

SGR-250 Static Charge Grounding System

OVERVIEW

The Static Grounding Systems, Series ERX and SGR, provides safe and secure grounding of dangerous static charge to earth in hazardous area installations, ensuring safety to plant and personnel.

The SGR-250 is a certified intrinsically safe product mounted in an explosion-proof enclosure, providing a high degree of protection against fires or explosions caused by sparking. The instrument acts as an interlock during loading and unloading operations, allowing the process to resume only after satisfactory grounding of static charge on the Tanker body or Loading Arm.

The Earthing Relay's primary function is to determine whether the Tank Trucks at the loading terminals are properly earthed and thereafter, provide a visual indication and a control signal for process resumption. The Earthing Relay senses the static-charge potential of the Tanker and provides a safe grounding path for this charge through a low impedance and intrinsically safe electronic module, which is itself housed in an explosion proof enclosure mounted near the loading terminal.

The Earthing Relay Series ERX & SGR are certified for intrinsic safety and the enclosures for explosion-proof operations by CIMFR. The instrument is housed in a certified cast Aluminum Alloy LM6 enclosure and offered with a standard 5-metre Cable-Clamp assembly.

All ASHE range of instruments carry a lifetime warranty for design and workmanship.



SPECIFICATIONS

Model Number	ERX-710 and SGR-250
Type	Micro-controller based.
Principle	Intrinsically Safe Static Charge Grounding System of Tankers in Loading Terminals. [Vehicle Static Grounding System].
Inputs	1. True-Earth point at loading area. 2. Probe from body of Tanker.
Ground Impedance	1 to 10 Ohms (internally settable).
Design	Intrinsically Safe [CIMFR certified].
Outputs	Two / Five Control Relays.
Contacts	Potential-free Relay change-over contacts.
Contact Rating	5 Amps @ 230 V AC (Resistive Load).
Control action	Relays will get energized when Tanker body is safely grounded
Indication	1. Green Lamp indicating successful grounding. 2. Red Lamp indicating Earth Failure.
Power Supply	90 to 270 V AC, 50/60 Hz Universal AC power supply.
Protections	Fuses
Execution	Explosion-proof.
Ingress Protection	IP65.
Dimensions	250 x 250 x 210 mm.
Enclosure MOC	Aluminum Alloy LM6 Die cast enclosure suitable for use in Gas Groups IIA/IIB.
Certifications	CIMFR/PESO for Intrinsic Safety (Ex-i) and FLP (Ex-d).
Cable Entries	Five, bottom of enclosure.
Max. Ambient Temp	50°C.
Cable type	Two Single-core, industrial grade Spiral Cable of 5 mt lengths.
Clamp design	Stainless Steel SS-316.

FEATURES

- Microcontroller based design
- Intrinsically-Safe Ex-I certified
- Explosion-proof Ex-d certified
- Low cost, high functionality
- Impedance based control action.
- Intelligent monitoring of critical parameters
- Dual / Five Relay change-over contacts
- Very low power consumption and heat dissipation
- Easily configurable
- Rugged, Die-cast Aluminium enclosure
- High Noise immunity.
- Hazardous-area installation in IP65 execution
- Proven record of several thousand installations
- Lifetime warranty on design and workmanship