



Certificate of Compliance

Certificate:	80263367	Master Contract:	221421
Project:	80263367	Date Issued:	2026-01-22
Issued to:	Connection Technology Center, Inc. 7939 Rae Boulevard Victor, New York 14564 United States	Issued by:	<i>Junlong Pan</i> Junlong Pan

Attention: Maria Kuzara

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.



PRODUCTS

Class 2258 02 PROCESS CONTROL EQUIPMENT - For Hazardous Locations
Class 2258 04 PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations
Class 2258 82 PROCESS CONTROL EQUIPMENT - For Hazardous Locations - Certified to US Standards
Class 2258 84 PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations - Certified to US Standards

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

Class II, Division 1, Groups E, F and G T135°C...T156°C

Class III

T147°C: Ta = – 40°C to +121°C (All models besides model AC970 and AC971)



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T156°C: Ta = – 40°C to +121°C (For model AC970 and AC971)

T135°C: Ta = – 40°C to +80°C (All models)

Transducer Sensors, AC9**, TA9**, VE9**, LP8**, LP9**, LPH8** Series and LPH9** Series, IP66 enclosure.

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

Canada:

Class I, Division 1, Groups A, B, C and D T3-T4

Ex ia IIC T3-T4 Ga

Ex ib IIIC T135°C...T156°C Db

U.S.:

Class I, Division 1, Groups A, B, C and D T3-T4

Class I, Zone 0, AEx ia IIC T3-T4 Ga

Zone 21, AEx ib IIIC T135°C...T156°C Db

T3: Ta = –40°C to +121°C (All models)

T4: Ta = –40°C to +80°C (All models)

T147°C: Ta = – 40°C to +121°C (All models besides model AC970 and AC971)

T156°C: Ta = – 40°C to +121°C (For model AC970 and AC971)

T135°C: Ta = –40°C to +80°C (All models)

Transducer Sensors, AC9**, TA9**, VE9**, LP8**, LP9**, LPH8** Series and LPH9** Series, IP66 enclosure, intrinsically safe when powered by IS Barriers matching the Entity Parameters.

Models and connections:

2 Pin Vibration Sensors Connected to 1 Single Channel Barrier	3 Pin Vibration Sensors - Connected to 1 Dual Channel Barrier - or 2 Single Channel barrier	4 Pin Vibration Sensors - Connected to 1 Dual Channel Barrier & 1 Single Channel barrier - or 3 Single Channel barrier
AC91 Series	TA91 Series	AC957 Series
LP8* Series	AC979 Series	AC972 Series
LP9* Series	-	AC980 Series
VE9 Series	-	AC981 Series
AC96 Series		-
LPH8** Series		
LPH9** Series		
LPH84* Series		
LPH94* Series		
AC97* Series		

- Standard accelerometers and velocity sensors have 2 pins and uses 2 wire cable, 1 wire is for the sensing element and 1 common.
- The Biaxial, designated sensors have 3 pins and uses 3 wire cables. For the biaxial sensor 2 wires are for the different sensing



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elements and 1 common. For temperature, 1 wire is for signal, 1 for temperature, 1 shared common.

- The Triaxial designated sensors have 4 pins and a 4 wire cable. For Triaxial 1 wire for each of the 3 sensing elements and 1 for common. For low power with temperature, 1 wire is for signal, 1 for temperature, 1 for power and 1 for shared common.
- Refer to drawing INS10187 for sensor connections.

Entity parameters (Class I Division 1, Zone 0), Electrical ratings (Class II, Division 1):

Item number	Model Nomenclature	Entity Parameters
AC Series with and without Integral Cables (DWG INS10187)		
1- Without integral cable	AC911-1R, AC912-1R, AC913-1R, AC914-1R, AC915-1R, AC916-1R, AC917-1R, AC918-1R	Ui = 28VDC Ii = 120mA Pi = 1W Ci = 0nF Li = 0μH
2- With integral cable	AC911-XR, AC912-XR, AC913-XR, AC914-XR, AC915-XR, AC916-XR, AC917-XR, AC918-XR	Ui = 28VDC Ii = 120mA Pi = 1W Ci = 80.4nF Li = 336μH
3- Without integral cable	AC961-1R, AC952-1R, AC963-1R, AC964-1R, AC965-1R, AC966-1R, AC967-1R, AC968-1R	Ui = 28VDC Ii = 120mA Pi = 1W Ci = 0nF Li = 0μH
4- With integral cable	AC961-XR, AC952-XR, AC963-XR, AC964-XR, AC965-XR, AC966-XR, AC967-XR, AC968-XR	Ui = 28VDC Ii = 120mA Pi = 1W Ci = 80.4nF Li = 336μH
5- Without integral cable	AC970-1R THROUGH AC979-1R AC980-1R THROUGH AC989-1R	Ui = 28VDC Ii = 120mA Pi = 1W Ci = 28nF Li = 0μH
6- With integral cable	AC970-XR THROUGH AC979-XR AC980-XR THROUGH AC989-XR	Ui = 28VDC Ii = 120mA Pi = 1W Ci = 40nF Li = 40.2μH
TA Series with and without Integral Cables (DWG INS10187)		
7- Without integral cable	TA91*-1R	Ui = 28VDC Ii = 120mA Pi = 1W Ci = 1.5nF Li = 0μH



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Item number	Model Nomenclature	Entity Parameters
8- With integral cable	TA91*-XR	$U_i = 28\text{VDC}$ $I_i = 120\text{mA}$ $P_i = 1\text{W}$ $C_i = 82\text{nF}$ $L_i = 336\mu\text{H}$

Item number	Model Nomenclature	Entity Parameters
LP Series with and without Integral Cables (DWG INS10186, INS10187)		
1- Without integral cable	LP80*-1R, LP90*-1R	$U_i = 28\text{VDC}$ $I_i = 120\text{mA}$ $P_i = 1\text{W}$ $C_i = 0\text{nF}$ $L_i = 0\mu\text{H}$
2- With integral cable	LP80*-XR, LP90*-XR	$U_i = 28\text{VDC}$ $I_i = 120\text{mA}$ $P_i = 1\text{W}$ $C_i = 80.4\text{nF}$ $L_i = 336\mu\text{H}$
3- Without integral cable	LPH8**-1R, LPH9**-1R	$U_i = 28\text{VDC}$ $I_i = 120\text{mA}$ $P_i = 0.63\text{W}$ $C_i = 0\text{nF}$ $L_i = 0\mu\text{H}$
4- With integral cable	LPH8**-XR, LPH9**-XR	$U_i = 28\text{VDC}$ $I_i = 120\text{mA}$ $P_i = 0.63\text{W}$ $C_i = 80.4\text{nF}$ $L_i = 336\mu\text{H}$
VE Series with and without Integral Cables (DWG INS10186, INS10187)		
5- Without integral cable	VE901-1R, VE902-1R	$U_i = 28\text{VDC}$ $I_i = 120\text{mA}$ $P_i = 1\text{W}$ $C_i = 0\text{nF}$ $L_i = 0\mu\text{H}$
6- With integral cable	VE901-XR, VE902-XR	$U_i = 28\text{VDC}$ $I_i = 120\text{mA}$ $P_i = 1\text{W}$ $C_i = 80.4\text{nF}$ $L_i = 336\mu\text{H}$

Conditions of Acceptability:

1. All models of the assessed equipment are required to be connected to a properly rated I.S. barrier as per DWG INS10187. The U_i & I_i parameters are the worst case voltage and current from the combination of these barriers, but they cannot appear at the same time. It is the end-users' responsibility to ensure that the combined voltage and current of the connected barriers does not exceed the values of Table A.1 of IEC 60079-11:2011 Ed 6.



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2. Cables of the following part numbers are restricted only for use with sensors of a maximum ambient temperature of + 80°C. The manufacturer shall ensure that the product is marked accordingly:
 - i. CB103
 - ii. CB190
 - iii. CB191
 - iv. CB192
 - v. CB193

3. Maximum Cable lengths are specified and these maximum values shall not be exceeded as per the following list:

Models With Integral Cables	Maximum Integral Cable Length
AC970-XR THROUGH AC979-XR AC980-XR THROUGH AC989-XR	200 ft (61 m)
AC911-XR, AC912-XR, AC913-XR, AC914-XR, AC915-XR, AC916-XR, AC917-XR, AC918-XR	1600 ft (488 m)
AC961-XR, AC952-XR, AC963-XR, AC964-XR, AC965-XR, AC966-XR, AC967-XR, AC968-XR	1600 ft (488 m)
TA91*-XR	1600 ft (488 m)
LP80*-XR, LPH8**-XR, LP90*-XR, LPH9**-XR	1600 ft (488 m)
VE901-XR, VE902-XR	1600 ft (488 m)

4. For models specified with integral cables the following list to be utilized.

Part Number	Max Capacitance	Min Resistance	Max Inductance	Min Temperature (°C)
CB102	48.0 pF/ft	10.0Ω/1000ft	0.081μH/ft	150
CB103*	49 pF/ft	9.7Ω/1000ft	0.047μH/ft	105
CB193*	49 pF/ft	9.7Ω/1000ft	0.047μH/ft	105
CB111	45.0 pF/ft	10.0Ω/1000ft	0.084μH/ft	150
CB190*	36 pF/ft	9.5Ω/1000ft	0.19μH/ft	105
CB206	35 pF/ft	42 Ω/1000ft	0.062 μH/ft	150
CB296	35 pF/ft	42Ω/1000ft	0.062μH/ft	200
CB212	41 pF/ft	13.0Ω/1000ft	0.092μH/ft	150
CB191*	44.13 pF/ft	11.9Ω/1000ft	0.18μH/ft	105
CB192*	37.15 pF/ft	16.41Ω/1000ft	0.20μH/ft	105
CB298	27.9 pF/ft	15.4Ω/1000ft	0.21μH/ft	200

*NOTE: These cables are only acceptable for use in sensors rated for a maximum ambient of +80°C.

5. The entity parameters of the vibration sensors and integrated cables shall not be exceeded as per the marked nameplates. Refer to the following controlled document for details:
 - INS10187
6. For sensors without Integral Cables, the field wiring cable operating temperature shall be rated above the sensor T-code and follow the following conditions.

$$U_o \leq U_i$$

$$I_o \leq I_i$$

$$P_o \leq P_i$$

$$C_o \geq C_i + C_{cable}$$

$$L_o \geq L_i + L_{cable}$$



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APPLICABLE REQUIREMENTS

CSA C22.2 No. 25:17 (R2022) - Enclosures for use in Class II, Division 1, Groups E, F, and G hazardous locations - Fourth Edition

CAN/CSA C22.2 No. 60079-0:19 - Explosive atmospheres - Part 0: Equipment - General requirements

CAN/CSA-C22.2 No 60079-11:14 - Explosive Atmospheres - Part 11: Equipment protection by intrinsic safety 'I'

CAN/CSA C22.2 No. 61010-1-12 - Third Edition - UPD1:2015, UPD2:2016, AMD1:2018 UPD3:2023 - Safety requirements for electrical equipment for measurement, control, and laboratory use — Part 1: General requirements

UL 1203 - Fourth Edition - UL Standard for Safety Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations

ANSI/UL 60079-0-2020 Seventh Edition - Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements

ANSI/UL 60079-11-2018 - Sixth Edition - Explosive Atmospheres - Part 11: Equipment Protection by Intrinsic Safety 'I'

UL 61010-1:2012 - Third Edition - Including revisions through June 6, 2023 - Electrical Equipment For Measurement, Control, and Laboratory Use; Part 1: General Requirements



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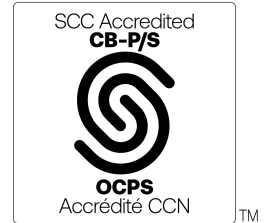
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Notes:

Products certified under Class(es) C225802, C225804, C225882, C225884 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca





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
80263367	2026-01-22	Original cCSAus certification of transducer sensors based on the acceptance of IECEx SIR 15.0060X.