1 EU - TYPE EXAMINATION CERTIFICATE

2 Product or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU – Annex III

3	EU - Type Examination Certificate No.:	**EMT15ATEX0064X (incorporating variation V1)**
4	Product:	**Fibre LED Unit FLU Series, models FLU-'B' FLU-'G' FLU-'R'**
5	Manufacturer:	**JCE (Europe) Ltd.,**
6	Address:	**East Way, Lee Mill Industrial Estate, Ivybridge, Devon PL21 0RX, United Kingdom**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Element Materials Technology, Notified Body number 2812, 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 product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential report **TRA-012771-33-00A**.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012/A11:2013 EN 60079-1:2014 EN 60079-28:2015

EN 60079-31:2014

Except in respect of those requirements listed at section 18 of the schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall include the following:

Ⓔx II 2 GD

Ex db [op pr] IIB Gb T4	**Tamb -20 °C to +60 °C**
Ex db [op pr] IIB Gb T5	**Tamb -20 °C to +50 °C**
Ex tb [op pr] IIIC Db T103°C	**Tamb -20 °C to +60 °C**
Ex tb [op pr] IIIC Db T93°C	**Tamb -20° C to +50 °C**

This certificate and its schedules may only be reproduced in its entirety and without change. This certificate is issued in accordance with the Element Materials Technology Ex Certification Scheme.

S P Winsor, Certification Manager

Voorerf 18, 4824 GN Breda, Netherlands
Element Materials Technology Rotterdam B.V.
Registered in the Netherlands. Registered Office: PO Box 6854, 4802 HW, Breda, Netherlands
Company Reg No. 24170257

13 SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

14 CERTIFICATE NUMBER EMT15ATEX0064 (incorporating variations V1 and V2)

15 Description of Product

The FLU Series Fibre LED Unit is equipment designed to be a stand-alone enclosure or to be fitted within flameproof or dust tight enclosures. The fitting is comprised of an M63 threaded joint formed between the enclosure and the enclosure into which it is fitted, a flanged joint between the enclosure body and cover, and a cemented window joint. Internally the component houses a Luminus CBT-40 LED chip. The equipment is powered through a driver PCB or equivalent method limiting the supply to a maximum of 2A/8Watts.

The fitting may be manufactured from Aluminium 6082, Stainless Steel 316 or Brass CZ121. The sapphire glass lens is cemented to the fitting internally by Silicone sealant and is retained by a threaded locking ring spacer.

The LED may emit Red, Blue or Green light. The light is emitted through a small window lens cemented internally within the enclosure lid through a fibre optic cable connected via an output flange/reflector insert arrangement. The primary purpose of the fitting is to provide emergency lighting when required. Additional protection to the fibre optic cable is provided by way of a nylon/PVC tube or similar fitted over the fibre optic cable or by the installation location of the fibre optic cable in a location where it would not be susceptible to mechanical damage.

A previously certified Bartec Ex ‘d’ type 07-91 line bushing is utilised for cable transfer from the internals of the host enclosure into the FLU Series Fibre LED Unit. An M10x1 6H entry is present on the underside of the FLU Series Fibre LED Unit for connection of the bushing.

Electrical rating P = 8 W max, I = 2 A max, V= 3.0 V to 5.3 V

16 Test report No. (associated with this certificate issue): N/A

17 Specific Conditions of Use

1. The fitting must be installed into a suitably certified ATEX rated host enclosure when the driver pcb is utilised.
2. At least 6 full threads must be engaged between the fitting and the host enclosure.
3. The fitting must be terminated within the host enclosure or safe area.
4. Input power must not exceed 2A/8W.
5. The fibre optic attachment must be fitted when equipment is energised.
6. Flamepath repair must not be carried out by the end user.
7. The transfer of optical radiation emitted from the internal LED must be facilitated by fibre optic cable routed out of the enclosure. The cable must be provided with additional mechanical protection such as PVC/Nylon protective tubing or similar, or located in an area where it is not susceptible to mechanical damage.
8. The fibre optic output cable must be terminated in a suitably certified enclosure, safe area or by means of a blind crimp.
9. Cable transfer from the fitting must be facilitated via the manufacturer provided line bushing.
10. Do not open when an explosive atmosphere may be present.
11. The Bartec Ex ‘d’ type 07-91 line bushing (EPS 13ATEX1619U) must be utilised for cable transfer from the internals of the host enclosure into the FLU Series Fibre LED Unit.
12. At least 6 full threads must be engaged between the line bushing and equipment enclosure.

18 Essential Health and Safety Requirements (Directive Annex II)

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	**Subject**
none	none

19 Drawings and Documents

The list of controlled technical documentation is given in Appendix A to this schedule.

20 Routine Tests

None.

21 Specific Conditions for Manufacture

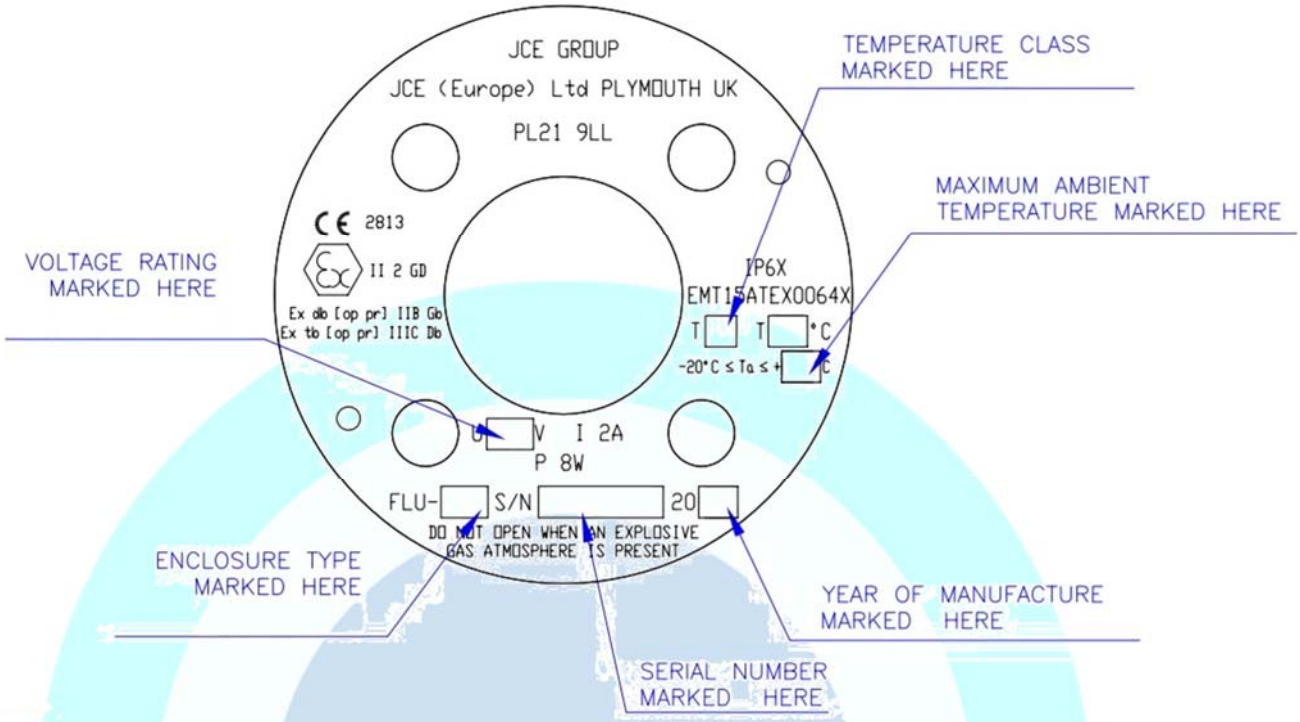
None.

22 Photographs

FLU unit

FLU Unit fitted with optical fibre cable.

23 Details of Markings



24 Details of Variations to this Certificate

This certificate is a consolidated certificate and reflects the latest status of the certification, including the following variations:

- Variation V1 - This certificate was originally issued by Notified Body number 0891 under Directive 2014/34/EU. The technical file has been transferred to Element Notified Body number 2812 without further assessment or evaluation.

25 Notes to CE marking

In respect of CE Marking, Element Materials Technology accepts no responsibility for the compliance of the product against all applicable Directives in all applications.

26 Notes to this certificate

Element Materials Technology certification reference: NR-JCEQ-0013

Throughout this certificate, the date format yyyy-mm-dd (year-month-day) is used.

Notified Body number 2812 is the designation for Element Materials Technology Rotterdam BV.

27 Conditions for the validity of this certificate

SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

CERTIFICATE NUMBER EMT15ATEX0064 (incorporating variations V1 and V2)

This certificate remains valid for so long as:

(i) The equipment listed in section 4 is manufactured in accordance with the documents listed in Appendix A of this certificate.

(ii) The standards listed in section 9 of this certificate continue to satisfy the Essential Health and Safety Requirements of Annex II of Directive 2014/34/EU and the generally acknowledged state of the art (e.g. as determined by the publishers of those standards).

APPENDIX A - TECHNICAL DOCUMENTS

Title:	Drawing No.:	Rev. Level:	Date:
Certification Drawing FLU Series Enclosure Ex d IIB Ex tb IIIC. (Sheets 1 to 5)	A3C-3013	1	2016-11-24
FLU Series Fibre LED Unit Installation Operation and Maintenance Information.	FLU-IM	1	2016-11-22
Procedures for Cemented Joints and Cover Assembly	DN136	1	2016-11-01
Certification label details	A3C-3021	1	2019-10-10