



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 TRC 11.0008X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 5 [Issue 4 \(2017-05-05\)](#)
Date of Issue: 2020-07-14 [Issue 3 \(2016-08-03\)](#)
[Issue 2 \(2015-09-16\)](#)
[Issue 1 \(2014-10-24\)](#)
[Issue 0 \(2012-12-18\)](#)

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

Equipment: **Condumax II : Hydrocarbon Dewpoint Analyser & Promet EExd : Process Moisture Analyser.**

Optional accessory:

Type of Protection: **Flameproof Ex db**

Marking: Ex db IIB + H2 T6 Gb (Tamb = -40 °C to +44 °C) : Condumax II
Ex db IIB + H2 T5 Gb (Tamb = -40 °C to +59 °C) : Condumax II
Ex db IIB + H2 T3 Gb (Tamb = -40 °C to +60 °C) : Condumax II
Ex db IIB T4 Gb (Tamb = -40 °C to +60 °C) : Condumax II
Ex db IIB + H2 T5 Gb (Tamb = -40 °C to +44 °C) : Promet EExd
Ex db IIB + H2 T4 Gb (Tamb = -40 °C to +60 °C) : Promet EExd
Ex db IIB + H2 T3 Gb (Tamb = -40 °C to +60 °C) : Promet EExd
Ex db IIB T4 Gb (Tamb = -40 °C to +60 °C) : Promet EExd

Approved for issue on behalf of the IECEx
Certification Body:

Stephen Winsor

Position:

Certification Manager

Signature:
(for printed version)

Date:

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:

Element Materials Technology
Unit 1 Pendle Place
Skelmersdale
West Lancashire





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Manufacturer: **Michell Instruments Ltd.,**
Unit 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

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/EMT/ExTR17.0007/00](#)
[GB/TRC/ExTR11.0009/01](#)
[GB/TRC/ExTR11.0012/00](#)

[GB/EMT/ExTR17.0007/01](#)
[GB/TRC/ExTR11.0009/02](#)
[GB/TRC/ExTR11.0012/01](#)

[GB/TRC/ExTR11.0009/00](#)
[GB/TRC/ExTR11.0009/03](#)
[GB/TRC/ExTR11.0012/02](#)

Quality Assessment Report:

[GB/BAS/QAR07.0018/10](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Condumax II and Promet EExd are a family of online gas measurement equipment designed for use in a potentially explosive gaseous atmosphere.

The Condumax II Hydrocarbon Dewpoint Analyser measures the hydrocarbon condensation temperature of natural gas.

The Promet EExd Process Moisture Analyser measures the water dew point within a gas sample stream.

The equipment architecture is an ATEX & IECEx component certified flameproof enclosure (JCE model GUB5, certificate numbers IECEx TRC12.0002U and TRAC12ATEX0008U) and has been assessed for use with group IIB + H₂ gases (IIB when using Killark KBQA M20 breather).

A microprocessor controls all the functions associated with sampling and data processing. Proximity switches and a display behind the main enclosure provide the user interface.

High pressure microbore process lines enter and exit the flameproof housing via suitably rated flame arrestors used to prevent flame propagation from the enclosure to the process (either Michell FA/BR range or M.A.M FT/VS 16090 range). The flameproof enclosure also incorporates suitably rated breathing devices(s) (either Michell FA/BR range, M.A.M FT/VS 16090 range or Killark KBQA M20 / ½" NPT). The purpose of the breathing device is to prevent pressure build up within the flameproof enclosure should there be a leak from the process lines.

The maximum allowable flow rate into the flameproof enclosure is 1.5 LPM, with a maximum pressure of 138 bar when Killark breathing used and 60 bars when M.A.M or Michell breathing used. These limits ensure pressure build-up within the enclosure is below 100 mbar above atmospheric pressure. The process line is purged to ensure the process gas/fluid is above the upper explosive limit before applying power to the system.

The equipment can be supplied either uncoated, painted or powder coated.

Electrical characteristics Input: 90-260 V AC 50/60 Hz 125 W Condumax II.

90-260 V AC 50/60 Hz 180 W Promet EExd.

Refer to the Annex for further information about temperature class.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Do not open when an explosive gas atmosphere may be
2. External cables shall be compatible with a temperature of 80 °C for T6; 95 °C for T5; 96 °C for T4/ T3 for Condumax II and 93 °C for T5, 109 °C for T4/T3 for Promet EExd.
3. Maximum process pressure shall not exceed 138 bar when Killark breathing fitted or 60 bar when Michell/M.A.M breathing fitted.
4. Maximum combined process flow into the enclosure shall not exceed 1.5 LPM.
5. All process lines shall be purged to ensure the process gas or liquid is above its upper explosive limit before applying
6. Where painted or powder coated, the enclosures could present an electrostatic hazard. Clean only with a damp or anti-static cloth.
7. The enclosure is to be earthed externally using the earth point provided.
8. Only suitably ATEX / IECEx certified (as appropriate) cable glands and blanking elements shall be used.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Update to latest standards IEC 60079-0:2017 (Ed 7.0).
- Inclusion of additional options fitted with a breather device.
- Addition of model Promet EExd previously listed under IECEx TRC 11.0011X issue 3.

Annex:

[Annex to IECEx TRC 11.0008X issue 5 r.pdf](#)