

# Basin Heater System

engineering data  
and specifications



The basin heater system is pre-engineered, UL listed and CSA approved for cooling tower basin freeze protection during system shutdown.

## BASIN HEATER SYSTEM PACKAGE ADVANTAGES:

**Solid-State Control Technology** Combines temperature control with low water level protection in a single solid-state device.

**NEMA 4X Enclosure** All controls are factory wired inside a rugged NEMA 4X enclosure designed for outdoor use. Pre-engineered designs up to 96 amps are available.

**Lower Cost** Installation time and cost are reduced by replacing individually-mounted temperature and liquid level control devices with one pre-engineered and assembled control package that requires only one probe to sense both water temperature and level.

## THE COMPLETE SYSTEM PACKAGE INCLUDES:

- Electric immersion heater(s)
- Control panel with solid-state printed circuit board
- Sensor probe with cord
- Wiring diagram
- Installation, Operation and Maintenance manual



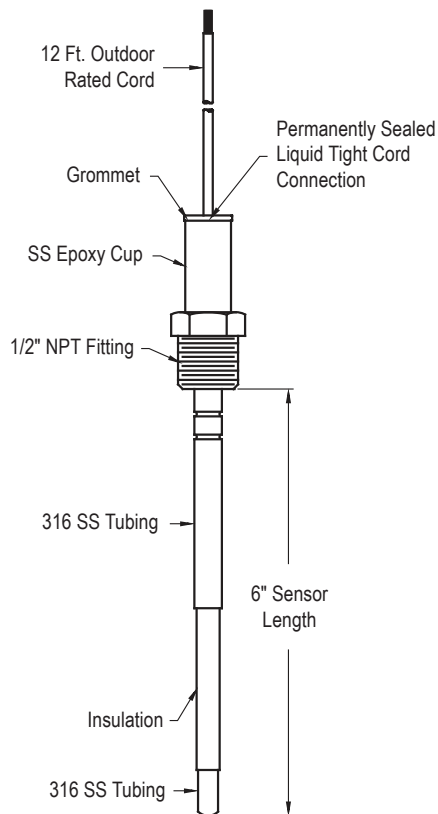
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## SENSOR PROBE SPECIFICATIONS:

**Sensor Probe** assembly incorporates both temperature and liquid level sensors. Probe is 316 stainless steel to minimize corrosion. Probe can be installed vertically or horizontally.

**Maximum Pressure Rating for Sensor Probe**  
15 psi

**Cord** 12-foot outdoor rated cord with PVC hub connector for installation through tower basin wall. Options include different cord lengths or cord suitable for total immersion.



## CONTROL PANEL SPECIFICATIONS:

**Solid-State Control** Pre-set 45°F ON/OFF temperature control with 5°F switching differential and built-in low water cutoff. Circuit board LEDs provide visual indication of heater-on and liquid level status.

**Ambient Temperature Range** -40°F – 150°F

**Fail Safe Output Relay** is de-energized if the thermal cutout sensor is either open or short-circuited. This prevents heater burnout.

**NEMA 4X Enclosure** with pre-mounted electrical hubs for conduit connections.

**Single Probe** to sense both water temperature and water level. Sensor probe supplied with 12-foot outdoor rated cord pre-connected to control panel. Probe also supplied with PVC hub connector for attachments through cooling tower basin wall.

**Nameplate** showing maximum kW and amp ratings at system volts/phase.

## System Wiring Diagram

### Installation, Operation and Maintenance manual

**Rated For** 40 amps or a maximum of 50 amps.

**Suitable For** multiple heaters per basin (maximum of 2 on 40 amp panel).

**Dimensions** 8" x 10" x 6" for 40 amp size;  
10" x 12" x 7" for 50 amp size.

**Available Voltages** 208/230/460/575 3-phase;  
other voltages available on request.

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