



Stairwell Lighting Control Solutions

Energy management strategies for stairwell codes and standards

Ready-to-Install, Code-Compliant Stairwell Control

LEVITON OFFERS SOLUTIONS THAT MEET OR EXCEED THE CODES AND STANDARDS FOR COMMERCIAL STAIRWELLS

As local and national codes and standards are being written and implemented, a reoccurring theme has emerged in the treatment of commercial stairwells. Stairwells are called out with exceptions in IECC, ASHRAE 90.1 and California Title 24. Although stairwells still require the advanced energy-saving capabilities of other code-compliant spaces (such as daylight harvesting, demand response and occupancy sensing), there are often different guidelines for manual switching needs and the percentage of full power that lights turn ON or OFF to. The Integrated Room Control (IRC) energy management solution was engineered to easily meet all code requirements, including specific provisions for stairwell lighting control.

The IRC is a code-compliant powerhouse, with advanced capabilities in a compact, easy-to-install package:

- Combines occupancy sensing, daylight harvesting, 0-10V dimming, partial-ON/OFF and demand response capabilities in a stand-alone package
- Kitted with factory configured sensor, photocell and 4-button switch
- Autocal™ automatic photocell calibration and Ladderless Commissioning™
- Auto 100-hour burn-in

PROBLEM

Multi-level facility is upgrading energy management systems to save energy and comply with local energy codes.

- Facility is located in California and must comply with Title 24 code requirements
- For facility outside of California, must comply with local codes that meet the guidelines set by IECC and/or ASHRAE 90.1
- Multiple stairwells throughout the facility must meet partial-ON/OFF requirements set by Title 24
- Tight retrofit schedule leaves limited time for product selection and installation

SOLUTION

Integrated Room Control (IRC) is a complete code compliant energy management room-in-a-box that meets all code requirements, including stairwell exceptions.

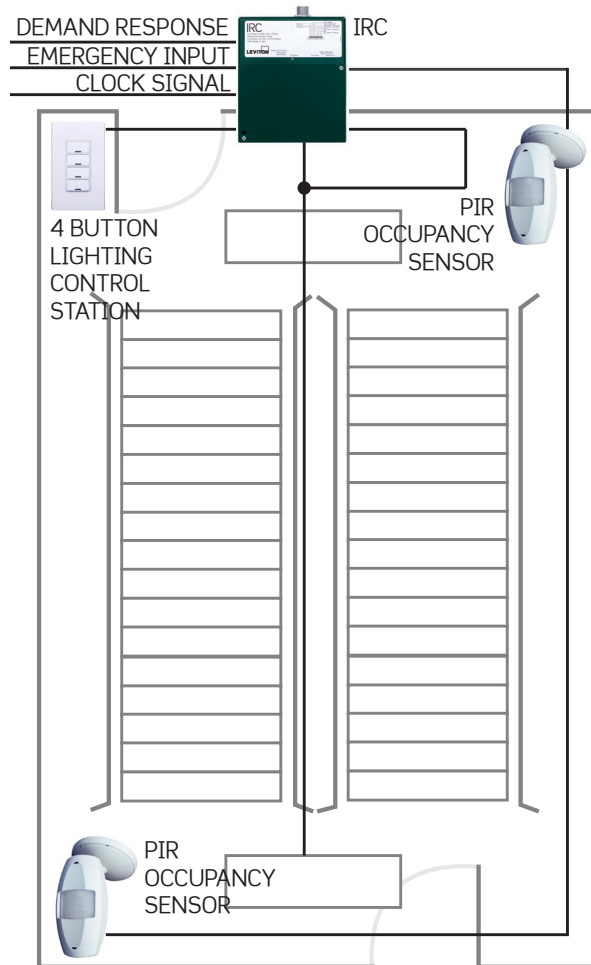
- Meets the exception to Title 24 Section 130.1(c), Automatic Shut-Off Controls, where occupancy sensors with partial-OFF capabilities are required
- Room-in-a-box solution allows you the convenience of ordering a complete system (including pre-configured occupancy sensor, photocell and 4-button switch) with only one part number
- Available as a separate component when no photocell is required (no skylights or windows in stairwell)
- Features the ease of Ladderless Commissioning™ and AutoCal™ for install-and-forget convenience

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Integrated Room Control—Stairwell Application



Meets the Following IECC Requirements

- **Section C405.2.2.2 (2012), C405.2.1.1 (2015) Occupancy Sensors**
 - Exception for stairways: full auto-ON controls shall be permitted as manual-ON would endanger the safety or security of the room or building occupants
- **Section C405.2.1.1 (2012), C405.2.2.3 (2015) Interior Lighting Controls**
 - Exception for stairways to mandatory manual controls for interior lighting areas




Meets the Following ASHRAE 90.1 Requirements

- **Section 9.4.1.6 (2010) Additional Controls**
 - Provide a separate control device for several unique applications, including stairwells
- **Section 9.4.1.6(g) (2010) Occupant Control of Stairwells**
 - Control Strategy: Stand-alone Control

Meets the Following Title 24 Requirements

- **Section 130.1(a)**
 - Area Controls
 - Manual-ON/OFF
- **Section 130.1(b)**
 - Multi-Level Controls
 - Partial-ON/OFF
- **Section 130.1(c)**
 - Shut-Off Requirements
 - Occupancy Control

ORDERING INFORMATION

DESCRIPTION		QTY
 IRC for 2 Zones, 2 Relays MZD20-102	<ul style="list-style-type: none"> • Stand-alone room control for dimming, partial-ON/OFF and demand response 	1
 PIR Wall/Corner Mount Occupancy Sensor, Wide View OSWVW-IDW	<ul style="list-style-type: none"> • Detects occupancy in a room and signals the system to dim lighting accordingly 	2
 Lighting Control Station RLVSW-4LW	<ul style="list-style-type: none"> • Manual lighting control to dim and switch at multiple levels 	1

Note: Requirements for stairwells change according to the code or standard being used. For example, some codes have exceptions for manual controls in stairwells. In addition, code requirements can change when the stairwell area includes daylighting elements such as skylights and/or windows. Consult your facility's applicable codes and the authority having jurisdiction for details.

Disclaimer: This document is for informational purposes only. Each project will have its own specific requirements for satisfying Title 24 code compliance based on a variety of factors. Other exceptions or details may apply. Review the code for specific requirements and/or consult with a professional advisor. Leviton Mfg. Co., Inc. is not responsible for any loss resulting from the use of any information found in this document. Solutions are subject to change without notice. For additional assistance, contact your local Leviton representative.

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