



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

Certificate No.: **IECEX SIR 09.0027** issue No.: **0** [Certificate history:](#)

Status: **Current**

Date of Issue: **2010-01-04** Page 1 of 4

Applicant: **Petrel Limited**  
Fortnum Close  
Kitts Green  
Birmingham B33 0LB  
United Kingdom

Electrical Apparatus: **610 Wellglass Luminaire**  
Optional accessory:

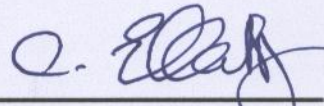
Type of Protection: **Flameproof, Increased Safety and Dust**

Marking: **Ex de IIC T\* Gb**  
**Ex tb IIIC T\*°C Db IP66**  
**Ta = -20°C to +°C**  
(\* The temperature classification and maximum surface temperature for dust are dependent upon the maximum ambient temperature, the type of light source used and orientation, refer to Equipment Description)

Approved for issue on behalf of the IECEx Certification Body: **C Ellaby**

Position: **Certification Officer**

Signature:  
(for printed version)

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**2010-01-04**

Date:

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:

**SIRA Certification Service**  
Rake Lane  
Eccleston  
Chester  
CH4 9JN  
United Kingdom

**sira**  
CERTIFICATION





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Manufacturer: **Petrel Limited**  
Fortnum Close  
Kitts Green  
Birmingham B33 0LB  
United Kingdom

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 electrical 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:

<b>IEC 60079-0 : 2007-10</b> Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
<b>IEC 60079-1 : 2007-04</b> Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-7 : 2006-07</b> Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
<b>IEC 61241-1 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*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/SIR/ExTR09.0181/00

Quality Assessment Report:

GB/SIR/QAR08.0014/01



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The 610 Wellglass Luminaire consists of a housing manufactured in aluminium, gunmetal, cast iron or stainless steel, which includes a separate lid that incorporates a glass dome. The glass dome is cemented into the lid using Eccobond 45LV. Within the enclosure are housed the optional light sources and any associated electrical equipment. Electrical connection is made via an increased safety terminal housing, which is cast as part of the same main housing. This housing employs component approved terminals, and interconnection between the terminals and the flameproof housing is via an approved bushing. Alternatively, suitably certified cable entry devices are used to provide direct electrical connection into the Ex d luminaire.

The luminaires are available with either a spigot joint or a threaded joint ) between the base and the glass lid collar.

The temperature classes, maximum ambient temperatures and timed delay that are applicable to each light source are listed on the EQUIPMENT (continued) page.

### CONDITIONS OF CERTIFICATION: NO





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**EQUIPMENT(continued):**

Temperature Classes, Maximum Ambient Temperatures And Timed Delays					
Light Source Option	Universal Mounting		Vertical Mounting		Delay Between Isolation & Opening (mins)
	T Class	Ta (°C)	T Class	Ta (°C)	
125 W MBF/U	3	+35	3	+55	15
<LAMP VALUE> MBF/U TO 80 W MAX	4	+40	4	+55	15
<LAMP VALUE> SON TO 110 W MAX	4	+40	4	+55	15
70 W SON-R	3	+55	N/A	N/A	15
150 W GLS OR HALOGENA	4	+40	3	+55	15
ROTATING BEACON	4	+70	N/A	N/A	15
25 W SL OR 20 W PLCE MAX	4	+70	N/A	N/A	15
XENON BEACONS	4	+55	N/A	N/A	15

The Manufacturer shall comply with the following condition of manufacture:

- Each 610 glass dome shall be subjected to a routine overpressure test of 11.4 bar for at least 10 s as required by clause 16.1 of IEC 60079-1. There shall be no permanent deformation or damage to the enclosure.
- A 1500 Vrms electrical strength test shall be applied for at least 60 s in accordance with clause 6.1 of IEC 60079-7 between the live parts of the terminals and bushing and the outer case. The internal components of the Ex d enclosure may be disconnected for this test. Alternatively, the test shall be performed at 1.2 times this voltage and the duration shall be at least 100 ms in accordance with clause 7.1 of IEC 60079-7.
- The 610 Wellglass Luminaire covered by this certificate incorporate previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform Sira of any modifications of the devices that may impinge upon the explosion safety design of the 610 Wellglass Luminaire.