



Certificate of Compliance

Certificate: 1916514 (103164_0_000)

Master Contract: 184981

Project: 70034576

Date Issued: 2015-11-20

Issued to: Industrial Monitoring Instr. (IMI) A Div. of PCB Piezotronics, Inc.
3425 Walden Ave
Depew, New York 14043
USA
Attention: Carrie Termin

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: Aisha Sreenath
Aisha Sreenath

PRODUCTS

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations
CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations
- Certified to US Standards

Class I, Div. 1, Groups A, B, C and D; Class II, Div. 1, Groups E, F and G; Class III, Div 1:
Ex ia IIC T4:
AEx ia IIC T4:

Models EX649A0x Vibration Sensors, input rated 12-30 Vdc max, 4-20mA; intrinsically safe with entity parameters of: U_i (V max) = 30V, I_i (I max) = 100mA, P_i (Pmax) = 1W, C_i = 0, L_i = 28 μ H; when installed per installation Dwg 39018; Temp Code T4 @ Max Ambient 100 Deg C.

Models EX649A1x and EX649A6x Vibration Sensors, input rated 12-30 Vdc max, 4-20mA; intrinsically safe with entity parameters of: U_i (V max) = 30V, I_i (I max) = 100mA, P_i = 1W (Pmax), C_i = 61 nF, L_i = 333 μ H; when installed per installation Dwg 39018; Temp Code T4 @ Max Ambient 100 Deg C.

Models EX649A7x and CS649A91 Vibration Sensors, input rated 12-30 Vdc max, 4-20mA; intrinsically safe with entity parameters of: U_i (V max) = 30V, I_i (I max) = 100mA, P_i (Pmax) = 1W, C_i = 0, L_i = 28 μ H; when



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installed per installation Dwg 39021 for model EX649A7x and Dwg 62195 for model CS649A91; Temp Code T4 @ Max Ambient 100 Deg C.

Notes:

1. For Canadian Installations, sensor case must be bonded to ground according to Section 18 of the CEC, Part 1.
2. For US Installations, sensor case must be bonded to ground according to Articles 501 and 505 of the NEC.
3. The "x" in the model code may be a number from 0 thru 9 which denotes variations in frequency response, sensitivity, and mounting configuration of the sensors.
4. An alphanumeric code (-XXXXX) following the Model Number indicates cable length and termination. Cable length not to exceed 304.5m (999ft).

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-M91	General Requirements – Canadian Electrical Code, Part II
C22.2 No. 142-M1987	Process Control Equipment
CAN/CSA-C22.2 No. 157-92	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations
UL 913 (7 th Ed.)	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II and III, Division 1, Hazardous Locations
UL 916 (3 rd Ed.)	Energy Management Equipment
CAN/CSA-C22.2 No. 60079-0:07	Electrical apparatus for explosive gas atmospheres - Part 0: General Requirements
CAN/CSA-E60079-11:02	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic Safety "i"
ANSI/UL 60079-0:05	Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements
ANSI/UL 60079-11:07	Electrical apparatus for Explosive Gas Atmospheres - Part 11: Intrinsic Safety "i"

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

CLASS 2258 83 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations - CERTIFIED TO U.S. STANDARDS

Ex nL IICT4:
 AEx nA IICT4:
 Class I, Div. 2, Groups A, B, C, D:

Models EX649A0x Vibration Sensors, input rated 12-30 Vdc max, 4-20 mA; non-incendive with entity parameters of: U_i (V max) = 30V, I_i (I max) = 100mA, P_i (Pmax) = 1W, C_i = 0, L_i = 28 uH; when installed per installation Dwg 39018; Temp Code T4 @ Max Ambient 100 Deg C.

Models EX649A1y and EX649A6y Vibration Sensors, input rated 12-30 Vdc max, 4-20mA; non-incendive with entity parameters of: U_i (V max) = 30V, I_i (I max) = 100mA, P_i (Pmax) = 1W, C_i = 61 nF, L_i = 333 uH; when installed per installation Dwg 39018; Temp Code T4 @ Max Ambient 100 Deg C.



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Notes:

1. For Canadian Installations, sensor case must be bonded to ground according to Section 18 of the CEC, Part 1.
2. For US Installations, sensor case must be bonded to ground according to Articles 501 and 505 of the NEC.
3. The “x” in the model code may be a number from 0 thru 9 which denotes variations in frequency response, sensitivity, and mounting configuration of the sensors.
4. An alphanumeric code (-XXXXX) following the Model Number indicates cable length and termination. Cable length not to exceed 304.5m (999ft).

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-M91	General Requirements – Canadian Electrical Code, Part II
C22.2 No. 142-M1987	Process Control Equipment
C22.2 No. 213-M1987	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
UL 916 (3 rd Ed.)	Energy Management Equipment
UL 1604 (3 rd Ed.)	Electrical Equipment for Use in Class I and II, Division 2; Class III Hazardous (Classified) Locations
ANSI/ISA 12.12.01-2007	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
CAN/CSA-E60079-15:02	Electrical apparatus for explosive gas atmospheres - Part 15: Type of Protection "n"
ANSI/UL 60079-15:02	Electrical apparatus for Explosive Gas Atmospheres - Part 15: Type of Protection “n”

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

CLASS 2258 82 - PROCESS CONTROL EQUIPMENT – For Hazardous Locations - CERTIFIED TO U.S. STANDARDS

Ex nA IICT4:

AEx nA IIC T4:

Class I, Div. 2, Groups A, B, C, D:

Models EX649A7x and CS649A91 Vibration Sensors, input rated 12-30 Vdc max, 4-20mA; suitable for use in Class I, Div. 2 or Class I, Zone 2 locations, when installed per installation Dwg 39021 for model EX649A7x and Dwg 62195 for model CS649A91; Temp Code T4 @ Max Ambient 100 Deg C.

Notes:

1. Sensor must be installed in a suitable enclosure, acceptable to the local inspection authority having jurisdiction.
2. The “x” in the model code may be a number from 0 thru 9 which denotes variations in frequency response, sensitivity, and mounting configuration of the sensors.



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3. An alphanumeric code (-XXXXX) following the Model Number indicates cable length and termination. Cable length not to exceed 304.5m (999ft).

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-M91	General Requirements – Canadian Electrical Code, Part II
C22.2 No. 142-M1987	Process Control Equipment
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ANSI/ISA 12.12.01-2007	Non-incendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
CAN/CSA-E60079-15:02	Electrical apparatus for explosive gas atmospheres - Part 15: Type of Protection "n"
ANSI/UL 60079-15:02	Electrical apparatus for Explosive Gas Atmospheres - Part 15: Type of Protection "n"



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
70034576	2015-11-20	Update to Report 1916514 to add new model CS649A91.
1916514	2008-01-24	Model EX649Axx Series Vibration Sensors for Hazardous Locations - ia, nL, nA (North America)