



Optical Air Eliminator

Electronic Air Elimination for Refined Fuel Metering Systems



Benefits

- Easier installation
- Faster response time
- Less maintenance

Features

- Less piping
- Fewer moving parts
- No air check or differential valve required
- Optical sensor

General Information

The Liquid Controls Optical Air Eliminator is designed for use with LectroCount® Electronic Registers. It provides for the efficient elimination of air and vapor with virtually no moving parts and without the need for floats, guide rods, reed strips, and valve plates. An optical sensor, installed in the wall of the air eliminator, is used to monitor the liquid level. The presence or absence of liquid at the sensor level activates or deactivates a solenoid located at the top of the air eliminator. The Optical Air Eliminator requires the use of a solenoid operated valve such as the E-7 or A2848-11 supplied by Liquid Controls.

The solenoid operated, air-release valve, located at the top of the air eliminator, is either open or closed. When the liquid level is below the optical sensor, the solenoid opens and vents air and vapor to atmospheric pressure. Simultaneously, the electronic control valve (E-7 or A2848-11) at the meter outlet closes.

When liquid rises to the optical sensor level, the solenoid closes and prevents continued venting to atmospheric pressure, and the electronic control valve at the meter outlet opens so that a delivery may continue. This functionality ensures that only liquid passes through the meter for measurement and facilitates passing Weights & Measures split compartment testing.

The optical air eliminator is designed to work with Liquid Controls M5, M7, M10, M15, and M25 meters, for applications measuring refined petroleum products. Designed with the same mounting dimensions as Liquid Controls mechanical air eliminators, the optical air eliminator does not require plumbing changes to retrofit to existing meter installations with electronic registration. Electronic registers require CPU board part number 81920 for the LectroCount LCR and LCR-II and part number 81924 for LC³.





Optical Air Eliminator

Specifications

Environmental Rating

NEMA 4X

Safety

Designed to meet Class I, Division 2 requirements

Materials of Construction

CLASS 1

Body: Aluminum

Solenoid: Brass

CLASS 2

Body: Anodized Aluminum

Solenoid: Stainless Steel

Products

CLASS 1 Refined Fuels

Gasoline, Gasohol, Diesel fuel, and Fuel Oil

CLASS 2 Aviation

Av-Gas and Jet Fuel

Pressure Rating

Maximum non-shock working pressure
150PSI (10.3BAR)

Maximum differential pressure

100PSI (6.9BAR)

Temperature Rating

-40° to 160°F (-40° to 71°C)

Solenoid (S3)

Voltage: +12 (± 2)VDC

Optional: +24 (± 4)VDC

Current: 1A maximum

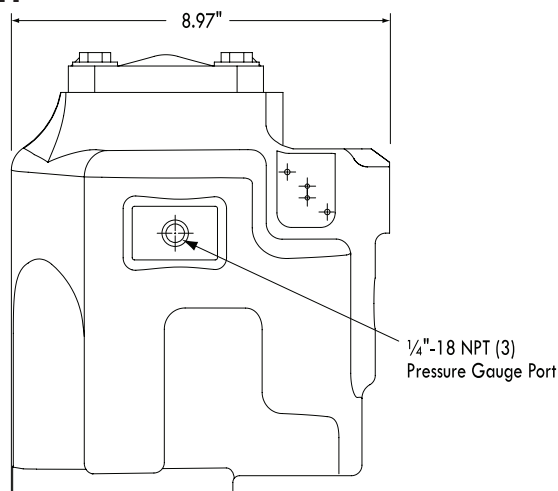
Optical Sensor

Voltage: +10 to +28VDC

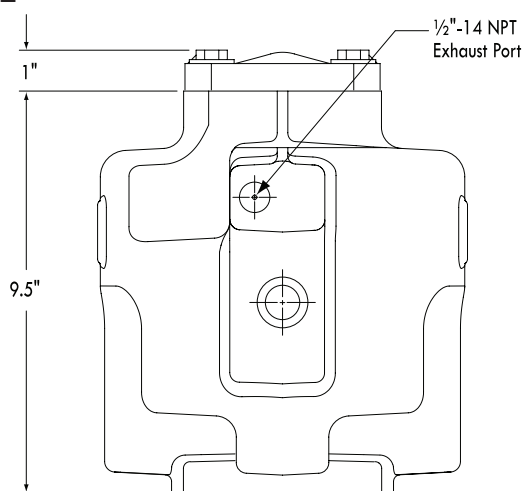
Current: 0.5A maximum

Dimensions

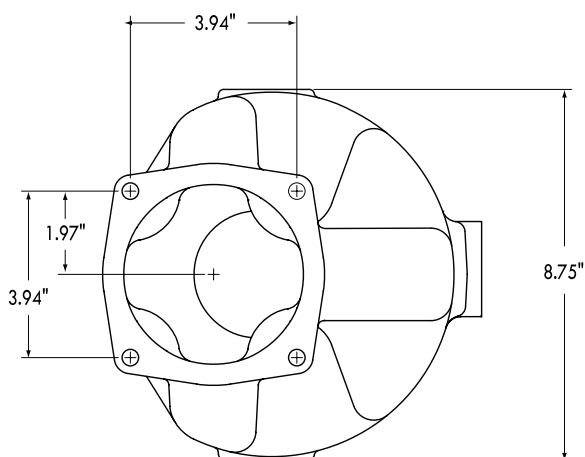
FRONT



SIDE



BOTTOM



OPTICAL AIR ELIMINATOR WITH HIGH CAPACITY STRAINER

