



## (1) EC-Type Examination Certificate

- (2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 94/9/EC**
- (3) Examination Certificate Number  
**SEV 08 ATEX 0164**
- (4) Equipment: Handlight Type UK4AA – E\*\*\*
- (5) Manufacturer: Underwater Kinetics
- (6) Address: 13400 Danielson Street, US-Poway, CA 92064, USA
- (7) The equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) Electrosuisse SEV as notified body No. 1258 in accordance with article 9 of the Council Directive of the European Communities of 23 March 1994 (94/9/EC), certifies that this equipment 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 results of the examination are recorded in confidential report No. 08-IK-0392.01
- (9) Compliance with the essential health and safety requirements has been assured by compliance with:
- |                         |                        |                         |
|-------------------------|------------------------|-------------------------|
| <b>EN 1127-1:2007</b>   | <b>EN 60079-0:2006</b> | <b>EN 60079-7:2007</b>  |
| <b>EN 60079-11:2007</b> | <b>EN 61241-0:2006</b> | <b>EN 61241-11:2006</b> |
- (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 examination certificate relates only to design and construction of the specified equipment in accordance to the directive 94/9/EC. Further requirements of this directive apply to the manufacturing process and the placing on the market of the equipment.
- (12) The marking of the equipment shall include the following:


**II 2G**      **Ex e ib IIC T4**  
**II 2D**      **Ex ibD 21 T98°C**

**Electrosuisse SEV**  
Certification Body ATEX

Fehraltorf, 2009-04-09

Martin Plüss  
Product Certification

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# Test report

## Ref. 08-IK-0392.01

### General information

Test reports of Electrosuisse SEV contain the result of single tests on products submitted for testing. Terms used are in accordance with Directive 94/9/EC and harmonised standards.

### Manufacturer

Underwater Kinetics, 13400 Danielson Street, US-Poway, CA 92064, USA

### Test object

Handlight Type UK4AA – E\*\*\*

### Device identification with the following test certificate number:

SEV 08 ATEX 0164

### Standards referred to

EN 1127-1:2007

EN 60079-0:2006

EN 60079-7:2007

EN 60079-11:2007

EN 61241-0:2006

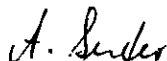
EN 61241-11:2006

### Test result

The device complies with the type requirements in accordance with the beforementioned standards.

Fehraltorf, 06 April 2009

Electrosuisse  
Product Qualification



Albert Suter  
Product Qualification



Peter Bosshard  
Product Qualification

**Test Report Ref. 08-IK-0392.01**

Underwater Kinetics, 13400 Danielson Street, US-Poway, CA 92064, USA

**Description**

The handlight type UK4AA – E\*\*\* is a universal lamp suitable for use in potentially explosive atmospheres zones 1 and 21. The light source in the lamp head consists of either an LED unit or an incandescent light bulb unit. Depending on the particular model, the lamp is switched on and off with a pushbutton on the side or back or by screwing and unscrewing the lamp head. The used batteries are primary cells. Depending on the particular model, the lamp housing has a special clip for attaching to Gallet firemen's helmets.

**Type designation**

The dots or stars \* in the type designation are defined in a separate model or type sheet (4AA LIGHT FAMILY).

**Ratings**

Batteries (Alkaline)	Voltage (U)	ELED element
4 x DURACELL PROCEL; LR6 / AA / MN1500	6.0V (4x1.5V)	14849
4 x DURACELL PLUS; LR6 / AA / MN1500	6.0V (4x1.5V)	14849
4 x Energizer Industial; LR6 / AA / EN91 / AM3	6.0V (4x1.5V)	14849

or

Batteries (Alkaline)	Voltage (U)	Light bulb element
4 x DURACELL; LR6 / AA / MN1500	6.0V (4x1.5V)	14801
4 x DURACELL PLUS; LR6 / AA / MN1500	6.0V (4x1.5V)	14801
4 x Energizer Industial; LR6 / AA / EN91 / AM3	6.0V (4x1.5V)	14801

**Notes**

1. According to Directive 94/9/EC (ATEX 95), Appendix I, the handlight type UK4AA – E\*\*\* is a device of equipment group II, category 2G, which according to Directive 99/92/EC (ATEX 137) can be used in zones 1 and 2 and gas groups IIA, IIB and IIC, which are potentially explosive due to the presence of flammable materials in the temperature classes T1 to T4.
2. According to Directive 94/9/EC (ATEX 95), Appendix I, the handlight type UK4AA – E\*\*\* is also a device of equipment group II, category 2D, which according to Directive 99/92/EC (ATEX 137) can be used in zones 21 and 22 subject to combustibile dusts.
3. The permissible ambient temperature range is –20°C to +40°C.

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Underwater Kinetics, 13400 Danielson Street, US-Poway, CA 92064, USA

4. The handlight type UK4AA – E\*\*\* must not be opened in potentially explosive atmospheres or in the presence of combustible dusts.
5. Only the batteries and the lamp elements specified in the ratings must be used.
6. Only to be used are batteries of the same electrochemical system, same cell construction and nominal capacity and same manufacturer.


**Special conditions X**

none

**Routine test**


The routine test and/or necessary tests must be carried out by the manufacturer in order to verify that the design, components and materials of each produced device correspond with the test documents.

**Ex classification**

 II 2G Ex e ib IIC T4  
II 2D Ex ibD' 21 T98°C

**Marking according to Directive 94/9/EC**

According to Directive 94/9/EC, the marking must be clearly visible, legible and durable and must include the following data, preferably in the order below:

1. Name and domicile of the manufacturer  
Type designation  
Production or lot number  
Year of manufacture  
Mark for the prevention of explosions  with the indication of equipment groups and categories.  
Ex classification  
Mark of the certification body with certificate number
2. Additional data defined in the particular European standards for the relevant types of protection.  
Data normally required by design standards for equipment.

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**Test documents**

<b>Title</b>	<b>No. of pages</b>	<b>Number</b>	<b>Date</b>
4AA LIGHT FAMILY	1	800090 / A	03.02.09
Drawing part No. Z120299.01	1	X101095 / F	05.09.06
Drawing THERMISTOR MODULE	1	600033 / D	22.07.08
Drawing THERMISTOR	1	200022 / A	26.06.06
Drawing UK4AA - ES	1	800087-12 / A	14.01.09
Drawing UK4AA – EN	1	800086-09 / A	13.01.09
Drawing UK4AA – EN (GALLET)	1	800085-10 / A	14.01.09
Drawing UK4AA – ELED ZOOM T (GALLET)	1	800084-07 / A	13.01.09
Drawing UK4AA – ELED ZOOM (GALLET)	1	800083-16 / A	14.01.09
Drawing UK4AA – ET XENON	1	800063-05 / A	12.01.09
Drawing UK4AA – ES (GALLET)	1	800023-15 / A	14.01.09
Drawing UK4AA – ET (GALLET) XENON	1	800023-06 / A	12.01.09
Drawing UK4AA – ELED ZOOM	1	800001-14 / A	12.01.09
Drawing ASSY 4AA TEETER TOTTER NON-HEATED	1	600199 / A	25.09.08
Drawing SWITCH COVER RETAINING DISK 4AA TS	1	400661 / A	29.10.08
Drawing PUSH BUTTON COVER 4AA TS	1	400649 / A3	22.10.08
Drawing END CAP 4AA TS	1	400217 / A	23.07.08
Drawing MEMBRANE VENT	1	200068 / A	29.10.08
Parts List of UK 4AA LIGHT FAMILY	5	---	16.01.09
Drawing UK4AA MODEL EN ATEX ENGRAVING TEXT	1	400917-09 / A	13.03.09
Drawing UK4AA MODEL EN (GALLET) ATEX ENGRAVING TEXT	1	400917-10 / A	13.03.09
Drawing UK4AA MODEL ES ATEX ENGRAVING TEXT	1	400917-12 / A	13.03.09
Drawing UK4AA MODEL ES (GALLET) ATEX ENGRAVING TEXT	1	400917-15 / A	13.03.09
Drawing UK4AA MODEL ET ATEX ENGRAVING TEXT	1	400917-05 / A	13.03.09
Drawing UK4AA MODEL ET (GALLET) ATEX ENGRAVING TEXT	1	400917-06 / A	13.03.09
Drawing UK4AA MODEL ELED ZOOM ATEX ENGRAVING TEXT	1	400917-14 / A	13.03.09
Drawing UK4AA MODEL ELED ZOOM (GALLET) ATEX ENGRAVING TEXT	1	400917-16 / A	13.03.09

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<b>Title</b>	<b>No. of pages</b>	<b>Number</b>	<b>Date</b>
Drawing UK4AA MODEL ELED ZOOM T ATEX ENGRAVING TEXT	1	400917-03 / A	13.03.09
Drawing UK4AA MODEL ELED ZOOM T (GALLET) ATEX ENGRAVING TEXT	1	400917-07 / A	13.03.09
Information (German language part only) UK4AA eLED Zoom	1	400845	09.01
Information (German language part only) UK4AA eLED Zoom-T	1	400846	09.01
Information (German language part only) UK4AA-EN	1	400844	09.01
Information (German language part only) UK4AA-ES	1	400843	09.01
Information (German language part only) UK4AA-ET	1	400848	09.01

The above listed documents must be marked with a stamp of Electrosuisse SEV dated 06.04.09.

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<b>Title</b>	<b>No. of pages</b>	<b>Number</b>	<b>Date</b>
Inspection record overview	5	08-IK-0392.01	06.04.09
Photo – Documentation	5	08-IK-0392.01	06.04.09
Inspection record EN 1127-1	12	08-IK-0392.01	06.04.09
Inspection record EN 60079-0	15	08-IK-0392.01	06.04.09
Inspection record EN 60079-7	7	08-IK-0392.01	06.04.09
Inspection record EN 60079-11	13	08-IK-0392.01	06.04.09
Inspection record EN 61241-0	38	08-IK-0392.01	06.04.09
Inspection record EN 61241-11	12	08-IK-0392.01	06.04.09

<b>Title</b>	<b>No. of pages</b>	<b>Number</b>	<b>Date</b>
Data sheets	14	---	---

Several test specimen according standard(s)

(13)

## Appendix

(14)

### EC-Type Examination Certificate SEV 08 ATEX 0164

(15)

#### Description of the equipment

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## Appendix to EC-Type Examination Certificate SEV 08 ATEX 0164

- (16) Test Report 08-IK-0392.01
- (17) Special conditions for safe use  
none
- (18) Fundamental essential health and safety requirements  
Fulfilled by the standards applied

**Electrosuisse SEV**  
Certification Body ATEX

Fehraltorf, 2009-04-09

Martin Plüss  
Product Certification



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