

Certificate of Compliance

Certificate: 1701657 **Master Contract:** 190597 (114519_0_000)

Project: 70144825 **Date Issued:** 2017-08-28

Issued to: Michell Instruments Limited

Unit 48 Lancaster Way Business Pk

Ely

Cambridgeshire, CB6 3NW

UNITED KINGDOM
Attention: Ian Arnold

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Issued by: Ravindra (Ravi) Kanthe

Ravindra (Ravi) Kanthe

PRODUCTS

CLASS - C225802 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations - Certified to US Standards

Class I, Division 1, Groups B, C and D

<u>Model:</u> Condumax II Hydrocarbon Dewpoint Analyser; rated 240 Vac, 125 Watts input; max working pressure (MWP):138 bar, max process flow rate 1.5 l/min.

T6 (Tamb= -40°C to +44°C) and T5 (Tamb= -40°C to +59°C)

Note: The maximum allowable flow rate into the flameproof enclosure is 1.5 LPM, with a maximum pressure of 138 Bar for the water dewpoint circuit and 100 Bar for the hydrocarbon dewpoint circuit; these limits ensure pressure build up within the enclosure is below 100mbar.

<u>Model</u>: Liquidew Dewpoint Analyser; rated 90...260 Vac, 50 / 60 Hz, 180 Watts input; max process flow rate 0.3 l/min.

T5 (Tamb= -40°C to +44°C) and T4 (Tamb= -40°C to +60°C)

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Note: The maximum allowable flow rate into the flameproof enclosure is 0.3 LPM with a maximum pressure of 80 bar for the water dewpoint circuit; these limits ensure pressure build up within the enclosure is below 100mbar.

<u>Model</u>: **Promet Dewpoint Analyser**; rated 90...260 Vac, 50 / 60 Hz, 180 Watts input; max process flow rate 1.5 l/min.

T5 (Tamb= -40°C to +44°C) and T4 (Tamb= -40°C to +60°C)

Note: The maximum allowable flow rate into the flameproof enclosure is 1.5 LPM with a maximum pressure of 138 for the water dewpoint circuit; these limits ensure pressure build up within the enclosure is below 100mbar.

Conditions of acceptance for all models:

- Maximum process pressure shall not exceed the rated pressure.
- Maximum flow rate into the flameproof enclosure shall not be exceeded.
- Process line shall be purged to ensure process gas or liquid is above its upper explosive limit before switching the power on.
- Power shall be switched off if a leak is detected.

APPLICABLE REQUIREMENTS

CSA C22.2 No. 142-M1987 Process Control Equipment

C22.2 No. 30-M1986 Explosion-Proof Enclosures for Use in Class I Hazardous Locations

UL508 17th Edition Industrial Control Equipment

UL1203 4th Edition Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for use in

hazardous (classified) locations.

MARKINGS

Please refer the marking section of "Descriptive Report and Test Results" document.

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Supplement to Certificate of Compliance

Certificate: 1701657 **Master Contract:** 190597 (114519_0_000)

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
70144825	2017-08-28	Update to report 1701657 to include the following 1) Add new MICHELL FA & BR Flame Arrestor based on CSA project / report 70044071. 2) Update Max specified flow rates & pressures for each product to be listed as Condumax II = 1.5 ltr/min and 138Barg Promet = 1.5ltr/min 138Barg Liquidew = 0.3ltr/min 80Barg 3) Update T Class markings as per IECEX and ATEX test reports to be listed as Promet & Liquidew : Tamb -40°C to + 44° C T5 Tamb -40°C to + 60° C T4 Condumax II Tamb -40°C to + 44° C T6 Tamb -40°C to + 59° C T5 .
70097240	2016-10-21	Update to Report 1701657 to add an additional pcb titled "Optics Control pcb" based on IECEx report (GB/TRC/EXTR11.0009/03).
70014541	2015-02-05	Update to Report 1701657 to include the Adalet XFAX-2 flame arrestor, remove the Killark KB1F flame arrestor and update the Hazloc designation to Class I, Division 1, Groups BCD for CAN, based on the XFAX-2 was already approved under report edition 2.
2605990	2013-03-27	Update of Report 1701657 to include new replacement flame arrestor KB1FA25 for all 3 models resulting in a revised Tcode.
2066363	2009-08-29	Update to report 1863469 to include alternate flow switch on Condumax.
1863469	2006-10-29	Update to report 1701657 to include two new models :Liquidew and Promet dewpoint analysers.
1701657	2005-09-29	Original cCSAus certification for Condumax II Hydrocarbon Dewpoint Analyser.