

# Oil Smart<sup>®</sup> Simplex Panel

# Model #A1SEE1

# **1** Product Description

# 1.1 General description

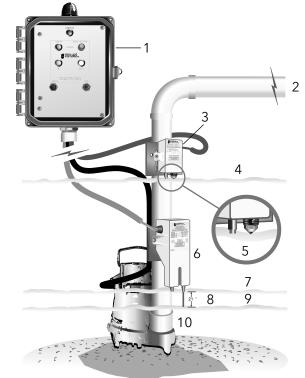
The Oil Smart simplex system, when combined with a manual sump pump, will automatically pump water without the risk of pumping oil into the environment. Also, the system alerts maintenance or building personnel in the event of a high oil or high water condition. Installation of the simplex panel allows you to comply with Elevator Code ASME A17.1 and State/Federal regulations while reducing the risk of adverse publicity, fines, and expensive cleanup costs.

### 1.2 Features

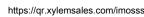
- Patented Oil Smart® and Liquid Smart® Controls with 20' cords and mounting brackets
- Indoor/Outdoor NEMA 4X Heavy Duty Polycarbonate Enclosure: 10"x8"x4", color gray material 94V-2, polycarbonate, IP-56 rating. Voltage: 120/208/240 VAC single phase 50/60 hz
- CSA International Certified No. 229294
- External Mounting Feet: Quick installation
- High liquid alarm with test and silence features, red beacon alarm light, white light for water present, yellow light for oil present, high 85 decibel audible alarm. Complete dry contacts for each alarm condition.
- · HOA switch and green light for pump run

# 2 Installation

2.1 Typical installation



- Panel 1.
- Pump outlet 2.
- 3. Liquid smart sensor
- High liquid level 4.
- Liquid smart alarm switch, Model LS-1 5.
- 6. Oil smart pump switch
- 7 ON level
- 8. 6" OFF sensor
- 9. OFF level
- 10. The OFF sensor must be a minimum of 1.5" above the impeller.





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# **INSTRUCTION MANUAL**

### 2.2 Install the panel



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WARNING:

All installations must be in accordance with the National Electrical Code and any other applicable state and local electrical requirements.

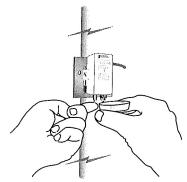
- CAUTION: To maintain the NEMA 4X rating, make all wiring connections with seal tight cable grips or conduit connections to be supplied by the user.
- Determine a mounting location for the control panel. Mount panel with mounting feet supplied.
- 3. Determine the hole location on the panel for liquid-tight or conduit connections. Attach connectors and conduits.
- If a pump is present, it is important that the alarm circuit is independent of the pump to assure that the alarm activates if the pump circuit fails.
- Run pump cable, Liquid Smart<sup>®</sup> cable, and Oil Smart<sup>®</sup> cable through conduit. Make field connections as shown on the wiring diagram (see page 3).
- Run a power line conductor through a conduit. Wire to terminals according to the enclosed schematic. Branch circuit protection to be provided by the user.

### 2.3 Components installation

- 1. The Oil Smart Pump Switch and Liquid Smart Alarm Sensor shall be mounted in a clean environment, clear of mud and all metallic debris.
- The switches shall be installed where the water intrusion will not directly contact or splash the white plastic case.
- Mud or other conductive materials left on the body of the switches will hamper its operation; take effort to clean the switch prior to initial installation.
- Mount with enclosed mounting brackets. Note: Keep sensors at least 2" clear of any metallic material.

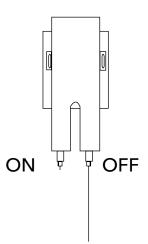
### 2.4 Test the alarm sensor

- 1. Fill the supplied small cup with oil.
- 2. Submerge only the plastic lens (optic sensor) into the oil. The alarm activates showing oil present (yellow light).
- Now touch finger to the exposed stainless steel sensor. The alarm shows water present (white light) and will turn on.



#### 2.5 Test the switch

- 1. Place the HOA switch on control panel in the automatic position.
- 2. Place your thumb on the short sensor of the Oil Smart Pump switch and the pump will turn on.
- 3. While touching the short sensor, touch the long sensor "off" with your fingers.
- Remove your thumb from on sensor and start to move your fingers down the off sensor.
- 5. Remove your fingers from off sensor and the pump will turn off.
- 6. OR fill the sump with water, when water reaches on sensor, the pump turns on and remains on until water clears the off sensor.

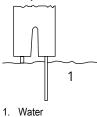


# 3 Operation

### 3.1 Operation conditions

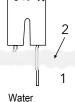
#### Normal Conditions (Water Only)

The short sensor probe turns the pump "on" and the long sensor probe turns the pump "off". When the short sensor is in contact with water, the pump will continue to cycle "on and off" until the short sensor detects oil.



#### **Oil Present Condition**

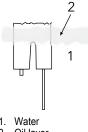
The pump will not cycle if oil is in contact with the short sensor. As oil continues to rise, the alarm will sound that there is oil present and the oil will be pumped from the sump.





#### High Water (Oil Present Condition)

If additional water enters the basin, it will cause the oil layer to rise above the short sensor, resulting in the pump cycling.



2. Oil layer

# 4 Maintenance

### 4.1 Maintenance requirements

The Oil Smart Pump and the Liquid Smart Alarm Switches are designed and tested to withstand the normal sump environment conditions. To ensure longevity of the components, make sure to wipe clean of any conductive material if the switch is submerged in water during initial install.

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# 5 Product Warranty

#### 5 Limited consumer warranty

Warranty. For goods sold for personal, family or household purposes, Seller warrants the goods purchased hereunder (with the exception of membranes, seals, gaskets, elastomer materials, coatings and other "wear parts" or consumables all of which are not warranted except as otherwise provided in the quotation or sales form) will be free from defects in material and workmanship for a period of twelve (12) months from the date of installation or eighteen (18) months from the product date code, whichever shall occur first, unless a longer period is provided by law or is specified in the product documentation (the "Warranty").

Except as otherwise required by law, Seller shall, at its option and at no cost to Buyer, either repair or replace any product which fails to conform with the Warranty provided Buyer gives written notice to Seller of any defects in material or workmanship within ten (10) days of the date when any defects or non-conformance are first manifest. Under either repair or replacement option, Seller shall not be obligated to remove or pay for the removal of the defective product or install or pay for the installation of the replaced or repaired product and Buyer shall be responsible for all other costs, including, but not limited to, service costs, shipping fees and expenses. Seller shall have sole discretion as to the method or means of repair or replacement. Buyer's failure to comply with Seller's repair or replacement directions shall terminate Seller's obligations under this Warranty and render this Warranty void. Any parts repaired or replaced under the Warranty are warranted only for the balance of the warranty period on the parts that were repaired or replaced.

Seller shall have no warranty obligations to Buyer with respect to any product or parts of a product that have been: (a) repaired by third parties other than Seller or without Seller's written approval; (b) subject to misuse, misapplication, neglect, alteration, accident, or physical damage; (c) used in a manner contrary to Seller's instructions for installation, operation and maintenance; (d) damaged from ordinary wear and tear, corrosion, or chemical attack; (e) damaged due to abnormal conditions, vibration, failure to properly prime, or operation without flow; (f) damaged due to a defective power supply or improper electrical protection; or (g) damaged resulting from the use of accessory equipment not sold or approved by Seller. In any case of products not manufactured by Seller, there is no warranty from Seller; however, Seller will extend to Buyer any warranty received from Seller's supplier of such products.

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To make a warranty claim, check first with the dealer from whom you purchased the product or visit www.xylem.com for the name and location of the nearest dealer providing warranty service.

Xylem Inc.

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