IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx CML 16.0041

Issue No: 1

Certificate history:
Issue No. 1 (2019-08-23)
Issue No. 0 (2016-10-25)

Status: **Current**

Date of Issue: **2019-08-23**

Applicant: **Abtech Limited**
Newhall Road
Lower Don Valley
Sheffield
S9 2QJ
United Kingdom

Equipment: **Gamma Luminaire**

Optional accessory:

Type of Protection: **Increased Safety, Intrinsic Safety, Powder Filled, Optical Radiation, Dust Protection**

Marking:

Ex eb ib op is qb IIC T* Gb

Ex tb op is III C T**°C Db

* Refer to description for T classes.

Approved for issue on behalf of the IECEx Certification Body: Helen Amos

Position: Technical Manager

Signature:
(for printed version)

Date: August 23, 2019

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 the Official IECEx Website.

Certificate issued by:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom

IECEx Certificate of Conformity

Certificate No:	IECEx CML 16.0041	Issue No: 1
Date of Issue:	2019-08-23	Page 2 of 4
Manufacturer:	**Abtech Limited** Newhall Road Lower Don Valley Sheffield S9 2QJ **United Kingdom**	

Additional Manufacturing location(s):

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 apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-28 : 2015 Edition:2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-5 : 2015 Edition:4.0	Explosive atmospheres –Part 5: Equipment protection by powder filling “q”
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
IEC TS 60079-39 : 2015 Edition:1.0	Explosive atmospheres – Part 39: Intrinsically safe systems with electronically controlled spark duration limitation

*This Certificate **does not** indicate compliance with electrical 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 Report:

GB/CML/ExTR16.0050/00

Quality Assessment Report:

GB/CML/QAR16.0021/02

IECEx Certificate of Conformity

Certificate No: IECEx CML 16.0041 Issue No: 1

Date of Issue: 2019-08-23 Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Abtech Gamma Luminaire is a range of luminaries rated at 110 Vac to 254 Vac. The Gamma Luminaire consists of a single enclosure, manufactured from either stainless steel or mild steel protected from corrosion by a suitable coating. Optionally, an additional coating may be applied to the stainless steel versions. Silicone rubber gaskets are used to seal the enclosures.

Refer to Annex for full description and conditions of manufacture.

SPECIFIC CONDITIONS OF USE: NO

IECEx Certificate of Conformity

Certificate No: IECEx CML 16.0041 Issue No: 1

Date of Issue: **2019-08-23** Page 4 of 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1

This Issue introduced the following changes:

1. To update QAR reference only

Annex:

Certificate Annex IECEx CML 16_0041 Issue 1.pdf

Annexe to: IECEx CML 16.0041 Issue 1

Applicant: Abtech Ltd

Apparatus: Gamma Luminaire

Description of Equipment

The Abtech Gamma Luminaire is a range of luminaries rated at 110 Vac to 254 Vac. The Gamma Luminaire consists of a single enclosure, manufactured from either stainless steel or mild steel protected from corrosion by a suitable coating. Optionally, an additional coating may be applied to the stainless steel versions. Silicone rubber gaskets are used to seal the enclosures.

The main enclosure is approximately 400 mm length by 400 mm wide with a depth of 150 mm. The enclosure may be manufactured larger than minimum/ typical dimensions.

The enclosure is sealed using a toughened safety glass window. The enclosure houses a metal reflector, ISMART LED driver and an optical assembly comprising of Philips Luxeon Type LEDs.

The normal method of mounting is via a single saddle bracket. Alternatively, any other method of mounting may be used, providing the enclosure is not penetrated in any way. The driver compartment is accessible through the rear cover that houses the electronic driver and mains terminal block.

Cable entry holes for conduit or suitably approved and dimensioned cable glands or blanking plugs can be fitted in to any face of the enclosure provided that the clearance for the cable gland is sufficient. These must be sealed to a minimum of IP64 or higher to match the IP rating.

The table below details the wattage, T ratings and ambient temperature range.

Rating schedule									
Product Ref.	**LED Type**	**Current /Voltage**	**Input Voltage**	**Power Supply**	**Temp class and Surface Temp**				**Cable rating**
					Tamb 55ºC		**Tamb 40ºC**		
LX1GAMIS4LB40	PW40-H001	0.688 A / 35.02 V	110V to 254V ac	ECP130PS36	T3	T100ºC	T4	T85ºC	80ºC
LX1GAMIS4LB50	PW50-H001	0.688 A / 35.02 V	110V to 254V ac	ECP130PS36	T3	T100ºC	T4	T85ºC	80ºC
LX1GAMIS4LB	PW57-H001	0.688 A / 35.02 V	110V to 254V ac	ECP130PS36	T3	T100ºC	T4	T85ºC	80ºC
LX1GAMIS4LB65	PW65-H001	0.688 A / 35.02 V	110V to 254V ac	ECP130PS36	T3	T100ºC	T4	T85ºC	80ºC

Unit 1, Newport Business Park
New Port Road
Ellesmere Port
CH65 4LZ

T +44 (0) 151 559 1160
E info@cmlex.com

www.cmlex.com

Company Reg No. 8554022 VAT No. GB163023642

Conditions of Manufacture

The following are conditions of manufacture:

i. Where the product incorporates certified parts or safety critical components, the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.

ii. Each unit manufactured shall be subjected to an electric strength test in accordance with EN / IEC 60079-15:2010 clause 23.2.1. It shall be carried out either at 1000 V + 2U for 60 seconds or at 1.2 times this test voltage for at least 100 ms.

iii. Each powder filled enclosure shall be subjected to a routine overpressure test at 50 kpa (0.5 bar) in accordance with IEC / EN 60079-5:2015, clause 5.2.1. for a minimum of 10 seconds. There shall be no permanent deformation exceeding 0.5 mm in any of its dimensions. Alternatively, batch testing in accordance with clause IEC / EN 60079-5:2015, clause 5.2.1 may be conducted.

iv. Each batch of the filling material shall be subjected to a dielectric strength test in accordance with IEC / EN 60079-5:2015 clause 5.2.2 for a minimum of 60 seconds.