

Proximity Sensors

Proximity Sensors are inductive switches that are installed to a pump and used to send a signal each time the pump completes a cycle (not a stroke).

The signal can be used to count cycles for preventative maintenance, as well as monitoring flow rate. When used for one of these purposes, the signal is usually sent to a basic digital counter that has no control capability.

In addition to giving a totalized readout in cycles, it will also be able to totalize in any engineered unit, such as; gallons, cubic feet, cubic meters, liters, etc. Most basic counters will also be able to give a readout in GPM, L/M or other flow rates.

When using a proximity sensor with a Programmable Logic Controller (PLC) and a solenoid in the air line, you can perform batch metering. Thus allowing you the option of pumping a predetermined amount and have the pump shut off at that limit.

Proximity sensors are offered on most Yamada pumps and must be installed at the time of purchase.

Proximity sensors are available in two configurations, which include a sensor and connecting cable.

- **P1** - ISA 10-30 VDC 3 wire unit
- **P2** - ISA 24-240 VAC 2 wire unit



P1 Sensor



P1 Cable

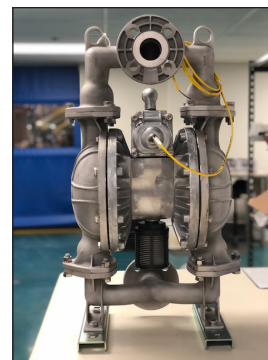
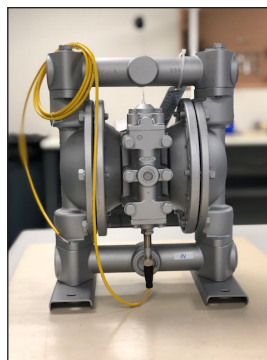
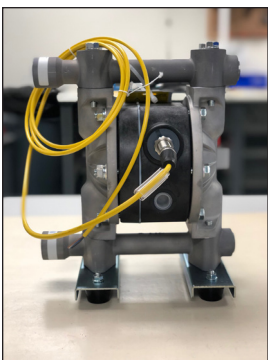


P2 Sensor



P2 Cable

Proximity Sensors - Installed



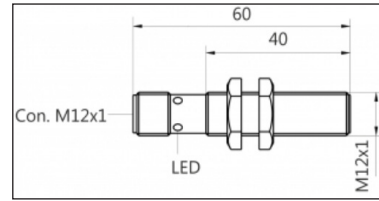
Proximity Sensors

P1 Proximity Sensor

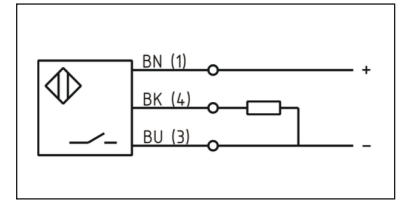
M12 4mm, 0-30 VDC - 4 Wire - M12 x 1 Con.
1 LED for Output Energized

Sensing Distance	4 mm (.16 in.)
Voltage Range	10-30VDC
Operating Frequency	1000Hz
Supply Current	2mA
Max. Load Current	200mA
Voltage Drop Across Sensor	240V
Max. Leakage Current	≤10μA
Short Term Current (20 ms, 1Hz)	2A
Switching Frequency	1000Hz
Hysterisis	≤15%
Temperature Drift	≤15%
Repeatability	≤0%
Front Cap Material	PCB
Housing Material	Nikel Plated Brass
Temperature Range	-40°-100°F

P1 Sensor Dimensions



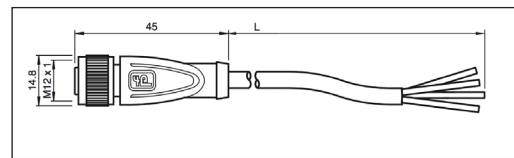
P1 Wiring



P1 Cable

Number of Pins	4
Ambient Temperature	°-40°-194°F

P1 Cable Dimensions

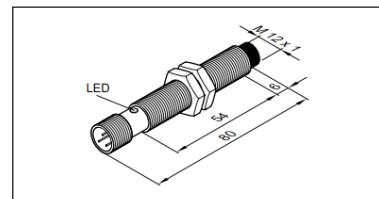


P2 Proximity Sensor

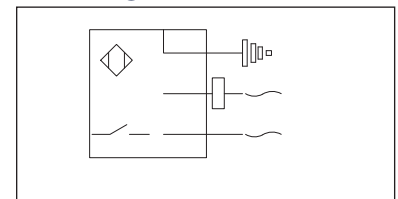
M12 4mm (.16 in)
Ac - 2 Wire - Extended, Threaded,
1 LED for Output Energized

Sensing Distance	4 mm (.16 in)
Voltage Range	20-250V
Operating Frequency	50/60Hz
Supply Current	2mA
Max. Load Current	300mA
Voltage Drop Across Sensor	≤5V
Max. Leakage Current	≤2mA
Short Term Current (20 ms, 1Hz)	2A
Switching Frequency	15Hz
Hysterisis	≤15%
Temperature Drift	≤10%
Repeatability	.40mm (.016 in.)
Front Cap Material	PBTB
Housing Material	Nickel Plated Brass
Temperature Range	-13°-158°F

P2 Sensor Dimensions



P2 Wiring



P2 Cable

Number of Pins	3
Ambient Temperature	-13°-221°F

P2 Cable Dimensions

