# SEE WATER, INC.

# Level and Temperature Alarm System Installation and Operation Manual FC-40

## Knight Series® FC-40 Level and Temperature Alarm System

The FC-40 monitors cisterns or reservoirs that supply the water for the fire sprinkler system. It provides continuous level and temperature information on the panel and dry contacts to connect to the fire panel monitoring system. The FC-40 is ideal for applications where there is a risk for freezing temperatures in the cistern and an alarm is required per the fire codes and standard for cisterns and sprinkler systems. All panels are UL Listed for the United States and Canada and come with a five-year warranty.

Model	Voltage	Hz.
FC-40	120VAC	60 Hz.
FC-40-A	208/240VAC	50/60 Hz.

#### **Features:**

- The temperature display shall indicate the temperature at the location of the temperature sensor
- Lights on the front panel will illuminate under any of the following conditions: (a) Low Temperature (below 40°F) or (b) Low Level
- System indicates in the event of temperature below 40°F, low liquid level, or power loss
- Complete panel remote monitoring dry contacts (below 40°F, low level, high level, or power loss) to connect to fire panel or building management systems
- LED indicators for the following: Power on, low temp, low level
- Temperature monitor LCD display with adjustable alarm settings
- Includes stainless steel temperature sensor
- Includes low level float with 20' SJOW cord and mounting clamp
- Battery backup in the event of a power loss
- NEMA 4X Polycarbonate enclosure with stainless steel lockable latches
- 12V battery backup
- UL Listed for the United States and Canada

## **Enclosure Mounting: NEMA 4X RATED**

**Mounting Brackets** - A mounting bracket and screw pack are provided with the premium enclosures. To assemble, turn the enclosure upside down on a flat surface, place the mounting bracket over the square boss either horizontally or vertically, and fasten the mounting bracket with the  $1/4"-20 \times 0.5$  SS, countersunk phillips drive screws or vertically, with the mounting brackets in any configuration, using any acceptable fastening technique.

**Covers/Doors** - Covers/doors have a gasket pre-assembled to seal against the base.

**Note:** The control panel should not be mounted in a location that may be subject to submersion.

## Additional Panel Options:

- C = Additional Cord Length Per Foot Per Component\*
- PC = 10' power cord
- PX = Pump Portal® Wireless Remote Communication
- \*Additional cord length greater than 20'. Specify after C. Example: (FC-40-C50) Indicates 50' cable length





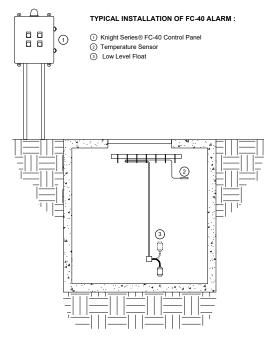
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## **Panel Installation:**

- 1. Caution: To maintain the NEMA 4X rating, make all wiring connections with seal tight cable grips or conduit connections.
- 2. Set motor protectors to FLA of motors.
- 3. Run pump cables and floats cables through conduit. Make field connections as shown on wiring schematic.
- 4. Run power line conductor through conduit. Wire to terminals per enclosed schematic.
- 5. Branch circuit protection to be provided by installer.
- 6. Panel circuit breakers are shipped in the closed position.
- 7. Ensure floats are properly mounted at the correct levels. **Note:** Floats shall have free range of motion without touching each other or other equipment.



### **Operation:**

- 1. The temperature display shall indicate the temperature at the location of the temperature sensor.
- Lights on the front panel will illuminate under any of the following conditions: (a) Low Temperature (below 40°F) or (b) Low Level.

## Troubleshooting:

*Caution: Before checking electrical connections within the control or attempting to replace any components, turn off all branch circuits supplying power to the main control panel.* 

## Alarm Circuit:

• To test the alarm light and buzzer, press the test button on the front panel. If either the light or buzzer do not indicate, replace the light bulb or buzzer with the same type.

### Floats:

• Check floats for entanglement, full range of motion. Replace damaged floats.

Notes:

### Warranty:

See Water, Inc. warrants that products of its manufacture are free from defects in material and workmanship for a period of 5 years from the date of purchase. This date shall be determined by the date on the invoice and the serial number on the product.

Replacement of the product is at the discretion of See Water, Inc. This warranty is valid when the product is installed in compliance with the manufacturer's installation instructions. The manufacturer's obligation under this warranty shall be limited to the repair or replacement of any parts found by the manufacturer to be defective, provided that the product is returned to See Water, Inc.'s factory, postage prepaid with proof of original purchase included.

The manufacturer of this warranty shall not be liable under this warranty if the product has not been properly installed; any alterations/additions/changes to the product will result in a void warranty. Failure to properly install and test this product can result in personal injury or equipment malfunction.

See Water, Inc. shall not be liable for any loss, damage or expenses from installation or use of its products.



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