



Produktbereich  
Portable Handlampen

**ecom**  
instruments

mobile experts



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## Lite-Ex PL 10

### Operating Instructions

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Zone 0/20



3.000 Lux  
1m Abstand



147x36x36 mm



120 g

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### **Note:**

The current operating manual, the EC Declaration of Conformity and the EC-Type Examination Certificate can be downloaded from the relevant product page at [www.ecom-ex.com](http://www.ecom-ex.com), or alternatively they can be requested directly from the manufacturer.

## **1. Application**

The Lite-Ex PL 10 is a compact, robust and easy-to-use LED flashlight for industrial application in Ex-hazardous areas classified as Zone 2, 1 and 0, as well as Zone 22, 21 and 20, in accordance with directive 1999/92/EC (ATEX 137).

## **2. Safety precautions**

These operating instructions contain information and safety regulations which are to be observed without fail for safe operation in the described conditions. Non-observance of this information and these instructions can have serious consequences or it may violate regulations.

Please read these operating instructions carefully before starting to use the unit!

In case of any doubt (in the form of translation or printing errors) the German language operating instructions shall apply.

## **3. Faults and damage**

If there is any reason to suspect that the safety of the unit has been impaired, it must be withdrawn from use and removed immediately from the Ex-area.

Measures must be taken to prevent it from being restarted accidentally.

We recommend that the unit is returned to the manufacturer for inspection.

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

- there is visible damage to the housing.
- the unit has been subjected to excessive loads.
- the unit has been improperly stored.
- the unit has been damaged in transit.

- unit markings or inscriptions are illegible.
- malfunctions occur.
- permitted limit values have been exceeded.

#### **4. Safety regulations**

Use of this unit assumes that the operator observes the conventional safety regulations and has read the certificate in order to eliminate faulty operation of the unit.

The following safety regulations must also be complied with:

- The unit should 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 type-tested batteries may be used.
- Only those accessories approved by ecom instruments GmbH may be used.
- Only original ecom replacement seals and discs (type PL 10) should be used.
- Avoid contact with aggressive acids or bases.
- The LED housing should not be opened.

#### **4.1 Special conditions for use in explosive areas**

- Storage of the flashlight in these areas is prohibited!
- After changing the batteries or the sealing rings always check to make sure that the sealing rings and threads are clean and in good condition.
- Before using the flashlight in the Ex-area make sure the housing components are screwed tightly by hand and/or as far as their stop in order to ensure the IP rating.

## **5. Safety precautions**

Risk of blinding!

- Do not look directly into the light beam
- Do not aim the light directly into the eyes of another person

## **6. Ex-Data**

EC type approval test certificate no.:

ZELM 05 ATEX 0272 X

Ex-designation:

⊕ II 1G Ex ia op is IIC T4 Ga

⊕ II 1D Ex ia IIIC T130 °C Da

Approved for Zone 2, 1 and 0, Device of the group II, gas group C (explosive gases, vapours or mist), temperature class T4.

Approved for Zone 22, 21 and 20, Device of the group III, explosive dust, IIIC - conductive dust, IIIB – non-conductive dust, IIIA – flammable fibres, T130 °C

## 7. Technical specifications

Ambient temperature Ta: -20 °C ... +50 °C  
Storage temperature: -30 °C ... +60 °C  
Batteries / power supply: 3 x LR03  
according to  
IEC, AAA

Lamp: High performance LED:  
3000 lx  
Operating time: 1200 lx after 3 hours,  
approx. 150 lx after 6 hours  
(at a distance of 1 m)  
Dimensions: 147 x 36 x 36 mm  
Weight: approx. 120g  
(with batteries)  
IP protection class: IP 65 / IP 67  
ESD protection: Anti-static housing  
CE-designation: **CE** 0102

Table with type-tested batteries:

Manufacturer	Model
Eveready Energizer	No. E92
Duracell Procell	MN2400 LR03
Duracell Plus	MN2400 LR03
Varta Max Tech	No. 4703
Varta Industrial Alcaline	No. 4003

Table of approved sealing rings and  
protective discs

Manufacturer	Model
ecom	Sealing ring type PL 10
ecom	Replacement disc PL 10

## 8. Functional description / operating instructions

Please read these operating instructions carefully so that you are familiar with, and are able to use, all of the functions of your Lite-Ex PL 10. For your own safety and information please read the instructions on the following pages carefully!

### 8.1 Assembly of the Lite-Ex PL 10

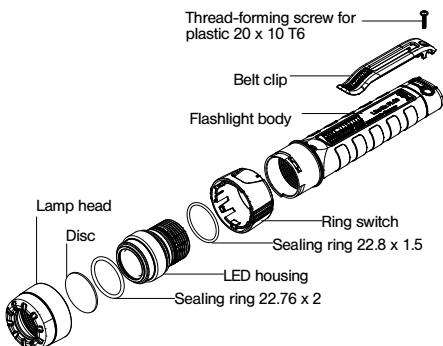


Fig. 1

### 8.2 Getting started

The supplied batteries must be inserted to begin with (outside the Ex-area). In order to be able to use the flashlight in the Ex-area it must be ensured that the lamp head and the body of the flashlight are screwed together tightly. The flashlight can then be switched on by lightly rotating the yellow ring switch clockwise.

### **8.3 Battery replacement**

The batteries should be replaced if the level of luminance is no longer deemed to be satisfactory. It is advisable to change all 3 batteries at the same time. Only the appropriate, approved types of batteries may be used (refer to the table with details of the type-tested batteries under point 7: Technical specifications). To replace the batteries grasp the lamp head firmly, twist the body of the flashlight (incl. ring switch) anti-clockwise and then remove it. The batteries can then be removed from the battery compartment and exchanged. After inserting the new batteries (observe the correct polarity) the body of the flashlight can be screwed back on. Please make sure the flashlight has been screwed together completely before switching it on again.

#### **Battery replacement**

- Only use type-tested batteries (see the table under point 7: Technical specifications).
- Always replace all batteries simultaneously.
- Pay attention to the correct polarity.
- Dispose of depleted batteries in an appropriate and environmentally friendly manner!
- When changing the batteries examine the threads and seals for cleanliness and signs of damage.

### **8.4 Cleaning the ring switch**

A non-contacting ring switch is used to switch on the Lite-Ex PL 10 (see description above). Dirt and moisture do not impair the switching function. The ring switch is easy to clean if excessive amounts of dirt and grime have made it difficult to turn. Start by unscrewing the lamp head. (See point 8.3 Battery replacement). The ring switch



can now be removed and cleaned. When it has been cleaned replace the ring switch and rotate it until it engages firmly in place (magnet must be positioned on the shaft - ecom address side). The lamp head can then be screwed back onto the flashlight.

## **8.5 LED replacement**

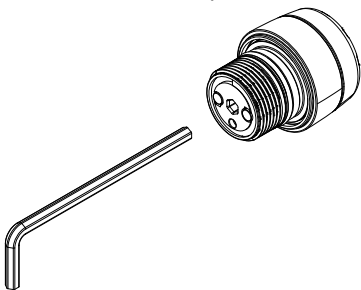
The Lite-Ex PL 10 is equipped with a long-life LED bulb. Under normal conditions it is not necessary to change the LED. If, however, the torch is defective or the brightness of the torch has diminished, it should be sent to ecom instruments for inspection or repair. The LED housing should not be opened!

Manipulating the torch head or LED on your own poses a risk to the safety of the flashlight and is not permitted.

## **8.6 Replacing the protective disc**

The LED housing is protected by the surrounding housing head and an additional protective disc, which is located over the opening where the beam is emitted. The disc is made of high-quality material. Should, however, the disc break, it is possible to replace it. To do this grasp the body of the Lite-Ex PL 10 and the ring switch and then carefully unscrew the lamp head by turning it anti-clockwise. To unscrew the lamp head from the LED housing use an Allen key (AF4) to secure the LED housing in place (see Fig. 2) and unscrew the lamp head. The sealing ring can now be replaced (only use original ecom sealing rings). The LED housing should then be cleaned thoroughly and the sealing ring checked for signs of damage. If the sealing ring exhibits any damage, it should also be replaced (the sealing

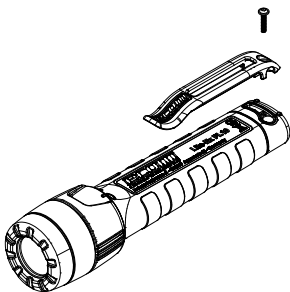
ring is set in a groove under the protective disc). When replacing the lamp head on the LED housing make sure the seal and disc are seated properly. After assembly no part of the seal should be visible through the opening where the beam is emitted. If the LED housing or lens has been damaged, the flashlight should be sent to the manufacturer for repair.



(Fig. 2)

### 8.7 Assembling the belt clip

Remove the belt clip from the plastic bag and attach it to the side of the company logo using the screw provided (see Fig. 3).



(Fig. 3)

## **9. Repair**

Repairs are to be conducted by ecom instruments GmbH or by personnel or service centres authorised by ecom instruments GmbH, because the safety of the unit needs to be tested after repairs are implemented.

## **10. Disposal**

Old electrical devices as well as „historical“ old electrical devices from ecom instruments GmbH are supplied for disposal at our expense and disposed of free of charge in accordance with European Directive 2002/96/EC and the German electrical law of 16/03/2005. The costs associated with returning devices to ecom instruments GmbH are to be borne by the sender.

In accordance with Article 1, Section 18 and Article 2 of the Act revising the law of Waste-Related Product Responsibility for Batteries and Accumulators (Gesetz zur Neuregelung der abfallrechtlichen Produktverantwortung für Batterien und Akkumulatoren) dated 25 June 2009, we are obligated to provide the following information.

Your device contains an alkaline battery.

Depleted batteries should never be disposed of along with normal or household waste. Old batteries can contain harmful substances that are hazardous to health and damaging to the environment. Please return the batteries. Return is free of charge and required by law. Please only dispose of discharged batteries in the designated containers or take precautions to prevent short circuits.


Note: The battery used in this unit poses a fire

hazard and can cause chemical injuries if it is used improperly. Neither the battery nor the battery cells should be opened or disassembled and they should not be burned or exposed to temperatures exceeding 100 °C.

If the battery needs to be disposed of, it can be removed as described under point 8.3. The disposal regulations specified above are also applicable for old devices.

All batteries can be recycled. Precious raw materials such as iron, zinc and nickel can therefore be reused.



The symbol  means that batteries should not be disposed of along with normal or household waste.

## **11. Cleaning, maintenance and storage**

- Only use a suitable cloth or sponge to clean the unit. Do not use any solvents or abrasive cleaning agents when cleaning.
- It is recommended that you have the functionality and light output of the unit inspected by the manufacturer every two years.
- The batteries should be removed from the unit during prolonged periods of storage.
- Do not allow storage temperatures to exceed or fall below the permitted range of -30 °C to +60 °C!

## **12. Warranty and liability**

In accordance with our general terms and conditions ecom instruments GmbH provides a warranty for this product for a period of two years regarding its function and material under the specified and permitted operating and maintenance conditions. This excludes all parts that are subject to wear and tear (e.g. batteries, probes, calibration units, LEDs, etc.).

This warranty does not extend to products that are used improperly, have been modified, neglected, damaged in accidents or exposed to abnormal operating conditions and inappropriate handling.

Any claims under the warranty can be invoked by returning the defective equipment to the manufacturer. We reserve the right to repair, adjust or exchange the device.

The aforementioned guarantee conditions are the sole and only right of the purchaser to compensation, are exclusively valid and replace all other contract or legal warranty obligations. ecom instruments GmbH assumes no liability for special, direct, indirect, accompanying or consequential damage as well as losses including the loss of data, independent of whether it was caused by violation of the warranty obligation, lawful or unlawful action, action in good faith or any other action.

If the limitation of a legal warranty as well as the exclusion or limitation of accompanying or consequential damage is not permissible in certain countries, it may be that the aforemen-

tioned limitations and exclusions are not valid for every purchaser. Should any such clause of these warranty conditions be declared ineffective or unenforceable by a competent court, then the effectiveness or enforceability of any of the other conditions of these warranty conditions shall remain unaffected by such a judgement.

# 13. EC Declaration of Conformity

Communication  
Portable Lighting  
Mobile Computing  
Measuring & Calibration



## Declaration of EC-Conformity according to directive 94/9/EC (ATEX)

We ecom instruments GmbH, declare under our sole responsibility, that the product to which this declaration relates, is in accordance with the provision of the following standards, directives and norms:

name & address of manufacturer in the EC	ecom instruments GmbH Industriestraße 2 97959 Assamstadt Germany
description of device	LED torch type: Lite-Ex PL 10
Ex-designation	Ⓢ II 1G Ex ia op is IIC T4 Ga Ⓢ II 1D Ex ia IIC T130°C Da
EC-type examination certificate	ZELM 05 ATEX 0272 X
Certification body	ZELM ex Prüf- und Zertifizierungsstelle Siekgraben 56 38124 Braunschweig identification number: 0820
name & address of auditing body a) Quality Management System according to ISO 9001	TÜV Süd Management Service GmbH Ridlerstraße 65 80339 München, Germany
name & address of auditing body b) Quality Management System of production according to directive 94/9/EC (ATEX)	Physikalisch-Technische Bundesanstalt Bundesallee 100 38116 Braunschweig, Germany identification number: 0102
applied harmonized standards	EN 60079-0:2009      EN 60079-26:2007 EN 60079-11:2007      EN 60079-28:2007 EN 61241-11:2006
applied European directives	94/9/EC

**ecom instruments GmbH**

Assamstadt 21. 09. 2010

Rolf Nied  
Managing Director

0000 (date: 01/10)  
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## **14. EC-Type Examination Certificate**

- 1) The following special conditions according to the EC type approval test certificate must be observed:

Opening the housing within the explosive area is not permitted.

1. The installed batteries may only be exchanged outside the explosive area and only by those types approved by the manufacturer.
  2. A visual and functional inspection should be conducted at regular intervals to ensure an orderly external condition of the flashlight. If the batteries are depleted or there is visible damage, the flashlight is to be removed from the explosive area.
  3. Damaged seals should only be exchanged in accordance with the instructions in the operating manual.
  4. The operating manual is to be observed.
- 
- 2) The current EC-Type Examination Certificate can be downloaded from the relevant product page at [www.ecom-ex.com](http://www.ecom-ex.com).





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