

1 EU - Type Examination Certificate

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: ExVeritas 19ATEX0564 Issue: 0

4 Equipment: Earth-Rite Dual Grounding System DGS

5 Manufacturer: Newson Gale Ltd.

6 Address: Omega House, Private Road 8, Colwick, Nottingham NG4 2JX, UK.

7 This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

8 ExVeritas, Notified Body number 2804 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems for use in potentially explosive atmospheres given in Annex II to the Directive

9 Compliance with the applicable Essential Health and Safety Requirements has been assured by compliance with the following Standards and section 16 of this certificate:

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


EN 60079-1:2014

EN 60079-11:2012

10 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.

11 This EU-Type Examination Certificate relates only to the design, construction, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment shall include the following:

 II 2(1)GD

Ex db [ia Ga] IIC T6 Gb
Ex tb [ia Da] IIIC T135°C Db
Ta = -40°C to +50°C

On behalf of ExVeritas



Peter Lauritzen
Managing Director



DANAK
PROD Reg.No. 7044
Member of EA MLA

This certificate may only be reproduced in its entirety and without any change, schedule included.

The status of this certificate can be verified at www.exveritas.com
For help or assistance relating to this certificate, contact info@exveritas.com.

ExVeritas ApS, Severinsmindevej 6, 4420 Regstrup, Denmark.
ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.

Schedule

13 Description of Equipment or Protective System

The Earth-Rite Dual Grounding System DGS comprises of an Exd enclosure with intrinsically safe associated apparatus designed to monitor and ground one or two channels for connection to equipment in a hazardous area where static dissipation and monitoring is required. The DGS provides isolated intrinsically safe outputs for connection to one or two grounding clamps or other connection method. It comprises two printed circuit boards and the associated interconnecting cables and clamps. The two modules are:

Power supply PCB: this converts a non-intrinsically safe supply into an isolated D.C output to the monitoring board. It also provides a signal back to the user via relays.

Monitoring PCB: this is mounted above the power supply board. This receives the input from the power supply board and provides an intrinsically safe output to grounding clamps and an earth bar. The two printed circuit boards are mounted inside an IP66 flameproof aluminium enclosure. The DGS is rated for 90-264 Vac, 50/60 Hz.

The equipment has the following input parameters at the PSU board: $U_m = 250\text{Vac}$

The equipment has the following output parameters at the Monitor board:

Connections to the Earth Clamps and Earth bar (PL4, PL2 and PL3 combined)

$U_o = 8.61\text{ V}$
 $I_o = 17\text{ mA}$
 $P_o = 36\text{ mW}$
 $C_o = 5.87\mu\text{F}$
 $L_o = 123\text{ mH}$
 $L_o/R_o = 990\ \mu\text{H}/\Omega$

14 Descriptive Documents

14.1 Associated Report and Certificate History:

| Report Number | Cert Issue Date | Issue | Comment |
|---------------|-----------------|-------|--|
| R2249/A/11 | 2021-02-03 | 0 | Initial issue of the Prime Certificate |

14.2 Compliance Drawings:

Issue 0

| Number | Sheets | Issue | Date | Description |
|---------------------|--------|-------|-----------|---------------------------|
| AA0227-CERT-CCT | 1 of 1 | R7A | 18 May 20 | DGS Monitor schematic |
| AA0227-CERT-PL | 1 to 2 | R7A | 16 Jun 20 | DGS Monitor BOM |
| AA0227-CERT-PCB | 1 to 4 | R7A | 16 Jun 20 | DGS Monitor PCB Layout |
| AA0228-CERT-PL | 1 to 2 | R8C | 16 Jun 20 | DGS AC PSU BOM |
| AA0228-CERT-CCT | 1 of 1 | R8C | 16 Jun 20 | DGS PSU schematic |
| AA0228-CERT-PCB | 1 to 4 | R8C | 16 Jun 20 | DGS PSU PCB Layout |
| X-DGS-ATEX-01 | 1 of 1 | AG | 23 Oct 20 | Marking |
| X-DGS-Q-17052 IECEx | 1 to 2 | 7 | 18 May 20 | DGS Control drawing |
| X-DGS-GA-001 | 1 to 4 | 1 | 18 May 20 | DGS Monitoring Unit GA |
| CB001-0-01R1 | 1 of 1 | G | 03 Nov 17 | DC-DC Transformer details |

Certificate: ExVeritas 19ATEX0564

Issue 0

This certificate may only be reproduced in its entirety and without any change, schedule included.

For help or assistance relating to this certificate, contact info@exveritas.com.

ExVeritas ApS, Severinsmindevej 6, 4420 Regstrup, Denmark.

ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.



Schedule

15 Conditions of Certification

15.1 Special Conditions for Safe Use

- None

15.2 Conditions for Use (Routine tests)

- In accordance with EN 60079-11:2012 clause 10.3, each manufactured sample of the transformer shall be subjected to an electric strength test using a test voltage of 1500 Vac applied between the primary and the secondary windings for a minimum of 60s. Alternatively, a voltage of 20% higher may be applied for 1 s. There shall be no evidence of flashover or breakdown and the maximum current flowing shall not exceed 5mA.

16 Essential Health and Safety Requirements

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 the Notified Body of any modifications to the design of the product described by this schedule.

Certificate: ExVeritas 19ATEX0564

Issue 0

This certificate may only be reproduced in its entirety and without any change, schedule included.

For help or assistance relating to this certificate, contact info@exveritas.com.

ExVeritas ApS, Severinsmindevej 6, 4420 Regstrup, Denmark.

ExVeritas® is a registered trademark, unauthorised use will lead to prosecution.