



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 SIR 08.0089 issue No.: 0 Certificate history:

Status: **Current**

Date of Issue: 2008-08-28 Page 1 of 4

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

Electrical Apparatus: **Series 9 Fluorescent Luminaires**
Optional accessory:

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

Marking: **Non-Emergency Variants:**
Ex e d IIC T4 Gb (Ta -20°C to +55°C)
Ex e d IIC T5 Gb (Ta -20°C to +25°C)
Ex t IIIB T86°C Dc IP54 (Ta -20°C to +55°C)
Ex t IIIB T86°C Dc IP54 (Ta -20°C to +25°C)
Emergency Variants:
Ex e d ib IIC T4 Gb (Ta -20°C to +55°C)
Ex e d ib IIC T4 Gb T5 (Ta -20°C to +25°C)
Ex t IIIB T86°C Dc IP54 (Ta -20°C to +55°C)
Ex t IIIB T86°C Dc IP54 (Ta -20°C to +25°C)

Approved for issue on behalf of the IECEx
Certification Body:

C Ellaby

Position:

Certification Officer

Signature:
(for printed version)

Date:

2008-08-28

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**
22 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:

IEC 60079-0 : 2007-10 Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
IEC 61241-1 : 2004 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/ExTR08.0104/00

Quality Assessment Report:

GB/SIR/QAR08.0014/00



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Petrel Series 9 twin fluorescent luminaires are rated at 110 V to 277 V, for use with T8 lamps having the following outputs: 2 x 18 W, 2 x 36 W, 2 x 58 W. An emergency version of each type may also be manufactured with an inverter, battery pack and a charge status LED.

CONDITIONS OF CERTIFICATION: NO



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EQUIPMENT(continued):

Luminaire Enclosure: The luminaire enclosure comprises a body and lens. The body is constructed around an extruded aluminium chassis, which includes a channel for mounting the luminaire. At each end of the chassis are moulded polycarbonate end caps, these are fixed with self-tapping screws and adhesive. Cable entries in each end cap permit access for the supply conductors and the enclosure incorporates an external earth assembly. A lens is fixed to the body by a clamping mechanism, which comprises a rotating shaft connected via cams to locking bars running the length of the enclosure. Operation of the clamping mechanism is via the rotating shaft, which is connected to a bush in the side of one of the end caps. A flat gasket seals the joint between the diffuser and body.

Supply Terminal Blocks: The terminal blocks are fitted in each end cap and permit looping or through wiring, subject to a maximum circuit current of 15 A. An internal earth connection is provided, using one terminal way.

Lampholders: Lampholders are retained in a sliding cover assembly and are secured to each end cap. The lampholders comprise a polymer housing which supports the lampholder contacts. The housing is retained inside the sliding cover and a spring provides contact force between lamp and holder.

Ballast Enclosure: The ballast enclosure is manufactured from an aluminium cylinder, which incorporates an internal thread each end to receive threaded aluminium or moulded plastic end caps. Connecting leads pass through a bush in one end cap and are sealed with cement. The control gear is housed inside a flameproof enclosure that is fixed to the chassis. For emergency versions an inverter is also included inside this enclosure.

Switch: A switch, located in one of the end caps, is fitted in series with the lamp circuit and operates when the polycarbonate lens is removed to isolate the battery and/or the lamp. This switch consists of either one or two microswitches operated by means of an actuator pin. The microswitches have flying leads and are enclosed in a glass filled PBT casing. The assembly is cemented in place from the open end of the casing. When the switch does not isolate the lamp, the luminaire is fitted with a warning label 'Isolate Elsewhere Before Opening'.

Battery Pack (Optional): The battery pack utilises sealed gas tight, nickel/cadmium cells. It is mounted in the luminaire enclosure and is connected to an inverter inside the ballast enclosure.