

UK Type Examination Certificate CML 21UKEX1048X Issue 2**United Kingdom Conformity Assessment**

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1
- 2 Equipment **XTP601-Ex Oxygen Analyzer, XTC601-Ex Binary Gas Analyzer and XPM601-Ex Paramagnetic Gas Analyzer**
- 3 Manufacturer **Michell Instruments Ltd**
- 4 Address **48 Lancaster Way Business Park,
Ely, Cambridgeshire,
CB6 3NW,
United Kingdom**

- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential reports listed in Section 12.

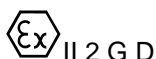
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018

EN 60079-1:2014

EN 60079-31:2014

- 10 The equipment shall be marked with the following:



Ex db IIB+H₂ T6 Gb

Ex tb IIIC T85°C Db

IP 66

Ta = -40°C to +60°C (for versions with a silicone O-ring; XTP601-Ex and XTC601-Ex)

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)





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11 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 PTB 06ATEX1023U. 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 CML 21UKEX1086U or INERIS 12ATEX9013U, 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

Variation 1

This variation introduces the following modification:

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

Variation 2

This variation introduces the following modification:

- i. To add the XPM601-Ex Paramagnetic Gas Analyzer model.
- ii. To remove the models without window.
- iii. To permit minor updates to the technical file (documentation)
- iv. To recognise minor editorial corrections to the product description.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	01 Jan 2021	R13661C/00	Issue of prime certificate
1	07 Jan 2022	R14948A/00	Introduction of variation 1
2	26 Oct 2023	R16758A/00	Introduction of Variation 2

Note: Drawings that describe the equipment are listed in the Annex.

13 Conditions of Manufacture

This certificate shall only be copied
in its entirety and without change
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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 EN 60079-1:2014 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.

14 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

Certificate Number CML 21ATEX1048X
Equipment XTP601-Ex Oxygen Analyzer, XTC601-Ex Binary Gas Analyzer and XPM601-Ex Paramagnetic Gas Analyzer
Manufacturer Michell Instruments Ltd



The following documents describe the equipment defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
Ex90482	1 to 13	05	01 Jan 2021	XT*601 Series Analysers IECEx & ATEX & UKCA certification drawing. Oxygen analyser part details and numbers

Issue 1

For all drawings, refer to attached certificate CML 20ATEX1038X, Issue 1.

Issue 2

Drawing No	Sheets	Rev	Approved date	Title
Ex90482	1 to 14	07	26 Oct 2023	XTP601, XTC601 & XPM601 ANALYZER ATEX/IECEx/UKCA CERTIFICATION DRAWING