



# Certificate of Compliance

**Certificate:** 1689005

**Master Contract:** 230927

**Project:** 2617126

**Date Issued:** April 8, 2013

**Issued to:** Dwyer Instruments, Inc  
102 Indiana Hwy 212  
Michigan City, IN 46361  
USA

**Attention:** Mr. Josh Waters

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



**Issued by:** *Rachel Miranda*  
Rachel Miranda

## **PRODUCTS**

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

Ex nA, Group IIB, T4:

Class I, Div 2, Groups C and D; Class II, Groups E, F and G; Class III; T4; Encl Type 4X (Only the connection option "A"):

● Transducer Model 271X-WP, input rated 7-30V dc, 125mA max. Connected as per Dwyer installation drawing 531-990-045. Enclosure Type 4X (Only the connection option "A"). Maximum ambient temperature range -30°C to +70°C.

Note: X = Output Pressure 3 or 6

Class I Division 1, Groups B, C, and D; Class I, Division 2, Groups A, B, C and D; Class II, Division 1, Groups E, F, and G; Class II and III, Division 2, Groups F and G

● I/P Converter model 291X-E; rated 7 to 30Vdc, 4 to 20mA; Enclosure Type 4X; Temperature Code T6 (CL I Div 1), T4 (CL I, Div 2), T6 (CL II, III, Div 2); Maximum Ambient 70°C. Suitable for use with process medium methane or natural gas. when supplied with captured exhaust option. For Conduit Systems, must be supplied with Potted Conduit Seal Kit (448-796-001)

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Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F, and G; Class III.

- I/P Converter model 281X-WP; rated 7 to 30Vdc, 4 to 20mA; Temperature Code T4; Maximum Ambient 70°C.

**CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations**

Ex ia IIB, T4; Encl Type 4X (Only the connection option "A"):

- Transducer Model 271X-WP, intrinsically safe, with entity parameters:  $U_i = 30\text{Vdc}$ ,  $I_i = 125\text{mA}$ ,  $P_i = 0\text{W}$ ,  $C_i = 0\mu\text{F}$ ,  $L_i = 0\text{mH}$ ; when connected as per Dwyer installation drawing 531-990-045; Enclosure Type 4X (Only the connection option "A"). Maximum ambient temperature range  $-30^\circ\text{C}$  to  $+70^\circ\text{C}$ .

Note X = Output Pressure 3 or 6

Ex ia IIB (Class I, Zone 0, Group IIB)

- I/P Converter model 281X-WP; Temperature Code T4; Maximum Ambient 70°C; Enclosure Type 4X; Intrinsically Safe with the following entity Parameters when installed as per drawing 531-990-044;  $U_i = 30\text{ V}$ ,  $I_i = 125\text{ mA}$ ,  $P_i = 0.70\text{ W}$ ,  $C_i = 0\ \mu\text{F}$ ,  $L_i = 0\ \text{mH}$
- I/P Converter model 291X-E; Temperature Code T4; Maximum Ambient 70°C; Enclosure Type 4X; Intrinsically Safe with the following entity Parameters when installed as per drawing 531-990-046  $U_i = 30\text{ V}$ ,  $I_i = 125\text{ mA}$ ,  $P_i = 0.70\text{ W}$ ,  $C_i = 0\ \mu\text{F}$ ,  $L_i = 0\ \text{mH}$ . Suitable for use with process medium methane or natural gas when supplied with captured exhaust option. For Conduit Systems, must be supplied with Potted Conduit Seal Kit (448-796-001).

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### APPLICABLE REQUIREMENTS

- CSA Standard C22.2 No 0-M1991- General Requirements - Canadian Electrical Code Part II.
  - 0.4-M1982 - Bonding and Grounding of Electrical Equipment (Protective Grounding).
  - 0.5-M1982 - Threaded Conduit Entries
  - 25-M1966 - Enclosures for Use in Class II Groups E, F and G Hazardous Locations.
  - 30-M1986 - Explosion-proof Enclosures for Use in Class I Hazardous Locations.
  - 94-M1991 - Special Purpose Enclosures.
  - 142-M1987 - Process Control Equipment
  - 157-M1992 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations.
  - 213-M1992 - Non-Incendive Electrical Equipment for Use in Hazardous Locations.
  - 1010.1-92 - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use.
- HazLoc 031120 - List of Technical Requirements - Cable and Conduit Seals for Prevention of Gas Migration
- E60079-0:02 - Electrical Apparatus for Explosive Gas Atmospheres Part 0: General requirements
- E60079-11:02 - Electrical Apparatus for Explosive Gas Atmospheres Part 11: Intrinsic Safety "I"
- E60079-15:02 - Electrical Apparatus for Explosive Gas Atmospheres Part 15: Type of protection "n"

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## MARKINGS

### 281X-WP

- Manufacturer's name and manufacturing location.
- Type number and date code
- Hazardous Location Ratings
- Maximum input and output ratings (Entity Parameters if applicable)
- Maximum ambient temperature
- Temperature Code Rating
- Control Drawing Reference
- The CSA mark

### 291X-E

- Manufacturer's name and manufacturing location.
- Type number and date code
- Hazardous Location Ratings
- Maximum input and output ratings (Entity Parameters if applicable)
- Maximum ambient temperature
- Temperature Code Rating
- Control Drawing Reference
- The CSA Mark

### 271X-WP

- Company Name
- Model Number
- Serial Number
- CSA Monogram and Certification reference 2003-136050X
- Hazardous Location designation
- Temperature Code Rating
- Special purpose enclosure designation, "Type 4X"
- They symbol "Ex ia" or "Ex nA"
- Max ambient temperature range
- Reference to Installation Instruction re Intrinsic Safety
- Warning re disconnection of equipment in hazardous locations: "WARNING EXPLOSION HAZARD DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOW TO BE NON-HAZARDOUS"
- Warning re substitution of components: "WARNING EXPLOSION HAZARD – SUBSTITUION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2"



*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>		
2617126	April 8, 2013	<u>Original Report No</u>	<u>Model No.</u>	<u>Listee Model No.</u>
		202481-1498112	T950-bc	291X-E
			T900bcA	281X-WP
		202481-1360050	T550-bcA	271X-WP
Update to include revised Logo Drawings to "Proximity" Logo				
2524285	June 12, 2012	<u>Original Report No</u>	<u>Model No</u>	<u>Listee Model No</u>
		202481-1498112	T950-bc	291X-E
			T900bcA	281X-WP
Update to include Revised drawings				
1689005	August 24, 2005	<u>Original Report No</u>	<u>Model No</u>	<u>Listee Model No</u>
		202481-1498112	T950-bc	291X-E
			T900bcA	281X-WP
		202481-1360050	T550-bcA	271X-WP