[1] # EC-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

[3] EC-Type Examination Certificate Number: **DEMKO 13 ATEX 1302999X Rev. 0**

[4] Equipment or Protective System: **Intrinsically Safe Flashlight**

[5] Manufacturer: **Daysun Industrial Corporation**

[6] Address: **1st Floor, No. 6, Lane 110 Sec. 4, Hsi-Men Road, Tainan 704 Taiwan**

[7] This equipment or protective system and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S, notified body number 0539 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 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 no. **13NK02999**

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2009 **EN 60079-11:2007** **EN 60079-26:2007**

[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, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system.
These are not covered by the certificate.

[12] The marking of the equipment or protective system shall include the following:

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Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product(s) described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Equipment Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Applicant. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured products. UL has not established Follow-Up Service or other surveillance of the product. The Applicant/Manufacturer are solely and fully responsible for conformity of all products to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2013-10-08

Notified Body UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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[13] [14]

Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 13 ATEX 1302999X Rev. 0
Report: 13NK02999

[15] Description of Equipment or protective system

Models SF-3, SF-5, SF-7, and SF-8 are intrinsically safe, portable, hand-held LED flashlights powered by four ”AA” size, 1.5 V alkaline cells or by four ”AA” size, 1.2 V NiMH cells connected in series. The models are available in three different color enclosures: yellow, orange, black. The following batteries were considered acceptable for use in the flashlights:

Alkaline types	NiMH types
Energizer model E91	Energizer model NH15-2300
Duracell model MN1500	
Rayovac model 815	
Ansmann model 5015548	
Ansmann model 1502-0002	

Temperature range

The ambient temperature range is -20°C to +40°C.

Performance Testing

The optical radiation output of the apparatus with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 94/9/EC is not covered in this certificate.

Routine tests

None.

[16] Report No.

Project Report No.: 13NK02999 (Hazardous Location Testing)

Documents:

Description:	Drawing No.:	Rev. Level:	Date:
Mechanical BOM SF-3/SF-5/SF-8	BM1. SF-3 BOM-ME	1.0	2013-09-10
Mechanical BOM SF-7	BM2. SF-7 BOM-ME	1.0	2013-09-10
Electrical BOM SF-3/SF-5/SF-7/SF-8	B02.BOM-EE	1.0	2013-08-14
Schematics	E01. SF-3 Schematics	1.0	2013-05-11
LED Board Layout	E02. SF-3 LED1	1.0	2013-06-13
SW Board Layout	E03. SF-3 SW	1.0	2013-06-13
CON Board Layout	E04. SF-3 CON1	1.0	2013-06-13
Exploded View SF-3	EX01. SF-3 Explode	1.0	2013-06-13
Exploded View SF-5	EX01. SF-5 Explode	1.0	2013-06-13
Exploded View SF-7	EX01. SF-7 Explode	1.0	2013-06-13
Exploded View SF-8	EX01. SF-8 Explode	1.0	2013-06-13
Model Differences	EX02. Model Difference	1.0	2013-08-30
SF-3 Marking Label	L01. SF-3 Marking	1.0	2013-10-08
SF-5 Marking Label	L01. SF-5 Marking	1.0	2013-10-08
SF-7 Marking Label	L01. SF-7 Marking	1.0	2013-10-08
SF-8 Marking Label	L01. SF-8 Marking	1.0	2013-10-08
SF-3 Cap Lens	M01. SF-3 Cap Lens	1.0	2013-01-23
SF-3 Cap Rubber	M02. SF-3 Cap Rubber	1.0	2013-01-23
SF-5 Cap Rubber	M02. SF-5 Cap Rubber	1.0	2013-01-23
SF-7 Cap Rubber	M02. SF-7 Cap Rubber	1.0	2013-01-23
SF-8 Cap Rubber	M02. SF-8 Cap Rubber	1.0	2013-01-23
SF-3 Body	M03. SF-3 Body	1.0	2013-01-23
SF-5 Body	M03. SF-5 Body	1.0	2013-01-23
SF-7 Body	M03. SF-7 Body	1.0	2013-01-23
SF-8 Body	M03. SF-8 Body	1.0	2013-01-23
SF-3 Battery Insulator	M04. SF-3 Battery Insulator	1.0	2013-01-23
SF-3 Vent	M06. SF-3 Vent	1.0	2013-06-11

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE No.**

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SF-3 O-Ring	M07. SF-3 O-Ring	1.0	2013-09-26
SF-3 Wire	M08. SF-3 Wire	1.0	2013-08-29
Lamp Assembly	EX03. Lamp Assembly	1.0	2013-08-30
Wire Connection	E05. SF-3 Wire Connection	1.0	2013-06-11
Lamp Upper Cap	M09. SF-3 Lamp Upper Cap	1.0	2013-10-02
Lamp Lower Cap	M05. SF-3 Lamp Lower Cap	1.1	2013-05-25
User Manual SF-3	UM01. SF-3	1.0	2013-09-26
User Manual SF-5	UM01. SF-5	1.0	2013-09-26
User Manual SF-7	UM01. SF-7	1.0	2013-09-26
User Manual SF-8	UM01. SF-8	1.0	2013-09-26

[17] Special conditions for safe use:

- Read manual before use.
- Do not open the enclosure in a hazardous area.
- Replace batteries only in non-hazardous areas.
- Use only battery type Energizer E91, Duracell MN1500, Rayovac 815, Ansmann 5015548, Ansmann 1502-0002, or Energizer NH15-2300.
- To reduce the risk of explosion do not mix new batteries with used batteries, or mix batteries from different manufacturers or from different types.
- Do not charge NiMH batteries in the flashlight. Charge the NiMH batteries according to the manufacturer's specification.
- The screw shall be secured tightly after opening and closing of the enclosure.

[18] Essential Health and Safety Requirements

Concerning ESR this Schedule verifies compliance with the Annex III of ATEX directive only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

Additional information

The Models SF-3, SF-5, SF-7, and SF-8 have in addition passed the tests for Ingress Protection to IP 6X in accordance with EN60529: 1991/A1 2001.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.