



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx TRA 16.0016X**

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Certificate history:

Status: **Current**

Issue No: 2

[Issue 1 \(2018-02-15\)](#)

[Issue 0 \(2016-11-30\)](#)

Date of Issue: 2020-06-30

Applicant: **Trox Limited**
10a Newby Road
Hazel Grove
Stockport
Cheshire SK7 5DY
United Kingdom

Equipment: **Wireless Gas Detector - TX6355 Sentro Wireless**

Optional accessory:

Type of Protection: **Intrinsic safety 'i'**

Marking: **Ex ia I Ma**

Approved for issue on behalf of the IECEx
Certification Body:

David Price

Position:

Certification Authority

Signature:
(for printed version)

Date:

2020-06-30

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 www.iecex.com or use of this QR Code.



Certificate issued by:

Ex Testing and Certification Pty Ltd
1/30 Kennington Drive
Tomago NSW 2322
Australia



TESTING & CERTIFICATION



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Date of issue: 2020-06-30

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Manufacturer: **Trolex Limited**
10a Newby Road
Hazel Grove, Stockport
Cheshire SK7 5DY
United Kingdom

Additional
manufacturing
locations:

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 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

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 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 Reports:

[AU/ExTC/ExTR20.0026/00](#)
[CA/QPS/ExTR16.0007/00](#)
[GB/SIR/ExTR08.0123/00](#)
[GB/SIR/ExTR13.0059/00](#)

[AU/ITA/ExTR15.0026/00](#)
[CA/QPS/ExTR16.0007/01](#)
[GB/SIR/ExTR10.0180/00](#)

[AU/ITA/ExTR16.0009/00](#)
[GB/CML/ExTR15.0028/00](#)
[GB/SIR/ExTR11.0057/00](#)

Quality Assessment Report:

[GB/SIR/QAR07.0017/09](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Trolex Sentro Wireless Gas Detector TX6355, is designed for use in underground gassy mines to provide air-monitoring in a fixed location.

Please refer to annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Please refer to annex for additional information.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
See Annex for details

Annex:

[IECEx_TRA_16.0016X_2 Certificate Annex Final.pdf](#)

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Annexe



Annexe for Certificate No.:

IECEx TRA 16.0016X

Issue No.:

2

Description:

The Trolex Sentro Wireless Gas Detector (Sentro) is designed for use in underground gassy mines to provide air-monitoring in a fixed location. The Sentro Wireless is powered with an external battery pack that connects to the main enclosure at screw terminals 4, 5 on the Output Board. The Sentro is a single channel unit designed to monitor one of the following gases Methane, Carbon Dioxide, High Level Carbon Monoxide, Low level Carbon Monoxide, Oxygen and various other toxic gas levels. The levels measured are displayed on the gas monitor LCD. A visual alarm can be set to trigger at user adjustable set-points. The system is used to measure ambient gas levels by diffusion.



Figure # 2.1: Sentro Wireless (Battery Operated Version)

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Annexe



Annexe for Certificate No.:

IECEX TRA 16.0016X

Issue No.:

2

Specific Conditions of Use pertaining to Issue 0, 1 of this Certificate:

1. Use only with Energizer E95/EN95 D-type Alkaline Cells. These are wired to screw terminals 4, 5 on J6 Output Board only.
2. The other screw terminals 1, 2, 3, 6 on J6 Output Board shall not be used in the hazardous area.
3. Only Trolex manufactured gas sensing modules ("eModules") identified by the top level part number "TX6350.06" shall be fitted. The use of these eModules have been assessed for compatibility as part of this certification and are suitable for use in Group I hazardous location.
4. The cover screws must be torqued to a value of 1.24N*m (10in*lbs) following replacement of the eModules (gas sensor) or batteries.
5. Do not open when coal dust is present.
6. Extreme care must be taken to protect the equipment from impact. In the event the unit is dropped or impacted, a competent person must inspect it for any damage that would impair the Ingress Protection (IP54).
7. The batteries must be removed to de-energise the unit before it is transported / relocated.

Apparatus supply and input/output parameters



The gas detector is powered internally by 4 'D' cell batteries.

There are no other connections allowed in the hazardous area.

Drawing list pertaining to Issue 0 of this Certificate:

Manufacturer's Documents

Title	Drawing No.	Sheets	Rev. Level	Date
General Arrangement (Battery powered version)	P5596-10-IECEX	1	A	2016-04-01
Block Diagram	P5596.08.IECEX	1	A	2016-04-04
Circuit Diagram, Control PCB	P5536.202	2	E	2014-03-20
PCB, Control	P5536.203	1	B	2009-10-14
Circuit Diagram, Display PCB	P5536.204	2	B	2009-10-07
PCB, Display	P5536.205	1	C	2012-05-01
PCB, Connector	P5536.212	1	B	2009-10-14
Circuit Diagram Wireless Output Board	P5596.01.IECEX	4	A	2016-04-04
PCB, Output (Wireless)	P5596.02.IECEX	1	A	2016-04-04
Certification label, Front, IECEX Australia	P5596.2013	1	A	2016-10-20
Certification label, Back, IECEX Australia	P5596.2014	1	B	2016-09-12

<h1 style="text-align: center;">IECEX Certificate of Conformity</h1> <div style="display: flex; justify-content: space-around; align-items: center;">  <div style="text-align: center;"> <h2 style="margin: 0;">Annexe</h2> </div>  </div>			
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Variations permitted by Issue 1 of this certificate:

Changes made to the equipment description and removal of input/output parameters for the connection of eModules specified in Issue 0 of the certificate, as these are only relevant to the manufacturer. The assessment of the match between the parameters of the eModules and its connection to the main circuit is contained in report CA/QPS/ExTR16.0007/01 with no allowance to connect other eModules.

Specific Conditions of Use pertaining to Issue 1 of this certificate:

These are consolidated in the revised list for Issue 0 above.

Drawings Associated with the Issue 1 of this Certificate:

There has been no change in the drawings specified in Issue 0 of this certificate.

Variations permitted by Issue 2 of this certificate:

This variation introduces new LCD in the Display board.

Conditions xx pertaining to Issue 2 of this certificate:

These are no variations to Issue 1 of this certificate.

Drawings Associated with the Issue 2 of this Certificate:

Manufacturer's Documents				
Title	Drawing No.	Sheets	Rev. Level	Date
Sentro 1 Revised Display, IECEX Certification BOM	P5536.286.IECEx	2	A	2020-01-17
Sentro 1 Revised Display IECEX Certification Layout	P5536.287.IECEx	2	A	2020-01-20