



# Certificate of Compliance

**Certificate:** 1025103 **Master Contract:** 157176 (061725\_0\_000)

**Project:** 70117863 **Date Issued:** 2017-03-03

**Issued to:** Fairchild Industrial Products Company  
3920 West Point Blvd.  
Winston-Salem, North Carolina 27103  
USA  
**Attention:** Stan Przybylowicz

*The products listed below are eligible to bear the CSA Mark shown*



**Issued by:** *Gino Surace*  
Gino Surace

## **PRODUCTS**

### **CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations**

#### **Class I, Groups A, B, C and D; Class II, Groups E, F and G:**

- Wire Nipple Seal Assembly P.N. EB-19818-3, EB-19818-30, EB-19818-32, EB-19818-35, EB-19818-4, EB-19818-40, EB-19818-42 and EB-19818-45. Rated 5A, 30V ac or 42V dc. Ambient -40°C to 66°C. Gas migration seal maximum enclosure pressure 10psi. Secondary Process Seal maximum pressure 125psi.



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**Class I, Groups B, C and D; Class II, Groups E, F and G; Encl Type 4X:  
Class I, Division 2, Groups A, B, C and D:**

- Current to pressure converter, Models TCXI7800-4\_\_ , TCXI7850-4\_\_ , TCXI7800-4\_\_ \_E, TCXI7850-4\_\_ \_E, TFXI7800-4\_\_ , TFXI7850-4\_\_ , TFXI7800-4\_\_ \_E and TFXI7850-4\_\_ \_E; rated 4-20mA, 30V dc max. Temperature code T6 for ambient -40°C to 66°C. Single Seal.
- Current to pressure converter, Models Z21452-11, -12, -13, -14, -15, and -16 (all models can be followed by an “E” for a tapped exhaust port); rated 4-20mA, 30V dc max. Temperature Code T6 for ambient -40°C to 66°C.

**Class I, Groups C and D; Class II, Groups E, F and G; Encl Type 4X:  
Class I, Division 2, Groups A, B, C and D; Class II, Div. 2, Groups E, F and G:**

- Current to pressure converter, Models TCXI7800-4\_\_ \_N, -4\_\_ \_N0, -4\_\_ \_N2, -4\_\_ \_N5, -4\_\_ \_EN, -4\_\_ \_EN0, -4\_\_ \_EN2, -4\_\_ \_EN5, -4\_\_ \_2, -4\_\_ \_20, -4\_\_ \_22, -4\_\_ \_25, -4\_\_ \_E2, -4\_\_ \_E20, -4\_\_ \_E22, -4\_\_ \_E25, TCXI7850-4\_\_ \_N, -4\_\_ \_N0, -4\_\_ \_N2, -4\_\_ \_N5, -4\_\_ \_EN, -4\_\_ \_EN0, -4\_\_ \_EN2, -4\_\_ \_EN5, -4\_\_ \_2, -4\_\_ \_20, -4\_\_ \_22, -4\_\_ \_25, -4\_\_ \_E2, -4\_\_ \_E20, -4\_\_ \_E22, -4\_\_ \_E25, TFXI7800-4\_\_ \_N, -4\_\_ \_N0, -4\_\_ \_N2, -4\_\_ \_N5, -4\_\_ \_EN, -4\_\_ \_EN0, -4\_\_ \_EN2, -4\_\_ \_EN5, -4\_\_ \_2, -4\_\_ \_20, -4\_\_ \_22, -4\_\_ \_25, -4\_\_ \_E2, -4\_\_ \_E20, -4\_\_ \_E22, -4\_\_ \_E25 and TFXI7850-4\_\_ \_N, -4\_\_ \_N0, -4\_\_ \_N2, -4\_\_ \_N5, -4\_\_ \_EN, -4\_\_ \_EN0, -4\_\_ \_EN2, -4\_\_ \_EN5, -4\_\_ \_2, -4\_\_ \_20, -4\_\_ \_22, -4\_\_ \_25, -4\_\_ \_E2, -4\_\_ \_E20, -4\_\_ \_E22, -4\_\_ \_E25; rated 4-20mA, 30V dc max; Temperature code T6 for ambient -40°C to 66 °C. Single Seal. Supply pressure media may be air or Group D Gases (i.e. Natural Gas or Methane. All models may be followed by a “G” which indicates a seal shall be provided by the end user)



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**CLASS 2258 03 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations**

**Class I, Groups C and D; Class II, Groups E, F and G; Encl Type 4X:**

- Current to pressure converter, Models TCXI7800-4\_ \_\_, TCXI7850-4\_ \_\_, TCXI7800-4\_ \_\_E, TCXI7850-4\_ \_\_E, TFXI7800-4\_ \_\_, TFXI7850-4\_ \_\_, TFXI7800-4\_ \_\_E and TFXI7850-4\_ \_\_E; rated 4-20mA, 30V dc max; intrinsically safe when connected through CSA Certified safety barriers as per Fairchild installation drawing ED-18971. Temperature code T6 for ambient -40°C to 40°C and T4A for ambient -40°C to 66°C. Single Seal.
- Current to pressure converter, Model Z21452-11, -12, -13, -14, -15, and -16 (all models can be followed by an “E” for a tapped exhaust port); rated 4-20mA, 30V dc max. Intrinsically safe when connected through CSA Certified safety barriers as per Fairchild installation drawing 21479. Temperature Code T6 for ambient -40°C to 40°C and T4A for ambient -40°C to 66°C.

**APPLICABLE REQUIREMENTS**

CAN/CSA Standard C22.2 No. 0-M91 <i>(Reaffirmed 2006)</i>	General Requirements - Canadian Electrical Code, Part II
CSA Standard C22.2 No. 25-1966 <i>(Reaffirmed 2000)</i>	Enclosures for Use in Class II Groups E, F, and G Hazardous Locations
CSA Standard C22.2 No. 30-M1986 <i>(Reaffirmed 2003)</i>	Explosion-Proof Enclosures for Use in Class I Hazardous Locations
CAN/CSA Standard C22.2 No. 94-M94 <i>(Reaffirmed 2006)</i>	Special Purpose Enclosures
CSA Standard C22.2 No. 142-M1987 <i>(Reaffirmed 2004)</i>	Process Control Equipment
CAN/CSA Standard C22.2 No. 157-92 <i>(Reaffirmed 2006)</i>	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations
CSA Standard C22.2 No. 213-M1987 <i>(Reaffirmed 2008)</i>	Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
ANSI/ISA 12.27.01-2003	Requirements for Process Sealing Between Electrical Systems and Flammable or Combustible Process Fluids



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## 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 without adjacent indicators (indicating that products have been manufactured to the requirements of Canadian Standards only).

All markings shall be in accordance with the requirements of the local regulatory authorities and related standards.

### Converters:

Method of Marking: Metal nameplate, (ST STL Alloy 302/304) min. 0.02 inches thick, secured with drive screws. Lettering is etched and filled. Note: The manufacturing date code is stamped into each transmitter housing.

### *All products:*

- Manufacturer name: "Fairchild Industrial Products Company", "Fairchild" or CSA Master Contract Number "157176", adjacent to the CSA Mark, in lieu of the manufacturer name;
- Model number: 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 month of manufacture;
- Enclosure type: as specified in the PRODUCTS section, above;
- The CSA Mark, as shown in the Certificate of Compliance;
- Hazardous Location designation: as specified in the PRODUCTS section, above;
- Temperature code: as specified in the PRODUCTS section, above;
- Maximum operating voltage: as specified in the PRODUCTS section, above.

### *Process connected products only Models:*

- The words: "FACTORY SEALED";
- The words: "SINGLE SEAL";
- Rated working pressure range: as specified on Drawing 20739, ED-19020, ED-19826, ED-19946;
- Rated process temperature range
- The words: "Installation per II-500TX78".

### *XP (Class I/Divisions 1 and 2 and Class II/Divisions 1 and 2) products only:*

- The words: "KEEP COVER TIGHT WHILE CIRCUITS ARE ALIVE" and "AVERTISSEMENT – GARDER LE COUVERCLE BIEN FERMÉ TANT QUE LES CIRCUITS SONT SOUS TENSION"  
OR



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“OPEN CIRCUIT BEFORE REMOVING COVER” and “ATTENTION – OUVRIR LE CIRCUIT AVANT D’ENLEVER LE COUVERCLE”

- The words: “NO SEAL REQUIRED” and “SCELLER NE EST PAS NÉCESSAIRE” or “FACTORY SEALED” and “SCELLÉS À L’USINE” or “SEAL WITHIN 18 INCHES (450mm) OF THE ENCLOSURE” and “UN SCHELLEMENT DOIT ÊTRE INSTALLÉ À MOINS DE 450 mm (18 in) DU BOÎTER” (as applicable).

*Division 2 (Class I / Division 2 and Class II / Division 2) products:*

- The words: “WARNING: EXPLOSION HAZARD – SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY OF CL I, DIV 2” and “AVERTISSEMENT – RISQUE D’EXPLOSION – LA SUBSTITUTION D E COMPOSANTSP EUTR ENDRE CE MATÉRIEL INACCEPTABLE POUR LES EMBLACEMENTS DE CLASSE I, DIVISION 2”
- The words: “WARNING: EXPLOSION HAZARD – DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS” and “AVERTISSEMENT – RISQUE D’EXPLOSION – NE PAS DÉBRANCHER TANT QUE LE CIRCUIT EST SOUS TENSION, À MOINS QU’IL NE S’AGISSE D’UN EMBLACEMENT NON DANGEREUX”

*I.S. (Class I / Divisions 1 and 2 and Class II / Divisions 1 and 2) products:*

- The words: “INTRINSICALLY SAFE”;
- The symbol: “Exia”;
- The words: “WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY” and “AVERTISSEMENT – LA SUBSTITUTION DE COMPOSANTS PEUT COMPROMETTRE LA SÉCURITÉ INTRINSÈQUE”
- Installation instructions: “IS FOR CSA PER SYSTEM DWG ED-18971”.

An installation manual shall be provided with each unit, containing the following minimum marking information for all converter products:

- Manufacturer name and address: “Fairchild Industrial Products Company” and “3920 West Point Blvd. Winston-Salem, NC 27103”;
- Electrical ratings: as specified in the PRODUCTS section, above;
- Specification for ambient temperature rating: as specified in PRODUCTS section, above;
- Specification for electrical connections;
- Specification for pneumatic connections;
- Mounting and installation instructions, including dimensions.

*Division 2 (Class I / Division 2 and Class II / Division 2) products:*

- The words: “THIS EQUIPMENT IS SUITABLE FOR USE IN CLASS I DIVISION 2 GROUPS (as applicable) OR NON-HAZARDOUS LOCATIONS ONLY”;
- The words: “WARNING: EXPLOSION HAZARD – SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY OF CLASS I, DIVISION 2” and “AVERTISSEMENT – RISQUE D’EXPLOSION – LA SUBSTITUTION D E COMPOSANTSP EUTR ENDRE CE MATÉRIEL INACCEPTABLE POUR LES EMBLACEMENTS DE CLASSE I, DIVISION 2”
- The words: “WARNING: EXPLOSION HAZARD – DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS” and



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“AVERTISSEMENT – RISQUE D’EXPLOSION – NE PAS DÉBRANCHER TANT QUE LE CIRCUIT EST SOUS TENSION, À MOINS QU’IL NE S’AGISSE D’UN EMPLACEMENT NON DANGEREUX”

*I.S. (Class I/ Divisions 1 and 2 and Class II/Divisions 1 and 2) products:*

- I.S. Control drawing specifying at a minimum:
  - Maximum safe-location voltage
  - Minimum resistance
  - Maximum hazardous location voltage

Converter IOM Sheet II-500TXI78 (same for TXI7800 & TXI7850)

The sheet shall contain the following or equivalent

CSA installations for Class I, Division 2 locations with Group D gases as the Supply Pressure media must be installed with either the tapped exhaust option or the customer must provide adequate purging of the classified area based on the bleed rate and the number of units operating. The bleed rate provided in the table for units is a maximum set point of 30 PSIG output regardless of supply pressure up to 125 PSIG maximum.

Table: Max Air Consumption

<u>Air Consumption</u>	<u>Set Point</u>	<u>Units</u>
	30	PSIG
	[2.0]	[BAR]
	(200)	(kPa)
SCFH/(m <sup>3</sup> /Hr)	13.5/(0.38)	

Wire Nipple Seals Assemblies:

Method of marking: CSA Certified Adhesive label covered with CSA Certified clear heat shrink tubing.

Nameplate is etched and filled and has black letters on an aluminum background. Includes part numbers 19818-3, -30, -32, -35, -4, -40, -42 and -45. See Drawing EA-19829 for details.

- Manufacturer name: “Fairchild Industrial Products Company”, “Fairchild” or CSA Master Contract Number “157176”, adjacent to the CSA Mark, in lieu of the manufacturer name;
- Model number: as specified in the PRODUCTS section, above;
- The CSA Mark, as shown in the Certificate of Compliance;
- Electrical ratings: as specified in the PRODUCTS section, above;
- Hazardous Location designation: as specified in the PRODUCTS section, above;
- The words: “INSTALLATION PER EA-19829”;

Wire Nipple Instruction EA-19839:

Refer to drawing EA-19839, listed in the descriptive documents, for details.



## *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**

<b>Project</b>	<b>Date</b>	<b>Description</b>
70117863	2017-03-03	Update to Report 1025103 to include revised documents.
70021980	2015-06-22	Update to report 1025103 adding G option to TCXI78x0-4xxNx models, including bilingual warning markings and revised documentation.
2515537	2012-05-21	Update report 1025103 with details of revisions made to PCBs relating to IS and update drawings.
2293360	2010-04-16	Update to Report 1025103 to include additional model Z21452 series current to pressure converters.
2270898	2010-02-12	Update to Report 1025103 in response to FIR 11-2-2009 and to update revised drawings for current to pressure converters and wire nipple seal assemblies.
2072872	2008-07-30	Update report 1025103 to correct name plate error.
2041733	2008-06-24	Update report to include: additional wire nipple seal p/n's 19818-10, 12, 15, 20, 22, 25, 30, 32, 35, 40, 42, 45; addition of converter models T_XI7801 and T_XI7851; addition of converter option conduit connections 20, 22, 25, N0, N2, N5; revised drawings.
1882047	2007-08-23	Update report to include maximum input pressure of 125 psi and single seal marking for N and 2 options of Models TCXI7800, TFCI7800, TCXI7850 and TFCI7850.
1835292	2006-09-27	Update report to include Extended Output Ranges and revised drawings.
1728947	2005-11-10	Update Report to Include Revised Drawings
1699016	2005-09-26	Update report to include revised drawings and new models TCXI7850 and TFXI7850
1603891	2004-11-18	Update Report to Include Models TFXI7800-4__N, -4__EN, -4__2 and -4__E2.
1500728	2004-04-01	Update Report to Include 120 psi Group D Gas Supply Pressure and revised drawings.