

# RP-C-EXT-ZB-0-10V

## SpaceLogic™ RP Controller Expansion Modules

EcoStruxure™ Building



\* Formerly known as SmartX.

### Introduction

SpaceLogic\* RP-C-EXT-ZB-0-10V Zigbee 0-10V module communicates with the SpaceLogic RP room controller over the Zigbee™ wireless protocol and provides I/O expansion for 0-10V lighting control.

The Zigbee 0-10V module enables dimming of different types of lights equipped with electrical ballasts for 220–240 VAC line voltage. The Zigbee 0-10V module can distribute power (220–240 VAC) from an external power supply to the lights.

Lighting can be controlled by the RP-C through motion detection and light intensity measurement provided by the Multi-sensor or by SpaceLogic Sensors connected to the RP-C.

### Features

The Zigbee 0-10V module has the following features:

- Wireless communication with the RP-C room controller
- 0-10V light output for control of 230 VAC powered lights (see output specification for limitations on inrush current)
- Power consumption monitoring per module
- Suitable for mounting in ceilings
- Integrated 2.4 GHz antenna
- Configuration through EcoStruxure Building Operation software

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- Status LED for the device

## 0-10V lighting control

The light output is connected to the power supply network through the Zigbee 0-10V module. For the 0-10 VDC control signal wires, you may use the standard installation equipment permitted for ELV (Extra-Low Voltage) installations. The 0-10 VDC control signal meets SELV (Safety Extra-Low Voltage) requirements.

The analog interface has the following features:

- The lights connected to the output belong to the same group and are thus controlled simultaneously (same ON / OFF / Dimming setpoint).
- Power to the ballasts is cut off when the lights are switched off.

## Part Numbers

| Product           | Part number      |
|-------------------|------------------|
| RP-C-EXT-ZB-0-10V | SXWREZB010110001 |

## Specifications

| RP-C-EXT-ZB-0-10V                   |   |
|-------------------------------------|---|
| AC input                            |   |
| Nominal voltage                     | 230 VAC   |
| Rated voltage range                 | 220 to 240 VAC  |
| Frequency                           | 50/60 Hz  |
| Maximum load current                | 5 A   |
| Maximum power consumption           | <1 W  |
| Power input protection              | MOV suppression and internal fuse                         |
| AC output                           |   |
| Rated voltage range                 | 220 to 240 VAC (same as power supply)                     |
| Maximum load current                | 5 A   |
| Maximum inrush current              | 30 A (<5 ms)  |
| Wireless connectivity               |   |
| Communication protocol              | Zigbee 3.0  |
| Frequency band                      | 2.4 GHz (ISM band), compliant with IEEE Standard 802.15.4 |
| Maximum output power                | 7 dBm   |
| Effective indoor radio signal range | 30 m (98 ft)  |
| Antenna                             | Integrated antenna  |
| Environment                         |   |
| Ambient temperature, operating      | -20 °C to +50 °C (-4 °F to +122 °F)                       |
| Case temperature, maximum           | 75 °C (167 °F)  |
| Ambient temperature, storage        | -30 to +65 °C (-22 to +149 °F)                            |

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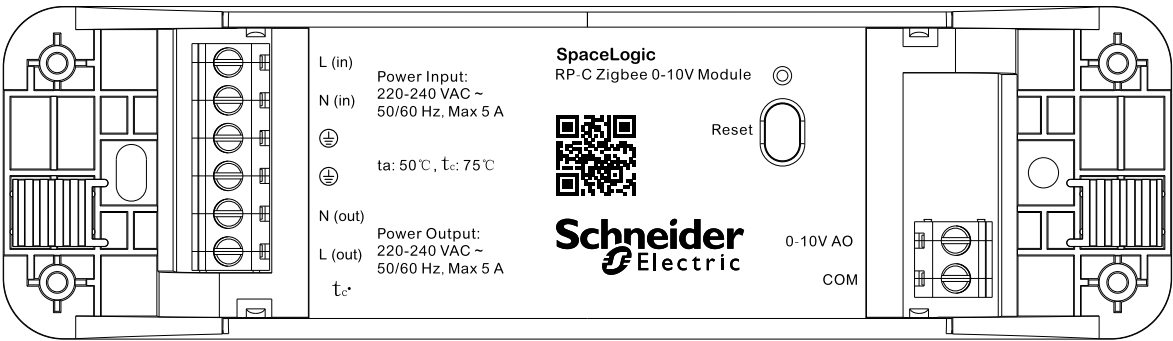
|                                |   |  |  |
|--------------------------------|---|--|--|
| Humidity                       | Maximum 85 % RH non-condensing  |  |  |
| Material                       |   |  |  |
| Plastic flame rating           | UL94 V-0  |  |  |
| Ingress protection rating      | IP 20   |  |  |
| Mechanical                     |   |  |  |
| Dimensions                     | 155 W x 44 H x 30 D mm (6.1 W x 1.7 H x 1.2 D in.)  |  |  |
| Weight                         | 0.126 kg (0.278 lb)   |  |  |
| Installation                   | Ceiling<br>Indoor use only  |  |  |
| Output terminals               | Fixed<br>Left side: 1 x 6-pin terminal block<br>Right side: 1 x 2-pin terminal block  |  |  |
| Compatibility                  |   |  |  |
| EcoStruxure Building Operation | version 4.0.1 and later   |  |  |
| Agency compliances             |   |  |  |
| EMC                            | ETSI EN 301 489-1 V2.1.1 (2017); ETSI EN 301 489-17 V3.1.1 (2017); BS/EN 61000-3-2:2014; BS/EN 61000-3-3:2013; BS/EN 55015:2013; BS/EN 61547:2009 |  |  |
| Radio                          | ETSI EN 300 328 V2.1.1 (2016)   |  |  |
| Safety standards               | BS/EN 62493:2015; BS/EN 62479:2010; BS/EN 61347-1:2015; BS/EN 61347-2-11:2001   |  |  |
| Power consumption monitoring   | BS/EN 61010-1:2010  |  |  |
| Hardware                       |   |  |  |
| CPU type                       | ARM Cortex-M4 single-core   |  |  |
| Frequency                      | 40 MHz  |  |  |
| SRAM (embedded)                | 64 KB   |  |  |
| Flash memory (embedded)        | 512 KB  |  |  |
| NOR flash memory               | 1 MB  |  |  |
| Status indicator               | LED (green and red) that shows the status of the device   |  |  |
| Reset button                   | Push-button switch  |  |  |
| Energy metering                |   |  |  |
| Measurement accuracy           | See table below.  |  |  |
| Measurement range              | Measurement accuracy  |  |  |
| < 50 W                         | +/-2 W  |  |  |
| >= 50 W                        | +/-2 %  |  |  |
| 0-10V light output             |   |  |  |
| Outputs                        | 1, terminals 0-10V AO and COM   |  |  |

# RP-C-EXT-ZB-0-10V

Continued

|                |             |
|----------------|-------------|
| Output voltage | 0 to 10 VDC |
| Sink current   | 40 mA       |

## Terminals



RP-C-EXT-ZB-0-10V

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## Regulatory Notices



**Regulatory Compliance Mark (RCM) - Australian Communications and Media Authority (ACMA)**  
This equipment complies with the requirements of the relevant ACMA standards made under the Radiocommunications Act 1992 and the Telecommunications Act 1997. These standards are referenced in notices made under section 182 of the Radiocommunications Act and 407 of the Telecommunications Act.



**UK Conformity Assessed**  
S.I. 2017/1206 - Radio Equipment Regulations 2017  
S.I. 2016/1101 - Electrical Equipment (Safety) Regulations 2016  
S.I. 2012/3032 - Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012  
S.I. 2013/3113 - Waste Electrical and Electronic Equipment Regulations 2013  
This equipment complies with the rules, of the UK regulations, for governing the UKCA Marking for the United Kingdom specified in the above directive(s).



**CE - Compliance to European Union (EU)**  
2014/53/EU Radio Equipment Directive (RED)  
2014/35/EU Low Voltage Directive  
2011/65/EU Restriction of Hazardous Substances (RoHS) Directive  
2015/863/EU amending Annex II to Directive 2011/65/EU  
This equipment complies with the rules, of the Official Journal of the European Union, for governing the Self Declaration of the CE Marking for the European Union as specified in the above directive(s).



**WEEE - Directive of the European Union (EU)**  
This equipment and its packaging carry the waste of electrical and electronic equipment (WEEE) label, in compliance with European Union (EU) Directive 2012/19/EU, governing the disposal and recycling of electrical and electronic equipment in the European community.



Zigbee Certified Product

[www.se.com/buildings](http://www.se.com/buildings)

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