

# Pump Lead-Lag Control

# PLL

- *Provides Lead Pump Rotation*
- *Auxiliary Pump Activation*
- *Pump Flow Check and Failure Alarm*



## Description:

The PLL control is a lead pump rotation control. It operates in multiple modes that satisfy multiple pump applications. It is designed to run and power up to three pumps. In addition, it connects to flow prove inputs to check for pump flow and activate the alarm outputs when needed.

**Rotation:** The PLL evens the wear on the pumps by rotating the lead pump. It has built-in lead pump timed rotation and alternate rotation. The timed-rotation offers 1 day, 7 days, and per-call rotation options.

**Alarm and Flow Check:** If a flow prove input is used, and a no-flow condition is sensed, the PLL will trigger the pump's alarm and excludes that pump from rotation and activation until the Alarm Reset is pressed. It will also activate the lag pump.

**Pump Exercise:** The PLL can be used to lubricate wet seal pumps and prevent pump seizures after long inactive periods. It does that by running any pump for a few seconds if that pump was inactive for an extended period

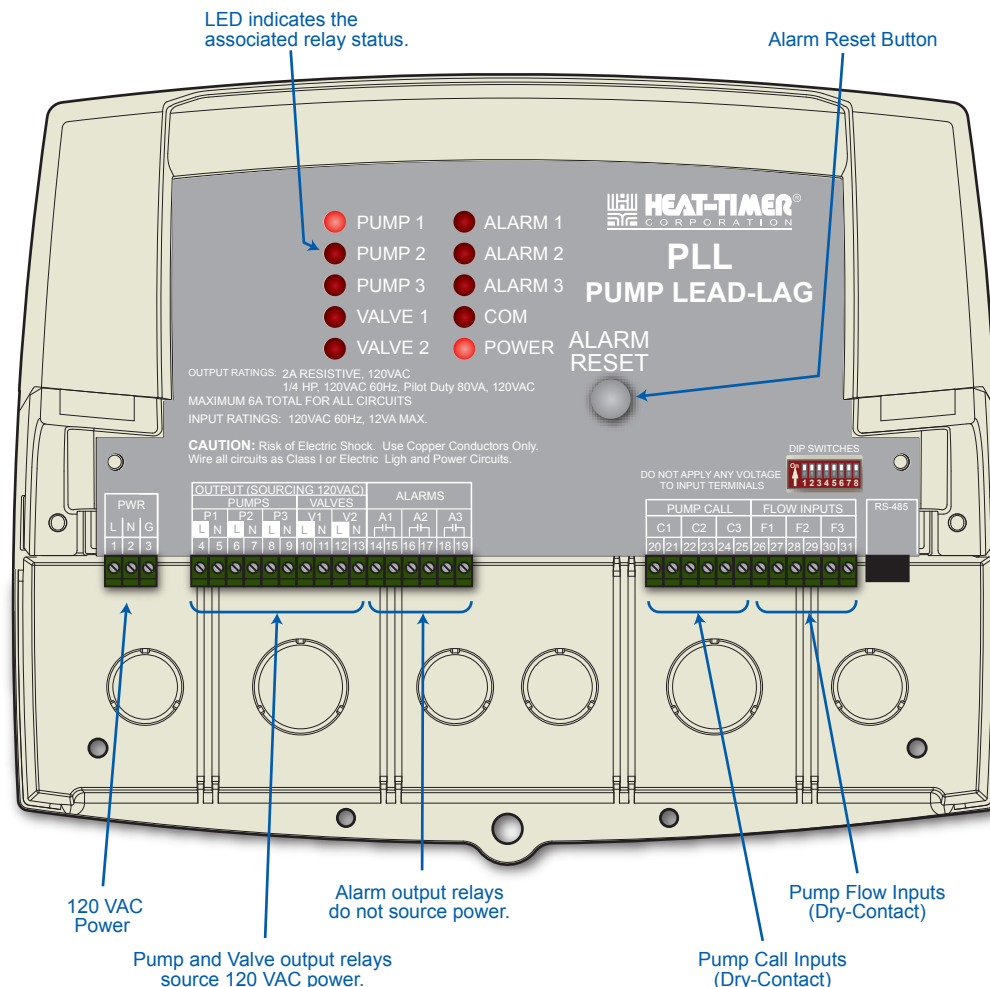
## Applications:

- **System Pump Rotation:** The PLL offers three different system pump rotation modes that include multiple rotation options, flow proving, and alarming:
  - 2-Pump 1-Call/1-Flow
  - 2-Pump 2-Call/1-Flow (VFD Pumps)
  - 3-Pump 1-Call/1-Flow
- **Boiler Feed Systems:** In this mode, the PLL operates boiler pumps in a two-boiler system. An auxiliary pump is used to replace any failed boiler pump. The PLL can also activate a solenoid valve to direct the flow to the newly activated pump.
- **Alarm on Flow Failure:** It can be used as an intermediate device to alarm on pump flow failure in multiple boiler applications.

# Specifications

Operating Temperature	20°F/-6°C to 120°F/49°C
Voltage Input	120 VAC 60 Hz
Maximum Input Rating	12 VA Max
Pump Outputs	3 Pump Relays (each relay provide 120 VAC 60Hz. Max ¼ HP). Larger Pumps require external relay or starter
Solenoid Valve Outputs	2 Solenoid Valve Relays (each relays provide 120 VAC 60Hz. Max 80VA)
Alarm Outputs	2 Alarm Relays (Relays are SPST do not source any power)
Output Relay Rating:	1 Amp inductive, 6 Amp resistive at 120 VAC 60 Hz, 15A total for all circuits
2-Pump Operating Modes	2-Pump (1-Call 1-Flow), (1-Call 2-Flow)
3-Pump Operating Modes	3-Pump (1-Call 1-Flow), (2-Call 2-Flow), (3-Call 3-Flow)
LED:	10 ( 3 Pumps), (2 Solenoid), (3 Alarms), 1 Power
Inputs:	3 Pump Call inputs (Dry-Contact), 3 Flow inputs (Dry-Contact)
Rotation Options	Per Call, 1 day, and 7 Day
Pump Exercise Options	On (10 seconds per 1 week of no operation per pump), Off
Pump Alarm Delay	30 seconds fixed
Buttons:	Manual reset
Dip Switches:	Total 8
Fuse (For power to control only):	20 mm 5 amp
Dimensions:	7 1/8" W x 9 5/8" H x 3 1/2"D
Weight:	2 pounds

<b>Item Description</b>	<b>Part #</b>
PLL Complete Control	926825-00
Vis-U-Larm (Optional Audio Visual Alarm)	925011-00



HT# 056188-00A

