

Rosemount™ 2535 Solids Level Switches

Vibrating Rod



1 Product certifications

Rev 3.8

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	FM20US0089
Standards	FM Class 3810:2018; ANSI/ISA 61010-1:2012; ANSI/NEMA® 250:2003; 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	FM20US0089
Standards	FM Class 3600:2018; FM Class 3616:2011; FM Class 3810:2018; ANSI/ISA 61010-1:2012 ; ANSI/NEMA 250:2003; ANSI/IEC 60529:2004
Markings	DIP Class II/III, Division 1, Groups E, F, and G T4A Ta = -40 °C to +60 °C Type 4X/IP67

Safety Instructions:

See [Safety instructions for hazardous area](#)

1.4 Canada

1.4.1 KZ Ordinary Location certification

Certificate	FM20CA0038
Standards	CSA-C22.2 No. 0-10:R2015; CSA-C22.2 No. 0.4:R2013; CSA-C22.2 No. 0.5:R2012; CSA-C22.2 No. 94:R2011; CSA-C22.2 No. 60529:R2010; CAN/CSA-C22.2 No. 61010-1:2012
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	FM20CA0038
Standards	CSA-C22.2 No. 0-10:R2015; CSA-C22.2 No. 0.4:R2013; CSA-C22.2 No. 0.5:R2012; CSA-C22.2 No. 25:R2014; CSA-C22.2 No. 94:R2011; CSA-C22.2 No. 60529:R2010; CAN/CSA-C22.2 No. 61010-1:2012
Markings	DIP: Class II/III, Division 1, Groups E,F, and G T4A Ta = -40 °C to +60 °C Type 4X/IP67

Safety Instructions:

See [Safety instructions for hazardous area](#)

1.5 Europe

1.5.1 ND ATEX Dust certification

Certificate	BVS 19 ATEX E 075X
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 1-1

Specific Conditions of Use:

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

Safety Instructions:

See [Safety instructions for hazardous area](#)

1.6 International**1.6.1 NK IECEx Dust certification**

Certificate	IECEX BVS 19.0071X
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 1-1

Specific Conditions of Use:

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

Safety Instructions:

See [Safety instructions for hazardous area](#)

1.7 Republic of Korea**1.7.1 EP KTL Dust Certificate**

Please contact manufacturer for further details.

1.8 Brazil**1.8.1 NR INMETRO Dust Certification (DIP)**

Certificate	UL-BR 20.1138X
Standards	ABNT NBR IEC 60079-0, ABNT NBR IEC 60079-26, ABNT NBR IEC 60079-31
Markings	Ex ta/tb IIIC T*C Da/Db
Temperature	See Table 1-1

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 2535 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 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 Thermal data (ATEX, IECEx)

Table 1-1: Thermal data

Permitted ambient temperature (EPL Db) ⁽¹⁾	Maximum process temperature (EPL Da)	Maximum surface temperature (EPL Da)	Maximum surface temperature (EPL Db) ⁽²⁾
-40 °C...+60 °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 electronic enclosure.

(2) At the process connection.

The maximum surface temperature of the electronic enclosure with a thermal fuse is 120 °C.

Permitted temperature at sensor extension, process connection is -40 to 150 °C.

1.13 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.

1.14 EU Declaration of Conformity

Figure 1-1: EU Declaration of Conformity

	EU Declaration of Conformity	
EMERSON		No: RMD 1149 Rev. E
<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™ 2535 Solids Level Switch – Vibrating Rod</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/> (signature)	<hr/> Manager Product Approvals (function)	
<hr/> Dajana Prastalo (name)	<hr/> 13-Sep-22; (date of issue)	
Page 1 of 3		



EU Declaration of Conformity



No: RMD 1149 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 2535*****ND*

BVS 19 ATEX E 075

Equipment Group II, Category 1/2 D (Ex ta/tb IIIC T°C 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 2535 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 1149 Rev. E

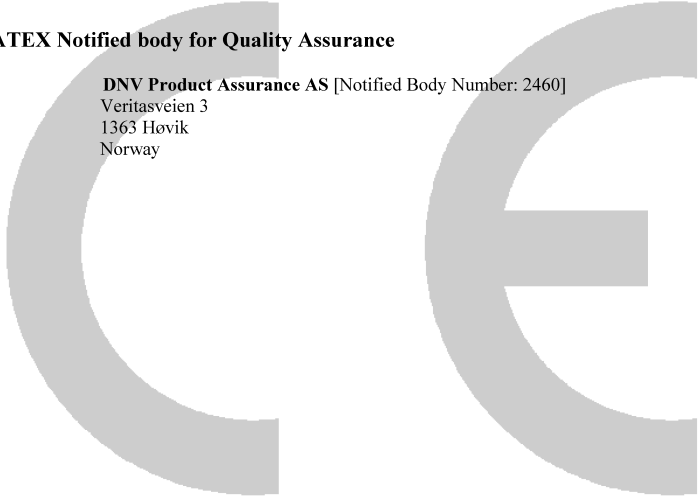


ATEX Directive Notified Body

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



1.15 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 Rosemount 2535
List of Rosemount 2535 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
00825-0200-2535, Rev. AD
October 2024

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