Room Controller Network

Overview
The Room Controller Network includes three relays and up to three 0-10 VDC dimming outputs to control compatible dimmable luminaires. The Room Controller Network is shipped to work out-of-the-box when connected to Room Controller devices, allowing quick and easy daylighting controls, occupancy/vacancy sensing and manual switching.

Network up to 254 ControlKeeper and Room Controller Network lighting control panels for a complete network system.

Features
- Click & Go ready, RJ45 connections
- Preconfigured for automatic functionality upon power-up
- Manual or Automatic On, bi-level, tri-level and dimming control strategies
- Local and network Demand Response input for automatic energy reduction
- Each 0-10V control supports up to 50 dimming drivers sourcing 2mA
- Integral pillow speaker connections for GPCS (RC3DEHC-PL-N)
- Integral Solatube® connection for classrooms
- Provides multi-level corridor lighting control
- Guaranteed compatibility with Cooper Lighting LED and 0-10V fluorescent fixtures
- Ladderless UL 924 Emergency Mode testing (RC3DE & RC3DEHC)
- Network up to 254 ControlKeeper and Room Controller Network lighting control panels
Specifications

Size
11 1/2"H x 7 1/2"W x 2 1/4"D

Input/Output Voltage
120/277 VAC, 60Hz
  Maximum 20A combined load per Room Controller
  Ballast load: 20A @ 120/277 VAC
  Incandescent load: 15A @ 120 VAC
  Motor load: 1HP @ 120 VAC

Emergency Output (RC3DE/ RC3DEHC only)
Ballast or Incandescent load: 3A

Class 2 Dimming Output
0-10 VDC, sinks up to 100mA per (40 μA max per circuit leakage to line)
Each 0-10V output supports up to 50 ballasts/drivers that draw the standard 2mA each

LED Drivers
Requires isolated LED drivers for optimal performance

Operating Environment
Temperature: 32°F to 104°F (0°C to 40°C)
For indoor use

Standards
UL Approved
UL 508 Listed
UL 924 Listed

System Includes
- UL listed - UL 508 standard, UL 924 Optional
- NEMA 1 enclosure
- 12 Zone or Scene Wallstations
- Programmable Scene control
- Open loop three zone daylight sensor
- Time clock input
- Occupancy/Vacancy Sensor Connection
- Occupancy based receptacle control
- Occupancy based HVAC output
- RS-485 network standard
- Software programmable

Description/Operation

The Room Controller products can be networked together to expand their out of the box capabilities. Perfect for projects that have multiple rooms that have similar requirements. The Room Controllers can be installed and provide control capabilities on day one without requiring network programming. As the project schedule allows network programming can be completed to provide centralized control and user training.

Installation

The line voltage section of the Room Controller provides the installing contractor space to make all line voltage connections and direct conduit access, reducing the need for additional junction boxes, while providing easy access to line voltage circuits. Low voltage devices are connected using Cat5 cables (ordered separately).

UL 924 relay is provided on some units for automatic emergency lighting control. The UL 924 relay automatically tracks with output 1 and can be connected to any of the three 0-10V dimmers. The UL 924 relay automatically closes and disconnects the 0-10V control open loss of normal power providing adequate egress lighting control. Ladderless maintenance testing of the UL 924 relay can be achieved by pressing the ALL OFF button four times.

ControlKeeper and Room Controller Network lighting control panels are joined together using a RS-485 network cable sold separately (GG9841, GG9842, GG88641P, GG88642P).

Sample Room Layout
Wiring Diagram

ALL MODELS

White/Black = 120V Neutral
White/Orange = 277V Neutral
Connect Neutral for Appropriate Voltage.

Yellow = Load 1 Out
Red = Load 2 Out
Purple = Load 3 Out
Load 1
Load 2
Load 3

Line In
(120V or 277V)

Neutral

Blue = Emergency Load
Yellow = Emergency Load Out
Blue = Emergency Line In
Black = Power Supply Line In

RC3DE MODEL ONLY

CAUTION: Bonding between conduit connections is not automatic and must be provided as part of the installation.

Demand Response Occupancy Not Used

Default 10%

0-10V Gain
Adjustment

Room Connections

The Ethernet Interface Module (EIM) and Wireless Ethernet Interface Module (WEIM) may be connected to any Lighting Control Panel in the system using the RS-232 cable included. (Part #:52-018703-00)

120V Power Receptacle Required

EIM

ControlKeeper TouchScreen

QuickConnect Coupler (GGRCL-COUPLE)
Daylight sensor (GGRC-COUPLER)

Occupancy/ Vacancy Sensor (OAWC-DT-120W)
Wallstation
Slider Station

www.eaton.com/lightingsystems
Room Controller Network

Ordering

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>Description</th>
<th>Voltage</th>
<th>Ballast/Incandescent</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC3-PL-N</td>
<td>3 relays, Plenum, Network Room Controller</td>
<td>120/277 VAC, 60 Hz</td>
<td>Maximum Combined Load 20A</td>
</tr>
<tr>
<td>RC3D-PL-N</td>
<td>3 relays, 3 0-10V dimming Plenum, Network Room Controller</td>
<td>120/277 VAC, 60 Hz</td>
<td>Maximum Combined Load 20A</td>
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<tr>
<td>RC3DE-PL-N</td>
<td>3 relays, 3 0-10V dimming, UL924 Plenum, Network Room Controller</td>
<td>120/277 VAC, 60 Hz</td>
<td>Maximum Combined Load 20A</td>
</tr>
<tr>
<td>RC3DEHC-PL-N</td>
<td>3 relays, 3 0-10V dimming UL924 for healthcare Plenum, Network Room Controller</td>
<td>120/277 VAC, 60 Hz</td>
<td>Maximum Combined Load 20A</td>
</tr>
</tbody>
</table>

Room Controller Upgrade Ordering Option

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCNN</td>
<td>Room Controller Network Node, upgrades stand alone Room Controller to the network option.</td>
</tr>
</tbody>
</table>

Additional Options (Sold Separately)

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGRC-COPLER</td>
<td>RJ45 Coupler</td>
</tr>
<tr>
<td>GGRC-SPLITTER</td>
<td>RJ45 Splitter</td>
</tr>
<tr>
<td>GGRJ45-006-G</td>
<td>RJ45 cables 6 inches</td>
</tr>
<tr>
<td>GGRJ45-03-G</td>
<td>RJ45 cables 3 feet</td>
</tr>
<tr>
<td>GGRJ45-10-G</td>
<td>RJ45 cables 10 feet</td>
</tr>
<tr>
<td>GGRJ45-25-G</td>
<td>RJ45 cables 25 feet</td>
</tr>
<tr>
<td>GGRJ45-50-G</td>
<td>RJ45 cables 50 feet</td>
</tr>
<tr>
<td>GGRJ45-100-G</td>
<td>RJ45 cables 100 feet</td>
</tr>
<tr>
<td>GGRJ45-10P-G</td>
<td>RJ45 cables 10 feet plenum rated</td>
</tr>
<tr>
<td>GGRJ45-25P-G</td>
<td>RJ45 cables 25 feet plenum rated</td>
</tr>
<tr>
<td>GGRJ45-50P-G</td>
<td>RJ45 cables 50 feet plenum rated</td>
</tr>
<tr>
<td>GGRJ45-100P-G</td>
<td>RJ45 cables 100 feet plenum rated</td>
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Note: Please refer to the Room Controller page on our website for more information.