



# 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](http://www.iecex.com)

Certificate No.:	<b>IECEx CML 20.0018X</b>	Page 1 of 4	<u>Certificate history:</u>
Status:	<b>Current</b>	Issue No: 2	<a href="#">Issue 1 (2022-01-07)</a> <a href="#">Issue 0 (2020-02-17)</a>
Date of Issue:	2023-10-26		
Applicant:	<b>Michell Instruments Ltd</b> 48 Lancaster Way Business Park Ely Cambridgeshire CB6 3NW <b>United Kingdom</b>		
Equipment:	<b>XTP601-Ex Oxygen Analyzer, XTC601-Ex Binary Gas Analyzer and XPM601-Ex Paramagnetic Gas Analyzer</b>		
Optional accessory:			
Type of Protection:	<b>Flameproof Ex "db" and Dust Protection by Enclosure Ex "tb"</b>		
Marking:	Ex db IIB+H2 T6 Gb Ex tb IIIC T85°C Db  Ta = -40°C to +60°C (for versions with a silicone O-ring , only for XTP601-Ex and XTC601-Ex models) 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:

**L A Brisk**

Position:

**Assistant Certification Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

26 Oct 2023

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Certificate issued by:

**Eurofins E&E CML Limited**  
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Ellesmere Port, CH65 4LZ  
**United Kingdom**





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

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

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** 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 Reports:

**GB/CML/ExTR20.0030/00**

**GB/CML/ExTR22.0003/00**

**GB/CML/ExTR23.0212/00**

Quality Assessment Report:

**GB/BAS/QAR07.0018/12**



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The XTP601-Ex Oxygen Analyzer, XTC601-Ex Binary Gas Analyzer and XPM601-Ex Paramagnetic Gas Analyzer comprise a cylindrical enclosure 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.

Sample gases for analysis are transferred to and from the sensor cell via flame arrestors certified under certificate IECEx CML 20.0168U 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.

**See Annex for full description and Conditions of Manufacture.**

**SPECIFIC CONDITIONS OF USE: YES as shown below:**

**See Annex for Specific Conditions of Use.**



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## **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

### **Issue 1**

This issue introduced the following change:

1. To update the component certificates referenced for FA\*- flame arrestors and BA\*- breathers.

### **Issue 2**

This issue introduced the following changes:

1. To add the XPM601-Ex Paramagnetic Gas Analyzer model.
2. To remove the models without window.
3. To permit minor updates to the technical file (documentation)
4. To recognise minor editorial corrections to the product description

### **Annex:**

[IECEX CML 20.0018X Issue 2 Annex.pdf](#)

**Annexe to:** IECEx CML 20.0018X Issue 02

**Apparatus:** XTP601-Ex Oxygen Analyzer, XTC601-Ex Binary Gas Analyzer  
and XPM601-Ex Paramagnetic Gas Analyzer

**Applicant:** Michell Instruments Ltd



## Description

The XTP601-Ex Oxygen Analyzer, XTC601-Ex Binary Gas Analyzer and XPM601-Ex Paramagnetic Gas Analyzer comprise a cylindrical enclosure 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.

Sample gases for analysis are transferred to and from the sensor cell via flame arrestors certified under certificate IECEx CML 20.0168U 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 38 W (XTP601) and 22 W (XTC601, XPM601).

The equipment is designated as the following:

XTP601-Ex1-C\* Oxygen Analyzer

XTC601-Ex1-C\* Binary Gas Analyzer

XPM601-Ex1-C\* Paramagnetic Gas Analyzer

Where:

- \* = C1 for version with viton O-ring
- C2 for version with silicon O-ring (only for XTP601-Ex and XTC601-Ex models)
- 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 (XTP601) or IECEx SIR 13.0041X (XTC601) 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.

## 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 of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.
- ii. The sensor cell and associated pipework & connections of every unit shall be subjected to a pressure test in accordance with Clause G.4.1 of IEC 60079-1 Ed.7 for a minimum duration of 10 Seconds under at least:
  - 1.5 bar for XTP601-Ex and XTC601-Ex models
  - 0.5 bar for XPM601-Ex model

There shall be no leakage.



Certificate Annex IECEx  
Version: 10.0 Approval: Approved



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Ellesmere Port, CH65 4LZ, UK



## Specific Conditions of Use

The following conditions relate to 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 for XTP601-Ex and XTC601-Ex models and to 0.33 bar for XPM601-Ex model.
- 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.



Certificate Annex IECEx  
Version: 10.0 Approval: Approved



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