



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 19ATEX4226X** Issue: **3**

4 Equipment: **SafeSite GRP LED Linear**

5 Applicant: **Dialight Corporation**

6 Address: **1501 Route 34 South
Farmingdale
New Jersey 07727
USA**

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

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

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 to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-7:2015+A1:2018 EN 60079-18:2015+A1:2017
EN 60079-28:2015 EN 60079-31:2014

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 2GD
Ex eb mb op is IIC T5/T4 Gb
Ex tb op is IIIC 95°C/T130°C Db
-20°C - +50°C for T5 and 95°C
-40°C - +65°C for T4 and 130°C

Signed: M Halliwell

Title: Director of Operations



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13 DESCRIPTION OF EQUIPMENT

The P2***** and P4***** Series SafeSite GRP LED Linear have a plastic enclosure which consists of a plastic body, a plastic cover and a lens which is made of tempered glass or plastic and the cover fixed by sixteen or fourteen M6x20 stainless steel socket head type screws. The glass lens is secured with the enclosure by the compression of the cast ring and glue, the Plastic lens is secured within the enclosure by O-ring and screws. There are two terminal boxes located, one at each end of the luminaire separately, the material of cover of terminal box is same as that of the luminaire body. Each Terminal box has two cable entries are at the side wall of terminal box which are used to install M25 or M20 certified cable glands or stopping plugs with suitable IP code.

The following certified terminal block are installed inside terminal boxes used for wiring:

Table with 4 columns: Terminal Blocks, Manufacturer, Type, Certificate No., Code. Rows include WAGO Kontakttechnik GmbH and Weidmüller Interface GmbH.

The following certified stopping plugs are installed in the two side walls of terminal box for installation:

Table with 4 columns: Stopping Plug, Manufacturer, Type, Certificate No., Code. Row includes Hawke International.

A driver with protection type Ex eb and mb is installed inside the terminal box housing which has been certified separately as Ex component, the detail information of certification listed as below:

Table with 4 columns: Driver, Type, Certificate No., Code. Row includes Dialight Corporation.

The Ni-MH battery packs are an optional part which is installed inside terminal box housing. The specification of battery packs is 7.2Vdc/6Ah and 7.2Vdc/4Ah.

LEDs are encapsulated with the optics part which is made of plastic and the heatsink by potted compound and installed inside the upper housing. The protective guard is an optional part and fixed with the enclosure by M6 screws. There are 108 LEDs for the P2***** series luminaire and 216 LEDs for the P4***** series luminaire.

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The guard is an alternative, and the guard is secured by M6 screw with 5.5±0.5Nm for luminaire cover protection, the guard can be removed with a screw driver only.

The luminaire can be mounted via hook, loop, chain mount or mounting bracket with different installation angles "0°, 30°, 45°, 60° and 90°"

The IP 66/67 rating was independently tested in accordance with EN 60529

Rating:

Voltage: 100Vac – 277Vac ,50Hz/60Hz;
230Vac/240Vac 50Hz;
110Vac/120Vac 60Hz;
120Vdc – 250Vdc

Max. Power:

P2***** series: 29W Max.
P4***** series: 51W Max.

Ambient temperature:

Type	Ambient Temperature
P2*****F, P2*****G, P4*****F or P4*****G (with battery pack)	-20°C to 50°C
Other types (without battery pack)	-40°C to 65°C

Temperature Class:

Ambient Temperature	T-code
-20°C to 50°C	T5 and T95°C
-40°C to 65°C	T4 and T130°C

Model designation of P2*** and P4***** are as follows:**

Model	Type designation key	Designator & application
P2***** And P4*****	1st and 2nd character: Product Series	P2: Polymeric Universal Linear P4: Polymeric Universal Linear
	3rd character: Certification	A: ATEX/IECEX Zone 1, 21
	4th character: Lens Options	8: Flat Glass - Diffused Replaceable B: Bubble Polycarbonate Diffused Replaceable
	5th character: Optics	M: Medium (TIR)
	6th character: CCT & CRI	C: Cool White 5000K - 80 CRI N: Neutral White 4000K - 80 CRI W: Warm White 2700K - 80 CRI G: Green A: Amber

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Model	Type designation key	Designator & application
	7th character: Operating Voltage	1: 110/120 VAC 2: 100 - 277 VAC/120-250 VDC G: 230/240 VAC
	8th character: Lumen Output Range	3: 2.1 - 3K (P2 or P4 series) 6: 5.1 - 6K (P4 series only)
	9th character: Controls	A: DALI C: IIoT Compatible D: Dimming (0-10V) N: No Options
	10th character: Mounting Options	5: M25 - 2 Entries Each Side 2: M20 - 2 Entries Each Side
	11th character: Hardware/Cable Options	N: Standard (4mm ² terminals) 6: Terminal Block - Screw Down (6mm ² terminals) 4: Terminal Block - Push Down (4mm ² terminals) D: Terminal Block - Push Down (6mm ² terminals) Din Rail
	12th character: Electrical Options	W: Standard (three Phase Thru)
	13th character: Finish	G: Grey
	14th character: Battery Backup	N: Standard F: Emergency, 90 min. G: Emergency, 180 min

Variation 1 - This variation introduced the following changes:

- i. Introduction of an alternative cell to existing battery pack 9300-GPL-0002-xx and 9300-GPL-0001-xx.

Variation 2 - This variation introduced the following changes:

- i. To align the revision of the drawing 8854GPL000400 in IECEx and ATEX certificates same as in the UKCA certificate.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	27 April 2020	R80002699A	The release of the prime certificate.
1	20 November 2020	R80062162A	Transfer of certificate Sira 19ATEX4226X from Sira Certification Service to CSA Group Netherlands B.V..
2	03 February 2023	R80133861A	The introduction of variation 1.
3	09 May 2023	R80163237A	This Issue covers the following changes: <ul style="list-style-type: none">• The marking was amended to correct a typographical error.• The introduction of variation 2.

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- 15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)
- 15.1 The equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.
- 15.2 All cable entry holes shall be fitted with either an IECEx / ATEX certified cable gland or an IECEx / ATEX certified stopping plug that is suitable for the application. The type of cable, glands and stopping plugs shall have temperature ratings of at least 70°C.
- 15.3 The terminals shall only be fitted with wires that have cross sectional area falling within the following limitations:
- WAGO 2004-conductor series terminals: single-core, finely stranded and standard: min. 0.5 mm² to 6 mm²
 - WAGO 862-conductor series terminals: single-core, finely stranded and standard: min. 0.5 mm² to 4 mm²
 - Weidmüller Type MK6 series terminals: single-core, finely stranded and standard: min. 0.5 mm² to 6 mm²
 - Others terminal: the conductor shall less than 4mm²
- 15.4 The tighten torque of the screws used to fix enclosure shall be equal to 5.5±0.5Nm.
- 15.5 The equipment shall be installed such that the supply cable is protected from mechanical damage. The cable shall not be subjected to tension or torque. If the cable is to be terminated within an explosive atmosphere then the free end shall be terminated in a suitably certified termination facility.
- 15.6 Use only replaceable battery pack 9300-GPL-0002-xx or 9300-GPL-0001-xx for P2 series or P4 series luminaire.
- 15.7 Clean the luminaire regularly to prevent dust accumulation.
- 16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)**
- The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.
- 17 **CONDITIONS OF MANUFACTURE**
- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.
- 17.3 The LED board (Light engine) of equipment shall be subjected to a dielectric strength test with 500 Vac for least 60 s without dielectric breakdown occurring between input terminal of LED board (Light engine) and the earthing, and between circuits and the non-metallic surface of the equipment (either a non-metallic enclosure or the surface of the compound). Alternatively, the test may be carried out at 600 Vac for at least 100 ms, 700 Vdc for at least 60 s or 840 Vdc for at least 100 ms. Between input terminal of LED board (Light engine) and the earthing, and between circuits and the non-metallic surface of the equipment (either a non-metallic enclosure or the surface of the compound). The testing base on clause 9.2 of IEC 60079-18:2017.

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- 17.4 The equipment shall be subjected to a dielectric strength test at 500 Vac for at least 60 s without dielectric breakdown occurring between input terminal of battery pack indicator and the earthing, and between circuits and the non-metallic surface of the equipment (either a non-metallic enclosure or the surface of the compound). Alternatively, the test may be carried out at 600 Vac for at least 100 ms, 700 Vdc for at least 60 s or 840 Vdc for at least 100 ms. Between input terminal of battery pack indicator and the earthing, and between circuits and the non-metallic surface of the equipment (either a non-metallic enclosure or the surface of the compound). The testing base on clause 9.2 of IEC 60079-18:2017.
- 17.5 The equipment shall be subjected to a dielectric strength test at 1554 Vac for at least 60 s without dielectric breakdown occurring between input terminal of luminaire and the earthing, and between circuits and the non-metallic surface of the equipment (either a non-metallic enclosure or the surface of the compound). Alternatively, the test may be carried out at 1865 Vac for at least 100 ms, 2198 Vdc for at least 60 s or 2638 Vdc for at least 100 ms. Between input terminal of luminaire and the earthing, and between circuits and the non-metallic surface of the equipment (either a non-metallic enclosure or the surface of the compound). The testing base on clause 7.1 of IEC 60079-7:2017.
- 17.6 The process for potting the battery pack indicator shall be followed as set out in schedule drawing 8854GPL000400 and a visual inspection should be conducted to make sure there is no damage that would result in exposure of the components.
- 17.7 The process for potting the LED board (light engine) shall be followed as set out in schedule drawing 8854GPL000400 and a visual inspection should be conducted to make sure there is no damage that would result in exposure of the components.

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Certificate Annexe



Certificate Number: Sira 19ATEX4226X
Equipment: SafeSite GRP LED Linear
Applicant: Dialight Corporation

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
8854GPL000400	1 to 19	A	20 Apr 20	ZONE 1 FIXTURE
8854-GPL-0004-01	1 to 3	A	09 Apr 20	PCB Layouts and Schematics for use in Zone 1, Zone 2, Zone 21 P2 and P4 series luminaires
8854GPL000403	1 to 1	A	22 Apr 20	LED board (light engine) BOM
8854GPL000404	1 to 1	A	22 Apr 20	Battery indicator BOM

Issue 1 – No new drawings were introduced.

Issue 2

Drawing	Sheets	Rev.	Date (Stamp)	Title
9300-GPL-0001-xx	1 of 1	C	16 Jan 23	GRP Battery Assembly 6Ah
9300-GPL-0002-xx	1 of 1	C	16 Jan 23	GRP Battery Assembly 4Ah

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Drawing	Sheets	Rev.	Date (Stamp)	Title
8854GPL000400	1 of 19	B	27 Apr 23	Zone 1 Fixture

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