Certificate of Compliance

Certificate: 70196197 **Master Contract:** 152423

Project: 70196197 **Date Issued:** January 16, 2019

Issued to: **Eaton Electric Ltd.**
Great Marlings
Butterfield
Luton, Bedfordshire
LU2 8DL
United Kingdom

Attention: **Peter Rigling**

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: Beth Gore

PRODUCTS

CLASS 2258 82 -PROCESS CONTROL EQUIPMENT - For Hazardous Locations - Certified to US Standards
Class I, Zone 1, AEx e mb[ia Ga] [op is IIC T4 Ga] IIC T4 Gb, Type 4

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations
Ex e m [ia Ga] IIC T4 Gb, Type 4

Industrial Computer PRO4500Z1 series, Workstation Model ***-***-**-15SV-****-******-***-****, rated 100V to 241V, 50/60Hz, 1.2A. Tamb = -40ºC to +60ºC. A breakdown of the model designation is available in the Descriptive Report.

The equipment has the following entity parameters:

	Ethernet port (see note 1)	USB port (see note 2)	RS232 port (see note 3)
Ui	5.88 V(ac)	0	20 V
Ii	1.390 A(ac)	-	-
Pi	-	-	-
Ci	103.4 nF	13 nF	1.1 nF
Li	0	0	0
Uo	5.88 V(ac)	5.88 V	11.76 V
Io	1.390 A(ac)	2.249 A	24 mA
Po	1.743 W	2.218 W	70 mW
Co	312 nF	42.987 µF	600 nF
Lo	-	7.0 µH	30 mH
Lo/Ro	7.2 µH/Ω	-	-

Note 1: The Ethernet port may be connected to another Ethernet port with compatible parameters. Alternatively, the Ethernet port may be connected to other Azonix Ethernet devices under system certificate Sira 06Y2391, in which case the entity parameters shown are not required.

Note 2: USB port: the combined values of Co and Lo may only be used for the connection of distributed capacitance/inductance (i.e. in the cable). If lumped capacitance (i.e. capacitance appearing at the terminals of the external device) is connected to this port, then the maximum lumped inductance is limited to 1% of the value shown (i.e. 70 nH).

Note 3: RS232 port: the values of Co and Lo may be distributed capacitance/inductance (i.e. in the cable) or lumped capacitance/inductance.

For details related to rating, size, configuration, etc. reference should be made to the CSA Certification Record or the descriptive report.

Conditions of applicability

i. The PRO4500 Workstation contains shunt zener diodes and other interfaces that require connection to a suitable intrinsically safe earth by means of the earth screw located on the outside of the enclosure.

ii. Under certain extreme circumstances, the keypad may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the keypad shall only be cleaned with a damp cloth.

iii. The enclosure is manufactured from aluminum alloy. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation.

iv. The conductor branching point for the mains cable is up to 25 K above the external ambient temperature. Suitably-rated cable shall be selected during installation.

v. The certified AEx/Ex e cable glands and the optional ROTA DE2 or DR4 series AEx/Ex d e plug-and-socket connector are the responsibility of the installer and not covered under the certificate for the PRO4500Z1.

vi. Conduit entry is not permitted.

APPLICABLE REQUIREMENTS

C22.2 No. 0-M91 (R2001)	General Requirements – Canadian Electrical Code, Part II
C22.2 No. 94.1-07	Enclosures for Electrical Equipment, Non-Environmental Considerations
C22.2 No. 94.2-07	Enclosures for Electrical Equipment, Environmental Considerations
CAN/CSA-C22.2 No. 60079-0:11	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
CAN/CSA-C22.2 No. 60079-7:12	Explosive atmospheres - Part 7: Equipment protection by increased safety “e”
CAN/CSA-C22.2 No. 60079-11:11	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
CAN/CSA- C22.2 No. 60079-18:12	Explosive atmospheres - Part 18: Equipment protection by encapsulation “m”
C22.2 No. 142-M1987 (reaffirmed 2009)	Process Control Equipment - Industrial Products
IEC 60079-28: 2006 (for guidance only)	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
UL 50-2007 (12th Edition)	Enclosures for Electrical Equipment, Non-Environmental Considerations
UL 50E-2012 (1st Edition, revised)	Enclosures for Electrical Equipment, Environmental Considerations
UL916-2010	Energy Management Equipment
ANSI/UL 60079-0:13	Explosive atmospheres - Part 0: Equipment - General Requirements
ANSI/UL 60079-7:08	Electrical apparatus for explosive gas atmospheres - Part 7: Increased Safety "e"
ANSI/UL 60079-11:13	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
ANSI/UL 60079-18:12	Explosive atmospheres - Part 18: Equipment protection by encapsulation “m”
ANSI/ISA-60079-28-2013, Edition 1.1	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation

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.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Nameplate adhesive label material approval information:

As described on drawing 16-100638 C, marking is onto a self-adhesive polyester label, which is a CSA and UL-approved labelling system (CSA file # 041833, UL file # MH17154 respectively).

- CSA Monogram with C-US Indicator
- Manufacturer's name
- Model designation.
- Date code and S/N.
- Master Contract reference (i.e. 152423)
- Hazardous location designations
- Minimum and maximum ambient temperature.
- Warning: "DO NOT OPEN SYSTEM WHILE ENERGIZED" and "DEBRANCHER AVANT D'OUVRIR"

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
70196197	January 16, 2019	Original Certification – Transfer of report 2631429 from Azonix MC 161192 to Eaton Electric Ltd. MC 152423.
History		
2631429	March 27, 2014	Original Certification of the Pro4500Z1 Workstation
70009729	October 17, 2014	Introduction of a non-touchscreen display glass; introduction of a control drawing
70019734	May 18, 2015	Update of report 2631429 to include the following modifications • a thinner glass option for the Touch Screen; • an antenna port sealing plug option; • a Client Wireless Radio module option; • change of thermal cut-off type from Panasonic to Cantherm; • increase in value of fuses F61, F70, F2701 and resistor R61 in the SBC module, with corresponding changes to the entity parameters at the USB port; • non-technical changes to other drawings.
70036227	December 4, 2015	Update of report 2631429 to include the following modifications: • Introduction of a TDK Lambda PFE300SA-28 AC/DC converter module as an alternative to the PFE300S-28 • Increase in the AC input range to 100-241 VAC • Minor mechanical changes to the PSU and SBC modules • Reversal of positions of input fuse F1 and input varistor VAR1