



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 99ATEX2152X** Issue: **5**

4 Equipment: TX6831 Audio/Visual Alarm

5 Applicant: Trolex Limited

6 Address: Newby Road
Hazel Grove
Stockport
SK7 5DY
UK

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

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-11:2012

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



I M1
Ex ia I Ma
Ta = -20°C to +60°C

Signed: Michelle Halliwell

Title: Director of Operations



Project Number 80196424

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SCHEDULE

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13 DESCRIPTION OF EQUIPMENT

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.

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

Power input (Red and Black Wire)

$U_i = 16.5 \text{ V}$ $C_i = 1.2 \text{ nF}$ $L_i = 0$

Input signal (Yellow and Green Wire)

$U_i = 16.5 \text{ V}$ $C_i = 0$ $L_i = 0$

Monitor trip voltage (Test point)

$U_i = 16.5 \text{ V}$ $C_i = 0$ $L_i = 0$

The equipment has not been assessed as a 'safety device' as referenced in Directive 2014/34/EU, Annex II, clause 1.5.

Variation 1 - This variation introduced the following changes:

- i. The replacement of R103 and R104 with zero ohm links.
- ii. The inclusion of D1, D2, Z101 and Z102 as safety components on drawing number P5459.01.

Variation 2 - This variation introduced the following change:

- i. The use of 'Faradex' stainless steel filled nylon 6 as an alternative anti-static enclosure material.

Variation 3 - This variation introduced the following change:

- i. The description was changed due to major changes in the latest edition of the standards, and a Special Condition For Safe Use was added.

Variation 4 - This variation introduced the following change:

- i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2012/A11:2013 was replaced with EN IEC 60079-0:2018.

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14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	08 May 2000	R52X6355A.	The release of the prime certificate.
1	06 July 2001	N/A	The introduction of Variation 1.
2	24 March 2003	R52A9400A	The introduction of Variation 2.
3	02 July 2015	R70028015A	This Issue covers the following changes: <ul style="list-style-type: none">All previously issued certification was rationalised into a single certificate, Issue 3, Issues 0 to 2 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format.The introduction of Variation 3.
4	31 October 2019	1590	<ul style="list-style-type: none">Transfer of certificate Sira 99ATEX2152X from Sira Certification Service to CSA Group Netherlands B.V.EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. <i>(In accordance with Article 41 of Directive 2014/34/EU, EC Type-Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)</i>
5	21 March 2024	R80196425A	The introduction of Variation 4.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

15.1 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.

15.2 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.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

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17 CONDITIONS OF MANUFACTURE

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.
- 17.3 The TX6831 Audio/Visual Alarm incorporates a previously certified fuse BASEEFA 02ATEX0071U. 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.

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Certificate Annexe



Certificate Number: Sira 99ATEX2152X
Equipment: TX6831 Audio/ Visual Alarm
Applicant: Trolex Limited

Issue 0

Drawing No.	Sheet	Rev.	Date	Title
P5459.01	1 to 2	A	05 Apr 00	Certified Circuit Diagram
P5459.02	1 of 1	A	05 Apr 00	General Arrangement
P5459.03	1 of 5	A	04 Apr 00	Power Input P.C.B. Manufacturing Specification
P5459.03	2 of 5	A	04 Apr 00	Power Input P.C.B. Top Overlay
P5459.03	3 of 5	A	04 Apr 00	Power Input P.C.B. Top Layer
P5459.03	4 of 5	A	04 Apr 00	Power Input P.C.B. Bottom Layer
P5459.03	5 of 5	A	04 Apr 00	Power Input P.C.B. Bottom Overlay
P5459.05	1 of 5	A	04 Apr 00	Control P.C.B. Manufacturing Specification
P5459.05	2 of 5	A	04 Apr 00	Control P.C.B. Top Overlay
P5459.05	3 of 5	A	04 Apr 00	Control P.C.B. Top Layer
P5459.05	4 of 5	A	04 Apr 00	Control P.C.B. Bottom Layer
P5459.05	5 of 5	A	04 Apr 00	Control P.C.B. Bottom Overlay
P5459.20	1 of 1	A	05 Apr 00	Certification Printing Details

Issue 1

Drawing No.	Sheets	Rev.	Date	Description
P5459.01	1 to 2	B	09 Apr 01	Certified Circuit Diagram

Issue 2

Drawing No.	Sheets	Rev.	Date	Description
P5459.02	1 of 1	B	04 Feb 03	General arrangement

Issue 3

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
P5459.01	1 to 2	C	05 Jun 15	Certified Circuit diagram
P5459.02	1 of 1	C	05 Jun 15	General Arrangement
P5459.20	1 of 1	B	05 Jun 15	Certification Printing Details

Issues 4 and 5. No new drawings were introduced.

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