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INDUSTRIAL FLOW SOLUTIONS™ 1-ilr

Customized Solutions for Oil and Water Sensing & Containment



www.flowsolutions.com

Intelligent Pumping Solutions

The fully customizable Oil Minder® Control and Pump System efficiently manages water from hydraulic elevator pits and transformer vaults while preventing harmful oily substances from entering sewers, rivers, or waterways. This eliminates the need for an ancillary oil-water separator. Designed for durability and minimal maintenance, the system performs reliably in challenging conditions.

Oil & Water Sensing and Containment In

- Elevator Shafts
- Electric Utilities: Substations, Transformer Vaults & Moats





- Self-cleaning, maintenance-free conductivity probes
- · Push-to-test diagnostic feature for system reliability & functionality during installation & operation
- Compatible with all Industrial Flow Solutions' submersible pumps
- Compliant with ASME 17.1 safety codes for elevators
- Meets SPCC (40 CFR Part 112.7) EPA requirements for sump pumps
- Patented conductive sensing technology
- UL-certified components
- Modular design for customized performance and cost efficiency
- Easy, plug-and-play installation

How it Works



- 1.) The pump turns on when water contacts the sensor probe, and the float is lifted.
- 2.) The pump continues to remove water.
- 3.) The pump runs until:
 - a. The water level drops below the sensor probe.
 - b. Only oil is in contact with the probe, eliminating electrical conductivity.
- 4.) Pump shuts off before oil is pumped, leaving approx. 3 in. (76.2 mm) of liquid in the sump.

5.) The oil sensing probe turns off the pump when oil levels rise. If the water level increases, the oil will rise above the probe, turning the pump back on. The pump stops again once the oil contacts the probe as the water is pumped out. Audible & visual alarms indicate the pump's operation.

System Design

Simplex or Duplex Configuration

- Simplex cost-effective management with a single pump.
- Duplex flexibility for redundancy or separate handling of water & hydrocarbons.

Vertical Probe

• OM300 vertical probe & float assembly allows systems to be installed in sump pits with a minimum diameter of 12 in (304 mm).

Heater

 In freezing conditions, an Oil Minder can be fitted with a sump heater to prevent freezing of the sump & ensure continuous operation of the system.

Control Panel Alarms

- BACnet Integration allows monitoring of critical alarms & connects to the Building Monitoring System (BMS).
- Dry Contacts alert for oil faults & high-water levels to ensure timely detection of issues.

Configurations: Direct Wired or Junction Box

Item & Description

- A Control Panel
- B Power Cable*
- C Junction Box
- D Pump**
- E 8 Pin Cable ***
- F Pump Power Cable***
- G Sensor Probe**
- H High Alarm Float**
- I Pump ON Float**

Cable Lengths: * Single Phase 6 ft (1.8 m) Standard ** 16 ft (4.86 m) (additional lengths available) *** 25 ft (7.62 m) (additional lengths available)

Direct Wired

Junction Box



Installation Dimensions Example: SE/SV Series





Description	Item	Pump Model		
		SE40	SE50	SE100
High Float Radius	U	10.625 in 270 mm	10.625 in 270 mm	10.625 in 270 mm
Minnimum Sump	V	21.75 in 553 mm	21.75 in 553 mm	21.75 in 553 mm
Pump ON Radius	W	10.625 in 270 mm	10.625 in 270 mm	10.625 in 270 mm
Pump ON	Х	12.00 in 305 mm	13.00 in 330 mm	14.50 in 368 mm
Pump OFF	Y	3.25 in 83 mm	3.25 in 83 mm	3.25 in 83 mm
High Alarm	Z	16.00 in 406 mm	17.00 in 432 mm	20.00 in 508 mm

Customizable Pump and Control Solutions

Part Numbering Guide

(X)(PM)/(X)(X)(X)(V)(Ph)(X)

Market	Pump Model	System	Float	Configuration	
E - Hydraulic Elevator T - Transformer / Utility W - Traction Elevator	Pre-configured pump model	 2 - Duplex 3 - Liquidator no valve 4 - Liquidator valve 5 - Liquidator2 Blank - Simplex 	D - Dual Vertical L - Vertical Long S - Vertical Short Blank - Tethered Float	 B - Junction Box (Multi-option or SR) H - Disconnect J - (2) Disconnects M - (1) 8-pin cable N - (1) 12/4 Conductor cable P - (1) 8-pin cables R - (2) 8-pin cables 	
Voltage	Phase	Additional Option	S	U - (2) 8-pin cables & (1) Conductor cable	
Corresponds with pre-configured pump model	Corresponds with pre-configured pump model	BAC - BACNet EDC - Extra Dry Contact: (Overload, Pump Run, & Power L PL - Plug Disconnect	S .oss)	V - (1) 8-pin cable & (2) Conductor cables W - Direct Wired (JR) Blank - No Disconnect Blank - No Cables	

Part Number Configuration Examples

Simplex Configuration: ESE50/BM1151BAC

SE50, 115 volt, single phase, simplex Oil Minder system with junction box and 8-pin cable assembly with BACNet ready control panel

Duplex Configuration: ESE100/2LBJV1151

SE100, 115 volt, single phase, duplex Oil Minder system with vertical float and disconnect junction box with (1) 8-pin cable and dual conductor cable assembly

Valve Liquidator Configuration: ESE50/4BR1151BAC

SE50, 115 volt, single phase, valve Liquidator system with junction box and dual 8-pin assembly and a BACNet ready controller

Dual Liquidator Configuration: ESE100/5BR4603BACEDC

SE100, 460 volt, threee phase, dual pump Liquidator system with junction box with dual 8-pin assemblies and BACNet ready controller with extra dry contacts





*Compatible with all Industrial Flow Solutions' submersible pumps. Contact Applications Engineers for assistance specifying your system. <u>applications@flowsolutions.com</u>



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