



Certificate of Compliance

Certificate: 70010644

Master Contract: 220734

Project: 80030377

Date Issued: September 29, 2020

Issued to: Newson Gale Ltd
Omega House
Private Road 8, Colwick
Nottingham
NG24 2JX
ENGLAND

Attention: Gary Cawthorn

The products listed below 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 US Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only



Issued by:

Sripriya Kalyanasundaram
Sripriya Kalyanasundaram

PRODUCTS

CLASS 2258-04 – Process Control Equipment – Intrinsically safe Entity- For Hazardous Locations

Class I, Division 1, Groups A, B, C and D, T6; Class II, Division 1, Groups E, F, G, T135°C; Class III, Division 1, T135°C;

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

Ex db [ia Ga] IIC T6 Gb;

Ex tb [ia Da] IIIC T135°C Db.

Earth-Rite Dual Grounding System DGS; stationary and permanently connected explosion proof enclosure with IS entity parameters at the connections to earth (ground) clamps and earthbar; Input Rating 90-264Vac, 50/60 Hz, 200mA; Um = 250Vac; Ambient Temperature Range -40°C ≤ Tamb ≤ +50°C; Enclosure type 4X, IP66. When installed as per the control drawing 'X DGS-Q-17051 cCSAus'.



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IS O/P entity parameters are as follows:

At connections to earth (ground) clamps and earthbar (combined):
 $V_{oc}/U_o=8.61V$, $I_{sc}/I_o=17mA$, $P_o=36mW$, $C_a/C_o=5.87\mu F$, $L_a/L_o=123mH$, $L_o/R_o=990\mu H/\Omega$;

Notes:

1. The above model is permanently connected, Equipment Class 1, Pollution Degree 2, Overvoltage Category 2.
2. Mode of operation: Continuous.
3. Environmental Conditions: Extended: -40 to 50°C, 2000m max, 80% to temperatures up to 31°C decreasing linearly to 50% RH at 40°C.

CONDITIONS OF ACCEPTABILITY

Conditions applicable to the end user

1. This assessment does not cover the reliable function, performance, or other properties of the equipment not related to safety.
2. The equipment shall be fitted with appropriate glands or blanking plugs to maintain the environmental protection rating of the equipment. They shall be used within their ratings for cable entry sizes.
3. The wires used to connect to the supply and the Marshalling Box shall be as described in the manual and in accordance with the local regulations.
4. Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.

Conditions applicable to the manufacturer

1. The system incorporates a previously-certified enclosure. It is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with the enclosure, and the manufacturer shall inform CSA Sira of any modifications to the enclosure that may impinge upon the explosion safety design of the product.

Certificates	Enclosure
IECEX PTB 07.0027U and UL certificate 20150702-E307783	Stahl Type 8265/03, 8265/63

CLASS 2258-84 – Process Control Equipment – Intrinsically safe Entity- For Hazardous Locations- Certified to U.S standards

Class I, Division 1, Groups A, B, C and D T6; Class II, Division 1, Groups E, F, G T135°C; Class III, Division 1 T135°C;
Associated Equipment for Class I, Division 1, Groups A, B, C and D; Class II, Division 1, Groups E, F, G; Class III, Division 1;
Class I, Zone 1, AEx db [ia Ga] IIC T6 Gb;
Zone 21, AEx tb [ia Da] IIC T135°C Db ;



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Earth-Rite Dual Grounding System DGS; stationary and permanently connected explosion proof enclosure with IS entity parameters at the connections to earth (ground) clamps and earthbar; Input Rating 90-264Vac, 50/60 Hz, 200mA; $U_m = 250V_{ac}$; Ambient Temperature Range $-40^{\circ}C \leq T_{amb} \leq +50^{\circ}C$; enclosure type 4X, IP66. When installed as per the control drawing 'X DGS-Q-17051 cCSAus'.

IS O/P entity parameters are as follows:

At connections to earth (ground) clamps and earthbar (combined):
 $V_{oc}/U_o=8.61V$, $I_{sc}/I_o=17mA$, $P_o=36mW$, $C_a/C_o=5.87\mu F$, $L_a/L_o=123mH$, $L_o/R_o=990\mu H/\Omega$;

Notes:

1. The above model is permanently connected, Equipment Class 1, Pollution Degree 2, Overvoltage Category 2.
2. Mode of operation: Continuous.
3. Environmental Conditions: Extended: -40 to $50^{\circ}C$, 2000 m max, 80% to temperatures up to $31^{\circ}C$ decreasing linearly to 50% RH at $40^{\circ}C$.

CONDITIONS OF ACCEPTABILITY

Conditions applicable to the end user

1. This assessment does not cover the reliable function, performance, or other properties of the equipment not related to safety.
2. The equipment shall be fitted with appropriate glands or blanking plugs to maintain the environmental protection rating of the equipment. They shall be used within their ratings for cable entry sizes.
3. The wires used to connect to the supply and the Marshalling Box shall be as described in the manual and in accordance with the local regulations.
4. Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.

Conditions applicable to the manufacturer

1. The system incorporates a previously-certified enclosure. It is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with the enclosure, and the manufacturer shall inform CSA Sira of any modifications to the enclosure that may impinge upon the explosion safety design of the product.

Certificates	Enclosure
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APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10 <i>(reaffirmed 2015)</i>	General requirements - Canadian Electrical Code, Part II
CAN/CSA-C22.2 No. 60079-0:2015	Explosive atmospheres - Part 0: Equipment - General requirements
CAN/CSA-C22.2 No. 60079-11:2014	Explosive atmospheres – Part 11: Equipment protection by intrinsic safety “i”
CAN/CSA-C22.2 No. 60079-31:2015	Explosive atmospheres- Part 31: Equipment Dust Ignition Protection by Enclosure ‘t’
CAN/CSA-C22.2 No. 60079-1:2016	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosure “d”
CAN/CSA-C22.2 No.30-M1986 <i>(reaffirmed 2016)</i>	Explosion-proof enclosures for use in class I hazardous locations
CAN/CSA-C22.2 No. 25:2017	Enclosures for use in Class II, Division I, Groups E,F and G hazardous locations
CAN/CSA C22.2 No. 94.1:2015 second edition	Enclosures for electrical equipment, non-environmental considerations
CAN/CSA C22.2 No. 94.2:2015 <i>second edition</i>	Enclosure for electrical equipment, environmental considerations
CAN/CSA-C22.2 No. 61010-1-12 <i>(May 2012)</i>	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements
UL 60079-0:2013 <i>Sixth Edition</i>	Explosive atmospheres – Part 0: Equipment – General requirements
UL 60079-11: 2013 <i>Sixth Edition</i>	Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety “i”
UL 60079-31-2015 <i>Second Edition</i>	Explosive atmospheres- Part 31: Equipment Dust Ignition Protection by Enclosure ‘t’
UL 60079-1:2015 <i>Seventh Edition</i>	Explosive Atmospheres – Part 1: Equipment protection by Flameproof Enclosure “d”
UL 913: 2013 <i>Eighth Edition</i>	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II and III, Division 1, Hazardous locations
UL1203 : 2013 <i>Fifth Edition</i>	Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for use in Hazardous Locations
UL 50 : 2015 <i>Thirteenth Edition</i>	Enclosures for Electrical Equipment, Non-Environmental Considerations
UL 50E : 2015 <i>Second Edition</i>	Enclosures for Electrical Equipment, Environmental Considerations
ANSI/UL 61010-1-2012 <i>Third Edition (May 11, 2012)</i>	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements

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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.

- CSA Monogram w/C US Indicator
- Manufacturer's name.
- Model designation.
- Date code and/or Serial number.
- Electrical Input rating, input in volts, amps, frequency
- Hazardous location designations.
- Temperature code rating.
- Minimum and Maximum ambient temperature.
- Reference to installation instructions X DGS-Q-17051 cCSAus.
- Certificate Reference (i.e. "CSA 17CA70010644X")
- Special Purpose Enclosure Rating "Type 4X"
- Ingress Rating "IP 66"
- The statement: "Hazardous Live Parts – Do not open the enclosure while energised." and "PIÈCES SOUS TENSION DANGEREUSES – NE PAS OUVRIR LE BOÎTIER QUAND IL EST SOUS TENSION"
- The statement: "Do not open when an explosive gas and/or dust atmosphere may be present" and "NE PAS OUVRIR EN CAS DE RISQUE D'ATMOSPHERE CONTENANT DES GAZ ET/OU DES POUSSIÈRES EXPLOSIVES"
- The statement: "Warning: Substitution of components may impair intrinsic safety" and "AVERTISSEMENT: LA SUBSTITUTION DE COMPOSANTS PRUT COMPROMETTRE LA SÉCURITÉ INTRINSÈQUE."
- The statement: "Warning: A conduit seal shall be installed within 18 inches of the enclosure." and "AVERTISSEMENT: UN SCHELLEMENT DOIT ÊTRE INSTALLÉ À MOINS DE 18 POUÇES (450mm) DU BOÎTIER"
- The statement: "Warning: Potential Electrostatic hazard – See instructions" and "AVERTISSEMENT – DANGER POTENTIEL DE CHARGES ÉLECTROSTATIQUES – RÉFÉREZ À L'INSTRUCTION"
- Protective earthing TERMINAL is identified by the IEC 60417 No 5019 symbol , adjacent to the TERMINAL