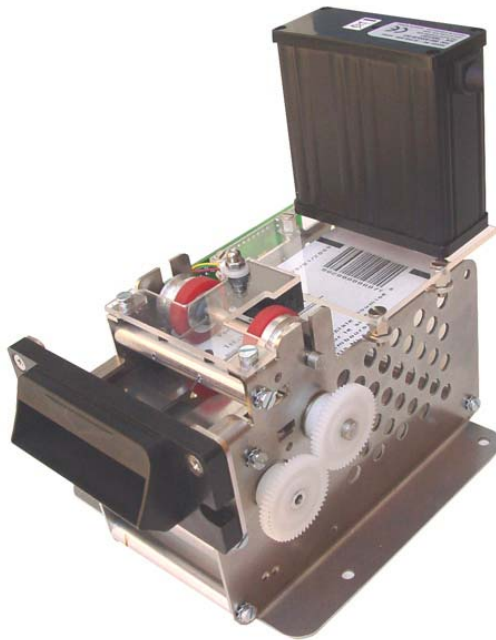


LCB5460 MOTORIZED BARCODE CARD READER

Specifications

RS232c Protocol, V0.4

07 2008



Summary

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1. Overview

The LCB5460 is a motorized barcode cards reader of the newest generation, with the RS232c interface.

The LCB5460 only operates under PC control

2. General specifications

Accepted cards:	Laminated Plastic PVC (non-transparent) with a thickness between 0.10 to 1.5 mm
Card Transport:	Motorized at 150 mm/s
Barcode	All normalized codes
Communication:	EIA RS232c 9600 N 8 1
Range:	15 meters
Power Supply:	5v 24v DC +/- 10%
Consumption:	250mA 1.2A peak
Operating Conditions:	indoor use only Temperature range: 0 – 40°C Humidity range: 30 – 80%
Dimensions:	110(L) 280(H) 250(P) (mm)
Weight:	approx 1.5kg

3. Functions

Front:

Slot for card entry/exit (bezel), with a shutter and green led controlled by the computer software

Left side:

Sub-D 9 female RS232c connector

Power terminal block

4. Physical specifications of transmission and pin out connectors

Transmission mode: asynchronous, EIA RS232c

Format: 96,N,8,1

Characters service:

Stx: '!' 21hex

EtX: 'cr' 0dhex

Connection Com.

LED pins Sub-D fem.

PC pins Sub-D m.

Pin 2: receive data ←
Pin 3: transmit data →
Pin 5: Signal Gnd

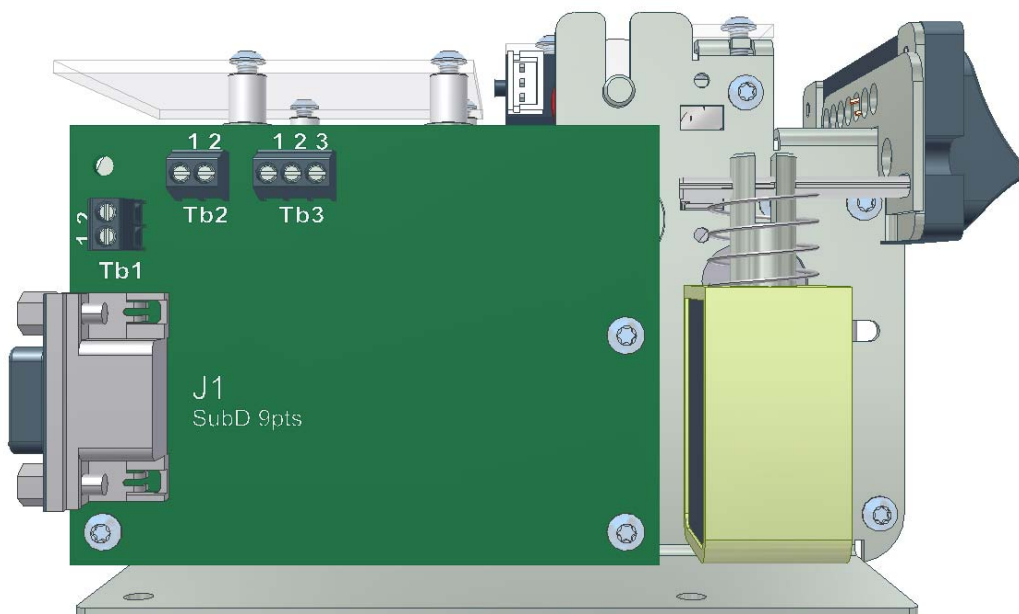
3
2
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4---
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6---
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|
8---

Power connector:

Terminal block TB 1

- 1 = + 24v

- 2 = Gnd



5. Command definitions and status word

Command		definition
ASCII	hex	
! A cr	21h 41h 0Dh	asks for status word
! C cr	“ 43h “	presents a card on the bezel from inside
! D cr	“ 44h “	internal capture of card
! E cr	“ 45h “	accepts a card presented from exterior and carry it under the barcode reader
! H cr	“ 48h “	green led on
! I cr	“ 49h “	green led off
! N cr	“ 4dh “	clean rollers procedure
! V cr	“ 56h “	asks for firmware version
X	58h	clear any accept a card pending command

After receiving a command, the LCB5460 sends ack cr

After executing a command, the LCB5460 sends the status word

6. Status and Firmware Version

(s) status word (1 byte)

Bit 0: = 1, indicates that a card is present under the barcode reader

Bit 1: = 1, indicates that a card is present on the bezel

Bit 2: = always 0

Bit 3: = always 0

Bit 4: = 1, indicates a mechanical problem, or jam.

The firmware version allows the software application to know the n°. of the firmware version of the reader.

7. Transmission protocol

Principe.

The Host sends commands, then the LSC5460 sends ack, executes the operation requested and automatically sends the status word and data (if E command)

The Host cannot send a new command before receiving the status word, which is the acknowledgment of the previous command.

If the next command is sent before, it's lost.

Card on bezel

LCB5460 transfers card to bezel.

Host		LCB5460
! C cr	→	
	←	ack cr

Moves the card from the reader device to the exit bezel.
The shutter is automatically lifted.
It closes as soon as the card is taken or captured.

	←	! [s] cr
--	---	----------

Capture a card

Internal card capture

Host		LCB5460
! D cr	→	
	←	ack cr

LCB5460 captures ejected card underneath.

	←	! [s] cr
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Acceptor

Acceptance of card from exterior and carry it under reader device:

Host		LCB5460
! E cr	→	
	←	ack cr

Waits for card and places it under the reader device. Automatic shutter function.

If the card is not presented within 30 seconds or if the host sends the cancellation code, the operation is cancelled. Cancellation code: **X** (58 hex)

When card is under the reader device and if a barcode is reading, LCB5460 send:

	←	! [s] DATA cr
--	---	---------------

(data coded in ASCII, represents all codes which are on the card)

If no barcodes are detected, the LSC5460 sends: ! [s] cr

Clean rollers

It is recommended to clean the rollers every 100 000 passes (1 pass is a round trip)
Use solvent preimpregnated card, like Cardclene* card.

Host LSC5460

! N cr →
← **ack cr**

After receive this command, the user must introduce a Cardclene*, and then the LCB will make 16 passes and return the card. After cleaning, wait 1 minute to continue operation.

The LCB5460 return ← **! [s] cr**

Status word

Ask for status word

Host LCB5460

! A cr →
LCB5460 return ← **! [s] cr**

This command can be send at any time, except when LCB5460 process an opération.
Then, the command is lost.

Led turn on/off

LCB5460 can turn on and turn off a green led present on the bezel.
This led is used like an information for the user indicate when he must take out the card, or introduce it.

Host LCB5460

Green led on: **! H cr** →
Green led off: **! I cr** →
← **ack cr**

No return status word for these command.

Firmware version

LCB5460 can send his firmware version

Host LCB5460

! V cr →
LCB5460 return ← **! text ASCII cr**

9 Dimensions

