

**Australian/New Zealand  
Certification Scheme for  
EXPLOSION-PROTECTED ELECTRICAL EQUIPMENT  
ANZEx Scheme**

***Certificate of Conformity***

Certificate No.: ANZEx 12.3016X

Issue No.: 0

Date of Issue: 2012-08-29

**Applicant:** Trolex Limited  
Newby Road, Hazel Grove  
Stockport, Cheshire, SK7 5DY  
United Kingdom

**Electrical Apparatus:** TX6373-series Toxic Gas Sensor/Transmitter

**Type of Protection:** Intrinsic Safety 'ia'

**Marking Code:** ANZEx 12.3016X  
Ex ia I, Ex ia IIC T4  
Ta = -20°C to +60°C

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

**Manufacturing Location(s):** As above

*The EPEE certification database located at <http://www.anzex.com.au> shows the validity of this Certificate.*

 <b>Test Safe</b> AUSTRALIA	<p>Certificate issued by:</p> <p><b>TestSafe Australia</b></p> <p>919 Londonderry Road, Londonderry NSW 2753</p> <p>Australia</p> <p>Phone: +61 2 4724 4900      Fax: +61 2 4724 4999</p> <p><a href="http://www.testsafe.com.au">http://www.testsafe.com.au</a></p>	 <b>JAS-ANZ</b> www.jas-anz.org/register
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This certificate and schedule shall not be reproduced except in full

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*This certificate is granted subject to the conditions as set out in Standards Australia/Standards New Zealand Miscellaneous Publication MP87.1:2008.*

**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:*

AS/NZS 60079-0:2005	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
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 electrical safety and performance requirements other than those expressly included in the Standard(s) listed above.*

**ASSESSMENT & TEST REPORTS:**

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

Test Report No. and Issuing Body:	33740 ; TestSafe
Quality Assessment Report No. and Issuing Body:	GB/SIR/QAR07.0017/02 ; Sira

File Reference:	2012/006337
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Ujen Singh

*Signed for and on behalf of issuing body*

Quality & Certification Manager

*Position*

29 August 2012

*Date of Issue*

**This certificate is not transferable and remains the property of the issuing body and must be returned in the event of it being revoked or not renewed.**

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### Schedule

#### EQUIPMENT:

The TX6373-series Toxic Gas Sensor/Transmitter takes a signal from an integral electrochemical gas sensing head. This signal is conditioned and an analogue signal is then transmitted to other monitoring equipment.

The equipment comprises an output board connected to sensor head boards and an optional display board. The assembly is housed in a metal-loaded polycarbonate or polycarbonate/ABS enclosure with anti-static properties. A polycarbonate window is fitted to allow viewing of the liquid crystal display.

The TX6373-series includes the following versions:

TX6373.01.11.xxx.xxx	Group I	0.4-2V output
TX6373.01.12.xxx.xxx	Group I	4-20mA, 2-wire output
TX6373.01.13.xxx.xxx	Group I	5-15Hz output
TX6373.02.12.xxx.xxx	Group IIC	4-20mA, 2-wire output

Note: "xxx.xxx" refers to the toxic gas detected and the range of the instrument.

#### CONDITIONS OF CERTIFICATION:

- It is a condition of safe use that the following entity parameters for the terminals shall be taken into account during installation:

#### Group I 0.4-2 V and 5-15 Hz

	<b>T4/T3 (power)</b> (See note 1)	
U <sub>i</sub>	16.5 V	
C <sub>i</sub>	0 (See note 2)	
L <sub>i</sub>	0	
	<b>T1/T2 (sensor output signal)</b>	
	<b>0.4-2 V</b>	<b>5-15 Hz</b>
U <sub>i</sub>	16.5 V	16.5 V
I <sub>i</sub>	200 mA	
P <sub>i</sub>	0.271 W	
C <sub>i</sub>	0	
L <sub>i</sub>	0	0

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$U_o$	5.88 V	0
$I_o$	24 mA	
$P_o$	35 mW	
$C_o$	9.7 $\mu$ F	
$L_o/R_o$	$\leq 40 \mu$ H/ $\Omega$	

Note 1: The TX6373 may be connected to supplies derived from a single power source or from two separate power sources. Where two separate power supplies are used, they shall be unipolar positive power supplies referenced to the same zero volt.

Note 2: In addition to the terminal capacitance at the supply voltage, for system assessment purposes, the installer should note that there is a terminal capacitance of 7  $\mu$ F at 7.08 V.

### Groups I and IIC, 4-20mA 2-wire

	<b>Group I T4/T1 (power/signal)</b>	<b>Group II T4/T1 (power/signal)</b>
$U_i$	16.5 V	28 V
$I_i$	-	100 mA
$P_i$	-	0.7W
$C_i$	50 nF (See note)	50 nF (See note)
$L_i$	0	0

Note: In addition to the terminal capacitance at the supply voltage, for system assessment purposes, the installer should note that there is a terminal capacitance of 7  $\mu$ F at 7.08 V.

2. The apparatus shall only be cleaned with a damp cloth.

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**DOCUMENTS:**

Document No.	Sheets	Document Title	Issue	Date (yyyy-mm-dd)
P5486.110.1	1	Master Certified Circuit Diagram	D	2003-02-06
P5486.110.6	1	TX6373 Toxic Gas Sensor/Transmitter 0.4 to 2V Input, 4 to 20mA Output Group I and Group II Certified Circuit Diagram	E	2003-02-06
P5486.110.7	1	TX6373 Toxic Gas Sensor/Transmitter 0.4 to 2V Input, 0.4 to 2V Output Group I Certified Circuit Diagram	C	2002-05-01
P5486.110.8	1	TX6373 Toxic Gas Sensor/Transmitter 0.4 to 2V Input, 5 to 15Hz Output Group I Certified Circuit Diagram	C	2002-05-01
P5486.110.9	1	TX6373 Toxic Gas Sensor/Transmitter Certified Parts Lists	F	2012-03-19
P5486.111	1	Universal Output PCB P.C.B. Artwork	C	2002-04-24
P5487.100	1	Alpha-Numeric LCD Board	C	2002-03-06
P5487.101	1	PCB Artwork (for LCD Board)	E	2002-03-06
P5487.02	1	General Arrangement	F	2012-03-05
P5487.103	6	Toxic Gas head Sensor Head PCB Master Schematic Certified Circuit Diagram	B	2002-03-20
P5487.52	1	Certification Labels	A	2012-08-09