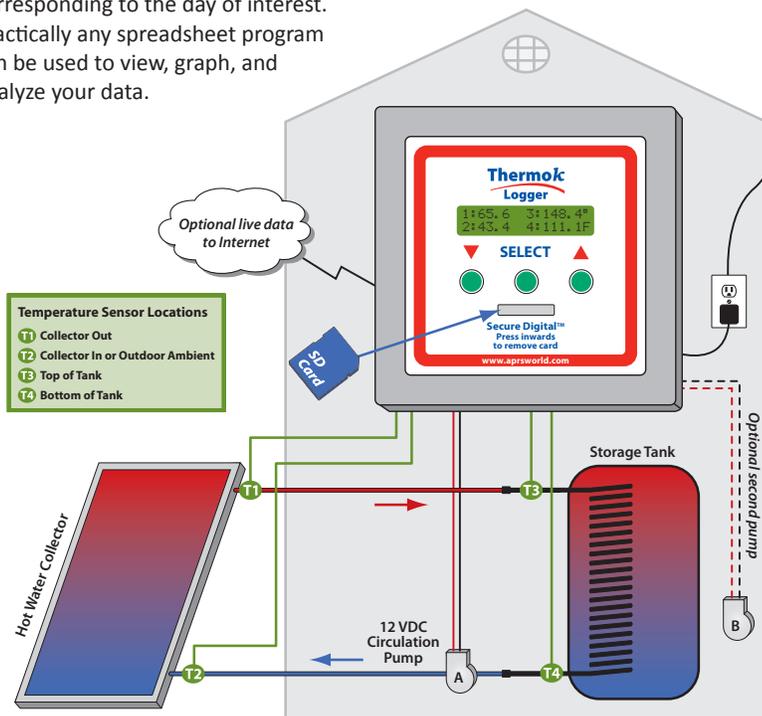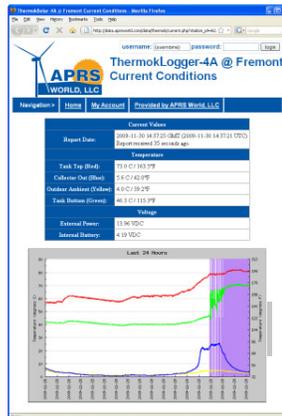# Thermo*k* Logger

Differential Temperature Controller with Data Logging

The **ThermokLogger-4A** is designed to provide an affordable and easy-to-use differential temperature controller for solar heating systems. It is a four channel 10K thermistor display and data logger with programmable solid state relay outputs.

The **ThermokLogger-4A** records directly to a Secure Digital (SD™) card to provide convenient data downloads. To use the recorded data, simply insert the SD™ card into a card reader attached to the USB port on your computer (Windows, Macintosh, and Linux). To view and graph the data, click on the spreadsheet corresponding to the day of interest. Practically any spreadsheet program can be used to view, graph, and analyze your data.

Optional live data to Internet

Temperature Sensor Locations
- **T1** Collector Out
- **T2** Collector In or Outdoor Ambient
- **T3** Top of Tank
- **T4** Bottom of Tank

Hot Water Collector

Storage Tank

Optional second pump

12 VDC Circulation Pump

*APRS World offers our **'World Data'** service free for our customers. Using an optional internet gateway module, our products can send live data to our hosted data service. Using your web browser you can view live and historical performance data and graphs. This allows your customer to see how their system is performing and allows you to troubleshoot the system without getting in your truck.*

Measurement Inputs

Four 10K Thermistor
  Typically measure -40°C to 150°C (-40°F to 302°F)
  Screw terminals and RJ-45 wired in parallel

Pulse Counter
  Screw terminals

User Interface

16x2 Character LCD, backlit

Three push buttons

Temperatures update once per second

Relay / Alarm status visible

Logging

Logs to Secure Digital™ or Multi Media Card™

Logs at 10 to 16,000 second intervals

Date and Time stamped measurements

Data files in Comma Separated Vertical (CSV)

One data file per day

Includes 2 gigabyte Secure Digital™ card

Supports 2 gigabyte or smaller cards

Power

8 to 32 volts DC
  2.1x5.5mm coaxial connector or 2 position screw terminal

Requires external power

Relay / Alarm Outputs

2 x DC relay, solid state, 6 amps @ 39 volts DC max

Independently programmable for:
  Differential Control
  On above temperature set point
  On below temperature set point
  Always On
  Always Off

RS-232 Communications

ASCII or binary data, selectable

Screw terminal, 4 position

Data compatible with our World Data internet service

9600 to 57600 baud

Can enable / disable Morningstar Tri-Star based on temperature

Physical

Mounts in double gang electrical box or panel

3.7cm (1.45") deep

RoHS COMPLIANT   MADE IN USA

APRS World, LLC   **Winona, Minnesota**   **+1-507-454-2727**   **info@aprsworld.com**