

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

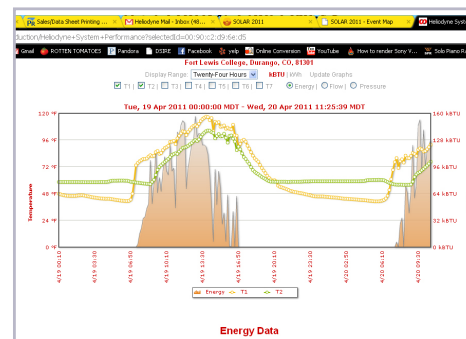
- 2 program configurations available (open loop DHW, closed loop DHW)
- 3 thermistor sensor and 2 pump relays
- Remote web-based system monitoring and settings
- Automated service reminders
- Stored energy data (BTU, °F, GPM)

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 (3 for Pro Lite) 10K ohm sensor inputs are avail. 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 or 240	120 or 240	120 or 240	120 or 240
AC Power Cord	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Thermistor Temp Sensor Inputs	2	2	2	3	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							

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SOLAR HOT WATER