use and maintenance of this product, observe following standards: GB3836.13-2013 "Explosive atmospheres-Part 13: Equipment repair, overhaul and reclamation" 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)” GB50257-2014 “Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering”.

I3 China Intrinsic Safety

Certificate	GYJ15.1301X
Standards	GB3836.1-2010, GB3836.4-2010, GB3836.20-2010
Markings	Ex ia IIC T4 Ga ($-55\text{ }^{\circ}\text{C} \leq T_a \leq +70\text{ }^{\circ}\text{C}$)

Special Conditions for Safe Use (X):

1. The enclosure may contain 1 Non-metallic material, attention should be taken to avoid ignition hazard due to impact or friction when used in Zone 0.
2. When transient protection board is chosen (Option Code T1), this apparatus is not capable of withstanding the 500V r.m.s insulation test required by Clause 6.3.12 of GB3836.4-2010.

N3 China Type n

Certificate	GYJ13.1305X
Standards	GB3836.1-2010, GB3836.8-2003
Markings	Ex nA IIC T5 Gc ($-40\text{ }^{\circ}\text{C} \leq T_a \leq +70\text{ }^{\circ}\text{C}$)

Special Condition for Safe Use (X):

1. When transient protection board is chosen (option code T1), this apparatus is not capable of withstanding the 500 V r.m.s insulation test required by Clause 6.3.12 of GB3836.4-2010.

5.2.8 Combinations

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 E5, I5, and C6
KD	Combination of E8, I1, E5, I5, and C6

5.2.9 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 5-8: Conduit Plug Thread Sizes

Thread	Identification mark
M20 x 1.5	M20
½–14 NPT	½ NPT

Table 5-9: Thread Adapter Thread Sizes

Male thread	Identification mark
M20 x 1.5–6g	M20
½–14 NPT	½–14 NPT
¾–14 NPT	¾–14 NPT
Female thread	Identification mark
M20 x 1.5–6H	M20
½–14 NPT	½–14 NPT
G½	G½

Special Conditions for Safe Use (X):

1. When the thread adapter or blanking plug 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. G½ thread forms are only acceptable for existing (legacy) equipment installations.

5.3 EU Declaration of Conformity

	<h2>EU Declaration of Conformity</h2>	
<p>No: RMD 1089 Rev. J</p>		
<p>We,</p>		
<p>Rosemount Inc. 8200 Market Boulevard Chanhassen, MN 55317-9685 USA</p>		
<p>declare under our sole responsibility that the product,</p>		
<p>Rosemount™ Models 3051D and 3051G Pressure Transmitters</p>		
<p>manufactured by,</p>		
<p>Rosemount Inc. 8200 Market Boulevard Chanhassen, MN 55317-9685 USA</p>		
<p>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.</p>		
<p>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.</p>		
	<p>Vice President of Global Quality</p>	
<p>(signature)</p>	<p>(function name - printed)</p>	
<p>Chris LaPoint</p>	<p>28-Jan-20; Shakopee, MN USA</p>	
<p>(name - printed)</p>	<p>(date of issue)</p>	
<p>Page 1 of 4</p>		

	<h2 style="margin: 0;">EU Declaration of Conformity</h2> <p style="margin: 0;">No: RMD 1089 Rev. J</p>	
<p>EMC Directive (2014/30/EU)</p> <p style="text-align: center;">All Models 3051D and 3051G Pressure Transmitters EN 61326-1:2013 EN 61326-2-3:2013</p>		
<p>PED Directive (2014/68/EU)</p> <p style="text-align: center;">Models 3051DP2, 3, 4, 5 with C-276 Isolators or options P7 or P9 Pressure Transmitters QS Certificate of Assessment - EC Certificate No. 12698-2018-CE-ACCREDIA Module H Conformity Assessment Other Standards Used: ANSI/ISA61010-1:2004 <i>Note – previous PED Certificate No. 59552-2009-CE-HOU-DNV</i></p> <p style="text-align: center;">All other model 3051D and 3051G Pressure Transmitters Sound Engineering Practice</p> <p style="text-align: center;">Transmitter Attachments: Diaphragm Seal - Process Flange - Manifold Sound Engineering Practice</p>		
<p>RoHS Directive (2011/65/EU)</p> <p style="text-align: center;">Models 3051D and 3051G Pressure Transmitters Harmonized Standard: EN 50581:2012</p>		
<p>ATEX Directive (2014/34/EU)</p> <p style="text-align: center;">Model 3051D Pressure Transmitter</p> <p style="text-align: center;">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: EN60079-0:2012+A11:2013, EN60079-11:2012</p> <p style="text-align: center;">Baseefa12ATEX0190X - Type n Certificate Equipment Group II Category 3 G Ex nA IIC T5 Gc (-40°C ≤ Ta ≤ +70°C) Harmonized Standards Used: EN60079-0:2012+A11:2013, EN60079-15:2010</p>		
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EU Declaration of Conformity



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Baseefa12ATEX0191 - Dust Certificate

Equipment Group II Category 1 D
 Ex ia IIIC T95°C T₀₀₁05°C Da (-20°C ≤ Ta ≤ +85°C)
 Harmonized Standards Used:
 EN60079-0:2012+A11:2013, EN60079-31:2009

DEKRA12ATEX0212X- Flameproof Certificate

Equipment Group II Category 1/2 G
 Ex db IIC T8 Ga/Gb (-50°C ≤ Ta ≤ +65°C)
 T5 Ga/Gb (-50°C ≤ Ta ≤ +70°C)
 Harmonized Standards Used:
 EN60079-0:2012+A11:2013, EN60079-1:2014, EN60079-26:2015

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:
 EN60079-0:2012+A11:2013, EN60079-11:2012

BAS00ATEX3167X - Type n Certificate

Equipment Group II Category 3 G
 Ex nA IIC T5 Gc (-40°C ≤ Ta ≤ 70°C)
 Harmonized Standards Used:
 EN60079-0:2012+A11:2013, EN60079-15:2010

BAS01ATEX1427 - Dust Certificate

Equipment Group II Category 1 D
 Ex t IIIC T50°C T₀₀₀60°C Da
 Harmonized Standards Used:
 EN60079-0:2012+A11:2013, EN60079-31:2009

KEMA97ATEX2378X 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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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 (Sarkiniementie 3)
00211 HELSINKI
Finland

ATEX Notified Body for Quality Assurance

SGS FIMCO OY [Notified Body Number: 0598]
P.O. Box 30 (Sarkiniementie 3)
00211 HELSINKI
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5.4 China RoHS table

有害物质成分表
03031-9021, Rev AB

罗斯蒙特®产品型号 3051
1/10/2020

含有China RoHS 管控物质超过最大浓度限值的部件型号列表 3051
List of 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	O	O	O	O	O	O
传感器组件 Sensor Assembly	X	O	O	O	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.

部件名称 Part Name	组装备件说明 Spare Parts Descriptions for Assemblies
电子组件 Electronics Assembly	电子线路板组件 Electronic Board Assemblies 端子块组件 Terminal Block Assemblies 升级套件 Upgrade Kits 液晶显示屏或本地操作界面 LCD or LOI Display
壳体组件 Housing Assembly	电子外壳 Electrical Housing
传感器组件 Sensor Assembly	传感器模块 Sensor Module



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