EcoStruxure™
Innovation At Every Level

RP-C-EXT-REL-4

SpaceLogic™ RP Controller Expansion Modules

EcoStruxure™ Building

4-channel relay module

Introduction

SpaceLogic* RP-C-EXT-REL-4 relay module connects to the SpaceLogic RP room controllers and enables power supply and control of lights.

The relay module is part of the RP controller expansion modules for connected room solution and can be combined with other modules from this product range.

* Formerly known as SmartX.

Features

The relay module has the following features:

- Power and communications through the room bus
- Four relay outputs for power supply and control of lights
- Four digital inputs for connection of window contacts. The digital inputs are SELV (Safety Extra-Low Voltage).
- Measurement of energy consumption per module
- Wieland connectors for quick and easy installation
- Engage mobile application for room comfort settings

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- Status LED for the device
- One status LED for each relay output
- Rotary switch for address configuration

Room bus

The RP controller room bus allows RP controller expansion modules to be connected to the controller for people counting, motion detection, luminosity and sound pressure level measurements, Bluetooth Low Energy based applications, and control of electric lights and window blinds.

The RP-C Pro controller room bus supports up to nine connected RP controller expansion modules with the following restrictions:

- Maximum of two DALI light modules
- Maximum of two SMI blind modules
- Maximum of seven Multi-sensor or Insight-Sensor devices

The RP-C Advanced controller room bus supports up to six connected RP controller expansion modules with the following restrictions:

- Maximum of two DALI light modules
- Maximum of two SMI blind modules
- Maximum of four Multi-sensor or Insight-Sensor devices

Maximum total length of the room bus is 72 m (236 ft).

Engage mobile application

The Engage mobile application enables control of room temperature, fan speed, lights, and blinds/shades directly from a smartphone. A user can manage these settings when the application is connected to the RP-C controller.

The Engage mobile application is free and available for download from Google Play and Apple App Store.

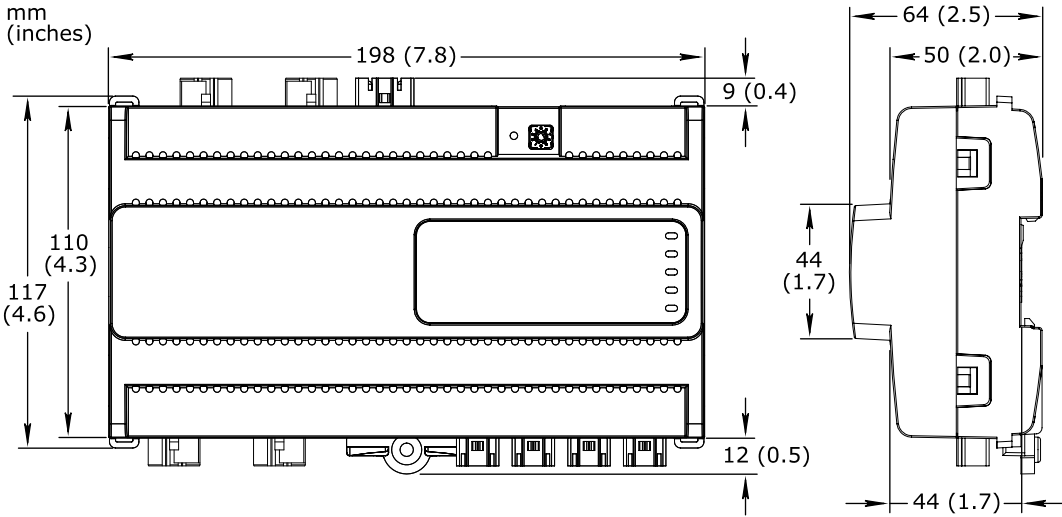For more information, see the Engage Specification Sheet.

Part Numbers

Product	Part number
RP-C-EXT-REL-4	SXWREREL410001
DIN-RAIL-CLIP, DIN-rail end clip package of 25 pieces	SXWDINEND10001

Specifications

RP-C-EXT-REL-4	
Electrical	
Nominal voltage	100 to 277 VAC
Operating voltage range	+/-10 %
Frequency	50/60 Hz
Maximum current consumption	10 A
Room bus power consumption	0.3 W (24 VDC)
Protection	Maximum 16 A external fuse (circuit breaker) is needed
Overvoltage category	III
Environment	
Ambient temperature, operating	0 to 50 °C (32 to 122 °F)
Ambient temperature, storage	-20 to +70 °C (-4 to +158 °F)
Humidity	20 to 90 % RH non-condensing

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Pollution degree	2

Material	
Plastic flame rating	UL94 V-0
Ingress protection rating	IP 20

Mechanical	
Dimensions	198 W x 110 H x 64 D mm (7.8 W x 4.3 H x 2.5 D in.)

Weight	0.378 kg (0.833 lb)
Installation	DIN rail or flat surface
Connectors	Power input: 1 x 3-pin Wieland GST15i3 connector Relay outputs: 4 x 3-pin Wieland GST15i3 connector Digital inputs: 4 x 2-pin Wieland GST15i2 connector

Software compatibility	
EcoStruxure Building Operation software	version 3.2 and later

Agency compliances	
Emission	RCM; BS/EN 61000-6-3; BS/EN 50491-5-2; FCC Part 15, Sub-part B, Class B
Immunity	BS/EN 61000-6-2; BS/EN 50491-5-3
Safety standards	BS/EN 60730-1; BS/EN 60730-2-11; BS/EN 50491-3; UL 916 C-UL US Listed
Fire performance in air-handling spaces[a] a) The RP-C-EXT-REL-4 relay module is approved for plenum applications.	UL 2043

| Communication ports	
Room bus	RS-485 Dual RJ45 ports for daisy-chain configurations Use a Cat 5 (or higher) cable Maximum total length of the room bus: 72 m (236 ft)
Room bus protection	Transient voltage suppressors on communication and power signals

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Hardware	
CPU type	ARM Cortex-M4 single-core
Frequency	80 MHz
SRAM (embedded)	320 KB
Flash memory (embedded)	512 KB
NOR flash memory	16 MB
Status indicator	LED (green and red) that shows the status of the device
Relay status indicator	One status LED (green) for each output
Address switch	Rotary switch 0 to 9
Set button	Push-button switch

Energy metering	
Energy consumption measurement	
The energy consumption is measured in Wh, shared by the four outputs.	
Voltage range	230 to 277 VAC +/-10 %
Accuracy class (according to IEC 61557-12)	Active energy measurement: Class 1
Typical measurement accuracy at room temperature	20 to 100 W: 5% 100 to 3000 W: 1%

Relay outputs	
Relay outputs for lights powered by 100 to 277 VAC.	
Outputs	4, Relay 1 to Relay 4
Output terminals	N, PE, and L
Power distribution	100 to 277 VAC (same voltage as power supply) Maximum 5 A load per output Maximum 10 A total load for the 4 outputs Maximum 165 A inrush current (<20 ms) per output Maximum 800 A inrush current (<200 µs) per output

Digital inputs	
Inputs	4, DI1 to DI4
Range	Dry contact, 0 to 5.0 VDC, 2.2 mA, SELV (Safety Extra-Low Voltage)

Connections

Follow proper installation wiring diagrams and instructions. For more information on wiring, see the SpaceLogic Hardware Reference Guide.

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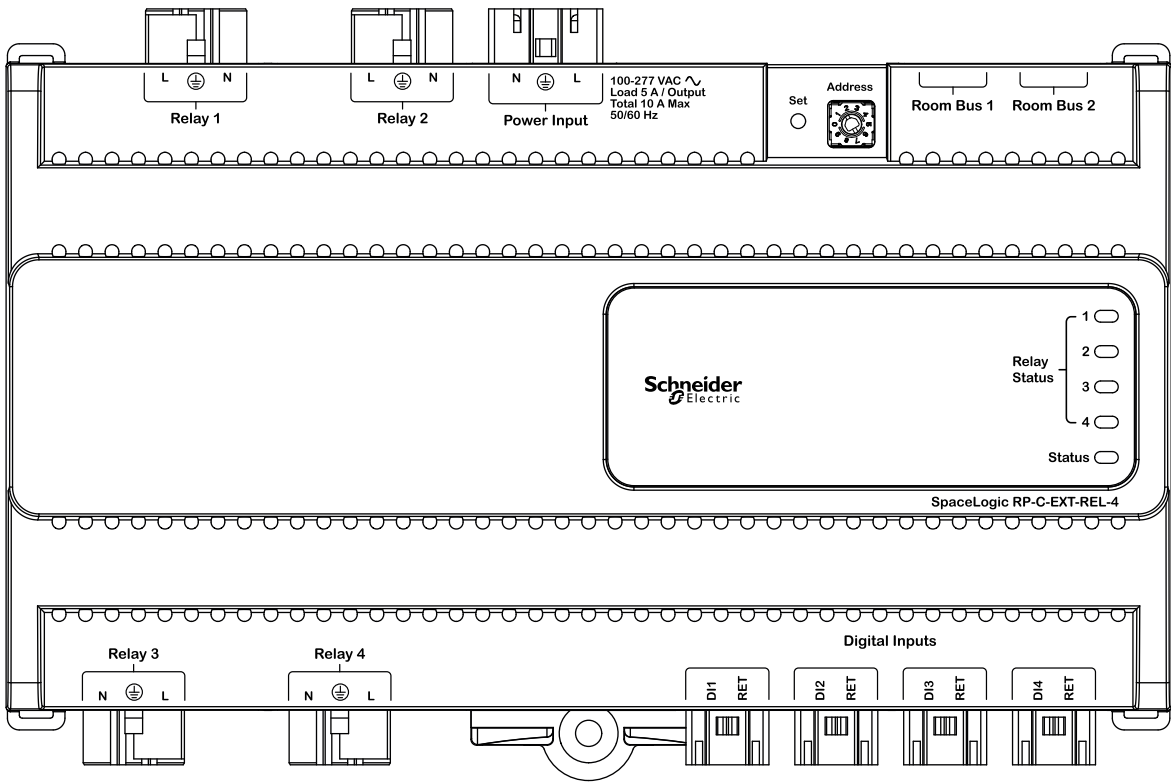
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Required External Connectors

Use	Part number	Reference	Connector type	Suitable for cable diametersmm (inches)	Marking	Color of coding /housing	Minimum order quantity
Power supply input	SXWRPCCON WWPOW	91.931.4053.1	Female	5.6–11 (0.22–0.43)	L, PE, N	Black /Black	100
Relay outputs	SXWRPCCON WWREL	91.932.4053.1	Male	5.6–11 (0.22–0.43)	N, PE, L	Black /Black	100
Digital inputs	SXWRPCCON WDI	91.921.2353.0	Female	3.4–5.5 (0.14–0.21)	1, 2 1: DI1..4 2: RET	Light blue /White	100

The external connectors need to be ordered separately. The connectors can be ordered in quantities of 50 or 100 from Schneider Electric using the above part numbers. The connectors can also be ordered directly from Wieland using the above reference numbers. For more information, see the Wieland Electric web site.

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Regulatory Notices

Federal Communications Commission
FCC Rules and Regulations CFR 47, Part 15, Class B
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference. (2) This device must accept any interference received, including interference that may cause undesired operation.
Industry Canada
This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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.

UL 916 Listed products for the United States and Canada, Energy Management Equipment Accessory. UL file E80146.

CE - Compliance to European Union (EU)
2014/30/EU Electromagnetic Compatibility Directive
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.

UK Conformity Assessed
S.I. 2016/1091 - Electromagnetic Compatibility Regulations 2016
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).

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