



# 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](http://www.iecex.com)

Certificate No.:	<b>IECEx CML 16.0149X</b>	Page 1 of 4	<u>Certificate history:</u>
Status:	<b>Current</b>	Issue No: 5	Issue 4 (2019-07-22)
Date of Issue:	2019-11-18		Issue 3 (2018-07-31)
Applicant:	<b>Petrel Ltd</b> 22 Fortnum Close, Mackadown Lane Kitts Green, Birmingham, West Midlands, B33 0LB <b>United Kingdom</b>		Issue 2 (2018-06-06)
Equipment:	<b>Series 9 LED luminaire</b>		Issue 1 (2017-11-27)
Optional accessory:			Issue 0 (2017-03-28)
Type of Protection:	<b>Increased safety "eb", Encapsulation "mb", Optical Radiation "op is", Dust Ignition "tc"</b>		
Marking:	Ex eb mb op is IIC T4/T5 Gb		
	Ex tc op is IIIB T86°C Dc		
	Ta: (-20°C≤Ta≤+25°C) (T5 variants)		
	Ta: (-20°C≤Ta≤+55°C) (T4 variants)		
	IP54		

Approved for issue on behalf of the IECEx  
Certification Body:

**H Amos MIET**

Position:

**Technical Manager**

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](http://www.iecex.com) or use of this QR Code.



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 16.0149X**

Page 2 of 4

Date of issue: 2019-11-18

Issue No: 5

Manufacturer: **Petrel Ltd**  
22 Fortnum Close, Mackadown Lane  
Kitts Green, Birmingham, West Midlands, B33 0LB  
**United Kingdom**

Manufacturing locations:

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 60079-0:2011](#) Explosive atmospheres - Part 0: General requirements  
Edition:6.0

[IEC 60079-18:2014](#) Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"  
Edition:4.0

[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 60079-7:2015](#) Explosive atmospheres – Part 7: Equipment protection by increased safety "e"  
Edition:5.0

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/CML/ExTR16.0191/00](#)  
[GB/CML/ExTR18.0166/00](#)

[GB/CML/ExTR17.0102/00](#)  
[GB/CML/ExTR19.0123/00](#)

[GB/CML/ExTR18.0130/00](#)

Quality Assessment Report:

[GB/CML/QAR19.0029/00](#)



# IECEx Certificate of Conformity

Certificate No.: **IECEx CML 16.0149X**

Page 3 of 4

Date of issue: 2019-11-18

Issue No: 5

**EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The Petrel 9 Series LED Luminaires are a range of portable luminaires for use in explosive atmospheres, consisting of encapsulated driver circuits, encapsulated LED strip units and connecting devices for a supply cables.

Refer to Annex for full description and conditions of manufacture.

**SPECIFIC CONDITIONS OF USE: YES as shown below:**

Refer to Annex for specific conditions of use.



# IECEx Certificate of Conformity

Certificate No.: **IECEx CML 16.0149X**

Page 4 of 4

Date of issue: 2019-11-18

Issue No: 5

## **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

### **Issue 1**

This issue introduced the following change:

1. The option of including a new driver, charger and battery assembly.

### **Issue 2**

This issue introduced the following changes:

1. Alternative LED lighting strips
2. Alternative emergency LED driver
3. Alternative encapsulant for electronic circuits
4. Update to routine testing in conditions of manufacture in line with all options

### **Issue 3**

This issue introduced the following change:

1. To allow an alternative construction of a current LED Emergency driver module.

### **Issue 4**

This issue introduced the following change:

1. Addition of new supplier for the LED Strip

### **Issue 5**

This issue introduced the following change:

1. To update the QAR reference only

### **Annex:**

[IECEx CML 16.0149X Iss 5 Annex.pdf](#)

**Annexe to:** IECEx CML 16.0149X Iss. 5  
**Applicant:** Petrel Ltd  
**Apparatus:** 9 Series Luminaire



## Description

The Petrel 9 Series LED Luminaires are a range of portable luminaires for use in explosive atmospheres, consisting of encapsulated driver circuits, encapsulated LED strip units and connecting devices for a supply cable. These are built onto a gear tray within an enclosure comprising a clear polycarbonate cover fitted on to a metallic base, between shock absorbing and dissipative plastic endplates.

The luminaire is fitted with a supply cable through a suitably certified cable gland or socket and plug receptacle.

An emergency option is also available powered via an encapsulated battery pack and inverter.

The range of luminaires are rated at 110 or 230 V 50/60 Hz.

## Conditions of Manufacture

The following are conditions of manufacture:

- i. Where the product incorporates certified components, the manufacturer shall ensure that any changes to those components do not affect the compliance of the certified product that is the subject of this certificate.
- ii. A dielectric strength test shall be carried out on all units manufactured in accordance with IEC 60079-7:2015 clause 7.1 and IEC 60079-18:2015 clause 9.2 at 1500 V AC or 2100 DC (circuit voltage 90V and over) or 500 V AC or 700 DC (circuit voltages up to 90V) for 1 minute. No breakdown shall occur. Tests shall be carried out between each circuit and earth and between each circuit and the surface of encapsulated parts.
- iii. A visual inspection shall be carried out on the encapsulated parts to check for damage in accordance with IEC 60079-18, clause 9.1.

## Conditions of Certification (Special Conditions for Safe Use)

The following are conditions of certification:

- i. Due to the risk of static hazards, the equipment should only be cleaned with a damp cloth.

