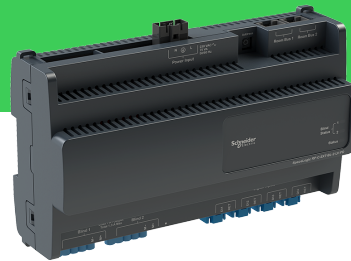


RP-C-EXT-BL-2-LV-PD

SpaceLogic™ RP Controller Expansion Modules

EcoStruxure™ Building



Blind module with power distribution for low voltage

Introduction

SpaceLogic* RP-C-EXT-BL-2-LV-PD blind module connects to the SpaceLogic RP room controllers and provides I/O expansion for low-voltage blind control.

The low-voltage blind module enables control and power supply (24 VDC) of motorized window blinds and shutters.

The blind 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 low-voltage blind module has the following features:

- Power and communications through the room bus
- Two motor control outputs for control of 24 VDC powered blinds (opening, closing, positioning)
- Four digital inputs for connection of blind switches and window contacts. The digital inputs are SELV (Safety Extra-Low Voltage).
- Measurement of energy consumption per module
- Wieland connectors for quick and easy installation

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- Engage mobile application for room comfort settings
- Status LED for the device
- One status LED for each blind 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.

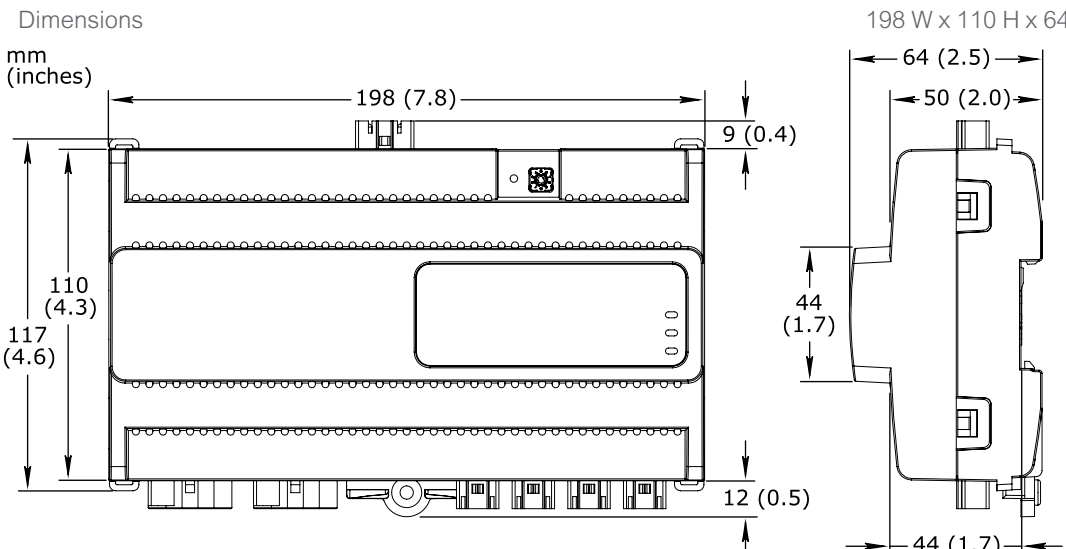
Part Numbers

| Product | Part number |
|---|------------------|
| RP-C-EXT-BL-2-LV-PD | SXWREB2LVDP10001 |
| DIN-RAIL-CLIP, DIN-rail end clip package of 25 pieces | SXWDINEND10001 |

Specifications

| RP-C-EXT-BL-2-LV-PD | |
|---|--|
| Electrical | |
| Nominal voltage | 230 VAC |
| Operating voltage range | +/-10 % |
| Frequency | 50/60 Hz |
| Power consumption | 75 VA |
| Room bus power consumption | 0.3 W (24 VDC) |
| Protection | Maximum 16 A external fuse (circuit breaker) is needed |
| Overvoltage category | III |
| Onboard 24 VDC power supply | |
| RP-C-EXT-BL-2-LV-PD has an onboard 24 VDC power supply that is used to power the blind outputs. | |
| Nominal voltage | 24 VDC |
| Maximum supply current | 1.3 A |

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| | |
|---|---|
| Protection | Short-circuit protection |
| Environment | |
| Ambient temperature, operating | 0 to 40 °C (32 to 104 °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 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.) |
|  <p>Technical drawing of the RP-C-EXT-BL-2-LV-PD device. The front view shows a rectangular unit with a width of 198 mm (7.8 in.) and a height of 110 mm (4.3 in.). The total height including mounting ears is 117 mm (4.6 in.). The depth is 64 mm (2.5 in.). The side view shows a width of 50 mm (2.0 in.) and a height of 44 mm (1.7 in.). The mounting ears are 9 mm (0.4 in.) high. The bottom view shows a width of 12 mm (0.5 in.) and a depth of 44 mm (1.7 in.).</p> | |
| Weight | 0.399 kg (0.880 lb) |
| Installation | DIN rail or flat surface ^a |
| a) For information on installation orientation restrictions, see the SpaceLogic Hardware Reference Guide. | |
| Connectors | Power input: 1 x 3-pin Wieland GST15i3 connector Blind outputs: 2 x 5-pin Wieland GST15i5 connector Digital inputs: 4 x 2-pin Wieland GST15i2 connector |
| Software compatibility | |
| EcoStruxure Building Operation software | version 3.1 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 |

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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 |
|-----------|--------|

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|-----------------|--------|
| SRAM (embedded) | 320 KB |
|-----------------|--------|

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|-------------------------|--------|
| Flash memory (embedded) | 512 KB |
|-------------------------|--------|

| | |
|------------------|-------|
| NOR flash memory | 16 MB |
|------------------|-------|

| | |
|------------------|---|
| Status indicator | LED (green and red) that shows the status of the device |
|------------------|---|

| | |
|------------------------|--|
| Blind 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 two outputs.

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|--|------------------------------------|
| Accuracy class (according to IEC 61557-12) | Active energy measurement: Class 1 |
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|--|---------------------------------|
| Typical measurement accuracy at room temperature | 0.5 to 2 W: 5% 2 to 30 W: 1% |
|--|---------------------------------|

Blind outputs

Motor control outputs for 24 VDC powered blind motors with automatic end stop detection. An end stop at the top position is required. An end stop at the bottom position is recommended.

| | |
|---------|-----------------------|
| Outputs | 2, Blind 1 to Blind 2 |
|---------|-----------------------|

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|------------------|-----------|
| Output terminals | M- and M+ |
|------------------|-----------|

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|--------------------|--|
| Power distribution | 24 VDC Maximum 1 A load per output Maximum 1.3 A total load for the 2 outputs Maximum 2 A starting current (<100 ms) per output |
|--------------------|--|

Digital inputs

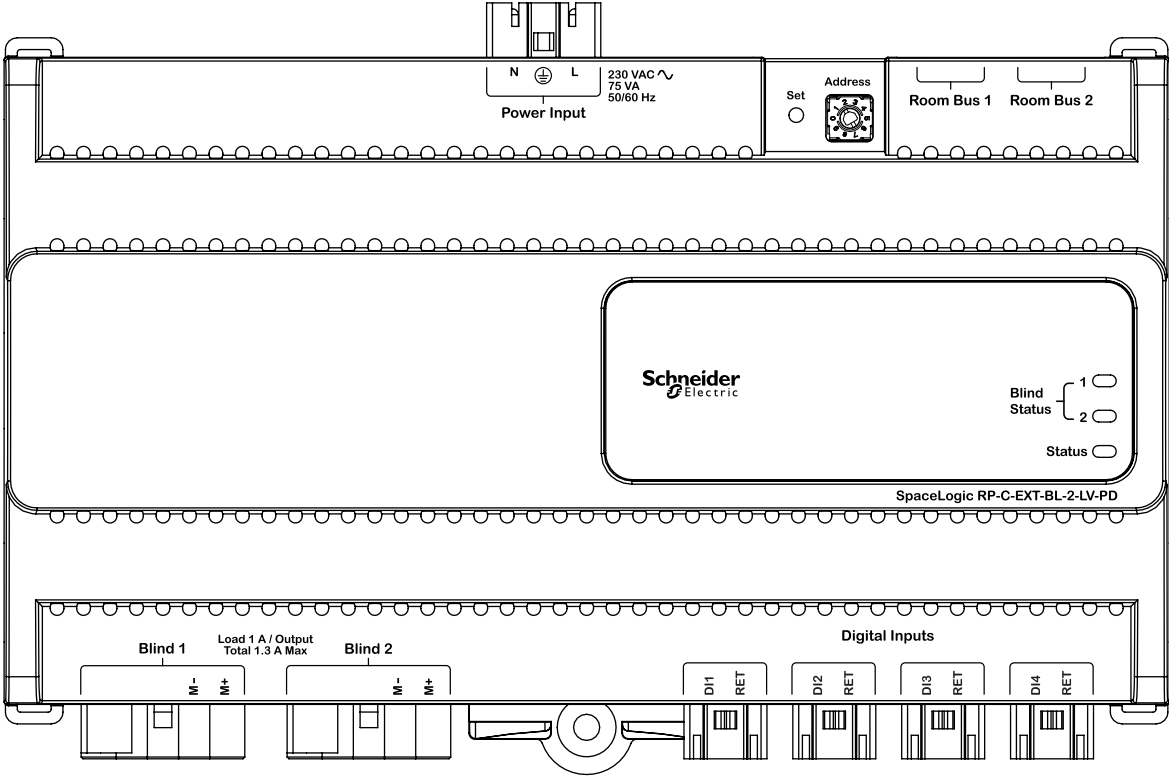
| | |
|--------|---------------|
| Inputs | 4, DI1 to DI4 |
|--------|---------------|

| | |
|-------|--|
| 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 Hardware Reference Guide.

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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 |
| Blind outputs | SXWRPCCON WBLLV | 91.952.4353.0 | Male | 8.5–12.5 (0.34–0.49) | 5, 4, 3, 2, 1 5, 4, 3: Not used 2: M- 1: M+ | Light blue /White | 50 |
| 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.

Compatibility with the type and characteristics of the blind motors should be verified at an early stage in your project. In case of uncertainty, additional testing may be required.

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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.



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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