

SpaceLogic™ CRS-HIO-DIDO-8

Multi I/O Module

As part of the EcoStruxure™ Connected Room Solutions for Hotels, the Multi I/O module offers additional support for the SpaceLogic™ RP-C Pro Controller with a maximum of 8 digital inputs and 8 indicator outputs. The digital Inputs monitor mechanical switches for features related to lighting, blinds, and scenes. The 5-Volt transistor level indicator outputs are used to control LED status indicators to report the status of the associated switch position or load. The use of the Multi I/O module simplifies the installation wiring and reduces engineering time and costs. The additional support for bespoke traditional switch and push button panels via the Multi I/O module allows hotels to focus on a personalized guest experience, which drives customer loyalty.

Regulatory Compliance and Safety Information

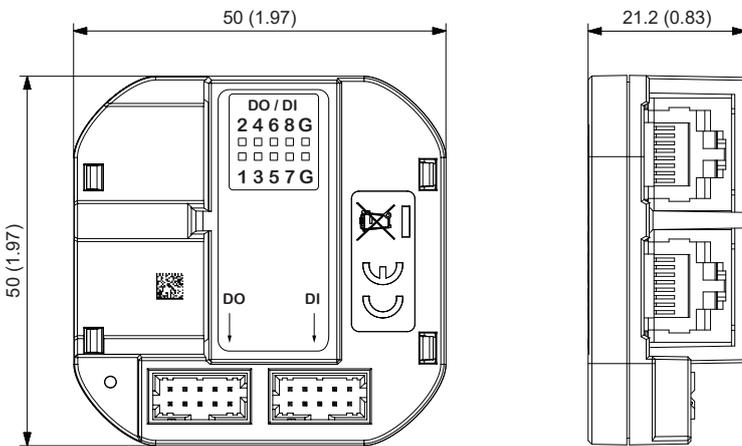
Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

Carefully read these instructions and all information relevant to this product before trying to install it. See the list of technical literature.

The technical literature and declarations of conformity can be accessed on the Schneider Electric Exchange website, ecoxpert.se.com. Contact your local Schneider Electric sales office for a hard copy of the documentation or for additional information.

Dimensions

mm (inches)



Installation Restrictions

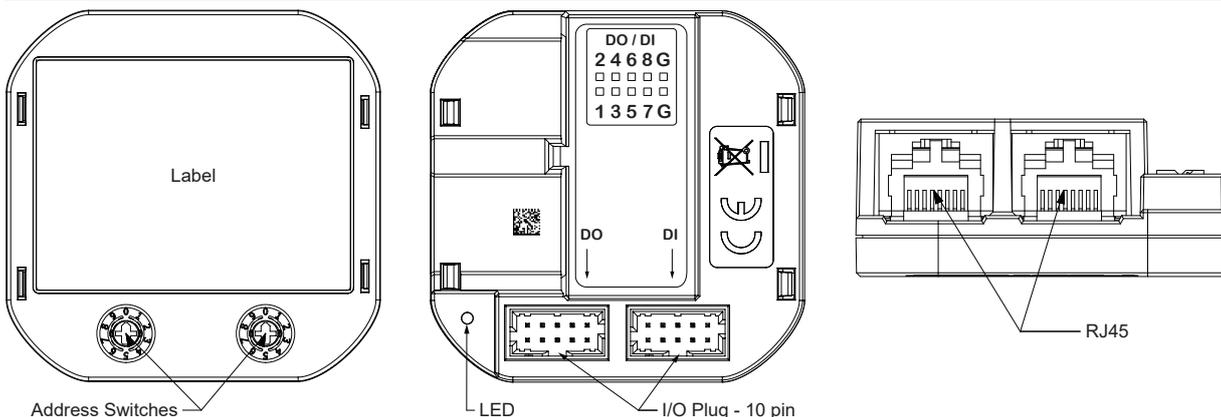
NOTICE

REDUCED DEVICE PERFORMANCE

- This device is for indoor use only and is not suitable for wet locations.
- The device must be installed inside a wall-mounted box.
- When replacing a device, install the new device in the same position and direction as the replaced device.
- Keep the device clean of dust, fingerprints, paint, and other contaminants.
- The Multi I/O module wiring harness must be connected first on the terminals side before the RJ-45 cables are connected to the module. The Multi I/O module wiring harness and RJ-45 Cat 5e (Room Bus) cables must be installed within easy access in the flush-mounted wall box prior to being connected to the module. This helps to avoid problems during commissioning due to a disconnected wiring harness.

Failure to follow these instructions can result in reduced device performance.

Finding Connectors on the Device



Device Wiring Harness

Two wiring harnesses are provided with the Multi I/O module. They include a 10-pin connector with the following wires:

Pin #	Definition	Wire Color
1	DI_1 / DO_1	Red
2	DI_2 / DO_2	Orange
3	DI_3 / DO_3	Yellow
4	DI_4 / DO_4	Green
5	DI_5 / DO_5	Blue
6	DI_6 / DO_6	Brown
7	DI_7 / DO_7	Violet
8	DI_8 / DO_8	White
9	Ground	Black
10	Ground	Black

Wall Box Restrictions

NOTICE

DEVICE REQUIREMENTS

- While a total of 9 expansion modules can be connected on an RP-C Pro controller Room Bus Port, there can only be a maximum of 8 Multi I/O modules. For more information, refer to the Supplementary Document Architecture Guidelines for EcoStruxure Connected Room Solutions for Hotels.
- The maximum total length of the Room Bus is 72 m (236 ft) without an RS-485 power adapter.
- To reach a maximum total length of 150 m (492 ft) of Room Bus, 3 RS-485 power adapters are required for power and Room Bus termination. For more information, refer to the SpaceLogic™ RS-485 Adapter Installation Sheet.
- The minimum wall box space required is 60 L x 60 W x 35 H mm (2.36 L x 2.36 W x 1.38 H in).
- There is space for 20-25 mm conduit for all wires in and out.
- Some installations may require 2 pipes of conduit when the wire diameter is larger.
- The pre-configured wiring harness for digital inputs and indicator outputs is 15 cm (5.9 in) in length.
- The label must remain on the device; otherwise, the warranty will be void.

Failure to follow these instructions can result in damage to the equipment.

Selecting a Wall Box for your Installation

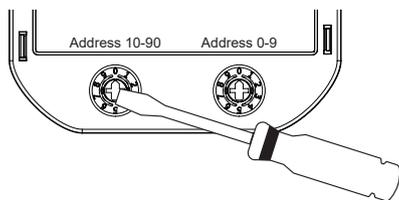
This installation is compatible with a variety of wall box models:

- EU standard: (2 types, single and Twin wall box)
- BS standard: (2 types, single and Twin wall box)
- AU standard
- CN standard
- US standard

Selecting the Correct Wires for your Installation

Wiring Harness	Diameter mm	Qty	TTL Diameter mm	Cat 5 + DI/DO Diameter mm	No. of Conduit 25 mm
DI & DO	6	2	12	N/A	N/A
	2	2	4	16	1
	2	4	8	20	1
	2	6	12	24	2
	2	8	16	28	2
	2	10	20	32	2
	2	12	24	36	2
	2	14	28	40	2
	2	16	32	44	2

Configuring the Address of the Device



Use a screwdriver to turn the switches and configure the address of a device. The resulting address is a combination of both switches.

NOTE: Whenever a device address is below 10, the switch for Address 10-90 must be turned to 0.

Examples of Device Address Configurations

Device Address	Address 10-90	Address 0-9
17	1	7
5	0	5
9	0	9

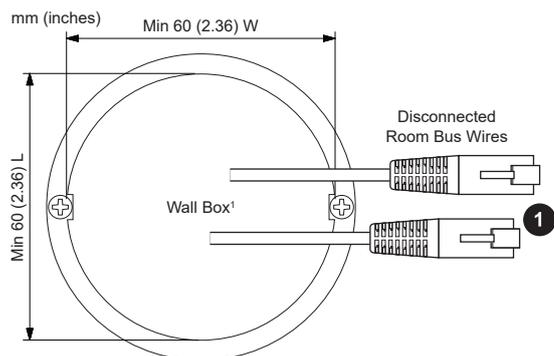
NOTICE

DEVICE REQUIREMENTS

- A total of 9 expansion modules can be connected on an RP-C Pro controller Room Bus Port.
- RP-C Pro accepts addresses between 1 and 9 for other expansion modules.
- For Multi I/O modules, RP-C Pro accepts addresses between 1 and 17.
- Whenever a device address is below 10, the switch for Address 10-90 must be turned to 0.
- It is recommended to configure the addresses of devices on a Room Bus in consecutive numerical order with no gaps.

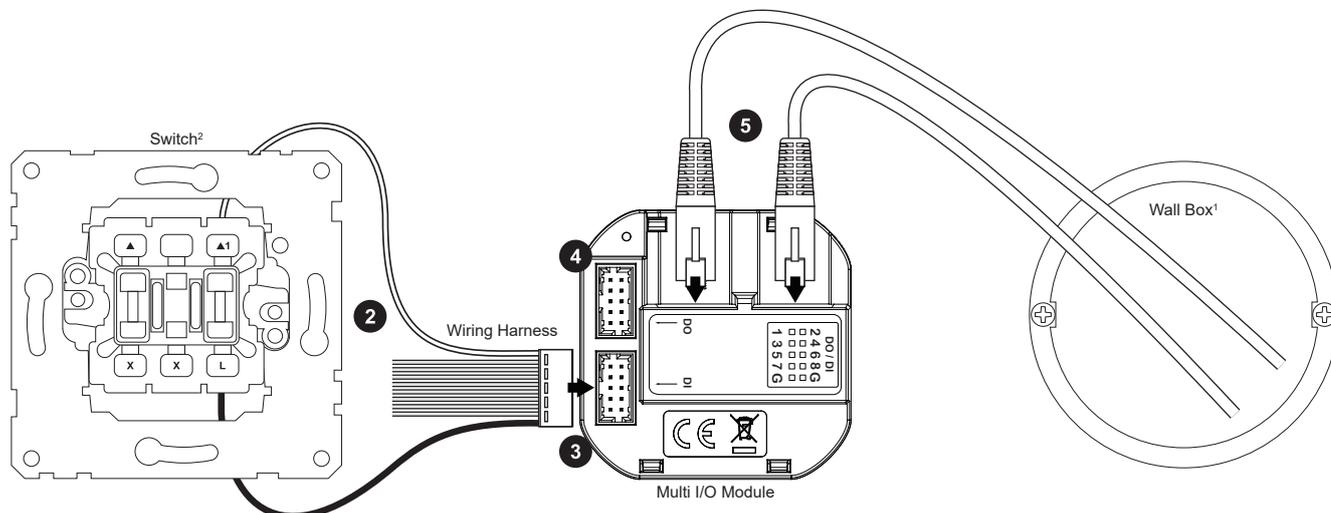
Failure to follow these instructions can result in performance issues.

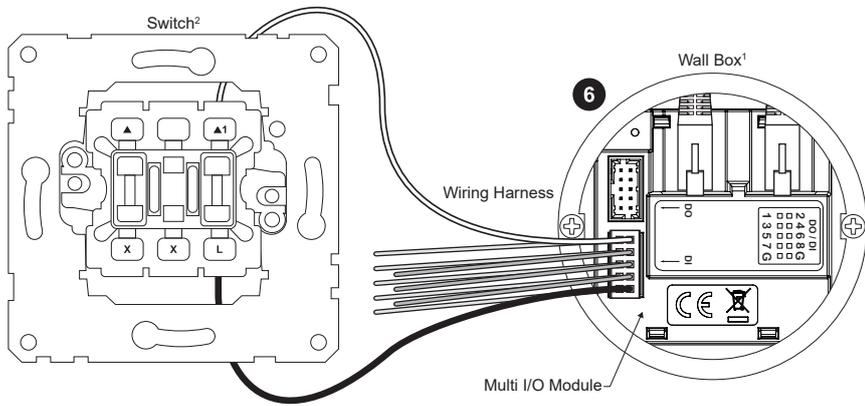
Wiring & Mounting the Device



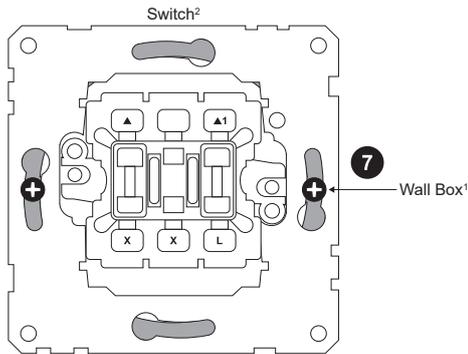
1. Start by powering off the controller and making sure it is disconnected from the Room Bus.

2. Connect the required wires from the harness to the switch² for digital inputs. Refer to “Device Wiring Harness” on page 2 for more information.
3. Connect the wiring harness to the DI connector on the Multi I/O module.
4. If the switch you are using includes LED indicators, a second wiring harness must be used and connected to the DO connector on the Multi I/O module.
5. Connect Room Bus cables.





6. Once connected, insert the Multi I/O module into the wall box¹.



7. Position the switch over the wall box and tighten the 2 screws to secure it in place.
8. Install the switch cover using the screws.

¹ The wall box in your installation may differ from the one illustrated in the above instructions. Refer to “Wall Box Restrictions” on page 2 for more information.

² Any type of wall switch may be used in your installation (with or without an LED indicator).

Commissioning the Device

For instructions on commissioning the Multi I/O module, refer to the EcoStruxure™ Building Connected Room Solutions for Hotels Commissioning Guide.

Part Numbers

Product	Part Number
CRS-HIO-DIDO-8 Includes 2 x wiring harnesses, installation instructions	SXWHIO8DIDO10001
CRS-HIO-CABLE-8 Includes 2 x wiring harnesses	SXWHIO8CABLE10001

LED Behaviors

Pattern	Condition	Recommended Action
Green, constant	Normal operation, status OK.	No action required.
Green, constant with red flash (100 ms every 2 seconds)	Normal operation, status OK. However, the Multi I/O module has detected and logged an abnormal condition. When the Multi I/O module has retrieved the diagnostics from the module, the Status LED returns to constant green light.	No action required.
Green, flashing (~1 Hz)	Device is starting or restarting.	No action required.
Green, flashing medium (~2 Hz)	Device is in maintenance mode.	To exit the maintenance mode, configure a unique device address in the range supported by the RP-C Pro controller model and then reset the device by disconnecting and reconnecting the device to the RP-C Room Bus.
Green, flashing fast (~5 Hz)	Device is initializing.	No action required.
Red, flashing (~1 Hz)	Device is non-operational due to a detected error. Device is forced into maintenance mode.	Contact Schneider Electric Product Support Services for assistance.
Red, flashing fast (~5 Hz)	Device is inoperable due to a detected, non-recoverable error.	Contact Schneider Electric Product Support Services for assistance or return the device to Schneider Electric.
Red, constant	Device is inoperable due to a detected, non-recoverable error.	Return the device to Schneider Electric.
Off	The Multi I/O module Status LED is disabled.	No action required.

General Specifications

Electrical	Ambient temperature, storage	Indicator output voltage
Nominal voltage	-20 to 65 °C (-4 to 149 °F)	5 V
24 VDC	Humidity, storage	Enclosure
Powered by the RP-C through the Room Bus (RJ45)	20 to 90 % RH (non-condensing)	Plastic
Maximum power consumption	Mechanical	Ingress protection rating
0.3 W	Dimensions	IP 20
Port types	Module: 50 L x 50 W x 21.2 H mm (1.97 L x 1.97 W x 0.84 H in)	Plastic flame rating
Room bus	Wall box minimum: 60 L x 60 W x 35 H mm (2.36 L x 2.36 W x 1.38 H in)	UL94 V-0
RS-485	Weight	Color
Dual RJ45 ports for daisy-chain configurations	20 g (0.04 lb)	Gray
Environment	LED indicator	Surface finish
Environmental conditions	Dual status LED (green and red)	Matte
Indoor use only	Material	Installation
Ambient temperature, operating		Placement
0 to 50 °C (32 to 122 °F)	Digital inputs	Inside a wall box connected to a mechanical switch (push button switch) via digital input
Humidity, operating	8 (voltage free)	Installation equipment, included
20 to 90 % RH (non-condensing)	Indicator outputs	2 x wiring harnesses, installation instructions
	8 transistors	

Addendum - California Proposition 65 Warning Statement for California Residents

⚠ WARNING: This product can expose you to chemicals including Styrene, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

部件名称 (Part Name)	有害物质 (Hazardous Substances)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
塑料部件 (Plastic Parts)	○	○	○	○	○	○
电子件 (Electronics)	X	○	○	○	○	○

本表格依据 SJ/T11364 的规定编制。(This table is made according to SJ/T 11364.)

○: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。
(Indicates that the concentration of hazardous substance in all of the homogeneous materials for this part is below the limit as stipulated in GB/T 26572.)

X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。
(Indicates that the concentration of hazardous substance in at least one of the homogeneous materials used for this part is above the limit as stipulated in GB/T 26572.)



Regulatory Notices

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: reorient or relocate the receiving antenna; increase the separation between the equipment and receiver; connect the equipment into an outlet on a circuit different from that to which the receiver is connected; consult the dealer or an experienced radio/TV technician for help.

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, and (2) this device must accept any interference received, including interference that may cause undesired operation. Cet appareil est conforme à la norme RSS exempte de licence d'Industrie Canada. L'opération est sous réserve des deux conditions suivantes: (1)

Cet appareil ne doit pas causer d'interférences; et (2) Cet appareil doit accepter toute interférence fonctionnement indésirable de l'appareil.