

# Rosemount™ 5300 Level Transmitter

## Guided Wave Radar



# 1 Product certifications

Rev 11.28

## 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 Safety Instrumented Systems (SIS)

SIL 3 Capable: IEC 61508 certified for use in safety instrumented systems up to SIL 3 (Minimum requirement of single use (1oo1) for SIL 2 and redundant use (1oo2) for SIL 3).

## 1.3 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).

## 1.4 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.

## 1.5 USA

### 1.5.1 E5 Explosionproof, Dust-Ignitionproof

<b>Certificate</b>	FM16US0444X
<b>Standards</b>	FM Class 3600 – 2022; FM Class 3610 – 2010; FM Class 3611 – 2004; FM Class 3615 – 2006; FM Class 3810 – 2005; ANSI/ISA 60079-0 – 2013; ANSI/ISA 60079-11 – 2012; ANSI/NEMA® 250 – 1991
<b>Markings</b>	XP CL I, DIV 1, GP B, C, D; DIP CLII/III, DIV 1, GP E, F, G; T4; -50 °C ≤ Ta ≤ 60 °C (FIELDBUS) / 70 °C (HART®); Type 4X

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

1. WARNING – Potential Electrostatic Charging Hazard – The enclosure contains non-metallic material. To prevent the risk for electrostatic sparking the plastic surface should only be cleaned with a damp cloth.
2. WARNING – The apparatus enclosure contains aluminum and is considered to constitute a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction.
3. With the Operating Temperature and Pressure code P, the installer shall consider the effect of process temperature and ensure that the maximum specified ambient temperature of +70°C for HART (+60°C for Fieldbus) is not exceeded at process temperatures of up to +260°C (+500°F).

**1.5.2 I5 Intrinsic Safety, Nonincendive**

<b>Certificate</b>	FM16US0444X
<b>Standards</b>	FM Class 3600 – 2022; FM Class 3610 – 2010; FM Class 3611 – 2004; FM Class 3615 – 2006; FM Class 3810 – 2005; ANSI/ISA 60079-0 – 2013; ANSI/ISA 60079-11 – 2012; ANSI/NEMA 250 – 1991
<b>Markings</b>	IS CL I, II, III, DIV 1, GP A, B, C, D, E, F, G in accordance with control drawing 9240030-936; IS (Entity) CL I, Zone 0, AEx ia IIC T4 in accordance with control drawing 9240030-936, NI CL I, II, III DIV 2, GP A, B, C, D, F, G; T4; -50 °C ≤ Ta ≤ 60 °C (FIELDBUS) / 70 °C (HART®); Type 4X

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

1. WARNING – Potential Electrostatic Charging Hazard – The enclosure contains non-metallic material. To prevent the risk for electrostatic sparking the plastic surface should only be cleaned with a damp cloth.
2. WARNING – The apparatus enclosure contains aluminum and is considered to constitute a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction.
3. With the Operating Temperature and Pressure code P, the installer shall consider the effect of process temperature and ensure that the maximum specified ambient temperature of +70°C for HART (+60°C for Fieldbus) is not exceeded at process temperatures of up to +260°C (+500°F).

	Ui	Ii	Pi	Ci	Li
Entity parameters HART	30 V	130 mA	1 W	7.26 nF	0
Entity parameters Fieldbus	30 V	300 mA	1.3 W	0	0

### 1.5.3 IE FISCO

<b>Certificate</b>	FM16US0444X
<b>Standards</b>	FM Class 3600 – 2022; FM Class 3610 – 2010; FM Class 3611 – 2004; FM Class 3615 – 2006; FM Class 3810 – 2005; ANSI/ISA 60079-0 – 2013; ANSI/ISA 60079-11 – 2012; ANSI/NEMA 250 – 1991
<b>Markings</b>	IS CL I, II, III, DIV 1, GP A, B, C, D, E, F, G; T4; in accordance with control drawing 9240030-936; IS CL I, Zone 0 AEx ia IIC T4 in accordance with control drawing 9240030-936; -50 °C ≤ Ta ≤ 60 °C; Type 4X

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

1. WARNING – Potential Electrostatic Charging Hazard – The enclosure contains non-metallic material. To prevent the risk for electrostatic sparking the plastic surface should only be cleaned with a damp cloth.
2. WARNING – The apparatus enclosure contains aluminum and is considered to constitute a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction.
3. With the Operating Temperature and Pressure code P, the installer shall consider the effect of process temperature and ensure that the maximum specified ambient temperature of +70°C for HART® (+60°C for Fieldbus) is not exceeded at process temperatures of up to +260°C (+500°F).

	Ui	Ii	Pi	Ci	Li
FISCO parameters	17.5 V	380 mA	5.32 W	0	0

## 1.6 Canada

### 1.6.1 E6 Explosionproof, Dust-Ignitionproof

<b>Certificate</b>	CSA04CA1514653
<b>Standards</b>	CSA C22.2 No. 25-1966, CSA C22.2 No. 30-2020, CSA C22.2 No. 94.2-2020, CSA C22.2 No. 142-M1987, CAN/CSA C22.2 No. 60079-0:2019, CAN/CSA C22.2 No. 60079-11:2014 (R2018), CAN/CSA C22.2 No. 60529:05, ANSI/ISA 12.27.01-2003
<b>Markings</b>	Explosionproof CL I, DIV 1, GP B, C, D, T4; Dust-Ignitionproof CL II, DIV 1, GP E, F, G and coal dust, CL III, DIV 1 & 2, Type 4X/IP66/IP67, Amb. Temp. Limits: For Fieldbus and FISCO: -50°C to +60°C, For HART®: -50°C to +70°C, Dual Seal, Maximum Working Pressure 5000 psi. see installation drawing 9240030-937

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

1. The intrinsically safe circuits do not withstand the 500V AC test as specified in CSA C22.2 No.60079-11 clause 6.3.13.
2. ½" NPT threads need to be sealed for dust and water ingress protection, IP66, IP67.

### 1.6.2 I6 Intrinsically Safe Systems

<b>Certificate</b>	CSA04CA1514653
<b>Standards</b>	CSA C22.2 No. 25-1966, CSA C22.2 No. 30-2020, CSA C22.2 No. 94.2-2020, CSA C22.2 No. 142-M1987, CAN/CSA C22.2 No. 60079-0:2019, CAN/CSA C22.2 No. 60079-11:2014 (R2018), CAN/CSA C22.2 No. 60529:05, ANSI/ISA 12.27.01-2003
<b>Markings</b>	IS, CL I, DIV 1, GP A, B, C, D, T4, Type 4X/IP66/IP67, Amb. Temp. Limits: For Fieldbus and FISCO: -50°C to +60°C, For HART®: -50°C to +70°C, Dual Seal, Maximum Working Pressure 5000 psi. see installation drawing 9240030-937

	Ui	Ii	Pi	Ci	Li
Entity parameters HART model HART input rated 4-20mA, 42Vdc	30 V	130 mA	1 W	7.26 nF	0

	Ui	Ii	Pi	Ci	Li
Entity parameters Fieldbus model Fieldbus input rated 21mA, 32Vdc	30 V	300 mA	1.3 W	0	0

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

1. The intrinsically safe circuits do not withstand the 500V AC test as specified in CSA C22.2 No.60079-11 clause 6.3.13.
2. ½” NPT threads need to be sealed for dust and water ingress protection, IP66, IP67.

**1.6.3 IF FISCO**

<b>Certificate</b>	CSA04CA1514653
<b>Standards</b>	CSA C22.2 No. 25-1966, CSA C22.2 No. 30-2020, CSA C22.2 No. 94.2-2020, CSA C22.2 No. 142-M1987, CAN/CSA C22.2 No. 60079-0:2019, CAN/CSA C22.2 No. 60079-11:2014 (R2018), CAN/CSA C22.2 No. 60529:05, ANSI/ISA 12.27.01-2003
<b>Markings</b>	IS, CL I, DIV 1, GP A, B, C, D, T4, Type 4X/IP66/ IP67, Amb. Temp. Limits: For Fieldbus and FISCO: -50°C to +60°C, For HART®: -50°C to +70°C, Dual Seal, Maximum Working Pressure 5000 psi. see installation drawing 9240030-937

	Ui	Ii	Pi	Ci	Li
FISCO parameters model FISCO input rated 21mA, 15Vdc	17.5 V	380 mA	5.32 W	0	0

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

1. The intrinsically safe circuits do not withstand the 500V AC test as specified in CSA C22.2 No.60079-11 clause 6.3.13.
2. ½” NPT threads need to be sealed for dust and water ingress protection, IP66, IP67.

## 1.7 Europe

### 1.7.1 E1 ATEX Flameproof

<b>Certificate</b>	Nemko 04ATEX1073X
<b>Standards</b>	EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-11:2012, EN 60079-26:2015, EN 60079-31:2014
<b>Markings</b>	<p>⊕ II 1/2G Ex db ia IIC T4 Ga/Gb, -55 °C ≤ Ta ≤ +60 °C (FIELDBUS) /+70 °C (HART®)</p> <p>⊕ II 1D Ex ta IIIC T<sub>200</sub>69 °C (FIELDBUS) /T<sub>200</sub>79 °C (HART) Da -40 °C ≤ Ta ≤ +60 °C (FIELDBUS) /+70 °C (HART)</p> <p>Um = 250 V</p>

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

1. Potential ignition hazards by impact or friction need to be considered according to EN IEC 60079-0:2018 clause 8.3 (for EPL Ga and EPL Gb), and clause 8.4 (for EPL Da and EPL Db), when the transmitter enclosure and antennas exposed to the exterior atmosphere of the tank, is made with light metals containing aluminium or titanium. The end user shall determine the suitability with regard to avoid hazards from impact and friction.
2. Parts of the sensor probes, for type 5300, are non-conducting material covering metal surfaces. The area of the non-conducting part exceeds the maximum permissible areas for Group III according to EN IEC 60079-0: 2018 clause 7.4.3 Therefore, when the probe is used in a potentially explosive atmosphere group III, EPL Da, appropriate measures must be taken to prevent electrostatic discharge.
3. The painted transmitter housing is non-conducting and exceeds the maximum permissible areas for Group III according to EN IEC 60079-0: 2018 clause 7.4:3.. Therefore, when the probe is used in a potentially dust explosive atmosphere group III, appropriate measures must be taken to prevent electrostatic discharge (i.e. only clean with a damp cloth).
4. 1/2" NPT threads need to be sealed for dust and water ingress protection, IP 66, IP 67 or "Ex t". EPL Da or Db is required.

## 1.7.2 I1 ATEX Intrinsic Safety

<b>Certificate</b>	Nemko 04ATEX1073X
<b>Standards</b>	EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-11:2012, EN 60079-26:2015, EN 60079-31:2014
<b>Markings</b>	<p>⊕ II 1G Ex ia IIC T4 Ga -55 °C ≤ Ta ≤ +60 °C (FIELDBUS) /+70 °C (HART®)</p> <p>⊕ II 1D Ex ia IIIC T<sub>200</sub>69 °C/T<sub>200</sub>79 °C Da, -50 °C ≤ Ta ≤ +60 °C (FIELDBUS) /+70 °C (HART)</p>

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

1. The intrinsically safe circuits do not withstand the 500V AC test as specified in EN 60079-11:2012 clause 6.3.13.
2. Potential ignition hazards by impact or friction need to be considered according to EN IEC 60079-0:2018 clause 8.3 (for EPL Ga and EPL Gb), and clause 8.4 (for EPL Da and EPL Db), when the transmitter enclosure and antennas exposed to the exterior atmosphere of the tank, is made with light metals containing aluminium or titanium. The end user shall determine the suitability with regard to avoid hazards from impact and friction.
3. Parts of the sensor probes, for type 5300, are non-conducting material covering metal surfaces. The area of the non-conducting part exceeds the maximum permissible areas for Group III according to EN IEC 60079-0: 2018 clause 7.4.3 Therefore, when the antenna is used in a potentially explosive atmosphere group III, EPL Da, appropriate measures must be taken to prevent electrostatic discharge.
4. The painted transmitter housing is non-conducting and exceeds the maximum permissible areas for Group III according to EN IEC 60079-0: 2018 clause 7.4:3. Therefore, when the probe is used in a potentially dust explosive atmosphere group III, appropriate measures must be taken to prevent electrostatic discharge (i.e. only clean with a damp cloth).
5. 1/2" NPT threads need to be sealed for dust and water ingress protection, IP 66, IP 67 or "Ex t". EPL Da or Db is required.



	Ui	Ii	Pi	Ci	Li
Entity parameters HART	30 V	130 mA	1 W	7.26 nF	0
Entity parameters Fieldbus	30 V	300 mA	1.5 W	4.95 nF	0

### 1.7.3 IA ATEX FISCO

<b>Certificate</b>	Nemko 04ATEX1073X
<b>Standards</b>	EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-11:2012, EN 60079-26:2015, EN 60079-31:2014
<b>Markings</b>	<p>⊕ II 1G Ex ia IIC T4 Ga (-55 °C ≤ Ta ≤ +60 °C) or</p> <p>⊕ II 1/2G Ex ia/ib IIC T4 Ga/Gb (-55 °C ≤ Ta ≤ +60 °C)</p> <p>⊕ II 1D Ex ia IIIC T<sub>200</sub>69 °C Da, (-50 °C ≤ Ta ≤ +60 °C)</p> <p>⊕ II 1D Ex ia/ib IIIC T<sub>200</sub>69 °C Da/Db, (-50 °C ≤ Ta ≤ +60 °C)</p>

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

1. The intrinsically safe circuits do not withstand the 500V AC test as specified in EN 60079-11:2012 clause 6.3.13.
2. Potential ignition hazards by impact or friction need to be considered according to EN IEC 60079-0:2018 clause 8.3 (for EPL Ga and EPL Gb), and clause 8.4 (for EPL Da and EPL Db), when the transmitter enclosure and antennas exposed to the exterior atmosphere of the tank, is made with light metals containing aluminium or titanium. The end user shall determine the suitability with regard to avoid hazards from impact and friction.
3. Parts of the sensor probes, for type 5300, are non-conducting material covering metal surfaces. The area of the non-conducting part exceeds the maximum permissible areas for Group III according to EN IEC 60079-0: 2018 clause 7.4.3 Therefore, when the antenna is used in a potentially explosive atmosphere group III, EPL Da, appropriate measures must be taken to prevent electrostatic discharge.
4. The painted transmitter housing is non-conducting and exceeds the maximum permissible areas for Group III according to EN IEC 60079-0: 2018 clause 7.4:3.. Therefore,

when the probe is used in a potentially dust explosive atmosphere group III, appropriate measures must be taken to prevent electrostatic discharge (i.e. only clean with a damp cloth).

5. The Ex ia version of model 5300 FISCO device may be supplied by an "Ex ib" FISCO power supply, when the power supply is certified with three separate safety current limiting devices and voltage limitation which meets the requirements for type Ex ia.
6. 1/2" NPT threads need to be sealed for dust and water ingress protection, IP 66, IP 67 or "Ex t". EPL Da or Db is required.

	Ui	Ii	Pi	Ci	Li
FISCO parameters	17.5 V	380 mA	5.32 W	4.95 nF	<1 µH

### 1.7.4 N1 ATEX Increased Safety

- Certificate** Nemko 10ATEX1072X
- Standards** EN IEC 60079-0:2018, EN 60079-11:2012, EN 60079-7:2015, EN 60079-31:2014
- Markings**
  - ⊕ II 3G Ex ec ic IIC T4 Gc
  - ⊕ II 3G Ex ic IIC T4 Gc
  - ⊕ II 3D Ex tc IIIC T69 °C (FIELDBUS) /T79 °C (HART®) Dc -50 °C ≤ Ta ≤ +60 °C (FIELDBUS) /+70 °C (HART)

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

1. The transmitter circuits do not withstand 500V AC dielectric strength test according to EN 60079-11 clause 6.3.13 due to earth connected transient suppressing devices. Appropriate measures have to be considered by installation.

	Ui	Ii	Pi	Ci	Li
Safety parameters HART	42.4 V	23 mA	1 W	7.25 nF	Negligible
Safety parameters Fieldbus	32 V	21 mA	0.7 W	4.95 nF	Negligible

## 1.8 International

### 1.8.1 E7 IECEx Flameproof

<b>Certificate</b>	IECEx NEM 06.0001X
<b>Standards</b>	IEC 60079-0:2017, IEC 60079-1:2014-06, IEC 60079-11:2011, IEC 60079-26:2014, IEC 60079-31:2013
<b>Markings</b>	Ex db ia IIC T4 Ga/Gb -55 °C ≤ Ta ≤ +60 °C (FIELDBUS) /+70 °C (HART®) Ex ta IIIC T <sub>200</sub> 69 °C (FIELDBUS) /T <sub>200</sub> 79 °C (HART) Da -40 °C ≤ Ta ≤ +60 °C (FIELDBUS) /+70 °C (HART) Um=250 VAC, IP66/IP67

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

1. Potential ignition hazards by impact or friction need to be considered according to IEC 60079-0:2017 clause 8.3 (for EPL Ga and EPL Gb), and clause 8.4 (for EPL Da and EPL Db), when the transmitter enclosure and antennas exposed to the exterior atmosphere of the tank, is made with light metals containing aluminium or titanium. The end user shall determine the suitability with regard to avoid hazards from impact and friction.
2. Parts of the sensor probes for type 5300 are non-conducting material covering metal surfaces and the area of the non-conducting part exceeds the maximum permissible areas for Group III according to IEC 60079-0: 2017 clause 7.4:3 Therefore, when the antenna is used in a potentially explosive atmosphere group III, EPL Da, appropriate measures must be taken to prevent electrostatic discharge.
3. The painted transmitter housing is non-conducting and exceeds the maximum permissible areas for Group III according to IEC 60079-0: 2017 clause 7.4:3. Therefore, when the probe is used in a potentially dust explosive atmosphere group III, appropriate measures must be taken to prevent electrostatic discharge (i.e. only clean with a damp cloth).
4. 1/2" NPT threads need to be sealed for dust and water ingress protection, IP 66, IP 67 or "Ex t". EPL Da or Db is required.

### 1.8.2 I7 IECEx Intrinsic Safety

<b>Certificate</b>	IECEX NEM 06.0001X
<b>Standards</b>	IEC 60079-0:2017, IEC 60079-1:2014-06, IEC 60079-11:2011, IEC 60079-26:2014, IEC 60079-31:2013
<b>Markings</b>	Ex ia IIC T4 Ga -55 °C ≤ Ta ≤ +60 °C (FIELDBUS) /+70 °C (HART®) Ex ia IIIC T <sub>200</sub> 69 °C/T <sub>200</sub> 79 °C Da -50 °C ≤ Ta ≤ +60 °C (FIELDBUS) /+70 °C (HART)

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

1. The intrinsically safe circuits do not withstand the 500V AC test as specified in IEC 60079-11 clause 6.3.13.
2. Potential ignition hazards by impact or friction need to be considered according to IEC 60079-0:2017 clause 8.3 (for EPL Ga and EPL Gb), and clause 8.4 (for EPL Da and EPL Db), when the transmitter enclosure and antennas exposed to the exterior atmosphere of the tank, is made with light metals containing aluminium or titanium. The end user shall determine the suitability with regard to avoid hazards from impact and friction.
3. Parts of the sensor probes for type 5300 are non-conducting material covering metal surfaces and the area of the non-conducting part exceeds the maximum permissible areas for Group III according to IEC 60079-0: 2017 clause 7.4:3 Therefore, when the antenna is used in a potentially explosive atmosphere group III, EPL Da, appropriate measures must be taken to prevent electrostatic discharge.
4. The painted transmitter housing is non-conducting and exceeds the maximum permissible areas for Group III according to IEC 60079-0: 2017 clause 7.4:3. Therefore, when the probe is used in a potentially dust explosive atmosphere group III, appropriate measures must be taken to prevent electrostatic discharge (i.e. only clean with a damp cloth).
5. 1/2" NPT threads need to be sealed for dust and water ingress protection, IP 66, IP 67 or "Ex t". EPL Da or Db is required.

	Ui	Ii	Pi	Ci	Li
Entity parameters HART	30 V	130 mA	1 W	7.26 nF	Negligible

	Ui	Ii	Pi	Ci	Li
Entity parameters Fieldbus	30 V	300 mA	1.5 W	4.95 nF	Negligible

### 1.8.3 IG IECEx FISCO

<b>Certificate</b>	IECEx NEM 06.0001X
<b>Standards</b>	IEC 60079-0:2017, IEC 60079-1:2014-06, IEC 60079-11:2011, IEC 60079-26:2014, IEC 60079-31:2013
<b>Markings</b>	Ex ia IIC T4 Ga (-55 °C ≤ Ta ≤ +60 °C) Ex ia/ib IIC T4 Ga/Gb (-55 °C ≤ Ta ≤ +60 °C) Ex ia IIIC T <sub>200</sub> 69 °C Da (-50 °C ≤ Ta ≤ +60 °C) Ex ia/ib IIIC T <sub>200</sub> 69 °C Da/Db (-50 °C ≤ Ta ≤ +60 °C)

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

1. The intrinsically safe circuits do not withstand the 500V AC test as specified in IEC 60079-11 clause 6.3.13.
2. Potential ignition hazards by impact or friction need to be considered according to IEC 60079-0:2017 clause 8.3 (for EPL Ga and EPL Gb), and clause 8.4 (for EPL Da and EPL Db), when the transmitter enclosure and antennas exposed to the exterior atmosphere of the tank, is made with light metals containing aluminium or titanium. The end user shall determine the suitability with regard to avoid hazards from impact and friction.
3. Parts of the sensor probes for type 5300 are non-conducting material covering metal surfaces and the area of the non-conducting part exceeds the maximum permissible areas for Group III according to IEC 60079-0: 2017 clause 7.4:3 Therefore, when the antenna is used in a potentially explosive atmosphere group III, EPL Da, appropriate measures must be taken to prevent electrostatic discharge.
4. The painted transmitter housing is non-conducting and exceeds the maximum permissible areas for Group III according to IEC 60079-0: 2017 clause 7.4:3. Therefore, when the probe is used in a potentially dust explosive atmosphere group III, appropriate measures must be taken to prevent electrostatic discharge (i.e. only clean with a damp cloth).
5. The Ex ia version of model 5300 FISCO field device may be supplied by an [Ex ib] FISCO power supply when the power

supply is certified with three separate safety current limiting devices and voltage limitation which meets the requirements for type Ex ia.

6. ½" NPT threads need to be sealed for dust and water ingress protection, IP 66, IP 67 or "Ex t", EPL Da or Db is required.

	Ui	Ii	Pi	Ci	Li
FISCO parameters	17.5 V	380 mA	5.32 W	4.95 nF	<1 µH

### 1.8.4 N7 IECEx Increased Safety

- Certificate** IECEx NEM 10.0005X
- Standards** IEC 60079-0:2017, IEC 60079-11:2011, IEC 60079-7:2017, IEC 60079-31:2013
- Markings** Ex ec ic IIC T4 Gc  
Ex ic IIC T4 Gc  
Ex tc IIIC T69 °C (FIELDBUS) /T79 °C (HART®) Dc  
-50 °C ≤ Ta ≤ +60 °C (FIELDBUS) /+70 °C (HART)

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

1. The transmitter circuits do not withstand 500V AC dielectric strength test according to EN 60079-11 clause 6.3.13 due to earth connected transient suppressing devices. Appropriate measures have to be considered by installation.

	Ui	Ii	Pi	Ci	Li
Safety parameters HART	42.4 V	23 mA	1 W	7.25 nF	Negligible
Safety parameters Fieldbus	32 V	21 mA	0.7 W	4.95 nF	Negligible

## 1.9 Brazil

### 1.9.1 E2 INMETRO Flameproof

- Certificate** UL-BR 17.0188X (Sweden)
- Standards** ABNT NBR IEC 60079-0, ABNT NBR IEC 60079-1, ABNT NBR IEC 60079-11, ABNT NBR IEC 60079-26, ABNT NBR IEC 60079-31
- Markings** Ex db ia IIC T4 Ga/Gb (-55 °C ≤ T<sub>amb</sub> ≤ +60 °C /+70 °C)

Ex ta IIIC T<sub>200</sub>69 °C/T<sub>200</sub>79 °C Da (-40 °C ≤ T<sub>amb</sub> ≤ +60 °C /+70 °C)  
 Um=250 V<sub>ac</sub>, IP66/67

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

1. See certificate for Specific Conditions.

**1.9.2 I2 INMETRO Intrinsic Safety**

**Certificate** UL-BR 17.0188X (Sweden)  
**Standards** ABNT NBR IEC 60079-0, ABNT NBR IEC 60079-11, ABNT NBR IEC 60079-26, ABNT NBR IEC 60079-31  
**Markings** Ex ia IIC T4 Ga (-55 °C ≤ T<sub>amb</sub> ≤ +60 °C /+70 °C)  
 Ex ia IIIC T<sub>200</sub>69 °C/T<sub>200</sub>79 °C Da (-50 °C ≤ T<sub>amb</sub> ≤ +60 °C/+70 °C)

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

1. See certificate for Specific Conditions.

	Ui	Ii	Pi	Ci	Li
Entity parameters HART®	30 V <sub>dc</sub>	130 mA	1.0 W	7.26 nF	Negligible
Entity parameters Fieldbus	30 V <sub>dc</sub>	300 mA	1.5 W	4.95 nF	Negligible

**1.9.3 IB INMETRO FISCO**

**Certificate** UL-BR 17.0188X (Sweden)  
**Standards** ABNT NBR IEC 60079-0, ABNT NBR IEC 60079-11, ABNT NBR IEC 60079-26, ABNT NBR IEC 60079-31  
**Markings** Ex ia IIC T4 Ga (-55 °C ≤ T<sub>amb</sub> ≤ +60 °C)  
 Ex ia/ib IIC T4 Ga/Gb (-55 °C ≤ T<sub>amb</sub> ≤ +60 °C)  
 Ex ia IIIC T<sub>200</sub>69 °C Da (-50 °C ≤ T<sub>amb</sub> ≤ +60 °C)  
 Ex ia/ib IIIC T<sub>200</sub>69 °C Da/Db (-50 °C ≤ T<sub>amb</sub> ≤ +60 °C)

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

1. See certificate for Specific Conditions.

	Ui	Ii	Pi	Ci	Li
FISCO parameters	17.5 V <sub>dc</sub>	380 mA	5.32 W	4.95 nF	<1 μH

## 1.10 China

### 1.10.1 E3 China Flameproof

<b>Certificate</b>	GYJ20.1621X
<b>Standards</b>	GB 3836.1/2/4/20-2010, GB 12476.1/5-2013, GB 12476.4-2010
<b>Markings</b>	Ex d ia IIC T4 Ga/Gb (-55 °C ≤ Ta ≤ +60 °C/+70 °C) Ex tD A20 IP 66/67 T69 °C /T79 °C (-40 °C ≤ Ta ≤ +60 °C/+70 °C)

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

1. See certificate for Specific Conditions.

### 1.10.2 I3 China Intrinsic Safety

<b>Certificate</b>	GYJ20.1621X
<b>Standards</b>	GB 3836.1/2/4/20-2010, GB 12476.1/5-2013, GB 12476.4-2010
<b>Markings</b>	Ex ia IIC T4 Ga (-55 °C ≤ Ta ≤ +60 °C/+70 °C) Ex iaD 20 T69 °C /T79 °C (-50 °C ≤ Ta ≤ +60 °C/+70 °C)

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

1. See certificate for Specific Conditions.

	Ui	Ii	Pi	Ci	Li
Entity parameters HART®	30 V	130 mA	1 W	7.26 nF	0 mH
Entity parameters Fieldbus	30 V	300 mA	1.5 W	4.95 nF	0 mH

### 1.10.3 IC China FISCO

<b>Certificate</b>	GYJ20.1621X
<b>Standards</b>	GB 3836.1/2/4/20-2010, GB 12476.4/5-2013, GB 12476.1-2010
<b>Markings</b>	Ex ia IIC T4 Ga (-55 °C ≤ Ta ≤ +60 °C) Ex ia/ib IIC T4 Ga/Gb (-55 °C ≤ Ta ≤ +60 °C) Ex iaD 20 T69 (-50 °C ≤ Ta ≤ +60 °C) Ex iaD/ibD 20/21 T69 °C (-50 °C ≤ Ta ≤ +60 °C)



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

1. See certificate for Specific Conditions.

	Ui	Ii	Pi	Ci	Li
FISCO parameters	17.5 V	380 mA	5.32 W	4.95 nF	<0.001 mH

**1.11 Technical Regulations Customs Union (EAC)**

TR CU 020/2011 “Electromagnetic Compatibility of Technical Products”



TR CU 012/2011 “On safety of equipment intended for use in explosive atmospheres”

**1.11.1 EM Technical Regulations Customs Union (EAC) Flameproof**

- Certificate** EAЭC KZ.7500525.01.01.00712
- Markings** Ga/Gb Ex db ia IIC T4 X, (-55 °C ≤ Ta ≤ +60 °C/+70 °C)  
 Ex ta IIIC T<sub>200</sub>69 °C/T<sub>200</sub>79 °C Da X (-40 °C ≤ Ta ≤ +60 °C/+70 °C)

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

1. See certificate for Specific Conditions.

**1.11.2 IM Technical Regulations Customs Union (EAC) Intrinsic Safety**

- Certificate** EAЭC KZ.7500525.01.01.00712
- Markings** 0Ex ia IIC T4 Ga X, (-55 °C ≤ Ta ≤ +60 °C/+70 °C)  
 Ex ia IIIC T<sub>200</sub>69/T<sub>200</sub>79 °C Da X, (-50 °C ≤ Ta ≤ +60 °C/+70 °C)

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

1. See certificate for Specific Conditions.

	Ui	Ii	Pi	Ci	Li
Entity parameters HART®	30 V	130 mA	1 W	7.26 nF	0 mH
Entity parameters Fieldbus	30 V	300 mA	1.5 W	4.95 nF	0 mH

### 1.11.3 IN Technical Regulations Customs Union (EAC) FISCO

<b>Certificate</b>	EAЭC KZ.7500525.01.01.00712
<b>Markings</b>	0Ex ia IIC T4 Ga X, (-55 °C ≤ Ta ≤ +60 °C) Ga/Gb Ex ia/ib IIC T4 X, (-55 °C ≤ Ta ≤ +60 °C) Ex ia IIIC T <sub>200</sub> 69 °C Da X, (-50 °C ≤ Ta ≤ +60 °C) Ex ia/ib IIIC T <sub>200</sub> 69 °C Da/Db X, (-50 °C ≤ Ta ≤ +60 °C)

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

1. See certificate for Specific Conditions.

	Ui	Ii	Pi	Ci	Li
FISCO parameters	17.5 V	380 mA	5.32 W	4.95 nF	0 mH

## 1.12 Japan

### 1.12.1 E4 Flameproof

<b>Certificate</b>	CML 17JPN1334X
<b>Markings</b>	Ex db ia IIC T4 Ga/Gb (-55 °C ≤ Ta ≤ +60 °C/+70 °C)

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

1. See certificate for Specific Conditions.

## 1.13 Republic of Korea

### 1.13.1 EP Flameproof

<b>Certificate</b>	KTL 15-KB4BO-0297X, 13-KB4BO-0019X, KTL 12-KB4BO-0179X
<b>Markings</b>	Ex db ia IIC T4 Ga/Gb

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

1. See certificate for Specific Conditions.

### 1.13.2 IP Intrinsic Safety

<b>Certificate</b>	KTL 13-KB4BO-0209X, KTL 13-KB4BO-0210X
<b>Markings</b>	Ex ia IIC T4 Ga

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

1. See certificate for Specific Conditions.

	Ui	Ii	Pi	Ci	Li
Entity parameters HART®	30 V <sub>dc</sub>	130 mA	1 W	7.26 nF	Negligible
Entity parameters Fieldbus	30 V <sub>dc</sub>	300 mA	1.5 W	4.95 nF	Negligible

**1.14 India**

**1.14.1 EW Flameproof**

**Certificate** P543834/1

**Markings** Ex db ia IIC T4 Ga/Gb, -55 °C ≤ Ta ≤ +60 °C/+70 °C  
 Ex ta IIIC T<sub>200</sub>69 °C/T<sub>200</sub>79 °C Da, -40 °C ≤ Ta ≤ +60 °C/+70 °C

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

1. See certificate for Specific Conditions.

**1.14.2 IW Intrinsic Safety**

**Certificate** P543834/1

**Markings** Ex ia IIC T4 Ga, -55 °C ≤ Ta ≤ +60 °C/+70 °C  
 Ex ia IIIC T<sub>200</sub>69 °C/T<sub>200</sub>79 °C Da, -50 °C ≤ Ta ≤ +60 °C/+70 °C

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

1. See certificate for Specific Conditions.

**1.15 United Arab Emirates**

**1.15.1 Flame-proof**

**Certificate** 23-11-22694/Q23-11-048838/NB0002,  
 23-11-22710/Q23-11-048839/NB0002,  
 24-01-22812/Q23-11-048840/NB0002,  
 23-11-22737/Q23-12-048887/NB0002

**Markings** Same as IECEx (E7)

## 1.15.2 Intrinsic Safety

<b>Certificate</b>	23-11-22694/Q23-11-048838/NB0002, 23-11-22710/Q23-11-048839/NB0002, 24-01-22812/Q23-11-048840/NB0002, 23-11-22737/Q23-12-048887/NB0002
<b>Markings</b>	Same as IECEx (I7)

## 1.15.3 FISCO

<b>Certificate</b>	23-11-22694/Q23-11-048838/NB0002, 23-11-22710/Q23-11-048839/NB0002, 24-01-22812/Q23-11-048840/NB0002, 23-11-22737/Q23-12-048887/NB0002
<b>Markings</b>	Same as IECEx (IG)

## 1.15.4 Increased Safety

<b>Certificate</b>	23-11-22694/Q23-11-048838/NB0002, 23-11-22710/Q23-11-048839/NB0002, 24-01-22812/Q23-11-048840/NB0002, 23-11-22737/Q23-12-048887/NB0002
<b>Markings</b>	Same as IECEx (N7)

## 1.16 Ukraine

### 1.16.1 Flameproof, Intrinsically Safe

<b>Certificate</b>	UA.TR.047.C.0352-13
<b>Markings</b>	0 Ex ia IIC T4 X, 1 Ex d ia IIC T4 X

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

1. See certificate for Specific Conditions.

## 1.17 Uzbekistan

### 1.17.1 Safety (import)

<b>Certificate</b>	UZ.SMT.01.342.2017121
--------------------	-----------------------

## 1.18 Combinations

<b>KA</b>	Combination of E1, E5 and E6 <sup>(1)</sup>
<b>KB</b>	Combination of E1, E5 and E7

<b>KC</b>	Combination of E1, E6 and E7 <sup>(1)</sup>
<b>KD</b>	Combination of E5, E6 and E7 <sup>(1)</sup>
<b>KE</b>	Combination of I1, I5 and I6 <sup>(1)</sup>
<b>KF</b>	Combination of I1, I5 and I7
<b>KG</b>	Combination of I1, I6 and I7 <sup>(1)</sup>
<b>KH</b>	Combination of I5, I6 and I7 <sup>(1)</sup>
<b>KI</b>	Combination of IA, IE and IF <sup>(1)</sup>
<b>KJ</b>	Combination of IA, IE and IG
<b>KK</b>	Combination of IA, IF and IG <sup>(1)</sup>
<b>KL</b>	Combination of IE, IF and IG <sup>(1)</sup>

## 1.19 Marine Type Approvals

### 1.19.1 SBS American Bureau of Shipping (ABS) Type Approval

<b>Certificate</b>	22-2237973-PDA
<b>Intended Use</b>	For use on ABS Classed Vessels and Offshore Facilities in accordance with ABS rules and International Standards.

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#### Note

Housing material A, Aluminum, is not to be used on open decks.

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### 1.19.2 SBV Bureau Veritas (BV) Type Approval

<b>Certificate</b>	22378_C0 BV
<b>Requirements</b>	Bureau Veritas rules for classification of steel ships. EC Code: 41SB
<b>Application</b>	Class Notations: AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.

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#### Note

Housing material A, Aluminum, is not to be used on open decks.

---

### 1.19.3 SDN Det Norske Veritas (DNV) Type Approval

<b>Certificate</b>	TAA000020G
<b>Intended Use</b>	DNV rules for classification – Ships, offshore units, and high speed and light craft

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<sup>(1)</sup> The combinations do not come with Dual Seal.

**Table 1-1: Application**

Location classes	
Temperature	D
Humidity	B
Vibration	A
EMC	B
Enclosure	B/C*

**Note**

Housing material A, Aluminum, is not to be used on open deck (approved for Enclosure Class B).

Housing material S, Stainless Steel, approved for Enclosure Class C (open deck).

**1.19.4 SKR Korean Register (KR) Type Approval**

**Certificate** CPH05152-AE001

**Requirements** Pt. 6, Ch. 2, Art. 301 of the Rules for Classification of Steel Ships.

**Note**

Housing material A, Aluminum, is not to be used on open decks.

**1.19.5 SLL Lloyds Register (LR) Type Approval**

**Certificate** LR2002854TA-02

**Application** Marine applications for use in environmental categories ENV1, ENV2, ENV3 and ENV5.

**Note**

Housing material A, Aluminum, is not to be used on open decks.

**1.19.6 SNK Nippon Kaiji Kyokai (NK) Type Approval**

**Certificate** TA22315M

**Requirements** Ch.7, Pt. 6, and Ch. 4, Pt. 7 of "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use" and the relevant Society's Rules

**Note**

Housing material A, Aluminum, is not to be used on open decks.

## 1.20 Functional safety

### 1.20.1 QT Safety-certified to IEC 61508:2010 with certificate of FMEDA data

**Certificate** exida ROS 13-06-005 C001 R2.2

## 1.21 NAMUR compliance

### 1.21.1 Suitable for intended use

Compliant with NAMUR NE 95, version 22.01.2013 “Basic Principles of Homologation”

## 1.22 Overfill prevention

### 1.22.1 U1 Germany – WHG

**Certificate** Z-65.16-476

**Application** TÜV tested and approved by DIBt for overfill prevention according to the German WHG regulations.

### 1.22.2 Belgium – Vlarem

**Certificate** 6AP/35/P0171100556/00/NL/000

**Standards** Vlarem II Chapter 5.17  
Vlarem II Appendix 5.17.7

## 1.23 Pressure approvals

### 1.23.1 J1 Canadian Registration Number (CRN)

Alberta (ABSA): 0F18507.2, British Columbia (TSBC): 0F6710.1, Manitoba (ITS): 0H6938.4, New Brunswick: 0F1290.97, New Foundland and Labrador: 0F1290.90, Northwest Territories: 0F1290.9T, Nova Scotia: 0F1290.98, Nunavut: 0F1290.9N, Ontario (TSSA): 0F19892.5, Prince Edward Island: 0F1290.9, Quebec (RdBdQ): 0F04826.6, Saskatchewan (TSASK): 0F1870.3, Yukon: 0F1290.9Y

### 1.23.2 J8 EN Boiler (European Boiler Approval in accordance with EN 12952-11 and EN 12953-9)

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#### Note

Suitable for use as a level sensor part of a limiting device in accordance with EN 12952-11 and EN 12953-9.

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## 1.24 Pattern Approval

### GOST Belarus

**Certificate** No. 10263

### GOST Kazakhstan

**Certificate** KZ.02.01.02391-2023 No. 2391

### GOST Russia

**Certificate** SE.C.29.010.A No.51062/1

### GOST Uzbekistan

**Certificate** 02.7101

## 1.25 Conduit plugs and adapters

### IECEx Flameproof and Increased Safety

**Certificate** IECEX UL 18.0016X



**Standards** IEC 60079-0:2017, IEC 60079-1:2014-06, IEC 60079-7:2017, IEC 60079-31:2013

**Markings** Ex db eb IIC Gb;  
Ex ta IIIC Da

### ATEX Flameproof and Increased Safety

**Certificate** DEMKO 18 ATEX 1986X

**Standards** EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-7: 2015 +A1:2018, EN 60079-31:2014

**Markings**  II 2 G Ex db eb IIC Gb;  
 II 1 D Ex ta IIIC Da;

**Table 1-2: Conduit Plug Thread Sizes**

Thread	Identification mark
M20x1.5-6g	M20
½ - 14 NPT	½ NPT



**Table 1-3: Thread Adapter Thread Sizes**

<b>Male thread</b>	<b>Identification mark</b>
M20 x 1.5 – 6g	M20
½- 14 NPT	½ - 14 NPT
<b>Female thread</b>	<b>Identification mark</b>
M20 x 1.5 – 6H	M20
½ - 14 NPT	½ - 14 NPT

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

1. The Blanking Elements shall not be used with an adapter.
2. Only one adapter shall be used with any single cable entry on the associated equipment.
3. It is the end user’s responsibility to ensure that the ingress protection rating is maintained at the interface of the equipment and the blanking element/adapter.
4. Suitability of the temperature of the devices is to be determined during end-use with suitably rated equipment.
5. The Ex Blanking Elements have been evaluated for use in an ambient temperature range of -60 °C to +125 °C.

# 1.26 Installation drawings

## Figure 1-1: 9240030-936 - System Control Drawing for Hazardous Location Installation of Intrinsic Safety FM Approved Apparatus

**ORIGINAL SIZE A3**

REV	DATE	BY	CHKD	DESCRIPTION	REV	DATE	BY	CHKD	DESCRIPTION
1	11/11/2023	1563	0	0	0	0	0	0	0
2	08/08/2023	1563	0	0	0	0	0	0	0
3	08/08/2023	1563	0	0	0	0	0	0	0
4	08/08/2023	1563	0	0	0	0	0	0	0

**NON-HAZARDOUS LOCATION**

**HAZARDOUS LOCATION**

**Notes:**

- No revision to this drawing without prior Factory Mutual approval.
- Associated apparatus manufacturer's installation drawing must be followed when installing this product.
- Dust-Tight seal must be used when installed in Class II and Class III environments.
- Control equipment connected to the barrier must not use or generate more than 250 Vrms or Vdc.
- Resistance between Intrinsic Safety Ground and Earth Ground must be less than 1.0 ohm.
- Installations should be in accordance with ANSI/ISA 812.6 Installation of Intrinsic Safety Systems for Hazardous Locations and the National Electric Code (ANSI/NFPA 70).
- The associated apparatus must be Factory Mutual Approved.
- Connect supply wires to the appropriate terminals as indicated on the terminal block and in the installation documents.

**ROSEMOUNT 5300 SERIES**

Intrinsically Safe Apparatus for use in Class II, III, IV, Division 1, Groups A, B, C, D, E, F, G, Class I, Zone 0, AEx Ia IIC T4, Temperature Class T4 :

Model	Entity Parameters	Ambient Temperature Limits
4-20 mA/HART IS Model	Vmax(U) ≤ 30V, Imax(I) ≤ 130 mA Pi ≤ 1W, Ci = 7.26 nF, Li = 0 uH	-50 ≤ Ta ≤ 70 deg C
Fieldbus IS Model	Vmax(U) ≤ 30V, Imax(I) ≤ 300 mA Pi ≤ 3W, Ci = 7.26 nF, Li = 0 uH	-50 ≤ Ta ≤ 60 deg C
Fieldbus FISCO IS Model	Vmax(U) ≤ 17.5V, Imax(I) ≤ 380 mA Pi ≤ 0.532W, Ci = 0, Li = 0 uH	-50 ≤ Ta ≤ 60 deg C

**Warnings:**

- To prevent ignition of flammable or combustible atmospheres, read, understand and adhere to the manufacturer's live maintenance procedures.
- Substitution of components may impair Intrinsic Safety.
- Potential Electrostatic Charging Hazard – The enclosure is a non-metallic construction. To prevent the risk of electrostatic sparking the plastic surface should only be cleaned with a damp cloth.
- The apparatus enclosure contains aluminum and is considered to not exhibit a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction.
- With the Operating Temperature and Pressure option P, the installer shall consider the effect of process pressure on the design and ensure the design pressure is not exceeded at T = 70 °F for HART (±60 °C for Fieldbus) is not exceeded at process temperatures of up to -200 °C (±300 °F).

**FM Approved Product**  
No revisions to this drawing without prior Factory Mutual Approval.

DESIGNED BY	GU-LN	REVISED BY	5300
ISSUED BY	GU-PO	ISSUED DATE	06/44 16
APPROVED BY		DATE	
FILE	PDF	OTHERWISE STATED	

**SYSTEM CONTROL DRAWING**

for hazardous location installation of Intrinsic Safety FM approved apparatus

REV	DATE	BY	CHKD
0	06/20/2023	1563	0
1	06/20/2023	1563	0

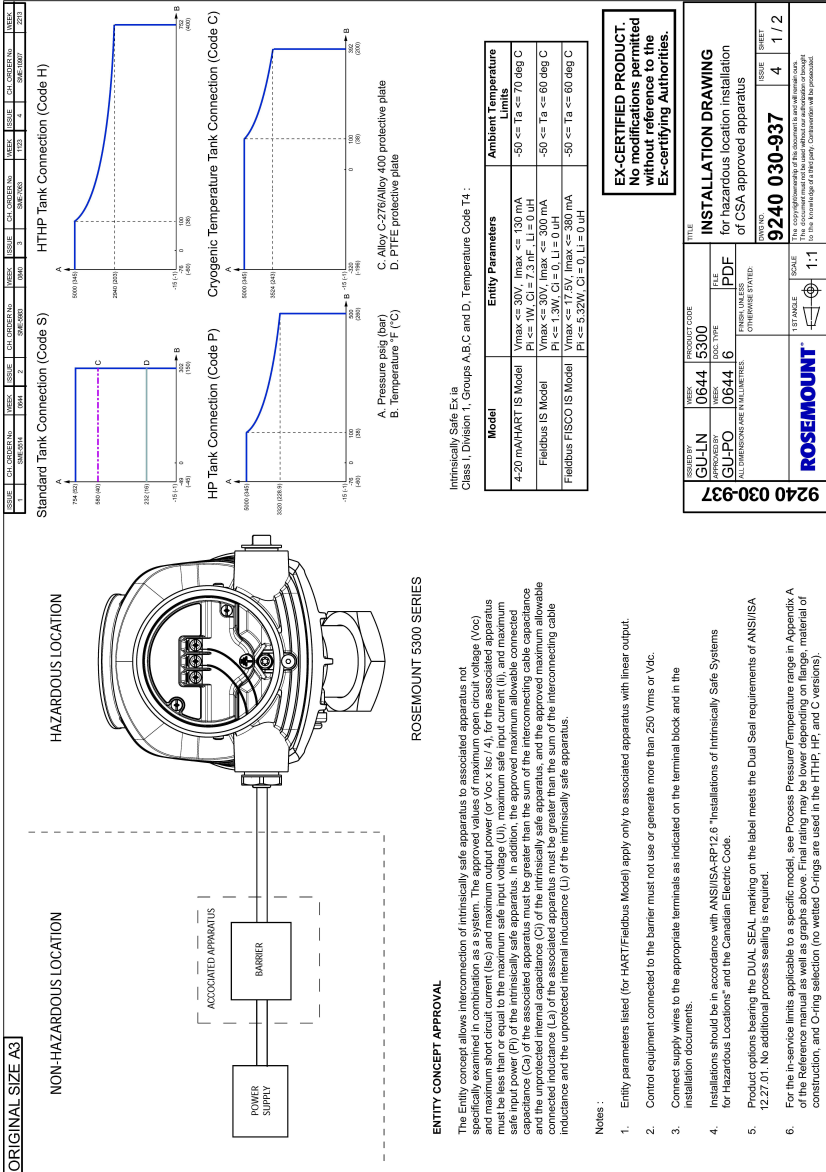
SCALE	1:1
SCALE	1:1

**ROSEMOUNT**

9240 030-936

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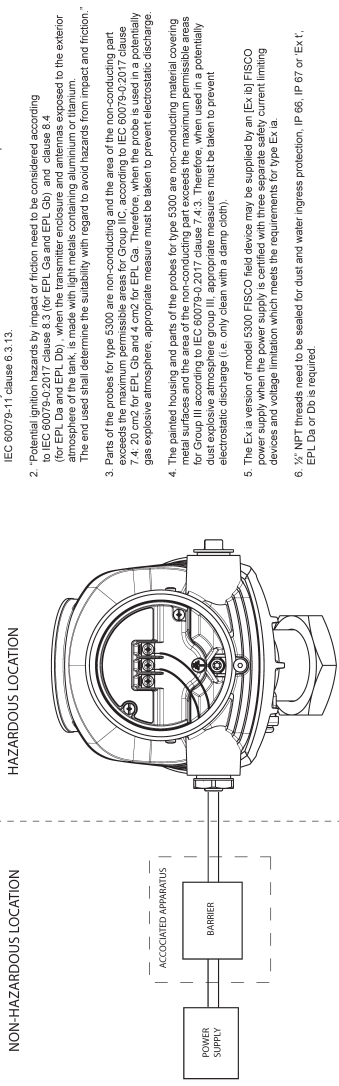
**Figure 1-2: 9240030-937 - Installation Drawing for Hazardous Location Installation of Intrinsically Safe CSA Approved Apparatus**





# Figure 1-3: D9240030-938 - Installation Drawing for Hazardous Location Installation of Intrinsically Safe ATEX and IECEx Approved Apparatus

ORIGINAL SIZE A3



**ROSEMOUNT 5300 SERIES**

**INTRINSICALLY SAFE INSTALLATIONS**

The approved values of maximum open circuit voltage (Uo) and maximum short circuit current (Io) and maximum output power (or Uo x Io x 4), for the associated apparatus must be less than or equal to the maximum safe input voltage (Ui), maximum safe input current (Ii), and maximum safe input power (Pi) of the intrinsically safe apparatus. In addition, the approved maximum allowable connected capacitance and inductance must be less than or equal to the maximum allowable connected capacitance and inductance of the intrinsically safe apparatus, and the approved maximum allowable connected inductance (Lo) 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.

**Notes :**

1. Safety parameters listed (for HART/Firebus Model) apply only to associated apparatus with linear output.
2. Control equipment connected to the barrier must not use or generate more than 250 Vrms or Vdc.
3. Connect supply wires to the appropriate terminals as indicated on the terminal block table and in the installation documents

**SPECIFIC CONDITIONS FOR SAFE USE (M) :**

1. The intrinsically safe circuits do not withstand the 500V AC test as specified in IEC 60079-11 clause 8.3.13.
2. Potential ignition hazards by impact or friction need to be considered according to IEC 60079-0:2017 clause 8.3 (for EPL Ga and EPL Gb) and clause 8.4 (for EPL Da and EPL Db), when the transmitter enclosure and antennas exposed to the exterior are subjected to impact or friction. The end user shall determine the suitability with regard to avoid hazards from impact and friction."
3. Parts of the probes for type 5300 are non-conducting and the area of the non-conducting part needs the maximum permissible area for Group IIC, according to IEC 60079-0:2017 clause 7.4.2.20 for EPL Da and EPL Db. The maximum permissible area for Group IIC is 100 cm<sup>2</sup> for a gas explosive atmosphere. Appropriate measure must be taken to prevent electrostatic discharge.
4. The painted housing and parts of the probes for type 5300 are non-conducting material covering the maximum permissible area for Group IIC, according to IEC 60079-0:2017 clause 7.4.2.20 for EPL Da and EPL Db. The maximum permissible area for Group IIC is 100 cm<sup>2</sup> for a gas explosive atmosphere. Appropriate measures must be taken to prevent electrostatic discharge (i.e. only clean with a damp cloth).
5. The Ex ia version of model 5300 FISCO field device may be supplied by an IECEx FISCO power supply when the power supply is certified with these separate safety current limiting devices and voltage limitation which meets the requirements for type Ex ia.
6. 1/2" NPT threads need to be sealed for dust and water ingress protection. IP 66, IP 67 or 'Ex', EPL Da or D0 is required.

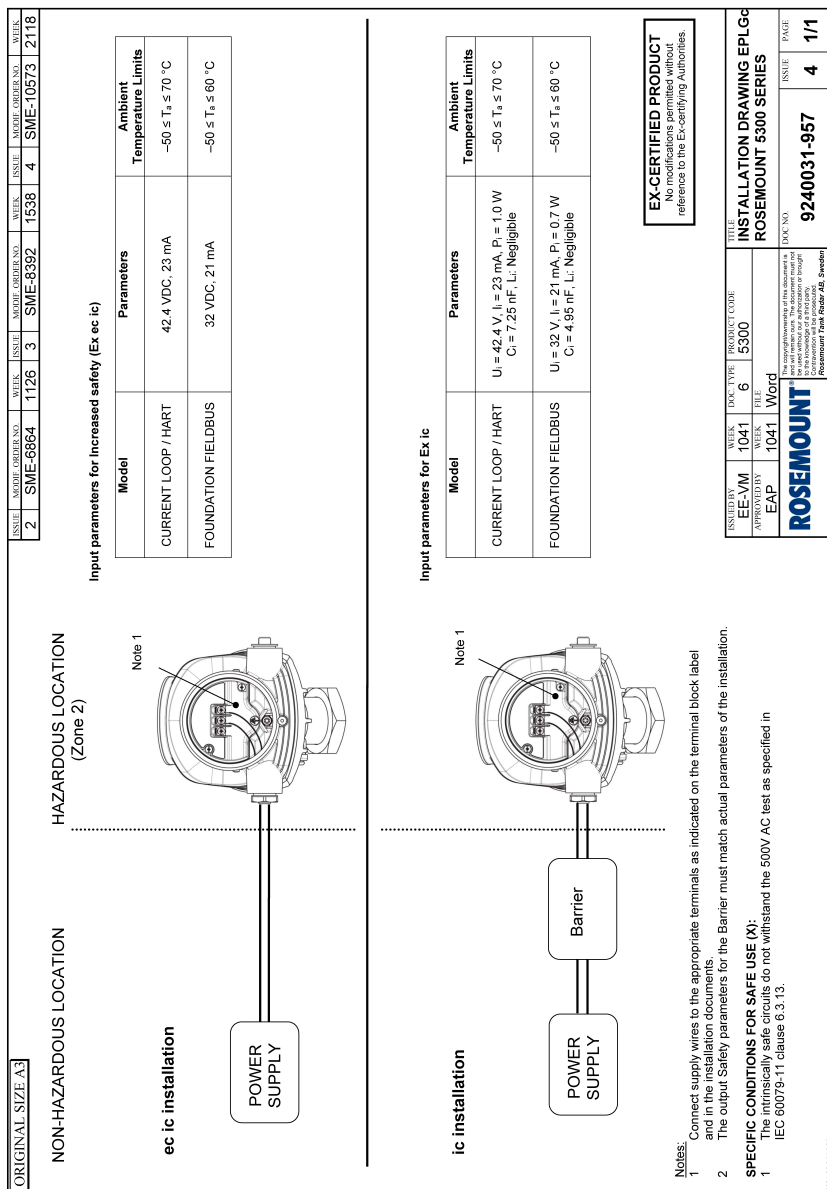
**Intrinsic Safety Parameters:**  
 I 1/2 Ex ia IIC T4 Ga/Gb  
 II 1/2 Ex ia IIC T6 T7 T8  
 II 1/2 Ex ia IIC T6 T7 T8 D0/Db

Model	Parameters	Ambient Temperature Limites	Ambient Temperature Limites
4-20 mA HART (S Model)	U <sub>i</sub> ≤ 30V, I <sub>i</sub> ≤ 150 mA P <sub>i</sub> ≤ 1W, C <sub>i</sub> ≤ 7.26 nF, L <sub>i</sub> = 0	-55 ≤ Ta ≤ 70 deg C	-50 ≤ Ta ≤ 70 deg C
Fieldbus (S Model)	U <sub>i</sub> ≤ 30V, I <sub>i</sub> ≤ 300 mA P <sub>i</sub> ≤ 1.5W, C <sub>i</sub> ≤ 4.95 nF, L <sub>i</sub> = 0	-55 ≤ Ta ≤ 80 deg C	-50 ≤ Ta ≤ 80 deg C
Fieldbus FISCO (S Model)	U <sub>i</sub> ≤ 17.5V, I <sub>i</sub> ≤ 380 mA P <sub>i</sub> ≤ 3.24W, C <sub>i</sub> ≤ 4.95 nF, L <sub>i</sub> = 0	-55 ≤ Ta ≤ 80 deg C	-50 ≤ Ta ≤ 80 deg C

D9240030-938		TITLE	
DESIGNED BY GU-LIN	PRODUCT CODE 53000	INSTALLATION DRAWING	
CHECKED BY GU-PO	LOCK TYPE 16	for hazardous location installation	
APPROVED BY [Signature]	DATE [Date]	of ATEX and IECEx approved apparatus	
NO. OF SHEETS 1		NO. OF SHEETS 8	SHEET 1 / 1
SCALE 1:1		ROSEMOUNT	


**EX-CERTIFIED PRODUCT.**  
 No modifications permitted  
 without reference to the  
 Ex-certifying Authorities.

Figure 1-4: 9240031-957 - Installation Drawing EPL Gc




# 1.27 EU Declaration of Conformity

Figure 1-5: EU Declaration of Conformity



## Declaration of Conformity



Rev. #5

We,

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

declare under our sole responsibility that the product,

**Rosemount™ 5300 Level 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.

 <hr style="border: 0.5px solid black;"/> <p>(signature)</p>	<p>Sr. Manager Product Approvals</p> <hr style="border: 0.5px solid black;"/> <p>(function)</p>
<p>Dajana Prastalo</p> <hr style="border: 0.5px solid black;"/> <p>(name)</p>	<p>10-Nov-23; Mölnlycke</p> <hr style="border: 0.5px solid black;"/> <p>(date of issue &amp; place)</p>

Page 1 of 4



# Declaration of Conformity

## EMC Directive (2014/30/EU)

Harmonized Standards: EN 61326-1:2013  
Other Standards Used: IEC 61326-1:2020

## ATEX Directive (2014/34/EU)

### Nemko 04ATEX1073X

Intrinsic Safety (HART@4-20mA):  
Equipment Group II, Category 1G, Ex ia IIC T4 Ga  
Equipment Group II, Category 1D, Ex ia IIIC T20079°C Da

Intrinsic Safety (Foundation ® Fieldbus):  
Equipment Group II, Category 1G, Ex ia IIC T4 Ga  
Equipment Group II, Category 1D, Ex ia IIIC T20069°C Da

Intrinsic Safety (Foundation ® Fieldbus FISCO):  
Equipment Group II, Category 1G Ex ia IIC T4 Ga  
Equipment Group II, Category 1/2G Ex ia/ib HC T4 Ga/Gb  
Equipment Group II, Category 1D, Ex ia IIIC T200 69°C Da  
Equipment Group II, Category 1D, Ex ia/ib IIIC T200 69°C Da/Db

Flameproof (Hart@ 4-20mA, Modbus RS-485):  
Equipment Group II, Category 1/2G, Ex db ia IIC T4 Ga/Gb  
Equipment Group II, Category 1D, Ex ta IIIC T20079°C Da

Flameproof (Foundation ® Fieldbus):  
Equipment Group II, Category 1/2G, Ex db ia IIC T4 Ga/Gb  
Equipment Group II, Category 1D, Ex ta IIIC T20069°C Da

Harmonized Standards:  
EN IEC 60079-0:2018  
EN 60079-1:2014  
EN 60079-11:2012  
EN 60079-26:201  
EN 60079-31:2014





# Declaration of Conformity

## Nemko 10ATEX1072X

Increased safety (HART@4-20mA):  
Equipment Group II, Category 3G, Ex ec ic IIC T4 Gc  
Equipment Group II, Category 3D, Ex tc IIIC T79°C Dc

Increased Safety (Foundation ® Fieldbus):  
Equipment Group II, Category 3G, Ex ec ic IIC T4 Gc  
Equipment Group II, Category 3D, Ex tc IIIC T69°C Dc

Intrinsic Safety (HART@4-20mA):  
Equipment Group II, Category 3G Ex ic IIC T4 Gc  
Equipment Group II, Category 3D, Ex tc IIIC T 79°C Dc

Intrinsic Safety (Foundation ® Fieldbus):  
Equipment Group II, Category 3G, Ex ic IIC T4 Gc  
Equipment Group II, Category 3D, Ex tc IIIC T69°C Dc

Harmonized Standards:  
EN IEC 60079-0:2018  
EN 60079-7:2015/A1:2018  
EN 60079-11:2012  
EN 60079-31:2014

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## RoHS Directive (2011/65/EU)

Harmonized Standards: IEC 63000:2018

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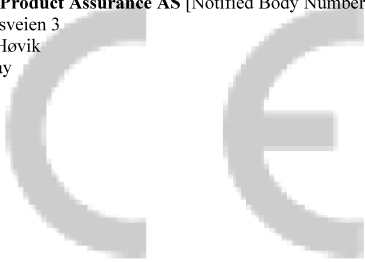
# Declaration of Conformity

## 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



## 1.28 China RoHS

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

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

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

*本表格系依据SJ/T11364的规定而制作。*

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

*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。*

*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.*

*X: 意为在该部件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。*



**Product Certifications**  
**00880-0100-4530, Rev. AD**  
**March 2024**

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