



## Instruction Manual

**H-4 DC A**



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### **1. Introduction**

Providing an intense bright inspection light beam, the intrinsically safe rechargeable handlamp type H-4 DC A is certified for use in Ex-hazardous areas classified as either Zone 1 or 2 and also Zone 21 or 22 according to IEC/CENELEC.

### **2. Safety information**

Safe operation of the equipment is maintained providing that all instructions and warnings contained in this manual are fully observed. In case of doubt (due to translation and/or printing errors) reference should be made to the original German instruction manual.

### **3. Faults and damage**

If there is any reason to suspect that the safety of the unit has been affected then it must be immediately withdrawn from use and precautionary measures taken in order to prevent any further use of in the hazardous area.

The safety and integrity of the unit may be compromised by, for example:

- External damage to the housing
- Exposure to excessive loads
- Incorrect storage of the unit
- Damage sustained in transit
- Correct certification is illegible
- Functioning errors occur
- The permitted limitations are exceeded

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

The use of the intrinsically safe H-4 DC A meets the requirements of the regulations providing that the user observes and applies the requirements as laid down in the regulations and that improper and incorrect use of the unit is avoided.


- The device must not be opened within the Ex-hazardous area.
- Batteries must only be changed outside of the Ex-hazardous area.
- The use of additional batteries whilst in the Ex-hazardous area is not permitted.
- Only batteries of type R20 and LR20 according to IEC regulations are permitted.
- The use of any other type of battery is strictly forbidden in that it will invalidate the Ex-Data certification and presents a safety risk.

#### **5. Ex-Data**



EC-Certificate of conformity-Nr.: BAS 01 ATEX 2187

Ex-marking:

 II 2 GD EEx e ib IIC T4  
IP 66, T135°C

Authorised for Zone 1 and 2, Equipment groups II, Gas group C hazardous gases, vapour or fog, Temperature class T4.

Authorised for Zone 21 and 22, Equipment groups II, Gas group C, hazardous dust, Temperature class T4.

## **6. Technical Data**

Working temperature Ta:	-20 ... +40°C
Storage temperature:	-20 ... +40°C
Operating time:	20 hours
Dimensions:	190 x 130 (L x diameter)
Weight:	approx. 1400 g (with batteries)
IP-Rating:	IP 66
CE-marking:	CE 0102
Power supply:	4 x LR20/R20
Bulb:	Halogen 4,8 Volt and 0,5 Ampere, Type H-141

## **7. Operating instructions**

### **7.1. Handlamp**

Please read through the following operating instructions in order to help enable the optimisation of all functions of the handlamp type H-4 DCA.

For your own information and safety please read the advice on the following pages.

### **7.2. Before use**

Before use in the Ex-hazardous area, ensure that the handlamp head is screwed fully closed to the main casing. The handlamp can now be switched on and off with the sliding switch.

### **7.3. Opening**

Warning: Do not open the handlamp within the Ex-hazardous area.

Before opening, switch to OFF. The handlamp head is removed by turning anticlockwise from the main casing – please note, that as the handlamp head is fitted with a high integrity seal, this action

can be difficult to start. To replace the handlamp head, reverse the procedure – ensuring that the handlamp head is screwed fully closed.

#### ***7.4. Bulb replacement***

With the handlamp head removed the bulb is accessed by unscrewing - in an anticlockwise direction - the bulb retention socket. Please ensure that only correctly specified bulbs are used.

#### ***7.5. Battery replacement***

When the battery power is becoming exhausted all of the batteries should be replaced. Only those batteries of the corresponding permitted types can be used.

With the handlamp head removed the batteries can be accessed and removed from the cavity of the main casing.

Replace in reverse procedure – ensuring that all the contacts are clean.

#### ***8. Repairs***

The general terms and conditions of ELEX V apply to repair work. The manufacturer must carry out the repair work in order to check for the safe functioning of the protective circuits.

#### ***9. Cleaning***

The equipment should only be cleaned using a cloth or sponge dampened with water. The use of cleaning solutions or scouring agents is not advised.

## **10. Guarantee and liability**

The instrument parts and functions are guaranteed for two years, starting from the date of delivery. This guarantee remains valid if defective components are submitted. We reserve the right to exchange, modify or repair the equipment.

The company ECOM Rolf Nied GmbH is responsible for the granting of the guarantee. It takes no responsibility for damages, expenses or losses resulting from the use or purchase of the equipment. Neither is ECOM liable for damages, expenses or losses arising from any special or subsequent damages.

Further, any use other than that as described in section 1 is not permitted. ECOM is not liable for any damages resulting from any differing or excessive use. The user carries this risk alone.

In those countries where the restriction of a legal guarantee (e.g. the exclusion or limitation of subsequent damage) is not permitted, it could be that the above mentioned limitations and exclusions are not valid for each purchase. Should any clause of this guarantee be found ineffective or unacceptable before a court, then the effectivity or enforcement of any other part of this guarantee should be unaffected by such claims.

### **11. EC-Declaration of conformity**

This product fulfils all relevant guideline regulations 94/9/EG for equipment and protective systems in potentially explosive areas. The granted EC certificate of conformity confirms that the product complies with all relevant norms and fundamental health and safety regulations.

Decisive harmonised norms:

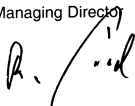
- |                          |  |
|--------------------------|--|
| <b>EN 50014:1997</b>     | Electrical means of production for hazardous areas general regulations.        |
| <b>EN 50019:2000</b>     | Electrical means of production for hazardous areas increased safety "e".       |
| <b>EN 50020:1994</b>     | Electrical means of production for hazardous areas intrinsic regulations, "i". |
| <b>EN 50281-1-1:1998</b> | Electrical means of production for hazardous areas flammable dusts.            |

This product has the CE indicator to confirm that all relevant guidelines are fulfilled.

ECOM Rolf Nied GmbH






Assamstadt, November 2001

Rolf Nied  
Managing Director





## 12. EC-Certificate of conformity

		
1	<b>EC-TYPE EXAMINATION CERTIFICATE</b>	
2	<b>Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC</b>	
3	EC-Type Examination Certificate Number :	<b>BAS01ATEX2187</b>
4	Equipment or Protective System:	<b>HANDLAMP H-4DCA</b>
5	This Certificate is held by:	<b>ECOM ROLF NIED GmbH</b>
6	Address:	<b>Industriestrasse 2, D-97959 Assamstadt, Germany</b>
7	This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.	
8	The Electrical Equipment Certification Service, notified body number 600 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.	
	The examination and test results are recorded in confidential Report N°	
	01(C)0295 dated 14 May 2001	
9	Compliance with the Essential Health and Safety Requirements has been assured by compliance with: <b>EN 50014: 1997 + Amds 1 &amp; 2 EN 50019: 2000 EN 50020: 1994 + Amd 1 EN 50028-1-1:1998</b> except in respect of those requirements listed at item 18 of the Schedule.	
10	If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.	
11	This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.	
12	The marking of the equipment or protective system shall include the following:-	
	 <b>II 2 GD EEx eib IIC T4 IP66 T135°C</b>	
	This certificate may only be reproduced in its entirety and without any change, schedule included.	
	File No: EECS 4206/03/001	
	<small>This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances.</small>	
		
	Electrical Equipment Certification Service Health and Safety Executive Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom Tel: +44(0)1298 28000 Fax: +44(0)1298 28244 Internet: www.baseefa.com e-mail: baseefa.info.eecs@hsl.gov.uk	I M CLEARE DIRECTOR 21 May 2001



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## Schedule

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## EC-TYPE EXAMINATION CERTIFICATE N° BAS01ATEX2187

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## Description of Equipment or Protective System

The **Handlamp H-4DCA** is a portable light with a moulded anti-static plastic case and lens ring, and a toughened glass lens. The lens is sealed to the lens ring and the lens ring is sealed to the case by nitrile, neoprene or EPDM O-rings/seals. The lens ring screws onto the body and as an option may be locked in place by a socket head lock screw. The lock screw prevents switch slider mechanism operation until the lens ring is locked in place.

The impact resistant enclosure provides an ingress protection rating of IP66.

The switch slider mechanism contains a magnet which operates an internal hermetically sealed reed switch.

Power is provided by means of four R20, LR20, IEC 86 type primary cells held in a removable cassette.

A 4.8 volt 0.5 amp type H-141 bulb is used which is considered to be infallible, i.e. it will not fail to a short circuit condition.

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## Report Nos.

01(C)0295 dated 14 May 2001

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## Special Conditions For Safe Use

None

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## Essential Health and Safety Requirements

All requirements are covered by compliance with EN 50014: 1997 + Amds 1 & 2, EN 50019: 2000, EN 50020: 1994 + Amd 1 and EN 50281-1-1: 1998.

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## DOCUMENTS

Number	Sheet	Issue	Date	Description
DC-911	1 of 1	1	4/5/01	Label
BAS00ATEX2203			8/1/01	Original Certificate

This certificate may only be reproduced in its entirety and without any change, schedule included.

BASEEFA List Keywords  
2HANDLUM



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