

The PUB1012S, 4024S, 6438S, and 6438SR Spyder controllers are part of the Phoenix Controls portfolio of unitary controllers designed to control HVAC equipment. These BACnet® MS/TP network 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.

The controllers are for use in unitary and advanced HVAC control applications. The user chooses which function blocks to use and how to connect them; each function block's behavior is user-defined. Each controller contains a host micro-controller to run the main HVAC application and a second micro-controller for BACnet MS/TP network communications. Each controller provides flexible, universal inputs for external sensors, digital inputs, and a combination of analog outputs and digital outputs.

FEATURES

- Interfaces with Theris®/Traccel® BACnet MS/TP room-level networks.
- EIA-485 communications network. Capable of baud rates between 9.6 and 115.2 kbits/s.
- Capable of stand-alone operation if BACnet MS/TP network communications are not required.
- 1, 4, or 6 Universal Inputs; 3 to 11 Analog/Digital Outputs.
- Field configurable and programmable for control, input, and output functions.
- Function Block engine allows the application designer to program the controller for a wide variety of HVAC applications.
- 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.

- PUB1012S, PUB4024S:
6.25 x 4.81 x 2.26 in. (15.92 x 12.20 x 5.74 cm); 0.56 lbs (0.255 kg)
- PUB6438S, PUB6438SR:
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: 10 VA (PUB1012S, PUB4024S) or 20 VA (PUB6438S, PUB6438SR)
- Maximum Load (Controller and All Devices it powers): 100 VA

Interoperability

- B-ASC level device
- BACnet® compliant on MS/TP LAN at up to 76.8 Kbps
- See Protocol Implementation Conformance Statement (PICS)



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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 | PUB 1012S | PUB 4024S | PUB 6438S | PUB 6438SR |
|---------------|-----------|-----------|-----------|------------|
| ATMEL ARM 7 | 32-bit | 32-bit | 32-bit | 32-bit |
| TI MSP430 | N/A | N/A | 16-bit | 16-bit |
| Flash Memory | 512 KB | 512 KB | 372 KB | 372 KB |
| RAM | 128 KB | 128 KB | 72 KB | 72 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

