



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 17.0063X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 3	Issue 2 (2022-11-07)
Date of Issue:	2023-07-10		Issue 1 (2018-10-22)
Applicant:	Dialight Corporation 1501 Route 34 South Farmingdale New Jersey 07727 United States of America		Issue 0 (2018-06-12)
Equipment:	HZB**2N, HZJB**2N and ALB7**2*****N Safesite LED Area Lights		
Optional accessory:			
Type of Protection:	Increased Safety, Encapsulation Optical Isolation and Dust Protection by Enclosure		
Marking:	Ex mc ec op is IIC T4 Gc Ex tb op is IIIC T135°C Db Ta = -40°C to +65°C		

Approved for issue on behalf of the IECEx
Certification Body:

Michelle Halliwell

Position:

Director Operations, UK & Industrial Europe

Signature:
(for printed version)

Date:
(for printed version)

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:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom





IECEX Certificate of Conformity

Certificate No.: **IECEX SIR 17.0063X**

Page 2 of 4

Date of issue: 2023-07-10

Issue No: 3

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

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

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/ExTR18.0092/00](#)
[GB/SIR/ExTR23.0118/00](#)

[GB/SIR/ExTR18.0182/00](#)

[GB/SIR/ExTR22.0180/00](#)

Quality Assessment Report:

[GB/SIR/QAR11.0014/13](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX SIR 17.0063X**

Page 3 of 4

Date of issue: 2023-07-10

Issue No: 3

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Safesite LED Area Light comprises a cast aluminium body with a hinged aluminium frame and a 6mm thick glass window; held together by sixteen, M8 x 25 mm, stainless steel, socket head type screws. The window is secured within the enclosure by the compression of the cast ring/frame to the main body. Internally, the following may be fitted: an encapsulated driver, up to 207 LEDs dissipating a maximum of 0.3W each, a reflector, a terminal block and two pluggable internal connectors. An aluminium, steel or stainless steel bracket for mounting purposes is fixed via the rear of the enclosure.

The equipment utilises one threaded entry in the rear of the main LED enclosure for the use of suitably approved Ex e IIC Gb, Ex nA IIC Gc or Ex tc IIIC Dc (for zone 2/22) and Ex tb IIIC Db (for zone 21) cable entry devices or blanking elements.

The Safesite LED Area Light may optionally be fitted with an additional 'Ex e' enclosure, fitted with certified terminals. The terminal box is fitted to the rear of the main body of the LED Area Light via a silicone gasket and four M4 screws. The 'Ex e' enclosure may utilise up to two, M20 entries in the side wall and up to five, M20 entries on the front wall, for the use of suitably approved, Ex e IIC Gb or Ex tb IIIC Db cable entry devices or blanking elements.

Entity parameters: 100 – 277 VAC; 50/60 Hz; 71W, or 120 - 250 VDC; 71W.

Refer to the Annexe for model nomenclature.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. When the equipment is coated with a paint finish, the enclosure is non-conducting. Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore 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 76°C.
3. When supplied with a component certified enclosure, the end user shall install a suitably certified gland with a seal or gasket, to maintain the IP rating of the equipment. The seal or gasket shall be suitable for a minimum service temperature range of -40°C to +75°C.
4. All fixing bolts will be torqued to 4.6Nm.
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. The terminals shall only be fitted with wires that have cross sectional area falling within the following limitations:
 - WAGO 4-conductor series terminals: single-core, finely stranded and standard: min. 0.08 mm² to 6 mm².
 - Weidmüller Type MK6 range of terminals: solid conductor: 0.5 mm² to 6 mm², flexible: 0.5 mm² to 4 mm².



IECEX Certificate of Conformity

Certificate No.: **IECEX SIR 17.0063X**

Page 4 of 4

Date of issue: 2023-07-10

Issue No: 3

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

This issue, Issue 3, recognises the following change; refer to the certificate annex to view a comprehensive history:

1. Drawing revision to 1500-STW-0005-02.

Annex:

[IECEX SIR 17.0063X Annexe Issue 3.pdf](#)

Annexe to: IECEx SIR 17.0063X Issue 3

Applicant: Dialight Corporation

Apparatus: Safesite LED Area Light



Breakdown of the model numbers:

Model	Type designation key	Designator & application
ALB7**2*****N	1st asterisk: Reflector	A: 180 B: 360 W: Wide
	2nd asterisk: CCT & CRI	C: 5000K Ra 80 N: 4000K Ra 80 W: 2700K Ra 80
	3rd asterisk: Typical lumen Output	2: 0,1-2K 4: 3,1-4K 5: 4,1-5K 6: 5,1-6K 7: 6,1-7K 9: 8,1-9K
	4th asterisk: Controls	N: No Options D: Continuous dimming down to 5%(for future purposes)
	5th asterisk: Mounting Options	B: Swivel Bracket N: Standard S: Universal Mounting Adapter - 45° Stanchion Mount U: Universal Mounting Adapter – Mounting Hub V: Universal Mounting Adapter – 0° Wall Mount W: Universal Mounting Adapter - 45° Wall Mount Y: Universal Mounting Adapter – 34mm Conveyor Mount
	6th asterisk: Hardware/Cable Accessories	J: Junction Box N: No Option T: 1.5'[0.5 meter] Power Cable U: 3'[1 meter] Power Cable V: 6'[1.8 meter] Power Cable W: 10'[3 meter] Power Cable
	7th asterisk: Electrical Accessories	A: Armored Cable and Cable Gland N: No Option/Standard T: Weidmuller 5 Position Terminal Block U: Wago 5 Position Terminal Block
	8th asterisk: Coatings	G: Gray (RAL 7040) K: ACP Black (RAL 9017) O: Orange (RAL 2001) W: White (RAL 9010) Y: Yellow (RAL 1018) Z: Bronze (RAL 7022)
HZB**2N	1st asterisk: Typical Lumen Output	2: 0,1-2K 4: 3,1-4K 5: 4,1-5K 6: 5,1-6K 7: 6,1-7K 9: 8,1-9K
	2nd asterisk: CCT & CRI	C: 5000K Ra 80 N: 4000K Ra 80 W: 2700K Ra 80

Date: 10 July 2023

Page 1 of 3

Annexe to: IECEx SIR 17.0063X Issue 3

Applicant: Dialight Corporation

Apparatus: Safesite LED Area Light



Model	Type designation key	Designator & application
HZJB**2N	1st asterisk: Typical Lumen Output	2: 0,1-2K 4: 3,1-4K 5: 4,1-5K 6: 5,1-6K 7: 6,1-7K 9: 8,1-9K
	2nd asterisk: CCT & CRI	C: 5000K Ra 80 N: 4000K Ra 80 W: 2700K Ra 80

Conditions of Manufacture

- i. In accordance with IEC 60079-7:2017 clause 7.1, each manufactured sample of the equipment shall be subjected to an electric strength test using the following test voltage(s) for 60 s +5/-0 s: 1554 Vrms +5/-0 % applied between the input terminals (Live and Neutral) and metal enclosure. Alternatively, a test shall be carried out at the test voltage 1865Vrms for at least 100 ms. There shall be no evidence of flashover or breakdown
- ii. In accordance with IEC 60079-18:2017 clause 9.1, each manufactured item shall be subjected to a visual inspection. No damage shall be evident, such as cracks in the compound, exposure of the encapsulated parts, flaking, inadmissible shrinkage, swelling, decomposition, failure of adhesion (separation of any adhered parts) or softening.
- iii. The equipment covered by this certificate incorporates previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform CSA of any modifications of the devices that may impinge upon the explosive safety design of their products.
- iv. The special conditions for safe use detailed in the individual certificates of the junction box enclosure, terminals and stopping plug that forms part of the equipment Area Light shall be adhered to.
- v. The equipment incorporates the following, component-certified and equipment-certified device as listed below;

Empty terminal enclosure			
Manufacturer	Type	Certificate No.	Code
ROSE Systemtechnik GmbH, Erbeweg 13, 32457 Porta Westfalica, Germany	Empty enclosure type 25*****	IECEX PTB 08.0005U	Ex eb IIC Gb Ex tb IIIC Db

WAGO Terminal Blocks			
Manufacturer	Type	Certificate No.	Code
WAGO Kontakttechnik GmbH & Co. KG, Hansastrasse 27, 32423 Minden, Germany	WAGO 4 conductor device connector type 862-****/999-950	IECEX PTB 05.0003U	Ex e IIC Gb Ex e I Mb

Weidmuller Terminal Blocks			
Manufacturer	Type	Certificate No.	Code
Weidmuller Interface GmbH & Co, Klingenbergstrasse 16, 32758 Detmold, Germany	Type MK 6 Range of Terminal Strips	IECEX SIR 05.0037U	Ex e II

Date: 10 July 2023

Page 2 of 3

Annexe to: IECEx SIR 17.0063X Issue 3

Applicant: Dialight Corporation

Apparatus: Safesite LED Area Light



Stopping Plug			
Manufacturer	Type	Certificate No.	Code
HUMMEL AG, Lise-Meitner-Straße 2, 79211 Denzlingen, Germany	Blanking elements (stopping plugs) and thread adapters (reducers) type V-Ex, V-MS-*, V-INOX-* (blanking elements), RSD-**-Ex (thread adapters)	IECEX BVS 07.0021	Ex e IIC Gb Ex ta III C Da

Full certificate change history

Issue 1 – this Issue introduced the following changes:

1. Allow alternative part numbers for few components having same rating and similar package sizes in the potted driver PCB.
2. Modify the power supply cable from 5 conductors to 3 conductors.
3. Modification of the input connector in the driver PCB.
4. A typographical error was corrected in the Applicant and Manufacture address. This amendment is of an administrative nature only, no technical changes were involved.

Issue 2 – this Issue introduced the following changes:

1. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0:2011 Ed. 6, IEC 60079-7:2015 Ed. 5 and IEC 60079-18:2014 Ed. 4 were replaced by IEC 60079-0:2017 Ed. 7, IEC 60079-7:2017 Ed. 5.1 and by IEC 60079-18:2017 Ed. 4.1, the Condition of Manufacture was amended to recognise the new standards.
2. This includes the gap analyses for the previously certified components associated with the hereby equipment.

Issue 3 – this Issue introduced the following change:

1. Drawing revision to 1500-STW-0005-02.

Date: 10 July 2023

Page 3 of 3