



# 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](http://www.iecex.com)

Certificate No.: **IECEx EXV 19.0067** Page 1 of 4 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2019-12-04

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 T70°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:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**ExVeritas Limited**  
Units 16-18 Abenbury Way  
Wrexham Ind. Est.  
Wrexham LL 139UZ  
United Kingdom





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Additional  
manufacturing  
locations:

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 Report:

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

Quality Assessment Report:

[GB/EXV/QAR19.0009/00](#)



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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 ER11-Q-10175 AI. The safety description is as follows:

### Single mode (PLUSP2E)

#### IS input at PL1

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

#### IS output at PL3/4 combined

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

### Tri-mode (RTRP2E or MGVP2E)

#### IS input at PL1

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

#### IS output at PL3/4 combined

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

#### IS output at PL2

Simple apparatus only

### FIBC (FIBCP2E)

#### IS input at PL1

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

#### IS output at PL3/4 combined

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

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

## Annex:

[IECEX EXV 19.0067 Annex.pdf](#)

**Routine Tests:**

None.

**Manufacturer's documents:**

Drawing No.:	Date:	Rev.	Title:
ERII GA 001	6		ERII P2 Monitoring Unit
AA0195R1B-CERT	B		ERII CR Monitor Board Circuit
AA0195R1BCB-CERT	A		ERII CR Monitor Board PCB Layout
AA0195R1BCT-CERT	A		ERII CR Monitor Board PCB Layout
AA0195R1BSS-CERT	A		RTR II CR Monitor Board PCB Layout
AA0195R1B-PLC	B		RTR II CR Monitor Board Certified Parts List
AA0194R1B-CERT	B		ERII R Monitor Circuit
AA0194R1BCB-CERT	B		RTR II R Monitor Board PCB Layout
AA0194R1BCT-CERT	B		RTR II R Monitor Board PCB Layout
AA0194R1BSS-CERT	B		RTR II R Monitor Board PCB Layout
AA0194R1B-PLC	B		RTR II R Monitor Board Certified Parts List
ERII LAB 001	AH		Label for Earth-Rite II Monitoring Unit in GRP Enclosure (P2)
ERII-Q-10175 AI	5		Earth-Rite II P2 RTR, PLUS and FIBC - Control Drawing - AC Terrestrial (Sheet 1 of 3)
ERII-Q-10175 AI	5		Earth-Rite II P2 MGV and PLUS – Control Drawing – DC Mobile (Sheet 2 of 3)
ERII-Q-10175 AI	5		Earth-Rite II P2 RTR, PLUS and FIBC - Control Drawing - DC Terrestrial (Sheet 3 of 3)
AA0206R3A-CB-CERT	A		FIBC II Board PCB Layout
AA0206R3A-CERT	A		FIBC II Monitor Circuit
AA0206R3A-CT-CERT	A		FIBC II Board PCB Layout
AA0206R3A-PLC	A		FIBC II Monitor Board Certified Parts List
AA0206R3A-SS-CERT	A		FIBC II Board PCB Layout