

Freezing Rain Sensor

Part Number: 82308

Rev A: 9/5/17



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The Freezing Rain Sensor detects the presence of icing conditions. Included is a built-in heater for automatic defrost.

Technical Specifications

Supply Voltage: 24 VDC

Temperature Range:
Operating: -67° to $+160^{\circ}$ F
Storage: -85° to $+194^{\circ}$ F

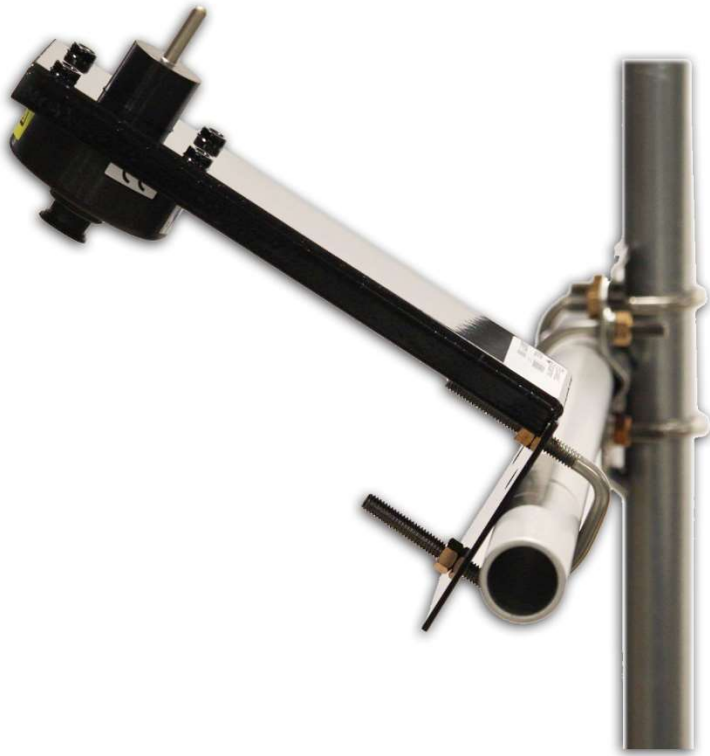
Icing Signal Period: 60 second activation from start of icing
Measurement

De-icing (Heater) Control Automatically triggered with accumulation of
0.5mm of ice on probe.
Max heating time – 25 seconds

Please note in case of unit malfunction strut heater lock-on could occur causing the probe temperature to exceed 400° F. Maintenance personnel should exercise caution when servicing the unit.

Installation

The freezing rain sensor should be mounted to a sturdy crossarm located away from buildings or other obstacles that could shadow the sensing element from freezing rain. The sensor should be installed so that the sensing probe is a minimum of 36 inches above the ground.



1. Remove the protective tube from the sensing probe.
2. Attach the freezing rain sensor to the mounting bracket using the supplied $\frac{1}{4}$ - 20 screws and lock washers. Position the freezing rain sensor on the mounting pole with the sensing probe pointing upward, with the bracket inclined at a 20° - 30° angle above horizontal to ensure proper drainage of melted ice.
3. Attach to a vertical or horizontal pipe using the supplied V bolts, nuts and washers. NOTE: The sensor should be mounted so as to be oriented into the prevailing wind.
4. Connect cable to 0871LH1 connector and secure cable to bracket with cable ties.
Please note: Do attempt to splice or cut the sensor cable.
5. **Remove shipping cover and protective cap prior to powering on the unit.**

Operation

Through the MicroServer the Freezing Rain Sensor displays the current condition; Ice or No Ice.

The sensor also displays a fault status; Fail or OK. If a Fail status is displayed please call Columbia Weather Systems for technical support.

The probe heater de-ices the probe. It is activated when the nominal icing trip point of 0.50mm is reached.

The Freezing Rain Sensor tracks the amount of ice that has accumulated on the probe during an icing encounter. Each correlation count equals 0.25mm (0.01") of ice.

MicroServer Connection

The Freezing Rain Sensor connects to COM3 on the MicroServer.

