



Datasheet

Digital Thermostat (PL-T1100)

Description

The ProLon T1100 is a multi-purpose, heating and cooling networkable digital thermostat. The built-in microprocessor offers precise digital control to maximize performance. The available outputs and control sequences are fully configurable, either locally from the touchpad or remotely, with free software. The elegant circular touch pad allows for intuitive setpoint adjustment and configuration via simple scrolling, tapping and holding motions. The versatile graphic display makes configuration simple and efficient with animated menu navigation, icons and helpful popup tips.

Features

- 10K Ω Type 3 NTC thermistor 1% precision
- Proportional integral (PI) control loops maximize performance and comfort
- Circular capacitive touchpad and graphical display allows for simple and intuitive control
- Stand-alone or networked (up to 127 nodes)
- Fully configurable digital and analog outputs are both protected by resettable fuses
- Embedded control sequence for radiant in floor heating
- Discharge air control sequence available
- Remote monitoring and configuration with FREE ProLon Focus software
- Easy wiring with removable numbered terminal blocks or modular RJ45 jack
- Input for auxiliary temperature sensor: Room temperature (average or remote), slab temperature (for radiant floor applications), or discharge air temperature
- Circular touchpad and curved features offer a modern look. Other colors available!
- FlexiZone system facilitates multiple zone management by evaluating the average weighted demand of the zones using customized groups

Technical Specifications

- **Supply:** 24 VAC \pm 10%, 50/60 Hz
- **Power:** 5 VA (consumption) 13VA (max)
- **Inputs:** 1 analog input (Thermistor 10K type3), 10 bit resolution
- **Digital output:** Triac, 10-30 VAC sink, 300 mA max (resettable fuse), ON/OFF or pulsed, heating/cooling
- **Analog output:** 0-10 VDC, 40 mA max (resettable fuse), modulating, ON/OFF or pulsed, heating/cooling
- **Screen:** LCD 80x130 pixels with backlighting
- **Interface:** Circular capacitive touchpad
- **Sound:** Audible feedback during user interactions
- **Processor:** Atmel 32 bits, 60 MHz, 256KB FLASH memory
- **Communication protocols:** Modbus RTU (RS485), up to 127 nodes
- **Baud rate:** 9600, 19200, 38400, 57600, 76800, 115200
- **Connection:** Detachable screw-type terminal blocks (16 AWG max) and RJ45 modular jack
- **Dimensions:** 3.23" x 4.96" x 1" (82 mm x 126 mm x 25 mm)
- **Weight:** 0.5 lbs (0.23 kg)
- **Environment:** 0-50 $^{\circ}$ C (32-122 $^{\circ}$ F)
- **Mounting:** Standard electrical box 2" x 4"
- **Certification:** FCC part 15: 2012 class B

Compliance

- FCC Compliant to CFR47, Part 15, Subpart B, Class B
- Industry Canada (IC) Compliant to ICES-003, Issue 5: CAN ICES-3 (B)/NMB-3(B)
- RoHS Directive (2002/95/EC)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: Any changes or modifications not approved by ProLon can void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not

installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This Class (B) digital apparatus meets all the requirements of the Canadian Interference-Causing Equipment regulations.

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