



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 19.0069** Page 1 of 4 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2021-02-09

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

Equipment: **Earth-Rite Dual Grounding System DGS**

Optional accessory: None

Type of Protection: **"db" "ia" "tb"**

Marking: Ex db [ia Ga] IIC T6 Gb
Ex tb [ia Da] IIIC T135°C Db
Ta = -40°C to +50°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 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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Manufacturer: **Newson Gale Limited**
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Private Road 8
Colwick
Nottingham
NG4 2JX
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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 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
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/ExTR21.0011/00](#)

[GB/SIR/ExTR20.0118/00](#)

Quality Assessment Report:

[GB/EXV/QAR19.0009/02](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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)

$U_o = 8.61\text{ V}$

$I_o = 17\text{ mA}$

$P_o = 36\text{ mW}$

$C_o = 5.87\mu\text{F}$

$L_o = 123\text{ mH}$

$L_o/R_o = 990\ \mu\text{H}/\Omega$

Compliance Drawings:

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

SPECIFIC CONDITIONS OF USE: NO



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Additional information:

Routine Tests:

1. 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 5 mA.