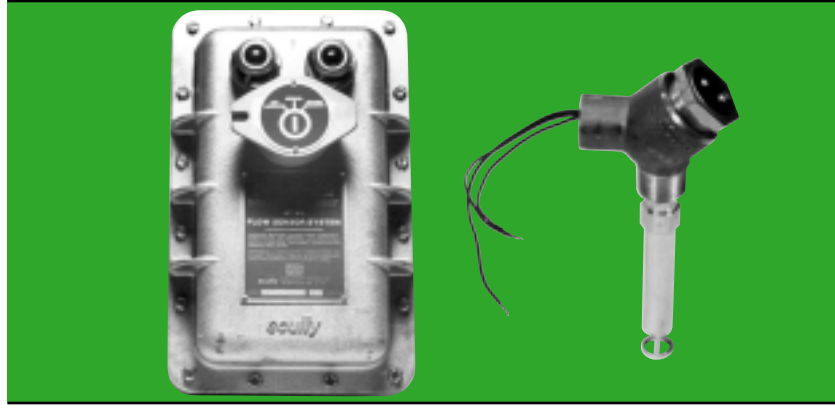


Scully Vapor Flow Sensing System

Models ST-45-115 EL and ST-45-115 ELK
Assures Integrity of Vapor Recovery Operation



The Scully Vapor Flow Sensing System offers all these advantages:

- Continuous monitoring of vapor-flow in the terminals vapor return line.
- Assures that the truck to rack vapor hose cannot be accidentally left unconnected.
- Automatic shutdown of the loading operation if vapor return flow is not established or has ceased.
- Thermistor based mass flow sensing technology.
- Green “flow” and red “no flow” indicator lights
- One to five minute adjustable grace period timer allows proper flow to be established.

Description

The Scully Vapor Sensing System is comprised of the ST-45 control unit and a SP-GF or SP-GFU vapor-flow sensor. The system is used to determine that the tank vehicle’s vapor collection equipment is properly connected and returning vapors to the terminals vapor recovery system. It helps insure compliance with vapor emission laws and reduces liability.

Operation

The control unit receives input signal from each preset meter as loading begins. An adjustable, one to five minute grace period timer allows unrestricted loading while the system checks for the presence of proper vapor flow.

Loading is allowed to continue if proper vapor-flow is established. The system will stop all loading if proper flow is not established or is lost at any time. The grace period timer automatically resets each time a preset meter is started.

Sensor

The vapor-flow sensor contains a “sense” thermistor and a “reference” thermistor. The “sense” thermistor extends into the direct vapor-flow path. The “reference” thermistor is shielded from vapor-flow. When vapor-flow is present, the “sense” thermistor is cooled, which unbalances a resistive electronic bridge circuit. When vapor-flow is not present, the electronic circuit is balanced between the “reference” thermistor and the “sense” thermistor. Refer to the reverse side of this sheet for the differences in sensor operating temperature ranges based on the loading rack’s geographical location.

Installation

One system is required at each loading position. The ST-45 has an explosion-proof housing with red and green indicator lamps. A unit with an optional bypass switch is available. The SP-GF or SP-GFU vapor-flow sensor is mounted in a straight section of the vapor recovery piping at the loading rack through a 3/4" NPT opening.

Setting New Standards In Safety