



Lite-Ex KL 10



Bedienungsanleitung · Operating Instructions

Notice d'utilisation · Gebruiksaanwijzing

Istruzioni per l'uso · Instrucciones de uso

Manual de instruções · Bruksanvisning

Zugelassen für Zone 1 und 2
Approved for zone 1 and 2
Autorisé pour les zones 1 et 2





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Note:

The latest version of the operating instructions, the EC Declaration of Conformity and the Ex certificate are available for download from the relevant product page at www.ecom-ex.com; alternatively they can be requested directly from the manufacturer.

1. Application

The Lite-Ex KL 10 is an LED headlamp designed for industrial applications or use in potentially explosive areas of Zones 2 and 1 in accordance with Directive 99/92/EC (ATEX 137).

2. Safety instructions

These operating instructions contain information and safety regulations that must be followed to ensure safe and reliable operation of the unit under the described conditions. Non-observance of these information and instructions may have dangerous consequences or may contravene applicable regulations.

Please carefully read through these operating instructions before using this unit.

In cases of doubt (for example, due to translation or printing errors), the German version of these operating instructions shall prevail.

3. Errors and impermissible loads

If there is any risk that the safety of the unit has been compromised, the unit must be taken out of operation and immediately removed from the Ex-area.

Action must be taken to prevent the unit from being accidentally put into operation again.

We recommend sending the unit to the manufacturer for inspection.

The safety of the unit may be at risk if, for example:

- Damage is visible on the housing
- The unit has been subjected to excessive loads for which it is not designed
- The unit has been improperly stored
- The unit has been damaged in transit
- Labels or markings on the unit are illegible
- Malfunctions occur
- Permitted tolerances or threshold values have been exceeded

4. Safety regulations

Persons using the unit must observe the standard safety regulations and read the certificate to prevent incorrect operation or misuse of the unit.

The following additional safety regulations must also be observed:

- The unit may be operated only with the designated leather case.
- The unit must not be opened within the Ex-area.
- The batteries must only be replaced outside the Ex-area.
- Additional or spare batteries must not be carried in the Ex-area.
- Only approved battery types may be used.
- Only accessories approved by ecom instruments GmbH may be used.
- Protect the unit against contact with aggressive acids or bases.

5. Safety instructions

- Do not look directly into the light.
- Do not shine the light directly into the eyes of other people.

6. Ex data

EC-type examination certificate no.:

TÜV 07 ATEX 553464 X

Ex designation:

⊕ II 2G Ex ia IIC T4

Approved for Zones 2 and 1, device group II, gas group C potentially explosive gases, vapours or mist, temperature class T4.

7. Technical data

Ambient

temperature Ta: -20 ... +50°C

Storage

temperature: -30 ... +60°C
(without batteries)

Battery /

power supply: 2 x LR03 (see table)

Lamp: 1 power LED (0.5-watt)

Manufacturer	Type
GP	Super Alkaline Battery 24A LR03
Eveready	Energizer No. E92
Duracell	Plus MN2400 LR03
Duracell	Procell MN2400 LR03


Operating time: approx. 4 hours
(100% light)

approx. 8 hours
(50% light)

Dimensions: approx. 45 x 70 mm

Weight: approx. 90g
(including batteries)

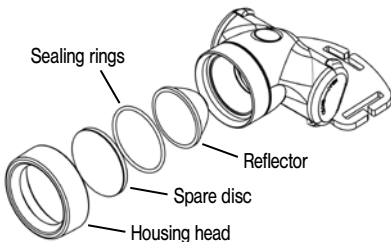
IP protection rating: IP 67

CE designation:  0102

8. Functional description / operating instructions

Please take the time to carefully read through these operating instructions to ensure that you are familiar with all of the functions of your Lite-Ex KL 10 and know how to use all of the functions. Please go through the instructions on the following pages for your own safety and information!

8.1 Lite-Ex KL 10 components



8.2 Commissioning and function

In order to be able to use the torch in the Ex area, ensure that all batteries are inserted and that the leather case is mounted and closed. (see 8.3 Replacing batteries)

The torch is switched on using the central pressure switch. Pressing the switch once switches the torch on with a brightness of 50%; pressing it twice switches the torch to 100% brightness. Pressing the switch once more switches the torch off again.

8.3 Replacing batteries

When the brightness is no longer satisfactory, the batteries should be replaced. It is strongly recommended that both batteries be replaced together. When replacing the batteries, only use approved battery types (see table of approved battery types in section 7, „Technical data“).

To replace the batteries, open the leather case at the side. After that you can release the battery compartment cover by turning it anticlockwise by a quarter of a turn. After you insert the new batteries (make sure the polarity is correct), close the battery compartment and check that it is securely closed. Close the leather case again. Make sure that torch components are screwed together securely before switching the torch on.

Replacing batteries

- Only use approved battery types.
See table in section 7, „Technical data“.
- Always replace all of the batteries together.
- Make sure that the polarity of the inserted batteries is correct.
- Please ensure that all used batteries are properly disposed of in an environmentally friendly manner.
- When replacing the batteries, always check to make sure that the locking mechanism and seals are clean and in good condition.

8.4 Lamp replacement

The Lite-Ex KL 10 is equipped with an extremely long-lasting LED lamp. Replacing the LED is normally not required. If, however, the torch is defective or the brightness of the torch has diminished (despite new batteries), it should be sent to ecom instruments for inspection or repair. Manipulating the lamp on your own poses a risk to the safety of the torch and is not permitted.

8.5 Replacing the lens and reflector

The lens is made of high-quality plastic. Should it nevertheless be damaged, it can be replaced. The reflector under it can also be replaced. Unscrew the orifice ring by turning it anticlockwise. Please do not touch the LED and the reflector. When inserting the new lens, ensure that the sealing ring under it is not damaged. If the seal is damaged, be sure to replace the sealing ring! After that, screw the orifice ring on again by turning it clockwise until it is finger tight. After the orifice ring has been tightened, no part of the sealing ring may be visible under the disc!

9. Repairs

Repairs are subject to the nationally valid regulations and directives. We therefore recommend that such work be performed by ecom instruments GmbH, Germany, as all repairs must be examined to ensure functional safety.

10. Cleaning, maintenance and storage

- Only use a suitable cloth or sponge to clean the unit. Do not use solvents or abrasive cleaning agents to clean the unit.
- We recommend having the unit checked for proper functioning by the manufacturer every two years.
- The batteries should be taken out of the unit if it is to be stored for extended periods.
- The storage temperature should be within the permitted range of -30°C to $+60^{\circ}\text{C}$ (without batteries).

11. Disposal

Waste of electrical and electronic equipment (WEEE) and „historic“ WEEE by ecom instruments GmbH is disposed free of charge at our costs and in accordance with the European Directive 2002/96/EC and the German Electrical and Electronic Equipment Law of 16 March 2005. The costs of transporting the equipment to ecom instruments GmbH are to be borne by the sender.

12. Warranty and liability

Under the general terms and conditions of business, ecom instruments GmbH offers a two-year warranty for functioning and materials for this product when used under the specified operating and maintenance conditions. This does not apply to wear parts (such as batteries and lamps).

This warranty does not extend to products that have been used improperly, altered, neglected, damaged by accident or subjected to abnormal operating conditions or improper handling. In the event of a warranty claim, the faulty unit should be sent in. We reserve the right to recalibrate, repair or replace the unit.

The above warranty terms represent the sole rights of the purchaser to compensation and apply exclusively and in place of all other contractual or statutory warranty obligations. ecom instruments GmbH does not accept liability for specific, direct, indirect, incidental or consequential damages or losses, regardless of whether they are caused by breach of warranty, lawful or unlawful actions, actions in good faith or other actions.

If in certain countries the restriction of statutory warranty and the exclusion or restriction of incidental or consequential damages is unlawful, then it may be possible that the above restrictions and exclusions do not apply for all purchasers. If any clause in these warranty terms is found to be invalid or unenforceable by a competent court, then such a judgement shall not affect the validity or enforceability of any other clause contained in these warranty terms.

13. EC-Type Examination Certificate

TÜV NORD

(1) EC-Type Examination Certificate

(2) Devices and shielding systems intended for regulated use in explosive areas. **Directive 94/9/EC**

(3) Certificate number: **TÜV 07 ATEX 553464 X**

(4) for the device: **Explosion-proof LED headlamp Lite-Ex KL 10**

(5) from the manufacturer: **ecom instruments GmbH**

(6) Address: **Industriest. 2
97959 Assamstadt**

Order number: **8000553464**

Date of issue: **16.05.2007**

(7) The construction of this device and the various permissible details are specified in the appendix to this EC-Type Examination Certificate.

(8) As notified body No. 0044, according to article 9 of the Council Directive of the European Communities dated 23 March 1994 (94/9/EC), TÜV NORD CERT GmbH certifies the fulfilment of the fundamental safety and health requirements for the conception and construction of devices and protective systems for intended use within explosive areas in accordance with appendix II of the directive. The results of the examination are specified in the confidential inspection report No. 07 203 553464.

(9) The fundamental safety and health requirements are fulfilled through compliance with:

EN 60079-0:2004 EN 50020:2002

(10) If the character "X" appends the certificate number, it refers to special conditions in the appendix to this certificate for the safe application of the device.

(11) This EC-Type Examination Certificate only refers to the design and examination of the specified device in accordance with Directive 94/9/EC. Further requirements of this directive apply to the production and marketing of this device. These requirements are not covered by this certificate.

(12) The designation of the device must contain the following details:

Ⓢ II 2 G Ex ia IIC T4

TÜV NORD CERT GmbH, Langemarkstraße 20, 45141 Essen, accredited by the Central Authority of the Federal States for Safety (ZLS), ID No. 0044, Assignee of TÜV NORD CERT GmbH & Co. KG ID No. 0032

Head of the certification body

Schwedt

Hanover branch, Am TÜV 1, 30519 Hanover, Tel: +49 (0)511 986 1455, Fax: +49 (0)511 986 1580

This certificate may be only be published in its unaltered state.
Any extracts or alterations require authorization from TÜV NORD CERT GmbH

(13) APPENDIX**(14) EC-Type Examination Certificate No. TÜV 07 ATEX 553464 X****(15) Description of the device**

The Lite-Ex KL 10 is a headband lamp with an LED bulb. It contains a two-stage on/off switch, suitable for adjusting the brightness, as well as controlling electronics. The power is supplied via two suitable micro batteries.

Permissible ambient temperature range	- 20 °C to + 50 °C
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(16) Test documents are listed in inspection report No. 07 203 553464

(17) Special conditions

- The equipment may only be operated with the designated leather case.
- The equipment may not be opened inside the Ex-area.
- The batteries may only be exchanged outside the Ex-area.
- Additional batteries must not be carried in the Ex-area.
- Only those batteries specified in the manufacturer's safety instructions may be used.
- Only the accessories approved by the manufacturer may be used.
- Avoid contact between the equipment and abrasive acids or bases.

(18) Fundamental safety and health requirements

no additional requirements

14. EC Declaration of Conformity

Further details relating to the declaration of conformity can be found at the following Internet address:

<http://www.ecom-ex.com> in the Product Download area.

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PA000270

WEEE-Reg.-Nr. DE 934 99306

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