



HOTEL SOLUTION™

Chipcard reader

HCR3.2/..

Chipcard reader for hotel room access control

- Reads access code on chipcard
- Transfers access code to room controller
- Built-in optical display of messages from hotel room
- Messages indicated by LEDs above imprinted symbols
- Membrane switch for doorbell feature
- Illuminated card slot

Application

The HCR3.2 chipcard reader is used in conjunction with the HRC3.1 and HRC3.2 room controllers.

Guest and hotel-staff access codes are read by the HCR3.2 chipcard reader and transmitted to the HRC3.1/HRC3.2 room controller for access control.

Function

The HCR3.2 chipcard reader communicates with the HRC3.1/HRC3.2 room controller via a serial port, performing the following functions:

- Reads the access code on a chipcard
- After reading it, transfers the access code to the HRC3.1/HRC3.2 room controller
- Activates the functions programmed in the HRC3.1/HRC3.2 room controller based on the access code concerned (guest code, hotel staff code, invalid code).
- Transfers the membrane switch signal for the optional doorbell feature
- Displays signals from the HRC3.1/HRC3.2 room controller with illuminated LEDs above imprinted symbols
- Control of the illumination of the slot via the HRC3.1/HRC3.2 room controller

Types

HCR3.2/BB	Chipcard reader for Bticino Living cover-plate range
HCR3.2/BW	Chipcard reader for Bticino Light cover-plate range
HCR3.2/VB	Chipcard reader for Vimar Idea cover-plate range
HCR3.2/VW	Chipcard reader for Vimar Plana or Ikon cover-plate range

Ordering

When ordering, please specify the quantity, product name and type code:
Example **30 Chipcard readers HCR3.2/BB**

The following items depend on the desired overall program and installation type and must be ordered separately from the corresponding frame supplier:

- Flush-mounted or cavity wall box for integration.
- Cover frame of the corresponding supplier with desired surface.

Compatibility

Device	Type	Data sheet
Room controller	HRC3.1	N6313
Room controller	HRC3.2	N6314
Chipcard reader on same room bus	HCR3.2/..	N6332
Chipcard holder on same room bus	HCH3.2/..	N6333
Chipcard encoder	HCW3.2	N6340
Room operating unit on same room bus	HTC3.2/..	N6320

Mechanical design

Construction

The chipcard reader consists of:

- Component assembly (carrier, printed circuit board, four LEDs, membrane switch, chipcard reader-unit, terminal block and DIP switch)
- Base frame:
 - Bticino Living/Type L4703 for HCR3.2/BB
 - Bticino Light/Type N4703 for HCR3.2/BW
 - Vimar Idea/Type 16713 for HCR3.2/VB
 - Vimar Plana or Ikon/Type 20613 for HCR3.2/VW

The component assembly is permanently glued into the base frame and cannot, therefore, be replaced.

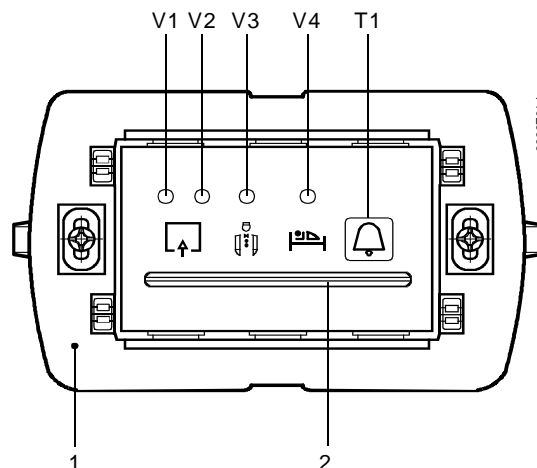
Display

Depending on the standard application configured in the HRC3.1/HRC3.2 room controller, the following room states can be displayed:


- Do not disturb
- "Make up room" or "Room service" call
- SOS call for assistance
- "Guest present" indicator (for hotel staff only)
- Door open
- Door closed
- Access denied

Operator controls, connections and display elements

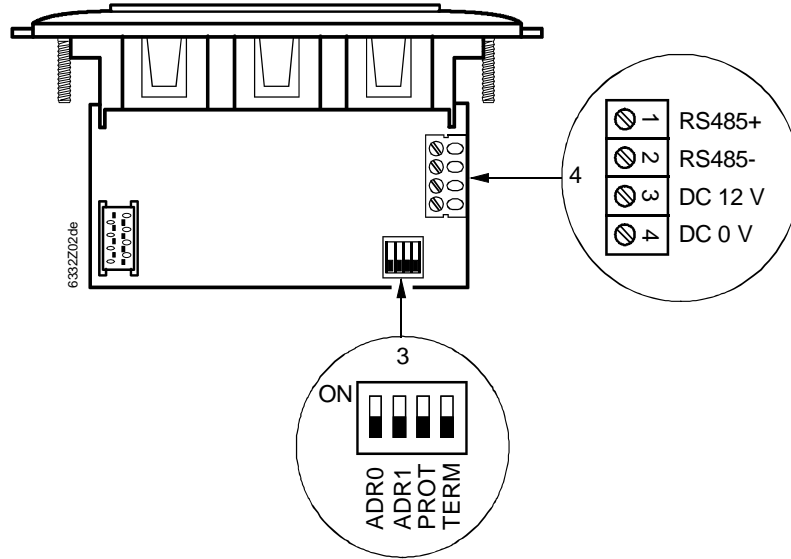
Front view



Key

1	Base frame with fixing screws		
	<ul style="list-style-type: none"> • Bticino Living/Type L4703 for HCR3.2/BB • Bticino Light/Type N4703 for HCR3.2/BW • Vimar Idea/Type 16713 for HCR3.2/VB • Vimar Plana or Ikon/Type 16713 for HCR3.2/VW 		
2	Card slot backlit with 3 green LEDs		
V1	Red LED	Door closed	
V2	Green LED	Door open	
V3	Yellow LED	Room service call	
V4	Yellow LED	Do not disturb	
T1		Membrane switch	Doorbell function

Rear view



Key

3	DIP switches	<ul style="list-style-type: none"> • Bus address setting (ADR0, ADR1) • Protocol setting <ul style="list-style-type: none"> – PROT = 0, for HRC3.1/HRC3.2 room controller – PROT = 1, for HRC3.8 room controller • Control of RS485 bus termination resistance <ul style="list-style-type: none"> – TERM = 0, bus termination resistance disabled – TERM = 1, bus termination resistance enabled
4	Terminal block	<ul style="list-style-type: none"> • Connection to room controller

STOP Important note

The bus termination resistance must be enabled on the last bus device only.

Engineering notes

Base frame

The room unit is designed for flush wall mounting in conjunction with base frames and cover plates from various manufacturers:

- Bticino Living for HCR3.2/BB
- Bticino Light for HCR3.2/BW
- Vimar Idea for HCR3.2/VB
- Vimar Plana or Ikon for HCR3.2/VW

Up to four chipcard readers may be connected to the same room bus.
The address is set with DIP switches on the back of the unit (see below).

STOP Important note

The maximum permitted current associated with the supply voltage from the HRC3.1/HRC3.2 room controller must not be exceeded.
(For further information, see data sheets CM2N6313 and CM2N6314.)

Mounting instructions

- The HCR3.2 chipcard reader must be mounted outside the hotel room at the same height as the light switch.
- Ensure that there is enough spare cable in the mounting box to allow operation of the address switches on the PCB.
- The device is intended for fixed installation in a dry, enclosed space.
- For installation in a 3-module mounting box, depth 50 mm.
- Must be mounted horizontally with the front plate vertical.
- Do not install AC 230 V devices in the same mounting box.
- Commissioning must be carried out by trained personnel only.
- Local safety and installation regulations must be observed.

Commissioning

To operate several devices connected to the same room controller, an address must be set for each one. Only one device will operate with the factory-set default. The addresses of the room operator units are set by DIP switch on the back of these units.

Bus address	ADR0	ADR1
0x38	OFF	OFF
0x39	ON	OFF
0x3A	OFF	ON
0x3B	ON	ON

Note

In the standard application with only one reader, Address 0x38 is intended for the HCR3.2 chipcard reader. This address is the factory-set default (both ADR switches to OFF).

Operating notes

Alarm messages

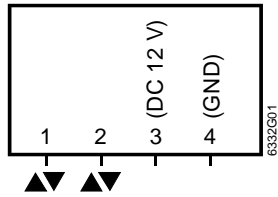
Pattern	Description
All symbols OFF	No supply voltage to the HCR3.2 Possible causes: <ul style="list-style-type: none">– Room controller off or faulty– Bus cable not correctly connected, or connection broken– Faulty HCR3.2
All symbols flashing (2 Hz)	No communication with the room controller Possible causes: <ul style="list-style-type: none">– Wrong bus address set on HCR3.2– Wrong bus address set in room controller– Bus cable not correctly connected, or connection broken– Room controller in "Stop" mode– Faulty RS485 interface

Technical data

Power supply (from HRC3..)	Operating voltage (SELV, PELV)	DC 9..0.15 V
	Current	Max. 50 mA
Chipcards	Type	Siemens SLE5542, SLE4442
	Format	86 mm x 54 mm x 0.76 mm
Membrane switch	<u>Service</u> Service life	100,000 switching operations
Bus interface	Type	RS485
	Transmission speed	4800 baud
	Bus voltage	SELV DC 12 V
Display	Luminous intensity of LEDs:	1.8 mcd
Ambient conditions	Normal operation	To IEC 721-3-3: Class 3K5
	Temperature	0...+50 °C
	Humidity	< 85 % rh
	Air pressure	Min. 700 hPa, equivalent to max. 3,000 m above sea level
	Transport	To IEC 721-3-2: Class 2K3
	Temperature	-25...+65 °C
	Humidity	< 95 % rh
	Air pressure	Min. 260 hPa, equivalent to max. 10,000 m above sea level
Industry standards		
Product safety	Automatic electrical controls for household and similar use	EN 60 730
Electromagnetic compatibility	Emitted interference in accordance with	EN 61000-6-3
	Interference immunity in accordance with	EN 61000-6-2
Housing protection standard	To EN 60 529	IP20
Protection class	To EN 60 730	III
CE conformity	Meets the requirements of:	
	EMC Directive	89/336/EEC
	Low-voltage directive	73/23/EEC
Environmental compatibility	Environmental product declaration CM2E6332en provides data on environmentally compatible product design and assessment (material composition, packaging, disposal)	ISO 14001 (environment) ISO 9001 (quality)
UL/CUL approval		UL/CUL 916
Installation	Suitable for flush mounting in rectangular flush-mounting box or rounded hollow wall box	3 modules
	HCR3.2/BB and HCR3.2/BW	Bticino 503E (angular), PS563N (round)
	HCR3.2/VB and HCR3.2/VW	Vimar V71613 (round), V71304 (angular)
Color	Front-plate label	RAL 9005 deep black
Dimensions	HCR3.2/BB – Bticino frame L4703	115 mm x 72 mm x 47 mm
	HCR3.2/BW – Bticino frame N4703	115 mm x 72 mm x 47 mm
	HCR3.2/VB – Vimar frame 16713	118 mm x 75 mm x 48 mm
	HCR3.2/VW – Vimar frame 20613	118 mm x 75 mm x 48 mm
	(without cover; & see dimension diagrams)	
Weight	Excluding packaging	0.069 kg
	With packaging	0.087 kg

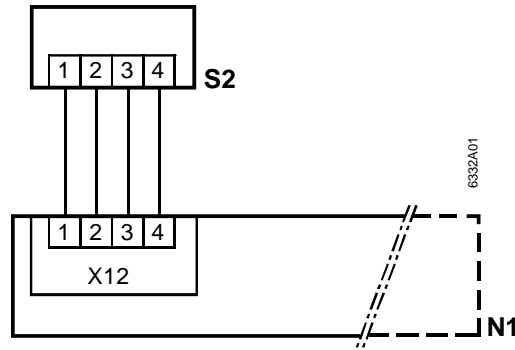
Connection diagrams

Connection terminals



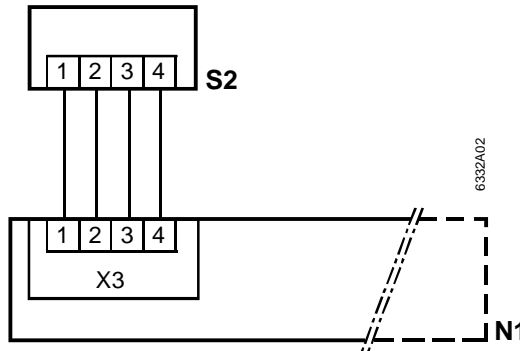
- 1 Serial port, RS485 +
- 2 Serial port, RS-485 -
- 3 DC 12 V operating voltage
- 4 DC 0 V operating voltage

HCR3.2 connection diagram



- S2 HCR3.2 chipcard reader
- N1 HRC3.1 room controller

HCR3.2 connection diagram



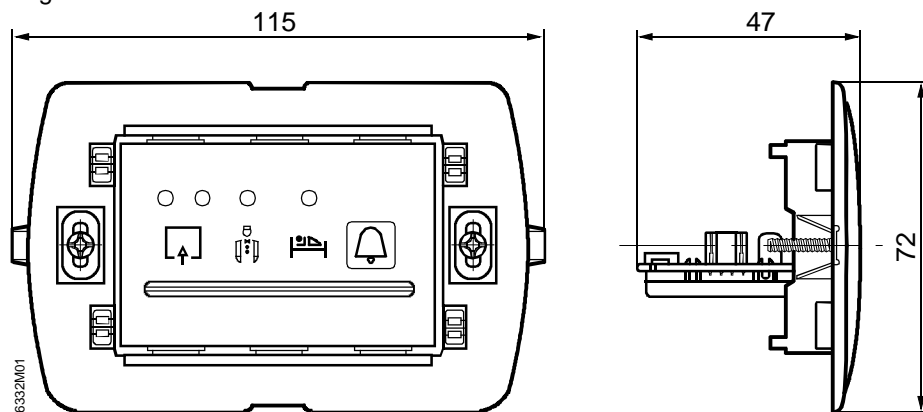
- S2 HCR3.2 chipcard reader
- N1 HRC3.2 room controller

Dimensions

HCR3.2/BB

Dimensions in mm

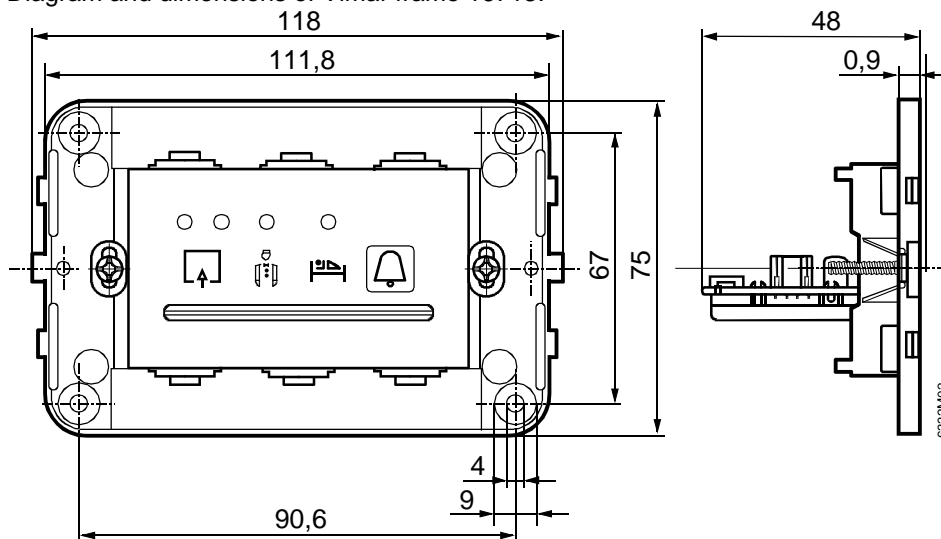
Diagram and dimensions of Bticino frame L4703.



HCR3.2/VB

Dimensions in mm

Diagram and dimensions of Vimar frame 16713.



Note

See the frame supplier documentation for dimensions of other frames and hole spacing (Bticino, Vimar).