



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.: issue No.: Certificate history:

Status:

Date of Issue: **2012-10-24** Page 1 of 3

Applicant: **ecom instruments GmbH**
Industriestraße 2
97959 Assamstadt
Germany

Electrical Apparatus: **Intrinsically Safe Speaker Microphone, type Ex-TRA 800 Aurelis**
Optional accessory:

Type of Protection: **Ex ib IIC T4 Gb, Ex ib IIIC T130°C Db**

Marking: **Ex ib IIC T4 Gb**
Ex ib IIIC T130°C Db
IECEX EPS 12.0027X

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

Achim Hänchen

Position:

Head of certification

*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:

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





IECEX Certificate of Conformity

Certificate No.: IECEx EPS 12.0027X

Date of Issue: **2012-10-24**

Issue No.: **0**

Page 2 of 3

Manufacturer: **ecom instruments GmbH**
Industriestraße 2
97959 Assamstadt
Germany

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 electrical 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 : 2011 Explosive atmospheres - Part 0: General requirements
Edition: 6.0

IEC 60079-11 : 2011-06 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition: 6.0

*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/EXTR12.0035/00](#)

Quality Assessment Report:

[DE/PTB/QAR07.0004/00](#)

[DE/PTB/QAR07.0004/01](#)

[DE/PTB/QAR07.0004/02](#)



IECEX Certificate of Conformity

Certificate No.: IECEx EPS 12.0027X

Date of Issue: **2012-10-24**

Issue No.: **0**

Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The speaker microphone of type Ex-TRA 800 Aurelis is an accessory for the Digital TETRA Radio THR9 Ex manufactured by ecom which is approved under IECEx CoC no. IECEx IBE 10.0009X. The speaker microphone is supplied by the Digital TETRA Radio. It is housed in a plastic enclosure and is connected to the Digital TETRA Radio by means of a multi-core supply and signal cable. The basic unit is manufactured in various versions. In addition to an internal loudspeaker and microphone external headsets of various manufacturers that are partly separately certified or that are specifically approved for connection to the speaker microphone can be connected to the Ex-TRA 800 Aurelis.

Intrinsic safe output circuit of Ex-TRA 800 for the supply of headsets with the following maximum values:

Thermal: $U_{o_HD} = 3.8 \text{ V}$
 $I_{o_HD} = 0.116 \text{ A}$
 $P_{o_HD} = 0.110 \text{ W}$
Spark ignition: $U_{o_HD_F} = 4.2 \text{ V}$

The following associated headsets may be connected:

Ex-TRA PTT-EH
Ex-TRA PTT-E
Ex-TRA NB
Ex-TRA VT
Ex-TRA FTS
Ex-TRA FT
Ex-TRA ComCom

Invisio H-M3, manufactured by Invisio, approved under IECEx TUN 10.0009 with the following types:

H-M3-2-R1110X-E1X
H-M3-2-L1110X-E1X
H-M3-2-R1110X-E2X
H-M3-2-L1110X-E2X

CONDITIONS OF CERTIFICATION: YES as shown below:

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