



## EcoStruxure™ Building

Room Controllers

## Introduction

EasyLogic™ RP-C is a room-purpose, fully programmable, BACnet MS/TP based field controller that suits a wide range of HVAC applications. The RP-C can either be used as a standalone field controller or as part of an EcoStruxure BMS with a SpaceLogic AS-P or AS-B server or an Enterprise Server as the parent server.

The RP-C has the following features:

- Native BACnet MS/TP support
- Full range of controller models
- Versatile onboard I/O point mix
- Built-in isolated power supply



- Optional covers
- Advanced monitoring
- · Configurable RS-485 port
- Sensor bus for SpaceLogic living space sensors
- · EasyLogic living space sensors
- Modbus RTU subnetwork
- Commission mobile application for commissioning of the controller before the BMS is in place
- Full EcoStruxure Building Operation software support, providing efficient engineering tools



## Native BACnet MS/TP support

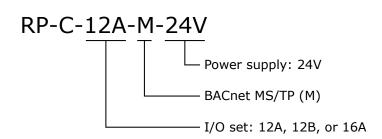
The EasyLogic range of RP and MP controllers and RP-IO I/O modules natively communicate with automation servers and field devices using the BACnet MS/TP protocol.

The RS-485 port with 3-pole screw terminal block is used for connection to the BACnet MS/TP network.

The other RS-485 port (Com A), with RJ45 interface, can be configured to support either sensor bus or Modbus network. For more information, see section "Configurable RS-485 port".

## Full range of controller models

The EasyLogic RP-C range of BACnet MS/TP based controllers includes three different models, which offer three different sets of I/O point types, named 12A, 12B, and 16A. The three models support 24 VAC/DC power supply.



## Models with a versatile mix of I/O points

The RP-C-12A, -12B, and -16A models provide 12 or 16 I/O points, consisting of three different sets of I/O point types. The versatile mix of I/O point types match a wide variety of applications. The universal inputs/outputs are highly flexible and can be configured as either inputs or outputs.

## I/O Point Types by RP-C Models

| I/O Point Types                    | RP-C-12A model | RP-C-12B model | RP-C-16A model |
|------------------------------------|----------------|----------------|----------------|
| Universal I/O<br>Type Ub           | 8              | 8              | 8              |
| Solid-state relay outputs (MOSFET) | 4              | -              | 4              |
| Relay outputs<br>Form A            | -              | 3              | 3              |
| High power relay outputs Form C    | -              | 1              | 1              |

### Configurations by I/O Point Types

| Configurations                   | Universal I/O<br>Type Ub | Solid-state Relay Outputs (MOSFET) | Relay Outputs<br>Form A | High Power Relay Outputs<br>Form C |
|----------------------------------|--------------------------|------------------------------------|-------------------------|------------------------------------|
| Digital inputs                   | yes                      | -                                  | -                       | -                                  |
| Counter inputs                   | yes                      | -                                  | -                       | -                                  |
| Supervised inputs                | yes                      | -                                  | -                       | -                                  |
| Voltage inputs<br>(0 to 10 VDC)  | yes                      | -                                  | -                       | -                                  |
| Current inputs<br>(0 to 20 mA)   | yes                      | -                                  | -                       | -                                  |
| Temperature inputs               | yes                      | -                                  | -                       | -                                  |
| Resistive inputs                 | yes                      | -                                  | -                       | -                                  |
| Voltage outputs<br>(0 to 10 VDC) | yes                      | -                                  | -                       | -                                  |
| Digital outputs                  | -                        | yes                                | yes                     | yes                                |
| Digital pulsed outputs           | -                        | yes                                | yes                     | yes                                |
| PWM outputs                      | -                        | yes                                | yes                     | yes                                |

#### Continued

| Configurations          | Universal I/O<br>Type Ub | Solid-state Relay Outputs<br>(MOSFET) | Relay Outputs<br>Form A | High Power Relay Outputs<br>Form C |
|-------------------------|--------------------------|---------------------------------------|-------------------------|------------------------------------|
| Tristate outputs        | -                        | yes                                   | yes                     | -                                  |
| Tristate pulsed outputs | -                        | yes                                   | yes                     | -                                  |

### Universal inputs/outputs

The universal inputs/outputs are ideal for any mix of temperature, pressure, flow, status points, and similar point types in a building control system.

As counter inputs, the universal inputs/outputs are commonly used in energy metering applications. As supervised inputs, they are used for security applications where it is critical to know whether or not a wire has been cut or shorted. These events provide a separate indication of alarms and events in the system.

For all analog inputs, maximum and minimum levels can be defined to automatically detect over-range and under-range values.

The universal inputs/outputs are capable of supporting analog outputs of type voltage outputs. Therefore, the universal inputs/outputs support a wide range of devices, such as actuators.

Only devices with safe extra low voltage equipment (SELV/PELV) inputs/outputs should be connected to the universal inputs/outputs.

### Solid-state relay outputs

The solid-state relay (SSR) outputs can be used in many applications to switch 24 VAC or 24 VDC on or off for external loads such as actuators, relays, or indicators. SSRs are silent and are not adversely affected by relay contact wear.

### Relay outputs

The relay outputs support digital Form A point types. The Form A relays are designed for direct load applications.

### High power relay output

The high power relay output is of type Form C. The normally-open (NO) contact is ideal for switching resistive loads of up to 12 A, such as electrical heating elements. The normally-closed (NC) contact can be used to switch inductive loads of up to 3 A.

### I/O expansion

For applications that require more I/O resources, the EasyLogic RP-IO modules provide a versatile mix of I/O points for any application. For more information, see the EasyLogic RP-IO Specification Sheet.

## Built-in isolated power supply

The device has a built-in power supply designed to accommodate 24 VAC or 24 VDC input power. The AC/DC power input is galvanically isolated from the electronics. This minimizes the risk of damage due to earth currents and permits the input power to be wired without concern for AC polarity matching. With the isolated AC/DC power input, you can use a central transformer for many devices, instead of one transformer for each device, to reduce installation costs.

## Optional covers

All RP-C models can be equipped with optional covers to reduce access to the screw terminals and wires.

## Advanced monitoring

The RP and MP controllers support local trends, schedules, and alarms, enabling local operation when the controller is offline or used in standalone applications.

The battery-free power backup of the memory and real-time clock (only available on RP-C-16A-M-24V) helps prevent data loss and allows seamless and quick recovery after a power disruption.

In WorkStation, you update the firmware of multiple RP and MP controllers at the same time and with minimum down time. The EcoStruxure BMS server keeps track of the installed firmware to support backup, restore, and replacement of the controllers and sensors. The server can host controllers of different firmware versions.

## Configurable RS-485 port

The RP-C controller has one configurable RS-485 port (Com A), which can be configured to support two different types of networks:

- Sensor bus
- · Modbus network

The controller can host one of the network types.

## Sensor bus for SpaceLogic living space sensors

The RP and MP controllers provide an interface designed for the SpaceLogic Sensor family of living space sensors. The SpaceLogic Sensor devices offer an efficient way to sense the temperature, humidity, CO<sub>2</sub>, and occupancy in a room. The SpaceLogic Sensor devices are available with different combinations of sensor types and various covers and user interface options, such as touchscreen, setpoint and override buttons, and blank covers.













SpaceLogic Sensor devices

The RP controller sensor bus provides both power and communications for up to four sensors that are daisy-chained using standard Cat 5 (or higher) cables. This maximum number of sensors that can be connected to a controller is regardless of the sensor model and the combination of cover and sensor base type:

- Blank covers: Up to four sensors of any combination of sensor base types
- 3-button and touchscreen covers: Up to four sensors of any combination of sensor base types
- SpaceLogic LCD temperature sensors: Up to four sensors are supported

The maximum total length of the sensor bus is 61 m (200 ft). For more information, see the SpaceLogic Sensors - SXWS Sensors for MP and RP IP Controllers - Specification Sheet.

## EasyLogic living space sensors

The EasyLogic Sensor provides a cost-effective solution to measure, control, and communicate the temperature. The sensors are connected to analog inputs of the RP or MP controller. The EasyLogic Sensor is available in two models with different user interfaces, a blank cover or an LCD display with buttons for setpoint control. For more information, see the EasyLogic Sensors - Temperature Sensors - Analog - Specification Sheet.





EasyLogic Sensor devices

## Modbus RTU subnetwork

The RP controller Modbus network allows standard Modbus devices to be connected to the controller.

The Modbus RTU protocol is used for the communication. The RP controller acts as the Modbus client and the connected devices act as servers.

For connection to Modbus devices, it is recommended to use the non-isolated RS-485 adapter to provide screw termination. The adapter converts an RS-485 RJ45 interface to screw terminals. The adapter can be ordered from Schneider Electric. For more information, see the RS-485 Adapters Specification Sheet.

To connect the adapter, it is recommended that you use a Cat 5 (or higher) UTP cable with eight conductors and RJ45 connectors. The cable should be rated for the target environment and have a maximum length of 0.3 m (12 in.). The cable is not included and needs to be purchased separately.

The maximum number of Modbus devices that can be connected to an RP controller depends on the type of Modbus device and the number of Modbus registers.

The EasyLogic RP controller Modbus network supports up to 10 connected Modbus devices with the following restrictions:

Maximum of 250 Modbus registers per network

64-bit Modbus registers are supported, which can be used in energy metering.

### Modbus device types

Modbus device types are pre-configured Modbus applications for quick and easy Modbus device integration in EcoStruxure Building Operation solutions. For information on the Modbus devices supported using Modbus device types, see the document EcoStruxure Building - Modbus Device Integration - Supported Device Brochure.

## Commission mobile application

The Commission mobile application is designed for local configuration, field deployment, and commissioning of RP and MP controllers. The mobile application reduces the commissioning time, allows flexibility in project execution, and minimizes dependencies on network infrastructure.

The mobile application is designed for use with Android, Apple (iOS), and Microsoft Windows 10 and Windows 11 devices. For more information, see the EcoStruxure Building Commission Specification Sheet.



Commission mobile application

Using the Commission mobile application, you can connect to an RP controller. To connect to the RP controller, you use the SpaceLogic Bluetooth Adapter connected to a SpaceLogic Sensor.

### Device configuration

With the Commission mobile application, you can easily discover RP controllers on the BACnet network. You can change the configuration of each controller, including the BACnet network settings, location, and parent server. To save engineering time, you can save common device settings and then reuse them for controllers of the same model.

### Field deployment and I/O checkout

The Commission mobile application does not require an EcoStruxure BMS server or a network infrastructure to be in place. You can use the mobile application to load the controller

application directly into the local controller and deploy the controller. The controller application can be created offline using Project Configuration Tool or WorkStation. You can also perform an I/O checkout to verify that the controller's I/O points are configured, wired, and operating correctly.

## Full EcoStruxure Building Operation software support

The power of the RP and MP controllers is fully realized when it is part of an EcoStruxure BMS, which provides the following benefits:

- WorkStation/WebStation interface
- · Script and Function Block programming options
- Device discovery
- Engineering efficiency

### WorkStation/WebStation interface

WorkStation and WebStation provide a consistent user experience regardless of which EcoStruxure BMS server the user is logged on to. The user can log on to the parent EcoStruxure BMS server to engineer, commission, supervise, and monitor the RP or MP controller and its I/O as well as its attached SpaceLogic Sensor devices. For more information, see the WorkStation and WebStation specification sheets.

### Script and Function Block programming options

The fully programmable RP and MP controller models have both Script and Function Block programming options. Existing programs can easily be reused between the EcoStruxure BMS server and the controller.

### Device discovery

The enhanced Device Discovery in WorkStation enables you to easily identify RP and MP controllers on a BACnet network and to associate the controllers with their parent server.

### Engineering efficiency

The engineering and maintenance of RP and MP controllers can be done very efficiently using the EcoStruxure Building Operation reusability features. With these features, you can create library items (Custom Types) for a complete controller application that contains programs and all necessary objects such as trends, alarms, and schedules. The controller application in the Custom Types library is reusable across all controllers of the same model. You can use the controller application as a base for creating new controllers intended for similar applications. You can then edit the controller application, and the changes are automatically replicated to all controllers, while each controller keeps its local values.

WorkStation supports both online and offline engineering of RP and MP controllers. You can make the configuration changes

online or use database mode to make the changes offline. In database mode, the changes are saved to the EcoStruxure Building Operation database so that you can apply the changes to the controllers later.

Project Configuration Tool enables you to perform all the engineering off site, without the need for physical hardware,

which minimizes the time you need to spend on site. You can run the EcoStruxure BMS servers virtually and engineer the RP and MP controllers before you deploy your server and controller applications to the servers and controllers on site. For more information, see the Project Configuration Tool specification sheet.

### Part Numbers for EasyLogic RP-C

| Product        | Part number     |
|----------------|-----------------|
| RP-C-12A-M-24V | SXWRCF12AM10001 |
| RP-C-12B-M-24V | SXWRCF12BM10001 |
| RP-C-16A-M-24V | SXWRCF16AM10001 |

### Part Numbers for RP-C Accessories

| Product   | Part number       |
|---|-------------------|
| Optional covers                                       | SXWRPCCOV10001    |
| DIN-RAIL-CLIP, DIN-rail end clip package of 25 pieces | SXWDINEND10001    |
| Non-isolated RS-485 adapter                           | SXWNISORS48510001 |
| SpaceLogic Bluetooth Adapter                          | SXWBTAECXX10001   |

For more information on part numbers for Network Connectivity Accessories, see the Product Selection Guide - EcoStruxure Building.

## Specifications

| Specifications  |  |   |            |
|---|--|---|------------|
| EasyLogic RP-C  |  |   |            |
| AC input  |  |   |            |
| Nominal voltage   |  |   | 24 VAC     |
| Operating voltage range   |  |   | +/-15 %    |
| Frequency   |  |   | 50/60 Hz   |
| Maximum power consumption   |  |   | 14 VA      |
| Base Load Including All I/O   | SpaceLogic Sensors on Sensor Bus   | Total   |            |
| 9.4 VA  | 4.6 VA <sup>a</sup>  | 14 VA   |            |
| a) The example of 4.6 VA for the Sensor Bus of the applied to the Com A load, which should refer to the Com A load, which should refer to the com A load. | Com A) is based on a 2.8 W load on Com A. This gives an applot exceed 3 W. | proximate conversion factor of 1.644 VA per Watt, | which can  |
| Power input protection  |  | MOV suppression and inte                          | ernal fuse |
| DC input  |  |   |            |
| Nominal voltage   |  | 24 to   | 30 VDC     |
| Operating voltage range   |  | 21 t  | 33 VDC     |
|   |  |   |            |

### Continued

Maximum power consumption 8 W

Power input protection MOV suppression and internal fuse

Environment

Ambient temperature, operating 0 to 50 °C (32 to 122 °F)

Ambient temperature, storage -40 to +70 °C (-40 to +158 °F)

Maximum humidity 95 % RH non-condensing

Material

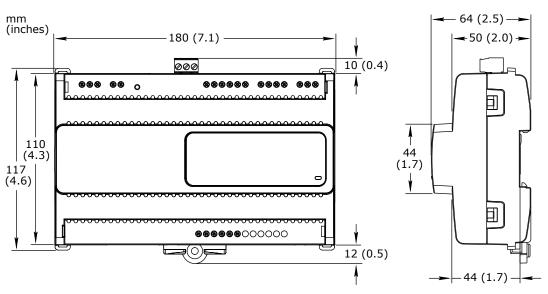
Plastic flame rating UL94 V-0

Ingress protection rating IP 20

#### Mechanical

**Dimensions** 

180 W x 110 H x 64 D mm (7.1 W x 4.3 H x 2.5 D in.)



Weight, RP-C-12A-M-24V 0.336 kg (0.741 lb)

Weight, RP-C-12B-M-24V 0.358 kg (0.789 lb)

Weight, RP-C-16A-M-24V 0.360 kg (0.794 lb)

Recommended installation

a) It is recommended to install the device in an enclosure (cabinet), unless local regulations allow an exception.

DIN rail or flat surface in a cabinet<sup>a</sup>

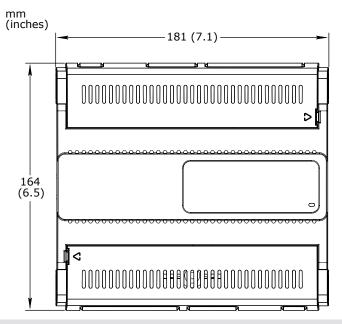
Terminal blocks

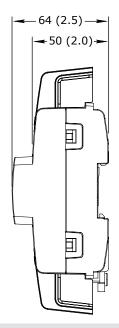
Power and I/O: Fixed
BACnet MS/TP communications: Removable

Optional covers

Dimensions 181 W x 164 H x 64 D mm (7.1 W x 6.5 H x 2.5 D in.)

### Continued





Weight, optional covers 0.070 kg (0.154 lb)

#### Compatibility

EcoStruxure BMS server communication EcoStruxure Building Operation

version 5.0.1 and later

#### Agency compliances

Emission

RCM; BS/EN 61000-6-3; BS/EN IEC 63044-5-2; FCC Part 15, Sub-part B, Class B

**Immunity** 

BS/EN 61000-6-2; BS/EN IEC 63044-5-3

Safety standards BS/EN 60730-1; BS/EN 60730-2-11; BS/EN IEC 63044-3; UL 916 C-UL US Listed<sup>a</sup> a) The RP-C-12A, -12B, and -16A models are marked "Open Energy Management Equipment".

Fire performance in air-handling spaces<sup>a</sup>

a) The RP-C-12A, -12B, and -16A models are approved for plenum applications.

UL 2043

#### Real-time clock

#### RP-C-16A-M-24V Only

Accuracy, at 25 °C (77 °F)

+/-1 minute per month

Backup time, at 25 °C (77 °F)

7 days minimum

#### Communication ports

RS-485 port Com A

24 VDC, 3 W, RS-485 (RJ45) Transient voltage suppressors on communication and power signals

RS-485 port

RS-485 (3-pole screw terminal block) Transient voltage suppressors on communication signals

#### RS-485 transceiver characteristics

Transceiver type

Failsafe Non-isolated

Range

Continued External biasing None required Total Unit Load (UL) per device Maximum 0.5 UL BACnet MS/TP, maximum bus length: 1200 m (4000 ft), maximum baud rate: 76800 BTL B-AAC (BACnet Advanced Application Controller)<sup>a</sup> **BACnet** a) See the BTL Product Catalog for up-to-date details on BTL listed firmware revisions on BACnet International's home page. CPU 500 MHz Frequency ARM Cortex-A7 single-core Type Internal SRAM 6 MB NOR flash memory 32 MB Memory backup

a) RP-C-12A-M-24V and RP-C-12B-M-24V with hardware version earlier than 01 and RP-C-16A-M-24V with hardware version earlier than 03 have a FRAM memory with a size of 8 kB. For these hardware versions, the use of Script programs is recommended to save FRAM memory space. Channels, RP-C-12A-M-24V 8 Ub, Ub1 to Ub8 Channels, RP-C-12B-M-24V 8 Ub, Ub1 to Ub8 Channels, RP-C-16A-M-24V 8 Ub, Ub1 to Ub8 -0.5 to +24 VDC Absolute maximum ratings A/D converter resolution 16 bits Universal input/output protection Transient voltage suppressor on each universal input/output Range Dry contact switch closure or open collector/open drain, 24 VDC, typical wetting current 2.4 mA Minimum pulse width 150 ms Range Dry contact switch closure or open collector/open drain, 24 VDC, typical wetting current 2.4 mA Minimum pulse width 20 ms 25 Hz Maximum frequency 5 V circuit, 1 or 2 resistors Monitored switch combinations Series only, parallel only, and series and parallel 1 to 10 kohm Resistor range For a 2-resistor configuration, each resistor must have the same value +/- 5 %

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0 to 10 VDC

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|--|--|
| Accuracy   | +/-(7 mV + 0.2 % of reading)   |
| Resolution   | 1.0 mV   |
| Impedance  | 1 Mohm   |
| Current inputs                                       |  |
| Range  | 0 to 20 mA   |
| Accuracy   | +/-(0.01 mA + 0.4 % of reading)  |
| Resolution   | 1 μΑ   |
| Impedance  | 47 ohm   |
| Resistive inputs                                     |  |
| 10 ohm to 10 kohm accuracy<br>R = Resistance in ohm  | +/-(7 + 4 x 10 <sup>-3</sup> x R) ohm  |
| 10 kohm to 60 kohm accuracy<br>R = Resistance in ohm | $+/-(4 \times 10^{-3} \times R + 7 \times 10^{-8} \times R^2)$ ohm                                       |
| Temperature inputs (thermistors)                     |  |
| Range  | -50 to +150 °C (-58 to +302 °F)  |
| Supported thermistors                                |  |
| Honeywell  | 20 kohm  |
| Type I (Continuum)                                   | 10 kohm  |
| Type II (I/NET)                                      | 10 kohm  |
| Type III (Satchwell)                                 | 10 kohm  |
| Type IV (FD)   | 10 kohm  |
| Type V (FD w/ 11k shunt)                             | Linearized 10 kohm   |
| Satchwell D?T  | Linearized 10 kohm   |
| Johnson Controls                                     | 2.2 kohm   |
| Xenta  | 1.8 kohm   |
| Balco  | 1 kohm   |
| Measurement accuracy                                 |  |
| 20 kohm  | -50 to -30 °C: +/-1.5 °C (-58 to -22 °F: +/-2.7 °F)<br>-30 to 0 °C: +/-0.5 °C (-22 to +32 °F: +/-0.9 °F) |

| Measurement | accuracy |
|-------------|----------|
|-------------|----------|

| 20 kohm     | -50 to -30 °C: +/-1.5 °C (-58 to -22 °F: +/-2.7 °F)<br>-30 to 0 °C: +/-0.5 °C (-22 to +32 °F: +/-0.9 °F)<br>0 to 100 °C: +/-0.2 °C (32 to 212 °F: +/-0.4 °F)<br>100 to 150 °C: +/-0.5 °C (212 to 302 °F: +/-0.9 °F) |
|-------------|---|
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| 10 kohm, 2.2 kohm, and 1.8 kohm | -50 to -30 °C: +/-0.75 °C (-58 to -22 °F: +/-1.35 °F)<br>-30 to +100 °C: +/-0.2 °C (-22 to +212 °F: +/-0.4 °F)<br>100 to 150 °C: +/-0.5 °C (212 to 302 °F: +/-0.9 °F) |
|---------------------------------|---|
| Linearized 10 kohm              | -50 to -30 °C: +/-2.0 °C (-58 to -22 °F: +/-3.6 °F)   |

-50 to -30 °C: +/-2.0 °C (-58 to -22 °F: +/-3.6 °F) -30 to 0 °C: +/-0.75 °C (-22 to +32 °F: +/-1.35 °F) 0 to 100 °C: +/-0.2 °C (32 to 212 °F: +/-0.4 °F) 100 to 150 °C: +/-0.5 °C (212 to 302 °F: +/-0.9 °F)

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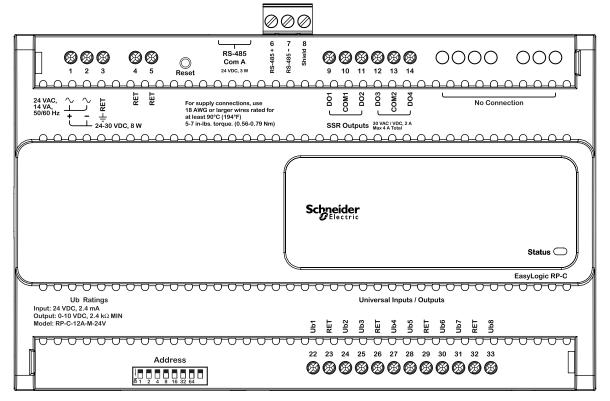
| 1 kohm                             | -50 to +150 °C: +/-1.0 °C (-58 to +302° F: +/-1.8 °F)   |
|------------------------------------|---|
| Voltage outputs                    |   |
| Range                              | 0 to 10 VDC   |
| Accuracy                           | +/-60 mV  |
| Resolution                         | 10 mV   |
| Minimum load resistance            | 2.4 kohm  |
| Source current                     | +4.2 mA   |
| Sink current                       | -1 mA (0 to 0.4 VDC)<br>-4.2 mA (0.4 to 10 VDC)   |
| Relay outputs, DO                  |   |
| Channels, RP-C-12A-M-24V           | 0   |
| Channels, RP-C-12B-M-24V           | 3, DO1 to DO3   |
| Channels, RP-C-16A-M-24V           | 3, DO5 to DO7   |
| Contact rating                     | Pilot Duty (C300)<br>Resistive load: 250 VAC/30 VDC, 4 A (cos phi = 1)<br>Inductive load: 250 VAC/30 VDC, 4 A (cos phi = 0.4)   |
| Switch type                        | Form A Relay<br>Single Pole Single Throw<br>Normally Open   |
| Commons                            | COM1 for DO1, DO2, and DO3 (on RP-C-12B model)<br>COM3 for DO5, DO6, and DO7 (on RP-C-16A models)   |
| Isolation contact to system ground | 3,000 VAC   |
| Cycle life                         | At least 100,000 cycles   |
| Minimum pulse width                | 100 ms  |
| High power relay outputs, DO       |   |
| Channels, RP-C-12A-M-24V           | 0   |
| Channels, RP-C-12B-M-24V           | 1, DO4  |
| Channels, RP-C-16A-M-24V           | 1, DO8  |
| Contact rating                     | Pilot Duty (B300)<br>Minimum current: 100 mA (5 VDC)<br>Normally Open contact, resistive load: 250 VAC/24 VDC, 12 A (cos phi = 1)<br>Normally Closed contact, inductive load: 250 VAC/24 VDC, 3 A (cos phi = 0.4) |
| Switch type                        | Form C Relay<br>Single Pole Double Throw<br>Normally Open and Normally Closed   |
| Isolation contact to system ground | 5,000 VAC   |
| Cycle life                         | At least 100,000 cycles   |
| Minimum pulse width                | 100 ms  |

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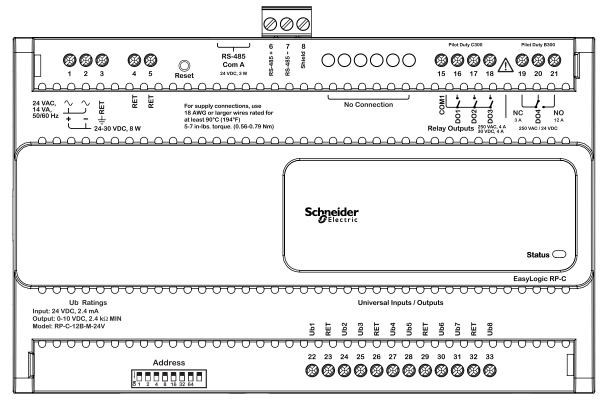
| Solid-state relay outputs, DO  |   |
|--|---|
| Channels, RP-C-12A-M-24V   | 4, DO1 to DO4   |
| Channels, RP-C-12B-M-24V   | 0   |
| Channels, RP-C-16A-M-24V   | 4, DO1 to DO4   |
| Output rating  | Maximum 2 A load per output<br>Maximum 4 A total load for the 4 outputs   |
| AC voltage range   | Maximum 30 VAC  |
| DC voltage range   | Maximum 30 VDC  |
| Commons  When the SSR outputs are used to switch AC, the coused to switch DC, the common terminals can be considered to switch DC. | COM1 for DO1 and DO2 (on RP-C-12A and -16A models) COM2 for DO3 and DO4 (on RP-C-12A and -16A models) ommon terminals can be connected to 0 to 30 VAC. When the SSR outputs are onnected to -30 VDC to +30 VDC. |
| Common voltage range (AC)  | 0 to 30 VAC   |
| Common voltage range (DC)  | -30 to +30 VDC  |
| Minimum pulse width  | 100 ms  |
| Solid-state relay output protection  | Transient voltage suppressor across each solid-state relay (SSR) output   |

## **Terminals**

For more information on wiring, see Hardware Reference Guide.

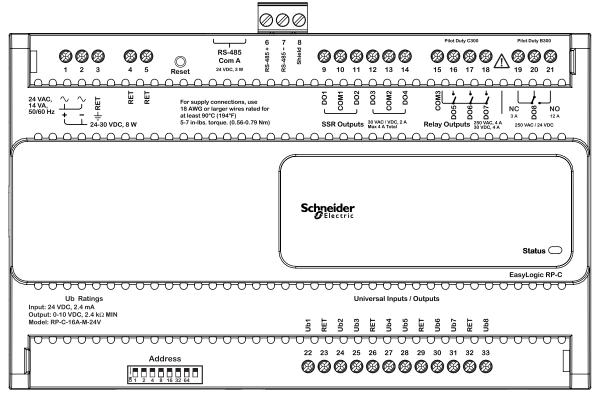


RP-C-12A-M-24V model



RP-C-12B-M-24V model

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RP-C-16A-M-24V model

### Part Numbers for EasyLogic Sensor Devices, Combination Models

| Product  | Housing            | Part number |
|--|--------------------|-------------|
| Complete EasyLogic Sensor <sup>a</sup> model with temperature sensor, buttons for setpoint control, and LCD display cover  | Medium matte white | SLEASLXXB   |
| Complete EasyLogic Sensor <sup>a</sup> model with resistive temperature sensor (10 kohm type 3 thermistor) and blank cover | Medium matte white | SLEASXXXB   |

a) The EasyLogic Sensor is designed to be connected to I/O points/terminals on RP or MP controllers, or I/O modules. The model with buttons for setpoint control and LCD display (SLEASLXXB) requires two analog inputs (voltage inputs). The model with blank cover (SLEASXXXB) requires one analog input (temperature input).

### Part Numbers for SpaceLogic Sensor Devices, Sensor Bases

| Product   | Part number  |
|---|--------------|
| Sensor base with temperature sensor                                 | SXWSBTXXXSXX |
| Sensor base with temperature and humidity sensors                   | SXWSBTHXXSXX |
| Sensor base with temperature and CO <sub>2</sub> sensors            | SXWSBTXCXSXX |
| Sensor base with temperature, humidity, and CO <sub>2</sub> sensors | SXWSBTHCXSXX |

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### Part Numbers for SpaceLogic Sensor Devices, Covers

| Product   | Housing             | Part number  |
|---|---------------------|--------------|
| Blank cover                                     | Medium matte white  | SXWSCBXSELXX |
| Blank cover                                     | Optimum glass white | SXWSCBXSELXW |
| Blank cover                                     | Optimum glass black | SXWSCBXSELXB |
| Blank cover with occupancy sensor               | Medium matte white  | SXWSCBPSELXX |
| Blank cover with occupancy sensor               | Optimum glass white | SXWSCBPSELXW |
| Blank cover with occupancy sensor               | Optimum glass black | SXWSCBPSELXB |
| 3-button cover                                  | Medium matte white  | SXWSC3XSELXX |
| 3-button cover                                  | Optimum glass white | SXWSC3XSELXW |
| 3-button cover                                  | Optimum glass black | SXWSC3XSELXB |
| 3-button cover with occupancy sensor            | Medium matte white  | SXWSC3PSELXX |
| 3-button cover with occupancy sensor            | Optimum glass white | SXWSC3PSELXW |
| 3-button cover with occupancy sensor            | Optimum glass black | SXWSC3PSELXB |
| Touchscreen display cover                       | Medium matte white  | SXWSCDXSELXX |
| Touchscreen display cover                       | Optimum glass white | SXWSCDXSELXW |
| Touchscreen display cover                       | Optimum glass black | SXWSCDXSELXB |
| Touchscreen display cover with occupancy sensor | Medium matte white  | SXWSCDPSELXX |
| Touchscreen display cover with occupancy sensor | Optimum glass white | SXWSCDPSELXW |
| Touchscreen display cover with occupancy sensor | Optimum glass black | SXWSCDPSELXB |

## Part Numbers for SpaceLogic Sensor Devices, Combination Models

| Product   | Housing             | Part number  |
|---|---------------------|--------------|
| Complete SpaceLogic Sensor model with temperature sensor, buttons for override and setpoint control, and LCD display cover                    | Medium matte white  | SXWSATXXXSLX |
| Complete SpaceLogic Sensor model with temperature sensor, buttons for override and setpoint control, and LCD display cover                    | Optimum glass white | SXWSATXXXSLW |
| Complete SpaceLogic Sensor model with temperature sensor, buttons for override and setpoint control, and LCD display cover                    | Optimum glass black | SXWSATXXXSLB |
| Complete non-communicating <sup>a</sup> SpaceLogic Sensor model with resistive temperature sensor (10 kohm type 3 thermistor) and blank cover | Medium matte white  | SLASXXX      |
| Complete non-communicating <sup>a</sup> SpaceLogic Sensor model with resistive temperature sensor (10 kohm type 3 thermistor) and blank cover | Optimum glass white | SLAWXXX      |

### Continued

| Product   | Housing             | Part number |
|---|---------------------|-------------|
| Complete non-communicating <sup>a</sup> SpaceLogic<br>Sensor model with resistive temperature sensor<br>(10 kohm type 3 thermistor) and blank cover | Optimum glass black | SLABXXX     |

a) The SpaceLogic resistive temperature sensor (SLA...) is designed to be connected to I/O points/terminals on RP or MP controllers, or I/O modules. The sensor requires an analog input (temperature input).

## **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)

WEEE - Directive of the European Unit (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. 2013/3032 - 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).



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

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