

# 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 19.0115X Page 1 of 4 <u>Certificate history:</u>

| Issue 0 (2019-08-16)
| Status: | Current | Issue No: 1

S. Roumbedakis

Date of Issue: 2019-12-11

Applicant: Michell Instruments Ltd

Unit 48 Lancaster Way Business Park, Ely, Cambridge, CB6 3NW

**United Kingdom** 

Equipment: CDP301 Dew Point Tester

Optional accessory:

Type of Protection: Flameproof "db", Intrinsic Safety "ia"

Marking: Fitted with Michell Instruments Breather

Ex db ia IIB+H2 T6/T5 Gb

 $Ta = -30^{\circ}C \text{ to } +40^{\circ}C \text{ (T6) or } +50^{\circ}C \text{ (T5)}$ 

Fitted with Killark Breather

Ex db ia IIB+H2 T3 Gb

Ta= -30°C to +50°C (T3)

Approved for issue on behalf of the IECEx

Certification Body:

Position: Technical Manager

Signature:

(for printed version)

Date: <u>2019-12-11</u>

L. 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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Manufacturer: Michell Instruments Ltd

Unit 48 Lancaster Way Business Park, Ely, Cambridge, 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 60079-11:2011** 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 Report:

GB/CML/ExTR19.0251/00

**Quality Assessment Report:** 

GB/BAS/QAR07.0018/09



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#### **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The CDP301 Dew Point Tester is a transportable, battery-powered dew point analyser consisting of a processor PCB, display module, battery-pack arrangement and measuring sensor arrangement, housed in a cast aluminium flameproof enclosure.

Refer to Annex for full description and conditions of manufacture.

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

Refer to Annex for specific conditions of use.



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

This issue introduces the following change:

1. To allow an alternative enclosure breather; KILLARK KQBA ½" NPT.

Annex:

IECEx CML 19.0115X Iss 1 Annex.pdf

Annexe to: IECEx CML 19.0115X Issue 1

Applicant: Michell Instruments Ltd

Apparatus: CDP301 Dew Point Tester



### **Description**

The CDP301 Dew Point Tester is a transportable, battery-powered dew point analyser consisting of a processor PCB, display module, battery-pack arrangement and measuring sensor arrangement, housed in a cast aluminium flameproof enclosure. The flameproof enclosure has a threaded lid with a silicone based cemented viewing window and threaded base. The threaded lid and base have EPDM O-rings for ingress protection.

The threaded lid is secured against opening via an M4 x 0.7 set screw.

There are ½" NPT flame arrestor entries mounted under the upper enclosure section for gas inlet, outlet and breather connections. Measurement and pressure sensors and an inlet flow limiter are part of an internal containment arrangement.

There are five menu buttons, located on the side of the flameproof enclosure. Signal lines to the buttons are connected via a glass-to-metal seal arrangement. The cover surrounding the menu buttons additionally houses the connection point for the battery pack charging socket.

#### Ratings:

16.8 V, 0.86 A, 14.5 W

Maximum working pressure = 13,800 kPa

### **Conditions of Manufacture**

- 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. Each unit shall be subjected to a routine overpressure test of 18.6 bar in accordance with EN/IEC 60079-1:2014 clause 16. There shall be no damage or deformation to the enclosure or threaded flamepaths, additionally, there shall be no leakage through the cemented lid.
- iii. Each internal containment arrangement shall undergo a routine, 1.5 times working pressure test for a minimum of 2 min. in accordance with EN/IEC 60079-1:2014 clause G.4.1.
- iv. When the CPD301 Dew Point tester is fitted with the KILLARK KBQA breather, the equipment shall be marked with a temperature class of T3.

## **Specific Conditions of Use**

- i. The flamepath dimensions differ from the requirements of EN/IEC 60079-1, therefore they shall not be repaired by the end user. Contact the manufacturer for more information.
- ii. The CPD301 Dew Point Tester shall not be opened or charged in the hazardous area.
- iii. The equipment is a potential electrostatic charging hazard, therefore, shall only be cleaned with a damp cloth.
- iv. The flameproof joints of the KILLARK KBQA breather are not intended to be repaired.





E info@cmlex.com







## Components covered by Ex Certificates issued to older editions of Standards

Certificate number	Standards (Incl. Ed)	Assessment result
IECEx SIR 16.0117U	IEC 60079-0:2011 Ed 6 Other standards same editions as equipment	Technical differences evaluated and found satisfactory. For detail see ExTR
	(where applicable)	
IECEx SIR 10.0007U	IEC 60079-0:2017 Ed 7.0 Other standards same editions as equipment. (where applicable, dust not applied)	Technical differences evaluated and found satisfactory or not applicable to this type of device/construction materials.