



Vaporless Manufacturing, Inc.

Quality Petroleum Equipment Solutions For Over 20 Years

## ARM-4073 Automatic Repressurization Module

Extreme Thermal Problems?  
Long Pipe Run?  
Flexible Pipe?  
Exposed Pipe?



# BANISH SLOW FLOW!

*Truck Stops • Loading Racks • Aboveground Storage Tanks  
Convenience Stores • Unattended Card Lock*

## Automatically Repressurize! Eliminate Downtime! • Be Ready to Sell Fuel!

**Vmi ARM-4073 Automatic Repressurization Module** *eliminates* vapor-pocket formation! Dispenser slow flow problems caused by extreme thermal contraction, long pipe runs, and flexible pipe are *automatically compensated* for! The ARM-4073 automatically repressurizes lines, *preventing* false alarms.

**New!** *Externally* mounted bypass switch allows ARM-4073 to be bypassed for annual testing and during (seasonal) periods when repressurization is not needed.

- Works with any 99 LD-2000 or 99 LD-3000 **Vmi** leak detector
- All submersibles
- Compensates for fixed solenoid delays
- Automatic repressurization at daily start-up



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

# Vmi ARM-4073 Automatic Repressurization Module

All fuel delivery systems are affected by thermal contraction. Thermal contraction of fuel in a pipe system results in the loss of line pressure. In extreme conditions this can occur in a matter of minutes. Pressure loss results in the resetting of mechanical leak detectors to their slow flow position. For a leak detector to step through to its full flow position, the pipe must be repressurized. The repressurization of the line must occur while the leak detector is in a slow-flow / leak search position to assure EPA hourly line leak detection. When repressurized in this manner, the leak detector will differentiate between leaks above the EPA threshold and thermal contraction.

An appropriate amount of time must pass to allow the leak detector to reset if a leak is present. During installation, this time is determined by taking a bleed-back (resiliency) measurement of the pipe. Using a table supplied in the installation instructions, the technician sets the appropriate delay time between repressurization cycles. By cycling the submersible pump in this manner, the line stays pressurized, slow flow is avoided and line leaks are identified.

During the repressurization cycle, the **ARM-4073** allows control of the submersible pump run time, 30 seconds or 70 seconds. Easy Installation! Installation setup to meet site conditions!

**Works with Vmi 99 LD-2000 or 99 LD-3000 mechanical leak detectors** - Does not interfere with the operation of these **Vmi** leak detectors.

**Eliminates dispenser slow flow problems** - Unique timing module allows pump to cycle automatically, keeping the line pressurized even during extreme thermal contraction.

**Eliminate need for costly solenoid delay replacement** - Instead of replacing each existing fixed solenoid delay for each hose, only one **ARM-4073** is needed for each turbine. Each dispenser must have at least a 3 second solenoid delay.

**Works with any pumping system** - The **ARM-4073** operates by controlling the coil of the pump relay. Installation instructions discuss integration with station emergency shut-off switch. Designed for use in a non-hazardous environment.

**High bleed-back in piping system** - Line resiliency (bleedback) can cause a leak detector to take an extremely long time to step through if it has reset. Additionally, high resiliency may require the use of a slow leak detector to detect a leak. Repressurization by the **ARM-4073** overcomes these conditions to keep the line pressurized and ready to deliver fuel unless a leak is present.

**Aboveground Storage Tanks** - Piping above grade, exposed to the elements, subjects the line to extreme thermal contraction conditions. Use of the **ARM-4073** will reduce or eliminate slow flow problems.

**Loading Racks** are magnets for thermal contraction problems. Due to the exposure of the above ground piping, thermal contraction can be extreme. When used with a solenoid valve, the **ARM-4073** keeps the line pressurized to the solenoid valve continuously.

**\*The ARM-4073 installation instructions must be followed to assure proper operation. These instructions include a bleedback table to establish minimum delay times. Upon completion of installation, a leak detector test is required to assure proper performance of the leak detector. (Please see Vmi LDT-890 leak detector testing instructions and test form.)**



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