



Models LCD®-1H and LCD®-3H Snow Switch®
Installation and Operation Manual

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LCD-1H/LCD-3H Sensor Specifications

Specifications:	LCD-1H, LCD-3H
Part Number:	16793, 19435
Designation:	LCD-1H Snow Switch and LCD-3H Snow Switch
Dimension:	3.5" x 3.5" x 3.25" (8.9cm x 8.9cm x 8.3cm)
Weight:	13 oz (369gm)
Construction:	Molded plastic and epoxy resin, both U-V stable
Mounting method:	Attaches to standard 1/2" NPT male thread (ANSI 16mm)
Mounting location:	Outdoors, exposed to ambient temperature and precipitation
Storage temperature:	-65°C to 85°C (-54°F to 185°F)
Operating temperature:	-30°C to 60°C (-22°F to 140°F)
Power Requirements:	24 VAC (+/- 10%), 60 Hz
Power Consumption:	2.5W maximum
Sensing temperature:	p/n 16793 & P/N 19435 3.3°C to -30°C (38°F to -22°F)
Precipitation signal:	Contact closure
Contact rating:	3 amps. resistive
Hold-on Time:	Approximately 5 hours for LCD-1H. (p/n 16793) Approximately 1 hour for LCD-3H. (p/n 19435)

The Model LCD-1H/LCD-3H Snow Switch detects the presence of moisture at temperatures below 38° F. (3.3° C.), providing an output relay contact closure. The Model LCD-1H keeps the relay contacts closed for a fixed hold-on time of 5 hours after the heated moisture sensing grid is dried; the hold-on time for the Model LCD-3H is 1 hour.

Installation

Install in accordance with the requirements of all applicable electrical and building codes and regulations.

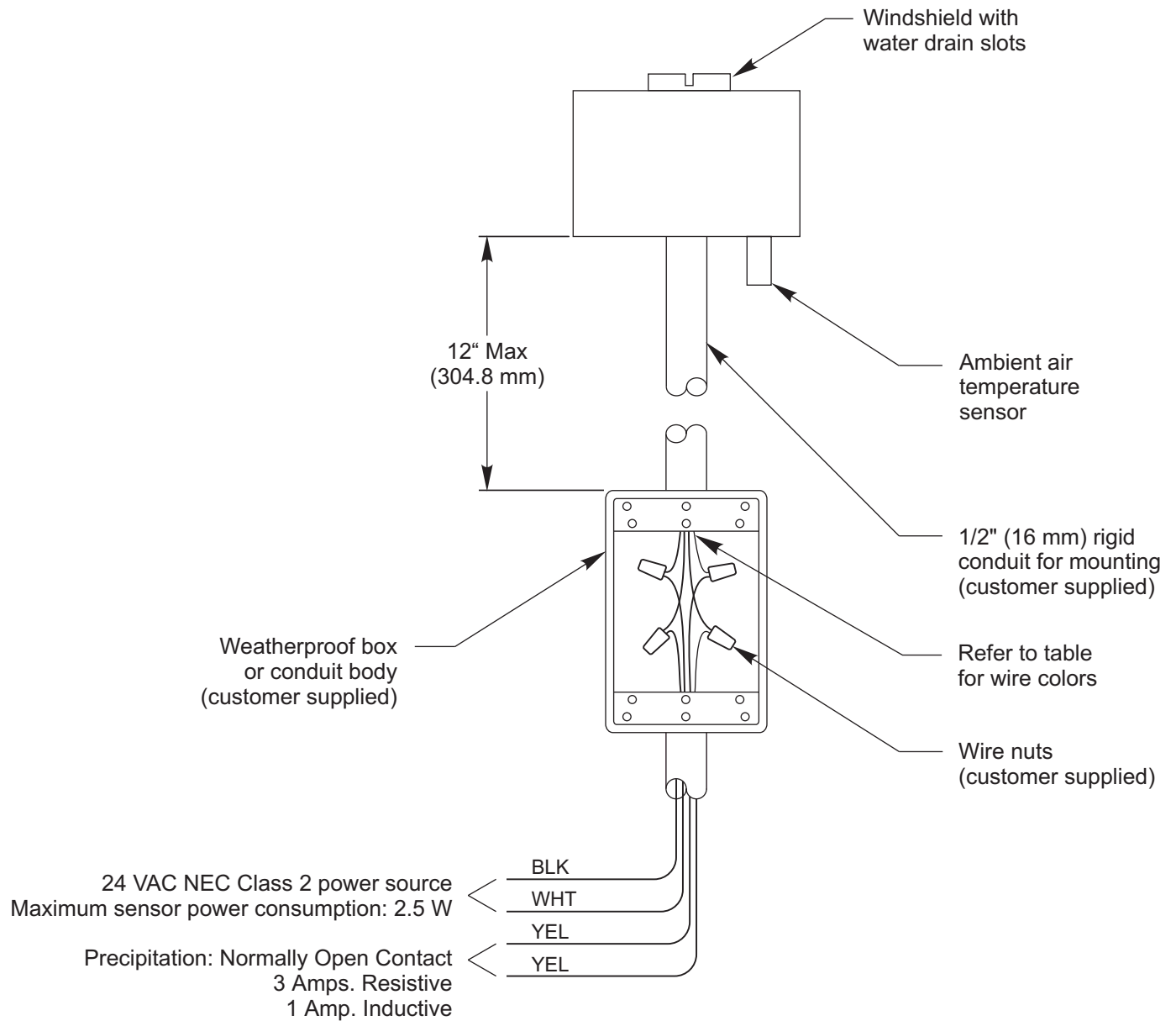
1. Determine the best location for the LCD-1H/LCD-3H Snow Switch. It must be located above a roof line or away from a building and subject to direct precipitation.

AVOID overhead trees, shrubs, wires, eaves, canopies, etc.

AVOID locations subject to falling/blowing debris or potential vandalism.

AVOID exposure to artificial heat sources.

2. Mount the LCD-1H/LCD-3H Snow Switch securely in an upright position, as shown in the figure. A 1/2" (16mm) NPT opening is provided on the underside of the housing for rigid conduit entry.
3. Thread the four pigtail conductors through the conduit to the selected splicing enclosure.
4. Hand tighten the conduit until snug. Caution: Over-tightening may damage the housing.
5. Plumb and level the sensor housing.
6. Ensure that all conduit terminations are watertight.
7. Splice and insulate pigtail conductors to customer-supplied extension conductors. Refer to table for wire colors.



Wire color	AWG	Nominal length*	Description
Black	18	20" (508mm)	24 VAC supply
White	18	20" (508mm)	24 VAC supply
Yellow	18	20" (508mm)	Normally open isolated contact

* Nominal Length Of Wire Is From Base Of Sensor.

Wiring Diagrams

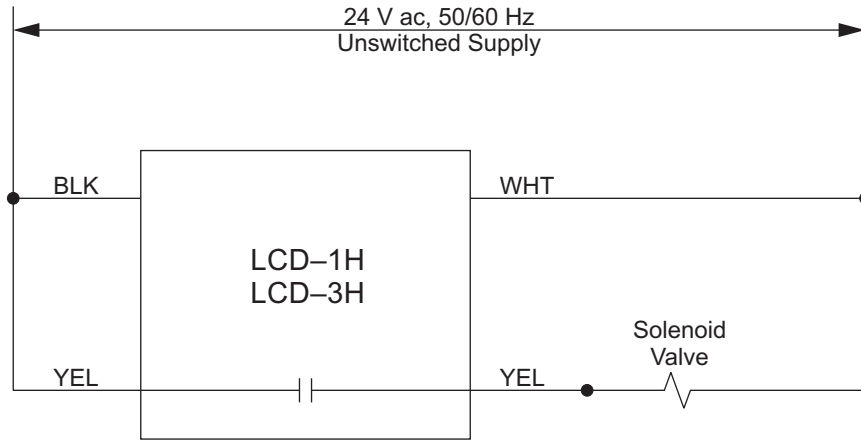


Figure 1: Zone Solenoid Valve

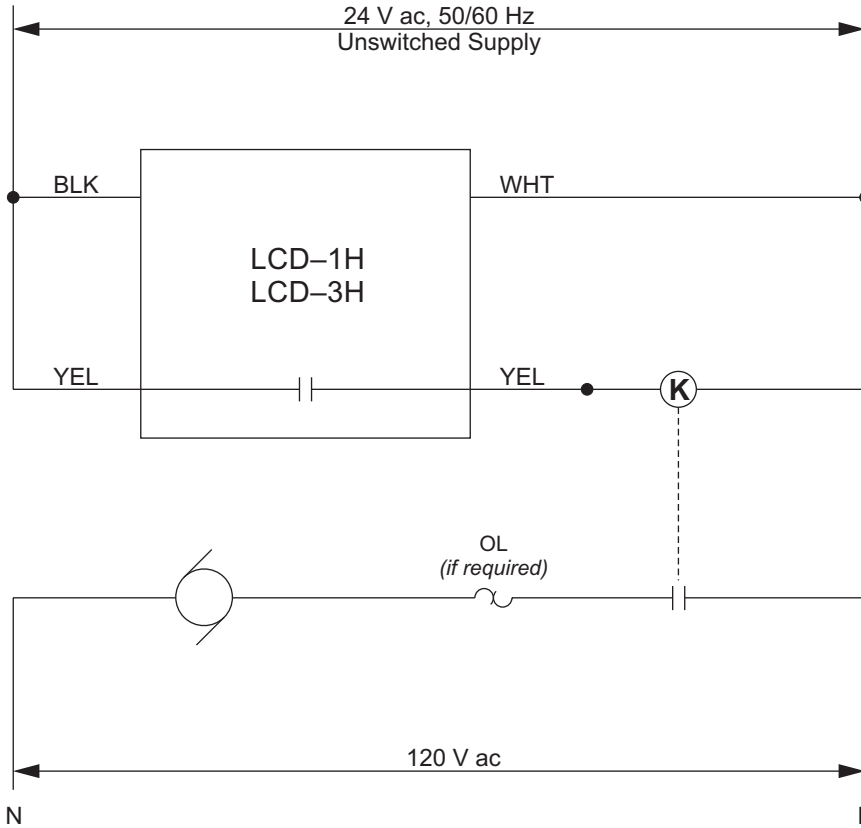


Figure 2: Circulating Pump

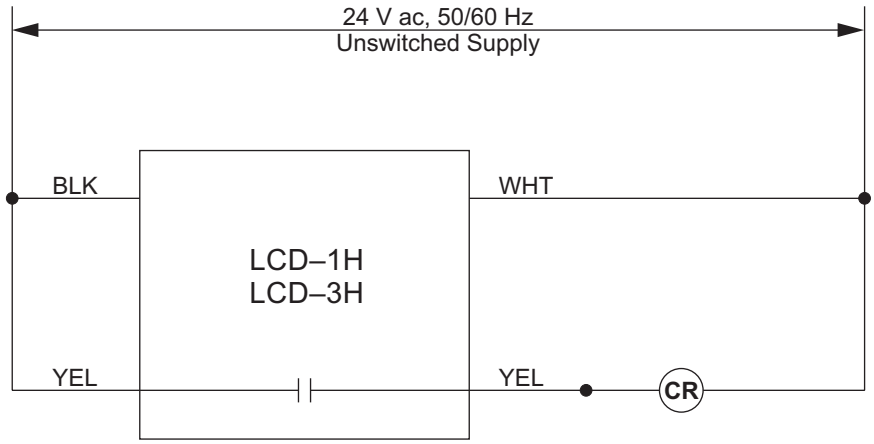


Figure 3: Control Relay

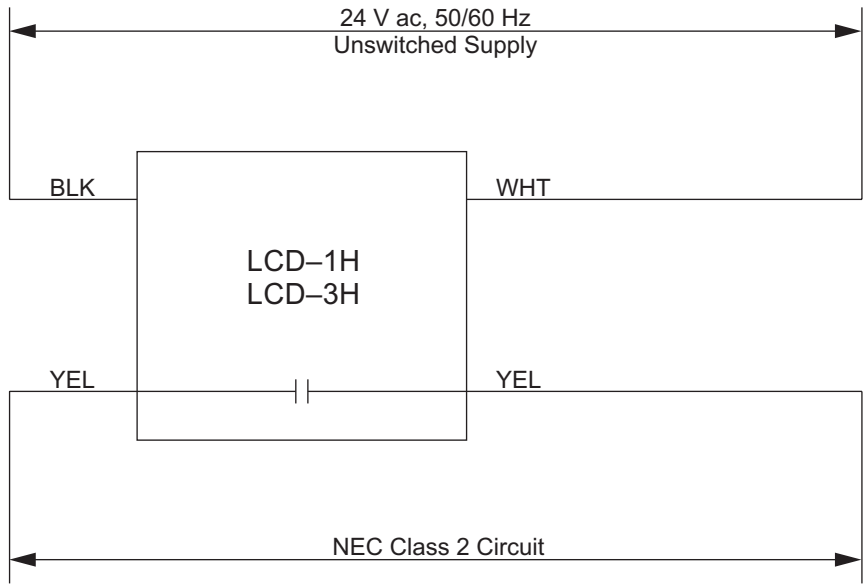


Figure 4: NEC Class 2 Circuit

QUESTIONS AND COMMENTS

For technical help, questions or comments concerning this product or any of Environmental Technology, Inc. products contact the Customer Service Department between 8:00am and 5:00pm EST at:

*Voice: 800.234.4239 (USA and Canada)
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