

PMP-25 PUMP LOAD CONTROL INSTALLATION, SET UP AND ADJUSTMENT



The Model PMP-25 monitors the true power going to a motor. By sensing power (volts x amps x power factor) rather than just amps, there is much greater sensitivity. For loss of load detection, this means a 10X improvement in performance.

MOUNTING

Wiring is done to un-pluggable terminal strips on the rear of the unit.

Three ways to mount:

- On door or raceway – use cutout template
- Panel Mount – use template + optional Bezel Kit (No Charge)
- On wall – on standard outdoor junction box + optional Outlet Box Adapter (No Charge)

VOLTAGE

120 volts AC is taken from two of the phases. If the motor starter already has a 120-volt control transformer with 10VA of free capacity, it can be used. Otherwise, install a separate transformer. It is okay if the secondary is grounded.

BE SURE TO NOTE WHICH TWO PHASES SUPPLY THE TRANSFORMER.

In 120/208V three-phase system, the 120V MUST come from a transformer connected to two of the phases. The 120V phase to ground voltage cannot be used.

CURRENT

The current signal is taken from the REMAINING phase. This current sample passes through the Range Finder Toroid.

It is VERY IMPORTANT that the current signal comes from the phase that IS NOT supplying the 120V control transformer. Be extra careful when the machine has reversing starters or multi-speed windings. If a wrong phase is used the control will either:

- Work backwards
- Have reduced sensitivity

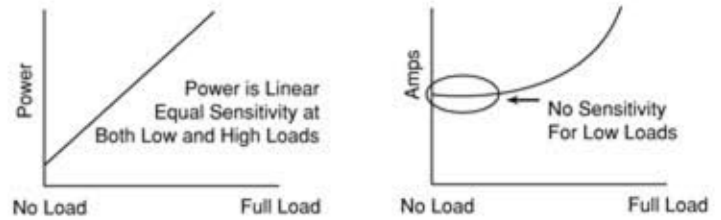
If you are using a variable frequency drive, use a different control. Call LOAD CONTROLS, INC. for help.



MONITORING PUMP HORSEPOWER TELLS YOU WHAT'S HAPPENING TO THE FLUID



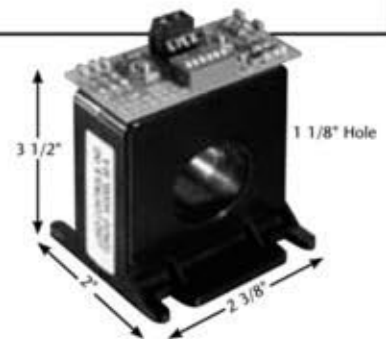
WHY MONITOR POWER INSTEAD OF JUST AMPS?



SPECIFICATIONS

Enclosure	Glass-filled Polycarbonate NEMA 4, 4x (3 1/4" x 6 1/4" x 2") (83mm x 160mm x 54mm)	Timers	Start-up – 0-999 sec. (16.7 min.) adjustable Low Trip Delay – 0-999 sec. (16.7 min.) adjustable High Trip Delay – 0-999 sec. (16.7 min.) adjustable
Mounting Options	On door Panel mount with Bezel Kit* On wall with Outlet Box Kit* *Specify when ordering	Relay Outputs	(2) Form C 3 AMP @ 300 VAC or 1/8 HP @ 240 VAC Latch when tripped
Wiring	Unpluggable Terminal Strips on Rear	Analog Outputs	4-20MA powered by the Control, 500 OHM maximum connected impedance
Load Display	.4" LED 3 Digit	Response Time	500 Milliseconds
Capacity	To 50 HP directly through Toroid To 500 HP with external Current Transformer & Toroid Change capacity with dip switches	Temperature	0° C - 55° C
		Power Consumption	10 VA

RANGE FINDER TOROID



STILL AVAILABLE

PUMP LOAD CONTROL MODEL PMP-1701

- Large Bright LED Load Display
- Rugged Design
- 2 Adjustable Set Points
- 4-20MA Output
- Trip Delay and Start-Up Delay Timers



PUMP LOAD CONTROLS MONITOR TRUE MOTOR POWER

DETECT LOSS OF LOAD

- Dry Running
- No Prime
- Cavitation

DETECT OVERLOAD

- Jammed Impeller
- Bad Bearings

COMPACT DIGITAL PUMP LOAD CONTROL MODEL PMP-25



TRUE POWER LOAD DISPLAY

Versatile - Can Display

- % of Full Load
- Horsepower
- Kilowatts

EASY FRONT PANEL SETUP

- See all of your settings with a touch of a button
- Optional Lockout Switch - Rear switch disables "ENTER" button

RUGGED NEMA 4 ENCLOSURE

Designed to fit in many places

- On Starter Door
- On Raceway
- Panel Mount - With Bezel Kit
- On Wall - With Standard Outlet Box Kit

4-20 MILLIAMPER ANALOG OUTPUT

Send load information to

- Computers
- Chart Recorders
- Data Loggers

2 ADJUSTABLE SET POINTS

Low Trip - When load is below the Low Trip, the built-in relay will trip.

- Dry Running
- Loss of Prime
- Plugged or Closed Inlet or Outlet

High Trip - When the load is above the High-Trip, the built-in relay will trip.

- Jammed Impeller
- Bearing Failure

FILTER OUT NUISANCE TRIPS

- Adjustable Digital On-Delay Timers - Trip won't activate until the selected delay time is exceeded
- Adjustable Digital Start-up Timer - No false trips while motor is starting or stopping

3 WAYS TO RESET

Local - Button on Control

Remote - With Low Current Switch or Relay

Automatic - With Jumper

Latching Relays - You choose when to reset

2-Form C Relays - Give you both Normally Open and Normally Closed Contacts

COMPACT

Only 3 1/4" x 6 1/4" x 2"

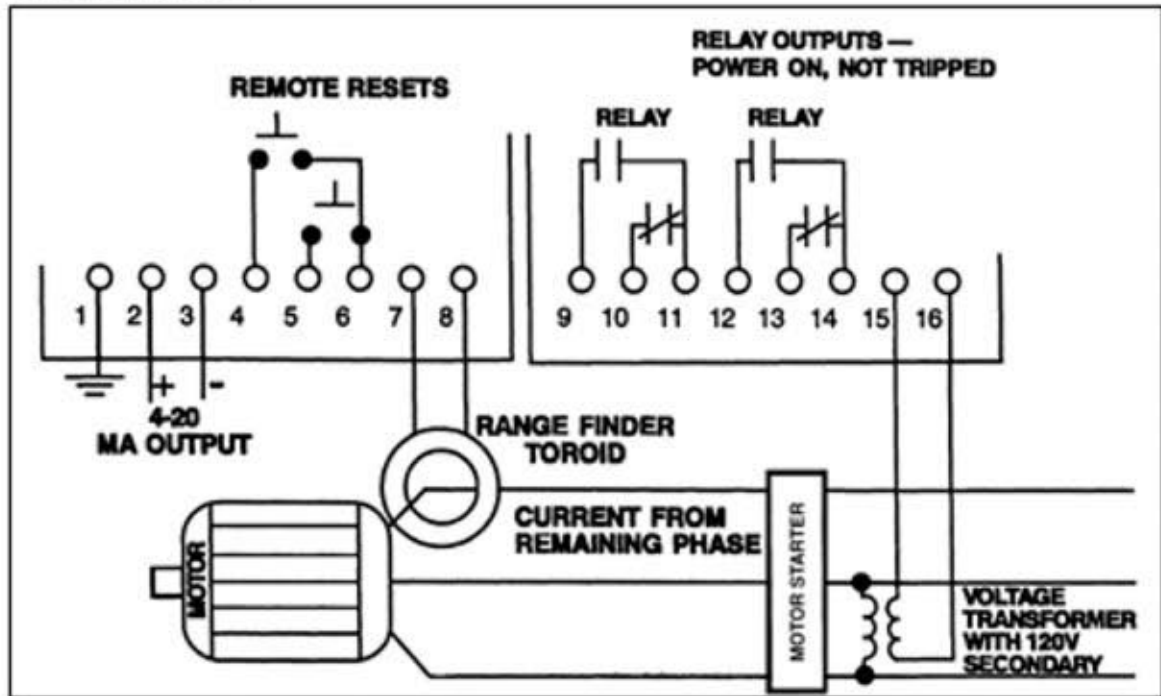
FREE 30 DAY TRIAL AVAILABLE

Model PMP-25 \$750
IMMEDIATE SHIPMENT

- * Add \$50 For Current Transformer for Motors Larger than 50 HP
- * Optional Lockout Switch \$50
- * Specify Bezel Kit for Panel Mount
- * Specify Outlet Box Kit for Wall Mount

TYPICAL CONNECTIONS

PMP-25 HOOK-UP



Complete installation information available at loadcontrols.com

VARIABLE FREQUENCY POWER

MEASURING POWER ON THE OUTPUT OF A VARIABLE FREQUENCY DRIVE IS A SPECIAL CASE

MODEL PMP-25V



MODEL UPC



0-10 VOLT
LOAD SIGNAL

- Voltage and Current Transformers do not work at low frequencies
- The waveform on both the input and output of a drive is distorted

The Universal Power Cell uses Hall Effect sensors that are not affected by odd waveshapes or frequencies. Also, no Voltage or Current Transformers are used.

The UPC is field scalable to match your pump motor. Complete information at loadcontrols.com.

The PMP-25V Pump Load Control takes the 0-10 volt load signal from the UPC, displays the Pump Load, and has the Set Points, Timers and Relay and Analog Outputs.