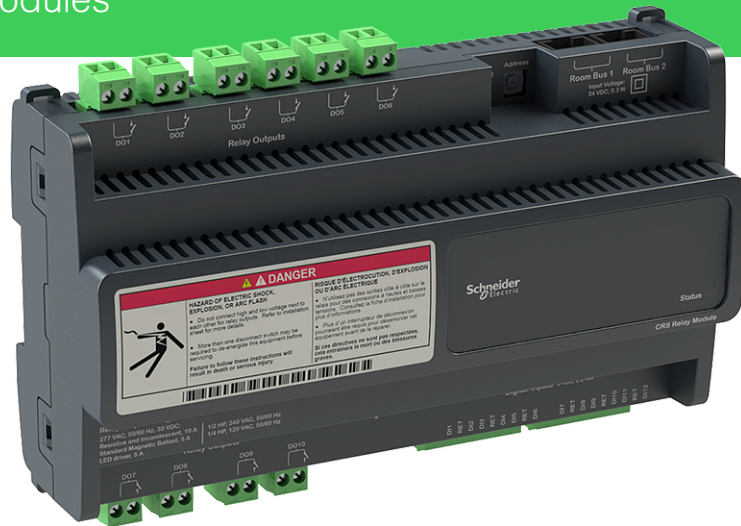


CRS-HH-REL-10

RP Series Expansion Relay Modules



10-channel relay module

Introduction

The CRS-HH-REL-10 relay module connects to the RP-C room controllers and enables the control of lights and blinds.

It supports high-voltage (120/240 VAC) blind motors. Other types of blind motors are supported by means of external relays. For more information, see the SmartX Controller - Hardware Reference Guide.

It is part of the EcoStruxure™ Connected Room Solutions for Hotels and can be combined with other modules from this product range.

It is designed for hotel guest room applications.

Features

The relay module offers the following features:

- Power and communications through the room bus
- 10 relay outputs for the control of lights and blinds in the hotel guest room
- 12 digital inputs offer more flexibility for different applications with in-wall switches or sensors. The digital inputs are SELV (Safety Extra-Low Voltage).

- High-performance relays, with high inrush current capability, well suited for LED lighting applications
- Status LED for the device
- Rotary switch for address configuration

Connected Room Solutions for Hotels

This solution easily transforms hotels. Its extensive architecture is designed for a wide range of modular components including temperature, light and blind control interfaces, as well as bedside panels, sensors, thermostats, plus a wide range of HMIs (such as mechanical switches and Modbus glass touch panels). Get the latest wireless capabilities with the eCommission SmartX Controllers mobile application for commissioning and the open protocols to interface with industry-standard IoT devices.

Room Bus

The RP-C room bus supports up to six connected RP Series expansion modules with the restrictions that are specified for the Connected Room Solutions for Hotels in the Architecture Guidelines - Hotel Application. This is a supplementary document to the Architectural Guidelines - EcoStruxure Building Management.

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

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Part Numbers

Product	Part number
CRS-HH-REL-10	SXWHHREL10001
Includes pluggable screw terminal blocks (10 x 2-pole, 2 x 9-pole connectors) for the I/O, delivered in a plastic bag with the device.	
DIN-RAIL-CLIP, DIN-rail end clip	SXWDINEND10001
package of 25 pieces	

Specifications

Electrical

DC input supply voltage24 VDC
Powered by the RP-C through the room bus (RJ45)

Maximum power consumption0.3 W

Environment

Ambient temperature, operating0 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

Pollution degree.....2

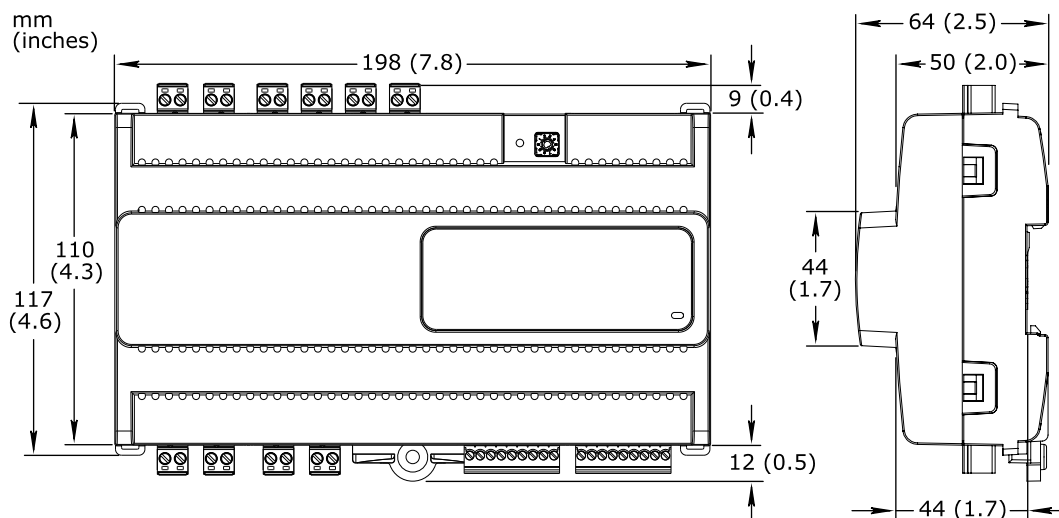
Material

Plastic flame ratingUL94 V-0

Ingress protection ratingIP 20

Mechanical

Dimensions198 W x 110 H x 64 D mm (7.8 W x 4.3 H x 2.5 D in.)



Weight0.476 kg (1.050 lb)

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Installation	DIN rail or flat surface
Terminal blocks	Relay outputs: 10 x 2-pin screw terminal block
.....	Digital inputs: 2 x 9-pin screw terminal block

Software compatibility

EcoStruxure Building Operation software	version 3.3 and later
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Agency compliances

Emission	RCM; EN 61000-6-3; EN 50491-5-2; FCC Part 15, Sub-part B, Class B
Immunity	EN 61000-6-2; EN 50491-5-3
Safety standards	EN 60730-1; EN 60730-2-11; EN 50491-3; UL 916 C-UL US Listed
Fire performance in air-handling spaces ^a	UL 2043

a) The CRS-HH-REL-10 relay module is approved for plenum applications.

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

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
Address switch	Rotary switch 0 to 9
Set button	Push-button switch

Relay outputs

Outputs	10, DO1 to DO10
Relay output rating	24 to 277 VAC, 50/60 Hz, 30 VDC:
.....	Resistive and incandescent: 10 A
.....	Standard magnetic ballast: 5 A
.....	LED driver: 5 A
.....	1/2 HP, 240 VAC, 50/60 Hz
.....	1/4 HP, 120 VAC, 50/60 Hz
Maximum load current	Maximum 50 A total load for the 10 outputs
Maximum inrush current	Maximum 165 A inrush current (<20 ms) per output
.....	Maximum 800 A inrush current (<200 μs) per output

Digital inputs

Inputs	12, DI1 to DI12
Range	Dry contact, 0 to 5.0 VDC, 2.2 mA, SELV (Safety Extra-Low Voltage)

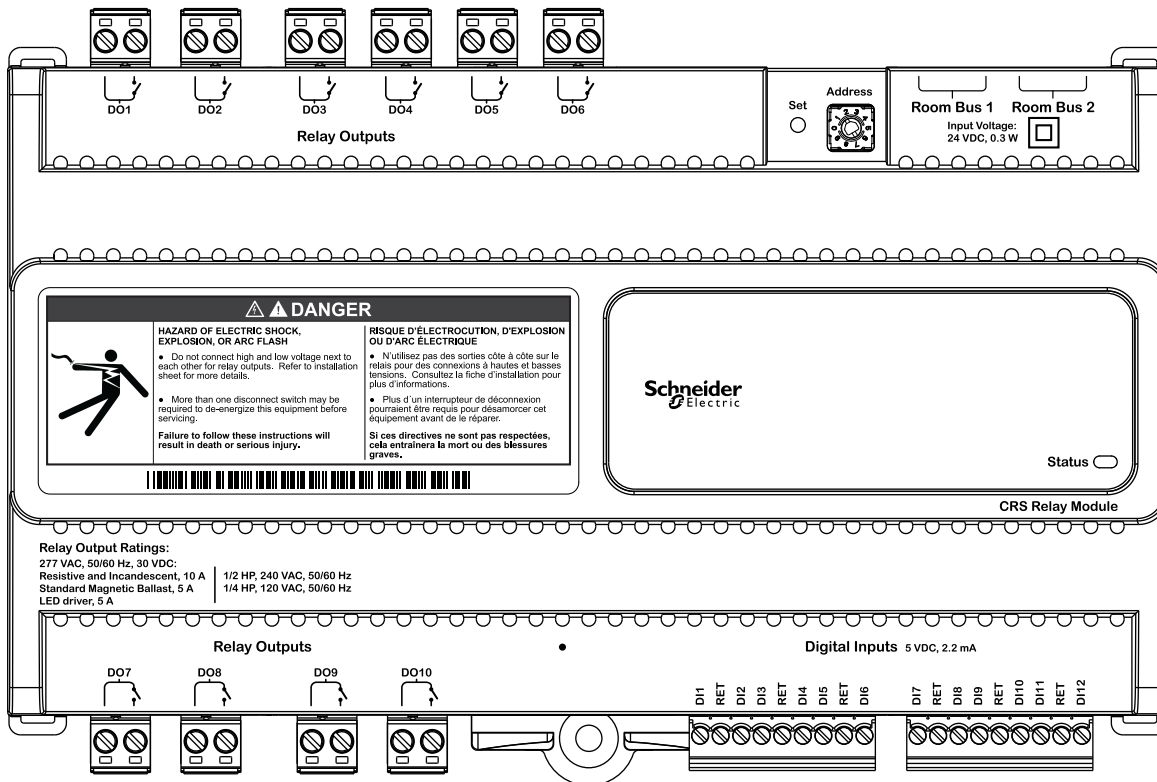
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RP Series Expansion Relay Modules

Connections

Follow proper installation wiring diagrams and instructions. For more information on wiring, see the installation instructions in the SmartX Controller - CRS-HH-REL-10 Installation Sheet, the SmartX Controller - Hardware Reference Guide, and the RP-C room bus

restrictions specified for the Connected Room Solutions for Hotels in the Architecture Guidelines - Hotel Application, which is a supplementary document to the Architectural Guidelines - EcoStruxure Building Management.



CRS-HH-REL-10

Regulatory Notices

FCC 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.

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) per the provisions of the following standards: EN 60730-1, EN 60730-2-11, and EN 50491-3 Safety Standards.



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.



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

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