



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 ZLM 09.0002X** issue No.:2

Status: **Current**

Certificate history:
Issue No. 2 (2013-2-8)
Issue No. 1 (2011-2-23)
Issue No. 0 (2009-4-19)

Date of Issue: **2013-02-08** Page 1 of 4

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

Electrical Apparatus: **LED-Flashlight Type Lite-Ex PL***
Optional accessory:


Type of Protection: **Intrinsic safety 'ia', optical radiation 'op is'**

Marking: **Ex ia op is IIC T4 Ga resp.**
Ex ia IIIC T 130°C Da IP65
Tamb -20°C to +50°C

Approved for issue on behalf of the IECEx **Dipl.-Ing. Harald Zelm**
Certification Body:

Position: **Head of Certification Body**

Signature:
(for printed version)



Date: **2013-02-08**

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:

ZELM Explosionsschutz GmbH
Siekgraben 56
D-38124 Braunschweig
Germany

ZELM ex



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Manufacturer: **ecom instruments**
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 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 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2006 Edition: 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
IEC 60079-28 : 2006-08 Edition: 1	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation

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/ZLM/ExTR09.0002/02](#)

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 LED-Flashlight Type Lite-Ex PL* serves as a handheld, portable equipment for use in hazardous areas zone 0 and 1 and zone 20 and 21. The "*" in the type designation denotes a up to three-digit number sequence that indicates alternative versions.

The Lite-Ex PL 30 is made of an aluminium housing consisting of several pieces, which in turn is enclosed by an exterior plastic housing. The plastic housing is electrostatically conductive. The power for the Light emitting diodes is supplied by appropriate three batteries of type LR14.

The Lite-Ex PL10 is a portable LED flashlight including a LED. The plastic housing is electrostatically conductive. The power for the Light emitting diodes is supplied is supplied by 3 primary batteries LR03.

CONDITIONS OF CERTIFICATION: YES as shown below:

The special conditions for safe use for the Lite-Ex PL 30 are as follows:

- It is not allowed to open the housing inside the hazardous area.
- The integral batteries may only be replaced outside the hazardous area and only with battery types approved by the manufacturer.
- A visual and functional examination must be conducted at regular intervals to ensure that the flashligh is in a intact exterior condition. In the event of flat batteries or visible damage, the flashligh must be removed out of the hazardous area.
- Damaged gaskets shall only be exchanged according to the instructions inside the operating manual.
- The safety instructions provided by the manufacturer has to be observed.

The Special conditions for safe use of the LED-flashlight Lite-Ex PL 10 and LED-headlamp Lite-Ex PL 10 H are as follows:

- The opening of the enclosure within explosion hazardous areas is prohibited.
- Before the lamp will be put into operation, a functional test shall be made. If a considerable loss of illuminating power will be detected, the batteries shall be changed. If the batteries are low or visible damages are detected, the LED lamps shall be not put into the explosion hazardous area.
- The exchange of the built-in batteries shall be only done outside the explosion hazardous area and only with battery types approved by the manufacturer.
- If electrolyte leakage is detected, the device shall not be put into the explosion hazardous area and shall be send to the manufacturer for inspection.
- Only by the manufacturer approved accessories resp. spare parts shall be used.
- Damaged gaskets shall only be exchanged according to the instructions inside the operating manual.
- The operation manual has to be observed.

The special conditions for safe use of the LED-headlamp Lite-Ex PL 10 H are in addition as follows:

- Only the original headband HB 10 H shall be used.
- If the headlamp will be used with batteries of type Energizer No. E92 the Lite-Ex PL 10 H only fulfills the temperature class T3.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

The 2nd supplement concerns minor changes of the mechanic of the already approved types, the evaluation of the usage of alternative batteries, as well as the check on the compliance to the actual standards and a new type of LED lamp will be considered. The name of the new type will be headlamp Lite-Ex PL 10 H.