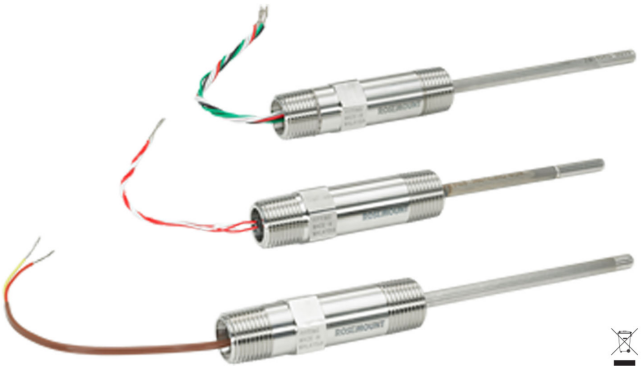
Quick Start Guide
00825-0300-2654, Rev GB
March 2021

Rosemount™ Volume 1 Sensor Assembly



ROSEMOUNT™

EMERSON.

Contents

1 About this guide

This guide provides basic guidelines for Sensor models. It does not provide instructions for configuration, diagnostics, maintenance, service, troubleshooting, explosion-proof, flameproof, or intrinsically safe (I.S.) installations. If the Rosemount Volume 1 Sensor was ordered assembled to a temperature transmitter, see the appropriate transmitter Quick Start Guide for information on configuration and hazardous locations certifications.

⚠ WARNING

Physical access

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

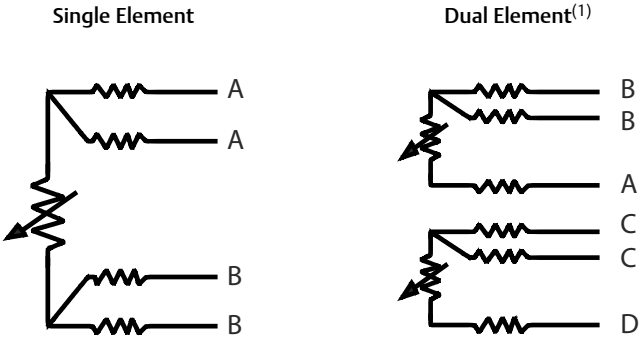
Physical security is an important part of any security program and fundamental to protecting your system. Restrict physical access by unauthorized personnel to protect end users' assets. This is true for all systems used within the facility.

⚠ CAUTION

⚠ Refer to Product Certification section of this Quick Start Guide documentation.

2 Wiring diagrams

Figure 2-1: Rosemount Series 68, 68Q, 78, and 58C RTD Wire Colors

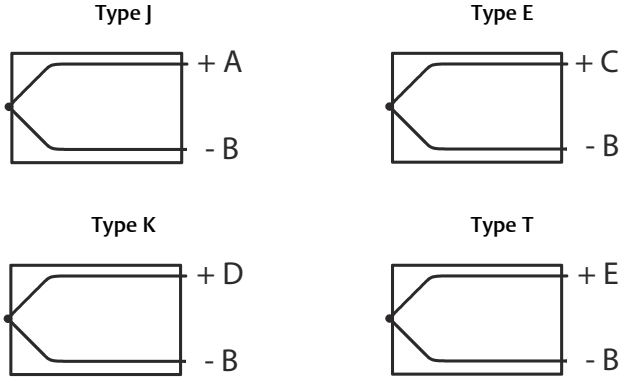


(1) Dual element sensors are only available on Rosemount Series 68Q and 78 Sensors.

A. Red
B. White
C. Green
D. Black

Note
For three-wire systems, use one white and two red leads. Do not connect the white leads. Insulate or terminate the unused white lead in a manner that prevents shorting to the ground. For two-wire systems, connect both sets of leads.

Figure 2-2: Rosemount Series 183 Thermocouple Wire Colors



A. *White*
B. *Red*
C. *Purple*
D. *Yellow*
E. *Blue*

Note
To distinguish the two sensors in dual Rosemount 183 Sensors, there is an outer insulation wrapped around each pair of sensor wires.

3 Rosemount Series 58C sheath cutting

Procedure

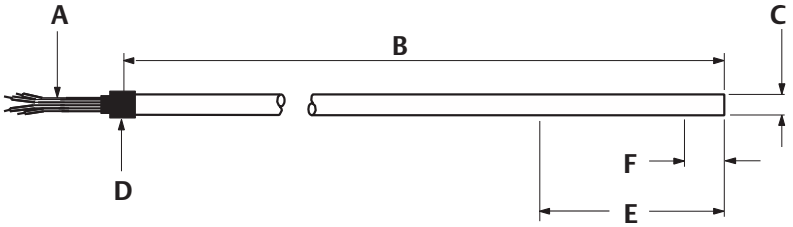
1. Determine the length to which the sheath will be cut. The finished length needs to include an additional 1.5-in. (3.8 cm) for compression fittings or 2.5-in. (6.5 cm) for spring-loaded fittings (see Figure 4-1).
2. Remove and save the heat shrink tubing from the rear of the sensor.
3. Place the sensor in a vise, taking care not to overtighten, and position the tubing cutter on the sheath.
4. Score the sheath to a depth of approximately 1/64-in. (0.4 cm) To prevent damage to the lead wire insulation, do not cut completely through the sheath.
5. Firmly grasp the end of the sheath with your hand or a pair of pliers. Using a sharp snapping motion, break off and remove the excess sheath material. Take care not to strip or damage the lead wire insulation while removing the excess sheath material.

   Note
   If you are unable to easily break off excess sheath material, deepen the score and repeat Step 5.

6. Replace the heat shrink tubing.

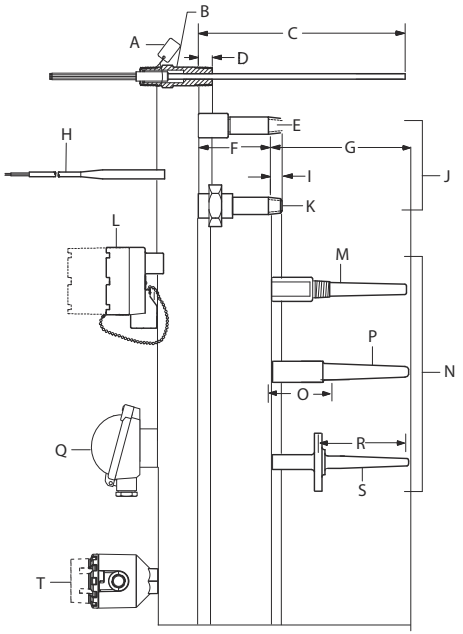
4 Drawings

Figure 4-1: Rosemount Series 58C Sensor



A. *Four lead wires 6-in. (152 mm) long.*
B. *X length ±0.25 (±6)*
C. *0.25 ±0.002 (6.35 ±0.13) diameter*
D. *Heat shrink tubing*
E. *Do not cut or bend sheath within 2-in. (51 mm)*
F. *0.6-in. (15 mm) max. sensing element*

Figure 4-2: Sensor Assembly



A Open identification tag

B Standard adapter sensor assembly

C Sensor immersion length “X”

D 0.5-in. (13 mm) nominal engagement

E Coupling nipple

F Extension length

G Overall thermowell length

H Lead wire extensions and seals

I 0.5-in. (13 mm) nominal engagement

J Extensions

K Union nipple

L Flat or extended cover aluminum connection heads

M Threaded thermowell

N Thermowells

O T + 1.75-in. (44.5 mm)

P Socket weld thermowell

Q Polypropylene connection head

R Thermowell immersion length

S Flanged thermowell

T Rosemount aluminum connection head

Note
Sensor assemblies can be provided without an enclosure or with an enclosure such as the connection heads shown above or assembled to a Rosemount transmitter.

5 Rosemount Series 68 Platinum RTD

5.1 Specifications

5.1.1 Performance specifications

Temperature range

–50 to 400 °C (–58 to 752 °F)

Effect of temperature cycling

±0.05 percent (0.13 °C or 0.23 °F) maximum ice-point resistance shift following 10 cycles over the specified temperature range

Stability

±0.11 percent 0.28 °C or 0.51 °F maximum ice-point resistance shift following 1,000 hours at maximum specified temperature (400 °C)

Maximum hysteresis

±0.1 percent of operating temperature range

Time constant

12 seconds maximum required to reach 63.2 percent sensor response in water flowing at 3 ft/s (0.91 m/s)

Nominal R0 100 Ohm

Nominal alpha 0.00385 Ω/Ω °C

5.1.2 Physical specifications

Material selection

Emerson provides a variety of Rosemount product with various product options and configurations including materials of construction that can be expected to perform well in a wide range of applications. The Rosemount product information presented is intended as a guide for the purchaser to make an appropriate selection for the application. It is the purchaser's sole responsibility to make a careful analysis of all process parameters (such as all chemical components, temperature, pressure, flow rate, abrasives, contaminants, etc.), when specifying product, materials, options and components for the particular application. Emerson is not in a position to evaluate or guarantee the compatibility of the process fluid or other process parameters with the product, options, configuration or materials of construction selected.

Sheath material

316 SST and 321 SST

Lead wire

PTFE-insulated, silver plated, 24-gauge stranded copper wire

Identification data

The model, serial numbers, and up to six lines of permanent tagging information are etched on each sensor adapter. Stainless steel tags are available upon request.

5.1.3 Environmental specifications

Humidity limits

Lead seal can withstand 100 percent relative humidity

Vibration limits

±0.05 percent maximum ice-point resistance shift due to 30 minutes of 14 g peak vibration from 5 to 350 Hz at 20 °C (68 °F) for unsupported stem length of less than 6-in.

Quality assurance

Each sensor is subjected to a resistance accuracy test at 0 °C and an insulation resistance test

Enclosure ratings

When installed properly, Rosemount Series 68 Sensors are suitable for indoor and outdoor NEMA® 4X and CSA Enclosure Type 4X installations.

Insulation resistance

1000×10^6 ohms minimum insulation resistance when measured at 500 Vdc at room temperature

5.1.4 Functional specifications

Power	Overvoltage Category I
Environmental	Pollution Degree 4

6 Rosemount Series 78 Platinum RTD

6.1 Specifications

6.1.1 Performance specifications

Temperature range

Rosemount Series 78 single- and dual-element sensors may be used in temperatures from –200 to 500 °C (–328 to 932 °F).

Effect of temperature cycling

±0.04 percent (0.10 °C or 0.18 °F) maximum ice-point resistance shift following 10 cycles between –200 and 500 °C (–328 to 932 °F).

Stability

±0.05 percent maximum ice-point resistance shift following 1,000 hours at 400 °C (752 °F).

Table 6-1: Rosemount Series 78 Interchangeability

Both tolerances valid from –200 to 500 °C.

Standard series 78 IEC-751 Class B	Temperature
±0.80 °C (±1.44 °F)	–100 °C (–148 °F)
±0.30 °C (±0.54 °F)	0 °C (32 °F)
±0.80 °C (±1.44 °F)	100 °C (212 °F)
±1.80 °C (±3.24 °F)	300 °C (572 °F)
±2.30 °C (±4.14 °F)	400 °C (752 °F)
Series 78 with IEC-751 Class A option	**Temperature**
±0.35 °C (±0.63 °F)	–100 °C (–148 °F)
±0.15 °C (±0.27 °F)	0 °C (32 °F)
±0.35 °C (±0.63 °F)	100 °C (212 °F)
±0.75 °C (±1.35 °F)	300 °C (572 °F)
±0.95 °C (±1.71 °F)	400 °C (752 °F)

Maximum hysteresis

Single- and dual-element, Nominal R0 100 Ohm Nominal alpha 0.00385 Ω/Ω °C: ±0.04 percent of range

Time constant

4 seconds maximum required to reach 63.2 percent sensor response in water flowing at 3 ft/s (0.91 m/s).

Self heating

18 mW minimum power dissipation required to cause a 1 °C (1.8 °F) temperature measurement error in water flowing at 3 ft/s.

Insulation resistance

500 × 10^6 ohms minimum insulation resistance when measured at 500 Vdc at room temperature (20 °C [68 °F]).

6.1.2 Environmental specifications

Humidity limits

Lead seal is capable of withstanding 100 percent relative humidity.

Vibration limits

Standard single- and dual-element sensors

±0.03 percent maximum ice-point resistance shift due to 30 minutes of 21 g peak vibration from 5 to 350 Hz continuous sweep at 20 °C (68 °F) for unsupported stem length of less than 5.5-in. (140 mm).

Quality assurance

Each sensor is subjected to a resistance accuracy test at 0 °C and an insulation resistance test.

Enclosure ratings

When installed properly, Rosemount Series 78 Sensors are suitable for indoor and outdoor NEMA 4X and CSA Enclosure Type 4X installations.

6.1.3 Physical specifications

Sheath material

Single and dual-element, 316 SST

Lead wires

Single and dual-element, PTFE-insulated, nickel-coated, 22-gauge stranded copper wire.

Identification data

The model and serial numbers and up to six lines of permanent tagging information are etched on each sensor adapter. Stainless steel tags are available upon request.

6.1.4 Functional specifications

Power	Overvoltage Category I
Environmental	Pollution Degree 4

7 Rosemount Series 183 Thermocouple

7.1 Specifications

7.1.1 Performance Specifications

The thermoelectric current relationship in a thermocouple is standardized and defined by ASTM E-230. All Rosemount Series 183 Thermocouples conform to these standards with “special limits of error” accuracy. The particular characteristics of each ISA type thermocouple are outlined in Table 7-1.

7.1.2 Physical specifications

Sheath material

304 SST for types J, E, and T (used at temperatures up to 871 °C). Inconel for type K (used at temperatures up to 1150 °C).

Lead wires

Thermocouple, external lead wires—20 AWG wire, PTFE-insulated. Color coded per lead wire configuration schematic shown in Figure 2-2.

Identification data

The model and serial numbers and up to six lines of permanent tagging information are etched on each sensor adapter. Stainless steel tags are available upon request.

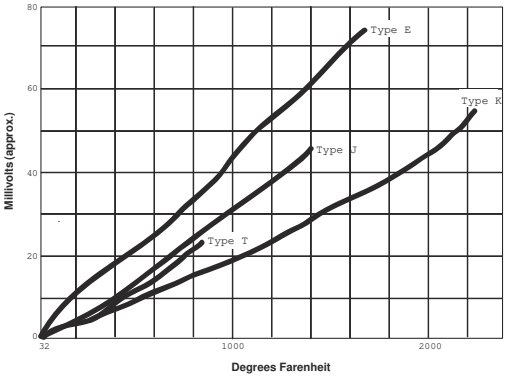
Insulation resistance

100×10^6 ohms minimum insulation resistance when measured at 100 Vdc at room temperature.

Enclosure ratings

When installed properly, Rosemount Series 183 Sensors are suitable for indoor and outdoor NEMA 4X and installations.

Figure 7-1: Comparison of Thermocouples



Thermocouple	Conditions for use
Type J Iron/ Constantan	Maximum operating temperature of 760 °C (1400 °F). Used with or without protective tubing where deficiency of free oxygen exists. Protective tube not essential, but desirable for cleanliness and longer service.
Type K Chromel/ Alumel	Suitable for extended use in temperatures reaching 1150 °C (2102 °F). Use of metal or ceramic protective tube desirable, especially in reducing atmospheres. In oxidizing atmospheres, protective tubing necessary only to promote cleanliness and longer service.
Type E Chromel/ Constantan	Suitable for use at temperature up to 871 °C (1600 °F) in vacuum or inert, mildly oxidizing, or reducing atmosphere. Not subject to corrosion at cryogenic temperatures. Has highest EMF output per degree of all commonly used thermocouples.
Type T Copper/ Constantan	Operating temperature range of –180 to 371 °C (–292 to 700 °F). Use in either oxidizing or reducing atmospheres. Protective tubing necessary only to promote cleanliness and longer service. Stable at lower temperature. Superior for a wide variety of uses in cryogenic temperatures.

Table 7-1: Characteristics of Series 183 Thermocouple Types

ISA thermocouple types	Thermocouple wire alloys	Temperature range		Limits of error (interchangeability)
		°C	°F	
J	Iron/ Constantan	0 to 760	32 to 1400	±1.1 °C (2.0 °F) or ±0.4% of measured temperature, whichever is greater

Table 7-1: Characteristics of Series 183 Thermocouple Types *(continued)*

ISA thermocouple types	Thermocouple wire alloys	Temperature range		Limits of error (interchangeability)
		°C	°F	
K	Chromel/ Alumel	0 to 1150	32 to 2102	±1.1 °C (2.0 °F) or ±0.4% of measured temperature, whichever is greater
E	Chromel/ Constantan	0 to 871	32 to 1600	±1.0 °C (1.8 °F) or ±0.4% of measured temperature, whichever is greater
T	Copper/ Constantan	–180 to 0	–292 to 32	±1.0 °C (1.8 °F) or ±1.5% of measured temperature, whichever is greater
		0 to 371	32 to 700	±0.5 °C (1.0 °F) or ±0.4% of measured temperature, whichever is greater

7.1.3 Functional specifications

Power Overvoltage Category I

Environmental Pollution Degree 4

8 Rosemount Series 68Q Sanitary Platinum RTD

8.1 Specifications

8.1.1 Performance specifications

Temperature range

–50 to 200 °C (–58 to 392 °F)

Maximum hysteresis

±0.09 percent of operating temperature range

Stability

Tri Clamp O.D. tube size 1-in. and greater

±0.04 percent maximum ice-point resistance shift following 1,000 hours at maximum specified temperature 392 °F (200 °C)

Tri Clamp O.D. tube size ½- to ¾-in.

±0.08 percent maximum ice-point resistance shift following 1,000 hours at maximum specified temperature 392 °F (200 °C)

Response time

Tri Clamp O.D. tube size 1-in. and greater

Less than 3.5 seconds required to reach 63.2 percent sensor response in water flowing at 3 ft/s (0.91 m/s). Meets PMO specification.

Tri Clamp O.D. tube size ½- to ¾-in.

Less than 1.5 seconds required to reach 63.2 percent sensor response in water flowing at 3 ft/s (0.91 m/s).

Insulation Resistance

500×10^6 ohms minimum insulation resistance when measured at 100 Vdc at room temperature

Surface Finish

32R_A standard finish on product contact surfaces. Meets 3A requirements.

15R_A high mechanical polish available with option code HP.

8.1.2 Environmental specifications

Humidity limits

Lead seal is capable of withstanding 100 percent relative humidity.

Quality assurance

Each sensor is subjected to a resistance accuracy test at 0 °C.

8.1.3 Physical specifications

Sheath material

316L SST

Lead wire

PTFE-insulated, nickel-coated, 24-gauge stranded copper wire

Identification data

The model and serial numbers and up to six lines of permanent tagging information are etched on each sensor adapter. Stainless steel tags are available upon request.

8.1.4 Functional specifications

Power	Overvoltage Category I
Environmental	Pollution Degree 4

9 Rosemount Series 58C Platinum RTD

9.1 Specifications

9.1.1 Performance specifications

Temperature range

–50 to 200 °C (–58 to 392 °F)

Maximum hysteresis

±0.09 percent of operating temperature range

Stability

±0.035 percent maximum ice-point resistance shift following 1,000 hours at maximum specified temperature 200 °C (392 °F)

Insulation resistance

500 x10^6 ohms minimum insulation resistance when measured at 50 Vdc at room temperature

9.1.2 Environmental specifications

Humidity limits

No permanent rear seal is installed.

Quality assurance

Each sensor is subjected to a resistance accuracy test at 0 °C (32 °F) and an insulation resistance test.

9.1.3 Physical specifications

Sheath material

316 SST

Lead wires

PTFE-insulated, nickel-coated, 24-gauge stranded copper wire

9.1.4 Functional specifications

Power	Overvoltage Category I
Environmental	Pollution Degree 4

10 Product certifications

Rev 2.21

10.1 European Directive Information

A copy of the EC Declaration of Conformity can be found at the end of the Quick Start Guide. The most recent revision of the EC Declaration of Conformity can be found at Emerson.com/Rosemount.

10.2 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).

Note
The terminal strip in the Aluminum Connection Head with Six Terminals (R, T, P or L) requires sensor lead wires to have a wire termination (Ex: Bootlace ferrule or spade lug).

10.3 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.

10.4 USA

E5 FM Explosion proof, Dust-Ignition proof

Certificate FM17US0170X

Standards FM Class 3600: 2011; FM Class 3611: 2004; FM Class 3615: 2006; FM Class 3810: 2005; ANSI/NEMA - 250: 1991

Markings XP CL I, Div 1, GP B, C, D; DIP CL II/III, Div 1, GP E, F, G; T5(-50 °C ≤ T_a ≤ 85 °C); when installed per Rosemount drawing 00068-0013; Type 4X

10.5 Canada

E6 CSA Explosion proof and Dust-Ignition proof

Certificate 70044744

Standards CAN/CSA C22.2 No. 0:2010, CAN/CSA No. 25-1966 (R2000), CAN/CSA C22.2 No. 30-M1986 (R2012), CAN/CSA C22.2 No. 94-M1991 (R2011)

Markings XP CL I, DIV 1, GP B*, C, D; DIP CL II, DIV 1, GP E, F, G; CL III; T6 (-50 °C ≤ T_a ≤ +80 °C), T5 (-50 °C ≤ T_a ≤ +95 °C); Seal not required; installed per Rosemount drawing 00068-0033; Type 4X† and IP 66/67; V_{max} 35 VDC, 750 mW_{max}

†Spring loaded indicator has reduced ingress and dust ratings. Spring loaded sensors must be installed in a thermowell to maintain dust and ingress ratings. Un-painted aluminum enclosures are Type 4 rated.

*Assembly is not Canada Explosionproof (E6) rated to Group B if the R, T, P or L (Aluminum Connection Head with Six Terminals) connection head is used

10.6 Europe

E1 ATEX Flameproof

Certificate FM12ATEX0065X

Standards EN 60079-0: 2012+A11:2013, EN 60079-1: 2014, EN 60529:1991 +A1:2000 + A2:2013

Markings  II 2 G Ex db IIC T6...T1 Gb, T6(-50 °C ≤ T_a ≤ +40 °C), T5...T1(-50 °C ≤ T_a ≤ +60 °C)

See Process temperature limits for process temperatures.

Special Conditions for Safe Use(X):

1. See certificate for ambient temperature range.
2. The non-metallic label may store an electrostatic charge and become a source of ignition in Group III environments.
3. Guard the LCD display cover against impact energies greater than 4 joules.
4. Flameproof joints are not intended for repair.
5. A suitable certified Ex d or Ex tb enclosure is required to be connected to temperature probes with Enclosure option “N”.
6. Care shall be taken by the end user to ensure that the external surface temperature on the equipment and the neck of DIN Style Sensor probe does not exceed 130 °C.
7. Non-Standard Paint options may cause risk from electrostatic discharge. Avoid installations that 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.

10.7 International

E7 IECEx Flameproof

Certificate IECEx FMG 12.0022X

Standards IEC 60079-0:2011, IEC 60079-1:2014-06

Markings Ex db IIC T6...T1 Gb, T6(-50 °C ≤ T_a ≤ +40 °C), T5...T1(-50 °C ≤ T_a ≤ +60 °C)

See Process temperature limits for process temperatures.

Special Conditions for Safe Use(X):

1. See certificate for ambient temperature range.
2. The non-metallic label may store an electrostatic charge and become a source of ignition in Group III environments.
3. Guard the LCD display cover against impact energies greater than 4 joules.
4. Flameproof joints are not intended for repair.
5. A suitable certified Ex d or Ex tb enclosure is required to be connected to temperature probes with Enclosure option “N”.
6. Care shall be taken by the end user to ensure that the external surface temperature on the equipment and the neck of DIN Style Sensor probe does not exceed 130 °C.
7. Non-Standard Paint options may cause risk from electrostatic discharge. Avoid installations that 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.

NK IECEx Dust-Ignitionproof

Certificate IECEx FMG 12.0022X

Standards IEC 60079-0:2011, IEC 60079-1:2013

Markings Ex tb IIIC T130 °C Db T_a = -40 °C to +70 °C; IP66

See Process temperature limits for process temperatures.

Special Conditions for Safe Use(X):

1. See certificate for ambient temperature range.

2. The non-metallic label may store an electrostatic charge and become a source of ignition in Group III environments
3. Guard the LCD display cover against impact energies greater than 4 joules.
4. Flameproof joints are not intended for repair
5. A suitable certified Ex db or Ex tb enclosure is required to be connected to temperature probes with Enclosure option "N".
6. Care shall be taken by the end user to ensure that the external surface temperature on the equipment and the neck of DIN Style Sensor probe does not exceed 130 °C.
7. Non-Standard Paint options may cause risk from electrostatic discharge. Avoid installations that 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.

10.8 Brazil

E2 INMETRO Flameproof

Certificate UL-BR 13.0535X

Standards ABNT NBR IEC 60079-0:2013; ABNT NBR IEC 60079-1:2016; ABNT NBR IEC 60079-31:2014

Markings Ex db IIC T6...T1 Gb T6...T1(-50 °C ≤ T_a ≤ +40 °C), T5...T1(-50 °C ≤ T_a ≤ +60 °C)

Ex tb IIIC T130 °C Db (-40 °C ≤ T_a ≤ +70 °C)

Special Conditions for Safe Use (X):

1. See certificate for ambient temperature range.
2. The non-metallic label may store an electrostatic charge and become a source of ignition in Group III environments.
3. Guard the LCD display cover against impact energies greater than 4 joules.
4. A suitable certified Ex d or Ex tb enclosure is required to be connected to temperature probes with Enclosure option "N".
5. Care shall be taken by the end user to ensure that the external surface temperature on the equipment and the neck of DIN Style Sensor probe does not exceed 130 °C.
6. Consult the manufacturer if dimensional information on the flameproof joints is necessary.

10.9 EAC

EM Technical Regulations Customs Union (EAC) Flameproof

Markings 1Ex db IIC T6...T1 Gb X; T6 (-55 to 40 °C); T5..T1 (-55 to 60 °C); IP66, IP68

Special Condition for Safe Use(X):

See certificate.

10.10 Korea

EP Korea Explosionproof/Flameproof

Certificate 13-KB4BO-0560X

Markings Ex d IIC T6...T1; T6(–50 °C ≤ T_a ≤ +40 °C), T5...T1(–50 °C ≤ T_a ≤ +60 °C)

Special Condition for Safe Use(X):

See certificate.

10.11 Combinations

KF Combination of E1 and E6

KD Combination of E5, E6, and E1

10.12 Process temperature limits

Table 10-1: Sensor Only (No Transmitter Installed)

Extension length	Process temperature (°C)						
	Gas						Dust
	T6	T5	T4	T3	T2	T1	T130 °C
Any extension length	85	100	135	200	300	450	130

Table 10-2: Transmitter

Extension length	Process temperature (°C)						
	Gas						Dust
	T6	T5	T4	T3	T2	T1	T130 °C
No extention	55	70	100	170	280	440	100
3-in. extension	55	70	110	190	300	450	110
6-in. extension	60	70	120	200	300	450	110
9-in extension	65	75	130	200	300	450	120

Adhering to the process temperature limitations of Table 10-3 will ensure that the service temperature limitations of the LCD cover are not exceeded. Process temperatures may exceed the limits defined in Table 10-3 if the temperature of the LCD cover is verified to not exceed the service temperatures in Table 10-4 and the process temperatures do not exceed the values specified in Table 10-2.

Table 10-3: Transmitter with LCD Cover - Process Temperature (°C)

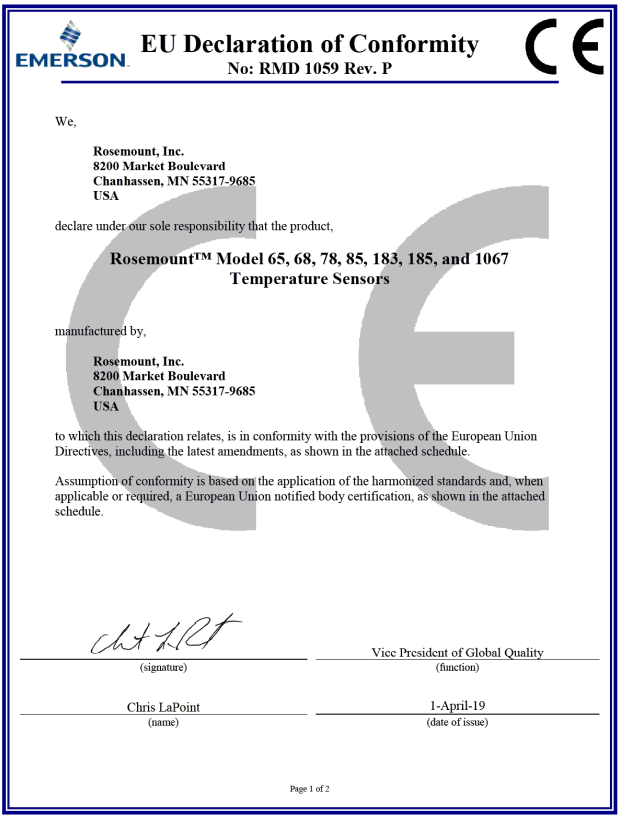
Extension length	Gas			Dust
	T6	T5	T4...T1	T130 °C
No extension	55	70	95	95
3-in. extension	55	70	100	100
6-in. extension	60	70	100	100
9-in. extension	65	75	110	110

Table 10-4: Transmitter with LCD Cover - Service Temperature (°C)

Extension length	Gas			Dust
	T6	T5	T4...T1	T130 °C
No extension	65	75	95	95

10.13 Declaration of Conformity

Figure 10-1: Rosemount Series 68, 78, and 183 Declaration of Conformity



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EU Declaration of Conformity
No: RMD 1059 Rev. P

CE

We,

Rosemount, Inc.
8200 Market Boulevard
Chanhassen, MN 55317-9685
USA

declare under our sole responsibility that the product,

Rosemount™ Model 65, 68, 78, 85, 183, 185, and 1067 Temperature Sensors

manufactured by,

Rosemount, Inc.
8200 Market Boulevard
Chanhassen, MN 55317-9685
USA

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)	Vice President of Global Quality (function)
Chris LaPoint (name)	1-April-19 (date of issue)

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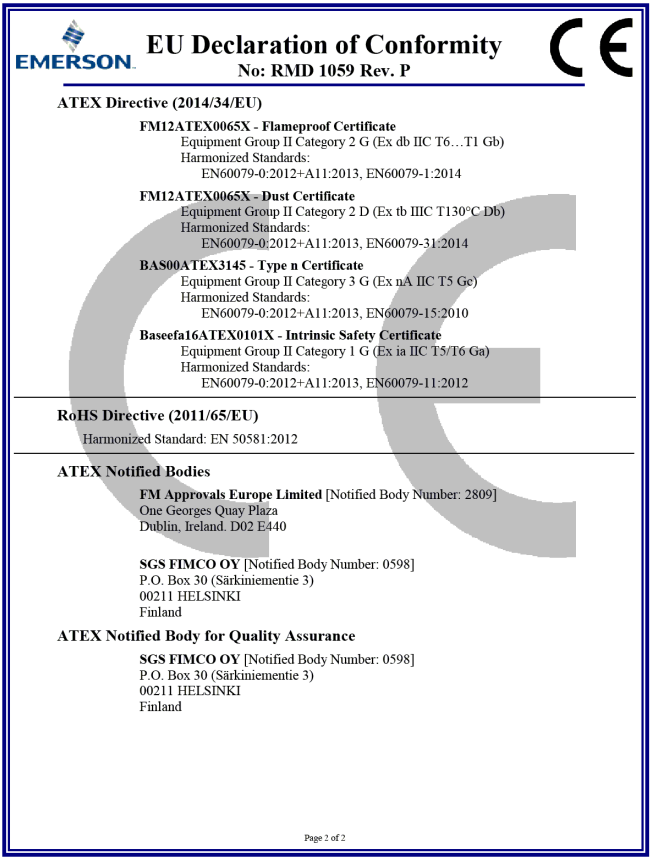

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EU Declaration of Conformity

No: RMD 1059 Rev. P

CE

ATEX Directive (2014/34/EU)

FM12ATEX0065X - Flameproof Certificate
Equipment Group II Category 2 G (Ex db IIC T6…T1 Gb)
Harmonized Standards:
EN60079-0:2012+A11:2013, EN60079-1:2014

FM12ATEX0065X - Dust Certificate
Equipment Group II Category 2 D (Ex tb IIIC T130°C Db)
Harmonized Standards:
EN60079-0:2012+A11:2013, EN60079-31:2014

BAS00ATEX3145 - Type n Certificate
Equipment Group II Category 3 G (Ex nA IIC T5 Gc)
Harmonized Standards:
EN60079-0:2012+A11:2013, EN60079-15:2010

Baseefa16ATEX0101X - Intrinsic Safety Certificate
Equipment Group II Category 1 G (Ex ia IIC T5/T6 Ga)
Harmonized Standards:
EN60079-0:2012+A11:2013, EN60079-11:2012

RoHS Directive (2011/65/EU)

Harmonized Standard: EN 50581:2012

ATEX Notified Bodies

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

SGS FIMCO OY [Notified Body Number: 0598]
P.O. Box 30 (Särkiniementie 3)
00211 HELSINKI
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ATEX Notified Body for Quality Assurance

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10.14 China RoHS

⊠斯蒙特⊠品型号 **0068, 0078 and 0183**
2/9/2021

含有China RoHS管控物质超过最大浓度限值的部件型号列表 0068, 0078 and 0183 Temperature Sensors
List of 0068, 0078 and 0183 Temperature Sensor Parts with China RoHS Concentration above MCVs

部件名称 Part Name	有害物质 / Hazardous Substances					
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr +6)	多溴联苯 Polybrominated biphenyls (PBB)	多溴联苯醚 Polybrominated diphenyl ethers (PBDE)
壳体组件 Housing Assembly	O	O	O	O	O	O
传感器组件 Sensor Assembly	O	O	O	O	O	O

本表格系依据SJ/T11364的规定而制作.
This table is proposed in accordance with the provision of SJ/T11364.

O: 意为该部件的所有均质材料中该有害物质的含量均低于GB/T 26572所规定的限量要求.
O: Indicate that said hazardous substance in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.

X: 意为在该部件所使用的所有均质材料里，至少有一类均质材料中该有害物质的含量高于GB/T 26572所规定的限量要求.
X: Indicate that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.

部件名称 Part Name	组装备件说明 Spare Parts Descriptions for Assemblies
壳体组件 Housing Assembly	电子外壳 Electrical Housing

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