

## Earth-Rite®

### Static Ground Monitoring & Interlock Systems

Wherever there is a real danger of conductive plant equipment and materials accumulating static charge within flammable and combustible atmospheres

**Newson Gale's** range of **Earth-Rite Static Ground Monitoring & Interlock Systems** provide added operational safety for critical hazardous area processing and handling operations.



- **Road Tanker Truck and Railcar** flammable product transfer.
- Filling, mixing and blending of flammable / combustible materials in **Drums, IBC's Totes, Portable Containers and Mobile Tanks.**
- **Multiple Grounding** of potentially isolated conductive components of manufacturing and processing systems.
- **Filling or discharging Type C FIBC's** and static dissipative plastic drums in flammable or combustible atmospheres.
- Monitoring fixed **Tanks and Vessels** in storage and distribution facilities.



ATEX



CSA US



NEPSI

IECEX

SIL 2



**Earth-Rite Static Grounding Systems** enable organisations to clearly demonstrate international "Best Practice", compliance with **Cenelec CLC/TR: 50404; NFPA77; API2003**, and other world-wide technical standards and codes of practice governing the control of static electricity in hazardous areas.



## Earth-Rite® RTR

The **Earth-Rite RTR** is the most advanced system for protecting personnel and plant assets from static hazards during road tanker loading and offloading operations. The system utilises innovative **Tri-Mode Technology** to ensure ① positive connection to a road tanker, ② connection to a verifiable static dissipative ground and ③ a continuously monitored tanker-ground connection of less than 10 ohms. When these parameters are confirmed, the **RTR** permits the transfer of product and any static generated on the road tanker by the transfer process is immediately transferred to ground. The **RTR** operates with a Universal Grounding Clamp and it does not require any special equipment to be installed on the Road Tanker Trucks, it may be used with all common types of Bulk Tankers without special modifications.

- Explosion Proof Control Enclosure incorporating Intrinsically Safe Static Ground Monitoring Interface Module.
- Ground Connection Junction Box with Clamp Stowage Point and Quick Release Connector.
- Heavy Duty Stainless Steel Universal Grounding Clamp with Hytrel™ Extendable Cable and Quick Connectors.
- 2 output contacts (DPDT).
- Complete installation in Zone 1, Zone 21 areas and Class I, II, III; Div. 1 locations.



### Options

ER2/CRT System Test Device
Mode Selector Keyswitch
Self-Retracting Cable Reel
Explosion Proof Strobe Light
Installers Kit (including certified glands)
IEC/Cenelec (European) and NEC/CEC (North American) versions available

### Certification



### Ingress Protection

IP 66 / Nema 4X, 7 & 9

### Power Supply

110/120V or 220/240V AC, 50-60 Hz  
12V or 24V DC

## Earth-Rite® PLUS

(for Class I, Div. 1 installations)

The **Earth-Rite PLUS** is an extremely versatile system that may be used to monitor static ground conditions on a wide range of plant equipment, including Mobile Tanks, Railcars, IBC's, Drums and Containers. The **PLUS** operates a single mode monitoring system that continuously monitors the clamp-ground connection ensuring resistance in the circuit does not rise above 10 ohms.

- Explosion Proof Control Enclosure incorporating Intrinsically Safe Static Ground Monitoring Interface Module.
- Ground Connection Junction Box with Clamp Stowage Point and Quick Release Connector.
- Heavy Duty Stainless Steel Universal Grounding Clamp with Hytrel™ Extendable Cable and Quick Connectors.
- 2 output contacts (DPDT).
- Complete installation in Zone 1, Zone 21 areas and Class I, II, III; Div. 1 locations.



### Options

Self-Retracting Cable Reel
Explosion Proof Strobe Light
Installers Kit (including certified glands)
IEC/Cenelec (European) and NEC/CEC (North American) versions available

### Certification



### Ingress Protection

IP 66 / Nema 4X, 7 & 9

### Power Supply

110/120V or 220/240V AC, 50-60 Hz  
12V or 24V DC

## Earth-Rite® PLUS



(for Class II, Div. 2 installations)

The **Earth-Rite PLUS** is designed to safely remove static electricity from plant equipment and eliminate the risk of uncontrolled incendive static spark discharges. Static electricity is capable of providing an ignition source in areas where many combustible liquids and powders are processed and handled. The amount of energy required will depend on the nature of the combustible mixture, but in order to control these risks, the Earth-Rite PLUS can be used to safely dissipate electrostatic charges from plant equipment and prevent uncontrolled incendive static spark discharges.

- Continuously monitors the resistance of the static grounding path from the grounded object through to the plant's verified earth grounding point. If the system detects that the resistance in the ground loop is higher than 10 ohms, it engages a pair of volt free contacts.
- Bright green flashing LED provides positive indication to personnel.
- Ensures resistance to ground is not greater than 10 ohms before process may begin.



Options
Zone 1 Ex(d) enclosure
X90-IP or X45-IP 2 Pole Clamps
ATEX certified Strobe Light
IEC/Cenelec (European) and NEC/CEC (North American) versions available

Certification
    
Ingress Protection
NEMA 4X / IP 66
Power Supply
110/120V or 220/240V AC, 50-60Hz 12V or 24V DC


## Earth-Rite® MULTIPOINT

For specialized plant and equipment situated in combustible or flammable atmospheres, with several potentially isolated conductive components (such as dryers, filling and conveying systems), the **Earth-Rite MULTIPOINT** provides static ground monitoring of up to (8) points with operator feedback and interlock capability. For complex or large-scale applications, multiple systems may be grouped together to monitor more than (8) points.

- Corrosion resistant and hygienic stainless steel monitoring and indicating panel with diagnostic LED array.
- Power Supply Unit/I.S. Interface Module (for safe area installation).
- Marshalling Junction Box for ease of cable routing and installation.
- Up to 8 relays can be specified (one per monitored point).
- Monitoring unit installation in Zone 0, Zone 20 areas.



Options
Clamps, cables and stainless steel quick connectors for plant and equipment (for temporary or permanent connection)
Remote "Hazardous Area" indicator stations

Certification

Ingress Protection
IP 65
Power Supply
110/120V or 220/240V AC, 50-60 Hz

## Earth-Rite® FIBC

The **Earth-Rite FIBC** system verifies the resistance and safe grounding of Type C bags in combustible or flammable atmospheres. The system ensures that resistance of the flexible container is within the correct parameters as specified by International Hazardous Area Static Control Codes of Practice, and may interlock with filling/discharge machinery or control/alarm systems to prevent dangerous levels of accumulation of static electricity on the container and the powder/loose solids contained within.



- System electronics housed in certified glass reinforced polyester Static Dissipative enclosure.
- 3 green pulsing LEDs indicate when bag is securely grounded.
- Complete Zone 21, Div. 2 installation.
- 2 output contacts (1 x DPDT).
- Special ATEX/FM approved FIBC monitoring clamp and retractable Hytrel cable.

Options	Certification
Grounding Clamp/Cable assembly (for 2-clamp installations)	<b>IECEx SIL 2</b>
Installation kit (including certified glands)	<b>Ingress Protection</b> IP 66 / Nema 4X
Zone 1, Div. 1 Installation	<b>Power Supply</b> 110/120V or 220/240V AC, 50-60 Hz

## Earth-Rite® OMEGA II

The **Earth-Rite OMEGA II** is a compact panel mounted static grounding module that can monitor a range of resistance values, based on the grounding application and installation requirements of specific processes.

The OMEGA II monitors the resistance of the static grounding circuit for processes where a risk of static charge accumulation on the equipment could result in an incendive electrostatic spark within locations that have potentially flammable atmospheres present.

- Install as single or multiple modules.
- 2 output contacts (1 x DPDT).
- 4 resistance set points depending on the installation. 0-2 ohms, 0-4 ohms, 0-10 ohms or 0-600 ohms.



Options	Certification
Universal Power Supply (converts AC input to 24V DC output)	<b>IECEx SIL 2</b>
Heavy Duty 2 pole grounding clamps.	<b>Power Supply</b> 24V DC (Universal 110 - 240V AC PSU available)
Cen-Stat 2 pole cable	
Ex enclosure for mounting in Ex areas.	

Detailed **Technical Datasheets and Instruction Manuals** are available on all **Earth-Rite Static Grounding Systems**.

For further information, please contact your nearest office or local distributor who will assist you in **controlling the risk of static caused fires and explosions**.



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