Certificate of Compliance

Certificate: 1458684 (221421) **Master Contract:** 221421

Project: 70076706 **Date Issued:** 2017-06-06

Issued to: **Connection Technology Center, Inc.**
7939 Rae Boulevard
Victor, New York 14564
USA

Attention: Colin Walker

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:
Jihan
Gunaratne

PRODUCTS

CLASS - C225804 - PROCESS CONTROL EQUIPMENT-Intrinsically Safe, Entity - For Hazardous Locations-
CLASS - C225884 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity-- For Hazardous Locations - Certified to US Standards

Class I, Groups A, B, C, D; Class II, Groups E, F, G; Class III

Canada: Ex ia IIC T3/T4; DIP A20 IP6X 150ºC (T-Code =T3) or T105ºC (T-Code = T4)
USA: AEx ia IIC T3/T4, Class I, Zone 0; AEx iaD 20 150ºC (T-Code =T3) or T105ºC (T-Code = T4)

Transducer Sensor - AC90* Series - Temperature code T3; ambient temperature range -54ºC to +125ºC
Transducer Sensor - LP8** and LP9** Series – Temperature Code T4; ambient temperature range -40ºC to +80ºC

- Intrinsically safe with Entity Parameters – Ui = 28VDC, Ii = 100mA, Pi = 1W, Ci = 70nF, Li = 51µH

Transducer Sensor - AC91*, AC83*, VE9**, and WT83*, Series - Ambient Temperature Range -40ºC to +80ºC (Temperature Code T4) or -40ºC to +125ºC (Temperature Code T3)

- Intrinsically safe with Entity Parameters – Ui = 28VDC, Ii = 100mA, Pi = 1W, Ci = 0nF, Li = 0µH (when not provided with integral cable)
- Intrinsically safe with Entity Parameters – Ui = 28VDC, Ii = 100mA, Pi = 1W, Ci = 80.4nF, Li = 137.76µH (when provided with a maximum of 1300feet (400m) of integral cable)

Transducer Sensor – AC7** Series - Ambient Temperature Range -40ºC to +80ºC (Temperature Code T4) or -40ºC to +121ºC (Temperature Code T3)

- Intrinsically safe with Entity Parameters – Ui = 6VDC, Ii = 3A, Pi = 1W, Ci = 1µF, Li = 0µH (when not provided with integral cable)
- Intrinsically safe with Entity Parameters – Ui = 6VDC, Ii = 3A, Pi = 1W, Ci = 1µF, Li = 42µH (when provided with a maximum of 1300 feet (400m) of integral cable)

Transducer Sensor – TA7** Series - Ambient Temperature Range -40ºC to +80ºC (Temperature Code T4) or -40ºC to +121ºC (Temperature Code T3)

- Intrinsically safe with Entity Parameters – Ui = 6VDC, Ii = 3A, Pi = 1W, Ci = 1µF, Li = 0µH (when not provided with integral cable)
- Intrinsically safe with Entity Parameters – Ui = 6VDC, Ii = 3A, Pi = 1W, Ci = 1µF, Li = 336µH (when provided with a maximum of 1300 feet (400m) of integral cable)

Transducer Sensor – AC86* Series - Ambient Temperature Range -40ºC to +80ºC (Temperature Code T4) or -40ºC to +121ºC (Temperature Code T3)

- Intrinsically safe with Entity Parameters – Ui = -28VDC, Ii = 120mA, Pi = 1W, Ci = 46nF, Li = 0µH (when not provided with integral cable)
- Intrinsically safe with Entity Parameters – Ui = -28VDC, Ii = 120mA, Pi = 1W, Ci = 46nF, Li = 42µH (when provided with a maximum of 1300 feet (400m) of integral cable)

Note: Asterisks "**" denotes alpha-numeric characteristic denoting mounting configurations, connector types or approval agencies per drawings INS10017 ~~and~~, INS10018 and INS10075.

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations
CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations - Certified to US Standards

Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F and G; Class III
Canada: Ex nA IIC T3/T4; DIP A22 IP6X T150ºC (T-Code =T3) or T105ºC (T-Code = T4)
USA: AEx nA IIC T3/T4, Class I, Zone 2; AEx tD 22, IP6X T150ºC (T-Code =T3) or T105ºC (T-Code = T4)

Transducer Sensor - AC92* Series - Temperature code T3; ambient temperature range -54ºC to +125ºC
Transducer Sensor - LP8** and LP9** Series – Temperature Code T4; ambient temperature range -40ºC to +80ºC
Transducer Sensor - AC93*, AC7**, AC87*, WT84*, VE8** Series - Ambient Temperature Range -40ºC to +80ºC (Temperature Code T4) or -40ºC to +125ºC (Temperature Code T3)

NOTE: Class I, Division 2 / Ex nA IIC when installed using an approved Zone 2 / Division 2 rated cable in accordance with the CEC or the NEC. Suitability of final installation is to be determined by the authority having local jurisdiction.

Note: Asterisks "**" denotes alpha-numeric characteristic denoting mounting configurations, connector types or approval agencies per drawings INS10038 and INS10039.

APPLICABLE REQUIREMENTS

CSA Standard C22.2 No. 0-M1991 – General Requirements Canadian Electrical Code Part II
CSA Standard C22.2 No. 25-M1966 – Enclosures for Use in Class II Groups E, F and G Hazardous Locations
CSA Standard C22.2 No. 142-M1987 – Process Control Equipment
CSA Standard C22.2 No. 157-M1992 – Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations
CSA Standard C22.2 No. 213-M1987 – Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CAN/CSA E60079-0:07 – 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"
CAN/CSA E60079-15:02 – Electrical apparatus for explosive gas atmospheres - Part 15: Type of protection "n"
CAN/CSA-E61241-1-1:02 – Electrical apparatus for use in the presence of combustible dust – Part 1-1: Electrical apparatus protected by enclosures and surface temperature limitation – Specification for apparatus

UL Standard 913, Seventh Edition – Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations
UL Standard 916, Third Edition – Safety Energy Management Equipment
UL Standard 1203, Fourth Edition – Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations
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
UL 60079-0, Fourth Edition – Electrical Apparatus for Explosive Gas Atmospheres – Part 0: General Requirements
UL 60079-11, Second Edition – Electrical apparatus for explosive gas atmospheres – Part 11: Intrinsic safety "i"
UL 60079-15, First Edition – Electrical Apparatus for Explosive Gas Atmospheres – Part 15: Electrical Apparatus with Type of Protection "n"

ANSI/ISA 61241-0–2006 – Electrical Apparatus for Use in Zone 20, Zone 21 and Zone 22 Hazardous (Classified) Locations – General Requirements
ANSI/ISA 61241-1–2006 – Electrical Apparatus for Use in Zone 21 and Zone 22 Hazardous (Classified) Locations – Protection by Enclosures "tD"
ANSI/ISA 61241-11–2006 – Electrical Apparatus for Use in Zone 20, Zone 21 and Zone 22 Hazardous (Classified) Locations – Protection by Intrinsic Safety "iD"

Supplement to Certificate of Compliance

Certificate: 1458684 (221421) **Master Contract:** 221421

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
70076706	2017-06-06	Update to report 1458684 to include 5 new amplifier board = INS10074 (VE9** and VE8**Series), INS10078 (WT83*, AC83* and AC84* Series), INS10076 (AC7** Series) and INS10084 (AC86* and AC87* Series).
70040705	2015-11-20	Update to Report 1458684 to include adding of Epoxies and an alternate Piezo-Electric Device.
2274933	2010-02-11	Update to report 1458684 to correct diodes being used in the equipment based on findings of IECEx report
2126082	2009-12-23	Update to report 1458684 to include new model of vibration sensor
1809025	2006-11-23	Update to Report 1458684 to include div / zone 2 requirements.
1531993	2004-03-23	Update to Report 1458684 to Cover model series variation.
1458684	2004-02-04	CSA C/US Certification of I.S. Transducer Sensor, Model Series AC9**, LP8** and LP9** with Entity Parameters for Hazardous Locations.