For Additional Product Information:

If QR code is not affixed here, product documents can be located by entering your product's S/N into the search tool (magnifier icon) at the top of the webpage found at www.emerson.com



Quick Start Guide MS-00825-0100-6184, Rev AC September 2025

Rosemount[™] 3144S Temperature Transmitter

with 4-20 mA HART® Protocol





1 About this guide

This guide provides basic guidelines for installing the Rosemount 3144S Temperature Transmitter.

It does not provide instructions for detailed configuration, diagnostics, maintenance, service, troubleshooting, explosion-proof, flameproof, or intrinsically safe (IS) installations. Refer to the *Rosemount 3144S Temperature Transmitter Manual* (available on Emerson.com).

For installations using Rosemount X-well [™] Technology, refer to the *Rosemount 3144S with X-well Technology Quick Start Guide* (available on Emerson.com).

A WARNING

For personal and system safety and for optimum product performance, ensure that you thoroughly read and understand all Emerson product literature, including manuals and quick start quides, before installing, using, or maintaining this device.

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 *Product certifications* section of this document for any restrictions associated with a safe installation.

When cover is removed, protect the interior of the transmitter from external contamination exceeding that of a Pollution Degree 2 environment.

Process leaks

Process leaks may cause harm or result in death.

Install and tighten thermowells and sensors before applying pressure. Do not remove the thermowell while in operation.

Conduit/cable entries

The conduit/cable entries in the transmitter housing use a ½-14 NPT thread form.

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

Electrical shock

Electrical shock can result in death or serious injury.

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

Enclosures

Enclosure covers must be fully engaged to meet explosion-proof requirements.

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.

Figure 2-1: In the Box



Quick Start Guide (not pictured) also included in box.

- A. Rosemount 3144S Temperature Transmitter
- B. Rosemount 214C Sensor (if applicable)
- C. Rosemount 114C Thermowell (if applicable)
- D. Mounting bracket (if applicable)

3 Verify configuration and set the switches

3.1 Verify configuration

Using a HART® field communicator or communication device, Emerson recommends verifying various configuration parameters prior to installing the transmitter into the process:

- Alarm and Saturation Levels
- Damping
- Variable Mapping
- · Range Values
- Tag
- Units

Refer to the *Rosemount 3144S Temperature Transmitter Manual* (available on <u>Emerson.com</u>) for complete configuration instructions.

NOTICE

Emerson recommends installing the latest device driver (DD) to ensure full functionality. Download the latest DD at Software & Drivers available on Emerson.com.

Procedure

- Set alarm and saturation values: Device Settings → Setup Overview → Alarm and Saturation Values
- Set damping: Device Settings → Output → Measurement 1 or 2
 If Measurement 1 or Measurement 2 is the primary variable, the damping can be changed using: Device Settings → Setup Overview → Output
- 3. Set variable mapping.
 - Primary variable: Device Settings → Setup Overview → Output
 - Secondary/tertiary/quaternary variables: Device Settings → Communication → HART → Variable Mapping
- 4. Set range values: **Device Settings** → **Setup Overview** → **Output**

- 5. Set tag: **Device Settings** → **Setup Overview** → **Device**
- 6. Set units: **Device Settings** → **Setup** → **Measurement 1 or 2**

3.2 Wireless configuration via Bluetooth® technology

3.2.1 Download AMS Device Configurator

Procedure

Download and install the AMS Device Configurator from your preferred app store.

If this is your first time opening AMS Device Configurator, than you may be asked to allow the application to access media on your device and to access your device's location. If prompted, select **Allow**. See <u>Bluetooth® Connectivity for Field Instrumentation</u> available on <u>Emerson.com</u>.

3.2.2 Configure via Bluetooth® wireless technology

Bluetooth wireless technology enables faster commissioning and improved ease of use.

Procedure

- Launch AMS Device Configurator.
 See AMS Device Configurator for Emerson Field Devices available on Emerson.com.
- 2. Select the device you want to connect to.
- On first connection, enter the key for this device.
 See Figure 3-1
- 4. At the top left, click the menu icon to navigate the desired device menu.
- 5. Verify and configure according to the parameters.

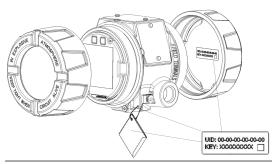
3.2.3 Bluetooth® unique identifier (UID) and Key

The **UID** is the identification number unique to the Bluetooth radio on the device.

The **UID** will be advertised when Bluetooth functionality is enabled on the output board. The **Key** is the required passkey to access the device. The information is only available in the tags located as shown in <u>Figure 3-1</u>. Emerson does not retain copies of this information. You can find the **UID** and **Key** in the following locations:

- Disposable paper tag attached to the device
- Label inside the terminal block cover
- Label on the display unit

Figure 3-1: Bluetooth Security Information



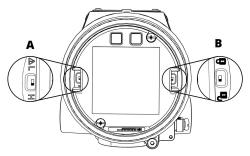
3.3 Set the switches

The Rosemount 3144S Temperature Transmitter comes with hardware switches to configure alarms and lock the device. The default for the **Alarm** switch is High, and the default for the **Security** switch is Off.

Procedure

- 1. Set the loop to Manual (if applicable) and disconnect the power.
- 2. Remove the electronics (LCD side) housing cover.
- 3. Verify the **Alarm** and **Security** switches are set to the desired position. Reset if necessary.
- 4. Reattach housing cover.
- 5. Apply power and set the loop to Automatic Control.

Figure 3-2: Switches



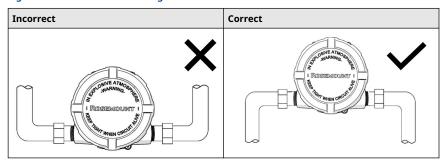
- A. High/Low Alarm switch
- B. Security switch

4 Installation

Procedure

Mount the transmitter at a high point in the conduit run to prevent moisture from draining into the transmitter housing.

Figure 4-1: Transmitter Mounting Location

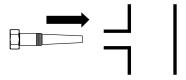


4.1 Direct mount installation

Procedure

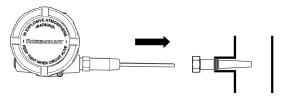
- 1. Mount the thermowell to the process container wall.
- 2. Install and tighten thermowell.

Figure 4-2: Thermowell Installation



- 3. Perform a leak check.
- 4. Attach any necessary unions, couplings, and extension fittings. Seal the fitting threads with an approved thread sealant, such as silicone or PTFE tape (if applicable).
- 5. Screw the sensor (and transmitter, if factory assembled) into the thermowell or directly into the process (depending on installation requirements).

Figure 4-3: Direct Mount Installation



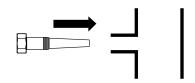
- 6. Verify all sealing requirements.
- 7. Attach the transmitter to the thermowell/sensor assembly (if not factory assembled). Seal all threads with an approved thread sealant, such as silicone or PTFE tape (if required).
- 8. Install field wiring conduit into the open transmitter conduit entry and feed wires into the transmitter housing.
- 9. Pull the field wiring leads into the terminal side of the housing.
- Attach the sensor leads to the transmitter sensor terminals.
 The wiring diagram is located on the terminal block.

4.2 Remote mount installation

Procedure

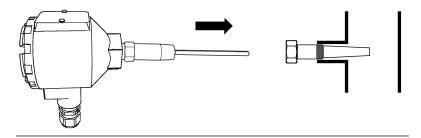
- 1. Mount the thermowell to the process container wall.
- 2. Install and tighten the thermowells.

Figure 4-4: Thermowell Installation



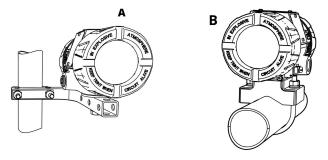
- 3. Perform a leak check.
- Wire the sensor to the connection head.
 The wiring diagram is located inside the connection head.
- 5. Insert the connection head and sensor assembly into the thermowell.

Figure 4-5: Remote Mount Installation



- 6. Mount the transmitter to a 2-inch (51 mm) pipe or panel using one of the optional mounting brackets shown in Figure 4-6.
- 7. Attach cable glands to the cable running from the connection head to the transmitter conduit entry.
- 8. Run the cable from the opposite conduit entry on the transmitter back to the control
- 9. Insert cable leads through the cable entries into the connection head/transmitter. Connect and tighten cable glands.
- 10. Connect the cable leads to the connection head terminals (located inside the connection head) and to the sensor wiring terminals (located inside the transmitter housing).

Figure 4-6: Remote Mount Installation



- A. "L" mounting bracket
- B. "U" mounting bracket

5 Wiring and powering

5.1 Wiring diagrams

Wiring diagrams are located on the terminal block.

Terminals 1-4 correspond to Measurement 1, and Terminals 5-8 correspond to Measurement 2. See <u>Figure 5-1</u> and <u>Figure 5-2</u> for sensor configurations.

Figure 5-1: Single Sensor Wiring Diagram

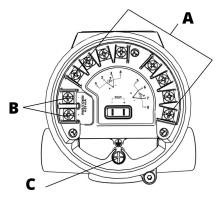
2-wire RTD	3-wire RTD	4-wire RTD	Thermocouple	
3 4 0 5 0 5 0 6 0 7 0 8	2 3 4 0 5 0 6 0 7 0 8	3 4 0 5 0 6 0 7 0 8	2 3 4 0 0 5 0 6 0 7 0 8	

Figure 5-2: Dual Sensor Wiring Diagram

2 RTDs	RTD/thermocouple	Thermocouple/RTD	2 thermocouples	
2 3 4 0 5 6	2 3 4 0 5 1 0 5 0 6 0 7 0 8	2 3 4 0 5 6 6 7 0 8	2 3 4 0 5 0 5 0 7 7 0 8	

5.2 Power the transmitter

Figure 5-3: Transmitter Terminals



- A. Sensor terminals (1-8)
- B. Power terminals
- C. Ground

An external power supply is required to operate the transmitter.

Procedure

- 1. Remove the terminal block cover.
- 2. Connect the positive power lead to the "+" terminal.
- 3. Connect the negative power lead to the "-" terminal
- 4. Tighten the terminal screws.
- 5. Reattach and tighten the cover.
- 6. Apply power from external source.

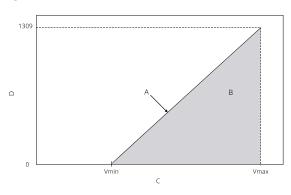
5.3 Load limitations

The voltage required across the transmitter power terminals is dependent on loop resistance and product performance class (as listed in the model structure).

The voltage input range is 11.5 (V_{min}) to 42.4 Vdc (V_{max}) for Classic Performance (see <u>Figure 5-4</u>). The voltage input range is 16.7 (V_{min}) to 42.4 Vdc (V_{max}) for Ultra Performance (see <u>Figure 5-5</u>).

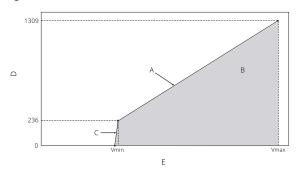
The combinations of power supply voltage and total loop resistance must be within the operating regions shown in the figures. At least 250 Ohms of resistance in the loop are required for reliable HART® communication.

Figure 5-4: Classic Performance



- A. Load line 1
- B. Operating region
- C. Power supply voltage (V)
- D. Loop resistance (ohms)

Figure 5-5: Ultra Performance



- A. Load line 1 (> 236 ohms): Supply voltage = (loop resistance * 0.0236) + 11.5 V
- B. Operating region
- C. Load line 2 (< 236 ohms): Supply voltage = (loop resistance *0.0016) + 16.7 V
- D. Loop resistance (ohms)
- E. Power supply voltage (V)

6 Grounding

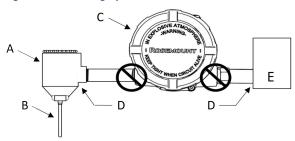
Each process installation has different requirements for grounding. Use the grounding option recommended by the facility for the specific sensor type or begin with grounding option 1 (the most common).

Refer to the *Rosemount 3144S Temperature Transmitter Manual* (available on <u>Emerson.com</u>) for additional grounding options.

6.1 Grounding option 1

Emerson recommends this option for ungrounded transmitter housing.

Figure 6-1: Grounding Option 1



- A. Remote sensor housing
- B. Sensor
- C. Transmitter
- D. Shield ground points
- E. Distributed control system (DCS)

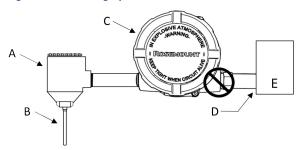
Procedure

- 1. Connect signal wiring shield to the sensor wiring shield.
- 2. Ensure the two shields are tied together and electrically isolated from the transmitter housing.
- 3. Ground shield at the power supply end only.

6.2 Grounding option 2

Emerson recommends this option for grounded transmitter housing.

Figure 6-2: Grounding Option 2



- A. Remote transmitter housing
- B. Sensor
- C. Transmitter
- D. Shield ground point
- E. Distributed control system (DCS)

Procedure

- Connect sensor wiring shield to the transmitter housing.
 Do this only if the housing is grounded.
- Ensure that the sensor is electrically isolated from surrounding fixtures that may be grounded.
- 3. Ground signal wiring shield at power supply end.

7 Loop Test

You can perform a loop test with the **Quick Service** buttons or AMS Device Configurator.

Refer to the *Rosemount 3144S Temperature Transmitter Manual* (available on <u>Emerson.com</u>) for complete details.

8 Safety Instrumented Systems (SIS)

For safety certified installations, refer to the *Rosemount 3144S Safety Manual* (available on <u>Emerson.com</u>).

9 Product certifications

9.1 European directive information - CE

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.

9.2 USA — Federal Communications Commission (FCC)

This device complies with Part 15 of the FCC 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.

9.3 Canada — Innovation, Science, and Economic Development Canada (ISED)

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.

Note

Changes or modification to the equipment not expressly approved by Emerson could void the user's authority to operate the equipment.

L'émetteur/récepteur exempt de licence contenu dans le present appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- L'appareil ne doit pas produire de brouillage;
- L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Note

Les changements ou les modifications apportés à l'équipement qui n'est pas expressément approuvé par Emerson pourraient annuler l'autorité de l'utilisateur à utiliser cet équipement.

9.4 Taiwan — National Communications Commission (NCC)

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 醫療用電波輻射性電機設備之干擾。

9.5 Thailand — Office of National Broadcasting and Telecommunications Commission (NBTC)

เครื่องโทรคมนาคมและอุปกรณ์นี้มีความสอดคล้องตามมาตรฐานหรือข้อกำหนดทางเทคนิค ของ กสทช

9.6 Japan — Ministry of Internal Affairs and Communications (MIC)

当該機器には電波法に基づく、技術基準適合証明等を受けた特定無線設備を装着している。

9.7 Brazil — Anatel

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.

9.8 Mexico — Agencia de Transformación Digital y Telecomunicaciones (ATDT)

La operación de este equipo está sujeta a las siguientes dos condiciones:

- 1. Es posible que este equipo o dispositivo no cause interferencia perjudicial y
- 2. Este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

9.9 Ordinary location certification

The Rosemount 3144S has been examined and tested to determine that the design meets the basic electrical, mechanical, and fire protection requirements by one or more test laboratories, accredited as follows:

- As a Nationally Recognized Test Laboratory (NRTL) by the U.S. Federal Occupational Safety and Health Administration (OSHA).
- As a part of the Certification Body Accreditation Program (CBAP) by the Standards Council of Canada (SCC).

9.10 Nominal operating parameters

- · Permanently connected equipment
- Overvoltage category II
- Pollution degree 4
- Enclosure IP 66/68
- Enclosure Type 4X

Wet location

Environmental conditions

- Altitude: 9,842.5 ft. (3,000 m) maximum
- 0 to 100 percent relative humidity (RH)
- Ambient temperature range: -76 to +185 °F (-60 to +85 °C)
- Atmospheric temperature range: 80 kPa (0.8 bar) to 110 kPa (1.1 bar)

4-20 mA HART® output (A)

Electrical supply requirements - 4-20 mA HART output:

Voltage (V_{MAX}) = 11.5 to 42.4 Vdc

Current $(I_{MAX}) = 24 \text{ mA}$

Power $(P_{MAX}) = 1.018 W$

9.11 North America

9.11.1 I5 USA Intrinsic Safety (IS), Nonincendive (NI)

Certificate FM25US0059X

Markings IS CL I GP ABCD T4

IS CL II GP EFG; CL III T4 IS CL I ZN 0 AEx ia IIC T4 Ga NI CL I DIV 2 GP ABCD T4 T4 (-60 °C \leq T_a \leq +70 °C) INSTALL PER 04148-1003 SEAL NOT REQUIRED

Specific Conditions of Use:

- The enclosure may be made from aluminum alloy with a protective polyurethane paint finish. Care should be taken to protect it from impact or abrasion when located in a Zone 0 area.
- When fitted with the transient suppression electronics option (T1), the equipment is not capable of passing the 500 V insulation test. This must be considered during installation.
- 3. Installation of the transmitter shall be limited to Overvoltage Category II.

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

Certificate FM24US0275X

Markings Class I, Division 1, Groups B, C, D; T5

Zone 1 AEx db IIC T6...T1 Gb T6 (-50 °C \leq T_a \leq +70 °C) T5...T1 (-50 °C \leq T_a \leq +85 °C)

Class II, Division 1, Groups E, F and G, Class III; T5

Zone 20 AEx ta IIIC T₂₀₀110°C Da

 $(-50 \,^{\circ}\text{C} \le T_a \le +85 \,^{\circ}\text{C})$ IP66, IP68, Type 4X SEAL NOT REQUIRED

- 1. For Ex ta, the Rosemount 3144S must be connected to supply with a short circuit rating no more than 1.5 kA.
- 2. Flameproof joints are not intended for repair.
- 3. The applicable temperature class, maximum surface temperature, ambient temperature range, and process temperature range of the equipment is as follows.

Temperature class/maximum surface temperature	Ambient temperature range (°C)
Т6	-50 to +70
T5T1	-50 to +85
T ₂₀₀ 110 °C	-50 to + 85

4. Appropriate cable, glands, and conduit seals need to be suitable for a temperature of 5 °C greater than the maximum specified ambient temperature for location where installed. Refer to temperature tables for various ambient and process temperature ranges.

9.11.3 I6 Canada Intrinsic Safety (IS), Nonincendive (NI)

Certificate FM25CA0028X

Markings IS CL I GP ABCD T4

IS CL II GP EFG; CL III T4

Ex ia IIC T4 Ga

NI CL I DIV 2 GP ABCD T4 T4 (-60 °C \leq Ta \leq +70 °C) INSTALL PER 04148-1003

TYPE 4X

SEAL NOT REQUIRED

AVERTISSEMENT - DANS UNE ATMOSPHÈRE EXPLOSIBLE GARDER BIEN FERME

LORSQUE LE CIRCUIT EST SOUS TENSION

Specific Conditions of Use:

- The enclosure may be made from aluminum alloy with a protective polyurethane paint finish. Care should be taken to protect it from impact or abrasion when located in a Zone 0 area.
- When fitted with the transient suppression electronics option (T1), the equipment is not capable of passing the 500 V insulation test. This must be considered during installation.
- 3. Installation of the transmitter shall be limited to Overvoltage Category II.

9.11.4 E6 Canada Explosion-Proof and Dust Ignition-Proof

Certificate FM24CA0072X

Markings Class I, Division 1, Groups B, C, D; T5

Ex db IIC T6...T1 Gb T6 (-50 °C \leq Ta \leq +70 °C)

T5...T1 (-50 °C ≤ Ta ≤ +85 °C)

Class II, Division 1, Groups E, F and G, Class III; T5

Ex ta IIIC T200110°C Da (-50°C≤Ta≤+85°C)

IP66, IP68, TYPE 4X SEAL NOT REOUIRED

- 1. For Ex ta, the Rosemount 3144S must be connected to supply with a short circuit rating no more than 1.5 kA.
- 2. Flameproof joints are not intended for repair.
- 3. The applicable temperature class, maximum surface temperature, ambient temperature range, and process temperature range of the equipment is as follows.

Temperature class/maximum surface temperature	Ambient temperature range (°C)	
Т6	-50 to +70	
T5T1	-50 to +85	
T ₂₀₀ 110 °C	-50 to + 85	

4. Appropriate cable, glands, and conduit seals need to be suitable for a temperature of 5 °C greater than the maximum specified ambient temperature for location where installed. Refer to temperature tables for various ambient and process temperature ranges.

9.12 Europe

9.12.1 I1 ATEX Intrinsic Safety (Ex ia)

EU-Type certificate FM25ATEX00011X

Markings 🔄 II 1 G Ex ia IIC T4 Ga

T4 (-60 °C \leq T_a \leq +70 °C)

SEE CERTIFICATE

Specific Conditions of Use:

- The enclosure may be made from aluminum alloy with a protective polyurethane paint finish. Care should be taken to protect it from impact or abrasion when located in a Zone 0 area.
- When fitted with the transient suppression electronics option (T1), the equipment is not capable of passing the 500 V insulation test. This must be considered during installation.
- 3. Installation of the transmitter shall be limited to Overvoltage Category II.
- 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.

9.12.2 ATEX Increased Safety (Zone 2 / Ex ec)

Type certificate FM25ATEX00012X

Markings 🔯 II 3 G Ex ec IIC T4 Gc

T4 (-60 °C \leq T_a \leq +70 °C)

- When fitted with the transient suppression electronics option (T1), the equipment is not capable of passing the 500V insulation test. This must be considered during installation.
- 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.

9.12.3 E1 ATEX Flameproof and Dust Ignition-proof

Certificate FM24ATEX0038X

> T6 (-60 °C \leq T_a \leq +70 °C) T5...T1 (-60 °C \leq T_a \leq +80 °C) © II 1 D Ex ta IIIC T₂₀₀110°C Da

(-60°C≤T_a≤+85°C)

IP66, IP68 (rated 20 meters for 168 hours)

Specific Conditions of Use:

- 1. For Ex ta, the Rosemount 3144S must be connected to supply with a short circuit rating no more than 1.5 kA.
- 2. Flameproof joints are not intended for repair.
- 3. The applicable temperature class, maximum surface temperature, ambient temperature range, and process temperature range of the equipment is as follows:

Temperature class/maximum surface temperature	Ambient temperature range (°C)	
Т6	-60 to +70	
T5T1	-60 to +80	
T ₂₀₀ 110 °C	-60 to + 85	

- 4. Appropriate cable, glands, and conduit seals need to be suitable for a temperature of 5 °C greater than the maximum specified ambient temperature for location where installed. Refer to temperature tables for various ambient and process temperature ranges.
- 5. 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.

9.12.4 I7 IECEx Intrinsic Safety (IS), Increased Safety (Zone 2 / Exec)

Certificate IECEx FMG 25.0013X

Markings Ex ia IIC T4 Ga

T4 (-60 °C \leq T_a \leq +70 °C)

Ex ec IIC T4 Gc

T4 (-60 °C \leq T_a \leq +70 °C)

- 1. The enclosure may be made from aluminum alloy with a protective polyurethane paint finish. Care should be taken to protect it from impact or abrasion when located in a Zone 0 area.
- 2. When fitted with the transient suppression electronics option (T1), the equipment is not capable of passing the 500 V insulation test. This must be considered during installation.
- 3. Installation of the transmitter shall be limited to Overvoltage Category II.
- 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.

9.12.5 E7 IECEx Flameproof and Dust Ignition—proof

Certificate IECEx FMG 24.0042X

Markings Ex db IIC T6...T1 Gb

T6 (-60 °C \leq T_a \leq +70 °C) T5...T1 (-60 °C \leq T_a \leq +80 °C) Ex ta IIIC T₂₀₀110°C Da (-60 °C \leq T_a \leq +85 °C)

IP66, IP68

Specific Conditions of Use:

- 1. For Ex ta, the Rosemount 3144S must be connected to supply with a short circuit rating no more than 1.5 kA.
- 2. Flameproof joints are not intended for repair.
- 3. The applicable temperature class, maximum surface temperature, ambient temperature range, and process temperature range of the equipment is as follows:

Temperature class/maximum surface temperature	Ambient temperature range (°C)	
Т6	-60 to +70	
T5T1	-60 to +80	
T ₂₀₀ 110 °C	-60 to + 85	

- 4. Appropriate cable, glands, and conduit seals need to be suitable for a temperature of 5 °C greater than the maximum specified ambient temperature for location where installed. Refer to temperature tables for various ambient and process temperature ranges.
- 5. 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.

9.13 Combinations

K1	Combination of E1 and I1
K5	Combination of E5 and I5
K6	Combination of E6 and I6
K7	Combination of E7 and I7
KS	Combination of K1, K5, K6, and K7
KL	Combination of I1, I5, I6, and I7

9.14 Y3 ATEX/IECEx RFID tag approvals

A 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

II 2D Ex ia IIIC T80 ℃/T130 ℃ Db

Certificate IECEx EPS 15.0042X

Markings Ex ia IIC T6/T4 Gb

Ex ia IIIC T80 °C/T130 °C Db

Special 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)

- 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.
- Electrostatic charges shall be avoided. The tags shall never be used next to strong charge generating processes.

9.15 China RoHS

含有 China RoHS 管控物质超过最大浓度限值的部件型号列表 3144S List of 31445 Parts with China RoHS Concentration above MCVs

	有害物质 / Hazardous Substances					
部件名称 Part Name Lead (Pb)	Lead	汞 Mercury (Hg)	領 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	×	0	0	0	0	0
壳体组件 Housing Assembly	0	0	0	0	0	0

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: 意为在该邮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
- 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	组装各件说明 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
壳体组件 Housing Assembly	电子外壳 Electrical Housing

9.16 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,

RosemountTM 3144S Series Temperature Transmitters

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

Scotember 18,2025 Mark Lee | Vice President, Quality | Boulder, CO, USA (signature & date of issue) (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

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ATEX Notified Bodies for EU Type Examination Certificates: FM Approvals Europe Limited [Notified Body Number: 2809] Element 78,
Ground Floor Block A,
One Georges Quay Plaza,
Dublin 2 D02 E440
Ireland

ATEX Notified Body for Quality Assurance: SGS Fimko Oy [Notified Body Number: 0598] Takomotie 8 Fil-00380 Helsinki Finland



EU DECLARATION OF CONFORMITY



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

RoHS Directive (2011/65/EU)

Harmonized Standards: EN IEC 63000:2018

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

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

Other Standards: EN 62311:2020

ATEX Directive (2014/34/EU)

EU-Type Examination Certificate: FM25ATEX0011X Equipment protection by intrinsic safety "i" Equipment Group II, Category 1 G Ex ia IIC T4 Ga

Harmonized Standards: EN IEC 60079-0:2018+A11:2024 EN 60079-11:2012

Type Examination Certificate: FM25ATEX0012X Equipment protection by increased safety "e" Equipment Group II, Category 3 G Ex ec IIC T5 Ge

Harmonized Standards: EN IEC 60079-0:2018+A11:2024 EN IEC 60079-7:2015+A1:2018

EU-Type Examination Certificate: FM24ATEX0038X Equipment protection by flameproof enclosure "d" Equipment Group II, Category 2 G Ex db IIC T6...Tl Gb

Harmonized Standards: EN IEC 60079-0:2018+A11:2024 EN 60079-1:2014+A11:2024

EU-Type Examination Certificate: FM24ATEX0038X Equipment dust ignition protection by enclosure "t" Equipment Group II, Category 1 D Ex ta IIIC T₂₀₀110°C Da

Harmonized Standards: EN IEC 60079-0:2018+A11:2024 EN 60079-31:2014



Quick Start Guide MS-00825-0100-6184, Rev. AC September 2025

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