

PSU-1

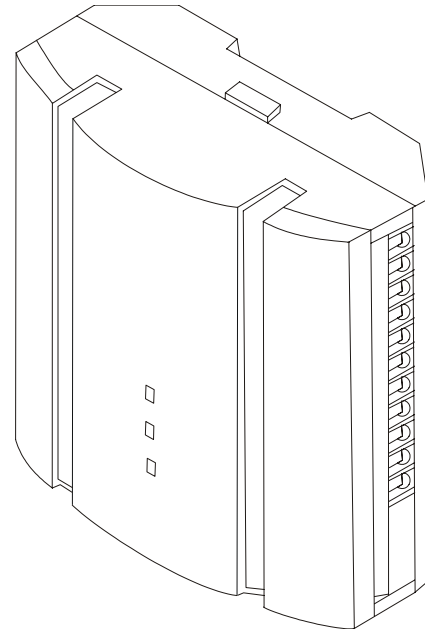
The PSU-1 pump sequencing unit is a stand-alone microprocessor based controller for radiant heating applications.

Overview

The PSU-1 controller is a compact, microcontroller-based controller to support radiant applications with pump sequencing needs. It controls the pump sequences, rotates the pump according to the programmed mode, checks the flow and goes into an alarm, if no flow is detected. The PSU-1 can be used in a networked or stand-alone environment. The PSU-1 can be programmed, using the LCI-2 programming kit.

Features

- Control of two primary pumps with four control modes
- Standby pump operation with manually selectable lead pump
- Alternating lead pump with each on-off cycle
- Equal run time operation with adjustable run time
- Two stage operation based on an adjustable primary loop temperature differential
- Warm weather shutdown
- Alarm reporting on the network and by digital output
- Automatic configuration with the LCI-2
- LONWORKS® interface to building automation systems



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Specifications

Electrical

Inputs

- Cabling: twisted shielded pair, 18 AWG recommended—500 feet max. (152 meters)
- Resolution: 10 bit

Return (Water) Temperature, Supply (Water) Temperature (both optional)

- Precon Type III 10K thermistor

Unit Enable

- Normally open (closed when active)
- 5 Volts DC Max

Outputs

Pump 1, Pump 2

- 24 Volts AC
- 1 Amp at 50 °C, 0.5 Amps at 85 °C

FTT-10A Network

- Speed: 78 KBPS
- Cabling: Maximum node-to-node distance: 1312 feet (400 meters)
- Maximum total distance: 1640 feet (500 meters)

For detailed specifications, refer to the FTT-10A Free-Topology Transceiver User's Guide published by Echelon Corporation. For information on ordering Connect Air items, contact Connect Air International; 4240 B Street; Auburn, WA 98001 <www.connect-air.com>.

Table 1: Network Wire Specifications

Cable Type	Pairs	Details	Connect Air Catalog No.
Level 4 22AWG (0.65mm)	1	Unshielded, Plenum, U.L. Type CMP	W221P-2001
Level 4 22AWG (0.65mm)	1	Unshielded, Non-Plenum, U.L. Type CM	W221P-1002

Power

Power Requirements

- 24 VAC nominal (requires an external supply)

Power Consumption

- 15 VA

Mechanical

Housing

- Dimensions: 4 3/8" high, 4 5/16" wide, 2" deep (111 mm high, 110 mm wide, 51 mm deep)
- ABS Polycarbonate

Weight

- Controller Weight: 0.45 pounds (0.22 kilograms)
- Shipping Weight: 0.60 pounds (0.28 kilograms)

Electronics

- Processor: 3150 Neuron 10 MHz
- Flash: 48 Kilobytes
- SRAM: 8 Kilobytes
- Termination: 0.197" (5.0 mm) Pluggable Terminal Blocks, 14-22 AWG

Environmental

- Temperature: -40 °F to 185 °F (-40 °C to 85 °C)
- Humidity: 0 to 90%, non-condensing

Agency Listings

- UL916

Agency Compliances

- FCC Part 15 Class A
- CE