

[1]

EU-TYPE EXAMINATION CERTIFICATE

[2] Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

[3] EU-Type Examination Certificate Number: **DNV 21 ATEX 73941X** **Issue 1**

[4] Product: **Sensor Examiner CUI 17-2131-****/****
(relative humidity, water presence and temperature)**

[5] Manufacturer: **BARTEC GmbH**

[6] Address: **Max-Eyth-Str.16
97980 Bad Mergentheim
Germany**

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] DNV Product Assurance AS, notified body number 2460, in accordance with Article 17 and Article 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in confidential reports listed in item 16.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: **EN IEC 60079-0:2018 and EN 60079-11:2012**

Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the product shall include the following:

 **II 1 G Ex ia IIC T4 Ga Tamb -40°C to +80°C**



Date of issue:
2024-03-11



Bjørn Spongsveen
For DNV Product Assurance AS
The Certificate has been digitally signed.
See www.dnv.com/digitalsignatures for info

[13] **Schedule**

[14] **EU-Type Examination Certificate No:** DNV 21 ATEX 73941X Issue 1

[15] **Description of Product**

The EXaminer CUI sensor will detect Relative Humidity, Temperature and Water Presence in CUI (Corrosion Under Insulation) applications.

The EXaminer sensors are battery operated by two cells serial coupled. The cells are non-chargeable. The electronics and cells are mounted inside a non-metallic enclosure. The enclosure is then filled with casting compound. The Fusion unit cannot be opened and has no physical wiring terminals. Communication takes place through the NFC interface or NB-IoT/LTE-M integrated in the electronics of the unit. The cells cannot be charged or replaced.

The difference between the models 310 CUI and 311 CUI is only the shape of the external enclosure. The electronics and functionality are equal.

Type designation

- 310 CUI
- 311 CUI

Electrical Data

2 x 3V (battery operated, non-replaceable)

Ambient temperature:

-40°C to +80°C

Routine tests

N / A

[16] **Report No.:** 256420_1

[17] **Specific Conditions of Use**

1. Equipment must be mounted on the metallic enclosure and/or contact with earth must be assured
2. Potential electrostatic charging hazard – see instructions

[18] **Essential Health and Safety Requirements**

Met by compliance with the requirements mentioned in item 9.

[19] Drawings and documents

Number	Title	Rev.	Date
EX-1017	PCB Layer Documentation	B	22.05.2019
11-2131-650001	EXaminer CUI Sensor Typ/type 17-2131-****/****	A	01.03.2024
EX-20024	Fusion 310 CUI base, main drawing	B	04.08.2020
EX-20025	Fusion 310 CUI dome, main drawing	B	04.08.2020
EX-20034	Fusion 310 CUI exploded view	F	12.12.2022
EX-20044	Fusion 310 CUI exploded view alt. assembly	G	12.12.2022
EX-20045	Fusion 310 CUI exploded view alt. thread assembly	G	12.12.2022
EX-20079	Layer Stack Up	B	01.06.2023
EX-20080	Electrical Circuit Diagram rev 7	A	23.01.2023
EX-20083	Fusion 311 Housing, main drawing	A	03.05.2023
EX-20084	Fusion 311 Cover, main drawing	A	03.05.2023
EX-20085	Fusion 311 exploded view	A	03.05.2023
EX-DOC-0046	Procedure casting	1	21.10.2020
EX-DOC-0056	Bill-Of-Material-PCB-CUI	1	13.02.2023

[20] Certificate History

Issue	Description	Issue date	Report no.
0	Original issue	2021-07-09	PRJN-256420-2021-PA-NOR
1	The product is updated to improve stability in radio communication. In addition, a new NFC interface and a flash memory is added. The BLE module is removed. Changes to schematics. A new model is introduced (311 CUI). The electronics for both models are identical, but there are changes in the layout and external enclosure.	2024-03-11	256420_1

END OF CERTIFICATE