



Certificate of Compliance

Certificate: 2210414 **Master Contract:** 202993
Project: 80226501 **Date Issued:** 2025-01-08
Issued to: International Metal Engineering Pte Ltd
Blk 13 Toa Payoh Lorong 8
#06-05, Braddell Tech Park
Singapore, Central Singapore 319261
Singapore
Attention: J.A. Williams

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



Issued by: Jerry Thai
Jerry Thai

PRODUCTS

Class 4418 02 OUTLET BOXES AND FITTINGS - Boxes - For Hazardous Locations

Class I, Div. 1, Groups B, C and D; Class II, Div. 1, Groups E, F and G, Class III, Div. 1; Type 4X:
Ex d IIB+H2:

Instrument Enclosure - Epoxy coated cast aluminum, Stainless steel with window or blind cover;

Model(s)	Ambient Temp (°C)
8100a-b	-40 to +85

a = Model AE, AM, PD, PB SE, SM, TE, TM, WE or WM.

b = Entry Type: 04, 05, 07, 08, 13, 17, 18, 19, 20, 37, 38, 41, 42, 43, 44, 48

Conditions of Acceptability:

1. Effects of pressure-piling caused by internal geometry must be considered in end use application (applicable for Divisions certification).



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2. The enclosed apparatus may be placed in any arrangement provided that an area of at least 40% of each cross sectional area remains free to permit unimpeded gas flow and therefore unrestricted development of an explosion. The internal geometry is to be assessed by the certification body certifying the end product (applicable for Zones certification).
3. Enclosure to be tested with electronics per end use application for appropriate temperature code classification.

Class I, Div. 1, Groups B, C and D; Class II, Div. 1, Groups E, F and G, Class III, Div. 1; Type 4X:

Ex d IIB+H2:

Model(s)	Ambient Temp (°C)
8101a-b	-55 to +85

a = Model WF or AF

b = Entry Type: 04, 05, 07, 08, 13, 17, 18, 19, or 20

Conditions of Acceptability:

1. Effects of pressure-piling caused by internal geometry must be considered in end use application (applicable for Divisions certification).
2. The enclosed apparatus may be placed in any arrangement provided that an area of at least 40% of each cross sectional area remains free to permit unimpeded gas flow and therefore unrestricted development of an explosion. The internal geometry is to be assessed by the certification body certifying the end product (applicable for Zones certification).
3. Enclosure to be tested with electronics per end use application for appropriate temperature code classification.

Class I, Div. 1, Groups B, C and D; Class II, Div. 1, Groups E, F and G, Class III, Div. 1; Type 4X:

Ex d IIB+H2:

Junction Boxes - Epoxy coated cast aluminum, stainless steel with window or blind cover;

Model(s)	Ambient Temp (°C)
7100a-b-c	-40 to +85

a = Model AE, AM, SE, SM, TE, TM, WE or WM.

b = Entry configuration 00, 01, 02, 03 or 04.

c = Entry Type: 05f, 07, 18 or 26

Conditions of Acceptability:

1. Effects of pressure-piling caused by internal geometry must be considered in end use application (applicable for Divisions certification).
2. The enclosed apparatus may be placed in any arrangement provided that an area of at least 40% of each cross sectional area remains free to permit unimpeded gas flow and therefore unrestricted development of an explosion. The internal geometry is to be assessed by the certification body certifying the end product (applicable for Zones certification).



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3. Enclosure to be tested with electronics per end use application for appropriate temperature code classification.

Class I, Div. 1, Groups B, C and D; Class II, Div. 1, Groups E, F and G, Class III, Div. 1; Type 4X:

Ex d IIB+H2:

Model(s)	Ambient Temp (°C)
7101a-b-c	-55 to +85

a = Model WF or AF

b = Entry configuration 00, 01, 02, 03 or 04

c = Entry Type: 05, 07, or 18

Conditions of Acceptability:

1. Effects of pressure-piling caused by internal geometry must be considered in end use application (applicable for Divisions certification).
2. The enclosed apparatus may be placed in any arrangement provided that an area of at least of 40% of each cross sectional area remains free to permit unimpeded gas flow and therefore unrestricted development of an explosion. The internal geometry is to be assessed by the certification body certifying the end product (applicable for Zones certification).
3. Enclosure to be tested with electronics per end use application for appropriate temperature code classification.

Class I, Div. 1, Groups B, C and D; Class II, Div. 1, Groups E, F and G, Class III, Div. 1; Type 4:

Ex d IIB+H2:

Junction Boxes - Cast finished aluminum with window or blind cover;

Model(s)	Ambient Temp (°C)
7100a-b-c	-40 to +85

a = Model CE, CM, NE or NM.

b = Entry configuration 00, 01, 02, 03 or 04.

c = Entry Type: 05, 07, 18 or 26_

Conditions of Acceptability:

1. Effects of pressure-piling caused by internal geometry must be considered in end use application (applicable for Divisions certification).
2. The enclosed apparatus may be placed in any arrangement provided that an area of at least of 40% of each cross sectional area remains free to permit unimpeded gas flow and therefore unrestricted development of an explosion. The internal geometry is to be assessed by the certification body certifying the end product (applicable for Zones certification).
3. Enclosure to be tested with electronics per end use application for appropriate temperature code classification.



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APPLICABLE REQUIREMENTS

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

CSA C22.2 No. 30-M1986 - Third Edition - Explosion-proof enclosures for use in class I hazardous locations - General Instruction No. 1: November 1986; General Instruction No. 2: November 1988

CSA C22.2 No. 30:20+Upd.1+Errata:2020 (Fourth edition) - Explosion-proof equipment - Fourth Edition; Errata: July 2020; Update No. 1: March 2023

CSA C22.2 No. 94.2:20 (Third Edition) - Enclosures for electrical equipment, environmental considerations

CAN/CSA C22.2 No. 60079-0:07 - First Edition - Electrical apparatus for explosive gas atmospheres – Part 0: General requirements

CAN/CSA C22.2 No. 60079-1:07 - First Edition - Electrical apparatus for explosive gas atmospheres – Part 1: Flameproof enclosures "d"

Standards Notes

C22.2 No. 30-M1986 applies only to the 7101 and 8101 series enclosures with window cover.

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 with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

Marking drawings are cast into the enclosure cover, or appear on a minimum 0.02 inch thick metal plate, secured to the cover with screws, rivets or drive pins, in bottomed holes.

Nameplate adhesive label material approval information:

Alternatively, markings may appear on a CSA Accepted Adhesive Nameplate, manufactured by F.B. Johnston, Type Dataplate 668 or Screenprint/Dow, Type SP4001), or may appear on a CSA Accepted Adhesive Nameplate, manufactured by Industrial Labeling Systems, Type ILS-320 White Polyester or ILS-324 Metallized Polyester; Royal Label, Type T/C-329 White or Silver Polyester with L-23 adhesive; Advanced Labelworx, Inc., Type T/C-387 White or Silver Polyester White or Silver Polyester with L-23 adhesive.

The following marking details appear:

- CSA Monogram;



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- Company name or submitter's identification;
 - Model number or catalogue number;
 - Serial number or Date code;
 - Certificate reference ("CSA 2011 2210414")
 - Hazardous Location designation: "Cl. I, Grp B, C, D; Cl. II, Grp E, F, G; Class III"; "Cl. I, Zn 1 Ex d IIB + H2" or equivalent;
 - Special Purpose Enclosure Rating "Type 4" or "Type 4X";
 - Ingress Rating "IP66" or "IP 66/68";
 - The warning words: - "DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT" and "N E VOUS OUVRIR PAS QUAND UNE ATMOSPHERE EXPLOSIVE GAZ EST PRESENTE" or equivalent;
 - The warning words: - "INSTALL SEAL WITHIN 18 INCHES OF ENCLOSURE" and "UN SCHELLEMENT DOIT REQUIS A MOINS DE 18" DU BOITIER" or equivalent (applicable for units installed in Division 1 locations);
 - The warning words: - "A SEAL SHALL BE INSTALLED WITHIN 50 MM (2 INCHES) OF THE ENCLOSURE" and "UN SCHELLEMENT DOIT ETRE INSTALLE A MOINS DE 50 mm DU BOITIER" or equivalent (applicable for units installed in Zone 1 locations).



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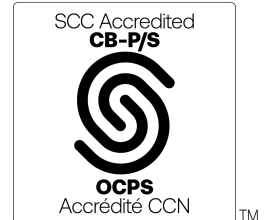
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Notes:

Products certified under Class(es) C441802 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
80226501	2025-01-08	Update to Report 2210414 to update C22.2 No. 25-1966, C22.2 No. 30-M1986, and C22.2 No. 94-M91 to their latest editions, drawing updates, and removal of nameplate drawings.
70032232	2016-07-01	New model series 7101 and 8101 with aluminium enclosure and new sealing material Stycast 2651-40FR+Catalyst 11 has been added.
2392663	2011-02-28	Update to add alternative CSA Accepted adhesive labels, and to include Class I, Zone 1 and IP66/68 coverage.
2210414	2009-09-30	Original Certification. Model 7100 Series Junction Boxes and Model 8100 Series Instrument Enclosures, for Class I, Div. 1; Class II, Div. 1 and Class III Div. 1.