CSA INTERNATIONAL

Certificate of Compliance

Certificate: 1655545 (LR 43674) **Master Contract:** 157607

Project: 2329815 **Date Issued:** December 22, 2010

Issued to: **Intertec Instrumentation Ltd.**

255 Henry Dr
Sarnia, ON N7T 7H5
Canada
Attention: Mr. Martin Hess

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.

C US

Marin Banu

Issued by: Marin Banu, P. Eng.

PRODUCTS

CLASS 2848 01 - HEATERS - Industrial and Laboratory - For Hazardous Locations
CLASS 2848 81 - HEATERS-Industrial and Laboratory - For Hazardous Locations-Certified to U.S. Standards
CLASS 4868 81 - TEMPERATURE-INDICATING AND REGULATING EQUIPMENT - For Use in Hazardous Locations - Certified to US Standards
CLASS 4868 01 - TEMPERATURE-INDICATING AND REGULATING EQUIPMENT - For Hazardous Locations

CLASS 2848 01 - HEATERS - Industrial and Laboratory - For Hazardous Locations

CLASS 2848 81 - HEATERS - Industrial and Laboratory - For Hazardous Locations – Certified to U.S. Standards

Class I, Groups A, B, C and D:

Class II, Groups E, F, and G:

Class I and II, Zone 1 and 2, Group IIC, and Div. 2, Gr. A, B, C, and D

- Electrical Heater, Type CP/SL xxxTHERM xxx, rated to 277 VAC/VDC, max. 10 A, 50/60Hz, 700W max.; with and without fins and no manual reset; factory sealed. Ambient Temperature -60 ºC to +150°C. Temperature Code T4 (Ta = 110°C)/T3 (Ta = 150°C) /T5/T6 (Ta = 77°C).

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Notes:

1. Prefix and suffix letters denote different models (profile types) respectively different construction dimensions, material and rated power

2. Div. 2 installation inside 4X rated enclosure without conduit allowed, termination has to be with approved terminal box.

3. Zone 1 and 2 installation without conduit allowed only inside 4X rated enclosure.

4. Heater may include “TS” or “TAI” inline temperature control thermostat for Div. 2 inside 4X rated enclosure without conduit and Zone 1 and 2 installations

CLASS 4868 01 – TEMPERATURE-INDICATING AND REGULATING EQUIPMENT - For Hazardous Locations

CLASS 4868 81 - TEMPERATURE-INDICATING AND REGULATING EQUIPMENT - For Hazardous Locations – Certified to U.S. Standards

Class I, Groups A, B, C and D:

Class II. Groups E, F, and G

Class I and II, Zone 1 and 2, Group IIC, and div. 2, Gr. A, B, C, and D

- Electronic Temperature Controller, Type TC xxx, rated to 277 V AC, 50/60Hz, 10A. Ambient Temperature -60ºC to +80°C. T4 (135°C). Explosion Proof providing I. S. output to integral external temperature sensor.

Notes:

1. Suffix letters denote different construction and function options.

2. Class I, Group A and B rating seals must be installed within 50mm to enclosure.

3. Div. 2 installation inside 4X rated enclosure without conduit allowed

4. Zone 1 and 2 installation without conduit allowed only inside 4X rated enclosure

APPLICABLE REQUIREMENTS

CSA Std C22.2 No. 0 -10	-	General Requirements – Canadian Electrical Code – Part II
CSA Std C22.2 No. 30-M1986 (R2003)	-	Explosion-Proof Enclosures for Use in Class I Hazardous Locations
CSA Std C22.2 No. 88-M1958 (R1992)	-	Industrial Heating Equipment

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CSA Std C22.2 No. 24-93 (2008)	-	Temperature-Indicating and Regulating Equipment
UL Std No. 823, Ed 9 (2006)	-	Electric Heaters for Use in Hazardous (Classified) Locations
UL Std. No. 873, Ed 12 (2007)	-	Electrical Temperature Indicating and Regulating Equipment
UL Std. No. 1203, Ed 4 (2006)	-	Explosion-Proof and Dust-Ignition-Proof Electrical Equipment For Use in Hazardous (Classified) Locations
CSA C22.2 No. 142-M1987 (R2004)	-	Process Control Equipment
CAN/CSA-C22.2 No. 157-92 (R2006)	-	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations
CSA C22.2 No. 213-M1987 (R 2004)	-	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CAN/CSA E60079-0:02	-	Electrical apparatus for explosive gas atmospheres. PART 0: General requirements.
CAN/CSA E60079-1:07	-	Electrical apparatus for explosive gas atmospheres. PART 1: Construction and verification test of flameproof enclosures of electrical apparatus.
CAN/CSA E60079-11:02	-	Electrical apparatus for explosive gas atmospheres. PART 11: Intrinsic safety "i".
CAN/CSA E60079-15:02	-	Electrical apparatus for explosive gas atmospheres. PART 15 Electrical apparatus with type of protection “n” (Non-Sparking).
ANSI/UL 60079-0, 4th Edition	-	Electrical apparatus for explosive gas atmospheres. PART 0: General requirements.
ANSI/UL 60079-1, 5th Edition	-	Electrical apparatus for explosive gas atmospheres. PART 1: Construction and verification test of flameproof enclosures of electrical apparatus.
ANSI/UL 60079-11, 1st Edition	-	Electrical apparatus for explosive gas atmospheres. PART 11: Intrinsic safety "i".

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ANSI/UL 60079-15, 1st Edition	-	Electrical apparatus for explosive gas atmospheres. PART 15 Electrical apparatus with type of protection “n” (Non-Sparking).
ANSI/UL Std 508, Ed 17 (1999)	-	Electric Industrial Control Equipment
ANSI/UL Std 913, Ed 7 (2006)	-	Intrinsically Safe Apparatus and Associated Apparatus For Use in Class I, II and III, Div. 1, Hazardous (Classified) Locations
UL Std 916, Ed 3 (1998)	-	Energy Management Equipment
ANSI/ISA 12.12.01, Ed. 1 (2007)	-	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Division 1 and 2Hazardous (Classified) Locations

MARKINGS

- Company Name
- Model number
- Serial number
- Electrical rating
- Hazardous Location designation
- CSA Monogram with "C" and “US” indicators
- Temperature Code Rating
- The words "Factory Sealed", only on the heater