

# **IECEx Certificate** of Conformity

# INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:

**IECEX EPS 20.0026X** 

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Certificate history: Issue 0 (2020-05-12)

Status:

Current

Issue No: 1

TERUNGSS

Holger Schaffer

**Certification Manage** 

2021-03-29

Applicant:

Date of Issue:

i.safe MOBILE GmbH i Park Tauberfranken 10

97922 Lauda-Koenigshofen

Germany

Equipment:

IS-RSM2.1, IS-RSMG2.1 Intrinsically safe Remote Speaker Microphone

Optional accessory:

Type of Protection:

Intrinsic safety "i"

Marking:

IS-RSM2.1

IS-RSMG2.1

Ex ib IIC T4 Gb

Ex ib IIC T4 Gb

Ex ib IIIC T135°C Db

Approved for issue on behalf of the IECEx Certification Body:

Position:

Signature:

(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.

This certificate is not transferable and remains the property of the issuing body.
The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

Bureau Veritas Consumer Products Services Germany GmbH **Businesspark A96** 86842 Türkheim Germany





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Manufacturer:

i.safe MOBILE GmbH i Park Tauberfranken 10 97922 Lauda-Koenigshofen

Germany

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

#### STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017

Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Edition:6.0

This Certificate does not indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

### **TEST & ASSESSMENT REPORTS:**

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

DE/EPS/ExTR20.0022/01

**Quality Assessment Report:** 

DE/EPS/QAR12.0003/10



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#### **EQUIPMENT**:

Equipment and systems covered by this Certificate are as follows:

The intrinsically safe Remote Speaker Microphone is for the rugged use in explosion hazardous areas. The device has a PTT button and a volume control button. The IS-RSM is connected, outside hazardous areas, via the wired connection to the ISM interface of a mobile device (Plug and Play). This allows professional use of Push-to-talk. It is equipped with an amplified loudspeaker and a microphone.

The Remote Speaker Microphone is available in two variants:

IS-RSM2.1 and IS-RSMG2.1 with higher volume level

#### IS-RSM2.1

The IS-RSM2.1 is approved for use in explosion hazardous areas of zone 1 and 21.

#### Electrical data:

#### Supply:

The Remote Speaker Microphone IS-RSM2.1 will be supplied over the 13-pin ISM-Interface. No extra battery is needed.

#### Interfaces

The device has a wired 13-pin connector. This must be connected outside hazardous areas to an ISM-interface developed in accordance with document 1029AD04 and may be operated within hazardous areas of zones 1 and 21.

The device has a 3.5 mm audio jack. The IS-EP1.1 or intrinsically safe accessories approved by i.safe MOBILE that comply with the following connection parameters may be connected to these within hazardous areas (the contacts are intrinsically safe for gas and dust):

Output voltage (spark): Uo.spark = 8.7 VOutput voltage (thermal): Uo,thermal = 5.288 V Output current (spark): lo,spark = 0.837 AOutput current (thermal): lo,thermal = 0.424 A Output power (thermal): Po,thermal = 673 mW Effective internal capacitance: Ci = negligible Effective internal inductance: Li = negligible Permissible input voltage (spark): Ui,spark = 8.7 VPermissible input voltage (thermal): Ui,thermal = 5.288 V = 0 WPermissible input power:

Only accessories without internal battery may be connected to the 3.5 mm audio jack.

## Permissible Lo/Co combinations:

Lo [mH]	0.100	0.050	0.020	0.010	0.005	
Co [µF]	1.400	2.300	3.500	4.800	5.900	

#### IS-RSMG2 1

The IS-RSMG2.1 is approved for use in explosion hazardous areas of zone 1.

### Electrical data:

#### Supply:

The Remote Speaker Microphone IS-RSMG2.1 will be supplied over the 13-pin ISM-Interface. No extra battery is needed.

#### Interfaces:

The device has a wired 13-pin connector. This must be connected outside hazardous areas to an ISM-interface developed in accordance with document 1029AD04 and may be operated within hazardous areas of zone 1.

A connection to the 3.5 mm audio jack connector is not allowed inside hazardous area.

## SPECIFIC CONDITIONS OF USE: YES as shown below:

The permitted ambient temperature range is -20 °C to +60 °C.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

RSMG2.1 added.