

# Rosemount™ 2240S Multi-input Temperature Transmitter



# 1 Product certifications

Rev 2.28

## 1.1 European Directive Information

A copy of the EU Declaration of Conformity can be found at the end of this document.

The most recent revision of the EU Declaration of Conformity can be found at [Emerson.com/Rosemount](https://www.emerson.com/Rosemount).

## 1.2 Ordinary location certification

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).

## 1.3 Installing equipment in North America

The US National Electrical Code® (NEC) and the Canadian Electrical Code (CEC) permit the use of Division marked equipment in Zones and Zone marked equipment in Divisions. The markings must be suitable for the area classification, gas, and temperature class. This information is clearly defined in the respective codes.

## 1.4 USA

### 1.4.1 I5 USA Intrinsic Safety (IS)

<b>Certificate</b>	FM21US0009X
<b>Standards</b>	FM Class 3600–2018; FM Class 3610–2021; FM Class 3810–2021; ANSI/UL 60079-0–2020; ANSI/ISA 60079-11–2014; ANSI/ISA 61010-1–2012; ANSI/IEC 60529–2004; ANSI/NEMA 250–2008
<b>Markings</b>	IS / I,II,III / 1 / ABCDEFG / T4 Ta = -50 °C to 70 °C; D9240040-910 Entity/FISCO; Type 4X/IP66/IP67 I / 0 / AEx ia IIC / T4 Ga Ta = -50 °C to 70 °C; D9240040-910 Entity/FISCO; Type 4X/IP66/IP67

I / 1 / AEx ib [ia Ga] IIC T4 Gb Ta = -50 °C to 70 °C;  
D9240040-910 FISCO; Type 4X/IP66/IP67

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

1. The enclosure contains aluminum and is considered to present a potential risk of ignition by impact or friction.
2. Rating I / 1 / AEx ib [ia Ga] IIC T4 Gb Ta = -50°C to 70°C; D9240040-910 FISCO; Type 4X/IP66/IP67 is only applicable when supplied from an FM certified AEx [ib] FISCO Power Supply with triplicate output voltage limitation meeting the requirements for two faults ("ia" voltage limitation).
3. The Rosemount 2240S Multi-Input Temperature Transmitter will not pass the 500Vrms dielectric strength test and this must be taken into account during installation.

	Ui	Ii	Pi	Ci	Li
Entity parameters	30 V	300 mA	1.3 W	2.2 nF	2 μH
FISCO parameters	17.5 V	380 mA	5.32 W	2.2 nF	2 μH

## 1.5 Canada

### 1.5.1 I6 Canada CSA Intrinsically Safe

<b>Certificate</b>	FM21CA0005X
<b>Standards</b>	CSA-C22.2 No. 61010-1 2012, CSA-C22.2 No. 25-2017, CSA-C22.2 No. 60529-05 2005 (2010), CSA-C22.2 No. E60079-0 2019, CSA-C22.2 No. E60079-11 2014, CSA-C22.2 No. 94:2011
<b>Markings</b>	IS / I,II,III / 1 / ABCDEFG / T4 Ta = -50 °C to 70 °C; D9240040-910 Entity/FISCO; Type 4X/IP66/IP67 Ex ia IIC T4 Ga Ta = -50 °C to 70 °C; D9240040-910 Entity/FISCO; Type 4X/IP66/IP67 Ex ib [ia Ga] IIC T4 Gb Ta = -50 °C to 70 °C; D9240040-910 FISCO; Type 4X/IP66/IP67

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


1. The enclosure contains aluminum and is considered to present a potential risk of ignition by impact or friction.

2. Rating Ex ib [ia Ga] IIC T4 Gb Ta = -50 °C to 70 °C; D9240040-910 FISCO; Type 4X/IP66/IP67 is only applicable when supplied from an FM certified Ex [ib] FISCO Power Supply with triplicate output voltage limitation meeting the requirements for two faults ("ia" voltage limitation).
3. The Rosemount 2240S Multi-Input Temperature Transmitter will not pass the 500Vrms dielectric strength test and this must be taken into account during installation.

	Ui	Ii	Pi	Ci	Li
Entity parameters	30 V	300 mA	1.3 W	2.2 nF	2 μH
FISCO parameters	17.5 V	380 mA	5.32 W	2.2 nF	2 μH

## 1.6 Europe

### 1.6.1 I1 ATEX Intrinsic Safety

<b>Certificate</b>	FM09ATEX0047X
<b>Standards</b>	EN IEC 60079-0:2018 EN 60079-11:2012 EN 60529:2013
<b>Markings:</b>	 FISCO Field Device II 1 G Ex ia IIC T4 Ga Ta = -50 °C to 70 °C; Entity/ FISCO; IP66, IP67 II 2(1) G Ex ib [ia Ga] IIC T4 Gb Ta = -50 °C to 70 °C; FISCO; IP66, IP67

#### Specific Conditions for Safe Use (X):

1. The enclosure contain aluminum and is considered to present a potential risk of ignition by impact or friction. Care must be taken during installation and use to prevent impact or friction.
2. Rating II 2(1) G Ex ib [ia Ga] IIC T4 Gb Ta = -50 °C to 70 °C; FISCO D9240040-976; IP66, IP67 is only applicable when supplied from a certified Ex [ib] FISCO Power Supply with triplicate output voltage limitation meeting the requirements for two faults ("ia" voltage limitation).
3. The Rosemount 2240S Multi-input Temperature Transmitter will not pass the 500Vrms dielectric strength test and this must be taken into account during installation.

	<b>Ui</b>	<b>Ii</b>	<b>Pi</b>	<b>Ci</b>	<b>Li</b>
Entity parameters	30 V	300 mA	1.3 W	2.2 nF	2 μH
FISCO parameters	17.5 V	380 mA	5.32 W	2.2 nF	2 μH

## 1.7 International

### 1.7.1 I7 IECEX Intrinsic Safety

<b>Certificate</b>	IECEX FMG 10.0010X
<b>Standards</b>	IEC 60079-0:2017, IEC 60079-11:2011,
<b>Markings</b>	Ex ia IIC T4 Ga; Tamb = -50 °C to +70 °C; Entity/ FISCO; IP66/IP67 Ex ib [ia Ga] IIC T4 Gb; Tamb = -50 °C to +70 °C; FISCO; IP66/IP67

#### Specific Conditions for Safe Use (X):

1. The enclosure contains aluminum and is considered to present a potential risk of ignition by impact or friction. Care must be taken during installation and use to prevent impact or friction.
2. Rating Ex ib [ia Ga] IIC T4 Gb; FISCO D9240040-976; IP66/IP67 is only applicable when supplied from a certified Ex [ib] FISCO Power Supply with triplicate output voltage limitation meeting the requirements for two faults ("ia" voltage limitation).
3. The Rosemount 2240S Multi-input Temperature Transmitter will not pass the 500Vrms dielectric strength test and this must be taken into account during installation.

	<b>Ui</b>	<b>Ii</b>	<b>Pi</b>	<b>Ci</b>	<b>Li</b>
Entity parameters	30 V	300 mA	1.3 W	2.2 nF	2 μH
FISCO parameters	17.5 V	380 mA	5.32 W	2.2 nF	2 μH

## 1.8 Brazil

### 1.8.1 I2 INMETRO Intrinsic Safety

<b>Certificate</b>	UL-BR 17.0927X
<b>Standards</b>	ABNT NBR IEC 60079-0:2020 ABNT NBR IEC 60079-11:2013
<b>Markings</b>	Ex ia IIC T4 Ga (Entity)

Ex ib IIC [ia Ga] T4 Gb (FISCO)  
 Tamb = -50 °C to +70 °C, IP 66/67

### Specific Conditions for Safe Use (X):

1. See certificate for special conditions.

	Ui	Ii	Pi	Ci	Li
Entity parameters	30 V	300 mA	1.3 W	2.2 nF	2 μH
FISCO parameters	17.5 V	380 mA	5.32 W	2.2 nF	2 μH

## 1.9 China

### 1.9.1 I3 NEPSI Intrinsic Safety

<b>Certificate</b>	GYJ23.1343X
<b>Standards</b>	GB 3836.1-2021 GB 3836.4-2021
<b>Markings</b>	Ex ia IIC T4 Ga Ex ib [ia Ga] IIC T4 Gb

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

1. See certificate for special conditions.

## 1.10 Technical Regulations Customs Union (TR-CU)

### EAC

### 1.10.1 IM EAC Intrinsic Safety

<b>Certificate</b>	EAЭC KZ 7500525.01.01.00627
<b>Markings</b>	FISCO field mounted device 0Ex ia IIC T4 Ga X 1Ex ib [ia Ga] IIC T4 Gb X Tamb = -50 °C to +70 °C, IP 66/67

### Specific Conditions for Safe Use (X):

1. See certificate for special conditions.

	Ui	Ii	Pi	Ci	Li
Entity parameters	30 V	300 mA	1.3 W	2.2 nF	2 μH
FISCO parameters	17.5 V	380 mA	5.32 W	2.2 nF	2 μH

## 1.11 Japan

### 1.11.1 I4 Japan Intrinsic safe

**Certificate** CML 17JPN2123X

**Markings** Ex ib [ia Ga] IIC T4 Gb, FISCO, -50 °C ≤ Ta ≤ +70 °C

#### Specific Conditions for Safe Use (X):

1. See certificate for special conditions.

	Ui	Ii	Pi	Ci	Li
FISCO parameters	17.5 V	380 mA	5.32 W	2.2 nF	2 μH

## 1.12 Republic of Korea

### 1.12.1 IP Korea Intrinsic safe

**Certificate** 11-KB4BO-0065X

**Markings** FISCO Field Device (Fieldbus Terminal)  
Ex ia IIC T4

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

1. See certificate for special conditions.

	Ui	Ii	Pi	Ci	Li
Entity parameters	30 V	300 mA	1.3 W	2.2 nF	2 μH
FISCO parameters	17.5 V	380 mA	5.32 W	2.2 nF	2 μH

## 1.13 India

### 1.13.1 IW India Intrinsic safe

**Certificate** P501691

**Markings** Ex ia IIC T4 Ga  
Ex ib IIC [ia Ga] T4 Gb

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

1. See certificate for special conditions.

**1.14 United Arab Emirates****1.14.1 Intrinsic Safety**

**Certificate** 23-11-22694/Q23-11-048838/NB0002

**Markings** same as IECEx (I7)

**1.15 Custody Transfer****Germany Custody Transfer**

**Certificate** PTB-1.5-4058175 (Rosemount Tank Gauging system)

**Italy Custody Transfer**

**Certificate** 183349 (Rosemount Tank Gauging system)

**Malaysia Custody Transfer**

**Certificate** ATS 09-11

**Serbia Custody Transfer**

**Certificate** 393-7\_0-01-2088

**Kazakhstan Custody Transfer**

**Certificate** KZ.02.01.02353-2023 (2240)  
KZ.02.02.06533-2018 (Rosemount Tank Gauging system)



## 1.16 Approval drawings

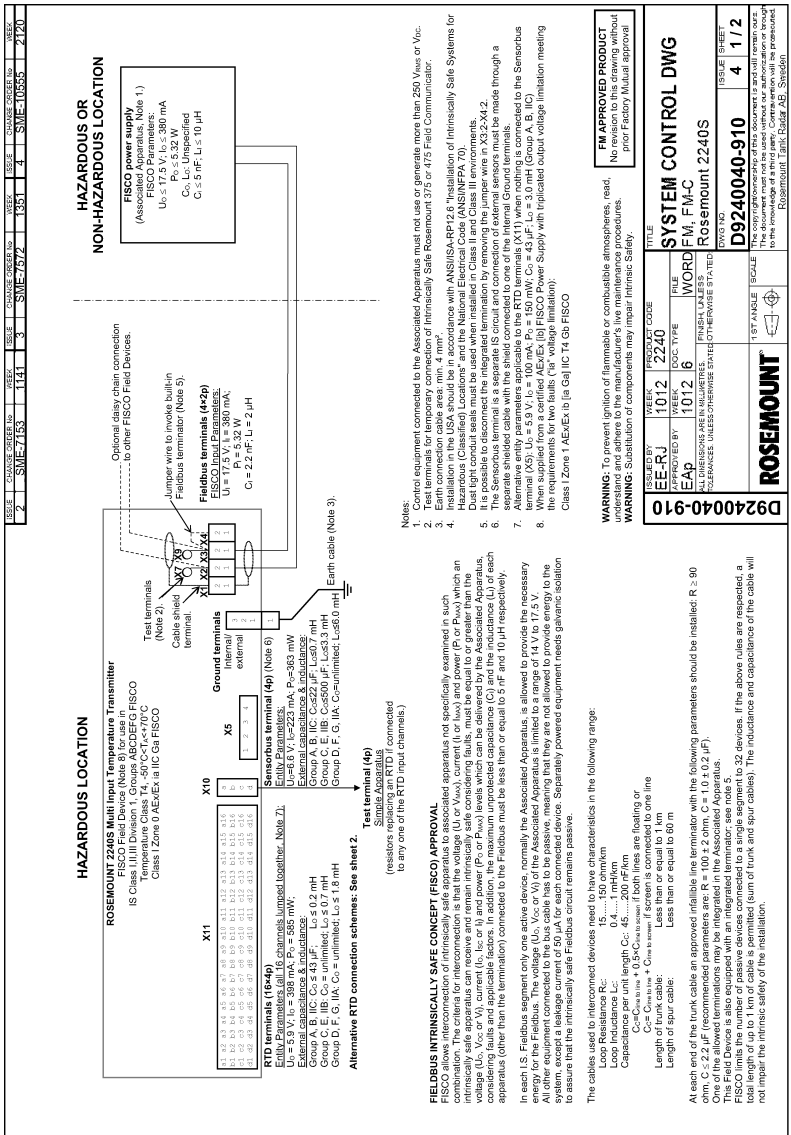
Follow the installation guidelines presented in Factory Mutual system control drawings in order to maintain certified ratings for installed devices.

The following drawings are included in the documentation for the Rosemount 2240S Multi-input Temperature Transmitter:

- [D9240040-910 System Control Drawing](#) for hazardous location installation of intrinsically safe FM-US and FM-C approved apparatus
- [D9240040-976 System Control Drawing](#) for hazardous location installation of intrinsically safe FM ATEX/UKEX and FM IECEx approved apparatus

Electronic copies of the system control drawings can also be found on the “Manuals & Drawings” CD ROM that is shipped with the Rosemount 2240S Multi-Input Temperature Transmitter.

Figure 1-1: System Control Drawing D9240040-910



<b>FISCO power supply</b> (Associated Apparatus, Note 1) U <sub>o</sub> = 17.5 V, I <sub>o</sub> = 300 mA P <sub>o</sub> = 5.32 W C <sub>o</sub> , L <sub>o</sub> : Unspecified C <sub>o</sub> = 5 nF, L <sub>o</sub> = 10 μH	
<b>HAZARDOUS OR NON-HAZARDOUS LOCATION</b>	
Optional display chain connection to other FISCO Field Devices.	
Amper wire to involve built-in Fieldbus terminator (Note 9).	
<b>Fieldbus terminals (4x2p)</b> U <sub>o</sub> = 17.5 V, I <sub>o</sub> = 300 mA P <sub>o</sub> = 5.32 W C <sub>o</sub> = 2.2 nF, L <sub>o</sub> = 2 μH	
<b>Test terminals (Note 2)</b> Cable shield terminal.	
<b>Ground terminals (Note 6)</b> X10, X11, X12	
<b>RTD terminals (16-24p)</b> U <sub>o</sub> = 5 V, I <sub>o</sub> = 300 mA, P <sub>o</sub> = 550 mW C <sub>o</sub> = 0.5 nF, L <sub>o</sub> = 10 μH External capacitance & inductance: Group A: IIC, C <sub>o</sub> ≤ 43 nF, L <sub>o</sub> ≤ 0.2 nH Group B: IIC, C <sub>o</sub> ≤ 43 nF, L <sub>o</sub> ≤ 0.2 nH Group C: IIC, C <sub>o</sub> ≤ 43 nF, L <sub>o</sub> ≤ 0.2 nH Group D: F, G, IIA, C <sub>o</sub> = unlimited, L <sub>o</sub> ≤ 1.8 nH Group E: F, G, IIA, C <sub>o</sub> = unlimited, L <sub>o</sub> ≤ 0.2 nH	
<b>Sensibus terminal (4p) (Note 6)</b> U <sub>o</sub> = 5 V, I <sub>o</sub> = 22 mA, P <sub>o</sub> = 110 mW C <sub>o</sub> = 0.5 nF, L <sub>o</sub> = 10 μH External capacitance & inductance: Group A: IIC, C <sub>o</sub> ≤ 43 nF, L <sub>o</sub> ≤ 0.2 nH Group B: IIC, C <sub>o</sub> ≤ 43 nF, L <sub>o</sub> ≤ 0.2 nH Group C: IIC, C <sub>o</sub> ≤ 43 nF, L <sub>o</sub> ≤ 0.2 nH Group D: F, G, IIA, C <sub>o</sub> = unlimited, L <sub>o</sub> ≤ 1.8 nH Group E: F, G, IIA, C <sub>o</sub> = unlimited, L <sub>o</sub> ≤ 0.2 nH	
<b>Test terminal (4p)</b> (resistor, Simulate Apparatus connected to any one of the RTD input channels)	
<b>HAZARDOUS OR NON-HAZARDOUS LOCATION</b>	
<b>FISCO power supply</b> (Associated Apparatus, Note 1) U <sub>o</sub> = 17.5 V, I <sub>o</sub> = 300 mA P <sub>o</sub> = 5.32 W C <sub>o</sub> , L <sub>o</sub> : Unspecified C <sub>o</sub> = 5 nF, L <sub>o</sub> = 10 μH	

TITLE <b>SYSTEM CONTROL DWG</b> F.M., F-M-C Rosemount 2240S	VENDOR CODE <b>2240</b>
DESIGNED BY <b>EAP</b>	CHECKED BY <b>1012</b>
SCALE <b>1:1</b>	WORD <b>6</b>
SHEET NO. <b>4</b>	TOTAL SHEETS <b>1/2</b>

**WARNING:** To prevent ignition of flammable or combustible atmospheres, read, understand and adhere to the manufacturer's live maintenance procedures.  
**WARNING:** Substitution of components may impact intrinsic safety.

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REV. 2	CHANGE ORDER NO. SIME7193	REV. 114	CHANGE ORDER NO. SIME7372	REV. 131	CHANGE ORDER NO. SIME10955	REV. 2120
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### HAZARDOUS LOCATION

**ROSEMOUNT 2240S Multi Input Temperature Transmitter**  
 Intrinsically Safe Apparatus (IC) CE/IEC/EN/ATE  
 Temperature Class T4, -50°C to +175°C  
 Class I Zone 0 AEx/Ex ia IIC Ga/Enty

**RTD terminals (16x4)**  
 U<sub>0</sub> = 5.9 V, I<sub>0</sub> = 398 mA, P<sub>0</sub> = 585 mW  
 External capacitance & inductance:  
 C<sub>0</sub> = 0.2 nF, L<sub>0</sub> = 0.2 mH  
 Group C, E, IIB, C<sub>0</sub> = unlimited, L<sub>0</sub> ≤ 0.7 mH  
 Group D, F, G, IIA, C<sub>0</sub> = unlimited, L<sub>0</sub> ≤ 1.8 mH

**Sensibus terminal (4p) (Note 6)**  
 U<sub>0</sub> = 6.6 V, I<sub>0</sub> = 223 mA, P<sub>0</sub> = 363 mW  
 External capacitance & inductance:  
 C<sub>0</sub> = 0.2 nF, L<sub>0</sub> = 0.2 mH  
 Group C, E, IIB, C<sub>0</sub> = 540 nF, L<sub>0</sub> ≤ 3.3 mH  
 Group D, F, G, IIA, C<sub>0</sub> = unlimited, L<sub>0</sub> ≤ 8.0 mH

**Test terminals (4p) (Note 7)**  
 Single element 4-wire RTD connections (Simple Apparatus)  
 Multiple element 4-wire RTD connections (Simple Apparatus)

### HAZARDOUS OR NON-HAZARDOUS LOCATION

Intrinsically Safe power supply  
(Associated Apparatus, Note 1)

**Entity Parameters:**  
 U<sub>0</sub> = 30 V, I<sub>0</sub> = 300 mA, P<sub>0</sub> = 1.3 W  
 C<sub>0</sub> = 0.2 nF, L<sub>0</sub> = 0.2 mH (unlimited)  
 Co: Total inductance of connected cables and fluidbus devices.  
 Lo: Total inductance of connected cables and fluidbus devices.

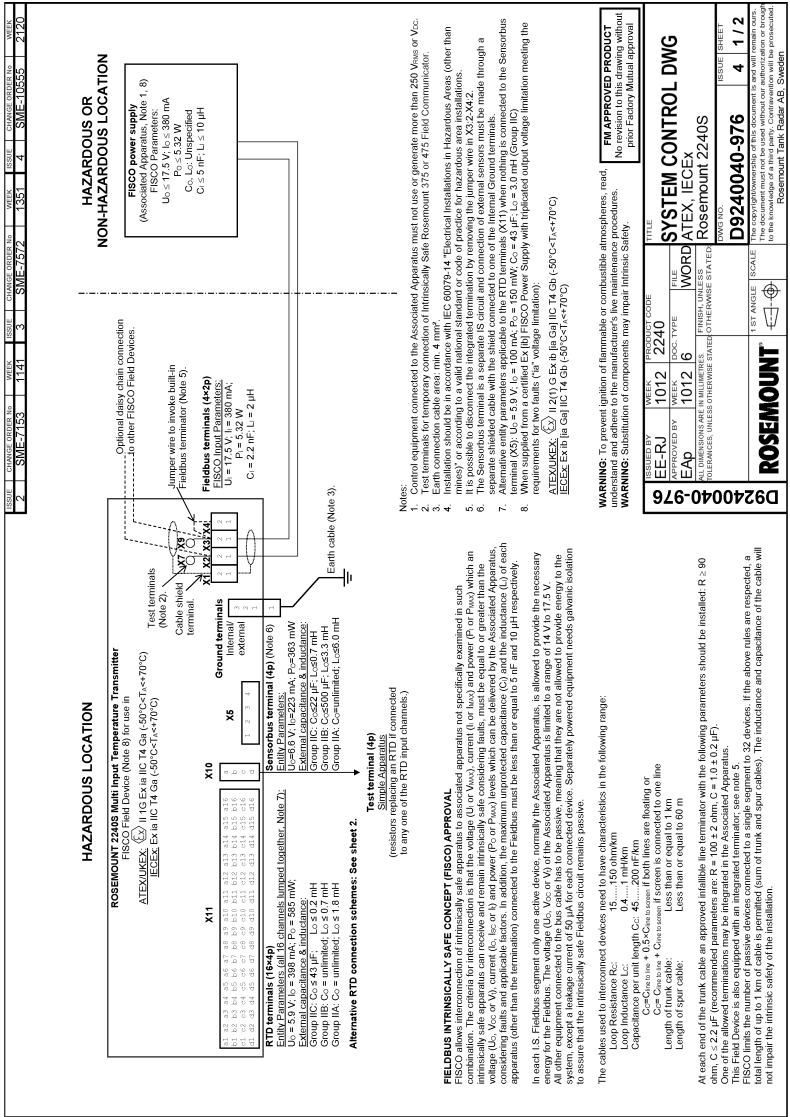
**Notes:**

- Control equipment connected to the Associated Apparatus must not use or generate more than 250 View or Vcc.
- Test terminals for temporary connection of Intrinsically Safe Resemount 375 or 475 Field Communicator.
- Earth connection area: min. 4 mm<sup>2</sup>.
- For use in conjunction with ANSI/ISA-818.01-2005 (IEC 61010-1) and the National Electrical Code (ANSI/NFPA 70) for Hazardous (Classified) Locations and the National Electrical Code (ANSI/NFPA 70).
- Dist light conduit seals must be used when installed in Class II and Class III environments.
- The Sensibus terminal is a separate IS circuit and connection of external sensors must be made through a separate shielded cable with the shield connected to one of the internal Ground terminals.
- The Sensibus terminal is a separate IS circuit and connection of external sensors must be made through a terminal (X5), U<sub>0</sub> = 5.9 V, I<sub>0</sub> = 100 mA, P<sub>0</sub> = 160 mW, C<sub>0</sub> = 43 nF, L<sub>0</sub> = 3.0 mH.

**WARNING:** To prevent ignition of flammable or combustible atmospheres, read, understand and adhere to the manufacturer's live maintenance procedures.  
**WARNING:** Substitution of components may impair intrinsic safety.

REV. 1012	REV. 2240	REV. 1012	REV. 2240	REV. 1012	REV. 2240	REV. 1012	REV. 2240
EE-RJ	EE-RJ	EE-RJ	EE-RJ	EE-RJ	EE-RJ	EE-RJ	EE-RJ
DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
10/12	10/12	10/12	10/12	10/12	10/12	10/12	10/12
WORD	WORD	WORD	WORD	WORD	WORD	WORD	WORD
FM-FM-C	FM-FM-C	FM-FM-C	FM-FM-C	FM-FM-C	FM-FM-C	FM-FM-C	FM-FM-C
ROSEMOUNT 2240S	ROSEMOUNT 2240S	ROSEMOUNT 2240S	ROSEMOUNT 2240S	ROSEMOUNT 2240S	ROSEMOUNT 2240S	ROSEMOUNT 2240S	ROSEMOUNT 2240S
ISSUE NO.	ISSUE NO.	ISSUE NO.	ISSUE NO.	ISSUE NO.	ISSUE NO.	ISSUE NO.	ISSUE NO.
D9240040-910	D9240040-910	D9240040-910	D9240040-910	D9240040-910	D9240040-910	D9240040-910	D9240040-910
SCALE	SCALE	SCALE	SCALE	SCALE	SCALE	SCALE	SCALE
1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1
4	4	4	4	4	4	4	4
2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2

Figure 1-2: System Control Drawing D9240040-976



REV	CHANGE	DATE	BY	CHKD	APP'D	DATE	BY	CHKD	APP'D
2	SME-7183	11/4	3	SME-7572	1/81	4	SME-10655	2/20	

### HAZARDOUS OR NON-HAZARDOUS LOCATION

#### HAZARDOUS LOCATION

**ROSEMOUNT 2240S Multi Input Temperature Transmitter**  
Intrinsically Safe Apparatus for use in ATEX/UKEX, IIC Ex ia IIC T4 Ga (-50°C to +70°C) IIC Ex ia IIC T4 Ga (-50°C to +70°C)

**RTD terminals (16-4P)**  
Fully Parametric, all 16 channels, Impedance Matched, 4-wire, Pt100, IEC Class B, Group IIA, Co = unlimited, Ls ≤ 1.8 mH

**RTD terminal (4P)**  
Fully Parametric, Impedance Matched, 4-wire, Pt100, IEC Class B, Group IIA, Co = unlimited, Ls ≤ 1.8 mH

**External Capacitance & Inductance:**  
Group IIC: Co = 443 pF, Ls ≤ 0.2 mH  
Group IIB: Co = 443 pF, Ls ≤ 0.2 mH  
Group IIA: Co = unlimited, Ls ≤ 1.8 mH

**Test terminal (4P)**  
Stimulus Apparatus  
(Resistors replacing an RTD if connected to any one of the RTD input channels.)

**Alternative RTD connection schemes**

#### NON-HAZARDOUS LOCATION

**Intrinsically Safe power supply**  
(Associated Apparatus; Note 1)  
Eighth Parameters:  
Us ≤ 30 V, Is ≤ 300 mA, Ps ≤ 1.3 W  
Co ≥ Total capacitance of connected cables and fieldbus devices.  
Ls ≥ Total inductance of connected cables and fieldbus devices.

**Fieldbus terminals (4+4P)**  
Fully Parametric:  
Us = 2.2 V, Is = 2 μA  
C = 2.2 nF, Ls = 2 μH

**Ground terminals (4P)**  
External

**Sensibus terminal (4P) (Note 6)**  
Fully Parametric, P = 983 mW  
External Capacitance & Inductance:  
Group IIC: Co = 522 pF, Ls ≤ 0.7 mH  
Group IIB: Co = 522 pF, Ls ≤ 0.7 mH  
Group IIA: Co = unlimited, Ls ≤ 0.9 mH

**Test terminals (Note 2)**  
Cable shield terminal

**Jumpers**  
Jumpers with to invoke built-in Fieldbus terminal (Note 5)

**Optional daisy chain connection**  
to other IS Field Devices.

**Earth cable (Note 3)**

REV	CHANGE	DATE	BY	CHKD	APP'D	DATE	BY	CHKD	APP'D
2	SME-7183	11/4	3	SME-7572	1/81	4	SME-10655	2/20	

**NOTES:**

- Control equipment connected to the Associated Apparatus must not use or generate more than 250 Vrms or Vcc.
- Test terminals for temporary connection of Intrinsically Safe Rosemount 375 or 475 Field Communicator.
- Installation should be in accordance with IEC 60079-14 "Electrical Installations in Hazardous Areas (other than mines)" or according to a valid national standard or code of practice for hazardous area installations.
- For the associated apparatus, the maximum safe input current (Ii) and maximum safe input power (Pi or Pwi) of the intrinsically safe apparatus, in addition to the approved max. allowable connected capacitance (Co) and Co of the associated apparatus must be greater than the sum of the interconnecting cable inductance (Ls) and Ls of the associated apparatus must be greater than the sum of the interconnecting cable inductance and the unprotected internal inductance (Li) of the intrinsically safe apparatus.
- The Sensibus terminal is a separate IS circuit and connection of external sensors must be made through a separate shielded cable with the shield connected to one of the Internal Ground terminals.
- Approved maximum safe input current (Ii) and maximum safe input power (Pi or Pwi) of the intrinsically safe apparatus must be greater than the sum of the interconnecting cable inductance (Ls) and Ls of the associated apparatus must be greater than the sum of the interconnecting cable inductance and the unprotected internal inductance (Li) of the intrinsically safe apparatus.
- terminal (XS): Us = 5.9 V, Is = 100 mA, Ps = 150 mW, Co = 43 pF, Ls = 3.0 mH

**WARNING:** To prevent ignition of flammable or combustible atmospheres, read, understand and adhere to the manufacturer's live maintenance procedures.  
**WARNING:** Substitution of components may impair intrinsic safety.

**FM APPROVED PRODUCT**  
No revision to this drawing without prior Factory Mutual approval

**ENTITY CONCEPT APPROVAL**  
The Entity concept allows interconnection of intrinsically safe apparatus to associated apparatus not specifically examined in certification as a system. The approved values of max. open circuit voltage (Uo, Vcc or Vo), max. short circuit current (Is, Isc or Ii) combination as a system, maximum safe input current (Ii) and maximum safe input power (Pi or Pwi) of the intrinsically safe apparatus, in addition to the approved max. allowable connected capacitance (Co) and Co of the associated apparatus must be greater than the sum of the interconnecting cable inductance (Ls) and Ls of the associated apparatus must be greater than the sum of the interconnecting cable inductance and the unprotected internal inductance (Li) of the intrinsically safe apparatus.

**ROSEMOUNT**

15° ANGLE SCALE

REVISED BY	DATE	DESCRIPTION	REVISED BY	DATE	DESCRIPTION
EE-RJ	10/12	2240	EE-RJ	10/12	6
EA-P	10/12	6	EA-P	10/12	6


**SYSTEM CONTROL DWG**  
WORD ATEX, IECEx  
Rosemount 2240S

ITEM NO. **D9240040-976** TEST SHEET **4** OF **2/2**


This document must not be used without our authentication or approval. For more information, contact your local sales representative.  
Rosemount, Tank, Radar, AB, Sweden

# 1.17 Declaration of Conformity

Figure 1-3: Rosemount 2240S EU Declaration of Conformity



## Declaration of Conformity



Rev. #3

We,

**Rosemount Tank Radar AB**  
Layoutvägen 1  
S-435 33 MÖLNLYCKE  
Sweden

declare under our sole responsibility that the product,


**Rosemount™ 2240 Multi-Input Temperature Transmitter**

manufactured by,

**Rosemount Tank Radar AB**  
Layoutvägen 1  
S-435 33 MÖLNLYCKE  
Sweden

to which this declaration relates, is in conformity with the provisions of the European Union Directives, including the latest amendments, as shown in the attached schedule.

Assumption of conformity is based on the application of the harmonized standards and, when applicable or required, a European Union notified body certification, as shown in the attached schedule.




---

(signature)

---

Dajana Prastalo  
(name)

Sr. Manager Product Approvals  
(function)

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23-Sep-24; Mölnlycke  
(date of issue & place)

Page 1 of 3



# Declaration of Conformity



**EMC Directive (2014/30/EU)**

Harmonized Standards: EN 61326-1:2013

**ATEX Directive (2014/34/EU)**

**FM09ATEX0047X**

**Intrinsic Safety (Foundation ® Fieldbus, FISCO):**



Equipment Group II, Category 1 G, Ex ia IIC T4 Ga  
Equipment Group II, Category 2 (1) G, Ex ib [ia Ga] IIC T4 Gb

Harmonized Standards:  
EN IEC 60079-0:2018  
EN 60079-11:2012  
Other Standards Used: EN 60529:1991/A1:2000/A2:2013

**RoHS Directive (2011/65/EU) Amended 2015/863**

Harmonized Standards: EN IEC 63000:2018

Rev. #3


 **Declaration of Conformity** 

**ATEX Directive Notified Body**

**FM Approvals Europe Ltd** [Notified Body Number: 2809]  
One Georges Quay Plaza  
Dublin, D02 E440  
Ireland

**ATEX Notified body for Quality Assurance**

**DNV Product Assurance AS** [Notified Body Number: 2460]  
Veritasveien 3  
1363 Høvik  
Norway



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The most recent revision of the EU Declaration of Conformity for the Rosemount 2240S can be found at [Emerson.com/Rosemount](https://www.emerson.com/Rosemount).











**Product Certifications**  
**00880-0100-2240, Rev. AB**  
**November 2024**

For more information: [Emerson.com/global](https://emerson.com/global)

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