

Rosemount™ 2511 Solids Level Switches

Vibrating Fork



1 Product certifications

Rev 3.9

1.1 European directive information

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

1.3 U.S.A.

1.3.1 KZ Ordinary Location certification

Certificate	FM20US0088X
Standards	FM Class 3810:2018; ANSI/NEMA® 250: 1991; ANSI/IEC 60529:2004
Markings	Type 4X/IP67

As standard, the level switch 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).

1.3.2 KB Dust certification

Certificate	FM20US0088X
Standards	FM Class 3600:2018; FM Class 3616:2011; FM Class 3810:2018; ANSI/NEMA 250:1991 ANSI/IEC 60529:2004
Markings	Class II, Division 1, Groups E, F, and G, Class III, Division 1 Type 4X/IP67
Temperature	Ta=-40 °C to +60 °C

Specific Instructions:

See [Safety instructions for hazardous area](#)

Specific condition of use:

See [Table 1-1](#) for the T code temperature class

1.4 Canada**1.4.1 KZ Ordinary Location certification**

Certificate	80055793
Standards	CAN/CSA-C22.2 No. 61010-1-12; CAN/CSA-C22.2 No. 14-13; CAN/CSA-C22.2 No. 94 1-07/94-2-07; UL Std. No. 61010-1 (3rd Edition); UL Std. No. 508 (17th Edition); UL Std. No. 50/50E
Markings	Type 4X/IP67

As standard, the level switch 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).

1.4.2 KB Dust (DIP) certification

Certificate	80055790
Standards	CAN/CSA C22.2 No. 0-10; CAN/CSA C22-2 No. 61010-1-04; CAN/CSA C22-2 No. 25-1966 (R2009); CAN/CSA C22.2 No. 94-M91 (R2011); CAN/CSA E1241-1-1-02 (R2006); CAN/CSA C22.2 No. 60529:10; CAN/CSA-C22.2 No. 60079-31:12
Markings	DIP: Class II, III, Division 1, Groups E,F, and G; Ex DIP A20/21 T150 °C; Type 4X/IP66

Specific Instructions:

See [Safety instructions for hazardous area](#)

1.5 Europe**1.5.1 ND ATEX dust certification**

Certificate	BVS 19 ATEX E 074
Standards	EN IEC 60079-0:2018; IEC 60079-26:2021; IEC 60079-31:2022
Markings	Ⓔ II 1/2D Ex ta/tb IIIC T* °C Da/Db
Temperature	See Table 1-2

Specific conditions of use:

The apparatus shall be installed in a way that danger caused by electrostatic charges is avoided.

Specific Instructions:

See [Safety instructions for hazardous area](#)

The maximum surface temperature of the electronic enclosure with a thermal fuse is 117 °C.

Maximum permitted temperature at change over between extension and housing is +80 °C.

1.6 International

1.6.1 NK IECEx Dust certification

Certificate	IECEX BVS 19.0070
Standards	IEC 60079-0:2017; IEC 60079-26:2021; IEC 60079-31:2022
Markings	Ex ta/tb IIIC T* °C Da/Db
Temperature	See Table 1-3

Specific conditions of use:

The apparatus shall be installed in a way that danger caused by electrostatic charges is avoided.

Specific Instructions:

See [Safety instructions for hazardous area](#)

The maximum surface temperature of the electronic enclosure with a thermal fuse is 117 °C.

Maximum permitted temperature at change over between extension and housing is +80 °C.

1.7 Republic of Korea

1.7.1 EP KTL Dust Certification

Please contact manufacturer for further details.

1.8 Brazil

1.8.1 NR INMETRO Dust Certification (DIP)

Certificate	UL-BR 20.0184X
Standards	ABNT NBR IEC 60079-0; ABNT NBR IEC 60079-31; ABNT NBR IEC 60079-26
Markings	Ex ta/tb IIIC T* Da/Db * See certificate

Specific Conditions of Use:

See certificate.

1.9 China

1.9.1 NS China Dust Certification (DIP) NEPSI 粉尘

Please contact manufacturer for further details.

1.10 United Arab Emirates

Certificate	23-11-22694/Q23-11-048838/NB0002
Markings	same as IECEx (NK)

1.11 Safety instructions for hazardous area

The safety instructions are for versions of the Rosemount 2511 with Product Certification codes KB, ND, and NK in the model number.

Safety for mechanical installation

1. Installation of this equipment shall be carried out by suitably trained personnel, in accordance with the applicable code of practice.
2. The weather protection cover is only approved for use in Zone 22.
3. Care should be taken to protect the level switch from an impact, causing damage and becoming an ignition source from friction sparks.
4. Seal the process connection thread with PTFE tape to maintain the process pressure.
5. The permitted relative pressure is -0.2 to +0.1 bar. This is defined in EU directive 2014/34/EU (for ATEX certifications) and IEC 60079-0 (for IECEx certifications)

Safety for electrical installation

1. Wiring of this equipment shall be carried out by suitably trained personnel, in accordance with the applicable code of practice.
2. All wiring must have insulation suitable for at least 250 Vac. The temperature rating must be at least 194 °F (90 °C).
3. Connect the external equipotential bonding terminal to the plant ground (earth).
4. Always keep the housing lid (cover) fitted during commissioning.
5. Do not remove the housing lid (cover) while circuits are alive.
6. Before removing the housing lid (cover), ensure there are no dust deposits and no airborne dust is present.

Cable glands, conduits, and blanking plugs in hazardous area installations

General installation

- Installation of this equipment shall be carried out by suitably trained personnel, in accordance with the applicable code of practice.
- Seal the un-used conduit entries with a suitably rated blanking plugs.
- Use only factory-supplied parts, where applicable.
- A suitable strain-relief must be provided for the wiring cables when the level switch is installed with the factory-supplied cable glands.
- The diameter of the wiring cable must match to the clamping range of the cable clamp.
- For parts that are not factory-supplied, it is the responsibility of the installer to ensure:
 - The parts have a certification and type of protection that is equivalent to the approval of the level switch.
 - The parts have an ambient temperature range that complies with the specification of the level switch plus 10 Kelvin.
 - The parts must be installed in accordance with the installation instructions of the part manufacturers.

1.12 FM thermal data

Table 1-1: Thermal Data

Maximum ambient temperature	Maximum process temperature	Maximum surface temperature	Temperature class (division system)
140 °F (60 °C)	230 °F (110 °C)	239 °F (115 °C)	T4A
	248 °F (120 °C)	248 °F (120 °C)	T4
	266 °F (130 °C)	266 °F (130 °C)	T4
	284 °F (140 °C)	284 °F (140 °C)	T3C
	302 °F (150 °C)	302 °F (150 °C)	T3C

1.13 ATEX thermal data

Table 1-2: Thermal data

Permitted ambient temperature at the electronics enclosure (EPL Db)	Permitted process temperature (EPL Da)	Maximum surface temperature (EPL Da)	Maximum surface temperature (EPL Db) ⁽¹⁾
-40 °C...+60 °C	-40 °C... +110 °C	T ₂₀₀ 115 °C	115 °C
	-40 °C... +120 °C	T ₂₀₀ 120 °C	120 °C
	-40 °C... +130 °C	T ₂₀₀ 130 °C	130 °C
	-40 °C... +140 °C	T ₂₀₀ 140 °C	140 °C
	-40 °C... +150 °C	T ₂₀₀ 150 °C	150 °C

(1) At the process connection.

1.14 IECEx thermal data

Table 1-3: Thermal data

Permitted ambient temperature at the electronics enclosure (EPL Db)	Permitted process temperature (EPL Da)	Maximum surface temperature (EPL Da)	Maximum surface temperature (EPL Db) ⁽¹⁾
-40 °C...+60 °C	-40 °C... +110 °C	T ₂₀₀ 115 °C	115 °C
	-40 °C... +120 °C	T ₂₀₀ 120 °C	120 °C
	-40 °C... +130 °C	T ₂₀₀ 130 °C	130 °C
	-40 °C... +140 °C	T ₂₀₀ 140 °C	140 °C
	-40 °C... +150 °C	T ₂₀₀ 150 °C	150 °C

(1) At the process connection.

1.15 Partition wall

Partition wall between Zone 20 and Zone 21 (EPL Da/Db)

- Material:
 - Stainless steel
- Thickness:
 - Min. 1 mm
- Expected lifetime under constant vibrational stress:
 - 20 years (depending on application and ambient conditions)

Note

In case of high flow rate of abrasive dust measures shall be provided to mitigate potential abrasion at the partition wall.

1.16 EU Declaration of Conformity

Figure 1-1: EU Declaration of Conformity

	<h2 style="margin: 0;">EU Declaration of Conformity</h2> <p style="margin: 0;">No: RMD 1148 Rev. E</p>	
<p>We,</p> <p style="margin-left: 40px;">Rosemount Tank Radar AB Layoutvägen 1 S-435 33 MÖLNLYCKE Sweden</p> <p>declare under our sole responsibility that the product,</p> <p style="margin-left: 40px;">Rosemount™ 2511 Solids Level Switch – Vibrating Fork</p> <p>manufactured by,</p> <p style="margin-left: 40px;">Rosemount Tank Radar AB Layoutvägen 1 S-435 33 MÖLNLYCKE Sweden</p> <p>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.</p> <p>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.</p>		
 <hr style="border: 0; border-top: 1px solid black;"/> <p>(signature)</p>	<p>Manager Product Approvals</p> <hr style="border: 0; border-top: 1px solid black;"/> <p>(function)</p>	
<p>Dajana Prastalo</p> <hr style="border: 0; border-top: 1px solid black;"/> <p>(name)</p>	<p>13-Sep-22;</p> <hr style="border: 0; border-top: 1px solid black;"/> <p>(date of issue)</p>	
<p>Page 1 of 3</p>		



EU Declaration of Conformity

No: RMD 1148 Rev. E



EMC Directive (2014/30/EU)

All Models

Harmonized Standards: EN 61326:2013

LV Directive (2014/35/EU)

All Models

Harmonized Standards: EN 61010-1:2010/A1:2019

ATEX Directive (2014/34/EU)

Rosemount 2511*****ND*

BVS 19 ATEX E 074

Equipment Group II, Category 1/2 D (Ex ta/tb IIIC T* Da/Db)

Harmonized Standards: EN 60079-0:2018, EN 60079-26:2021,
EN 60079-31:2022

RoHS Directive (2011/65/EU)

All Models

Harmonized Standard: EN IEC 63000:2018

The Model 2511 is in conformity with Directive 2011/65/EU of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

(Minor variations in design to suit the application and/or mounting requirements are identified by alpha/numeric characters where indicated * above)



EU Declaration of Conformity

No: RMD 1148 Rev. E

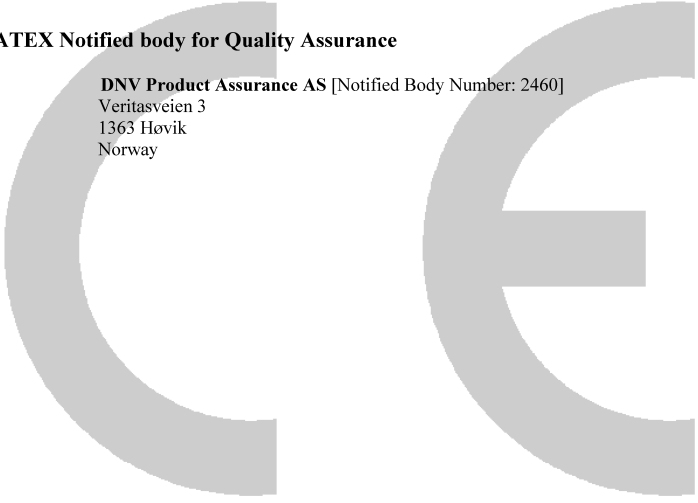


ATEX Directive Notified Body

DEKRA Testing and Certification GmbH [Notified Body Number: 0158]
Dinnendahlstr. 9, 44809 Bochum
Germany

ATEX Notified body for Quality Assurance

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



1.17 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 Rosemount 2511
List of Rosemount 2511 Parts with China RoHS Concentration above MCVs

部件名称 Part Name	有害物质 / Hazardous Substances					
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr +6)	多溴联苯 Polybrominated biphenyls (PBB)	多溴联苯醚 Polybrominated diphenyl ethers (PBDE)
电子组件 Electronics Assembly	X	O	X	O	O	O
壳体组件 Housing Assembly	X	O	O	O	O	O
过程连接/扩展部件 Process Connection / Extension	X	O	O	O	O	O

本表格系依据 SJ/T11364 的规定而制作。

This table is proposed in accordance with the provision of SJ/T11364.

O: 意为该部件的所有均质材料中该有害物质的含量均低于GB/T 26572所规定的限量要求。

O: Indicate that said hazardous substance in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.

X: 意为在该部件所使用的所有均质材料里，至少有一类均质材料中该有害物质的含量高于GB/T 26572所规定的限量要求。

X: Indicate that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.



Product Certifications
00825-0200-2511, Rev. AD
March 2024

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

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