

125KHZ RFID READERS

L120-R 125kHz RS232 RFID Reader, Flat Desktop Pad, DB9 Serial

The L120-R is a flat 125 kHz desktop pad that sends EM4100 and TK4100 card numbers to a serial port. It suits PC applications, kiosks and controllers that already listen on RS232: 9600 bps by default, up to 80 mm read range, and a cable set with a DB9 connector and a USB-A lead.

- RS232 cable set — mini-USB plug at the reader, DB9 female connector for the host, plus a USB-A lead.
- Selectable baud rate — 9600 bps by default, with 19200 and 115200 bps available.
- STX/ETX framing — every read arrives as one message from 0x02 to 0x03.
- No keyboard focus needed — a background service can receive reads while other windows are active.
- Flat 10 mm pad — approx. 104 × 68 × 10 mm, 155 g, with a 1450 mm cable.



General	
Model	L120-R
Frequency	125 kHz
Form factor	Flat matte desktop pad with RS232 (DB9) and USB cable set
Housing	ABS
Color	Black

Cards & reading	
Supported cards	EM4100, TK4100, SMC4001 and EM4100-compatible cards and key fobs
Card operation	Read-only (card ID number)
Read range	Up to 80 mm (depends on card and environment)
Read time	< 200 ms
Read interval	< 0.5 s

Interface & output	
Interface	RS232, DB9 connector
Baud rate	9600 bps (default); 19200 / 115200 bps selectable
Default output	10-digit decimal card number
Frame	Starts with STX (0x02), ends with ETX (0x03)
Output options	Custom output format on request
Host	PC or controller with an RS232 (DB9) serial port
Indicators	Red/green LED (red = standby, green = card read) and buzzer

Physical & environment	
Dimensions	Approx. 104 × 68 × 10 mm
Weight	Approx. 155 g
Cable length	1450 mm
Power supply	5 V DC
Operating temperature	-10 °C to +70 °C
Storage temperature	-20 °C to +80 °C
Humidity	< 90 % RH

Works with

- ✓ EM4100, TK4100 and SMC4001 125 kHz cards and key fobs
- ✓ Windows or Linux hosts with an RS232 COM port
- ✓ Serial terminals and applications reading at 9600, 19200 or 115200 bps

Not designed for

- ✗ Card writing or copying (read-only reader)
- ✗ 13.56 MHz MIFARE and NFC cards — see the 13.56MHz readers
- ✗ Keyboard-style typing into a text field — use the L120-U
- ✗ Wiegand access controllers

OEM / ODM options (confirmed per order)

- ◆ Baud rate preset to 19200 or 115200 bps on request (9600 bps default)
- ◆ USB keyboard version in the same flat housing (L120-U)
- ◆ Card-number format inside the serial frame customized on request
- ◆ Private-label marking and packaging — scope confirmed in your quotation

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Specifications describe the standard version and may change without notice. Read range depends on the card or tag, mounting and environment. Pricing, configuration, lead time and terms are confirmed in your quotation.