EKLECMATIC

Elevator | Door Control | Automation

PIT SAFE®

Flood Guard Installation Manual

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1 Warnings and Disclaimer

Thank you for purchasing equipment from Eklecmatic, Inc. We want your new equipment to operate safely. Anyone who installs or uses this equipment should read this publication (and any other relevant publications) before installing or operating the equipment.

To minimize the risk of potential safety problems, you should follow all applicable local and national codes that regulate the installation and operation of your equipment. These codes vary from area to area and usually change with time. It is your responsibility to determine which codes should be followed , and to verify that the equipment, installation and operation is in compliance with the latest revision of these codes.

At a minimum, you should follow all applicable sections of the National Fire Code, National Electrical Code, ASMEA17.1 Safety code for Elevators and Escalators and the codes of the National Electrical Manufacturer's Association (NEMA). There may be local regulatory or government offices that can also help determine which codes and standards are necessary for safe installation and operation. Equipment damage or serious injury to personnel can result from failure to follow all applicable codes and standards. We do not guarantee the products described in the publication are suitable for you particular application, nor do we assume any responsibility for your product design, installation or operation.

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This publication is based on information that was available at the time it was printed. WE reserve the right to make changes to the products and/or publications at any time without notice and without any obligation.

2 Conventions Used

When you see the "notepad" icon in the left-hand margin, the paragraph to its immediate right will be a special note. Notes represent information that may make your work quicker and more efficient. The word NOTE: in boldface will mark the beginning of the text.

When you see the "exclamation point" icon in the left-hand margin the paragraph to its right will be a warning. The information could prevent injury, loss of property, or even death in extreme cases. Any waring in this document should be regarded as critical information that should be read in its entirety. The word WARNING: in boldface will mark the beginning of the text.

3 Safety Information

Know the safety hazards related to any procedure you are about to perform. Know what equipment has been specified for each specific contact and know what tools and materials you should plan to have available. Before connecting electrical wiring, take precautions to prevent accidents from happening to yourself and others around you.

ALWAYS CONSIDER SAFTY FIRST!

- Wear a hard hat when working in the hoist way.
- Wear safety glasses or goggles when using power tools
- Always wear protective gloves when installing or removing access covers, conduits, wireway or electrical devices.
- When working on car canopy, always be aware of where the sides of the car are located.

- Use properly grounded cords and power equipment (ground fault circuit interrupters).
- Make sure there are proper clearances in hoist way between the car and other devices. Before connecting wiring, cover sharp edges to keep hands and arms from being cut.
- Always know where other people are and how the elevator wiring can affect their safety.

- Safety lock and tag out procedures are always required before performing and kind of service, repair, adjustment, lubrication or inspection of power equipment.
- To reduce the danger of electrical shock, always make sure electrical connections are secure. Also make sure no bare wires are exposed after pulling cable.
- Use a circuit tester to be certain the circuit is not active before touching it.

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4 Introduction

The PitSafe® Flood Guard is a Water and or Oil Alarm Monitor. The device senses water or oil within the elevator pit or other confined space.
The standard unit consists of a single solid-state fluid sensor for detection of flood water or oil. An optional second sensor can be used in conjunction with the primary flood water sensor for detection of water or oil below the flood water zone.
As an example, the flood water detection sensor should be mounted (6”-12”) above the pit floor for signaling the elevator controller for a flood event. Whereas the use of second sensor may or may not be interfaced to the elevator controller for a specified movement but provide an audible alarm notification of the presence of oil or water.
Each sensor triggers a dry contact and audible alarm for signaling a fluid detection event.

5 Connections

5.1 120VAC

L – 120 VAC line - fused with .5 Amp 250V GMA fuse
N – 120 VAC neutral
GREEN WIRE – earth ground

5.2 24 Volt DC

\+ = 24Volt DC
\- = 24 Volt DC return

5.3 Alarm 1 and Alarm 2

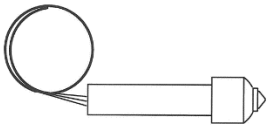
Dry relay contacts that close when alarm sounds

6 Getting Started

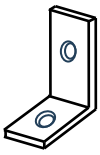
6.1 Inventory

105db Alarm

Silencer Button



1 for single sensor applications
2 for dual sensor applications
Sensors include 8 feet of cable



“L” BRACKETS Qty 4

FLAT HEAD SCREW Qty 4

6.2 Additional Requirements

- Length of conduit pipe* to reach from Water Oil Sensor unit to pit floor area.
  *Not included with kit

7 Installation

7.1 Location

It is recommended that the Flood guard control unit be placed 48” above the floor.
For flood water detecting the sensor should be mounted 6” to 12” above the floor.
For other detecting applications (low level oil or water) the sensor should be positioned to the lowest point on the floor.

7.2 Mounting Unit to Wall

- Attach the four L Brackets to the Water Oil Alarm base.
- Secure the unit to the wall at least 48 inches from the floor.

- Run wires from water/oil sensor(s) through the piece of conduit pipe and secure pipe to the bottom of the Water Oil Sensor housing as shown.
- Secure the conduit pipe to the pit wall.

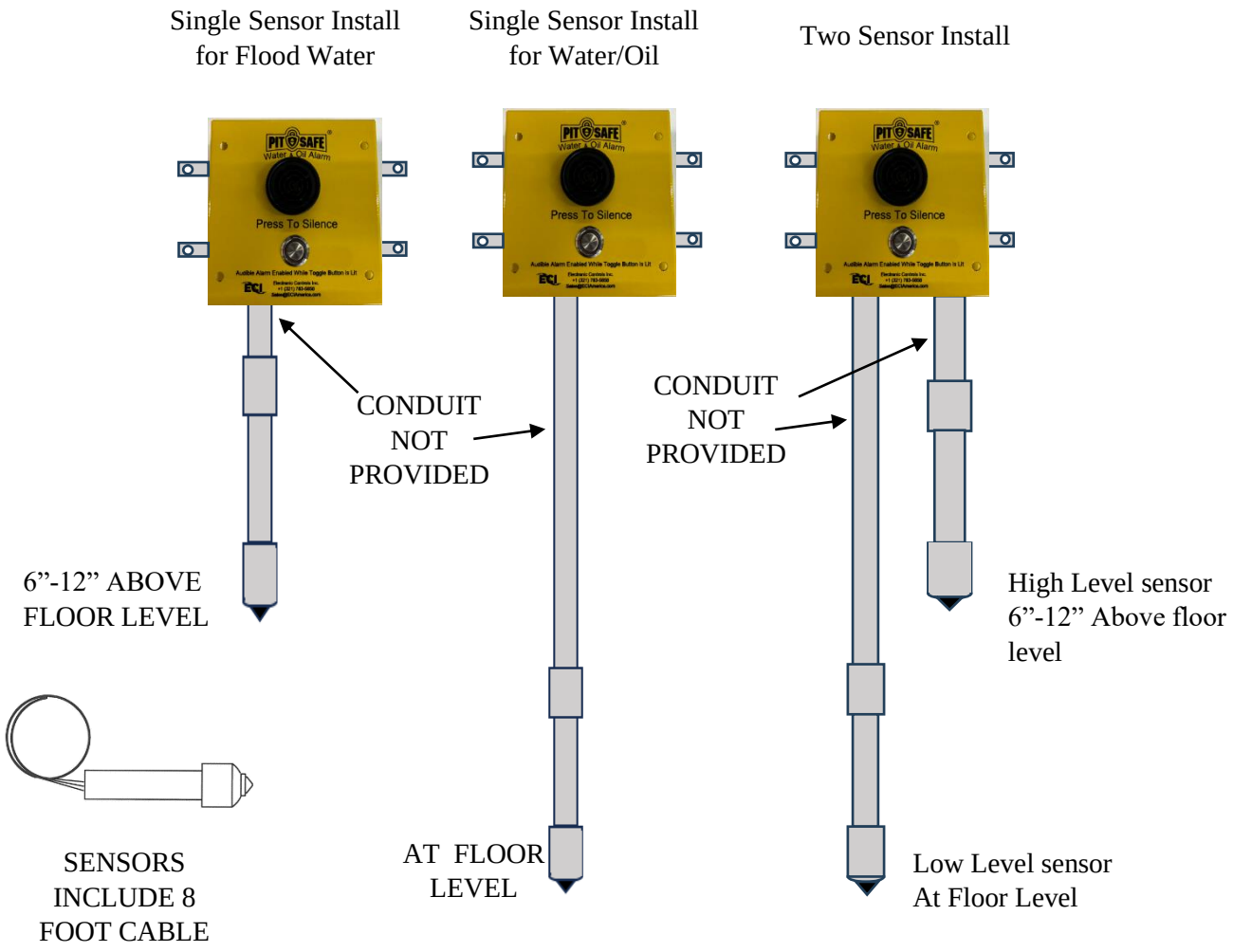


Figure 1 - Single and Dual Sensor Configurations

7.2.1.1 Water/Oil Sensor Wiring

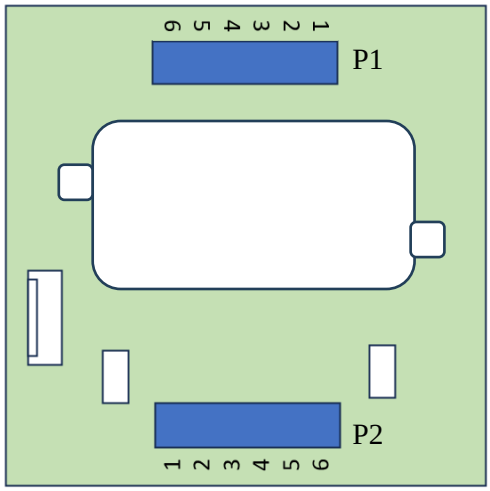


Figure 2 - Water/Oil Sensor Wiring

- Cut the Water/Oil Sensor wires to length and connect as follows:

  Note: For a single sensor installation use SENSOR 1 connections

  - P2 – 1 – SENSOR 1 RED
  - P2 – 2 – SENSOR 1 BLU
  - P2 – 3 – SENSOR 1 GRN
  - P2 – 4 – SENSOR 2 RED
  - P2 – 5 – SENSOR 2 BLU
  - P2 – 6 – SENSOR 2 GRN

7.3 Sensor Alarm Outputs 1 & 2

- Alarm1 & Alarm 2 are dry relay contacts that CLOSE when the alarm sounds. These can be used as an output to the elevator controller to indicate an alarm condition.

  - P1 – 3 – SENSOR ALARM 1
  - P1 – 4 – SENSOR ALARM 1
  - P1 – 5 – SENSOR ALARM 2
  - P1 – 6 – SENSOR ALARM 2

7.3.1 Connecting Power

7.3.1.1 120 VAC Unit

- With AC main power disconnected, connect 120 AC line to the RED inline fuse wire and the neutral to the blue wire. Connect earth ground to green grounding wire.
- Replace the plug from the front panel assembly being sure of orientation. See Figure 3 - Front Panel Assembly Connection
- Replace and secure cover.

7.3.1.2 24VDC Unit

- P1 – 1 : +24VDC Red Wire
- P1 – 2 ; -24VDC Black Wire

- Replace the plug from the front panel assembly being sure of orientation. See Figure 3 - Front Panel Assembly Connection
- Replace and secure cover.

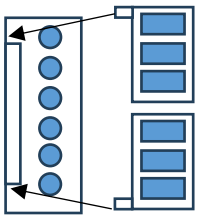


Figure 3 - Front Panel Assembly Connection

8 Operation

8.1 Power and Functional Test

- Apply AC power to the Water/Oil Alarm.
  - The alarm will chirp once then should be silent.
  - With the push button in the OUT position, the button should be illuminated.
- Place the end of the water oil sensor in a cup of water
  - The alarm should sound with the button out
  - Press the Button IN and the alarm should go silent
- Removing water and return button to the out position.
  - The alarm should be silent with water removed.

Installation complete

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