

Red5 Series

Red5-EDGE-LIGHT-RELAY

Description

The Red5-EDGE-LIGHT-RELAY is a fully programmable native BACnet building controller for lighting applications that contains memory storage, external communication ports, and control logic for the RED5-MODULE-PR12 lighting module and Red5 I/O and gateway modules.

Each Red5-EDGE-LIGHT-RELAY can support a maximum of 12 modules, including up to 4 local modules. Remote modules require a Red5-EXPAND-04, which can support up to 4 modules each. Up to 8 03-HUB devices can be connected via the NET3 Red5BUS in place of Red5-EXPAND-04 devices. Red5-MODULE-1DOOR is not supported.



Application

Used together with the Red5-MODULE-PR12, the Red5-EDGE-LIGHT-RELAY provides relay-based control of lighting systems.

Typically, 3 local PR12 modules will be used for a 36-relay cabinet. Additional I/O modules can be connected to manage lighting inputs such as switches, motion detectors, and photo cells.

Features

- ▶ Fully programmable in GCL+
- ▶ BACnet/IP, BACnet over Ethernet, and BACnet MS/TP communication ports
- ▶ Dual Ethernet ports
- ▶ Modular, expandable I/O. Modular design provides flexibility, ease of service and reduces cost of future upgrades.
- ▶ Advanced fault detection and diagnostics
- ▶ Firmware upgrade and database load/save over the network
- ▶ LED indicators for device status, NET, and Ethernet ports
- ▶ DIN rail mountable (EN 50022-35x7.5)

Specifications

BACnet Device Profile

BACnet Building Controller (B-BC)

Device Addressing

Software addressed

Connectors

Removable screw-type terminal connectors

Wiring Class

Class 2 / SELV

Power

24 VDC, 2 W typical (5 W max)
24 VDC, 100 W max output fully loaded

Power Out

1 24 VDC switched power output
Short circuit protected
Overcurrent protected

2 24 VDC unswitched power outputs

Technology

Arm® Cortex®-A8 32-bit 600 MHz CPU
256 MB DDR3L RAM
4 GB eMMC flash memory
Real-time clock
Supercapacitor backup for RTC and safe shutdown data loss prevention

Communication Ports

2 Ethernet (10/100-Base T)
BACnet/IP, BACnet over Ethernet, BACnet/SC

RS-485 (NET1, NET2, NET3):
BACnet MS/TP up to 76800 bps, max 16 devices

LINKnet up to 76800 bps, max 12 devices

Modbus RTU up to 115200 bps, max 16 devices (1 port only)

Red5BUS (NET3):

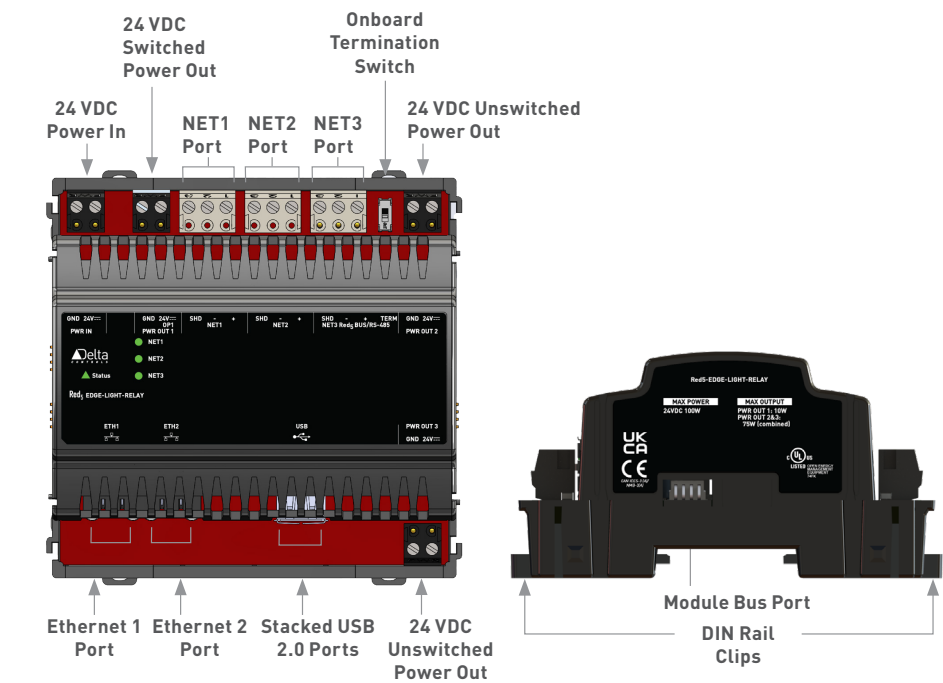
Max 12 remote modules if no local modules are present (requires Red5-EXPAND-04) or max 8 03-HUB devices

Max 4 local modules

2 USB 2.0 ports

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Specifications (Continued)

Ambient Rating
-30°C to 55°C (-22°F to 131°F)
10% to 95% RH (non-condensing)

Dimensions
108×111×58 mm (4.25×4.37×2.28 in.)

Weight
193 g (0.425 lb)

Enclosure Protection Rating
IP20

Compliance
CE
FCC

Listings
cULus 916 Listed
UKCA Listed

Order a Red5 system base unit with one or more modules:

Base Unit

Red5-EDGE-LIGHT-RELAY	Controller with 3 network ports, 2 Ethernet ports, 3 power outputs
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Modules

Red5-EXPAND-04	Power injector for Red5 expansion supporting up to 4 modules
Red5-MODULE-PR12	Lighting module with 12 outputs for Panasonic-style 2-wire relays
Red5-MODULE-4F4xP	I/O module with 4 universal I/O, 4 FET binary outputs
Red5-MODULE-8xP	I/O module with 8 universal I/O
Red5-MODULE-DALI	Gateway module for DALI lighting
Red5-MODULE-SMI	Gateway module for SMI motorized blinds
03-HUB	Sensor hub
03-HUB-En868	Sensor hub with EnOcean 868 MHz
03-HUB-En902	Sensor hub with EnOcean 902 MHz

Power Supplies

DRC-24V30W1AZ	Chrome Line Voltage DC power supply 24 V 30 W Class A EMC
DRC-24V60W1AZ	Chrome Line Voltage DC power supply 24 V 60 W Class A EMC
DRS-24V30W1NZ	Sync Line Voltage DC power supply 24 V 30 W Class B EMC
DRS-24V50W1NZ	Sync Line Voltage DC power supply 24 V 50 W Class B EMC
DRS-24V100W1NZ	Sync Line Voltage DC power supply 24 V 100 W Class B EMC

Updated December 2025

Subject to change without notice.