

S2BACLIGHTDP

24-Channel Douglas Lighting Relay Controller



Overview

The S2BACLIGHTDP is an intelligent lighting relay controller designed to control twenty-four (24) Douglas Lighting Relays (WR-6221, WR-6161, etc) used primarily in commercial lighting control applications. Each of these lighting relay circuits can be controlled by any one or combination of the following programmable features:

- Low voltage momentary/sustained/toggle wall switches, occupancy sensors, light level sensors, etc.
- Douglas Lighting WR-8xxx 2-wire Switches and devices
- Multiple internal time of day/week/month schedules (S2BACLIGHTDP has its own internal real time clock)
- Internal schedules can operate concurrently with other interfaces or setup to trigger in degraded modes of operation (i.e. loss of communication with the Building's Automation System, Alarm trigger, etc)
- S2BACLIGHTDP's standard electrical interfaces (Ethernet, RS-485, or USB) through one of several Industry standard protocols (BACNet IP or MS/TP, JCI's N2 Open, or Modbus RTU).

S2BACLIGHTDP can be programmed and/or operated standalone, via a web browser, and/or can be directly integrated within a building management systems (BMS) using a number of Industry standard interfaces and protocols.

Replacement for Douglas Lighting's WRS-2224 Scanner

The S2BACLIGHTDP can be used as a direct replacement for the WRS-2224 lighting scanner. In fact the S2BACLIGHTDP is the same size and maintains virtually the same wiring connections as the WRS-2224. Unlike the WRS-2224, the S2BACLIGHTDP does not require any expansion modules to support connectivity to the site's building management system.

Unique Features and Functionality

S2BACLIGHTDP has a number of unique features that make it highly attractive to building operators. Firstly, S2BACLIGHTDP can operate multiple protocols/interfaces simultaneously for those users wishing multiple mechanisms (i.e. Web browser and BMS control) to optimally control their building lighting. For example some building operators may wish to expose a portion or all of the lighting control to some specialty personnel (i.e. administration, Security, etc) or tenant lighting interfaces without allowing these users access to the building's management system.

Secondly, S2BACLIGHTDP includes a Dali lighting controller interface allowing the building operator to control up to sixty-four (64) Dali enabled dimmable fixtures or ballasts. The benefit here is that the Dali interface provides expandability/migration towards fixture level lighting control with minimum of cost while maintaining the investment of the base controllers.

Thirdly, the S2BACLIGHTDP was designed from the beginning to be as flexible and expandable as possible. Since S2BACLIGHTDP is field programmable new features, functions, protocols, specialized customer requirements (i.e. graphic floor plans, building specific operational needs, etc), etc can be easily added without the removal of the controller which minimizes future obsolescence concerns.

Highlights

- Multiple on-board Industry Standard interfaces
- BACNet Connectivity
- Retrofittable Design
- Direct Support of existing Douglas Lighting Relays and switches
- Customizable Functionality
- On-board Dali Capability

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S2BACLight

Specifications



Part Number:	S2BACLight-24
Power Requirements:	24VAC @ 500mA (varies with connected relays and relay states)
Environment:	
Temperature	0 C to +70 C
Humidity	10 – 95 % RH (non-condensing)
Dimensions:	16.4cm L x 10.0cm W x 5.5cm H (6.5"L x 4.0"W x 2.2" H)
Packaging:	DIN Rail Mountable
Interfaces:	
	One (1) 10/100 Mb/s Ethernet Interface
	One (1) Electrically isolated Half-Duplex RS-485 Interface
	One (1) DALI – Digital Addressable Lighting Interface (Controller)
	One (1) High Speed USB Interface (Initial Configuration)
	One (1) Real Time Clock with Battery Backup for local scheduling
Protocols:	
	BACNet MS/TP, JCI N2 Open, TCP/IP Web Interface
	BACNet / IP and Modbus will be available when requested
Electrical:	
Outputs:	Twenty-four (24) 2-Wire Pulse Relays with associated LED Status Display
	Outputs are sequentially switched to minimize in-rush load current(s)
Supported Relays:	Douglas Lighting/Aromat WR-6221, WR-6161, or equivalent
Inputs:	Each Input has a Programmable Group or Zone which allows control of one or more of the 24 Relay Outputs
	Eight (8) 2-wire Douglas Lighting WR-8xxx or compatible Switch Inputs
	Two (2) Binary Inputs (12-24V AC/DC or dry contact)
	programmable as Maintained, Momentary On or Off
	One (1) On-board User configurable switch
Programmable Zones:	Eleven (11) Hardware Groups/Zones as listed above
	Additional "Soft" or Internal Zones can be made available to the external Building Management System (BMS) Interface.
Building Automation:	Twenty-four (24) Binary Outputs (BO) (One BO per Relay)
	Twenty-four (24) Binary Inputs (BI) (One BI per Relay)
	Eleven (11) Binary Inputs (BI) (One BI per Group Input, Digital Input, etc)
	Additional Objects will be added as new features/functions are released

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