



# 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 SIR 19.0012X

Issue No: 0

Certificate history:

Issue No. 0 (2019-05-21)

Status: **Current**

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Date of Issue: **2019-05-21**

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

Equipment: **Tab-Ex 02 DZ1\*\*\*\* Flameproof Tablet Enclosure**

*Optional accessory:*

Type of Protection: **Flameproof, Intrinsically Safe, Optical Isolation and Dust Protection by Enclosure**

Marking:

Ex db ia op is IIC T5 Gb  
Ex tb ia op is IIIC T100°C Db  
Ta = -20°C to +50°C

*Approved for issue on behalf of the IECEx  
Certification Body:*

N Jones

*Position:*

Certification Manager

*Signature:  
(for printed version)*

*Date:*

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:

**SIRA Certification Service**  
CSA Group  
Unit 6, Hawarden Industrial Park  
Hawarden, Deeside, CH5 3US  
United Kingdom

**sira**  
CERTIFICATION





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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 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:

<b>IEC 60079-0 : 2017</b> Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
<b>IEC 60079-1 : 2014-06</b> Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-11 : 2011</b> Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-28 : 2015</b> Edition:2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
<b>IEC 60079-31 : 2013</b> Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*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:

[GB/SIR/ExTR19.0139/00](#)

[GB/SIR/ExTR19.0140/00](#)

Quality Assessment Report:

[DE/PTB/QAR06.0008/10](#)



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## Schedule

### EQUIPMENT:

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

The Tab-Ex 02 DZ1\*\*\*\* Flameproof Tablet Enclosure comprises a Samsung Galaxy Tab Active tablet, which is contained within a hardened plastic flameproof enclosure with front and rear toughened glass windows. The front window is provided for the main LCD display and front camera, the rear window is provided for the rear camera and integral LED.

The flameproof enclosure incorporates three push rods in cylindrical flamepaths to actuate the tablet side function keys and a M24 threaded plug which allows access to the tablet SIM card in the non-hazardous area.

This flameproof enclosure is contained within an additional anti-static plastic enclosure, which houses function keys (Menu, Home and Back) identical to the ones on the Samsung tablet. These keys are connected to the tablet via intrinsically safe circuitry and perform the same function as the originals. The equipment incorporates the S-Pen stylus which, can be used to operate the tablet touch screen via an electromagnetic induction system.

The equipment comprises a battery charging and data connection facility which is designed to be used in the non-hazardous area only with a dedicated charger/docking station. When not connected to the dedicated charger/docking station facility any voltage or withdrawal of current from the connection pins is not possible. Electrical connections to the equipment are not permitted in the hazardous area.

Refer to the Annexe for Additional Information.

**SPECIFIC CONDITIONS OF USE: YES as shown below:**

Refer to the Annexe

### Annex:

[IECEX SIR 19.0012X Issue 0 Annexe.pdf](#)

Annexe to: IECEx SIR 19.0012X Issue 0  
 Applicant: Pepperl + Fuchs GmbH  
 Apparatus: Tab-Ex 02 DZ1\*\*\*\* Flameproof Tablet Enclosure



There are two different variants of the equipment, which are based on the available types of Samsung Galaxy Tab Active 2 tablets. These types are:

Type Designation	Description
Tab-Ex 02 DZ1 WiFi	WiFi only version based on Samsung Galaxy Tab Active 2 SM-T390.
Tab-Ex 02 DZ1 WWAN	WiFi and WWAN version based on Samsung Galaxy Tab Active 2 SM-T395 or SM-T397.

The two models have the following features.

Features		Tab-Ex 02 DZ1 WiFi	Tab-Ex 02 DZ1 WWAN
8.0 inch display 1280 x 800 pixels		ü	ü
Octa-Core Processor 1.6 GHz		ü	ü
3 GB RAM / 16GB Storage/ micro SD		ü	ü
Battery Capacity 4450mAh		ü	ü
Micro USB 2.0		ü	ü
SIM Card Holder			ü
WWAN	2G GSM – GSM850, GMS900, DCS1800, PCS1900		ü
	3G UMTS B1(2100), B2(1900), B4(AWS), B5(850), B8(900)		ü
	4G FDD LTE B1(2100), B2(1900), B3(1800), B4(AWS), B5(850), B7(2600), B8(900), B17(700), B20(800), B28(700)		ü
	4G TDD LTE B38(2600), B40(2300)		ü
Bluetooth v4.2 & Wi-Fi 802.11 a/b/g/n/ac 2.4 + 5GHz		ü	ü
Accelerometer, Fingerprint Sensor, Gyro Sensor, Geomagnetic Sensor, Hall Sensor, Proximity Sensor, RGB Light Sensor		ü	ü
Rear camera 8.0 MP, autofocus		ü	ü
Front camera 5.0 MP		ü	ü
Multi-Touchscreen		ü	ü
GPS, Glonass, Beidou and NFC		ü	ü
Android OS		ü	ü
User SIM Card Access			ü

Annexe to: IECEx SIR 19.0012X Issue 0  
Applicant: Pepperl + Fuchs GmbH  
Apparatus: Tab-Ex 02 DZ1\*\*\*\* Flameproof Tablet Enclosure

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## Specific Conditions of Use

- i. The equipment shall only be used in areas with a low risk of mechanical impact.
- ii. Electrical connections to the equipment are not permitted in the hazardous area.
- iii. The model 'Tab-Ex 02 DZ1 WWAN' shall only be opened for SIM Card access in the non-hazardous area as per Pepperl and Fuchs guidance document DOCT - 6352. All other equipment models shall not be opened by the end user for any reason; if either of the equipment's enclosures are opened or damaged, the following conditions shall apply:
  - The equipment must be removed from the explosive atmosphere immediately and will not be suitable for re-use until it is repaired by the OEM.
  - If the outer enclosure is damaged precautions shall be taken to ensure the internal flameproof enclosure is not subject to static charging.
  - If the inner flameproof enclosure is opened, the equipment must never be used in an explosive atmosphere unless it has been repaired and re-sealed by the OEM.

## Conditions of Manufacture

- i. Equipment, shall be subjected to a routine pressure test of 0.6 bar for at least 10 seconds, as required by clause 16.1 of IEC 60079-1:2014. There is no requirement for the SIM card plug to be routinely tested.