STS G2 SERIES
ELECTRONIC GROUND INDICATING SYSTEM

APPROVED FOR CLASS I, DIVISION 1, GROUP D HAZARDOUS LOCATIONS
CUL LISTED FOR CANADA AND THE USA

The G2 Series Electronic Ground Indicating Systems are designed to reduce static electricity, which is always present when fuel transfer takes place in your plant. The chance of static build-up, which can cause a spark, leading to explosions, costly fires, property damage and injury to personnel, is a constant danger.

You may be thinking that electrostatic charge build-up does not apply to you, since you have a ground rod or other grounding system, however it is entirely possible that you do not have a continuously safe grounding system. Read on....

The best explanation of how the static electricity potential occurs is that electrostatic charges build up in fuel, caused by friction between fuel molecules. These molecules have difficulty dissipating the dangerous electrical potential to the ground because they are low in electrical conductivity. The charged fuels, when dispersed into a trailer or other transfer container, cannot dissipate the static charge, again, since they are low conductivity fuels. A spark may jump from the surface of the fuel to the trailer walls and dissipate the static charge, but tests have proven that the most dangerous situation occurs when there is an ungrounded object in the vapour space. The ungrounded object can store up the static charge potential, and with the right amount of fuel vapour and presence of a spark, an ignition will occur. This condition will exist without the slightest indication to alert an operator.



Shown above: G2-25IG-A2CC with 25 ft. self-coiling cord and aluminum ground clamp for ground ball attachment.

This is one of the best reasons that a continuously monitored grounding system, such as the G2 Series must be utilized to dissipate all static electricity present, immediately, in order to prevent the static charges from building up in a vehicle, trailer, or other metal fuel transfer container.

The G2 Series provides a positive ground indication through use of an intrinsically safe control module device driving a switching relay. Upon connection of the self-releasing clamp and cable to a conducting material, the intrinsically safe circuit is complete and the most positive safety precautions are obtained. If the circuit is broken by release of the grounding clamp or other ground interruption, the control relay opens, product flow is stopped, and the unsafe condition is indicated by a red light. Thus, the loading operation process can be stopped immediately if conditions are unsafe.

The G2 Series systems will do the following: shut down a pump or valve; sound an alarm; show a red light when conditions are unsafe; show a green light when conditions are safe; open contacts on a computer; indicate that static path to ground has integrity and receive permissive signals from a computer control.

Standard options include a choice of aluminum or bronze clamp, straight or self-coiling cable, and a variety of cable storage and retracting reels.

STS G2 SERIES
ELECTRONIC DEADMAN SYSTEM

The G2 Series Electronic Ground Indicating Systems can be used as a Deadman System using a deadman switch in place of the ground clamp. When the operator depresses the switch, the intrinsically safe control module drives a switching relay that can, for instance, switch on a pump and initiate product flow. If the operator releases the switch at any time, the relay opens and product flow is immediately stopped.

Options include red and green indicating lights, coiled cables, and a variety of cable storage and retracting reels.



Shown above: G2-25IG-DM with 25 ft. cord and compact deadman switch.

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