



1 **TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 09ATEX4175** Issue: **2**

4 Equipment: **HDL Series Wellglass Luminaires**

5 Applicant: **Hadar Lighting**

6 Address: Jubilee Industrial Estate  
Ashington  
Northumberland NE63 8UG  
UK

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

8 Sira Certification Service certifies that this equipment has been found to comply with the Essential Health and Safety Requirements that relate to the design of Category 3 equipment, which is intended for use in potentially explosive atmospheres. These Essential Health and Safety Requirements are given in Annex II to European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

EN 60079-0:2006                      EN 60079-15:2005                      EN 61241-1:2004  
IEC 60079-0:2007 (used for guidance in respect of marking and general requirements for dust)

10 If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured.

12 The marking of the equipment shall include the following:



II 3 G D

Ex nR II T4 Gc (Pendant)

Ex nR II T3 Gc (Universal)

Ex tc IIIC T130°C Dc IP67 (Pendant)

Ex tc IIIC T175°C Dc IP67 (Universal)

(Ta = -20°C to +55°C or 45°C)

Project Number    23841  
C. Index            05

C Ellaby  
Certification Officer

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## SCHEDULE

### TYPE EXAMINATION CERTIFICATE

Sira 09ATEX4175

Issue 2

#### 13 DESCRIPTION OF EQUIPMENT

The HDL series Wellglass Luminaires externally comprise a main housing, a domed shape lampglass, a lampglass ring and a lampglass retainer, internally a removeable casting houses the control gear and lampholder. The main housing, lampglass ring, lampglass retainer and control gear housing are manufactured from cast aluminium alloy LM6, the lampglass is manufactured from toughened borosilicate glass. The lampglass is retained within the lampglass ring by silicone resin and the lampglass retaining casting is secured to the lampglass ring by six, M6 x 16, socket head cap screws and the lampglass ring is secured to the main housing by four, M12 x 30 socket head cap screws. The main housing contains two bosses in the side wall, each with an M20 x 1.5 threaded hole to allow fitting a suitable certified cable gland. Internally the HDL series consists of the control gear housing casting which contains the ballast, capacitor, ignitor etc on the underside and the lamp, lampholder and mains terminal block on the top, the entire enclosure is rated Ex nR.

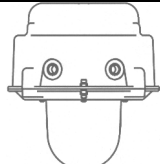
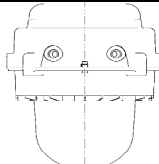
#### Lamp ratings and control gear configurations

Style	Ratings	Control Gear
MBI lamps	220 - 250 V ac 50/60 Hz	Ballast, capacitor & optional ignitor
MBF lamps	220 - 250 V ac 50/60 Hz	Ballast, capacitor & optional ignitor
SON lamps	220 - 250 V ac 50/60 Hz	Ballast, capacitor & optional ignitor

- The main body and lampglass ring may be manufactured from cast aluminium alloy LM25 or AL102.
- The lampglass may be manufactured in different colours.
- The cable entry points may use different threadforms, e.g.:
  - BSPP to BS 2779:1986
  - BSPT to BS 21:1985
  - ET (conduit) to BS 31:1940 (1979) Table A
  - ISO to 7/1:1992
  - NPT to ANSI/ASME B1.20.1:1983
  - NPT to USAS B2.1:1968
  - PG to DIN 40430:1971

**Variation 1** - This variation introduced the following change:

- The introduction of the Large Wellglass Luminaire; the previously defined design options together with the lamp ratings and control gear configurations (adjusted to only include discharge lamps) are relevant to the new large version. The following table clarifies the details of the products that are covered by this certificate, the original description being modified accordingly.

Description	Small Wellglass Discharge Lamps	Large Wellglass Discharge Lamps
Type ref.	HDL223	HDL224
Protection	Ex nR	Ex nR
Rating	Up to 200 W	Up to 400 W
Ambient temp.	-20°C to +55°C	-20°C to +45°C
Outline drawing		

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## Sira Certification Service

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## SCHEDULE

### TYPE EXAMINATION CERTIFICATE

Sira 09ATEX4175

Issue 2

**Variation 2** - This variation introduced the following changes:

- i. The change of the revision status of the approved drawings was recognised; the marking and routine testing modifications detailed in the new drawings are related to other certification involved with these products and do not affect aspects relevant to explosion safety covered by certificate number Sira 09ATEX4175.

#### 14 DESCRIPTIVE DOCUMENTS

##### 14.1 Drawings

Refer to Certificate Annexe.

##### 14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	2 June 2009	R51A20042A	The release of the prime certificate.
1	30 March 2010	R20765A/00	The introduction of Variation 1.
2	08 December 2010	R23841A/00	The introduction of Variation 1.

#### 15 SPECIAL CONDITIONS FOR SAFE USE

None

#### 16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed reports listed in Section 14.2.

#### 17 CONDITIONS OF CERTIFICATION

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of Type Examination Certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.
- 17.3 Each HDL Series Wellglass Luminaire intended for use in zone 2 applications where the explosion protection is restricted breathing shall be subjected to the test detailed in either EN 60079-15:2005 or IEC 60079-15:2005 clause 34.2.3.

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# Certificate Annexe

Certificate Number: Sira 09ATEX1100  
Equipment: HDL Series Wellglass Luminaires  
Applicant: Hadar Lighting



## Issue 0

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
ALC0009	1 of 2	0	18 May 09	Wellglass Range of Luminaires
ALC0009	2 of 2	0	18 May 09	Wellglass Range of Luminaires

## Issue 1

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
ALC0009	1 of 3	1	18 Mar 10	Wellglass Range of Luminaires
ALC0009	2 of 3	1	18 Mar 10	Wellglass Range of Luminaires
ALC0009	3 of 3	0	18 Mar 10	Wellglass Range of Luminaires

\* The revision status of this drawing was changed by Issue 2 to correct a typographical error

## Issue 2

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
ALC0009	1 of 3	2	02 Dec 10	Wellglass Range Of Luminaires
ALC0009	2 of 3	2	02 Dec 10	Wellglass Range Of Luminaires
ALC0009	3 of 3	1	02 Dec 10	Wellglass Range Of Luminaires

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