



# 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 15.0059X** issue No.: **0** Certificate history:

Status: **Current**

Date of Issue: **2015-08-10** Page 1 of 4

Applicant: **Trox Limited**  
Newby Road  
Hazel Grove  
Stockport SK7 5DY  
United Kingdom

Electrical Apparatus: **TX6831 Audio/Visual Alarm**  
Optional accessory:

Type of Protection: **Intrinsically Safe**

Marking: **Ex ia I Ma**  
**Ta = -20°C to +60°C**

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

Position: **Deputy Certification Manager**

Signature:  
(for printed version)

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

Certificate issued by:

**SIRA Certification Service**  
**CSA Group**  
Unit 6, Hawarden Industrial Park  
Hawarden  
Deeside  
CH5 3US  
United Kingdom

**sira**  
CERTIFICATION





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Manufacturer: **Trolex Limited**  
Newby Road  
Hazel Grove  
Stockport SK7 5DY  
United Kingdom

Additional 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 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition: 6.0

**IEC 60079-11 : 2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition: 6.0

*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/ExTR15.0189/00

Quality Assessment Report:  
GB/SIR/QAR07.0017/04



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## Schedule

### EQUIPMENT:

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

The TX6831 Audio/Visual Alarm provides a visual and audible indication of a malfunction in an associated sensor to which it is connected. When the sensor output signal is at a normal level, the equipment emits a light pulse every 15 seconds, verifying that the unit is working. If the output exceeds a pre-set limit, the flash rate increases to once per second, indicating that an alarm condition has occurred. There is an optional integral sounder to provide an audible warning.

The equipment is housed in an enclosure comprising a base moulding and a lens moulding. The base is manufactured from stainless steel-filled polycarbonate or stainless steel filled Nylon 6 and the lens from anti-static polycarbonate or polycarbonate impregnated with an anti-static coating.

The equipment mounts directly on top of the sensor, with a gasket seal to ensure an ingress protection of at least IP54. A labyrinth seal around the sounder maintains the ingress rating.

Four wires exit the equipment: two for connection to a suitable power supply and two for connection to the output signal terminals of the sensor.

Refer to EQUIPMENT (continued) for Parameters

### CONDITIONS OF CERTIFICATION: YES as shown below:

1. Under normal or fault conditions, the internal temperature of this equipment may rise above 150°C; therefore, care shall be taken when the enclosure is opened to ensure that no dust enters the equipment.
2. The antistatic coating can be adversely affected by contact with acid or damage to the lens. Suitable precautions shall be taken to avoid such instances and the lens shall be inspected periodically for any damage.



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## EQUIPMENT(continued):

The nominal voltage range is 7.5 V to 16.5 V dc. The safety description is as follows:

Power input (Red and Black Wire)

Ui = 16.5 V

Ci = 1.2 nF

Li = 0

Input signal (Yellow and Green Wire)

Ui = 16.5 V

Ci = 0

Li = 0

Monitor trip voltage (Test point)

Ui = 16.5 V

Ci = 0

Li = 0

### Conditions of manufacture

The Manufacturer shall comply with the following:

1. The TX6831 Audio/Visual Alarm incorporates a previously certified fuse IECEx BAS 10.0098U. It is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with this device. The manufacturer shall inform Sira of any modifications to the device that may impinge upon the explosion safety design of the TX6831 Audio/Visual Alarm.