



제2019-030860-01-1호

안 전 인 증 서

Ledlenser Corporation Ltd.

No.25, Yudong 1 Road, Dongcheng Town, Yangdong District, Yangjiang City,
Guang-Dong Province, 529931, China

위 사업장에서 제조하는 아래의 품목이 「산업안전보건법」 제34조 및 같은 법 시행규칙 제58조의4제4항에 따른 안전인증 심사 결과 안전·보건기준에 적합하므로 안전인증표시의 사용을 인증합니다.

품 목

Headlamp

형식·모델(용량·등급) / 인증번호

EXH8(Ex ia IIC T4) / 19-KA4BO-0475

인 증 기 준

고용노동부고시 제2019-15호

인 증 조 건

1. 제조공장

·본 인증서는 'No.25, Yudong 1 Road, Dongcheng Town, Yangdong District, Yangjiang City, Guang-Dong Province, 529931, China'에서 생산하는 제품에 한함.

2. 제품개요

- 당 기기는 본질안전 방폭구조의 휴대용 LED 조명기구임.
- 정격: 4.5 Vdc (Alkaline Battery LR6(AA) × 3EA)
- 사용주위온도: $-20\text{ }^{\circ}\text{C} \leq T_a \leq +40\text{ }^{\circ}\text{C}$
- IEC 60079-0 및 IEC 60529에 따른 보호등급 IP64를 만족함.

3. 인증범위: 본 인증서는 위의 형식번호에 한하여 유효함

4. 안전한 사용을 위한 조건: 없음.

5. 인증(변경)사항: 없음.

6. 그 밖의 사항

·아래 배터리만 사용할 것.

Duracell OEM (coppertop) | Duracell Plus Power (coppertop)

- 사용자 설명서 참조
- 안전인증품의 품질관리, 확인심사 수검, 변경사항 신고 등 인증 받은 자의 의무 준수
- 본 안전인증서는 반드시 관련 IECEx 인증서(IECEx BAS 18.0008 issue No.2)와 함께 사용

2019년 7월 19일

한국산업기술시험원장





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품 목

Headlamp

형식·모델(용량·등급) / 인증번호

EXH8(Ex ia IIIC T₂₀₀135℃) / 19-KA4BO-0476

인 증 기 준

고용노동부고시 제2019-15호

인 증 조 건

1. 제조공장

·본 인증서는 'No.25, Yudong 1 Road, Dongcheng Town, Yangdong District, Yangjiang City, Guang-Dong Province, 529931, China'에서 생산하는 제품에 한함.

2. 제품개요

- 당 기기는 20종 지역에서 사용하는 본질안전 방폭구조의 휴대용 LED 조명기구임.
- 정격: 4.5 Vdc (Alkaline Battery LR6(AA) × 3EA)
- 사용주위온도: $-20\text{ }^{\circ}\text{C} \leq T_a \leq +40\text{ }^{\circ}\text{C}$
- IEC 60079-0 및 IEC 60529에 따른 보호등급 IP64를 만족함.

3. 인증범위: 본 인증서는 위의 형식번호에 한하여 유효함

4. 안전한 사용을 위한 조건: 없음.

5. 인증(변경)사항: 없음.

6. 그 밖의 사항

·아래 배터리만 사용할 것.

Duracell OEM (coppertop)	Duracell Plus Power (coppertop)
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- 사용자 설명서 참조
- 안전인증품의 품질관리, 확인심사 수검, 변경사항 신고 등 인증 받은 자의 의무 준수
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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 BAS 18.0008

Issue No: 2

Certificate history:

Status: **Current**

Issue No. 2 (2018-11-08)

Date of Issue: **2018-11-08**

Page 1 of 4

Issue No. 1 (2018-07-19)

Issue No. 0 (2018-03-02)

Applicant: **Ledlenser GmbH & Co. KG**
Kronenstr. 5-7
42699 Solingen
Germany

Equipment: **EX4, EX7, EX7R, iL4, iL7 & iL7R Flashlights. EXH8, EXH8R, iLH8 & iLH8R Headlamps**

Optional accessory:

Type of Protection: **Intrinsic safety, Inherently Safe Optical Radiation**

Marking:

EX4, EX7, EXH8
Ex ia op is IIC T4 Ga
Ex ia op is IIIC T₂₀₀ 135°C Da

EX7R, EXH8R
Ex ib op is IIC T4 Gb
Ex ib op is IIIC T135°C Db

iL4, iL7, iLH8, iL7R, iLH8R
Ex ic IIC T4 Gc
Ex ic IIIC T135°C Dc

Approved for issue on behalf of the IECEx
Certification Body:

R S Sinclair

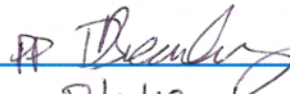
D BREARLEY
Certification
Manager

Position:

Technical Manager

Signature:
(for printed version)

Date:


8/11/18

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:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom





IECEX Certificate of Conformity

Certificate No: IECEx BAS 18.0008 Issue No: 2

Date of Issue: 2018-11-08 Page 2 of 4

Manufacturer: **Ledlenser GmbH & Co. KG**
Kronenstr. 5-7
42699 Solingen
Germany

Additional Manufacturing location(s):

Ledlenser Corporation Ltd.
No.25, Yudong 1 Road, Dongcheng Town,
Yangdong District, Yangjiang City, Guang-Dong Province, 529931
China

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 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 : 2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-28 : 2015 Edition:2	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:

[GB/BAS/ExTR17.0081/02](#) [GB/BAS/ExTR18.0249/00](#)

Quality Assessment Report:

[DE/TUR/QAR17.0015/01](#)



IECEx Certificate of Conformity

Certificate No: IECEx BAS 18.0008

Issue No: 2

Date of Issue: 2018-11-08

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The EX4 and EX7 are portable flashlights and the EXH8 is a portable headlamp that are all powered by primary cells. They are suitable for use in Group IIC and IIIC areas and have Equipment Protection Levels of Ga and Da.

The EX7R is a portable flashlight and the EXH8R is a portable headlamp that are both powered by a custom Lithium Ion based battery pack. They are suitable for use in Group IIC and IIIC areas and have Equipment Protection Levels of Gb and Db.

The EX4 is powered by two alkaline LR03 (AAA) cells. Only the following cell types are permitted:- Duracell OEM LR03, Duracell Plus Power LR03, Energizer LR03, and Varta LR03.

The EX7 and the EXH8 are powered by three LR6 (AA) cells. Only the following cell types are permitted:- Duracell Plus Power (coppertop) and Duracell OEM (coppertop).

The rechargeable models EX7R and EXH8R may only be fitted with Ledlenser battery pack type EX18650B1. Other battery packs of the same physical size are not to be used.

The rechargeable models EX7R and EXH8R have a charging socket rated $U_m = 6.75V$.

The EX4, EX7, & EXH8 models are marked:-

Ex ia op is IIC T4 Ga

Ex ia op is IIIC T200135°C Da

The EX7R & EXH8R models are marked:-

Ex ib op is IIC T4 Gb

Ex ib op is IIIC T135°C Db

The iL4 and iL7 are portable flashlights and the iLH8 is a portable headlamp that are all powered by primary cells, have EPLs of Gc and Dc, and are suitable for use in Group IIC and IIIC areas.

The iL7R is a rechargeable version of the iL7, and the iLH8R is a rechargeable version of the iLH8 that also have EPLs of Gc and Dc, and are also suitable for use in Group IIC and IIIC areas.

All iL* models are marked:-

Ex ic IIC T4 Gc

Ex ic IIIC T135°C Dc

The iL4 is powered by two alkaline LR03 (AAA) cells. Only the following AAA / LR03 cell types are permitted:- Duracell Plus Power, Duracell OEM, Energizer Varta High Energy, Panasonic Industrial Powerline, Panasonic Evolta, Panasonic LR03XJ, Ledlenser Alkaline LR03.

The iL7 and the iLH8 are powered by three LR6 (AA) cells. Only the following cell types are permitted:- Duracell Plus Power, Duracell OEM, Energizer E91, Energizer Industrial E91, Varta High Energy, Panasonic Industrial Powerline, Panasonic Evolta, Panasonic LR6XJ, Ledlenser Alkaline LR6.

The rechargeable models iL7R and iLH8R must only be fitted with Ledlenser battery pack type iL18650C1.

The rechargeable models iL7R and iLH8R have a charging socket rated $U_m = 15V$.

The iL4, iL7, iLH8, iL7R & iLH8R models are outside the scope of EN 60079-28.

SPECIFIC CONDITIONS OF USE: NO



IECEX Certificate of Conformity

Certificate No: IECEx BAS 18.0008

Issue No: 2

Date of Issue: 2018-11-08

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

Variation 2.1

To permit resistor changes, to permit other minor electrical and mechanical changes, and to permit a drawing structure rationalisation.

ExTR: GB/BAS/ExTR18.0249/00

File Reference: 18/0538