



Certificate of Compliance

Certificate: 70219543

Master Contract: 187869

Project: 80023537

Date Issued: December 11, 2019

Issued to: 708 Fiero Lane, Suite 9
San Lis Obispo, California 93401
United States
Attention: David Porter

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.



Aaron Gupta, E.I.T.

Issued by:

PRODUCTS

2258 04 – PROCESS CONTROL EQUIPMENT – Intrinsically Safe, Entity – For Hazardous Locations

2258 84 – PROCESS CONTROL EQUIPMENT – Intrinsically Safe, Entity – For Hazardous Locations – Certified to US standards

Class I, Division 1, Groups A, B, C, and D T4/T3

Ex ia IIC T4/T3 Ga

Class I, Zone 0, AEx ia IIC T4/T3 Ga

HPC50 Series intrinsically safe handheld pressure calibrator; battery powered by three size AA (LR6) primary cell; Temperature Code and Ambient rating dependent on batteries installed; Entity Parameters as follows:

Chassis ma/V port ($U_i = 28V$; $I_i = 94mA$; $P_i = 654 mW$; $C_i = 3nF$; $L_i = 0$)

ChassisAxMi Ports ($U_o = 4.95V$; $I_o = 731mA$; $P_o = 880mW$; $C_i = 83.5uF$; $L_i = 32.2 uH$; $C_o = 9.2uF$; $L_o = 12uH$)

ATMi Module ($U_i = 5.0V$; $I_i = 740mA$; $P_i = 880mW$; $C_i = 8.8uF$; $L_i = 0$)

APMi Module ($U_i = 5.0V$; $I_i = 740mA$; $P_i = 880mW$; $C_i = 9.2uF$; $L_i = 12uH$)



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Conditions of Acceptability:

1. The following Permissible cell types shall be replaced in non-hazardous locations only:

Battery Type	Temperature Code Rating	Ambient Temperature Rating
Rayovac Max Plus 815	T3	-20 to +50
Energizer E91	T4	-20 to +40
Duracell MN1500	T3	-20 to +40
Energizer EN91	T3	-20 to +40

- 2. USB Interface shall only be used in non-hazardous location.
- 3. Refer to Operation Manual for further detail for Entity Parameters and Warnings.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10	General requirements — Canadian Electrical Code, Part II
CAN/CSA-C22.2 No. 60079-0:15	Explosive atmospheres – Part 0: Equipment – General requirements
CAN/CSA-C22.2 No. 60079-11:14	Explosive atmospheres – Part 11: Equipment protection by intrinsic safety “i”
CAN/CSA-C22.2 No. 61010-1-12 UPD1: 2015, UPD2: 2016, AMD1: 2018	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use — Part 1: General Requirements
ANSI/UL 60079-0-2013	Explosive atmospheres – Part 0: Equipment – General requirements
ANSI/UL 60079-11:2013	Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety “i”
ANSI/UL 61010-1 3 RD Edition (2012), AMD1: 2018	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use — Part 1: General Requirements

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.



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Nameplate adhesive label material approval information:

Label is 0.005 inch (0.13 mm) Thick Velvet Clear Polycarbonate (Lexan 8B35) with 0.002 inch (0.05 mm) thick 3M 467MP or 468MP adhesive laminate backing.

The following marking details appear:

- Manufacturer's name: "Crystal Engineering Corporation", or CSA Master Contract Number "187869", adjacent to the CSA Mark in lieu of manufacturer's name.
- Model designation: As specified in the PRODUCTS section, above.
- Electrical ratings: As specified in the PRODUCTS section, above.
- Ambient temperature rating: As specified in the PRODUCTS section, above.
- Manufacturing date in MMY format, or serial number, traceable to year and month of manufacture.
- Enclosure ratings: As specified in the PRODUCTS section, above.
- The CSA Mark, as shown on the Certificate of Conformity.
- Refer to Document 6486 (HPC50 Series Manual) for warnings.

MAX. INPUT: 28 VDC

Approved Battery Type	CSA		ATEX & IECEx	
	Temp. Class	Ta =	Temp. Class	Ta =
Rayovac Max Plus 815	T3	-20 to 50°C	T4	-20 to 50°C
Energizer E91	T4	-20 to 40°C		
Duracel MN1500	T3	-20 to 40°C	T3	-20 to 50°C
Energizer EN91				

REPLACE BATTERIES WITH APPROVED TYPES IN NON-HAZARDOUS LOCATIONS ONLY
Replace with 3 AA Batteries - Refer to Operation Manual for Entity Parameters

WARNING DO NOT USE USB INTERFACE IN HAZARDOUS LOCATIONS (Um = 6V)

Exia
INTRINSICALLY SAFE
Class I, Div 1, Grp A,B,C,D T4/T3
187869 Class I, Zone 0, AEx ia IIC T4/T3 Ga

0344 II 1G

Refer to Operation Manual
Reportez-vous au Mode d'emploi

Ex Ia IIC T4/T3 Ga
FTZU 18 ATEX 0043X
IECEx FTZU 18.0012X

Crystal Engineering Corporation | ametekcalibration.com
805.595.5477 • 800.444.1850 **Made in U.S.A.**



Supplement to Certificate of Compliance

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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
70219543	October 1, 2019	Original assessment of the HPC50 Series Intrinsically Safe Handheld Pressure Calibrator for CSAc-us certification as Ex ia IIC T4 Ga and Class I, Zone 0, AEx ia IIC T4 Ga; IP67 with alternate markings for Class I, Division 1, Groups ABCD T4. Includes testing of (4) non-rechargeable battery cell.
80023537	December 11, 2019	Update certificate and report for 70219543 to reflect label artwork change. The change is in regards to adding a CSA logo to existing label.