

Rosemount™ 3051 Pressure Transmitter and 3051CF Series Flow Meter

with 4–20 mA HART® and 1–5 Vdc Low Power Protocol



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Product documents can be located by selecting the search tool magnifier icon at the top of www.emerson.com and then select the "Serial Number" lookup button in the pop-up menu.

ROSEMOUNT™



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1 About this guide

This guide provides basic installation guidelines for Rosemount 3051 Transmitters.

Refer to the *Rosemount 3051 Pressure Transmitter Manual* on [Rosemount 3051 Pressure Transmitter](#) for instructions about:

- Configuration
- Diagnostics
- Maintenance
- Service
- Troubleshooting
- Explosion-proof
- Flameproof
- Intrinsically safe installations

This guide and the referenced manual are also available on [Emerson.com/global](https://emerson.com/global).

1.1 Safety messages

Before installing the transmitter, confirm the correct device driver is loaded on the host systems.

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 *Product certifications* for any restrictions associated with a safe installation.

Before connecting a communication device in an explosive atmosphere, ensure that the instruments 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 transmitter.

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.

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 in protecting your system. Restrict physical access by unauthorized personnel to protect end users' assets. This is true for all systems used within the facility.

NOTICE

Refer to the *Product certifications* section of this Quick Start Guide documentation when using the RFID tag (option code **Y3**) for required installation conditions.

NOTICE

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 × 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.

2 General safety certificates and approvals

See *Product certifications* for approvals information.

Product certifications are also in the online version of this Quick Start Guide on [Emerson.com](https://www.emerson.com).

3 Mounting the transmitter

WARNING

Process connection temperatures above 185 °F (85 °C) require a limited ambient temperature, reduced by a 1:1.5 ratio.

Consider process connection and ambient temperatures when installing the transmitter with hazardous location certifications. See [Table 3-1](#).

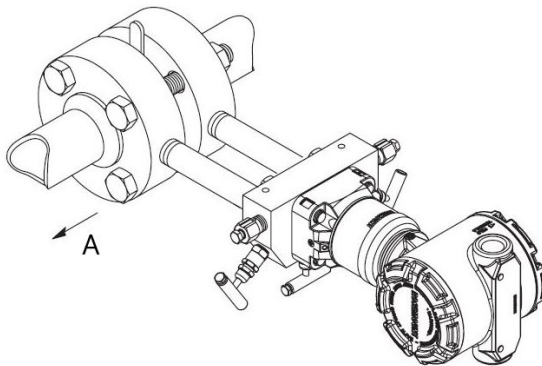
Table 3-1: Intrinsically safe/increased safety

Process connection temperature	Maximum ambient temperature
-76 °F to +185 °F (-60 °C to +85 °C)	158 °F (70 °C)
185 °F to 250 °F (85 °C to 121 °C)	158 °F to 60 °F (70 °C to 16 °C) ⁽¹⁾

(1) Maximum ambient temperature is reduced by 1.5 °F for 1 °F temperature rise in the process connection temperature beyond 185 °F (85 °C).

3.1 Mount the transmitter in a liquid flow application

Figure 3-1: Transmitter in liquid application

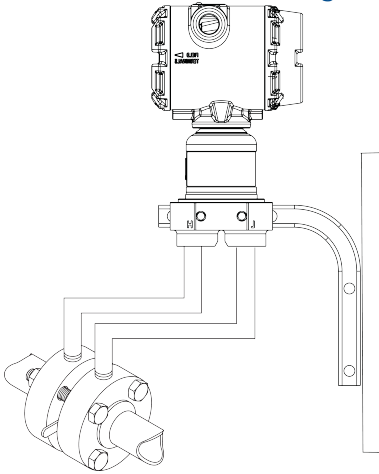


A. Flow

Procedure

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

3.2 Mount the transmitter in a gas flow application



Note

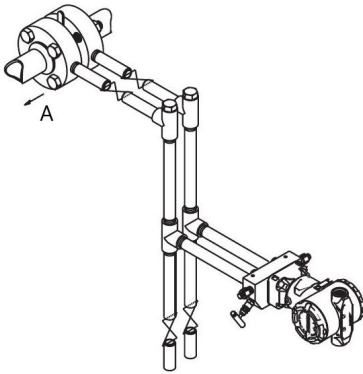
A bracket is required to support the transmitter and the 1/4-inch tubing going into the transmitter.

Procedure

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

3.3 Steam flow applications

Figure 3-2: Steam flow application



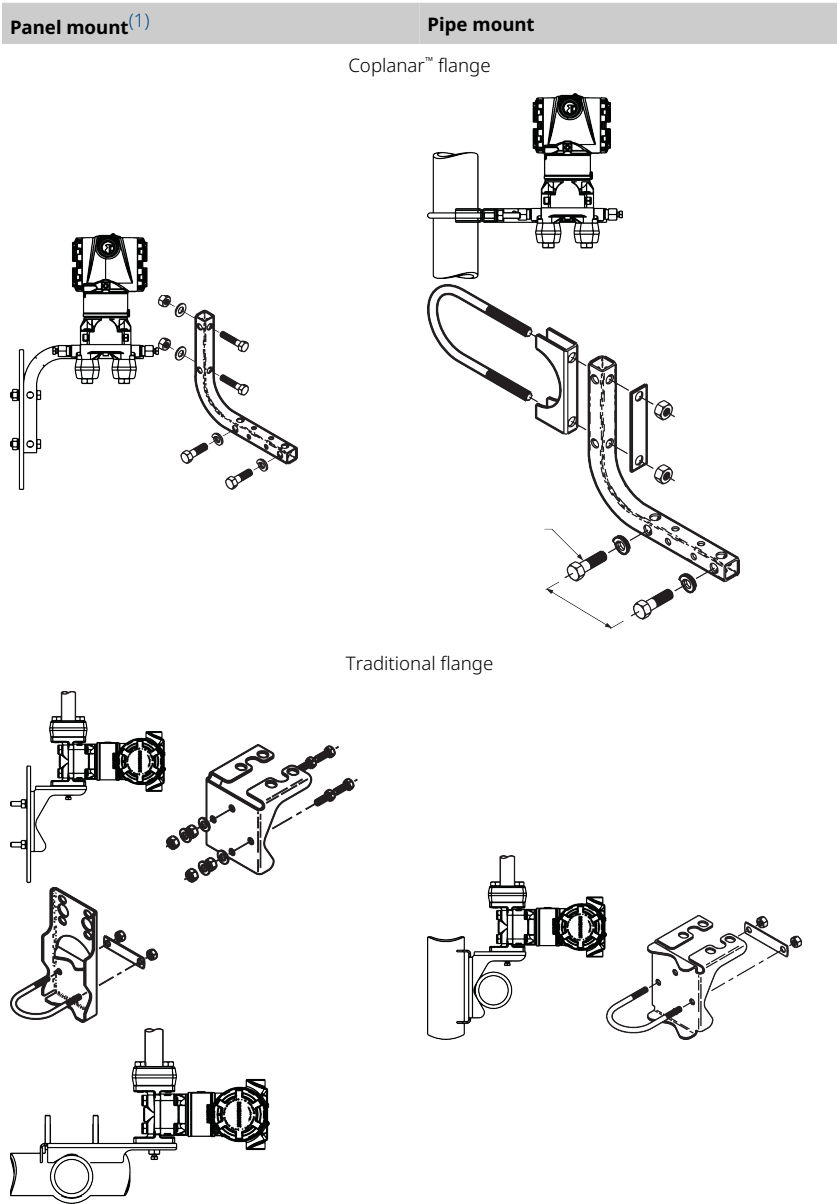
A. Flow

Procedure

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

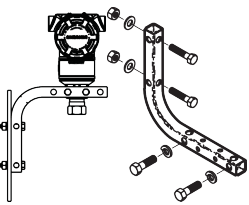
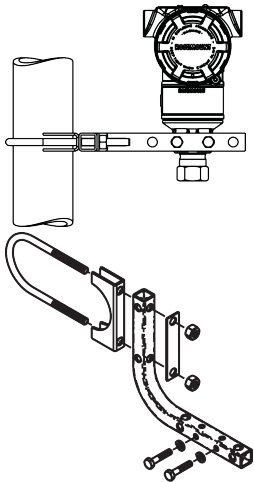
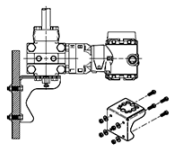
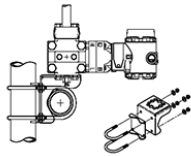
3.4 Panel and pipe mount

Figure 3-3: Panel and pipe mounting



(1) 5/16 x 1 1/2 panel bolts are customer-supplied.

Figure 3-4: Rosemount 3051T and 3051H

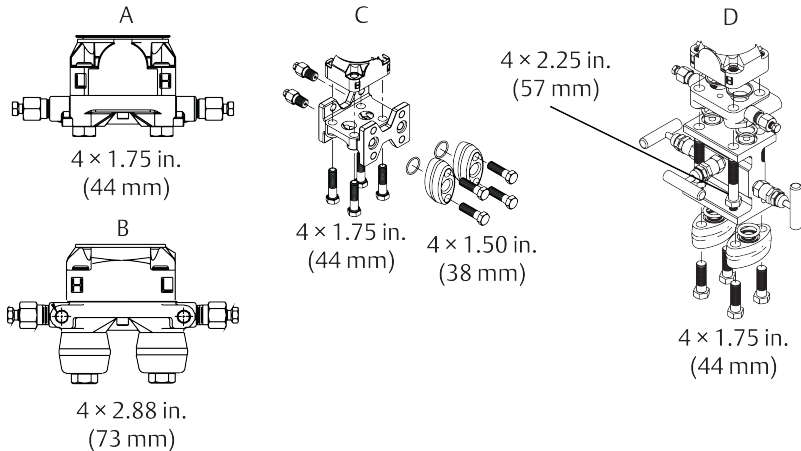
Panel mount	Pipe mount
 This diagram shows the exploded view of the Rosemount 3051T panel mount transmitter. It includes the main transmitter unit, a mounting bracket with a curved arm, and various screws and fasteners required for assembly.	3051T  This diagram shows the exploded view of the Rosemount 3051T pipe mount transmitter. It includes the main transmitter unit, a mounting bracket with a curved arm, and various screws and fasteners required for assembly.
 This diagram shows the exploded view of the Rosemount 3051H panel mount transmitter. It includes the main transmitter unit, a mounting bracket with a curved arm, and various screws and fasteners required for assembly.	3051H  This diagram shows the exploded view of the Rosemount 3051H pipe mount transmitter. It includes the main transmitter unit, a mounting bracket with a curved arm, and various screws and fasteners required for assembly.

3.5 Bolting considerations

If the transmitter installation requires assembly of the process flanges, manifolds, or flange adapters, use the following 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 or stainless steel. Confirm the material by viewing the markings on the head of the bolt and referencing [Table 3-2](#). If bolt material is not shown in [Table 3-2](#), contact your local Emerson representative for more information.

3.5.1 Install bolts

NOTICE

Carbon steel bolts do not require lubrication, and stainless steel bolts are coated with a lubricant to ease installation.

Do not apply any additional lubricant when installing either type of bolt.

Procedure

1. Finger-tighten the bolts.
2. Torque the bolts to the initial torque value using a crossing pattern.

Note

See [Table 3-2](#) for torque values.

3. Torque the bolts to the final torque value using the same crossing pattern.

Note

See Table 3-2 for torque values.

4. Verify the flange bolts are protruding through the isolator plate before applying pressure.

Table 3-2: Torque values for the flange and flange adapter bolts

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

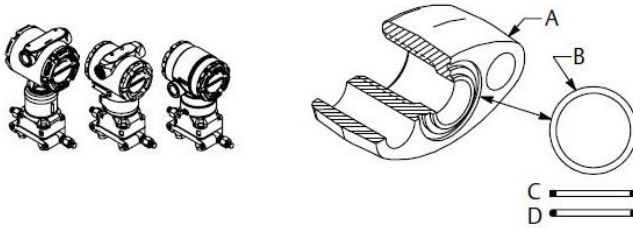
3.6 O-rings with flange adapters

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 in [Figure 3-6](#).

Figure 3-6: O-ring location: Rosemount 3051S/3051/2051



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

Note

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.

3.7 Environmental seal for housing

For ingress protection (for example, Type 4X, IP66, IP68), use an appropriate thread sealing method to provide a water and dust tight seal. Consult factory if other ingress protection ratings are required.

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

3.8 In-line gauge transmitter orientation

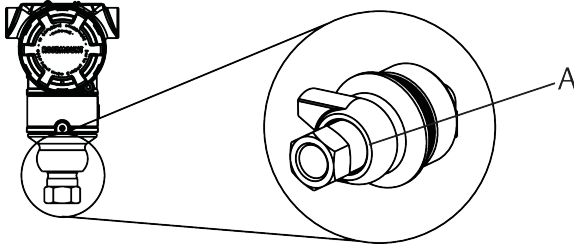
The low side pressure port (atmospheric reference) on the in-line gauge transmitter is located in the neck of the transmitter, behind the housing.

The vent path is 360° around the transmitter between the housing and sensor. (See [Figure 3-7.](#))

To allow fluids to drain away, keep the vent path free of any obstruction, including but not limited to:

- Paint
- Dust
- Lubrication

Figure 3-7: In-line gauge low side pressure port



A. Pressure port location

3.9 Rotate housing

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

Procedure

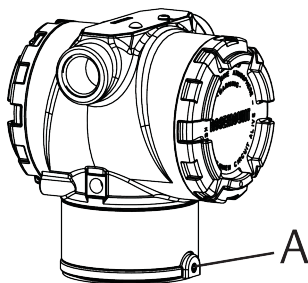
1. Loosen the housing rotation set screw using a 5/64-inch hex wrench.
2. Turn the housing left or right up to a maximum of 180° from its original position.¹
3. Re-tighten the housing rotation set screw to a maximum of 7 in-lb. when desired location is reached.

¹ Rosemount 3051C original position aligns with H side; Rosemount 3051T original position is the opposite side of the bracket holes.

CAUTION

Over-rotating will damage the transmitter.

Figure 3-8: Housing rotation



A. Housing rotation set screw (5/64 in.)

3.10 Set the switches

If **Alarm** and **Security** switches are not installed, then the transmitter will operate normally with the default alarm condition **Alarm High** and the **Security off**.

Procedure

1. If the transmitter is installed, then secure the loop, and remove power.
2. Remove the housing cover opposite the field terminal side.

WARNING

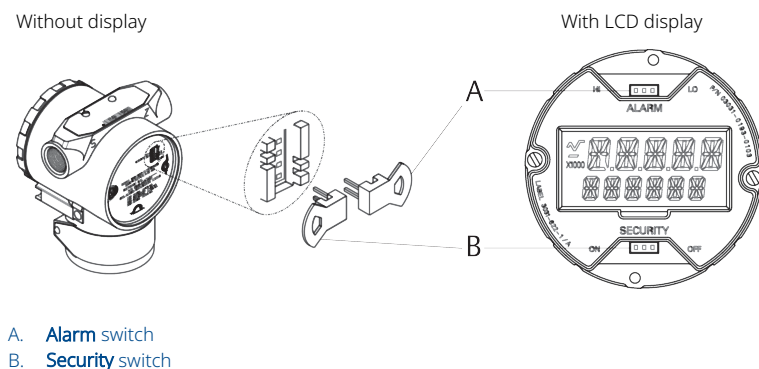
Do not remove the instrument cover in explosive atmospheres when the circuit is live.

3. Reposition the switch. Avoid contact with the leads and the terminals.
See [Figure 3-9](#) for the location of the switch and the **ON** and **OFF** positions.
4. Reattach the transmitter cover.

WARNING

The cover must be fully engaged to comply with explosion-proof requirements.

Figure 3-9: Transmitter electronics board



Note

Units with the graphical LCD display have switches in the same location as units without an LCD display.

4 Connect the wiring and power up

Figure 4-1 shows wiring connections necessary to power a Rosemount 3051 Transmitter and enable communications with a communication device.

Figure 4-1: Transmitter Wiring Diagrams

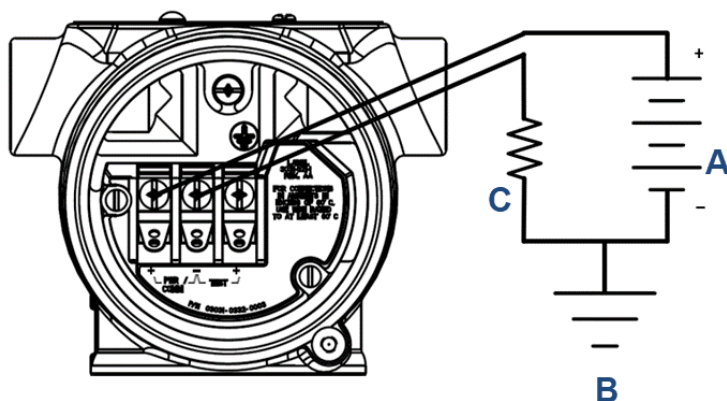


Table 4-1: Power Supply and Resistance Needs by Communicator Type

Communicator	Power supply	Resistor
AMS Device Manager	≥ 16.6 Vdc	≥ 250 Ω
AMS Trex™ Device Communicator (HART®)	≥ 16.6 Vdc	≥ 250 Ω
AMS Trex (HART + pwr)	None	None
AMS Device Configurator Bluetooth® App	≥ 10.5 Vdc	None
Quick Service buttons	≥ 10.5 Vdc	None
Local operator interface (LOI)	≥ 10.5 Vdc	None

Resistance and power requirements vary based on the interface type used to communicate with the device. See [Table 4-1](#) for specific loop power and resistance needs.

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. Ensure full contact with terminal block screw and washer. When using a direct wiring method, wrap wire clockwise to ensure it is in place when tightening the terminal block screw.

NOTICE

Emerson does not recommend using a pin or a ferrule wire, as the connection may be more susceptible to loosening over time or under vibration.

4. Ensure proper grounding.

 CAUTION

It is important that the instrument cable shield:
Be trimmed close and insulated from touching the transmitter housing.
Be connected to the next shield if cable is routed through a junction box.
Be connected to a good earth ground at the power supply end.
Do not connect the powered signal wiring to the test terminals. Power could damage the test diode in the test connection. Use shielded twisted pair cable for best results. Use 24 AWG or larger wire and do not exceed 5,000 ft. (1500 m).

5. Plug and seal unused conduit connections.
6. 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.
7. Replace the housing cover.

NOTICE

Installation of the transient protection terminal block does not provide transient protection unless the transmitter enclosure is properly grounded.

4.1 Run ground signal wiring

WARNING

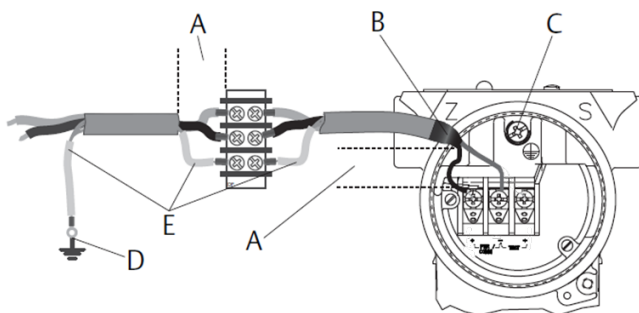
Do not run signal wiring in conduit or open trays with power wiring or near heavy electrical equipment.

Grounding terminations are provided on the outside of the electronics housing and inside the terminal compartment. Use these terminations when transient protect terminal blocks are installed or to fulfill local regulations. See [Step 2](#) for more information on how the cable shield should be grounded.

Procedure

1. Remove the field terminals housing cover.
2. Connect the wiring pair and ground as indicated in [Figure 4-2](#). Ensure the wiring is:
 - Trimmed close and insulated from touching the transmitter housing.
 - Continuously connected to the termination point.
 - Connected to a good earth ground at the power supply end.

Figure 4-2: Wiring



- A. Minimize distance
- B. Trim shield and insulate
- C. Ground for transient protection
- D. Shield connected to power supply ground
- E. Insulate shield

3. Replace the housing cover.

NOTICE

Emerson recommends tightening the cover until there is no gap between the cover and the housing.

4. Plug and seal unused conduit connections.

4.2 Power supply for a 4–20 mA HART® communication device

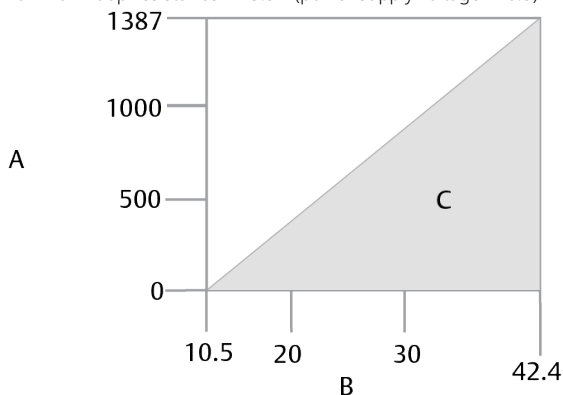
The transmitter operates on 10.5 to 42.4 Vdc at the terminal. The DC power supply must provide power with less than two percent ripple.

Note

The transmitter must have a minimum of 250 Ω to communicate with a communication device. If you are using a single power supply to power more than one transmitter, ensure the power supply used and the circuitry common to the transmitters does not have more than 20 Ω of impedance at 1,200 Hz.

Figure 4-3: Load limitation

Maximum loop resistance = $43.5 \times (\text{power supply voltage} - 10.5)$



- A. Load (Ω)
- B. Voltage (Vdc)
- C. Operating region

The total resistance load is the sum of the resistance of the signal leads and the load resistance of the controller, indicator, intrinsically safe (IS) barriers, and related pieces. If you use IS barriers, then include the resistance and voltage drop.

5 Verifying configuration

Emerson recommends verifying various configuration parameters before installing the transmitter in the process.

See the *Rosemount 3051 Pressure Transmitter Reference Manual* on [Rosemount 3051 Pressure Transmitter](#) for more detailed information.

6 Trimming the transmitter

Note

Emerson ships transmitters fully calibrated per request or by the factory default of full scale (span = upper range limit).

6.1 Zero trim

A zero trim is a single-point adjustment used for compensating mounting position effects.

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

There are two methods to compensate for mounting effects:

- Zero trim
- Using the transmitter zero adjustment buttons

The zero trim will affect the 4–20 mA value, the HART® Primary Variable (PV), and the display value.

6.1.1 Zero trim using a communication device

If zero offset is within 3 percent of upper range limit (URL), follow the instructions below.

This zero trim will affect the 4–20 mA value, the HART® Primary Variable (PV), and the display value.

Procedure

1. Equalize or vent the transmitter and connect communication device.
2. At the menu, input the HART fast key sequence.
3. Follow the commands to perform a zero trim.

6.1.2 Zero trim using the transmitter Zero Adjustment buttons

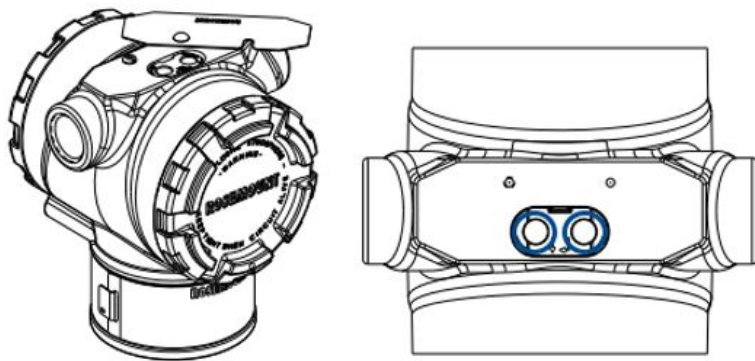
You can use the transmitter zero adjustment buttons to set the lower range value (LRV) to the pressure applied to the transmitter.

This adjustment will affect the 4–20 mA value only.

Procedure

1. Loosen the certifications label screw and slide the label to expose the zero adjustment buttons.
2. Set the 4 mA point by pressing the **Zero** button for two seconds. Verify the output is **4 mA**. The optional LCD display will show **ZERO PASS**.

Figure 6-1: Zero Adjustment or Quick Service buttons



7 Safety Instrumented Systems (SIS)

For safety certified installations, refer to the *Rosemount 3051 Pressure Transmitter Reference Manual* on Rosemount 3051 Pressure Transmitter for installation procedure and system requirements.

8 Product certifications

8.1 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.

8.2 Federal Communications Commission (FCC) notice

This device complies with Part 15 of the Federal Communications Commission Rules.

Operation is subject to the following conditions: This device may not cause harmful interference; this device must accept any interference received, including interference that may cause undesired operation. This device must be installed to ensure a minimum antenna separation distance of 7.9 in. (20 cm) from all persons. Changes or modification to the equipment not expressly approved by Emerson could void the user's authority to operate the equipment.

8.3 Innovation, Science, and Economic Development (ISED) notice

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science, and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions: This device may not cause interference. This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme à la norme RSS-247 Industrie Canada exempt de licence. Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne doit pas provoquer d'interférences et (2) cet appareil doit accepter toute interférence, y compris les interférences pouvant causer un mauvais fonctionnement du dispositif.

8.4 NCC Notice

取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻器材之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻

8.5 Ordinary location certification

As standard, the device 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).

8.6 North America

8.6.1 E5 USA Explosion-proof (XP) and Dust-Ignition proof (DIP)

Certificate	1053834
Markings	XP: CL I, DIV 1, GP B, C, D T5; Seal not required DIP: CL II, DIV 1, GP E, F, G; CL III T5; (-50 °C ≤ T _a ≤ +85 °C) Type 4X, IP 68 Optional: single seal

Specific Conditions of Use:

1. The Rosemount 3051 transmitter housing may contain aluminum and is considered a potential risk of ignition by impact or friction. Care must be taken during installation and use to prevent impact and friction.
2. Equipment evaluated for atmospheric pressure range between 80 kPa (0.8 bar) to 110 kPa (1.1 bar).
3. Process temperature limits shall be in accordance with 03031-1053.
4. Flameproof joints are not intended to be repaired.

8.6.2 I5 USA Intrinsic Safety (IS) and Nonincendive (NI)

Certificate	1053834
Markings	IS: CL I, GP ABCD T4 IS: CL II, GP EFG; CL III T4 CL I, ZN 0 AEx ia IIC T4 Ga NI: CL I, DIV 2, GP ABCD T4 -76 °F (-60 °C) ≤ T _a ≤ +158 °F (+70 °C) Optional: single seal Type 4X IP 68 INSTALL PER 03031-1024

Specific Conditions of Use:

1. The Rosemount 3051 Transmitter housing contains aluminum and is considered a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact and friction.
2. The Rosemount 3051 Transmitter with the transient terminal block (option codeT1) will not pass the 500 Vrms dielectric strength test, and this must be taken into account during installation.
3. Equipment evaluated for atmospheric pressure range between 80 kPa (0.8 bar) to 110 kPa (1.1 bar).
4. Maximum process temperature limits shall be in accordance with 03031-1053.

8.6.3 IE USA FISCO

Certificate	1053834
Markings	IS: CL I, GP ABCD T4 CL, I ZN 0 AEx ia IIC T4 Ga -60 °C ≤ T _a ≤ +70 °C FISCO Optional: single seal Type 4X, IP 68 Install per 03031-1024.

Specific Conditions for Use:

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. Equipment evaluated for atmospheric pressure range between 80 to 110 kPa (0.8 to 1.1 bar).
3. Process temperature limits shall be in accordance with 03031-1053.

8.6.4 C6 Canada Explosion-proof, Dust-Ignition proof, Intrinsic Safety, and Nonincendive

Certificate	1053834
Markings	XP: CL I, DIV 1, GP B, C, D T5 Ex db IIC T5 Gb Seal not required (-50 °C ≤ T _a ≤ +85 °C); DIP: CL II, DIV 1, GP E, F, G; CL III T5; T5: -50 °C ≤ T _a ≤ +85 °C IS: CL I, DIV 2, GP ABCD T4 T4: -60 °C ≤ T _a ≤ +70 °C; Install per 03031-1024 (IS/NI only) Single seal - temperature limits 03031-1053 Type 4X, IP68

Specific Conditions for Use:

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. Equipment evaluated for atmospheric pressure range between 80 to 110 kPa (0.8 to 1.1 bar).
3. The Rosemount 3051 Transmitter with the transient terminal block (option codeT1) will not pass the 500 Vrms dielectric strength test, and this must be taken into account during installation.
4. Flameproof joints are not intended to be repaired.

8.6.5 E6 Canada Explosion-proof, Dust-Ignition proof, and Division 2

Certificate	1053834
Markings	XP: CL I, DIV 1, GP B, C, D T5 Ex db IIC T5 Gb Seal not required DIP: CL II, DIV 1, GP E, F, G; CL III T5; T5: -50 °C ≤ T _a ≤ +85 °C NI: CL I, DIV 2, GP ABCD T4 T4: -60 °C ≤ T _a ≤ +70 °C; Single seal - temperature limits per 03031-1053 Type 4X, IP68

Specific Conditions for Use:

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. Equipment evaluated for atmospheric pressure range between 80 to 110 kPa (0.8 to 1.1 bar).
3. Flameproof joints are not intended to be repaired.

8.7 Europe

8.7.1 E8 ATEX Flameproof and Dust

ATEX Certificate	KEMA00ATEX2013X (Ex db); Baseefa11ATEX0275X (Ex ta)
Markings	Ⓔ II ½ G Ex db IIC T6...T4 Ga/Gb T6 T6: -60 °C ≤ T_a ≤ +70 °C T4/T5: -60 °C ≤ T_a ≤ +80 °C; Ⓔ II 1 D Ex ta IIIC T₅₀₀ 105 °C Da -20 °C ≤ T_a ≤ +85 °C

Table 8-1: Process temperature

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

Specific Conditions of Safe Use (X):

1. This device contains a thin wall diaphragm less than 1 mm thick that forms a boundary between Category 1G (process connection) and Category 2G (all other parts of the equipment). The model code and data sheet are to be consulted for details of the diaphragm material. During installation, maintenance, and use, the environmental conditions to which the diaphragm will be subjected shall be taken into account. 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 to be repaired.
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. Variants with a paint finish must not be installed in a dust-laden airflow.

8.7.2 I1 ATEX Intrinsic Safety and Dust

CertificateBAS97ATEX1089X; Baseefa11ATEX0275X

MarkingsIS:  II 1 G Ex ia IIC T4 Ga
HART®: -60 °C ≤ T_a ≤ +70 °C
Fieldbus/PROFIBUS®: -60 °C ≤ T_a ≤ +60 °C
Dust:  II 1 D Ex ta IIIC T₅₀₀ 105 °C Da
-20 °C ≤ T_a ≤ +85 °C

Table 8-2: Input parameters

	HART	Fieldbus/PROFIBUS
Voltage U _i	30 V	30 V
Current I _i	200 mA	300 mA
Power P _i	1.0 W	1.3 W
Capacitance C _i	8 nF	0 µF
Inductance L _i	0 mH	0 mH

Specific Conditions of Use (X):

1. The apparatus is not capable of withstanding the 500 V insulation test required by clause 6.3.12 of EN60079-11: 2012. This must be taken into account when installing the apparatus.
2. The enclosure may be made of aluminum alloy and given a protective polyurethane paint finish; however, care must 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.
4. 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.

8.7.3 IA ATEX FISCO

CertificateBAS97ATEX1089X

Markings

 II 1 G Ex ia IIC T4 Ga

-60 °C ≤ T_a ≤ + 60 °C

Table 8-3: Input parameters

Parameters	Fieldbus/PROFIBUS®
Voltage U _i	17.5 V
Current I _i	380 mA
Power P _i	5.32 W
Capacitance C _i	≤ 5 nF
Inductance L _i	≤ 10 µH

Specific Conditions of Safe Use (X):

1. The apparatus is not capable of withstanding the 500 V insulation test required by clause 6.3.12 of EN60079-11: 2012. This must be taken into account when installing the apparatus.
2. The enclosure may be made of aluminum alloy and given a protective polyurethane paint finish; however, care must 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.

8.7.4 N1 ATEX Type n and Dust

CertificateBAS00ATEX3105X; Baseefa11ATEX0275X

Markings

 II 3 G Ex nA IIC T5 Gc

-40 °C ≤ T_a ≤ + 70 °C

 II 1 D Ex ta IIIC T95 °C T₅₀₀ 105 °C Da

-20 °C ≤ T_a ≤ +85 °C

Specific Conditions of Safe Use (X):

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

8.8 International

8.8.1 E7 IECEx Flameproof and Dust

Certificate	IECEx KEM 09.0034X; IECEx BAS 10.0034X
Markings	Ex db IIC T6...T4 Ga/Gb T6: $-60\text{ }^{\circ}\text{C} \leq T_a \leq +70\text{ }^{\circ}\text{C}$; T4/T5: $-60\text{ }^{\circ}\text{C} \leq T_a \leq +80\text{ }^{\circ}\text{C}$; Ex ta IIIC T ₅₀₀ 105 °C Da $-20\text{ }^{\circ}\text{C} \leq T_a \leq +85\text{ }^{\circ}\text{C}$

Table 8-4: Process temperature

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

Specific Conditions of Use:

1. This device contains a thin wall diaphragm less than 1 mm thick that forms a boundary between EPL Ga (process connection) and EPL Gb (all other parts of the equipment). The model code and data sheet are to be consulted for details of the diaphragm material. During installation, maintenance, and use, the environmental conditions to which the diaphragm will be subjected shall be taken into account. 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 to be repaired.
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.

8.8.2 I7 IECEx Intrinsic Safety

Certificate	IECEx BAS 09.0076X
Markings	Ex ia IIC T4 Ga HART®: -60 °C ≤ T _a ≤ +70 °C Fieldbus/PROFIBUS®: -60 °C ≤ T _a ≤ +60 °C

Table 8-5: Input parameters

	HART	Fieldbus/PROFIBUS
Voltage U _i	30 V	30 V
Current I _i	200 mA	300 mA
Power P _i	1.0 W	1.3 W
Capacitance C _i	8 nF	0 µF
Inductance L _i	0 mH	0 mH

Specific Conditions of Use:

1. If the apparatus is fitted with an optional 90 V transient suppressor, it is not capable of withstanding the 500 V insulation test required by clause 6.3.12 of IEC 60079-11. 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 must be taken to protect it from impact or abrasion if located in Zone 0.

IECEx Mining (Special A0259)

Certificate	IECEx TSA 14.0001X
Markings	Ex ia I Ma (-60 °C ≤ T _a ≤ +70 °C)

Table 8-6: Input parameters

	HART	Fieldbus/PROFIBUS	FISCO
Voltage U _i	30 V	30 V	17.5 V
Current I _i	200 mA	300 mA	380 mA
Power P _i	0.9 W	1.3 W	5.32 W
Capacitance C _i	0.012 µF	0 µF	< 5 nF
Inductance L _i	0 mH	0 mH	< 10 µH

Specific Conditions of Use:

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

8.8.3 IG IECEx FISCO

Certificate	IECEx BAS 09.0076X
Markings	Ex ia IIC T4 Ga -60 °C ≤ T _a ≤ +60 °C

Table 8-7: Input parameters

	Fieldbus/PROFIBUS®
Voltage U _i	17.5 V
Current I _i	380 mA
Power P _i	5.32 W
Capacitance C _i	≤ 5 nF
Inductance L _i	≤ 10 µH

Specific Conditions of Safe Use:

1. If the apparatus is fitted with an optional 90 V transient suppressor, it is not capable of withstanding the 500 V insulation test required by clause 6.3.12 of IEC 60079-11. 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 must be taken to protect it from impact or abrasion if located in Zone 0.

8.8.4 N7 IECEx Type n

Certificate	IECEx BAS 09.0077X
Markings	Ex nA IIC T5 Gc (-40 °C ≤ T _a ≤ +70 °C)

Specific Condition of Safe Use (X):

1. The apparatus is not capable of withstanding the 500 V insulation test required by clause 6.5.1 of IEC 60079-15. This must be taken into account when installing the apparatus.

8.9 Brazil

8.9.1 E2 Brazil Flameproof

Certificate	UL-BR 13.0643X (BRMC) UL-BR 22.3782X (RSK) UL-BR 22.3783X (SMMC)
Markings	Ex db IIC T6...T4 Ga/Gb T6: $-60\text{ }^{\circ}\text{C} \leq T_a \leq +70\text{ }^{\circ}\text{C}$ T4/T5: $-60\text{ }^{\circ}\text{C} \leq T_a \leq +80\text{ }^{\circ}\text{C}$

Specific Conditions of Safe Use (X):

- 1. This device contains a thin wall diaphragm with 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 data sheet 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 to be repaired.
- 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.

8.9.2 I2 Brazil Intrinsic Safety

Certificate	UL-BR 13.0584X (BRMC) UL-BR 22.3843X (SMMC) UL-BR 22.3844X (RSK)
Markings	Ex ia IIC T4 Ga HART®: $(-60\text{ }^{\circ}\text{C} \leq T_a \leq +70\text{ }^{\circ}\text{C})$ Fieldbus/PROFIBUS®: $(-60\text{ }^{\circ}\text{C} \leq T_a \leq +60\text{ }^{\circ}\text{C})$

Table 8-8: Input parameters

	HART	Fieldbus/PROFIBUS
Voltage U_i	30 V	30 V
Current I_i	200 mA	300 mA
Power P_i	1.0 W	1.3 W
Capacitance C_i	8 nF	0 μ F
Inductance L_i	0 mH	0 mH

Specific Conditions of Safe Use (X):

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

8.9.3 IB Brazil FISCO

Certificate	UL-BR 13.0584X (BRMC) UL-BR 22.3843X (SMMC) UL-BR 22.3844X (RSK)
Markings	Ex ia IIC T4 Ga (-60 °C ≤ T _a ≤ +60 °C)

Table 8-9: Input parameters

	FISCO
Voltage U _i	17.5 V
Current I _i	380 mA
Power P _i	5.32 W
Capacitance C _i	≤ 5 nF
Inductance L _i	≤ 10 μH

Specific Conditions of Safe Use (X):

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

8.10 China

8.10.1 E3 China Flameproof

Certificate	GYJ24.1006X (transmitters); GYJ25.1256X (flow meters)
Standards	GB/T 3836.1-2021, GB/T 3836.2-2021, GB/T 3836.20-2021, GB/T 3836.31-2021
Markings	3051 Series: Ex db IIC T6...T4 Ga/Gb Ex ta IIIC T200 105 °C Da (-20 °C ≤ T _a ≤ +85 °C) 3051CF Series: Ex d IIC T6~T4 Ga/Gb

一、产品安全使用特殊条件

- 1. 涉及隔爆接合面的维修须联系产品制造商。
- 2. 产品使用厚度小于1mm的隔膜作为0区（过程连接）和1区（产品其他部分）的隔离，安装和维护时需严格遵守制造商提供的说明书，以确保安全性。
- 3. 产品外部涂层可能产生静电危险，使用时须防止产生静电火花，只能用湿布清理。
- 4. 产品温度组别和使用环境温度之间的关系为：

温度组别	使用环境温度	过程温度
T6	-60 °C ~ +70 °C	-60 °C ~ +70 °C
T5	-60 °C ~ +80 °C	-60 °C ~ +80 °C
T4	-60 °C ~ +80 °C	-60 °C ~ +120 °C

- 5. 用于爆炸性粉尘环境中，产品使用环境温度范围为：-20°C~+85°C

二、产品使用注意事项

- 1. 产品外壳设有接地端子，用户在使用时应可靠接地。
- 2. 安装现场应不存在对产品外壳有腐蚀作用的有害气体。
- 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、具有Ex dIIC Gb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。
- 4. 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“严禁带电开盖！”的警告语。
- 5. 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。
- 6. 产品的安装、使用和维护应同时遵守产品使用说明书、GB/T3836.13-2021“爆炸性环境 第13部分：设备的修理、检修、修复和改造”、GB3836.15-2024“爆炸性环境 第15部分：电气装置设计、选型、安装规范”、GB3836.16-2024“爆炸性环境 第16部分：电气装置检查与维护规范”、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。

8.10.2 I3 China Intrinsic Safety

Certificate	GYJ23.1139X; GYJ25.1257X [Flow meters]
Standards	GB/T 3836.1-2021, GB/T 3836.4-2021, GB/T 3836.31-2021
Markings	3051/3051CF Series: Ex ia IIC T4 Ga Ex ta IIIC T ₅₀₀ 105 °C Da

- 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（选用铝合金外壳）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。
 - 当选择T1瞬态抑制端子时,此设备不能承受GB3836.4-2010标准中第6.3.12条规定的500V交流有效值试验电压的介电强度试验。
 - Transmitter output为X时，需使用由厂家提供的型号为701PG的Smart Power Green Power Module电池。
 - 产品外壳含有非金属部件，使用时须防止产生静电火花，只能用湿布清理。
- 产品使用注意事项:
 - 产品使用环境温度范围：

气体/粉尘	Transmitter output	温度组别	环境温度范围
气体	A, M	T5	-60 °C ~ +40 °C
气体	A, M	T4	-60 °C ~ +70 °C
气体	F, W	T4	-60 °C ~ +60 °C
气体	X	T4	-40 °C ~ +70 °C
粉尘	A, F, W	T80 °C	-20 °C ~ +40 °C

2. 本安电气参数：

Transmitter output	最高输入电压Ui (V)	最大输入电流Ii (mA)	最大输入功率Pi (W)	最大内部等效参数	
				Ci (nF)	Li (μH)
A, M	30	200	0.9	12	0
F, W	30	300	1.3	0	0
F, W (FISCO)	17.5	380	5.32	5	10

注：Transmitter Output 为F、W（FISCO）时，本安电气参数符合GB3836.19-2010对FISCO现场仪表的参数要求。

- 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。
- 该产品与关联设备的连接电缆应为带绝缘护套的屏蔽电缆，其屏蔽层应在安全场所接地。
- 对于爆炸性粉尘环境，最大输入电压为：

Transmitter output	最高输入电压
A	55 V
F, W	40 V

- 6. 安装现场应不存在对产品外壳有腐蚀作用的有害气体。
- 7. 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DIP A20 IP66防爆等级的电缆引入装置、转接头或堵封件，冗余电缆引入口须用堵封件有效密封。
- 8. 对于爆炸性粉尘环境，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。
- 9. 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。
- 10. 安装现场确认无可燃性粉尘存在时方可维修。
- 11. 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）”、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”，GB50527-1996 “电气装置安装工程爆炸和火灾危险环境电气装置施工验收规范”以及GB15577-2007 “粉尘防爆安全规程”、GB12476.2-2006 “可燃性粉尘环境用电气设备 第1部分：用外壳和限制表面温度保护的电气设备 第2节：电气设备的选择、安装和维护”的有关规定。

8.10.3 N3 China Type n

Certificate	GYJ25.1047X
Standards	GB/T 3836.1-2021, GB/T 3836.3-2021
Markings	Ex ec 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：产品不能承受GB3836.8-2003标准第8.1条中规定的500V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 °C ≤ T_a ≤ +70 °C
 2. 最高输入电压：

Transmitter output	最高输入电压
A, M (3051 Enhanced and 3051 Low Power HART®)	55 Vdc
F, W	40 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 e或Ex n型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。
4. 安装现场确认无可燃性气体存在时方可维修。
5. 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。
6. 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）”、GB50257-1996“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。

8.11 Japan

8.11.1 E4 Japan Flameproof

Certificate	CML20JPN1098X
Markings	Ex db IIC T6...T4 Ga/Gb, T6 (-60 °C ≤ T _a ≤ +70 °C) T5/T4 (-60 °C ≤ T _a ≤ +80 °C)

Special Conditions for Safe Use (X):

1. This device contains a thin wall diaphragm less than 1 mm thick that forms a boundary between EPL Ga (process connection) and EPL Gb (all other parts of the equipment). The model code and data sheet are to be consulted for details of the diaphragm material. During installation, maintenance, and use, the environmental conditions to which the diaphragm will be subjected shall be taken into account. 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 to be repaired.
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.

8.12 Republic of Korea

8.12.1 EP Republic of Korea Flameproof

Certificate	11-KB4BO-0188X (Manufacturing Singapore) 19-KA4BO-0979X (Manufacturing USA))
Markings	Ex d IIC T6...T4 Ga/Gb

8.12.2 IP Republic of Korea Intrinsic Safety

Certificate	10-KB4BO-0138X [HART® - Manufacturing Singapore] 13-KB4BO-0206X [Fieldbus - Manufacturing Singapore] 18-KA4BO-0354X [HART - Manufacturing USA] 18-KA4BO-0355X [Fieldbus - Manufacturing USA]
Markings	Ex ia IIC T4

8.13 Combinations

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

8.14 India

8.14.1 India Intrinsic Safety

Certificate	P579509
Markings	Ex ia IIC T4 Ga

8.14.2 EW India Flameproof

Certificate	P579172
Markings	Ex db IIC T6...T4 Ga/Gb

8.14.3 IW India Intrinsic Safety

Certificate	P579511
Markings	Ex ia IIC T4 Ga

8.15 Additional certifications

8.15.1 SBS American Bureau of Shipping (ABS) Type Approval

Certificate	15-HS1405241-PDA
Intended use	Marine and offshore applications - Measurement of either gauge or absolute pressure for liquid, gas, and vapor.

8.15.2 SBV Bureau Veritas (BV) Type Approval

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

8.15.3 SDN Det Norske Veritas (DNV) Type Approval

Certificate	TAA000004F
Intended Use	DNV GL Rules for Classification - Ships and off-shore units

Table 8-10: Application

Location classes	
Temperature	D
Humidity	B
Vibration	A
Electromagnetic Compatibility (EMC)	B
Enclosure	D

8.15.4 SLL Lloyds Register (LR) Type Approval

Certificate	11/60002
Application	Environmental categories ENV1, ENV2, ENV3, and ENV5

8.15.5 C5 Custody Transfer - Measurement Canada Accuracy Approval

Certificate	AG-0226; AG-0454; AG-0477
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 WARNING

Additional warnings

The plastic enclosure may present a potential electrostatic ignition hazard.

RFID tag is suitable for installation in a limited set of Zone classified locations and ambient temperature ranges when compared to the transmitter.

Certificate	EPS 15 ATEX 11011X
Markings	 II 2G Ex ia IIC T6/T4 Gb  II 2D Ex ia IIIC T80 °C/T130 °C Db
Certificate	IECEX EPS 15.0042X
Markings	Ex ia IIC T6/T4 Gb Ex ia IIIC T80 °C/T130 °C Db
Specific Conditions of Use (X)	1. Maximum ambient temperature range: -55 °C to +80 °C (T6 / T80 °C) -55 °C to +110 °C (T4 / T130 °C) 2. The RFID tags shall never be exposed to high electromagnetic field strengths exceeding RMS values of 1 A/m or 3 V/m, e.g., in high current electrolysis plants. 3. Electrostatic charges shall be avoided. The tags shall never be used next to strong charge generating processes.

8.17 EU Declaration of Conformity



EU DECLARATION OF CONFORMITY



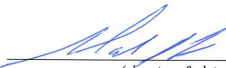
This declaration of conformity is issued under the sole responsibility of

Rosemount Inc.
6021 Innovation Blvd
Shakopee, MN 55379
USA

that the following products,

Rosemount™ 3051 Pressure Transmitters

comply with the provisions of the European Union Directives, including the latest amendments, valid at the time this declaration was signed.

 August 20, 2025 | Mark Lee | Vice President, Quality | Boulder, CO, USA
(signature & date of issue) (name) (function) (place of issue)

Authorized Representative in Europe:
Emerson S.R.L., company No. J12/88/2006
Emerson 4 street, Parcul Industrial
Tetarom II, Cluj-Napoca 400638, Romania

Regulatory Compliance Shared Services Department
Email: europesproductcompliance@emerson.com Phone: +40 374 132 035

PED Notified Body:

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

ATEX Notified Bodies for EU Type Examination Certificates:

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

SGS Fimko Oy [Notified Body Number: 0598]
Takomotie 8
FI-00380 Helsinki,
Finland

ATEX Notified Body for Quality Assurance:

SGS Fimko Oy [Notified Body Number: 0598]
Takomotie 8
FI-00380 Helsinki
Finland

EMC Directive (2014/30/EU)

Harmonized Standards:

EN 61326-1:2013
EN 61326-2-3:2013
Other Standards:
EN 301 489-1 V2.2.3
EN 301 489-17 V3.2.4

Radio Equipment Directive (RED) (2014/53/EU)

Harmonized Standards:

EN 300 328 V2.2.2
EN 18031-1:2024

PED Directive (2014/68/EU)

Rosemount 3051CA4; 3051CD2, 3, 4, 5; 3051HD2, 3, 4, 5;
(also with P9 option)

QS Certificate of Assessment - Certificate No. 12698-2018-CE-
USA-ACCREDIA

Module H Conformity Assessment

All other Rosemount 3051 Pressure Transmitters

Sound Engineering Practice

**Transmitter Attachments: Diaphragm Seal, Process Flange,
or Manifold**

Sound Engineering Practice

Rosemount 3051CFx DP Flowmeters

See DSI 1000 Declaration of Conformity

RoHS Directive (2011/65/EU)

Harmonized Standards:

EN IEC 63000:2018

Low Voltage Directive (2014/35/EU)

Harmonized Standards:

EN 61010-1:2010
Other Standards:
EN 62311:2020

ATEX Directive (2014/34/EU)**BAS97ATEX1089X - Intrinsic Safety Certificate**

Equipment Group II Category 1 G

Ex ia IIC T4 Ga

Harmonized Standards:

EN IEC 60079-0:2018
EN 60079-11:2012

**BAS00ATEX3105X - Type n and Increased Safety
Certificate**

Equipment Group II Category 3 G

Ex nA IIC T5 Gc

Ex ec IIC T5 Gc

Harmonized Standards:

EN IEC 60079-0: 2018
EN IEC 60079-7:2015+A1:2018
EN 60079-15:2010

Baseefa11ATEX0275X – Dust Certificate

Equipment Group II Category 1 D

Ex ta IIIC T₅₀₀ 105 °C Da

Harmonized Standards:

EN IEC 60079-0:2018
EN 60079-31:2014

KEMA00ATEX2013X – Flameproof Certificate

Equipment Group II Category 1/2 G

Ex db IIC T6...T4 Ga/Gb

Harmonized Standards:

EN IEC 60079-0:2018
EN 60079-1:2014
EN 60079-26:2015



EU Declaration of Conformity

Company: smart-TEC GmbH & Co. KG
Address: Kolpingring 3
82041 Oberhaching
Product category: Passive LF (125 kHz) RFID Tag
Passive HF (13.56 MHz) RFID Tag
Model name: smart-DOME Freestyle Ex, smart-DOME Classic Ex

The product is in compliance with the requirements of the following European harmonisation legislations:

Harmonisation legislation:	Title:
2014/53/EU:2014-04-16	Radio equipment Directive (RED)
2011/65/EU:2011-06-08	Restriction of the use of hazardous substances Directive (RoHS)
2014/34/EU 2014-02-16	Equipment and protective systems intended for use in potentially explosive 2014/34/EU atmospheres (ATEX)

The compliance with the requirements of the European harmonisation legislations was proved by the application of the following harmonised standards and technical specifications:

Essential requirements:	Reference:
Health and safety (article 3.1(a) RED)	EN 62368-1:2014+AC:2015 EN 50364:2010
Electromagnetic compatibility (article 3.1(b) RED)	EN 301 489-1 V2.2.3 EN 301 489-3 V2.1.1 EN 300 330 V2.1.1
Radio equipment (article 3.2 RED)	N/A
Equipment within certain categories or classes (article 3.3 RED)	
Hazardous substances (RoHS)	EN IEC 63000:2018
ATEX	EN IEC 60079-0:2018 EN IEC 60079-11:2012

Additional information:

The object of the declaration described above is in conformity with Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

According to the EU Type Examination EPS 15 ATEX 1 1011 X issued by Bureau Veritas Consumer Products Services (Notified Body 2004).

Oberhaching, 16 November 2021

Klaus Dargahi, General Manager

smart-TEC GmbH & Co. KG
A member of the RATHGEBER® Group
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82041 Oberhaching
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Managing directors:
Andrea Schrägle, graduate in business administration (VWA); Andreas Schrägle, graduate in industrial engineering (FH);
Klaus Dargahi, graduate in business administration (FH) | HR: smart-TEC Verwaltungsgesellschaft mbH, headquarter
Oberhaching; AG Mchn. B 162297 | smart-TEC GmbH & Co. KG; AG Mchn. A 74704 VAT-ID.-No.: DE203077185



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

产品中有害物质的名称及含有的信息表 Names and information table of hazardous substances in product						
部件名称 Part Name				电子组件 Electronics Assembly	壳体组件 Housing Assembly	传感器组件 Sensor Assembly
有害物质 Hazardous Substances	铅	Lead	(Pb)	X	O	X
	汞	Mercury	(Hg)	O	O	O
	镉	Cadmium	(Cd)	O	O	O
	六价铬	Hexavalent chromium	(Cr(VI))	O	O	O
	多溴联苯	Polybrominated biphenyls	(PBBs)	O	O	O
	多溴联苯醚	Polybrominated diphenyl ethers	(PBDEs)	O	O	O
	邻苯二甲酸二正丁酯	Dibutyl phthalate	(DBP)	O	O	O
	邻苯二甲酸二异丁酯	Diisobutyl phthalate	(DIBP)	O	O	O
	邻苯二甲酸丁苯酯	Butyl benzyl phthalate	(BBP)	O	O	O
	邻苯二甲酸二(2-乙基)己酯	Bis(2-ethylhexyl) phthalate	(DEHP)	O	O	O

注 1: O: 表示该有害物质在该部件所有均质材料中的含量均不超过电器电子产品有害物质限制使用国家标准要求。

X: 表示该有害物质至少在该部件的某一均质材料中的含量超出电器电子产品有害物质限制使用国家标准要求。

Note1: O: Indicate that said hazardous substance contained in all of the homogeneous materials for this part does not exceed the limit requirement of the national standard for the restriction of the use of hazardous substances in electrical and electronic products.

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 the national standard for the restriction of the use of hazardous substances in electrical and electronic products.

注 2: 以上未列出的部件，表明其有害物质含量均不超过电器电子产品有害物质限制使用国家标准要求。

Note2: For components not listed above, indicates that their hazardous substance content does not exceed the limit requirements of the national standard for the restriction of the use of hazardous substances in electrical and electronic products.

注 3: 组装备件说明

Note3: Spare Parts Descriptions for Assemblies

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



Quick Start Guide

00825-0100-4001, Rev. MH

July 2026

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