Certificate of Compliance

Certificate: 2333924 **Master Contract:** 220734

Project: 70212825 **Date Issued:** March 22, 2019

Issued to: **Newson Gale limited**
Omega House
Private Road 8
Colwick
Nottingham NG4 2JX
UNITED KINGDOM

Attention: **Mr. 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

PRODUCTS

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations

Class I, Div. 2, Groups A, B, C, D; Class II, Div. 2, Groups E, F, G; Class III, Div. 2:
Ex nA [ia] IIC:
DIP A21 T70C:

Earth-Rite ER II, Models RTRP1UA, PLUSP1UA and FIBCP1UA Earth Monitoring Unit with Power Supply (Suitable for use in Class I, Div. 2, Groups A, B, C, D; Class I, Zone 2, Group IIC; Class II, Div. 2; Class III, Div. 2; Zone 21); input rated 120/230 Vac, 50/60Hz, 200 mA; relay contact rated 250 Vac, 5A, 500 VA resistive; 30 Vdc, 2A, 60 W resistive; Provides Intrinsically Safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div.1, Groups E,F,G; Class III, Div 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity output parameters in Single Mode of: Voc/Uo = 8.61 V, Isc/Io = 41 mA, Po = 88 mW, Ca/Co = 0.361 µF, La/Lo = 21.1 mH; in Tri Mode of: Voc/Uo = 8.61 V, Isc/Io = 60 mA, Po = 129 mW, Ca/Co = 1.0 µF, La/Lo = 9.8 mH; in FIBC Mode of: Voc/Uo = 8.61 V, Isc/Io = 0.87 mA, Po = 8 mW, Ca/Co = 5.9 µF, La/Lo = 46 H; Intrinsically safe input parameters at the optional I.S switching input is Ui = 30V, Ii = 500mA, Ci = 0, Li = 0; when installed per

installation Dwg. ERII-Q-10165 cCSAus; -25 Deg. C ≤ Tamb. ≤ +55 Deg. C; Temperature Code T4; Encl. Type 4X, IP66.

Earth-Rite ER II, Models RTRP1UD, PLUSP1UD and MGVP1UD Earth Monitoring Unit (Suitable for use in Class I, Div. 2, Groups A, B, C, D; Class I, Zone 2, Group IIC; Class II, Div. 2; Class III, Div. 2; Zone 21); input rated 10-30 Vdc, 200 mA; relay contact rated 250 Vac, 5A, 500 VA resistive; 30 Vdc, 2A, 60 W resistive; Provides Intrinsically Safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div.1, Groups E,F,G; Class III, Div 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity output parameters in Single Mode of: Voc/Uo = 8.61 V, Isc/Io = 41 mA, Po = 88 mW, Ca/Co = 0.361 µF, La/Lo = 21.1 mH; in Tri Mode of: Voc/Uo = 8.61 V, Isc/Io = 60 mA, Po = 129 mW, Ca/Co = 1.0 µF, La/Lo = 9.8 mH; Intrinsically safe input parameters at the optional I.S switching input is Ui = 30V, Ii = 500mA, Ci = 0, Li = 0; when installed per installation Dwg. ERII-Q-10165 cCSAus; -25 Deg. C ≤ Tamb. ≤ +55 Deg. C; Temperature Code T4; Encl. Type 4X, IP66.

Earth-Rite ER II, Model ER2PSUA Earth Power Supply (Suitable for use in Class I, Div. 2, Groups A, B, C, D; Class I, Zone 2, Group IIC; Class II, Div. 2; Class III, Div. 2; Zone 21); input rated 120/230 Vac, 50/60Hz, 200 mA; relay contact rated 250 Vac, 5A, 500 VA resistive; 30 Vdc, 2A, 60 W resistive; Provides Intrinsically Safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div.1, Groups E,F,G; Class III, Div 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity output parameters of: Voc/Uo = 8.61 V, Isc/Io = 152 mA, Po = 715 mW, Ca/Co = 5.9 µF, La/Lo = 1.5 mH; when installed per installation Dwg. ERII-Q-10173 cCSAus; -25 Deg. C ≤ Tamb. ≤ +55 Deg. C; Temperature Code T4; Encl. Type 4X, IP66.

Earth-Rite ER II, Models ER2PSUD and FIBCP1UD Earth Monitoring Unit with Power Supply (Suitable for use in Class I, Div. 2, Groups A, B, C, D; Class I, Zone 2, Group IIC; Class II, Div. 2; Class III, Div. 2; Zone 21); input rated 10-30 Vdc, 200 mA; relay contact rated 250 Vac, 5A, 500 VA resistive; 30 Vdc, 2A, 60 W resistive; Provides Intrinsically Safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div.1, Groups E,F,G; Class III, Div 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity output parameters of: ER2PSUD: Voc/Uo = 8.61 V, Isc/Io = 152 mA, Po = 715 mW, Ca/Co = 5.9 µF, La/Lo = 1.5 mH; FIBCP1UD: Voc/Uo = 8.61 V, Isc/Io = 0.87 mA, Po = 8 mW, Ca/Co = 5.9 µF, La/Lo = 46 H; Intrinsically safe input parameters at the optional I.S switching input is Ui = 30V, Ii = 500mA, Ci = 0, Li = 0; when installed per installation Dwg. ERII-Q-10173 cCSAus; -25 Deg. C ≤ Tamb. ≤ +55 Deg. C; Temperature Code T4; Encl. Type 4X, IP66.

Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III, Div. 1:
Ex ia IIC:
DIP A20 IP66 T70C:

Earth-Rite ER II, Models RTRP2U and MGVP2U Earth Monitoring Unit; input rated 10-30 Vdc, 200 mA; Intrinsically Safe for Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III, Div. 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity input parameters of: Vmax/Ui = 8.61 V, Imax/Ii = 152 mA, Pi = 715 mW, Ci = 4.9 µF, Li = 8 uH; providing Intrinsically Safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div.1, Groups E,F,G; Class III, Div 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity output parameters of: Voc/Uo = 8.61 V, Isc/Io = 60 mA, Po = 129 mW, Ca/Co = 1 µF, La/Lo = 9.8 mH; when installed per installation Dwg. ERII-Q-10173 cCSAus; -25 Deg. C ≤ Tamb. ≤ +55 Deg. C; Temperature Code T4; Encl. Type 4X, IP66.

Earth-Rite ER II, Model PLUSP2U Earth Monitoring Unit; input rated 10-30 Vdc, 200 mA; Intrinsically Safe for Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III, Div. 1; Class I, Zone 0, Group IIC;

Class II, Zone 20; with entity input parameters of: Vmax/Ui = 8.61 V, Imax/Ii = 152 mA, Pi = 715 mW, Ci = 5.539 µF, Li = 12 uH; providing Intrinsically Safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div.1, Groups E,F,G; Class III, Div 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity output parameters of: Voc/Uo = 8.61 V, Isc/Io = 41 mA, Po = 88 mW, Ca/Co = 0.361 µF, La/Lo = 21.1 mH; when installed per installation Dwg. ERII-Q-10173 cCSAus; -25 Deg. C ≤ Tamb. ≤ +55 Deg. C; Temperature Code T4; Encl. Type 4X, IP66.

Earth-Rite ER II, Model FIBCP2U Earth Monitoring Unit; Intrinsically Safe for Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III, Div. 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity input parameters of: Vmax/Ui = 8.61 V, Imax/Ii = 152 mA, Pi = 715 mW, Ci = 5.539 µF, Li = 12 uH; providing Intrinsically Safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div.1, Groups E,F,G; Class III, Div 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity output parameters of: Voc/Uo = 8.61 V, Isc/Io = 0.87 mA, Po = 8 mW, Ca/Co = 5.9 µF, La/Lo = 46 H; when installed per installation Dwg. ERII-Q-10173 cCSAus; -25 Deg. C ≤ Tamb. ≤ +55 Deg. C; Temperature Code T4; Encl. Type 4X, IP66.

CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations - CERTIFIED TO U.S. STANDARDS

Class I, Div. 2, Groups A, B, C, D; Class II, Div. 2, Groups F, G; Class III, Div. 2:
AEx nA [ia] IIC:
AEx tD [iaD] 21 T70C:

Earth-Rite ER II, Models RTRP1UA, PLUSP1UA and FIBCP1UA Earth Monitoring Unit with Power Supply (Suitable for use in Class I, Div. 2, Groups A, B, C, D; Class I, Zone 2, Group IIC; Class II, Div. 2; Class III, Div. 2; Zone 21); input rated 120/230 Vac, 50/60Hz, 200 mA; relay contact rated 250 Vac, 5A, 500 VA resistive; 30 Vdc, 2A, 60 W resistive; Provides Intrinsically Safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div.1, Groups E,F,G; Class III, Div 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity output parameters in Single Mode of: Voc/Uo = 8.61 V, Isc/Io = 41 mA, Po = 88 mW, Ca/Co = 0.361 µF, La/Lo = 21.1 mH; in Tri Mode of: Voc/Uo = 8.61 V, Isc/Io = 60 mA, Po = 129 mW, Ca/Co = 1.0 µF, La/Lo = 9.8 mH; in FIBC Mode of: Voc/Uo = 8.61 V, Isc/Io = 0.87 mA, Po = 8 mW, Ca/Co = 5.9 µF, La/Lo = 46 H; Intrinsically safe input parameters at the optional I.S switching input is Ui = 30V, Ii = 500mA, Ci = 0, Li = 0; when installed per installation Dwg. ERII-Q-10165 cCSAus; -25 Deg. C ≤ Tamb. ≤ +55 Deg. C; Temperature Code T4; Encl. Type 4X, IP66.

Earth-Rite ER II, Models RTRP1UD, PLUSP1UD and MGVP1UD Earth Monitoring Unit (Suitable for use in Class I, Div. 2, Groups A, B, C, D; and Class I, Zone 2, Group IIC; Class II, Div. 2; Class III, Div. 2; Zone 21); input rated 10-30 Vdc, 200 mA; relay contact rated 250 Vac, 5A, 500 VA resistive; 30 Vdc, 2A, 60 W resistive; Provides Intrinsically Safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III, Div. 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity output parameters in Single Mode of: Voc/Uo = 8.61 V, Isc/Io = 41 mA, Po = 88 mW, Ca/Co = 0.361 µF, La/Lo = 21.1 mH; in Tri Mode of: Voc/Uo = 8.61 V, Isc/Io = 60 mA, Po = 129 mW, Ca/Co = 1.0 µF, La/Lo = 9.8 mH; Intrinsically safe input parameters at the optional I.S switching input is Ui = 30V, Ii = 500mA, Ci = 0, Li = 0; when installed per installation Dwg. ERII-Q-10165 cCSAus; -25 Deg. C ≤ Tamb. ≤ +55 Deg. C; Temperature Code T4; Encl. Type 4X, IP66.

Earth-Rite ER II, Model ER2PSUA Earth Power Supply (Suitable for use in Class I, Div. 2, Groups A, B, C, D; and Class I, Zone 2, Group IIC; Class II, Div. 2; Class III, Div. 2; Zone 21); input rated 120/230 Vac, 50/60Hz,

200 mA; relay contact rated 250 Vac, 5A, 500 VA resistive; 30 Vdc, 2A, 60 W resistive; Provides Intrinsically Safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div.1, Groups E,F,G; Class III, Div 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity output parameters of: Voc/Uo = 8.61 V, Isc/Io = 152 mA, Po = 715 mW, Ca/Co = 5.9 µF, La/Lo = 1.5 mH; when installed per installation Dwg. ERII-Q-10173 cCSAus; -25 Deg. C ≤ Tamb. ≤ +55 Deg. C; Temperature Code T4; Encl. Type 4X, IP66.

Earth-Rite ER II, Models ER2PSUD and FIBCP1UD Earth Monitoring Unit with Power Supply (Suitable for use in Class I, Div. 2, Groups A, B, C, D; Class I, Zone 2, Group IIC; Class II, Div. 2; Class III, Div. 2; Zone 21); input rated 10-30 Vdc, 200 mA; relay contact rated 250 Vac, 5A, 500 VA resistive; 30 Vdc, 2A, 60 W resistive; Provides Intrinsically Safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div.1, Groups E,F,G; Class III, Div 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity output parameters of: ER2PSUD: Voc/Uo = 8.61 V, Isc/Io = 152 mA, Po = 715 mW, Ca/Co = 5.9 µF, La/Lo = 1.5 mH; FIBCP1UD: Voc/Uo = 8.61 V, Isc/Io = 0.87 mA, Po = 8 mW, Ca/Co = 5.9 µF, La/Lo = 46 H; Intrinsically safe input parameters at the optional I.S switching input is Ui = 30V, Ii = 500mA, Ci = 0, Li = 0; when installed per installation Dwg. ERII-Q-10173 cCSAus; -25 Deg. C ≤ Tamb. ≤ +55 Deg. C; Temperature Code T4; Encl. Type 4X, IP66.

Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III, Div. 1:
AEx ia IIC:
AEx tD 20 T70C:

Earth-Rite ER II, Models RTRP2U and MGVP2U Earth Monitoring Unit; input rated 10-30 Vdc, 200 mA; Intrinsically Safe for Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III, Div. 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity input parameters of: Vmax/Ui = 8.61 V, Imax/Ii = 152 mA, Pi = 715 mW, Ci = 4.9 µF, Li = 8 uH; providing Intrinsically Safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div.1, Groups E,F,G; Class III, Div 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity output parameters of: Voc/Uo = 8.61 V, Isc/Io = 60 mA, Po = 129 mW, Ca/Co = 1 µF, La/Lo = 9.8 mH; when installed per installation Dwg. ERII-Q-10173 cCSAus; -25 Deg. C ≤ Tamb. ≤ +55 Deg. C; Temperature Code T4; Encl. Type 4X, IP66.

Earth-Rite ER II, Model PLUSP2U Earth Monitoring Unit; input rated 10-30 Vdc, 200 mA; Intrinsically Safe for Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III, Div.1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity intput parameters of: Vmax/Ui = 8.61 V, Imax/Ii = 152 mA, Pi = 715 mW, Ci = 5.539 µF, Li = 12 uH; providing Intrinsically Safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div.1, Groups E,F,G; Class III, Div 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity output parameters of: Voc/Uo = 8.61 V, Isc/Io = 41 mA, Po = 88 mW, Ca/Co = 0.361 µF, La/Lo = 21.1 mH; when installed per installation Dwg. ERII-Q-10173 cCSAus; -25 Deg. C ≤ Tamb. ≤ +55 Deg. C; Temperature Code T4; Encl. Type 4X, IP66.

Earth-Rite ER II, Model FIBCP2U Earth Monitoring Unit; Intrinsically Safe for Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III, Div. 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity input parameters of: Vmax/Ui = 8.61 V, Imax/Ii = 152 mA, Pi = 715 mW, Ci = 5.539 µF, Li = 12 uH; providing Intrinsically Safe output for Class I, Div. 1, Groups A, B, C, D; Class II, Div.1, Groups E,F,G; Class III, Div 1; Class I, Zone 0, Group IIC; Class II, Zone 20; with entity output parameters of: Voc/Uo = 8.61 V, Isc/Io = 0.87 mA, Po = 8 mW, Ca/Co = 5.9 µF, La/Lo = 46 H; when installed per installation Dwg. ERII-Q-10173 cCSAus; -25 Deg. C ≤ Tamb. ≤ +55 Deg. C; Temperature Code T4; Encl. Type 4X, IP66.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-M91	General Requirements – Canadian Electrical Code, Part II
C22.2 No. 25-1966	Enclosures for Use in Class II, Groups E, F and G Hazardous Locations
CAN/CSA-C22.2 No. 94-M91	Special Purpose Enclosures
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
C22.2 No. 213-M1987	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
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"
CAN/CSA-E60079-15:02	Electrical apparatus for explosive gas atmospheres - Part 15: Type of Protection "n"
CAN/CSA-C22.2 No. 60529:05	Degrees of protection provided by enclosures (IP Code)
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 50 (11th Ed.)	Enclosures for Electrical Equipment
UL 746C (6th Ed.)	Polymeric Materials – Use in Electrical Equipment Evaluations
UL 913 (7th Ed.)	Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II and III, Division 1, Hazardous Locations
UL 916 (4th Ed.)	Energy Management Equipment
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
ANSI/UL 60079-0:09	Electrical Apparatus for Explosive Gas Atmospheres - Part 0: General Requirements
ANSI/UL 60079-11:09	Electrical apparatus for Explosive Gas Atmospheres - Part 11: Intrinsic Safety “i”
ANSI/UL 60079-15:09	Electrical apparatus for Explosive Gas Atmospheres - Part 15: Type of Protection “n”
ANSI/IEC 60529:2004	Degrees of Protection Provided by Enclosures (IP Code)
ANSI/ISA-61241-0 (12.10.02)-2006	Electrical Apparatus for Use in Zone 20, Zone 21 and Zone 22 Hazardous (Classified) Locations – General Requirements
ISA-61241-1 (12.10.03)-2006	Electrical Apparatus for Use in Zone 21 and Zone 22 Hazardous (Classified) Locations – Protection by Enclosures “tD”
ANSI/ISA-61241-11 (12.10.04)-2006	Electrical Apparatus for Use in Zone 20, 21 and Zone 22 Hazardous (Classified) Locations – Protection by Intrinsic Safety “iD”

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.

Models RTRP1UA, PLUSP1UA, RTRP1UD, PLUSP1UD, MGVP1UD, FIBCP1UA and FIBCP1UD - Refer to Drawing ERII cCSAus LAB P1
Models ER2PSUA and ER2PSUD - Refer to Drawing ERII cCSAus LAB P2 PSU

The following marking details appear:

- 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.
- Relay contact ratings
- Hazardous location designations.
- Temperature code rating.
- Minimum and Maximum ambient temperature.
- The symbol "[Exia]"and the words "Associated Equipment"
- Reference to I.S. installation instructions ERII-Q-10165 cCSAus or ERII-Q-10173 cCSAus.
- Certificate Reference (i.e. "CSA 2010 2333924")
- Special Purpose Enclosure Rating "Type 4X"
- Ingress Rating "IP 66"
- The statement: "Hazardous Live Parts - Do not open the enclosure while energised"
- The statement: "Warning – Potential Electrostatic Charging Hazard – Clean only with a damp cloth"
- Caution "Warning: Explosion Hazard – Substitution of components may impair suitability for use in a hazardous location" (appears on a separate label)
- Caution "Warning: Explosion Hazard – Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous"

Models RTRP2U, PLUSP2U, MGVP2U and FIBCP2U - Refer to Drawing ERII cCSAus LAB P2 MU

The following marking details appear:

- CSA Monogram w/C US Indicator

- Manufacturer's name.
- Model designation.
- Date code and/or Serial number.
- Electrical Input rating, input in volts, amps
- Hazardous location designations.
- Temperature code rating.
- Minimum and Maximum ambient temperature.
- The symbol "Exia"and the words "Intrinsically Safe"
- Reference to I.S. installation instructions ERII-Q-10173 cCSAus.
- Certificate Reference (i.e. "CSA 2010 2333924")
- Special Purpose Enclosure Rating "Type 4X"
- Ingress Rating "IP 66"
- The statement: "Warning – Potential Electrostatic Charging Hazard – Clean only with a damp cloth"
- Caution "Warning: Explosion Hazard – Substitution of components may impair suitability for use in a hazardous location" (appears on a separate label)