

Oil Alert™ Preset Level Sensor



Leading Edge Control Products

Model: Adjustable Probe | Pumping Range, 1.0 - 44.0"

48" PROBE CABLE | SENSOR ONLY (USE WITH ALDERON™ OIL ALERT™ SERIES)

TECHNICAL DATA SHEET

DESCRIPTION OF OPERATION



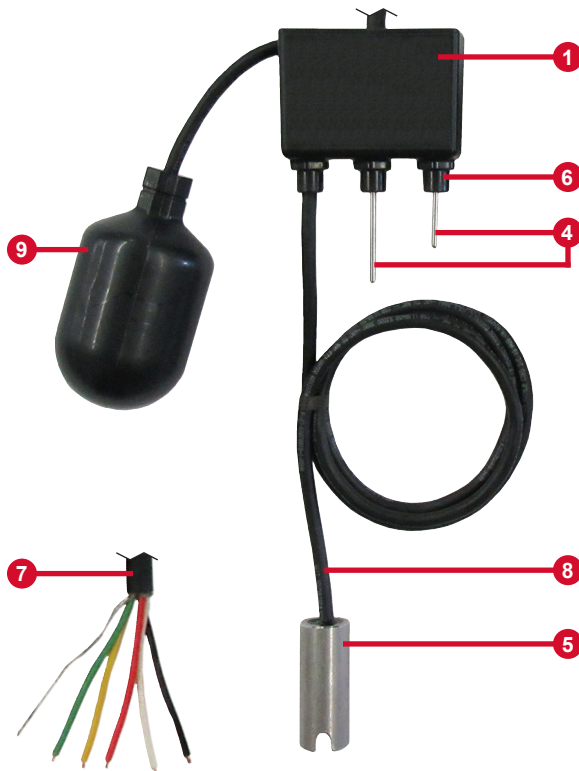
The Oil Alert™ preset level sensor, adjustable probe model, is used with Alderon™ Oil Alert™ control panels for the safe operation of pumping, alarming, and monitoring of: elevator sump pits, transformer vaults, and leachate well applications. The Oil Alert™ control panel will activate a pump to remove water from pits in accordance with ASME A17.1, stopping the pump before oil or other harmful substances enter the water supply.

The control panel is operated by the preset level sensor module for pump stop, pump start, high water alarm, and oil detection alarm (high level float switch). As the water level rises touching the pump start probe (middle; fixed), the pump will start and continue to run until the water level recedes below the pump stop probe (longest; adjustable probe) to complete the pump cycle.

The pump stop probe senses air or oil and when the water is no longer touching this probe, the pump stops running so the oil layer will not be pumped out of the sump. Oil will float on top of water, so if oil is present and touching this probe, the pump will also stop running. If the water level rises to activate the high water probe (shortest; fixed) and/or simultaneously activating the high level float switch, then a high water and/or high oil (oil detected) alarm condition will occur.

The preset level sensor is mounted at the desired level to a discharge or separate pipe (mounted to side wall) using a stainless steel pipe clamp and then wired to the control panel using low voltage wires. The adjustable probe is used for the "pump off" detection. The preset level sensor with adjustable probe has a pumping range of 1.0" - 44.0", the distance between the pump stop (longest; adjustable probe) and pump start (middle; fixed) probes.

STANDARD FEATURES



(1) **Sensor Housing** - ABS plastic material with sensor and high level alarm float switch wiring encapsulated in epoxy to ensure a waterproof sensor.

(2) **Pipe Clamp Bracket (not shown)** - Located on the back of the sensor housing, used to mount the sensor to a pipe.

(3) **Stainless Steel Pipe Clamps (not shown)** - First pipe clamp attaches to the pipe clamp bracket and secures sensor to a pipe at the desired mounting location. The second pipe clamp secures the adjustable probe sensor cable to a pipe at the desired activation level.

(4) **Probes** - Two stainless steel probes on the bottom of the sensor housing detect water and oil to operate the pump based on conditions in the monitoring area. The middle probe turns the pump on. The combination of the shortest probe and high level alarm float switch activates a high water or high oil alarm condition.

(5) **Pump Off Adjustable Probe (housing/electrode)** - Body is made with 316 stainless steel, the housing and electronics are encapsulated in epoxy, making it completely waterproof. The entire housing is the electrode and turns the pump off.

(6) **Probe Stabilizers** - Three probe stabilizers are part of the sensor housing to keep them rigid from inside the housing to the monitoring area for a reliable liquid level sensor.

(7) **Preset Level Sensor Cable** - SJEOOW/SJTOOW (UL/CSA), 18 gauge, 5-conductor, flexible, and water/oil resistant. Connects the sensor to the terminals on an Alderon™ Oil Alert™ control panel.

(8) **Pump Off Adjustable Probe Cable** - SJOOW (UL/CSA), 18 gauge, 2-conductor, flexible, and water/oil resistant. The standard length is 48-inches with custom lengths available. Note: both conductors of the adjustable probe cable are connected to the electrode and are terminated inside the sensor housing.

(9) **High Level Alarm Float Switch** - SJOOW (UL/CSA), 18 gauge, 2-conductor, flexible, and water/oil resistant. Wired to the 5-conductor sensor cable inside the housing, used for indication of an alarm condition.

SPECIFICATIONS

Oil Alert™ Preset Level Sensor, Adjustable Probe

Electrical
12/24VDC, 500mA

Sensor Housing
ABS Plastic

Probes
Stainless Steel

Pumping Range
Adjustable, 1.0 - 44.0 (inches)

Adjustable Probe Electrode Housing
316 Stainless Steel, 1-inch diameter

Adjustable Probe Cable Type
SJOOW (UL/CSA), 18 gauge, 2-conductor, flexible, and water/oil resistant; 48-inches (custom lengths available)

Detection Level
Preset level on discharge pipe in monitoring area and adjustable probe for "pump off"

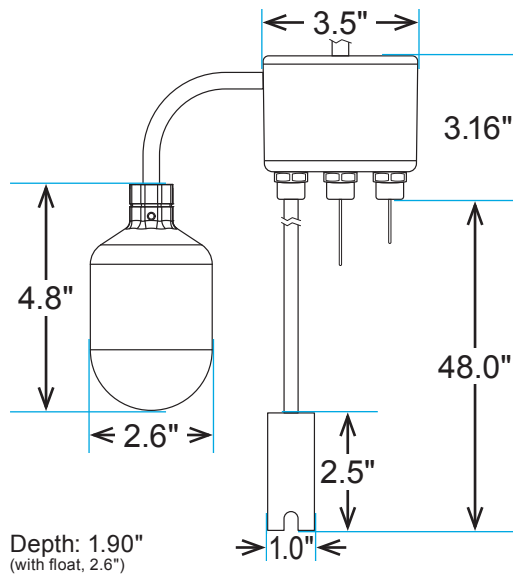
Sensor Cable Type
25-foot or 50-foot cable
SJE00W (UL) / SJTOOW (CSA), 18 gauge, 5-conductor, flexible, and water/oil resistant

High Level Switch Housing
Polypropylene

High Level Switch
1-foot cable
Narrow Angle, Normally Closed
SJOOW (UL/CSA), 18 gauge, 2-conductor, flexible, and water/oil resistant

Three-Year Limited Warranty

MECHANICAL DRAWING



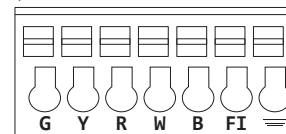
WIRING EXAMPLE

Field Connections | Preset Level Sensor to Control Panel

The preset level sensor comes pre-installed from the factory. If the sensor needs to be rewired to the Oil Alert™ control panel, connect the wires to the terminals listed below and shown in the diagram.

- GREEN = TB-G (Stop Probe)
- YELLOW = TB-Y (Start Probe)
- RED = TB-R (High Water Alarm Probe)
- WHITE = TB-W (Float Switch Wire 1, Oil Detection)
- BLACK = TB-B (Float Switch Wire 2, Oil Detection)

(Oil Alert™ Control Panel Terminals)



WARNING: The sensor contacts are low voltage wires, follow the NEC requirements pertaining to separation of voltages if run in the same conduit/cable grip or junction box with high voltage wires.

5-conductor sensor wire (sensor to control panel)

APPLICATION EXAMPLE

"OIL DETECTION" High Level Float

If oil, hydrocarbon, or other harmful substances are floating on top of the water level touching the high water probe while simultaneously activating the high level float switch, then a high oil alarm (oil detected) condition occurs and the pump continues to run as long as water and not oil is touching the pump start and pump stop probes. The high oil and F1 LEDs will illuminate when activated.

"HIGH WATER" Sensor Level Probe

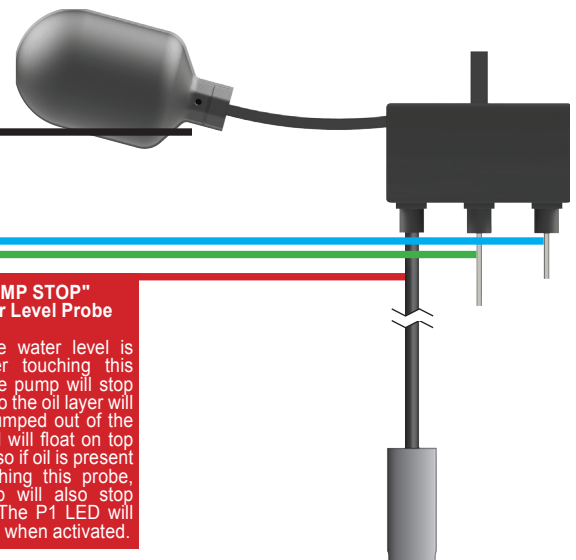
If the water level rises touching the high water probe, a high water alarm condition occurs and the pump continues to run. The alarm condition automatically resets when water is no longer touching the high water probe. The high water and P3 LEDs will illuminate when activated.

"PUMP START" Sensor Level Probe

As the water level rises touching the pump start probe, the pump will start and continue to run until the water level recedes below the pump stop probe to complete the pump cycle. The pump run and P2 LEDs will illuminate when activated.

"PUMP STOP" Sensor Level Probe

When the water level is no longer touching this probe, the pump will stop running so the oil layer will not be pumped out of the sump. Oil will float on top of water, so if oil is present and touching this probe, the pump will also stop running. The P1 LED will illuminate when activated.



ORDERING INFORMATION

For a complete list of standard products with pricing, refer to the current year price sheet or visit alderonind.com for more information.

PART NUMBER	DESCRIPTION
2005775	Oil Alert™ Preset Level Sensor, Adjustable Probe (48" cable; adjustable pumping range), 25' Cable (Sensor Only)
2005776	Oil Alert™ Preset Level Sensor, Adjustable Probe (48" cable; adjustable pumping range), 50' Cable (Sensor Only)