



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX SIR 19.0068X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2020-04-27)

Status: **Current** Issue No: 1

Date of Issue: 2021-04-27

Applicant: **Dialight Corporation**
1501 Route 34
South Farmingdale
New Jersey 07727
United States of America

Equipment: **SafeSite GRP LED Linear**

Optional accessory:

Type of Protection: **Increased Safety eb, Encapsulation mb, Optical Isolation is and Dust Protection by Enclosure**

Marking: Ex eb mb op is IIC T5/T4 Gb
Ex tb op is IIIC 95°C/T130°C Db
Ta = -20°C - +50°C for T5 and 95°C
Ta = -40°C - +65°C for T4 and 130°C

Approved for issue on behalf of the IECEx
Certification Body:

Neil Jones

Position:

Certification Manager

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

SIRA Certification Service
CSA Group
Unit 6, Hawarden Industrial Park
Hawarden, Deeside, CH5 3US
United Kingdom

sira
CERTIFICATION





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Manufacturer: **Dialight Corporation Penang Sdn Bhd**
1666, Lorong Perusahaan Maju 8
Pulau Pinang 13600 Perai
Malaysia

Additional
manufacturing
locations:

Dialight de México S. de R.L. de C.V. (Plant 1)
C. Lirios S/N, Col. Carlos Pacheco
Ensenada
Baja California 22830
Mexico

General Luminaire (Kunshan) Limited
NO. 1068 Fuchunjiang Road
Kunshan Optoelectronics Industrial Park
Jiangsu Province
China

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-18:2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

IEC 60079-28:2015 Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[GB/SIR/ExTR20.0083/00](#)

[GB/SIR/ExTR21.0070/00](#)

Quality Assessment Report:

[GB/SIR/QAR11.0014/11](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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.

Refer to the Annexe for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

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.
2. All cable entry holes shall be fitted with either an IECEx certified cable gland or an IECEx 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.
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
4. The tighten torque of the screws used to fix enclosure shall be equal to 5.5±0.5Nm.
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.
6. Use only replaceable battery pack 9300-GPL-0002-00 or 9300-GPL-0001-00 for P2 series or P4 series luminaire.
7. Clean the luminaire regularly to prevent dust accumulation.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

This issue, issue 1, recognises the following changes; refer to the certificate annexe to view a comprehensive history:

1. Added "L: INMETRO Zone 1, 21" to character 3 of the Model Designation.

Annex:

[IECEX SIR 19.0068X Annexe Issue 1.pdf](#)

Annexe to: IECEx SIR 19.0068X Issue 1
 Applicant: Dialight Corporation
 Apparatus: SafeSite GRP LED Linear



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

Terminal Blocks			
Manufacturer	Type	Certificate No.	Code
WAGO Kontakttechnik GmbH	WAGO 4 conductor device connector type 862-****/999-950	IECEX PTB 05.0003U PTB	Ex e IIC Gb Ex e I Mb
WAGO Kontakttechnik GmbH	WAGO type PE & Through terminal blocks type TOP JOB S2004-*** and type TOP JOB S 2004-***7 series	IECEX PTB 05.0033U	Ex e IIC Gb Ex e I Mb
Weidmüller Interface GmbH	Terminals MK/BK Series	IECEX TUR 18.00319U	Ex eb IIC Gb

The following certified stopping plug are installed at two side walls of terminal box for installation:

Stopping Plug			
Manufacturer	Type	Certificate No.	Code
Hawke International	Type 375 Range of Stopping plugs	IECEX BAS 12.0065X	Ex eb IIC Gb Ex tb IIIC Db IP66/IP67

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:

Driver	Type	Certificate No.	Code
Dialight Corporation	8850GPL-1*****	IECEX SIR 19.0072U	Ex eb mb IIC Gb

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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 Applicant: Dialight Corporation
 Apparatus: SafeSite GRP LED Linear



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

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

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 P4*****G (with battery pack) or	-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: IECEx Zone 1, 21 L: INMETRO Zone 1, 21
	4th character: Lens Options	8: Flat Glass - Diffused Replaceable B: Bubble Polycarbonate Diffused Replacable
	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

Annexe to: IECEx SIR 19.0068X Issue 1
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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

Full Certificate change history

Issue 1 – this Issue introduced the following changes:

1. Added "L: INMETRO Zone 1, 21" to character 3 of the Model Designation.