

(1) **EU - Type Examination Certificate**

(2) Equipment and protective systems intended for use in potentially explosive atmospheres – **Directive 2014/34/EU**

(3) EU - Type Examination Certificate Number

EPS 19 ATEX 1 126 X

Revision 1

(4) Equipment: IS530.M1 Intrinsically safe and multifunctional industrial smartphone

(5) Manufacturer: i.safe MOBILE GmbH

(6) Address: i_Park Tauberfranken 10
97922 Lauda-Koenigshofen
Germany

(7) This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.

(8) Bureau Veritas Consumer Products Services Germany GmbH, notified body No. 2004 in accordance with Article 21 given in the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, certifies that this equipment has been found to comply with the essential health and safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive. The examination and test results are recorded in the confidential documentation under the reference number 19TH0291.

(9) Compliance with the essential health and safety requirements has been assured by compliance with:


EN IEC 60079-0:2018

EN 60079-11:2012

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the annex to this certificate.

(11) This EU - Type Examination Certificate relates only to the design and examination of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture of this equipment and its placing on the market. Those requirements are not covered by this certificate.

(12) The marking of the equipment shall include the following:

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Hamburg, 2020-08-12





(13)

Annex

(14) **EU - Type Examination Certificate EPS 19 ATEX 1 126 X**

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(15) Description of equipment:

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.M1 is equipped with an Android operating system, large internal memory, amplified loudspeaker, replaceable battery pack and functional 13-pin ISM interface.

Electrical data:

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.

The SD cards IS-SD164.1 and IS-SD1128.1 may be used in the corresponding slot in the hazardous area. Alternatively, the SD card port has the following intrinsic safety entity parameters:

$U_o = 4.35 \text{ V}$

$P_o = 1.081 \text{ W}$

$C_o = 97 \text{ }\mu\text{F}$

$L_o = 2 \text{ }\mu\text{H}$



(16) Reference number: 19TH0291

(17) Special conditions for safe use:

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.

(18) Essential health and safety requirements:

Met by compliance with standards.



Certification department of explosion protection

H. Schaffer

Hamburg, 2020-08-12