



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEX Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEX EPS 16.0045X Issue No: 0 Certificate history:  
Issue No. 0 (2016-07-15)

Status: Current Page 1 of 3

Date of Issue: 2016-07-15

Applicant: ecom instruments GmbH  
Industriestraße 2  
97959 Assamstadt  
Germany

Equipment: Smartphone type: Smart-Ex 01M  
Optional accessory:

Type of Protection: intrinsic safety "i"

Marking: Ex ia I Ma IP64

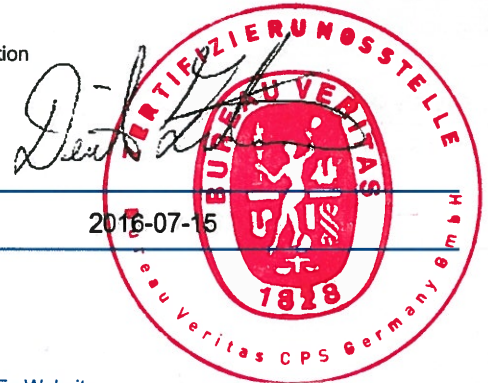
Approved for issue on behalf of the IECEX  
Certification Body:

Dieter Zitzmann

Position:

Manager Certification

Signature:  
(for printed version)



Date:

2016-07-15

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 the [Official IECEX Website](http://www.iecex.com).

Certificate issued by:

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





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Page 2 of 3

Manufacturer: ecom instruments GmbH  
Industriestraße 2  
97959 Assamstadt  
Germany

Additional Manufacturing  
location(s):

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 electrical apparatus 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 : 2011 Explosive atmospheres - Part 0: General requirements  
Edition:6.0

IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

*This Certificate does not indicate compliance with electrical 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/ExTR16.0045/00](#)

#### Quality Assessment Report:

[DE/PTB/QAR07.0004/03](#)



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Page 3 of 3

## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The intrinsically safe smartphone type Smart-Ex 01M is a GSM quad-band communication device intended for use in mines susceptible to firedamp. It provides additional features such as cameras, GPS, acceleration sensor, Bluetooth, vibration motor, headphone connector and flashlight. Different integrated antennas can be used for the usual cellular systems including LTE. The permissible ambient temperature range is 0°C to +50°C. The device is equipped with a non-exchangeable integrated Li-Ion battery unit. Charging is done via the "magnetic" USB-connector with the "Safety Box SB S01". The "magnetic" USB-connector is device specific and polarity reversal protected. The device may only be charged outside the hazardous area. The wired data transfer is possible via the USB-connector in non-hazardous areas only.

CONDITIONS OF CERTIFICATION: YES as shown below:

The battery pack is only allowed to be charged outside of the explosive hazardous area via the "Safety Box SB S01".

The device has to be protected against impacts with high impact energy.

Only accessories approved by ecom instruments GmbH may be used or intrinsically safe accessories applying to the relevant entity parameters for the audio jack as stated in ecom document 500055EX05A.

Before entering the hazardous location the ecom leather case type LC S01M shall be fitted to the smart-Ex 01M.

The device shall be protected from the exposure of oils, greases and hydraulic fluids.