



EU Type Examination Certificate CML 16ATEX2093 Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **Gamma Luminaire**
- 3 Manufacturer **Abtech Ltd**
- 4 Address 199 Newhall Road
Lower Don Valley
Sheffield
S9 2QJ
United Kingdom
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Certification Management Limited, Unit 1 Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ, UK, Notified Body Number 2503, in accordance with Article 17 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 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN 60079-0: 2012 + A11:2013

EN 60079-5: 2015

EN 60079-7: 2015

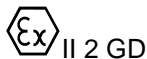
EN 60079-11: 2012

EN 60079-28: 2015

EN 60079-31: 2014

IEC TS 60079-39 Ed.1 2015

- 10 The equipment shall be marked with the following:



II 2 GD

Ex eb ib op is qb IIB T* Gb

Ex tb IIIC T**°C Db

Ta= -30°C to +**°C

*See description for temperature class and ambient.



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11 Description

The Abtech Gamma Luminaire is a range of luminaires rated at 110 Vac to 254 Vac. The 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 55°C		Tamb 40°C		
LX1GAMIS4LB40	PW40-H001	0.688 A / 35.02 V	110V to 254V ac	ECP130P S36	T3	T100°C	T4	T85°C	80°C
LX1GAMIS4LB50	PW50-H001	0.688 A / 35.02 V	110V to 254V ac	ECP130P S36	T3	T100°C	T4	T85°C	80°C
LX1GAMIS4LB	PW57-H001	0.688 A / 35.02 V	110V to 254V ac	ECP130P S36	T3	T100°C	T4	T85°C	80°C
LX1GAMIS4LB65	PW65-H001	0.688 A / 35.02 V	110V to 254V ac	ECP130P S36	T3	T100°C	T4	T85°C	80°C

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	25 Oct 2016	R1035A/00	Issue of prime certificate.

Note: Drawings that describe the equipment or component are listed in the Annex.



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13 Conditions of manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- 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.

14 Special Conditions for Safe Use (Conditions of Certification)

There are no special conditions of safe use.

Certificate Annex



Certificate Number CML 16ATEX2093
Equipment Gamma Luminaire
Manufacturer Abtech Ltd

The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
ABT30215	1 to 2	A	25/10/2016	GAMMA LUMINAIRE GA CERTIFICATION DRAWING
ABT31094	1 of 1	A	25/10/2016	GAMMA LABEL DRAWING IS ZONE 1
ABT30257	1 of 1	A	25/10/2016	SAND FILLED DRIVER ENCLOSURE GAMMA LUMINAIRE
ABT31070	1 of 3	A	25/10/2016	Overview
ABT31070	3 of 3	A	25/10/2016	IS protection Systems
ABT31070	3 of 3	A	25/10/2016	IS di/dt detect & LED Driver
ABT31071	1 of 6	A	25/10/2016	Silk Screen Top
ABT31071	2 of 6	A	25/10/2016	Copper Top
ABT31071	3 of 6	A	25/10/2016	Copper Ground
ABT31071	4 of 6	A	25/10/2016	Copper Power
ABT31071	5 of 6	A	25/10/2016	Copper Bottom
ABT31071	6 of 6	A	25/10/2016	Blocked overview
ABT3139	1 of 1	A	25/10/2016	Parts List