



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX EXV 19.0067** Page 1 of 5 [Certificate history:](#)
Issue No: 1 [Issue 0 \(2019-12-04\)](#)

Status: **Current**

Date of Issue: 2022-11-11

Applicant: **Newson Gale Limited**
Omega House
Private Road 8
Colwick
Nottingham, NG4 2JX
United Kingdom

Equipment: **Earth-Rite II P2 Static Earthing System – Monitoring Unit**

Optional accessory:

Type of Protection: **Intrinsic Safety, Protection by Enclosure**

Marking: Ex ia IIC T4 Ga
Ex ta IIIC T₂₀₀70 °C Da
Ta = -40 °C to +55 °C

Approved for issue on behalf of the IECEx
Certification Body:

Sean Clarke CEng MSc FIET

Position:

Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

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Wrexham Ind. Est.
Wrexham LL 139UZ
United Kingdom





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Omega House
Private Road 8
Colwick
Nottingham
NG4 2JX
United Kingdom

Manufacturing locations: **Newson Gale Limited**
Omega House
Private Road 8
Colwick
Nottingham
NG4 2JX
United Kingdom

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[GB/EXV/ExTR19.0093/00](#)

[GB/EXV/ExTR22.0017/00](#)

Quality Assessment Report:

[GB/EXV/QAR19.0009/04](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Earth-Rite II Static Earthing System Monitoring Unit receives an intrinsically safe input from a suitably-approved Newson Gale Power Supply Unit and provides an intrinsically safe output for connection to an earth bar and a clamp. The equipment is used where static build-up may occur due to the transfer of powders and liquids, and gives a visual indication to indicate satisfactory earthing.

The equipment consists of a single printed circuit board, mounted inside a glass-reinforced plastic enclosure with a window to allow the user to view the status LEDs. The versions of the equipment are as follows:

- single mode monitoring unit (model PLUSP2E)
- tri-mode monitoring unit with additional functionality, which may be vehicle-mounted (model MGVP2E) or terrestrial (model RTRP2E)
- FIBCP2E model that incorporates an upper FIBC II monitoring unit board

SPECIFIC CONDITIONS OF USE: NO



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Equipment (continued):

The installation must be in accordance with the relevant control drawing ERII-Q-10175 AI. The safety description is as follows:

Single mode (PLUSP2E)

Tri-mode (RTRP2E or MGVP2E)

FIBC (FIBCP2E)

IS input at PL1

IS input at PL1

IS input at PL1

$U_i = 8.61 \text{ V}$
 $I_i = 152 \text{ mA}$
 $P_i = 715 \text{ mW}$
 $C_i = 5.539 \mu\text{F}$
 $L_i = 12 \mu\text{H}$

$U_i = 8.61 \text{ V}$
 $I_i = 152 \text{ mA}$
 $P_i = 715 \text{ mW}$
 $C_i = 4.9 \mu\text{F}$
 $L_i = 8 \mu\text{H}$

$U_i = 8.61 \text{ V}$
 $I_i = 152 \text{ mA}$
 $P_i = 715 \text{ mW}$
 $C_i = 5.539 \mu\text{F}$
 $L_i = 12 \mu\text{H}$

IS output at PL3/4 combined

IS output at PL3/4 combined

IS output at PL2

IS output at PL3/4 combined

$U_o = 8.61 \text{ V}$
 $I_o = 41 \text{ mA}$
 $P_o = 88 \text{ mW}$
 $C_o = 0.361 \mu\text{F}$
 $L_o = 21 \text{ mH}$

$U_o = 8.61 \text{ V}$
 $I_o = 60 \text{ mA}$
 $P_o = 129 \text{ mW}$
 $C_o = 1 \mu\text{F}$
 $L_o = 9.8 \text{ mH}$

Simple apparatus only

$U_o = 8.61 \text{ V}$
 $I_o = 0.87 \text{ mA}$
 $P_o = 8 \text{ mW}$
 $C_o = 5.9 \mu\text{F}$
 $L_o = 46 \text{ H}$

For all models, intrinsic safety is maintained if the cable connected to any intrinsically safe output terminal does not exceed 100 m.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

To introduce substitutions to some safety critical components and incorporate a modification to the dust marking for EPL Da.

Annex:

[IECEX_EXV_19.0067 Issue 1 Annex_1.pdf](#)

Routine Tests:
None.

Manufacturer's documents:			
Drawing No.:	Date:	Rev.	Title:
ERII GA 001	6	ERII P2 Monitoring Unit	24/06/2010
AA0195R1B-CERT	B	ERII CR Monitor Board Circuit	18/03/2010
AA0195R1BCB-CERT	A	ERII CR Monitor Board PCB Layout	18/03/2010
AA0195R1BCT-CERT	A	ERII CR Monitor Board PCB Layout	18/03/2010
AA0195R1BSS-CERT	A	RTR II CR Monitor Board PCB Layout	18/03/2010
AA0195R1D-PLC	D	*RTR II CR Monitor Board Certified Parts List	14/02/2022
AA0194R1B-CERT	B	ERII R Monitor Circuit	18/03/2010
AA0194R1BCB-CERT	B	RTR II R Monitor Board PCB Layout	18/03/2010
AA0194R1BCT-CERT	B	RTR II R Monitor Board PCB Layout	18/03/2010
AA0194R1BSS-CERT	B	RTR II R Monitor Board PCB Layout	18/03/2010
AA0194R1B-PLC	B	RTR II R Monitor Board Certified Parts List	11/01/2010
ERII LAB 001	AJ	*CERTIFICATION DETAIL EARTH-RITE II MONITORING UNIT IN GRP ENCLOSURE (P2)	22/08/2022
ERII-Q-10175 AI	5	Earth-Rite II P2 RTR, PLUS and FIBC - Control Drawing - AC Terrestrial (Sheet 1 of 3)	06/10/2011
ERII-Q-10175 AI	5	Earth-Rite II P2 MGV and PLUS – Control Drawing – DC Mobile (Sheet 2 of 3)	06/10/2011
ERII-Q-10175 AI	5	Earth-Rite II P2 RTR, PLUS and FIBC - Control Drawing - DC Terrestrial (Sheet 3 of 3)	06/10/2011
AA0206R3A-CB-CERT	A	FIBC II Board PCB Layout	29/07/2011
AA0206R3A-CERT	A	FIBC II Monitor Circuit	29/07/2011
AA0206R3A-CT-CERT	A	FIBC II Board PCB Layout	29/07/2011
AA0206R3A-PLC	A	FIBC II Monitor Board Certified Parts List	01/09/2011
AA0206R3A-SS-CERT	A	FIBC II Board PCB Layout	29/07/2011

*Note: An * is included before the title of documents that are new or revised.*