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

Certificate No.: IECEx EPS 19.0031X

Issue No: 0

Certificate history:
Issue No. 0 (2019-06-17)

Status: **Current**

Date of Issue: **2019-06-17**

Applicant: **Pepperl+Fuchs GmbH**
Lilienthalstrasse 200
68307 Mannheim
Germany

Equipment: **Intrinsically Safe Smartphone - Smart-Ex 02 *** DZ1**

Optional accessory:

Type of Protection: **intrinsic safety**

Marking:

Ex ib op is IIC T4 Gb IP64

Ex ib op is IIIC T120°C Db

Approved for issue on behalf of the IECEx Certification Body: Holger Schaffer

Position: Certification Manager

Signature:
(for printed version)

Date: 2019-06-17

ZERTIFIZIERUNGSSTELLE BUREAU VERITAS Bureau Veritas CPS Germany Hamburg 1828

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.

Certificate issued by:

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

BUREAU VERITAS

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Manufacturer:	**Pepperl+Fuchs GmbH** Lilienthalstrasse 200 68307 Mannheim **Germany**	

Additional Manufacturing location(s):

ecom instruments GmbH
Industriestrasse 2
97959 Assamstadt
Germany

This product may be manufactured at all additional manufacturing locations/product sites listed in DE/PTB/QAR06.0008 and having congruent types of protection and congruent product types as defined in this certificate.

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 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 : 2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-28 : 2015 Edition:2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation

*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/ExTR19.0029/00

Quality Assessment Report:

DE/PTB/QAR06.0008/09 DE/PTB/QAR07.0004/05

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The intrinsically safe Smartphone of type Smart-Ex 02 *** DZ1 is communication device intended for use in hazardous areas of zones 1, 2, 21 and 22.
The device provide additional features such as camera, GPS, NFC, acceleration sensor, WiFi, Bluetooth, vibration motor, headphone connector, magnetic sensor and flash-light.
Different integrated antennas can be used for the usual cellular systems.
The device is equipped with an exchangeable Li-Ion battery unit.
Charging and wired data transfer is done via the magnetic USB-connector in ordinary locations only.

Electrical data:

Supply:	Two rechargeable built-in Li-Ion batteries in parallel Battery pack Ex-BP S02 nominal data: 3.7 V, 4400 mAh, 16.28 Wh or Battery pack Ex-BP S02C nominal data: 3.7 V, 3920 mAh, 14.5 Wh
Charging and Wired data transfer:	Um = 6V, outside of classified hazardous locations only

SPECIFIC CONDITIONS OF USE: YES as shown below:

Ambient temperature range: -20°C ≤ Tamb ≤ +60°C

The battery pack is only allowed to be charged and replaced outside of the classified hazardous location.

It must be ensured that the power supply for charging fulfills the requirements for SELV or PELV and Um = 6 V.

The Battery-Cover for SIM/SD card and battery-pack access must be mounted and screwed tight before entering the hazardous location.

The device has to be protected against high energy impacts.

The device shall not be used in close proximity to processes producing high electrostatic charges.

The device shall not be repaired or dismantled (except the Battery-Cover in ordinary locations).

It is allowed to use the 3.5 mm Audio Plug in the hazardous locations for connections to certified accessory meeting the following entity parameters:

Ui = 4.2 V

Ii = 50 mA

Pi = 100 mW

Co = 3 µF

Lo = 440 µH