

Spyder PUL1012S, 4024S, 6438S, and 6438SR controllers round out the Phoenix Controls portfolio of Lon® controllers, providing unitary HVAC control over a Lon network. Features built into these devices provide many options and advanced system features that allow state-of-the-art commercial building control. Each controller is programmable and configurable using the Phoenix Controls Workbench software.

These devices are Free Topology Transceiver (FTT) LonMark®-compliant and designed to control HVAC equipment. The user chooses which function blocks to use and how to connect them; each function block's behavior is user-defined. A host micro-controller runs the main HVAC application and a second micro-controller runs LonWorks® network communications. Inputs/Outputs on the controller provide flexible, universal inputs for external sensors, digital inputs, and a combination of analog outputs and digital outputs.

FEATURES

- Uses the Echelon® LonWorks network protocol.
- Capable of stand-alone operation or interfacing with Celeris®/Tracel® room-level networks.
- 1, 4, or 6 Universal Inputs; 3 to 11 Analog/Digital Outputs.
- Field configurable and programmable for control, input, and output functions.
- User-defined network variables.
- Function Block engine allows the application designer to program the controller for a wide variety of HVAC applications.
- Significant Event Notification, Periodic Update capability, and Failure Detect (FD) when network inputs fail to be detected within their configurable time frame.
- All wiring connections are made to removable terminal blocks to simplify controller installation and replacement.
- DIN rail or panel mounting.

SPECIFICATIONS

Enclosure

Plastic base plate and factory-snap-on cover; UL plenum rated.

- PUL1012S, PUL4024S:
6.25 x 4.81 x 2.26 in. (15.92 x 12.20 x 5.74 cm); 0.56 lbs (0.255 kg)
- PUL6438S, PUL6438SR:
5.45 x 6.85 x 2.26 in. (13.84 x 17.40 x 5.74 cm); 0.81 lbs (0.367 kg)

Electrical

Rated Voltage: 20-30 Vac; 50/60 Hz, must be powered by Class 2 power source

Power Consumption

- Controller Only: 20 VA
- Maximum Load (Controller and All Devices it powers): 100 VA

Communications*

LonWorks Network Protocol; FTT-10A, 78 KB

*LonWorks, Lon, LonMark, and LonTalk are registered trademarks of the Echelon Corp.



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Environmental

- Operating Temperature Range: Minimum -40° F (-40° C); Maximum 150° F (65.5° C)
- Storage Range: Minimum -40° F (-40° C); Maximum 150° F (65.5° C)
- Operating Humidity Range: 5% to 95% non-condensing

CPU Specifications

Specification	PUL 1012S	PUL 4024S	PUL 6438S	PUL 6438SR
TI MSP430	16-bit	16-bit	16-bit	16-bit
Flash Memory	116 KB	116 KB	116 KB	116 KB
RAM	8 KB	8 KB	8KB	8 KB

Real Time Clock

- Operating Range: 24 hour, 365 day, multi-year calendar including day of week and configuration for automatic daylight savings time adjustment to occur at 2:00 a.m. local time on configured start and stop dates
- Power Failure Backup: 24 hours at 32°F to 100°F (0°C to 38°C), 22 hours at 100°F to 122°F (38°C to 50°C)
- Accuracy: ±1 minute per month at 77° F (25° C)

Regulatory Compliance



- RoHS
- EU Contact Address:
Honeywell GmbH
Boebinger Str. 17
71101 Schoenaich
Germany

ORDERING GUIDE

