



Vaporless Manufacturing, Inc.

Quality Petroleum Equipment Solutions For Over 20 Years

# AST-4010 / AST-4012 Fuel Transfer Controllers

Site Transfer Pump Controller • Two Level - Overfill Protection

## *High Level Warning*

- Shut-down & Alarm

## *High Level Alarm*

- Shut-down & Lockout

**Full Flow,  
No Valve Restrictions!  
No Hydraulic Hammer!  
Notification and Protection!**



**Ability to Empty Hose from Delivery Tanker  
and Pipe to Storage Tank after 1st High Level Warning!**

**Enclosure meets or exceeds U.L. Class 1, Group D hazardous environment criteria.**

Regulatory Codes require Overfill Protection for all fuel storage tanks. The flow of fuel into a tank must be “automatically shut-off”. Additionally, regulatory codes require, and common sense dictates, you provide a means to empty the transfer hose between the supply tank and the transfer pump. The **Vmi** AST-4010 and AST-4012 Fuel Transfer Controllers provide this with no flow restriction.

The AST-4010 provides overfill protection for a single tank that uses a site mounted, motor starter driven, electric transfer pump. The AST-4012 provides overfill protection for two tanks having a common delivery line, using a single site mounted, motor starter driven, electric transfer pump.



This device may be covered by one or more patent applications • Designed and Manufactured in U.S.A.

# Vmi AST-4010 & AST-4012 Fuel Transfer Controller

## Regulatory Compliance - Empty Transfer Hoses

Uniform Fire Code and NFPA Code 30 states, "for rigid hose delivery systems, an approved means must be provided to empty the fill hose into the tank after the automatic shut-off device is activated". The Vmi AST-4010 and AST-4012 provide full pump capacity to empty the hose after High Level shut-off, no restrictions!

## Controls Motors Up To 25 HP

For use with 120 to 440 volts, single phase or 3 phase motors. Installation instructions have wiring information and illustrations. Contact factory for larger motor controls.

## Alarm Circuit / Alarm Relays

Uses audible and/or visual alarms in addition to shut-off!

Intrinsically Safe, High Level and High Alarm sensor inputs provided. Wiring instructions provided for single-dual level sensor, or for two single level sensors.

## Operation Description

Normally closed, single point sensors are set at two levels in the tank. During filling operations the START-JOG switch is used to start the fuel transfer. The STOP-RESET Switch is used to stop operations when fuel has been delivered.

If during fueling operations, fuel reaches the first sensor, "High Level", the pump motor will automatically shut-off. The alarm circuit will be activated providing notification of shut-off. The alarm will be silenced by operation of the STOP-RESET switch. The operator should change the valves on the delivery vehicle to enable the pump, when restarted, to pull from an empty compartment. Turning and holding the START-JOG switch restarts the pump, emptying the delivery hose. Fuel transfer will stop upon release of the START-JOG switch. Should the operator ignore the "High Level" warning and continue filling the tank, the second "High Alarm" sensor will shut-off the pump before an overfill can occur. At this point, the pump will not start again until the fuel level drops below High Alarm sensor.

## Enclosure Meets or Exceeds U.L. Class 1, Group D Hazardous Environment Criteria



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