



# Certificate of Compliance

**Certificate:** 80050622

**Master Contract:** 258554

**Project:** 80050622

**Date Issued:** 2021-06-07

**Issued To:** i.Safe MOBILE GmbH  
i Park Tauberfranken 10  
Lauda-Koenigshofen, Baden-Württemberg, 97922  
Germany

**Attention:** Julian Runkel

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*

**Issued by:** Sorin Tat  
Sorin Tat



## **PRODUCTS**

CLASS - C225803 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non Incendive Systems - For Hazardous Locations

CLASS - C225883 - PROCESS CONTROL EQUIPMENT-Intrinsically Safe and Non-Incendive Systems-For Hazardous Locations-Certified to U.S. Standards

**Class I Div 1 Groups A, B, C, D, T4**

**Class II Div 1 Groups E, F, G , T135°C**

**Class III Div 1**

-IS-RSM2.1 intrinsically safe Remote Speaker Microphone for use in explosion hazardous areas, connected by cable to the 13-pin ISM-Interface (developed in accordance with document 1029AD04) of an approved to US and Canada mobile device (i.e. IS330.1/IS530.1) having the same Hazloc ratings.



**Certificate:** 80050622  
**Project:** 80050622

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It has a PTT button, a volume control button. an amplified loudspeaker and a microphone. The device has also a 3.5 mm audio jack connector, to be connected within hazardous areas to the approved IS-EP1.1 earphones or i.safe MOBILE approved, intrinsically safe accessories, which comply with the following output entity parameters (the contacts are intrinsically safe for gas and dust):

Output voltage (spark):  $U_{o,spark} = 8.7 \text{ V}$   
Output voltage (thermal):  $U_{o,thermal} = 5.288 \text{ V}$   
Output current (spark):  $I_{o,spark} = 0.837 \text{ A}$   
Output current (thermal):  $I_{o,thermal} = 0.424 \text{ A}$   
Output power (thermal):  $P_{o,thermal} = 673 \text{ mW}$   
Effective internal capacitance:  $C_i = \text{negligible}$   
Effective internal inductance:  $L_i = \text{negligible}$   
Permissible input voltage (spark):  $U_{i,spark} = 8.7 \text{ V}$   
Permissible input voltage (thermal):  $U_{i,thermal} = 5.288 \text{ V}$   
Permissible input power:  $P_i = 0 \text{ W}$

Permissible Lo/Co combinations

Lo [mH]	0.100	0.050	0.020	0.010	0.005
Co [ $\mu\text{F}$ ]	1.400	2.300	3.500	4.800	5.900

**Class I Div 2 Groups A, B, C, D, T4**  
**Class II Div 2 Groups F, G , T135°C**  
**Class III Div 2**

-IS-RSM2.2 intrinsically safe Remote Speaker Microphone for use in explosion hazardous areas, connected by cable to the 13-pin ISM-Interface(developed in accordance with document 1029AD04) of an approved to US and Canada mobile device (i.e. IS330.2/IS530.2) having the same Hazloc ratings.

It has a PTT button, a volume control button. an amplified loudspeaker and a microphone. The device has also a 3.5 mm audio jack connector, to be connected within hazardous areas to the approved IS-EP1.1 earphones or i.safe MOBILE approved, intrinsically safe accessories, which comply with the following output entity parameters (the contacts are intrinsically safe for gas and dust):

Output voltage (spark):  $U_{o,spark} = 8.7 \text{ V}$   
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**Certificate:** 80050622  
**Project:** 80050622

**Master Contract:** 258554  
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Lo [mH]	0.100	0.050	0.020	0.010	0.005
Co [ $\mu$ F]	1.400	2.300	3.500	4.800	5.900

**Class I Div 1 Groups A, B, C, D, T4**

-IS-RSMG2.1 intrinsically safe Remote Speaker Microphone for use in explosion hazardous areas, connected by cable to the 13-pin ISM-Interface(developed in accordance with document 1029AD04) of an approved to US and Canada mobile device (i.e. IS330.1/IS530.1) having the same Hazloc ratings.

It has a PTT button, a volume control button. an amplified loudspeaker and a microphone.  
The device has also a 3.5 mm audio jack connector that is not allowed inside hazardous area.

**Class I Div 2 Groups A, B, C, D, T4**

-IS-RSMG2.2 intrinsically safe Remote Speaker Microphone for use in explosion hazardous areas, connected by cable to the 13-pin ISM-Interface(developed in accordance with document 1029AD04) of an approved to US and Canada mobile device (i.e. IS330.2/IS530.2) having the same Hazloc ratings.

It has a PTT button, a volume control button. an amplified loudspeaker and a microphone.  
The device has also a 3.5 mm audio jack connector that is not allowed inside hazardous area.

**Conditions of Acceptability:**

- The permitted ambient temperature range is -20 °C to +60 °C.
- The connection to the 3.5 mm audio jack connector of the IS-RSMG2.1/ IS-RSMG2.2 device is not allowed inside hazardous area.
- Only accessories without internal power source are allowed to be connected to the 3.5 mm audio jack of all the listed models.
- The 13 pin connector interface must be connected outside hazardous areas (for the dust protection) to the 13-pin ISM-Interface of an approved to US and Canada mobile device (i.e. IS330.1/IS530.1)

**APPLICABLE REQUIREMENTS**

CAN/CSA-C22.2 No. 60079-0:19	Explosive Atmospheres - Part 0: Equipment - General requirements
CAN/CSA-C22.2 No. 60079-11:14	Explosive Atmospheres – Part 11: Equipment protection by intrinsic safety "i"
ANSI/UL 60079-0:19	Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements



**Certificate:** 80050622  
**Project:** 80050622

**Master Contract:** 258554  
**Date Issued:** 2021-06-07

ANSI/UL 60079-11:13	Electrical apparatus for Explosive Gas Atmospheres - Part 11: Intrinsic Safety "i"
UL 913: 2019	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II and III Div.1 Hazardous(Classified) Locations
CAN/CSA C22.2 No. 213-17	Non-incendive Electrical Equipment for Use in Class I and II, Division 2, and Class III Hazardous (Classified) Locations
ANSI/UL 121201-2017 Ninth Edition	Non-incendive Electrical Equipment for Use in Class I and II, Division 2, and Class III Hazardous (Classified) Locations

**ORDINARY LOCATIONS APPLICABLE REQUIREMENTS (Addressed in CSA Ordloc report No. 80050623):**

CAN/CSA-C22.2 No. 62368-1:14	Audio/Video, Information and Communication Technology Equipment – Part 1:Safety Requirements
ANSI/UL 62368-1 2 <sup>nd</sup> Ed.	Audio/Video, Information and Communication Technology Equipment – Part 1:Safety Requirements

**MARKINGS**

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

The following marking details appear on a label made from Polycarbonat, glued with self adhesive 3M 9471 or 3M 467MP or 3M 9448. Or as an alternative on a label Tesa 6940 Rapid Laser-Label (UL MH18055), with an acrylic backing material and self-adhesive.

**For Division 1 markings:**

- CSA Monogram with "C-US" indicator
- Company name and/or Master Contract number
- Date code of manufacture and a serial number
- Hazardous locations designation:  
Class I Div 1 Groups A, B, C, D, T4 w/- or w/o



**Certificate:** 80050622  
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Class II Div 1 Groups E, F, G, T135°C

Class III Div 1

- Temperature code rating
- Ambient Temperature Range
- The certificate number “CSA20CA80050622X”
- The words “Intrinsically Safe” in English and in French
- The following warnings in English and French:
  - Warning: Read and understand the manual before operating! & Avertissement: Lisez et comprenez le manuel avant d'utiliser!

For Division 2 markings:

- CSA Monogram with “C-US” indicator
- Company name and/or Master Contract number
- Date code of manufacture and a serial number
- Hazardous locations designation :
  - Class I Div 2 Groups A, B, C, D, T4 w/- or w/o
  - Class II Div 2 Groups F, G, T135°C
  - Class III Div 2
- Ambient Temperature Range: As specified in the product section above
- The following warnings in English and French:
  - Warning: Read and understand the manual before operating! & Avertissement: Lisez et comprenez le manuel avant d'utiliser!



## *Supplement to Certificate of Compliance*

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*The products listed, including the latest revision described below,  
are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
80050622	2021-06-07	Original certification of IS-RSM2.x / IS-RSMG2.X intrinsically safe remote speaker microphone with 13 pin ISM-Interface connection to the approved isafe smartphones.