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Ontploffing Beskermingsdienste  
 Explosion Prevention Services

Reg No.: 2012/055110/07; VAT No.: 4830273027

**ACCREDITED TEST LABORATORY**  
**IN TERMS OF THE ARP 0108: "REGULATORY REQUIREMENTS FOR EXPLOSION PROTECTED APPARATUS"**

**INSPECTION AUTHORITY CERTIFICATE**

**i.safe MOBILE GmbH.**  
**i\_Park Tauberfranken 10**  
**97922 Lauda-Koenigshofen**  
**Germany**

**Issued: 2020/05/06**  
**Expire: 2023/01/31**  
**Revision: 1**

**Equipment:** Intrinsically safe and multifunctional industrial smartphone  
**Manufacturer:** i.safe MOBILE GmbH  
**Address:** i\_Park Tauberfranken 10, 97922 Lauda-Koenigshofen  
**Model/Type:** IS530.M1  
**Serial No.:** All units imported between Issued and Expiry dates.

Applicant:  
**i.safe MOBILE GmbH**

Inspection Authority Number: **MTEx-M/20.0013 X**

MTEx Record Number: **MTEx 0901/20.0013**

Ex Rating: **Ex ia I Ma IP64**

**Standards used:**

<b>SANS 60079-0: 2019 Ed.6</b> <b>IEC 60079-0: 2017 Ed.7</b>	<b>Explosive atmospheres – Part 0: General requirements.</b>
<b>SANS 60079-11: 2012 Ed.4</b> <b>IEC 60079-11: 2011 Ed.6</b>	<b>Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i".</b>

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

**Hazardous Area:** Zone 0  
**Occurrence:** Continuous, Intermittent and abnormal conditions  
**Hazardous Group:** I  
**Permitted Temperature:** 150°C

**Equipment Protection level (EPL):**

<b>EPL</b>		<b>Definition</b>
Gas	Dust	
Ma		Equipment for installation in a mine susceptible to firedamp, having a "very high" level of protection, which has sufficient security that it is unlikely to become an ignition source in normal operation, during expected malfunctions or during rare malfunctions, even when left energized in the presence of an outbreak of gas.

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Mb	Equipment for installation in a mine susceptible to firedamp, having a "high" level of protection, which has sufficient security that it is unlikely to become a source of ignition in normal operation or during expected malfunctions in the time span between there being an outbreak of gas and the equipment being de-energized.
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This certification indicates compliance with R10.1 of the Mines Health and Safety Act and/or EMR 8(1) of the Occupational Health and Safety Act, provided that the apparatus is used as prescribed in accordance with:

- 1) Any conditions set out in this Certificate;
- 2) This certificate only covers equipment imported between the "Issued" and "Expiry" dates;
- 3) When the supporting Q.A.N. (Quality Assurance Notification) of the equipment manufacturer expires, it is the responsibility of the applicant (as mentioned above) to submit a valid Q.A.N to MTEEx Laboratories.
- 4) The test results presented in this Ex Test Report relate only to the item or product tested.

## 1. OVERVIEW

Equipment and systems covered by this Certificate are as follows:

The intrinsically safe, multifunctional and rugged industrial smartphone IS530.M1 has been designed for use in mines susceptible to firedamp. It provides numerous technologies like 4G (LTE), NFC, GPS, Wi-Fi and Bluetooth LE.

The IS530.M is equipped with an Android operating system, large internal memory, amplified loudspeaker, replaceable battery pack and functional 13-pin ISM interface.

## 2. ELECTRICAL/ AND SAFETY PARAMETERS

### Power supply:

The smartphone may only be used with the approved, intrinsically safe battery pack BPIS530.M1 made by i.safe MOBILE GmbH.

LiPo battery  $U_o = 3.8 \text{ V}$  ( $U_o\_max = 4.35 \text{ V}$ ) / 3.6 Ah / 13.68 Wh

It is permissible to charge the battery pack alone outside the device via an approved charging adapter.

### Interfaces:

The device has a lateral magnetic charging port with which it can be charged outside hazardous areas via an approved charging adapter. The contacts are intrinsically safe for gas and dust.

Furthermore, the device has an USB interface (type C) for charging and data transmission outside hazardous areas. It is not permitted to open the USB interface cover in hazardous areas.

The ISM interface of the IS530.M1 can be used within hazardous areas with approved headsets, Remote Speaker Microphones (RSM) and add-ons, making the smartphone a multifunctional equipment for industrial applications. For ISM interface use, the i.safe MOBILE headset IS-HS1.1 or approved, intrinsically safe accessories may be used, which comply with the entity parameters of the ISM interface according to document 1029AD04. If the ISM interface is not used, it must be securely closed by the cover provided for this purpose.

### 3. REASON FOR REVIEW

- ARP 0108: 2014 Requirement.
- Rev. 1, additional Special Conditions added.

### 4. DOCUMENTATION PROVIDED

- IECEX Quality Assessment Report (DE/EPS/QAR12.0003/07)
- IECEX Certificate of Conformity (IECEX EPS 19.0062 X)

### 5. SPECIAL CONDITIONS OF USE (X)

- The battery may be charged and replaced outside explosion hazardous areas only.
- The device must be protected from impacts with high impact energy, against excessive UV light emission and high electrostatic charge processes.
- The device shall be protected from the exposure of oils, greases and hydraulic fluids.
- The permitted ambient temperature range is -20 °C to +60 °C
- The SIM card slot must be blanked off (e.g. filling the SIM card slot with an encapsulant).
- No external accessories may be connected to the device in the hazardous area.
- A maximum of 500mW transmitting power limit applies for Group I use.

### 6. MARKING

**For validity purposes, the following marking must be added to all equipment covered by this certificate:**

**Manufacturer:** i.safe MOBILE GmbH  
**Supplier:** i.safe MOBILE GmbH  
**Equipment:** Intrinsically safe and multifunctional industrial smartphone.  
**Model/Type:** IS530.M1  
**IA Number:** MTEEx-M/20.0013 X  
**Ex Rating:** Ex ia I Ma IP64  
**Serial No.:** All units imported between Issued and Expiry dates.

**Note 1: It is the responsibility of the supplier to ensure that the marking label complies with the ARP 0108: 2014.**

Certificate Issued by:



D. Young, Testing Officer.

Authorized by:



H. De Wet, Editor.

### MTEEx Laboratories

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MTEEx Laboratories takes no responsibility for any non-conforming tests / assessments / results which is not in compliance with the relative Standards. By marking the equipment as mentioned in the documentation, the manufacturer takes full responsibility that the equipment has indeed complied with the original type assessment and has been subjected to any routine verification(s) / test(s) respectively.

**End of Certificate**