

EU - Type Examination Certificate

(1)

(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 1 068 X

Revision 0

(4) Equipment: Intrinsically Safe Smartphone - Smart-Ex 02 *** DZ1

(5) Manufacturer: Pepperl+Fuchs GmbH

(6) Address: Lilienthalstrasse 200
68307 Mannheim
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 18TH0342.

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

EN 60079-0:2018

EN 60079-11:2012

EN 60079-28:2015

(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:

 II 2G Ex ib op is IIC T4 Gb IP64

 II 2D Ex ib op is IIIC T120°C Db



Certification department of explosion protection

Hamburg, 2019-06-17



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Annex

(14) **EU - Type Examination Certificate EPS 19 ATEX 1 068 X**

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(15) Description of equipment:

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: $U_m = 6\text{ V}$, outside of classified hazardous locations only

(16) Reference number: 18TH0342

(17) Special conditions for safe use:

Ambient temperature range: $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$

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 $U_m = 6\text{ V}$.

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:

$U_i = 4.2\text{ V}$ / $I_i = 50\text{ mA}$ / $P_i = 100\text{ mW}$ / $C_o = 3\text{ }\mu\text{F}$ / $L_o = 440\text{ }\mu\text{H}$

(18) Essential health and safety requirements:

Met by compliance with standards.

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