



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 19.0149X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2019-10-23)

Status: **Current** Issue No: 1

Date of Issue: 2021-05-17

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

Equipment: **Easidew PRO XP Dew Point Transmitter**

Optional accessory:

Type of Protection: **Flameproof, Intrinsically safe and dust protected**

Marking: Ex db ia IIC T6 Gb
Ex tb IIIC T80°C Db IP66
Tamb = -20°C to +70°C

Approved for issue on behalf of the IECEx
Certification Body:

D R Stubbings BA MIET

Position:

Technical Director

Signature:
(for printed version)

Date:

2021-05-17

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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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 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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/ExTR19.0198/00](#)

[GB/CML/ExTR21.0117/00](#)

Quality Assessment Report:

[GB/BAS/QAR07.0018/11](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Easidew PRO XP dew point transmitter is a 4-20 mA output loop powered (rated 28 V DC) dew point sensor comprising two PCBs housed in a flameproof metal enclosure of either aluminium or stainless steel.

A humidity sensor and thermistor are mounted externally to the enclosure and connected to the internal PCBs via a sensor body comprising a 4-pin glass-to-metal seal. The internal PCBs are: 1) a processing PCB; and 2) a dual channel 'ia' protection circuit PCB to provide barrier protection for the external humidity sensor and thermistor.

See Annex for full description and Conditions of Manufacture

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The barrier circuit inside the equipment has been assessed with a U_m of 28 V.
2. The transmitter shall not be installed in such a manner that the sensing probe is in a dust environment.
3. **WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD.** The equipment shall only be wiped with a damp cloth.
4. When installing the transmitter, a torque of 10 Nm shall be applied to the sensor body/housing positioning lock nut to secure it. Refer to manufacturer's instructions for further details.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1

1. To clarify the marking and Specific Conditions of Use with regards to installation requirements.

Annex:

[Certificate Annex IECEx CML 19.0149X Issue 1.pdf](#)

Annexe to: IECEx CML 19.0149X Issue 1
Applicant: Michell Instruments Ltd
Apparatus: Easidew PRO XP Dew Point Transmitter



Description

The Easidew PRO XP dew point transmitter is a 4-20 mA output loop powered (rated 28 V DC) dew point sensor comprising two PCBs housed in a flameproof metal enclosure of either aluminium or stainless steel.

A humidity sensor and thermistor are mounted externally to the enclosure and connected to the internal PCBs via a sensor body comprising a 4-pin glass-to-metal seal. The internal PCBs are: 1) a processing PCB; and 2) a dual channel 'ia' protection circuit PCB to provide barrier protection for the external humidity sensor and thermistor.

The enclosure possesses cable gland entries (2 off) for the end user to effect installation. The enclosure is two-part, where the lid section is threaded on to the base section. The lid is removed to provide access for end user connections via a 4-way two-part connector and can be either a solid construction or contain a display window.

The entire transmitter can be installed at the point of measurement via a mounting thread on the external portion of the sensor body. A locking nut, also a part of the sensor body portion, provides the ability for the transmitter to be most conveniently positioned.

Electrical ratings:

14 to 28 Vdc, 0.7 A, 1 W

Maximum working pressure of sensor is 450 bar

The entity parameters for the equipment are:

Parameter	Sensor	Channel Thermistor	Both combined
Uo	6.51 V	6.51 V	6.51 V
Io	658 mA	658 mA	1316 mA
Po	0.554 W	0.554 W	1.107 W
Ci	0 μ F	0 μ F	0 μ F
Li	0 μ H	0 μ H	0 μ H
Co	22 μ F	22 μ F	22 μ F
Lo	82 μ H	82 μ H	20.5 μ H
Lo/Ro	33.2 μ H/ Ω	33.2 μ H/ Ω	16.6 μ H/ Ω

Unit 1, Newport Business Park
 New Port Road
 Ellesmere Port
 CH65 4LZ

T +44 (0) 151 559 1160
 E info@cmllex.com

www.cmllex.com

Company Reg No. 8554022 VAT No. GB163023642





Conditions of Manufacture

The following are 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. A copy of the relevant component enclosure certificate shall be provided with each unit supplied.
- ii. The Easidew PRO XP Dew Point Transmitter shall be designed in accordance with general electrical safety standards, e.g. IEC 60950 or IEC 61010-1.

Specific Conditions of Use

The following are conditions of Safe Use/Installation:

- i. The barrier circuit inside the equipment has been assessed with a Um of 28 V.
- ii. The transmitter shall not be installed in such a manner that the sensing probe is in a dust environment.
- iii. **WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD.** The equipment shall only be wiped with a damp cloth.
- iv. When installing the transmitter, a torque of 10 Nm shall be applied to the sensor body/housing positioning lock nut to secure it. Refer to manufacturer's instructions for further details.

Components covered by Ex Certificates issued to older editions of Standards

Certificate number	Standards (incl Ed)	Assessment result
IECEX FTZU 12.0017U	IEC 60079-0 Ed 6 Other standards are as covered under this approval	No applicable technical differences applicable in this application. For details see ExTR