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 CML 20.0018X** Page 1 of 3 Certificate history:

Status: **Current** Issue No: 0

Date of Issue: 2020-02-17

Applicant: **Michell Instruments Ltd**
48 Lancaster Way Business Park
Ely
Cambridgeshire CB6 3NW
United Kingdom

Equipment: **XTP601-Ex Oxygen Analyser and XTC601 Series Binary Gas Analyser**

Optional accessory:

Type of Protection: **Flameproof (Ex db) and dust protection by enclosure (Ex tb)**

Marking: Ex db IIB+H_2 T6 Gb

Ex tb IIIC T85°C Db

IP 66

Ta = -40°C to +60°C (for versions with a silicone O-ring)
Ta = -15°C to +60°C (for versions with a viton O-ring)
Ta = -10°C to +60°C (for versions with a Ekraz O-ring)

Approved for issue on behalf of the IECEx Certification Body: **A Snowdon MIET**

Position: **Assistant Certification Manager**

Signature: (for printed version)

Date: February 17, 2020

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:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom

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Certificate No.: **IECEx CML 20.0018X** Page 2 of 3

Date of issue: 2020-02-17 Issue No: 0

Manufacturer: **Michell Instruments Ltd**
48 Lancaster Way Business Park
Ely
Cambridgeshire CB6 3NW
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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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 Report:

GB/CML/ExTR20.0030/00

Quality Assessment Report:

GB/BAS/QAR07.0018/10

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The XTP601 Series Oxygen Analysers and XTC601 Series Binary Gas Analysers comprise a cylindrical enclosure, with or without a window, which is certified under certificate IECEx PTB 07.0027U. Internally, the enclosure is provided with a sensor cell, a base mounted main PCB and a display PCB which is positioned immediately behind the window.

A glass light guide, within an 'Ex d' cable gland, is mounted in the wall of the enclosure to give a visual indication of the status of the sensor.

Sample gases for analysis are transferred to and from the sensor cell via flame arrestors certified under certificate IECEx SIR 16.0117U or IECEx INE 12.0002U, these are fitted into the enclosure wall such that the sample gases are isolated from the interior of the enclosure.

The equipment is rated at up to 28 V d.c. and up to 40 W (XTP601) and 25 W (XTC601)

(See Annex for full description)

SPECIFIC CONDITIONS OF USE: YES as shown below:
Refer to certificate Annex.

Annex:

IECEx CML 20.0018X Iss 0 Annex.pdf

Annexe to:	IECEx CML 20.0018X Issue 0
Applicant:	XTP601-Ex Oxygen Analyser and XTC601 Series Binary Gas Analyser
Apparatus:	Michell Instruments Ltd

Description

The XTP601 Series Oxygen Analysers and XTC601 Series Binary Gas Analysers comprise a cylindrical enclosure, with or without a window, which is certified under certificate IECEx PTB 07.0027U. Internally, the enclosure is provided with a sensor cell, a base mounted main PCB and a display PCB which is positioned immediately behind the window.

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The equipment is rated at up to 28 V d.c. and up to 40 W (XTP601) and 25 W (XTC601)

The equipment is designated as the following:

XTP601-Ex* C Oxygen Analyser**

and

XTC601-Ex* C Binary Gas Analyser**

Where:

*	=	1 for version with window and display
		2 for version with window but without display
		3 for version without window
**	=	C1 for version with viton O-ring
		C2 for version with silicon O-ring
		C3 for version with Ekraz O-ring

Notes:

- Certificates IECEx SIR 12.0013X (XTP601) and IECEx SIR 13.0041X (XTC601) are superseded by this certificate.
- Where IECEx SIR 12.0013X or IECEx SIR 13.0041X is specified in other product certification, or other technical specifications, this certificate reference for the product shall be used in its place; updating of the other product certificate or technical specification is not required.

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Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

i. Where the product incorporates certified parts or safety critical components, the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.

ii. The sensor cell and associated pipework & connections of every unit shall be subjected to a pressure test of at least 1.5 bar for at least 10 Seconds, in accordance with Clause G.4.1 of IEC 60079-1:2014. There shall be no leakage.

iii. Each and every light guide assembly shall be subjected to a routine overpressure test at 13.5 bar, without damage or leakage, in accordance with Clause 15.2.3 of IEC 60079-1:2014.

Specific Conditions of Use

The following conditions relate to the safe installation and/or use of the equipment.

i. Cable entry holes shall be fitted with either an appropriately certified cable gland or appropriately certified blanking element. These shall provide and maintain a minimum enclosure ingress protection of IP66.

ii. The maximum pressure associated with the process medium in the internal pipes shall be limited to 1 bar.

iii. The maximum temperature associated with the process medium shall be limited to +60°C.

iv. Flameproof joints of the Flame Arrestor and Breather are not intended to be repaired.

Components covered by Ex Certificates issued to older editions of Standards

None. All Ex Components used in the construction are certified to the current editions of standards.