



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 ITS 20.0008X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 2	Issue 1 (2020-02-13) Issue 0 (2020-01-31)
Date of Issue:	2025-02-14		
Applicant:	BME Nitech Ltd. Unit 2A, Nevis Business Park, Balgownie Road, Bridge of Don Aberdeen AB22 8NT United Kingdom		
Equipment:	Guardian CFL and LED Portable Light		
Optional accessory:			
Type of Protection:	Increased safety, Intrinsic safety, Encapsulation, Dust Ingress Protection by Enclosure.		
Marking:	Ex eb ib mb IIC T4 Gb Ex ib mb tb IIIC T135°C Db -20°C ≤ Ta ≤ +40°C for CFL -20°C ≤ Ta ≤ +50°C for LED IECEX ITS 20.0008X		

Approved for issue on behalf of the IECEx
Certification Body:

Mark Newman

Position:

Certificate Officer

Signature:
(for printed version)

Date:
(for printed version)

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2. This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

Intertek Testing & Certification Limited
ITS House, Cleeve Road
Leatherhead
Surrey, KT22 7SA
United Kingdom

intertek



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Manufacturer: **BME Nitech Ltd.**
Unit 2A, Nevis Business Park,
Balgownie Road,
Bridge of Don
Aberdeen AB22 8NT
United Kingdom

Manufacturing locations: **BME Nitech Ltd.**
Unit 2A, Nevis Business Park,
Balgownie Road,
Bridge of Don
Aberdeen AB22 8NT
United Kingdom

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 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

[IEC 60079-18:2017](#) Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

[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/ITS/ExTR20.0001/00](#)

[GB/ITS/ExTR20.0001/01](#)

[GB/ITS/ExTR20.0001/02](#)

Quality Assessment Report:

[GB/ITS/QAR20.0001/02](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The BME Nitech Guardian CFL and LED Portable Lights are a transportable luminaire powered by a rechargeable battery for providing a light source for use in hazardous areas where explosive gas atmospheres or explosive dust atmospheres may be present.

The equipment comprises a base unit containing a lead/acid battery linked to light head mounted on an adjustable bracket to permit adjustment of the light distribution provided by the luminaire.

The compact fluorescent (CFL) and light emitting diode (LED) light sources are placed behind a polycarbonate lens, which is coated in an anti-static coating.

Charging of the battery is permitted only in a non-hazardous area using the manufacturer's supplied charger.

The battery and CFL/LED Lamps are not user serviceable and must be returned to the manufacturer for service.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Do not charge in the hazardous area.
- Lamp and battery are not user serviceable items.
- Use only the manufacturer's specified charger.
- Refer to the manufacturer's instructions for guidance on the durability of the anti-static coating on the lens.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1:

- Introduction of the LED version of the Guardian Lamp.

Issue 2:

- To allow the increase in upper ambient temperature from +40°C to +50°C for an LED version of the Guardian Light.
- Update to documentation.

Annex:

[Annex for IECEx ITS 20.0008X issue 2.pdf](#)



Annex to IECEX Certificate of Conformity

Certificate No.:	IECEX ITS 20.0008X	Issue No. 2
Annex No. 1		

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
CFL Light			
Items List for Charge & Switch Control PCB Assembly	ARCV1	A1	20-01-2020
ARCV10 PCB Schematic, Charge & Switch Schematic	ARCV11	A	24-10-2019
ARCV10 PCB Details	ARCV12	A	24-10-2019
Charge & Switch Potting Details	ARCV16	A1	17-01-2020
Charge and Switch Box	ARCV17	A	24-10-2019
Items List for CFL Driver PCB ARCV20 and Assembly	ARCV2	D1	20-01-2020
PCB Schematic CFL Driver Circuit	ARCV20	D	24-10-2019
ARCV20 PCB Details	ARCV22	D	24-10-2019
CFL Driver Potting Details	ARCV26	B1	17-01-2020
CFL Driver Box	ARCV27	C	24-10-2019
Guardian Zone I CFL Light-Head Assembly	EX-DRW-001-1	2	30-01-2020
Guardian Zone I CFL Handle Assembly Detail	EX-DRW-001-2	2	30-01-2020
Guardian Zone I CFL Pivot Bracket Assembly Detail	EX-DRW-001-3	2	30-01-2020
Guardian Zone I CFL Reflector Tray Assembly Detail	EX-DRW-001-4	2	30-01-2020
Guardian Zone I CFL Lens Assembly Detail	EX-DRW-001-5	2	30-01-2020
Guardian Zone I CFL Battery Enclosure Assembly	EX-DRW-001-6	2	30-01-2020
Guardian Zone I CFL Lid Assembly Detail	EX-DRW-001-7	2	30-01-2020
Guardian Zone I CFL Base Assembly Detail	EX-DRW-001-8	2	30-01-2020
Guardian Zone I CFL Battery Enclosure Earth Detail	EX-DRW-001-9	2	30-01-2020
Guardian Zone I CFL Light-Head Wiring	EX-DRW-002-1	2	30-01-2020
Guardian Zone I CFL Base Wiring	EX-DRW-002-2	2	30-01-2020
Guardian Zone I CFL Wiring	EX-DRW-002-6	2	30-01-2020
Potted CFL Lamp Assembly	EX-DRW-003-17	2	30-01-2020
Guardian Zone I CFL Label	EX-DRW-003-18	2	30-01-2020
Guardian Zone I CFL-LED Light-Head Machining	EX-DRW-003-1A	2	30-01-2020
Guardian Zone I CFL-LED Lid Machining Op. 2	EX-DRW-003-2B	2	30-01-2020
LED Light			
ARCV10 PCB Schematic, Charge and Switch Schematic	ARCV11	A	24-10-2019
ARCV10 PCB Details	ARCV12	A	24-10-2019
Items List for Charge & Switch Control PCB Assembly	ARCV13	A1	20-01-2020
Charge & Switch Potting Details	ARCV16	A1	17-01-2020
Charge & Switch Box	ARCV17	A	24-10-2019
ARCV30 Zone I & II LED PCB Schematic	ARCV31	D	24-10-2019
ARCV30 PCB Details	ARCV32	D	24-10-2019
Items List for Zones I and II LED PCB	ARCV35	D	24-10-2019
ARCV40 PCB Schematic, LED Driver/Warning Circuit	ARCV41	C1	28-10-2019
ARCV40 PCB Details	ARCV42	C1	28-10-2019
Items List for Zone I Battery LED Driver Assembly	ARCV45	C3	20-01-2020
LED Driver Potting Details	ARCV46	B1	17-01-2020
LED Control Box	ARCV47	C	28-10-2019
Guardian Zone I LED Light-Head Assembly	EX-DRW-001-10	2	30-01-2020
Guardian Zone I LED Handle Assembly Detail	EX-DRW-001-11	2	30-01-2020
Guardian Zone I LED Pivot Bracket Assembly Detail	EX-DRW-001-12	2	30-01-2020
Guardian Zone I LED LED Backplate Assembly Detail	EX-DRW-001-13	2	30-01-2020
Guardian Zone I LED Lens Assembly Detail	EX-DRW-001-14	2	30-01-2020
Guardian Zone I LED Battery Enclosure Assembly	EX-DRW-001-15	2	30-01-2020
Guardian Zone I LED Lid Assembly Detail	EX-DRW-001-16	2	30-01-2020
Guardian Zone I LED Base Assembly Detail	EX-DRW-001-17	2	30-01-2020
Guardian Zone I LED Battery Enclosure Earth Detail	EX-DRW-001-18	2	30-01-2020
Guardian Zone I LED Light-Head Wiring	EX-DRW-002-3	2	30-01-2020

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(16 January 2025)



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Certificate No:	IECEX ITS 20.0008X	Issue No. 2
Annex No. 1		

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
Guardian Zone I LED Base Wiring	EX-DRW-002-4	2	30-01-2020
Guardian Zone I LED Wiring	EX-DRW-002-7	2	30-01-2020
*Guardian Zone I LED Label	EX-DRW-003-19	3	30-09-2024
Guardian Zone I CFL-LED Light-Head Machining	EX-DRW-003-1A	2	30-01-2020
Guardian Zone I CFL-LED Lid Machining Op. 2	EX-DRW-003-2B	2	30-01-2020
*OPERATION MANUAL, ATEX/IECEX/UKEX ZONE I GUARDIAN LED PORTABLE LIGHT	-	1.7	-

*Note: An * is included before the title of documents that are new or revised.*

Required Manufacturer Routine Testing	
Test	Title/Description of Test
For the CFL version:	
1	Encapsulated parts shall be visually inspected.
2	A dielectric strength test shall be performed at on the completed luminaire at 500V ac for 1 minute between the battery terminals and the case of the equipment.
3	The lamp connections of the ballast module shall be routinely tested at 2000V ac for 1 minute between the lamp connections connected together and the case of the module.
4	The low voltage connections of the encapsulated modules shall be routinely tested at 500V ac for 1 minute between the connections connected together and the case of the module.
For the LED version:	
1	Encapsulated parts shall be visually inspected.
2	A dielectric strength test shall be performed on the completed luminaire at 500V ac for 1 minute between the battery negative terminal and the case of the equipment.
3	The connections of the encapsulated modules shall be routinely tested at 500V ac for 1 minute between the connections connected together and the case of the module.

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Total Quality. Assured.

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