

Liberty Pumps®

OilTector®

ELV Duplex Series



Duplex pump system detects oil and water—allowing for diversion of oil to a separate tank via dedicated oil and water pumps.

For use in elevator pits, vaults and other areas requiring the control of oil discharge from sump water.

Features:

- Pumps available in 1/2 hp, 3/4 hp and 6/10 hp
- Flow rates to 95 GPM and heads to 65' (depending on model)
- Single and three-phase pump models available
- Complete system ships with control panel, remote alarm, level sensor, junction box with disconnects, 2 reducer couplings, 2 brass check valves and pumps. (Systems with oil holding tank also available!)
- OilTector® control features advanced touch screen display and programming
- Dry contact outputs for alarm conditions
- Preset level sensor for easy installation
- Advanced system monitors/verifies the amount of fluid pumped and that it was pumped to the correct location
- Controls are available with optional BACnet Gateway for integration with building automation and control systems. Please contact Liberty Pumps for more information

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OilTector® ELV Duplex Series

Features and Operation:

The OilTector® duplex pump system pairs a touch screen controller with two proven Liberty sump pumps to eliminate unwanted water from elevator sumps, garages, vaults and other areas where preventing the unwanted discharge of oil to the environment is required.

The OilTector® controller features a pre-set level sensor which consists of 3 metal probes and a float switch which will control two Liberty sump pumps, one designated for water service, and one for oil service. When water collects in the sump and contacts both the lowest and the middle probe, the water service sump pump will discharge the water until the level is below the lowest probe. If the water level increases to the highest probe, the high water alarm sounds signifying a high inflow condition or faulty pump.



In the event of an oil leak, the spilled oil will collect in the sump and float on the surface of the water. Once the layer is thick enough to trip the high oil float, the pump will eliminate the oil and water in the sump; the water will be pumped to the drain and then the oil will be routed to the waste oil storage tank preventing unwanted contamination.

The OilTector® controller additionally provides a means for manual pump operation, dry contacts for alarm conditions and data logging to document all operational activity.

Specifications are
subject to change
without notice.



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Duplex Control Panel Features:

Easy-to-use touch screen programming with adjustable display brightness.

Clear cover panel with locking hasp.

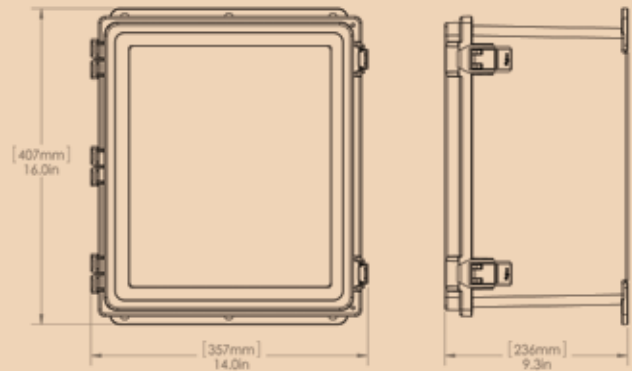
Logic in the panel monitors how much water and/or oil is pumped and verifies that it is pumped to correct location.

The Duplex program is designed to run 2 pumps, one oil and one water. Specific pumps run depending on input from the OilTector® pre-programmed sensor. An oil storage display is time-based using the pump's gallon-per-minute rating and dimensions of the holding tank as input by the user.

Data logging allows export of events to Excel® spreadsheet for expanded analysis and documentation.

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Control Panel Dimensional Data



Control Panel Specifications:

Control input volts 120V, 60 Hz
(Single phase only)

Pump input volts 120/230 Single phase or
230/460V 3-phase, 60 Hz

Panel enclosure rating NEMA 4X

Maximum pump amps 15A Single phase
4-6.3A 3-phase

Pump Off/Auto switch

Pump elapsed time meter

Pump run counter

Pump off/delay time: adjusts pumps run-time
when oil is detected

Pump status light GREEN=ON, RED=STOP

Oil storage level indicator

Display alarm banners for:

• Fail • High Water • Oil Alarm • Power Fail

Preset level sensor with 25' of cord

Remote mount alarm (indoor) can be
mounted up to 2,500' from panel

Float switch for oil level sensing in storage
tank included with control system



Data Event Log Records

Pump ETM

Pump ETM Minutes

Maintenance Clock

Pump Run Count

Pump Cycle Time

HOA Status

Amp Status

Oil Status

Previous Count Cycle Time

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**Junction Box with
Pump Disconnects NEMA 4X**

Complete system - includes pumps, control panel, level sensor, junction box with disconnects, check valves, reducer couplings and remote alarm (no holding tank)

Models	HP	Volts	Phase	Holding Tank	Wgt Lbs
ELV280-D	1/2	120	1	No	119
ELV280HV-D	1/2	230	1	No	119
ELV290-D	3/4	120	1	No	119
ELV290HV-D	3/4	230	1	No	119
ELVFL63-D	6/10	230	3	No	158

Complete systems as above with 59 gallon oil holding tank

Models	HP	Volts	Phase	Holding Tank	Wgt Lbs
ELV280-DT	1/2	120	1	YES	184
ELV280HV-DT	1/2	230	1	YES	184
ELV290-DT	3/4	120	1	YES	184
ELV290HV-DT	3/4	230	1	YES	184
ELVFL63-DT	6/10	230	3	YES	223

Oil Tank
included
with these
systems

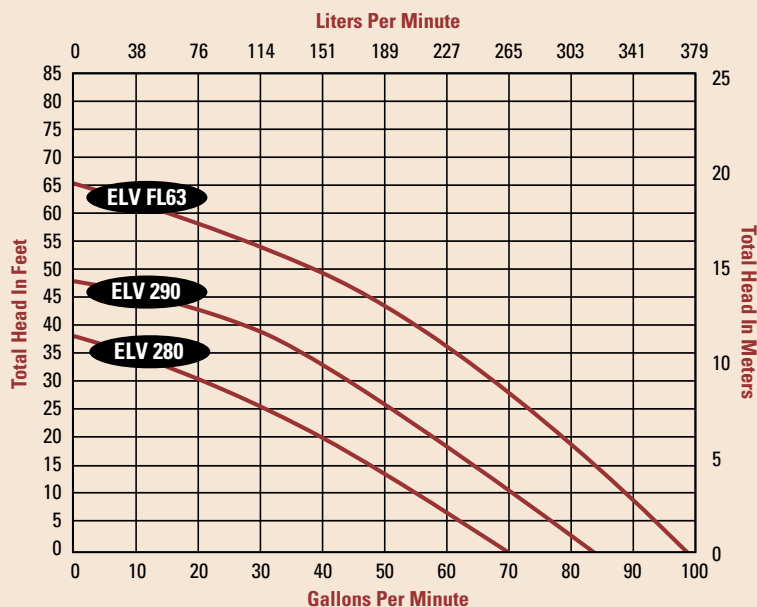
OilTector® Control System Only (No pumps or tank)

Models	Volts	Phase	Max Amps.	Panel Style	Style	Wgt. Lbs.
OTC-120/230-D	120/230	1	15	NEMA 4X	Touch Screen	36
OTC-230-3-D	230	3	4-6.3	NEMA 4X	Touch Screen	36

Above OTC control systems include control panel, remote alarm, level sensor, and junction box with disconnect. Controls are available with optional BACnet Gateway for integration with building automation and control systems.

Oil Waste
Holding Tank
18" X 54"
59 Gallons

Other sizes
available
consult
factory



www.
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.com

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