



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 23.0070X**

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Certificate history:

Status: **Current**

Issue No: 1

Issue 0 (2024-12-05)

Date of Issue: **2025-03-17**

Applicant: **i.safe MOBILE GmbH**
i_Park Tauberfranken 10
97922 Lauda-Koenigshofen
Germany

Equipment: **IS440.2, EdgeTwo 5G Radio**

Optional accessory:

Type of Protection: **Intrinsic safety "i"**

Marking: **Ex ic IIC T4 Gc**
Ex ic IIIC T135°C Dc

Approved for issue on behalf of the IECEx
Certification Body:

Position:

Signature:
(for printed version)

Date:
(for printed version)



1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. 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

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 60079-11:2023 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:7.0

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/ExTR23.0076/01

Quality Assessment Report:

DE/EPS/QAR12.0003/16



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The intrinsically safe IS440.2, EdgeTwo 5G Radio for Zone 2/22 is equipped with a 2.4-inch display, supports multiple frequency bands and also NFC, Bluetooth 5.2 and Wi-Fi 6. The high-end Qualcomm chipset ensures fast data processing for the most demanding industrial applications such as predictive maintenance. The 8-pin ISM interface provides a secure connection for audio accessories or other add-ons. Other advantages include the 8 MP camera, an amplified loudspeaker, a replaceable battery (2400 mAh or 4800 mAh) and programmable buttons (for PoC / PTT / lone worker protection / SOS).

SPECIFIC CONDITIONS OF USE: YES as shown below:

The device must be protected from impacts with high impact energy, against excessive UV light emission and high electrostatic charge processes.

The cover for the USB-C interface must be securely closed inside explosion hazardous areas.

The permitted ambient temperature range for use is -20 °C to +55 °C.

The battery may be replaced outside explosion hazardous areas only.

The device may be charged inside explosion hazardous gas areas (EPL Gc) via the external charging contacts with charging equipment approved by i.safe MOBILE GmbH. To ensure safety, the following conditions must be fulfilled:

- All gaskets of the device must be present and functional.
- The device may only be charged at temperatures between 0 °C to +45 °C.
- The device must be checked regular for changes and signs of faults.
- The connected charging voltage must ensure $U_m = 5.88 \text{ V}$ and $I_l = 3.4 \text{ A}$ for the device.

The manual (safety instructions) must be observed strictly.



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Equipment (continued):

Electrical data:

Power supply: Li-Ion Polymer Battery

Interfaces:

Dust atmosphere (EPL Dc):

The device may only be charged outside explosion hazardous dust areas.

Gas atmosphere (EPL Gc):

If the device is just used in gas areas requiring II 3G Ex ic IIC T4 Gc, charging also in hazardous locations is allowed via the external charging contacts with charging equipment approved by i.safe MOBILE GmbH.

Furthermore, the device has an USB-C interface for charging and data transmission outside hazardous areas. It is covered by an IP plugger and is not allowed to be opened in hazardous areas.

The ISM interface of the IS440.2 and EdgeTwo can be used within hazardous areas with approved headsets and add-ons, making the smartphone a multifunctional equipment for industrial applications. For ISM interface use, the i.safe MOBILE Headsets IS-HS3A.1, PTT Button IS-PTTB2A.1 and IS-HDHS1x.1, IS-HDHS2x.1 or approved, intrinsically safe accessories may be used, which comply with the connection parameters of the ISM interface according to document 1064AD04.

Headset variants IS-HDHSxx.1:

Name:	Variants:
IS-HDHSxA.1	Headband (stereo)
IS-HDHSxB.1	Neckband (stereo)
IS-HDHSxC.1	Helm Mounted (stereo)

Nano-SIM cards which comply with the following intrinsic safety entity parameters, may be used in the corresponding slots in the hazardous area:

Uo = 5.88 V
Co = 40 µF
Lo = 1 µH

A commercially available nano-SIM card may be used in the corresponding slot in potentially explosive atmospheres. The internal electrical capacitance and inductance are negligible, respectively correspond to the intrinsically safe connection parameters.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Change of the conditions for charging.