

1 **UNITED KINGDOM CONFORMITY ASSESSMENT**
2 **UK TYPE EXAMINATION CERTIFICATE**

3 **Product Intended for use in Potentially Explosive Atmospheres**
4 **UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1**

5 Type Examination Certificate Number: **ExVeritas 21UKEX0839** Issue: **1**
6 Product: **Earth-Rite II P2 Static Earthing System – Monitoring Unit**
7 Manufacturer: **Newson Gale Limited**
8 Address: **Omega House, Private Road 8, Colwick, Nottingham, NG4 2JX UK**

9 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

10 ExVeritas Limited Approved Body number 2585, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

11 Compliance with the applicable Essential Health and Safety Requirements has been assured by compliance with:


EN IEC 60079-0:2018 EN 60079-11:2012 EN 60079-31:2014

Except in respect of those requirements listed at section 16 of the schedule to this certificate.

12 If the sign “X” is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

13 This TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

14 The marking of the equipment shall include the following:

 II 1 G
II 1 D
Ex ia IIC T4 Ga
Ex ta IIIC T₂₀₀70°C Da
(Ta = -40 °C to +55 °C)



No. 8613

On behalf of ExVeritas



S Clarke CEng MSc FIET
Managing Director

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Schedule

13 Description of Product

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)
- The model FIBCP2E that incorporates an upper FIBC II monitoring unit board

The installation must be in accordance with the relevant control drawing ER11-Q-10175 A1.

The safety description is as follows:

Single mode (PLUSP2E)	Tri-mode (RTRP2E or MGVP2E)		FIBC (Model FIBCP2E)
IS input at PL1	IS input at PL1		IS input at PL1
$U_i = 8.61 \text{ V}$ $I_i = 152 \text{ mA}$ $P_i = 715 \text{ mW}$ $C_i = 5.539 \text{ } \mu\text{F}$ $L_i = 12 \text{ } \mu\text{H}$	$U_i = 8.61 \text{ V}$ $I_i = 152 \text{ mA}$ $P_i = 715 \text{ mW}$ $C_i = 4.9 \text{ } \mu\text{F}$ $L_i = 8 \text{ } \mu\text{H}$		$U_i = 8.61 \text{ V}$ $I_i = 152 \text{ mA}$ $P_i = 715 \text{ mW}$ $C_i = 5.539 \text{ } \mu\text{F}$ $L_i = 12 \text{ } \mu\text{H}$
IS output at PL3/PL4 combined	IS output at PL3/PL4 combined	IS output at PL2	IS output at PL3/PL4 combined
$U_o = 8.61 \text{ V}$ $I_o = 41 \text{ mA}$ $P_o = 88 \text{ mW}$ $C_o = 0.361 \text{ } \mu\text{F}$ $L_o = 21 \text{ mH}$	$U_o = 8.61 \text{ V}$ $I_o = 60 \text{ mA}$ $P_o = 129 \text{ mW}$ $C_o = 1 \text{ } \mu\text{F}$ $L_o = 9.8 \text{ mH}$	Simple apparatus only	$U_o = 8.61 \text{ V}$ $I_o = 0.87 \text{ mA}$ $P_o = 8 \text{ mW}$ $C_o = 5.9 \text{ } \mu\text{F}$ $L_o = 46 \text{ H}$

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

Schedule

14 Descriptive Documents

14.1 Associated Report and Certificate History:

Report Number	Cert Issue Date	Issue	Comment
R3140/B/1	2022-04-29	0	Initial issue of the Prime Certificate
R3770/A/3	2022-11-11	1	Incorporate component substitutions and modification to dust marking for EPL Da.

14.2 Compliance Drawings:

Issue 0

Drawing Number	Issue	Description	Date
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
ER II LAB 001 UKCA	AC	*UKCA Certification Detail Earth-Rite II Monitoring Unit in GRP Enclosure (P2)	05/10/2022
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.*

Certificate: **ExVeritas 21UKEX0839**

Issue **1**

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Schedule

15 Specific Conditions of Use

15.1 Special Conditions for Safe Use

None.

15.2 Routine tests

None.

16 Essential Health and Safety Requirements (Regulations Schedule 1)

Essential Health and Safety Requirements are addressed by the standards listed in section 9 and where required the report listed in section 14.1

The manufacturer shall inform ExVeritas of any modifications to the design of the product described by this schedule.