



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.: IECEx EPS 13.0039 issue No.:0 Certificate history: _____

Status: **Current**

Date of Issue: **2013-11-07** Page 1 of 3

Applicant: **ecom instruments GmbH**
Industriestrasse 2,
D-97959 Assamstadt
Germany

Electrical Apparatus: **Ex-RSM Aurelis BT****
Optional accessory:

Type of Protection: **ib**

Marking: **Ex-RMS Aurelis BT:**
Ex ib IIC T4 Gb
Ex ib IIIC T135°C Db
Ex-RMS Aurelis BT IIIB:
Ex ib IIC T4 Gb
Ex ib IIIB T135°C Db
Ex-RMS Aurelis BT Gb:
Ex ib IIC T4 Gb

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

Dieter Zitzmann

Position:

Manager 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





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Manufacturer: **ecom instruments GmbH**
Industriestrasse 2,
D-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 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 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/ExTR13.0041/00](#)

Quality Assessment Report:

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



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Ex-RSM Aurelis BT is an intrinsically safe remote speaker microphone for hazardous locations. The data transfer to the communication device like mobile phones or radios is realized by a wireless Bluetooth connection. It is powered by a not replaceable but rechargeable battery pack which is charged with safety box SB01 that is supplied as accessory. The safety box can be connected to the charge connector and to the binder connector, which is also provided for connecting headsets. As an alternative a connection to a nexus-connector is possible. Switches are mounted to the housing for operation. The device contains an internal speaker and an internal microphone. The device is manufactured in different versions:

Ex-RSM Aurelis BT	gas:	Ex II 2G Ex ib IIC T4 Gb
	dust:	Ex II 2D Ex ib IIIC T135°C Db
Ex-RSM Aurelis BT IIIB	gas:	Ex II 2G Ex ib IIC T4 Gb
	dust:	Ex II 2D Ex ib IIIB T135°C Db
Ex-RSM Aurelis BT Gb:	only gas:	Ex II 2G Ex ib IIC T4 Gb

Additionally any certified headsets and devices can be connected which meet the interface parameter requirements which are specifically authorized devices for connection to the Ex-RSM Aurelis BT**.

Electrical ratings:

Safety Box:	Uo = 5,6 V, Io = 1,7 A (fault mode)
Battery module:	Uo = 3, 8 V (continuous) und 4,2 V (peak), Io = 0,310 A (continuous), Po = 1,18 W (continuous)
Headset-circuit:	Uo = 3, 8 V (continuous) und 4,2 V (peak) Io = 0,146 A(peak), Po = 0,125 W (continuous)

For all versions the following intrinsically safe approved headsets can be connected on the Nexus- (optional Binder-) socket.

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

In addition, any intrinsic safe headsets that are approved in accordance with the above marking can be connected, if they comply with the following conditions:

Uo-peak (spark) = 4.2V	Ui-peak (spark) = 4.2V
Uo-continuous = 3.8V	
Io-peak = 0.146A	Ii_continuous = 0A (no internal power source)
Po-continuous = 0.125W	Pi-continuous = 0W
Ci = negligible, Li = negligible	possible Co und Lo combinations:

Lo [μH]	2600	2000	1000	500	200	100	50
Co [μF]	2,4	2,9	4,1	5,3	7,2	9,1	12
Lo [μH]	30	20	10	5	2	1	
Co [μF]	15	17	25	40	130	420	

Temperature range: $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +55^{\circ}\text{C}$

The Ex-RSM Aurelis BT** may be attached on the belt by the approved accessory "belt clip".

CONDITIONS OF CERTIFICATION: NO