Magnetic card encoder reader with 2-line display
- Writes access code on Track 2 of the magnetic card (to ISO 7810)
- Reads access code from Track 2 of the magnetic card (to ISO 7810)
- Linked to HOTEL SOLUTION database
- Guides user with text instructions on 2-line display
- LEDs to indicate device status (mains voltage / read status / write status)

Application

The HBC1.M magnetic card encoder is used in conjunction with the HOTEL SOLUTION software and HOTEL SOLUTION database to program the magnetic (room key) cards at Reception. The HBC1.M magnetic card encoder is a desktop unit, operated with the HOTEL SOLUTION software via a serial port. Encoded magnetic cards can also be read and assigned to rooms or guests.
Functions

The HBC1.M magnetic card reader reads and encodes Track 2 of a magnetic card. For this purpose, the magnetic card must be inserted with the magnetic strip facing downwards and to the right, as illustrated on the front of the unit. Magnetic cards can be created for a specific room for a guest, or for a group of rooms for the hotel staff. Information and instructions on the LCD panel guide the user through the encoding procedure.

Types

HBC1.M  Magnetic card encoder

Ordering

When ordering, please specify the quantity, product name and type code:

Example

4  Magnetic card encoders       HBC1.M

Compatibility

The card encoder must be connected to a serial port of a PC running the HOTEL SOLUTION database software.

Mechanical design

The magnetic card encoder is in a multi-part plastic housing. The housing accommodates the automatic card-feeder unit to accept and return the card, and the electronic circuitry for reading and writing magnetic cards in compliance with ISO 7810.

A connector for the supply voltage is located on the right side of the card encoder. A power supply unit is supplied with the card encoder. The device can be switched on and off with a pushbutton on the front panel.

There is also a 9-pin female connector on the right side of the magnetic card encoder for the connection to the HOTEL SOLUTION software. A serial RS232C bus cable is supplied for this purpose. The magnetic card encoder is a desktop unit with two folding base supports (to improve the user viewing angle).

Key

1  Magnetic card slot
2  2-line display
3  Green LED to indicate operational status
4  Yellow LED to indicate read status
5  Yellow LED to indicate write status
6  Pushbutton (I/O) to switch magnetic card encoder on/off
Engineering notes

The HBC1.M magnetic card encoder is a very important element of the HOTEL SOLUTION system. The number of HBC1.M magnetic card encoders must be in proportion to the size of the hotel, and an adequate number must be included when planning the system. As an absolute minimum, two HBC1.M magnetic card encoders are required, so that if one fails, card keys can still be encoded with the second card encoder.

The card encoder should be located close to the front-office system (FOS) or the HOTEL SOLUTION operator station.

If a long distance between the HBC1.M magnetic card encoder and the PC with the HOTEL SOLUTION database is unavoidable, a null modem is required.

Mounting

- The card encoder must be used only in dry, enclosed spaces
- Keep horizontal and on a firm base
- Commissioning must be carried out by trained personnel only
- Do not open the unit
- Local safety and installation regulations must be observed

Accessories

(enclosed with the device)

- AC 230 V/DC 24 V power supply unit with two-wire cable (approx. 1.5 m) and mains connector and one two-wire cable (approx. 1.5 m) to the card encoder. Both cables are fixed at one end to the power supply unit.
- Serial RS232 bus cable (approx. 2 m) with 25-pin connector and 9-pin connector

Technical data

<table>
<thead>
<tr>
<th>Power supply</th>
<th>Power supply unit for AC 100… 240 V/50-60Hz / max. 1.5 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socket on rear of unit</td>
<td>External diameter 5.5 mm, pin diameter 2 mm</td>
</tr>
<tr>
<td>Bus interface</td>
<td>Bus voltage</td>
</tr>
<tr>
<td></td>
<td>SELV DC 12 V</td>
</tr>
<tr>
<td></td>
<td>Socket on rear of unit</td>
</tr>
<tr>
<td></td>
<td>RS232C D-Sub 9</td>
</tr>
<tr>
<td></td>
<td>Baud rate</td>
</tr>
<tr>
<td></td>
<td>4800 baud</td>
</tr>
<tr>
<td></td>
<td>Cable supplied</td>
</tr>
<tr>
<td></td>
<td>Length 2 m</td>
</tr>
<tr>
<td>Display</td>
<td>Illuminated display</td>
</tr>
<tr>
<td></td>
<td>2 lines of 20 characters each</td>
</tr>
<tr>
<td>Magnetic card encoders</td>
<td>Read/write track</td>
</tr>
<tr>
<td></td>
<td>Track 2, ISO 7810</td>
</tr>
<tr>
<td>Magnetic cards</td>
<td>Format</td>
</tr>
<tr>
<td></td>
<td>86 x 54 x 0.76 mm</td>
</tr>
<tr>
<td></td>
<td>LoCo magnetic strip</td>
</tr>
<tr>
<td>Environmental conditions to EN 50090-2.2</td>
<td>Operating temperature:</td>
</tr>
<tr>
<td></td>
<td>-5...50ºC</td>
</tr>
<tr>
<td></td>
<td>Transport temperature:</td>
</tr>
<tr>
<td></td>
<td>-25...65ºC</td>
</tr>
<tr>
<td></td>
<td>Humidity</td>
</tr>
<tr>
<td></td>
<td>Max. 95%, non-condensing</td>
</tr>
<tr>
<td></td>
<td>Air pressure during operation:</td>
</tr>
<tr>
<td></td>
<td>Min. 700hPa</td>
</tr>
<tr>
<td></td>
<td>(3000m above sea level)</td>
</tr>
<tr>
<td></td>
<td>Air pressure during transportation:</td>
</tr>
<tr>
<td></td>
<td>Min. 700hPa</td>
</tr>
<tr>
<td></td>
<td>(10,000m above sea level)</td>
</tr>
<tr>
<td>Standards Electromagnetic compatibility</td>
<td>Emitted interference in residential areas</td>
</tr>
<tr>
<td></td>
<td>EN 50081-1</td>
</tr>
<tr>
<td></td>
<td>Interference immunity in industrial areas</td>
</tr>
<tr>
<td></td>
<td>EN 50082-2</td>
</tr>
<tr>
<td></td>
<td>EN 50090-2.2</td>
</tr>
</tbody>
</table>
Housing protection
Protection standard
Protection class
Meets the requirements of EMC Directive
CE conformity
UL/CUL approval
IP 30 to EN 60529
III to IEC1140
UL/CUL 916

Conformity
Meets the requirements of EMC Directive 89/336/EEC
UL/CUL approval
UL/CUL 916

Dimensions
Orientation during operation
Horizontal only
See also dimension diagrams
137 x 172 x 245 mm (H x W x D)

Color
Plastic components
Gray

Weight excluding packaging
Magnetic card encoders
2 230 g
Power supply unit
415 g
Serial interface cable
140 g

Weight including packaging
3 325 g

Connection diagrams

Pin layout for connecting cable

9-pin male connector to 25-pin female connector

2 BUS RS 232 RXD
3 BUS RS 232 TXD
5 GND

Dimensions

Dimensions in mm

Power supply unit

© 2005-2008 Siemens Switzerland Ltd. Subject to change

Siemens
Building Technologies
HBC1.M – Magnetic card encoder
CM2NB339en
31.07.2008