

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 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

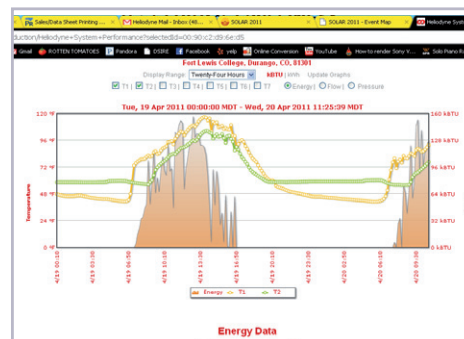
- 2 program configurations available (open loop DHW, closed loop DHW)
- 2 thermistor sensor and 2 pump relays
- Remote web-based system monitoring and settings
- Automated service reminders
- Stored energy data (BTU, °F, GPM)

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

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

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

2x 4-20 mA output controlled current for optional pump speed control

Pulse flow meter (optional*)

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 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

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.

*Sensors not included w/base Heliodyne packages/models

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

| MODEL | DLTA 000 000 | DLTA 001 000 | DLTA 002 000 | DLTA 000 003 | DLTA 000 001 | DLTA 000 002 | DLTA 000 004 | DLTA 000 006 |
|---|------------------|------------------|------------------|------------------|--|--|--|--|
| Model Type | Std | Std | Std | Pro Lite | Pro | Pro | Pro | Pro |
| Voltage | 120 | 120 | 240 | 120 or 240 | 120* | 120 or 240 | 120 or 240 | 120* |
| AC Power Cord | Yes | No | No | Yes | Yes | Yes | Yes | Yes |
| Thermistor Temp Sensor Inputs | 2 | 2 | 2 | 2 | 5 | 5 | 5 | 5 |
| Relays | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 |
| Waterproof | No | No | No | No | No | No | Yes | Yes |
| Energy Metering | No | No | No | Yes | Yes | Yes | Yes | Yes |
| Internal Flash Memory | - | - | - | 24 hours | 36 hours | 30 days | 30 days | 36 hours |
| Program Settings | OL DHW CL DHW | OL DHW CL DHW | OL DHW CL DHW | OL DHW CL DHW | OL DHW CL DHW Pool, Space, Commercial | OL DHW CL DHW Pool, Space, Commercial | OL DHW CL DHW Pool, Space, Commercial | OL DHW CL DHW Pool, Space, Commercial |
| Network Connection/Web Monitoring | - | - | - | Wi-Fi | Ethernet | Wi-Fi | Wi-Fi | Ethernet |
| Vortex Flow Sensor Input | - | - | - | Yes | Yes | Yes | Yes | Yes |
| Relative Pressure Sensor | - | - | - | Yes | Yes | Yes | Yes | Yes |
| Connectivity To Single Gas Tank (w/electric ignition) | - | - | - | Yes | Yes | Yes | Yes | Yes |
| Electrical Circuit Monitoring | - | - | - | Yes | Yes | Yes | Yes | Yes |
| Pyrometer Input | - | - | - | Yes | Yes | Yes | Yes | Yes |
| Pulse Flow Meter Input | - | - | - | - | Yes | Yes | Yes | Yes |
| Dimensions | 4.6"h X 5.6"w | 4.6"h X 5.6"w | 4.6"h X 5.6"w | 7"h X 6.5"w | 7"h X 6.5"w | 7"h X 6.5"w | 7"h X 6.5"w | 7"h X 6.5"w |
| Warranty | 3 years | | | | | | | |

*240 VAC available upon request

1038_0411_US © 2011 Heliodyne, Inc. • Heliodyne® and Excellence by Design® are registered trademarks of Heliodyne, Inc.

Heliodyne, Inc. • 4910 Seaport Avenue • Richmond, CA 94804
T: 510.237.9614 • F: 510.237.7018 www.heliodyne.com
Information and Support: info@heliodyne.com

heliodyne[®]
SOLAR HOT WATER