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(1) **EU - Type Examination Certificate**

(2) Equipment and protective systems intended for use in potentially explosive atmospheres – Directive 2014/34/EU

(3) EU - Type Examination Certificate Number

EPS 10 ATEX 1 235 X

Revision 7

(4) Equipment: Digital TETRA Radio THR9 Ex

(5) Manufacturer: ecom instruments GmbH

(6) Address: Industriestraße 2
97959 Assamstadt
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 10TH0361.

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


EN 60079-0:2012+A11:2013

EN 60079-11:2012

(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 IIC T4 Gb

 II 2D Ex ib IIIC T135°C Db IP6X/IP64

Certification department of explosion protection

Nuremberg, 2017-10-24


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Page 1 of 3

Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services Germany GmbH. EPS 10 ATEX 1 235 X, Revision 7.



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(13)

Annex

(14) **EU - Type Examination Certificate EPS 10 ATEX 1 235 X**

Revision 7

(15) Description of equipment:

The digital handheld radio THR9 Ex is used for communication in hazardous areas zone 1 and 2 as well as zone 21 and 22. The equipment is supplied by an intrinsically safe battery pack that can be replaced in hazardous locations. All inputs and outputs are limited to permissible values by power limiting components.

Electrical data:

Supply: The equipment is supplied by a rechargeable battery module type Battery-Pack „BLN Ex-2 U“ by ecom instruments GmbH.

Interface circuits: In type of protection Ex ib IIC.

Frequency range: The THR9 Ex is available in the frequency variations RC-49, RC-50 and RC-51. A Bluetooth module and a GNSS module have been integrated.

Charger: For charging- and communication-connections, the maximum voltage of $U_m = 60$ V DC applies.

(16) Reference number: 10TH0361

(17) Special conditions for safe use:

Ambient temperature range: $-20\text{ °C} \leq T_a \leq +55\text{ °C}$

Battery: Only the battery pack “BLN Ex-2 U” shall be used with the variants RC-49, RC-50 and RC-51. This battery pack can also be used in older THR9 Ex versions type RC-27, RC-31 and RC-40.

Battery replacement: The battery module can be replaced inside hazardous gas-explosive locations zone 1 and 2. During battery replacement it must be assured that the connections are free from dust or dirt. In hazardous dust-explosive locations the battery module shall not be replaced.

Battery storage: Replacement of the battery modules between the safety bag and the equipment shall be carried out immediately and no spare module shall be left out of the safety bag “SBC-Ex”.



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Battery charging:

The battery shall be charged only outside hazardous location. The output of the charger shall comply with the maximum voltage of $U_m = 60$ V DC.

Accessories:

Inside hazardous locations, only accessories that connect to the Top-connector are allowed. The accessory must fulfil the requirements given in the user manual and in the interface description 500022EX05A05G.

Dust Ex-location:

If there is no approved accessory connected to the Top-connector the interface shall be covered with the "SCL" cover.

Bottom Connector:

The plug interface "bottom Connector" shall not be used in hazardous locations.

(18) Essential health and safety requirements:

Met by compliance with standards.

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