

# Certificate of Conformity

## Ex EQUIPMENT

Certificate No.: **ANZEx 08.3038X**

Current Issue: 2

Date of Issue: 7 December 2017

**Applicant:** Trolex Limited  
Unit 10a Newby Road  
Stockport SK7 5DY  
United Kingdom

**Equipment:** STX 3241 Toxic Gas Sensor

**Type of Explosion Protection:** Intrinsic safety 'ia'

**Explosion Protection Marking:** Ex ia I Ma (Ta = 55 °C)

*This certificate is granted subject to the conditions as set out in  
Standards Australia/Standards New Zealand Miscellaneous Publication **MP87.1***

*Signed for and on behalf of issuing body*



*Name & Position*

Ujen Singh – Quality & Certification Manager

*This certificate is not transferable and remains the property of the issuing body.*

*The status of this certificate can be confirmed through the database located at [www.anzex.com.au](http://www.anzex.com.au)*

Certificate issued by:

TestSafe Australia  
919 Londonderry Road, Londonderry NSW 2753 Australia

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United Kingdom

**Additional  
Manufacturing  
Location(s):** None

**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:*

AS/NZS 60079.0:2005 Electrical apparatus for explosive gas atmospheres – Part 0: General requirements (including Amendment 1)  
AS/NZS 60079.11:2006 Explosive atmospheres – Part 11: Equipment protection by Intrinsic safety 'i'  
AS 60529:2004 Degree of protection provided by enclosures (IP code)

*This Certificate does not indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.*

**TEST & ASSESSMENT REPORTS:**

*The equipment listed has successfully met the examination and test requirements as recorded in:*

Test Report No. & Issuing Body: 29483, 33448, 36105; TestSafe Australia

Quality Assessment Report No. & Issuing Body: GB/SIR/QAR07.0017/06; SIRA

File Reference: 2017/015222



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### Schedule

#### Equipment Description:

The STX 3241 Toxic Gas Sensor is designed to measure toxic gas concentration by means of an electrochemical type sensing cell and to electronically convert the measured signal into an output signal that can be configured either as 0V to 2.0V output signal or as a 4 to 20mA output signal.

The apparatus comprises of an Output PCB, a Controller PCB and an LCD, all located in a plastic enclosure with an ingress protection rating of at least IP54. A window in the enclosure permits viewing of the LCD.

The electrochemical cell with its Cell Amplifier PCB is located in a separate enclosure that is externally attached to the main plastic enclosure. This cell and its amplifier PCB may also be located on a remote head connected by up to 10 m of cable to the main enclosure.



Electrical connections for the power and signal are made to screw type terminals mounted on the Output PCB.

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**Specific Conditions of Use:**

The following parameters shall be complied when installing the equipment:

Terminals T1, T2 (Models 4-20mA and 0.4-2.0V)	
Ui	+14.4 V
Ii	3.14 A

Terminals T4, T3 (Model 4-20mA)	
Ui	+14.4 V
Ci	0
Li	0
Uo	14.4 V
Io	250 mA
Po	0.9 W
Co	17.9 $\mu$ F
Lo	6.13 mH

Terminals T4, T3 (Model 0.4-2.0V)	
Ui	+14.4 V
Ci	0
Li	0
Uo	7.14 V
Io	18 mA
Po	0.032 W
Co	1000 $\mu$ F
Lo	1 H



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### History of Issues and Variations

#### Issue 0 dated 04 July 2008

Manufacturer's Documents associated with Issue 0:

Document Number	Pages / Sheets	Document Title	Revision	Date
P5558_01	2	Certified Circuit Diagram Output PCB Sheet	A05	11 Nov 2007
P5558-02	1	General Arrangement	B	07 Dec 2007
P5558.03	1	PCB, Output	A5	07 Dec 2007
P5555.04	1	PCB, Control & Display	A	17 Jan 2007
P5555.05	2	Certified Circuit Diagram Control & Display PCB (and Parts Lists)	A	08 Mar 2007
P5558_15	2	Certified Circuit Diagram Cell Amplifier PCB	A2	07 Dec 2007
P5558.16	1	PCB, Cell Amplifier	A2	07 Dec 2007
P5558-18	1	Certification Labelling AUS	A	26 Sep 2007
LM071-0	16	Specification of 16x2 LCD Module Product No.: LM_83_071__E_	RO	15 Apr 1996
Cert-atex-comp-cat12-p	2	Certificate Number Baseefa02ATEX0071U (used as data sheet for 259 Series Fuse)	0	13 Mar 2003

#### Issue 1 dated 24 January 2012

Variations Permitted by Issue 1

- Voltage rating of two capacitors in the Output PCB
- Alternative head arrangement
- Alternative enclosure material
- Use of alternative '4-series' toxic sensor cells
- Use of a laser etched label with EPL marked
- Drawing changes that allow for the above, and minor administrative changes.
- Conditions of safe use are not changed.

These changes have been satisfactorily addressed in test report 33448.

Manufacturer's Documents associated with the Issue 1:

Document Number	Pages / Sheets	Document Title	Revision	Date
P5558_01	2	Certified Circuit Diagram Output PCB Sheet	A06	05 Jul 2010
P5558-02	1	General Arrangement	C	06 Dec 2010
P5558-02-02	1	General Arrangement (Alternative Head Arrangement)	A	20 Jul 2010

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Document Number	Pages / Sheets	Document Title	Revision	Date
P5558_15	2	Cell Amplifier Schematic	B	10 Nov 2010
P5558.16	1	PCB, Cell Amplifier	B	12 Nov 2010
P5558-18	1	Certification Labelling AUS	B	17 Jan 2012

**Issue 2 (current issue)***Variations Permitted by Issue 2*

- Remove the manufacturers of electrochemical sensor and state the maximum voltage and current on the BOM.
- Conditions of safe use are not changed.

These changes have been satisfactorily addressed in test report 36105.

*Manufacturer's Documents associated with Issue 2:*

Document Number	Pages / Sheets	Document Title	Revision	Date
P5558_15	2	STX3241 Toxic Gas Sensor Cell Amplifier Schematic	C	03 Feb 2017