

Electronic Line Leak Detection

PLC-5000



EPA compliant Line Leak Detection uniquely designed for mission critical fueling applications. Ideal for power generator systems, marinas, train fueling depots, loading racks and more.

The PLC-5000 system consists of two primary components, a Central Control Node (CCN) and a Leak Detector Node (LDN).

Designed and Manufactured in U.S.A.

WELL SUITED FOR RETROFIT INTO GENSET APPS

Features:

- Automatic 3 GPH Catastrophic Line Leak Detection
- Tests volumetrically, not by pressure decay, 0.1, 0.2 gallon per hour annual and monthly testing
- Alarm override for mission critical fueling applications
- Higher precision, less false alarms!
- Thermal expansion / contraction detection and compensation
- High head pressure and high line resiliency, No Problem!
- Line isolation and control through solenoid valves
- Isolation of underground piping removes thermal variables, allowing for more precise, faster performing LLD
- Positive turbine shutdown and alarm

BYPASS MODE FOR MISSION CRITICAL FUELING EMERGENCIES



Central Control Node

- Controls the OEM starter coils to start pumps
- Monitors multiple LDNS
- Performs volumetric leak detection calculations
- In the event of a detected leak or other reportable alarm, alarms can be printed, presented on-screen, and output to ATG systems

Leak Detector Node

- Monitors and transmits line pressure management data to CCN
- Line pressure management includes establishing a specific preset line pressure after authorizations end. This allows the system to continuously monitor for leaks or thermal issues

Retrofits

The 2015 EPA update removed Line Leak Detection deferral for emergency power generation systems. PLC-5000 reduces retrofit installation costs by keeping components inside the building. No need to pull wires to tank sumps.

Control Valve Applications

In addition to the normal pump control functions, the PLC-5000 is designed to operate control valves, such as those used in the transition sumps of marinas, between the underground portion of the line and the exposed dock line. This eliminates thermal effects on the underground portion of the fuel line.

Loading racks and other high head pressure situations are applications where a control valve, installed after the delivery line leaves the ground, may be used to isolate the underground pipe. This allows testing of the underground pipe and the ability to isolate head pressure from the leak detection system. By controlling the opening of such valves, the system can monitor for proper line pressure and accurately perform line leak detection on the underground portion of piping systems. Contacts are provided to manage control valves, allowing the underground piping to be tested independently of the line downstream from the control valve.

Line leak detection between the main tank and day tanks used in conjunction with generators, heating oil burners, and associated polishers may be similarly protected. Contact the factory to discuss these applications.



The PLC-5000 CCN provides staged starting of multiple turbines manifolded in to a single fuel distribution line.