



Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

**PUMP COMPANY**

Zoeller Family of Water Solutions™

MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347  
 SHIP TO: 3649 Cane Run Road • Louisville, KY 40211-1961  
 (502) 778-2731 • 1 (800) 928-PUMP • FAX (502) 774-3624

visit our web site:  
[www.zoeller.com](http://www.zoeller.com)



# OIL SMART® PUMP SWITCH SPECIFICATIONS SHEET

### Application

The Oil Smart® Switch is factory calibrated and set up for immediate installation and operation. The dielectric design is extremely sensitive to variations in dielectric constant of air, water, oil and/or hydrocarbons (see Dielectric Data Chart).

### Material

- The Oil Smart® Switch is constructed of high impact injection molded plastic.
- Enclosure (Ignition Proof).
- 304 SS sensor probes.

### Temperature

- The Oil Smart® Switch standard temperature operation range is -33°F (-36°C) to 170°F (77°C).

### Operating Pressure

- The Oil Smart® Switch is designed to operate to 30 psig (2 bar) at 70°F (21°C).

### Standby Current

- 0.004 Amps.

### Signal Output

The Oil Smart® Switch is configured at the Factory.

- 120 VAC - 50/60 Hz (6 Amps).

### Relay Configuration

- 20 Amp internal relay.

### Approval

- UL Marine Listed
- CE Certified

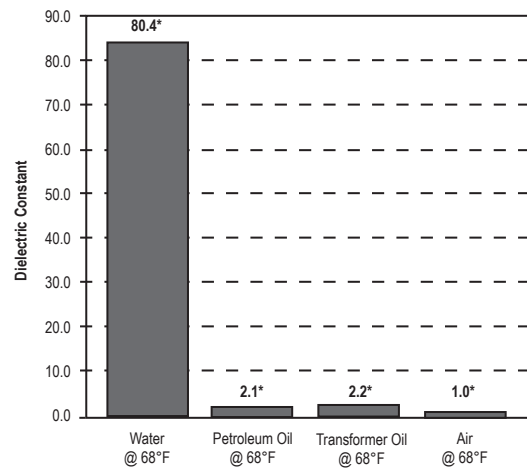
### Control Circuit

- Solid State.

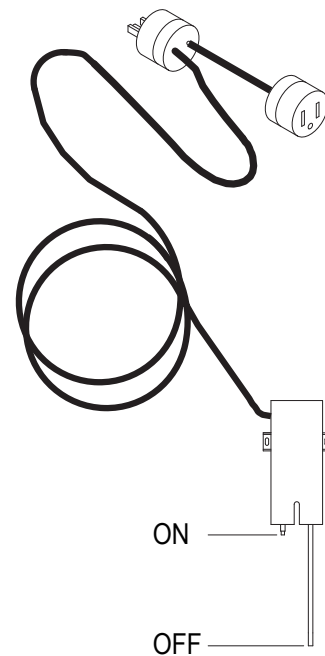
### Power Input

- 120 VAC - 50/60 Hz.

Dielectric Data Chart



\*Note: Estimated values.



SK2404

# Oil GUARD<sup>®</sup> PUMP SYSTEM

## SPECIFICATIONS

### 1. Single Phase Pumps

#### General

Pump motor shall be hermetically sealed, submersible type operating in a high quality dielectric oil for cooling the windings and for lubrication of the motor bearings and ceramic-carbon shaft seal. Single phase motor shall have internal automatic resetting, thermal overload protection. Construction shall be of cast iron with 100% baked-on powder coated epoxy finish for corrosion resistance and longer casting durability. All fasteners and external metal parts shall be of stainless steel. Impeller shall be of vortex non-clog design. Check applicable series.

\_\_\_\_\_ 57 (.3 HP) cast iron series pump shall have a shaded pole motor. Guard and handle shall be stainless steel.

\_\_\_\_\_ 152 (.4 HP) \_\_\_\_\_ 153 (1/2 HP) series pump shall have a permanent split capacitor motor. Motor housing shall be cast iron. The impeller shall be glass reinforced thermoplastic.

\_\_\_\_\_ 161 (.5 HP) series pump shall have a 3450 RPM motor. Motor housing, switch case and pump housing shall be cast iron. The impeller shall be bronze.

2. **The Oil Smart<sup>®</sup> Pump Switch** is an industrial grade switch with internal 20 amp relay and 304 SS sensor probes used to control water pumps in elevator, utility, marine and industrial sump applications. Installation will prevent oil and or hydrocarbons from being inadvertently pumped into the environment.

Options:

\_\_\_\_\_ 20 ft. cord with piggyback plug.

3. **115 Volt Piggyback Power Plug**

4. **Oil Smart<sup>®</sup> Alarm** will alert residents or maintenance personnel of liquid level problems. High Oil and High Water Level Lights and standard Remote Dry Contacts (SCADA Monitoring System).

\_\_\_\_\_ Alarm System with High Liquid Audible Alarm (71db @ 2ft.), Red Beacon, Oil Present - Yellow Light and Water Present - White Light. Built with Oil Smart<sup>®</sup> technology.

5. **Liquid Smart Sensor<sup>™</sup>** incorporates both an electro-optic and Oil Smart<sup>®</sup> Sensor all in one encapsulated unit. Differentiates and indicates the presence of oil and or water under high water condition.

6. **Check Valve Recommended** (purchased separately).

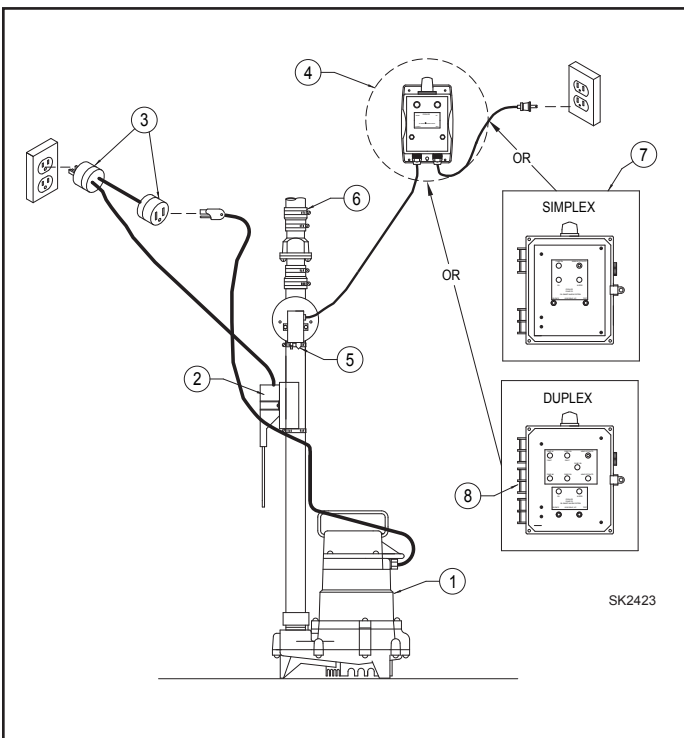
7. **Optional Oil Smart<sup>®</sup> Simplex Control Panel** - Built with Oil Smart<sup>®</sup> technology. Will control pump and alert residents or maintenance personnel of liquid level problems. High Oil and High Water Level Lights and standard Remote Dry Contacts (SCADA Monitoring System).

\_\_\_\_\_ Simplex Panel 10-2149.

8. **Optional Oil Smart<sup>®</sup> Duplex Control Panel** - Built with Oil Smart<sup>®</sup> technology. Will control pumps and alert residents or maintenance personnel of liquid level problems. High Oil and High Water Level Lights and standard Remote Dry Contacts (SCADA Monitoring System).

\_\_\_\_\_ Duplex Panel 10-2150.

**Notes:** 20 Amp Relay is inside pump switch.  
For Float Tree Installation (see FM2364).



Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

**PUMP COMPANY**

Zoeller Family of Water Solutions™

MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347  
 SHIP TO: 3649 Cane Run Road • Louisville, KY 40211-1961  
 (502) 778-2731 • 1 (800) 928-PUMP • FAX (502) 774-3624

visit our web site:  
[www.zoeller.com](http://www.zoeller.com)

# Oil Smart® System Kit

**Applications:**

- Elevator sumps
- Transformer containment areas
- Underground vaults
- Areas where water removal below a layer of oil/hydrocarbons is required

**Models:**

**UL Listed and CSA Certified**

- P/N 10-3163 - 120/208/240 VAC Single Phase, operates pumps up to 1 HP @ 120V, 2 HP @ 208/240V

**Also available: Consult Factory**

**UL Listed for the US and Canada (panel and controls).**

- 208/240 VAC Three Phase, operates pumps up to 3 HP @ 208/240V
- 480 VAC Three Phase, operates pumps up to 7.5 HP @ 480V; includes main disconnect
- 575 VAC Three Phase, operates pumps up to 7.5 HP @ 575V; includes main disconnect

**Kit Includes:**

- Simplex Control Panel
- Oil Smart® Pump Switch
- Alarm Panel
- Liquid Smart® Switch

**Features:**

- Pump control and high liquid alarm differentiate between oil and water. Includes Oil Smart® pump control and Liquid Smart® alarm switch. 10' cords included.

**Pump Control Features:**

- Pump Hand-Off-Auto (H.O.A.) switch, green pump run light and power on light
- Remote monitoring dry contacts: oil, water, high liquid
- Pump protection: Pump circuit breaker

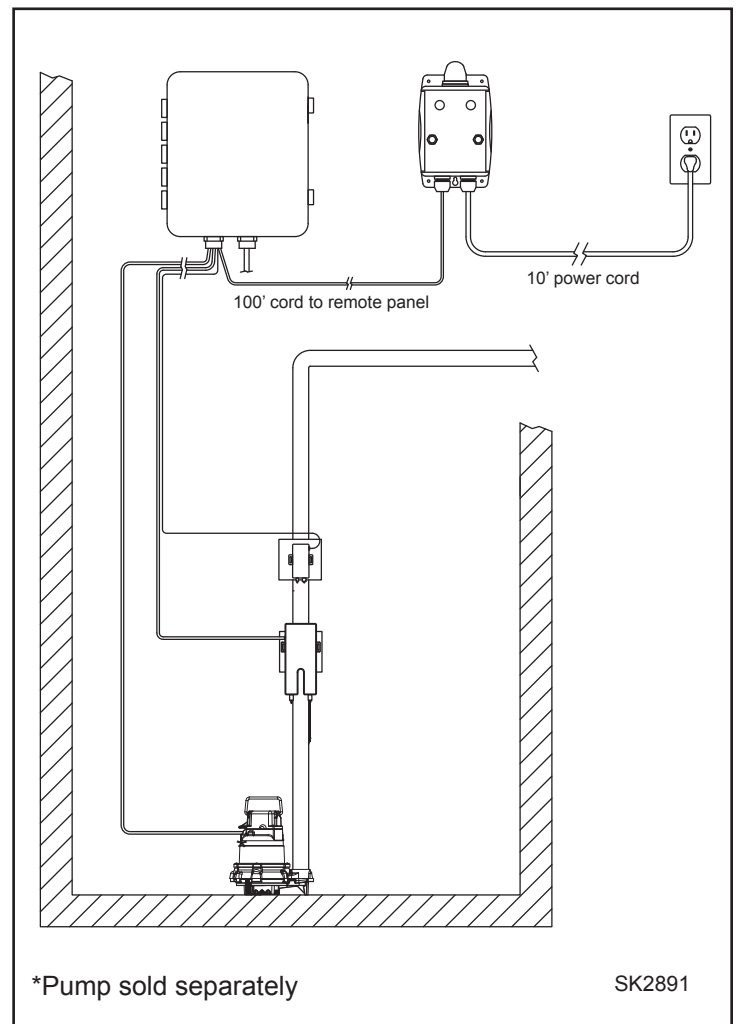
**Alarm Features:**

- Remote alarm panel equipped with yellow light for oil, white light for water, alarm test and silence buttons, 85 decibel alarm, and high red beacon alarm light. 100' cord included to wire to main control panel. Includes dry contacts: oil, water, high liquid

**Technical Specifications:**

- Panel enclosure: Opaque front heavy duty NEMA 4X polycarbonate, 10" x 8" x 4" with lockable latches
- Switches: Type 3R high impact injected plastic
- Oil Smart® switch dimensions: 2.5" w x 6" h x 1.75" d plus 6" sensor
- Liquid Smart switch dimensions: 3.5" h x 1.5" w x 1.5" d
- Remote panel enclosure: NEMA 4X, 6" x 5" x 2.5"

The Zoeller Oil Smart® System Kit, when combined with a manual sump pump, will automatically pump water without the risk of pumping oil into the environment. The panel provides complete pump protection and monitoring. Additionally, the system alerts maintenance or building personnel in the event of a high oil or high water condition. The control panel comes complete with all required controls and panel monitoring capabilities. Installation of the Simplex Panel allows you to comply with State and Federal regulations while reducing the risk of adverse publicity, fines and expensive cleanup costs.



Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

**PUMP COMPANY**

Zoeller Family of Water Solutions™

MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347  
 SHIP TO: 3649 Cane Run Road • Louisville, KY 40211-1961  
 (502) 778-2731 • 1 (800) 928-PUMP • FAX (502) 774-3624

visit our web site:  
[www.zoeller.com](http://www.zoeller.com)



# THE ZOELLER Oil Guard® SYSTEM

## FOR SUBMERSIBLE DEWATERING APPLICATIONS

### APPLICATIONS:

Designed to help protect the environment and equipment from the dispersion of oils and/or hydrocarbons.

- Elevator Sumps
- Transformer Vaults
- Manufacturing Facilities

### SYSTEMS:

- Operation of the Zoeller Oil Guard® System has been independently verified by OnSpeX, div. of CSA, when installed in accordance with our instructions.
- Choose from four model pumps. Includes pump, Oil Smart® switch and alarm (optional control panel).
- Control systems are ASME A17.1 compliant.

### Oil Smart® SWITCH AND ALARM PANEL FEATURES:

- NEMA-4X alarm panel enclosure
- Audible, light alarms and dry contacts
- Preset "on" and "off" points differentiate oil and water and alerts maintenance personnel of high water or oil detected conditions
- 20 ft. piggyback electrical supply cord
- 20 amp internal relay
- Alarm test and silence switches
- 304 stainless steel probes
- UL508 approved switch

### PUMP FEATURES:

- Pumps are durable cast iron construction with powder coated epoxy finish and all stainless steel fittings. See back page for a list of pump catalog sheets
- Tested to UL Standard UL778 and Certified to CSA Standard CSA 22.2 No. 108



Model 940-0011 shown. Product may not be exactly as shown.

### SIMPLEX PANEL FEATURES:

- Oil Smart® liquid alarm switch
- Oil Smart® pump switch (10-2282)
- 115 volts, single phase
- NEMA 4X watertight enclosure with lockable latch
- 30 amp motor start relay
- Pump HOA switch
- Top-mounted red alarm beacon light
- 81 - 84 decibel rated alarm horn
- Horn silence and alarm test switches
- Alarm automatically resets
- Dry auxiliary alarm contacts
- Separate circuit protection for alarm
- Circuit breaker protection
- Pump "Run" indicator light



Model 10-2149



### DUPLEX ALTERNATING PANEL FEATURES:

- Oil Smart® liquid alarm switch
- Oil Smart® pump switch (10-2283)
- Oil Smart® high water alarm switch for high demand two pump operation
- 115 volts, single phase
- NEMA 4X watertight enclosure with lockable latch
- Two 30 amp motor start relays
- Pump HOA switches
- Top mounted red alarm beacon light
- 81 - 84 decibel rated alarm horn
- Horn silence and alarm test switches
- Alarm automatically resets
- Dry auxiliary alarm contacts
- Separate circuit protection for alarm
- Pump "Run" indicator light



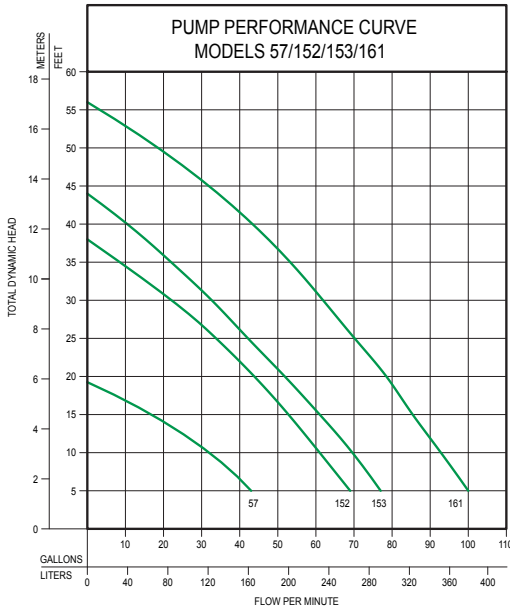
Model 10-2150



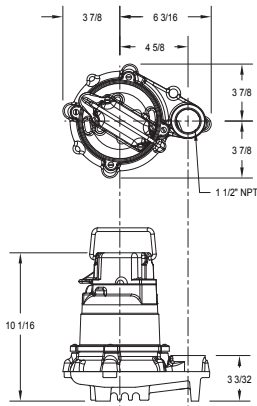
**TOTAL DYNAMIC HEAD/FLOW PER MINUTE  
EFFLUENT AND DEWATERING**

MODEL		57		152		153		161	
Feet	Meters	Gal.	Liters	Gal.	Liters	Gal.	Liters	Gal.	Liters
5	1.5	43	163	69	261	77	291	100	379
10	3.0	34	129	61	231	70	265	93	352
15	4.6	19	72	53	201	61	231	85	322
20	6.1	--	--	44	167	52	197	79	299
25	7.6	--	--	34	129	42	159	70	265
30	9.1	--	--	23	87	33	125	62	235
35	10.7	--	--	--	--	22	83	54	204
40	12.2	--	--	--	--	11	42	45	170
50	15.2	--	--	--	--	--	--	20	76
Shut-off Head:		19.25 ft (5.9 m)		38 ft (11.6 m)		44 ft (13.4 m)		56 ft (17 m)	

018939

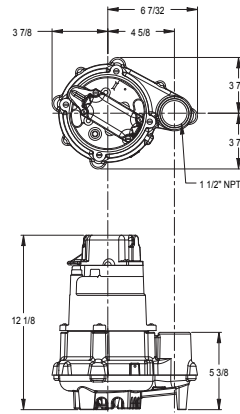


**Model 57**



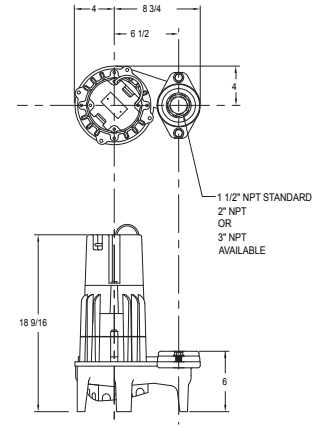
(See FM0493)

**Model 152/153**



(See FM1919)

**Model 161**



(See FM0460)

**COMPONENTS:**

Part Number	Description	Alarm Panel	Oil Smart® Pump Switch	Oil Smart® High Liquid Alarm Switch	Oil Smart® High Liquid Switch
10-1526	Oil Smart® Alarm Panel	✓	---	✓	---
10-1528	Oil Smart® Pump Switch	---	✓	---	---
10-1727	Oil Smart® Pump Switch w/o Plug	---	✓	---	---
10-2149	Oil Smart® Simplex Panel	✓	✓	✓	---
10-2150	Oil Smart® Duplex Panel	✓	✓	✓	✓
10-2516	Oil Smart® Simplex Panel w/ Mtr. Cont.	✓	✓	*	---

These systems are not designed for Explosion Proof Environments. Please consult factory for special options and requirements.

**CAUTION**

All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).

✓ INCLUDED \* VARIABLE LEVEL FLOAT SWITCH

**CHOOSE A PREPACKAGED SYSTEM:**

Part Number	Description	Alarm Panel	Oil Smart® Pump Switch	Nonauto Pump	Pump Part Number	Voltage	HP	Amps	Elevator System
940-0005	Oil Guard® Pump Switch and Panel	10-1526	10-1528	N57	57-0002	115	3/10	9.7	---
940-0006	Oil Guard® Pump Switch and Panel	10-1526	10-1528	N152	152-0002	115	4/10	8.5	---
940-0007	Oil Guard® Pump Switch and Panel	10-1526	10-1528	N153	153-0002	115	1/2	10.5	---
940-0008	Oil Guard® Pump Switch and Panel	10-1526	10-1528	N161	161-0002	115	1/2	15.0	---
940-0012	Oil Guard® Pump Switch and Panel	10-1526	10-1528	*N152	*152-0028	115	4/10	8.5	✓
940-0013	Oil Guard® Pump Switch and Panel	10-1526	10-1528	*N153	*153-0027	115	1/2	10.5	✓
940-0014	Oil Guard® Pump Switch and Panel	10-1526	10-1528	*N161	*161-0090	115	1/2	15.0	✓

\* 6' SO JACKETED CORD FOR OIL-RESISTANCE

NOTE: BUILD YOUR OWN SYSTEM. CONTACT FACTORY FOR SPECIFICATIONS.