DELTA-T DIFFERENTIAL CONTROLLERS

DELTA-T: Specifically designed to regulate the operation of a solar heating system, the Delta-T monitors collector and storage temperatures and automatically turns pumps on or off when the right temperature is reached. The controller can also provide additional functions, such as system freeze protection, storage tank high-limit shut-off, and useful collector temperature operation.

Features
- For use in open loop or closed loop systems
- Automated pump recirculation for freeze protection in open loop systems
- Tank high temperature limit shut-off
- Available as stand alone unit or as standard component in Helio-Pak and Helio-Flo heat transfer appliances
- 2 pre-set temperature differentials

DELTA-T PRO: The Pro controller is the most advanced version of the Delta-T line of controllers. Pro units share the same advanced energy performance monitoring and data storage capabilities of the Pro Lite version, but add enhanced functionality. Additional relays and sensor input options make the Pro controller suitable for all types of solar water heating system applications.

Features
- 5 program configurations available (open loop DHW, closed loop DHW, Pool, Space heating, Commercial)
- 5 thermistor sensor and 3 pump relays
- Waterproof version available for pool systems

DELTA-T PRO LITE: Pro Lite controllers carry all the basic functions of the Delta-T, but add energy performance monitoring capabilities. The Pro Lite controller comes pre-installed with software allowing the controller to record and monitor energy data for the life of the system.

Features
- 2 program configurations available (open loop DHW, closed loop DHW)
- 2 thermistor sensor and 2 pump relays
- Remote web-based system monitoring and settings
- Automated service reminders
- Stored energy data (BTU, °F, GPM)

PRO & PRO LITE WEB MONITORING FUNCTION

Pro and Pro Lite controllers come standard with the ability to communicate via a web monitoring system which allows the installer or end user access to the solar hot water system controller from anywhere with an internet connection. By simply logging onto a dedicated website for the controller, the user can view and make system adjustments miles away from the actual solar hot water system.

System Requirements
- DSL, cable or other broadband internet connection
- Open, WPA or WPA2 network authentication/encryption Wi-Fi router (WEP not supported)
- Internet browser (e.g. Firefox, Chrome, Safari)
- Flow sensor installed for energy monitoring
## TECHNICAL SPECIFICATIONS

### PRO & PRO LITE CONTROLLER DETAILS

- Digital Flow sensor detects both fluid flow and temperature of the solar fluid exiting the heat exchanger.
- Digital Pressure sensor detects both pressure within the solar loop as well as temperature of the solar fluid entering the heat exchanger.

### MODEL DETAILS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DLTA 000 000</th>
<th>DLTA 001 000</th>
<th>DLTA 002 000</th>
<th>DLTA 000 003</th>
<th>DLTA 000 001</th>
<th>DLTA 000 002</th>
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*240 VAC available upon request

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*Sensors not included w/base Heliodyne packages/models

Note: If using non-Heliodyne sensors, consult with Heliodyne for compatibility.

*4 inputs for 24 VAC thermostat zone detection (e.g. space heating)

*5 (2 for Pro Lite) sensor inputs are available for precise temperature readings

T1 Collector out
T2 Storage low
T3 Storage high*
T4 Energy out*
T5 Outdoor (ambient)*

Relay 1: Operates the solar loop pump

Relay 2: (Pro Lite) - Used for timer relay, aquastat operation or as additional independent temp. differential. (Pro) - Used for aquastat operation with optional zone detection.

Relay 3: (Pro) - Used for extra functions such as: timer relay, electric ignition of bottom fired gas water heater, pool pump operation, secondary independent temp. differential or aquastat operation.

Note: If using non-Heliodyne sensors, consult with Heliodyne for compatibility.

*Sensors not included w/base Heliodyne packages/models

*240 VAC available upon request

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