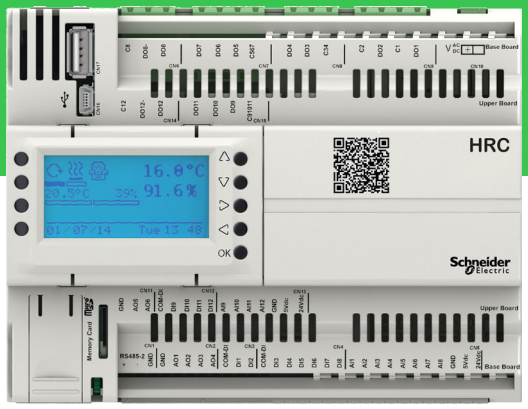
Life Is On | Schneider Electric

Hotel Room Controller

Full Service & Luxury Guest Room Management Solution

Delivering exceptional guest satisfaction while optimizing energy and operational efficiency



Hotel Room Controller

The HRC is connected to EcoStruxure™ Building Operation via BACnet IP, and the SE8000 Series Room Controller or the TCx00 thermostat via Modbus®. Configuration of the HRC is accomplished via a web interface, allowing the user to easily configure it according to its specific requirements. The HRC is available with 28 or 42 I/O modules. A 14 I/O expansion module is also available.

HRC with 28 I/O modules

14I /O expansion module

Product at a Glance

The Hotel Room Controller (HRC) is at the heart of our Full Service and Luxury Guest Room Management Solution. The HRC enables full lighting control, curtain control and bedside panel integration for full service and luxury hotels. Combined with the SE8000 Series Room Controller, our solution provides temperature control, guest room management and integration with BMS, PMS and door lock.

Guests enjoy a customized, intuitive digital experience along with exceptional comfort and convenience, while hotel operators are able to manage individual rooms, or the entire network of rooms, to drive energy efficiency, monitor alarms and events, and perform proactive maintenance.

The HRC aggregates data from all the subsystems and devices in the room. This data is then served up to EcoStruxure™ Guest Room Expert, our guest room management system, which allows the operator to control and manage individual rooms or the entire network of rooms.

Hotel Room Controller

Overview

The Hotel Room Controller (HRC) is a Schneider Electric control device capable of managing multiple lighting circuits, curtains, DND/MUR, bedside panel and tablet applications in the guest room. This room-level integration enables configurable “Welcome,” “Return,” and “Maid Service” scenes which adjust temperature, lighting, and curtains to the appropriate levels.

The HRC integrates guest room functionality with Guest Room Expert and the Property Management System (PMS) to enable hotel operators to gain visibility and control of rooms throughout the hotel to drive energy efficiency in unoccupied and non-rented rooms, and to troubleshoot maintenance issues before they become problems.

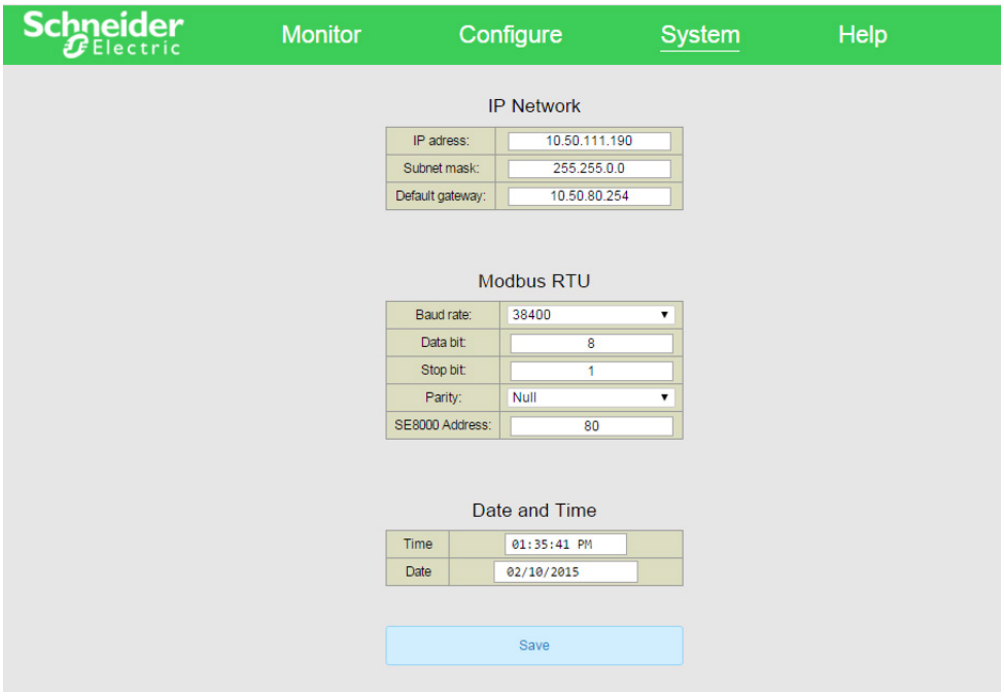
The HRC delivers performance in terms of connectivity, scalability and user interface as well as straightforward configuration, maintenance and servicing. In addition, the DIN rail-mounts saves time in terms of wiring and provides extra flexibility and easy installation.

Hotel Room Controller Embedded Web Page Functionalities

The HRC comes preloaded from the factory with the hotel guest room specific application, providing simple configuration via a web page.

The HRC embedded configuration web page contains the following four sections:

- Monitor: Digital & analog Inputs, HRC status and expansion module status
- Configure: Name and assign Inputs and Outputs, configure lighting scenes and configure door lock and door sensor actions
- System: Configure BACnet IP, enable IO modules, set date & time, account management and reset to factory defaults
- Help: Wiring diagrams and firmware upgrade



Specifications

Main Specifications for HRCPDG42R

Item	Description
Product name	Hotel Room Controller
Product specific application	Hotel Guest Room Control
Total inputs/outputs	42 (HRCPDG42R)
	28 (HRCPBG28R)
Digital inputs	12 (HRCPDG42R)
	8 (HRCPBG28R)
High voltage relay digital outputs: DO1, DO2, DO3, DO4, DO5, DO6, DO7, DO9, DO10, DO11 42 (HRCPDG42R)	10 x 3 A SPST +250 VAC relays 42 (HRCPDG42R)
High voltage relay digital outputs: DO1, DO2, DO3, DO4, DO5, DO6, DO7 (HRCPBG28R)	2 x 1 A SPDT +250 VAC relays
High voltage relay digital outputs: DO08, DO12 (HRCPDG42R)	2 x 1 A SPDT +250 VAC relays (HRCPDG42R)
High voltage relay digital outputs: DO08 (HRCPBG28R)	1 x 1 A SPDT +250 VAC relays (HRCPBG28R)
Analog inputs (used as Digital Inputs)	12 (HRCPDG42R) 8 (HRCPBG28R)
Analog outputs	6 x 0-10V outputs. Load impedance > 700Ω (HRCPDG42R)
	4 x 0-10V outputs. Load impedance > 700Ω (HRCPBG28R)
Dimensions	5.6in/144mm (W) x 4.3in/110mm (H) x 2.4in/60.5mm (D)
Weight	0.82lb/0.38kg
Supply voltage	24VAC + 10% (NOT ISOLATED) +20 to 38 VDC (NOT ISOLATED)
Supply frequency	50/60 Hz
Power cycle	35 VA/15 W
Ambient air temperature for operation	-20 to 60 °C (-4 to 140 °F) conforming to UL 60730-1
Ambient air temperature for storage	-30 to 70 °C (-22 to 158 °F)
Relative humidity	5 to 95 % non-condensing
IP degree of protection	IP20
Pollution degree	2
Directives	2006/95/EC - low voltage directive 86/188/EEC - physical agents (noise) directive 2011/65/EU - RoHS directive 1907/2006/EC - REACH directive
Standards	EN/IEC 60730
Certifications	CE, CSA, EAC UL 60730-1:2009 UL 60730-2-9:2010 CAN/USA-E60730-1:13 CAN/USA-E60730-2-9:01 (R2011)

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Communication Specifications for HRCPDG42R

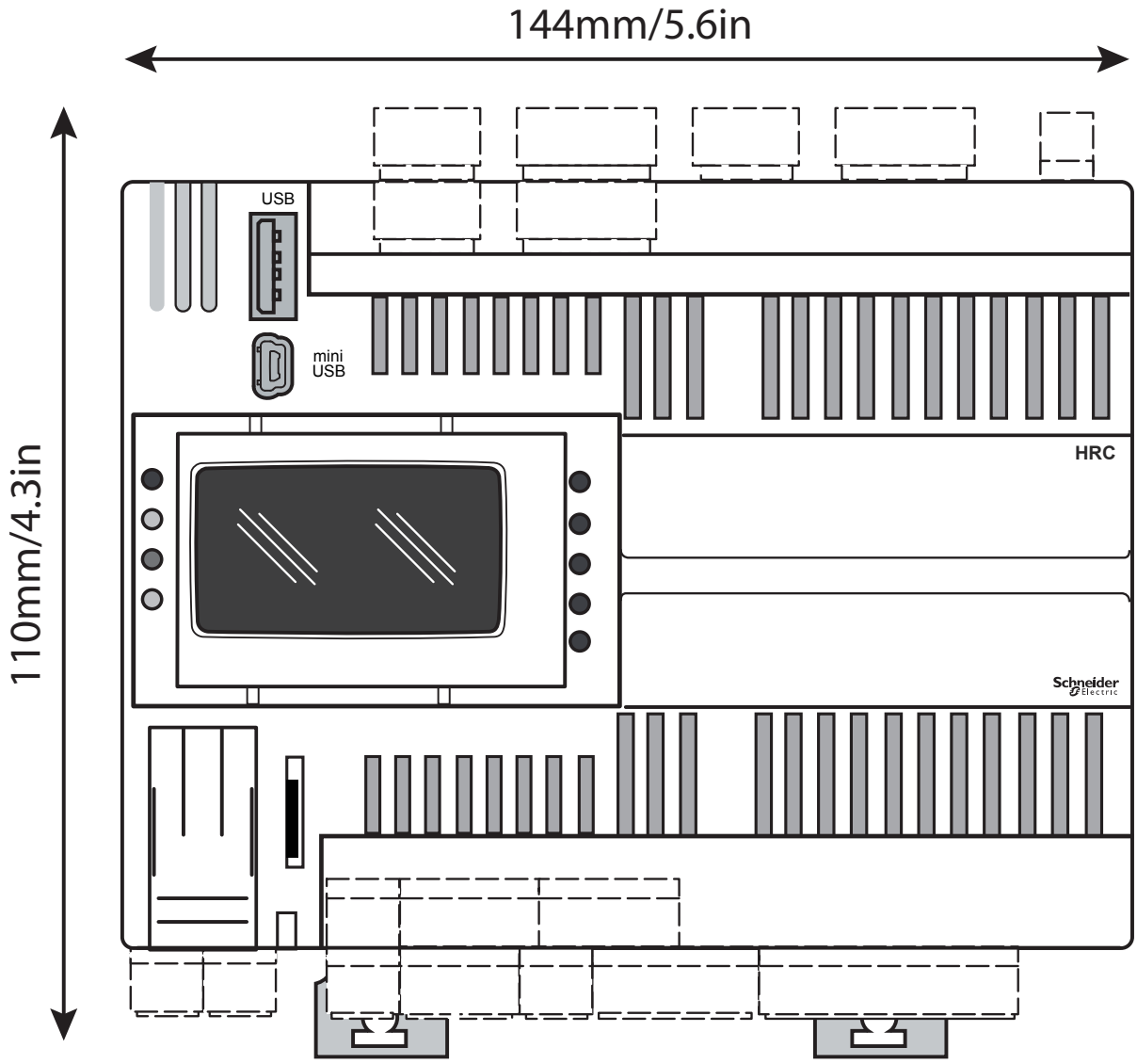
Item	Description
Ports	1 Ethernet - RJ45 (Modbus TCP and BACnet IP with webserver) 2 RS485 - screw terminal block (Modbus serial link or BACnet MS/TP) 1 USB type mini B - USB device port Mini-B 1 USB type A - USB type A female 1 CAN port - screw terminal block
Discrete input voltage	24 VAC/DC
Discrete input current	2.5mA
Input impedance	20kΩ
Analog input type	Direct input
Analog output number	2/4 voltage/current
Sensor power supply	24 VDC at 150 mA (supplied by HRC) 5 VDC at 50 mA (supplied by HRC)
Display (HRCPDG42R only)	4 LEDs, Monochromatic LCD graphic display 128 x 64px
Power consumption	15 W at 24 VAC/DC
Realtime clock	Built-in realtime clock at -20 to 60 °C (-4 to 140 °F)
Local signalling	LED power/programmable
Mounting support	DIN rail

Output Contacts

The current rating for the output contacts of the HRC is strictly valid when driving resistive loads (contactors or relays). The output relays of the HRC are not designed to withstand the high in-rush current generated by capacitive or inductive loads such as LED drivers and other devices using an electronic PCB. Using the HRC with such devices will result in failure of the HRC output contacts and may damage the connected equipment. In case such type of equipment must be used as a Controller, a pilot relay such as the Schneider Electric Zelio RSB series with the proper current rating should be used.

Dimensions

Mechanical Dimensions for HRCPDG42



Ordering Information for Hotel Room Controller and Optional Expansion Module

Part Number	Description	Digital Outputs	Digital Inputs	Analog Inputs*	Analog Outputs	Power Supply
HRCPDG42R	Hotel Room Controller w/ Display 42 I/O	12	12	12	6	24 VAC/DC
HRCPBG28R	Hotel Room Controller 28 I/O	8	8	8	4	
HRCEP14R	Hotel Room Expansion Module 14 I/O	4	4	4	2	

*all AI in the HRC are pre-configured as DI.

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