



## Nexus Technologies



### BRU-KX Magnetic Card Reader Technical Manual

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## 1 Overview

BRU-KX is a compact Manual Swipe type card reader.

## 2 Basic Specification

<b>Dimension</b>	40mm (width) X 154mm (length) X 48,6mm (height)
<b>Weight</b>	190g (approx)
<b>Power Supply</b>	+5V DV $\pm$ 5%
<b>Power Consumption</b>	65mA (max.)
<b>Operation Locus</b>	Indoor Use

## 3 Specification

<b>Card Standard</b>	ISO 7811/7812		
<b>Track Position</b>	ISO 1 (IATA)	ISO 2 (ABA)	ISO 3 (MINTS)
<b>Recording Density</b>	210 BPI	75 BPI	210 BPI
<b>Recording Capacity</b>	79 Characters (7 bits)	40 Characters (5 bits)	107 Characters (5 bits)
<b>Reading Method</b>	F2F		
<b>Interface</b>	USB		
<b>Card Thickness</b>	0,76 $\pm$ 0,08mm		
<b>Head Function</b>	Read Only 1,5mm		
<b>Operation Speed</b>	10 - 150cm/sec		
<b>Life of Head</b>	500000 card passes (1 pass: one swipe)		
<b>Error rate</b>	0,5% Less Than (JSE Test card)		

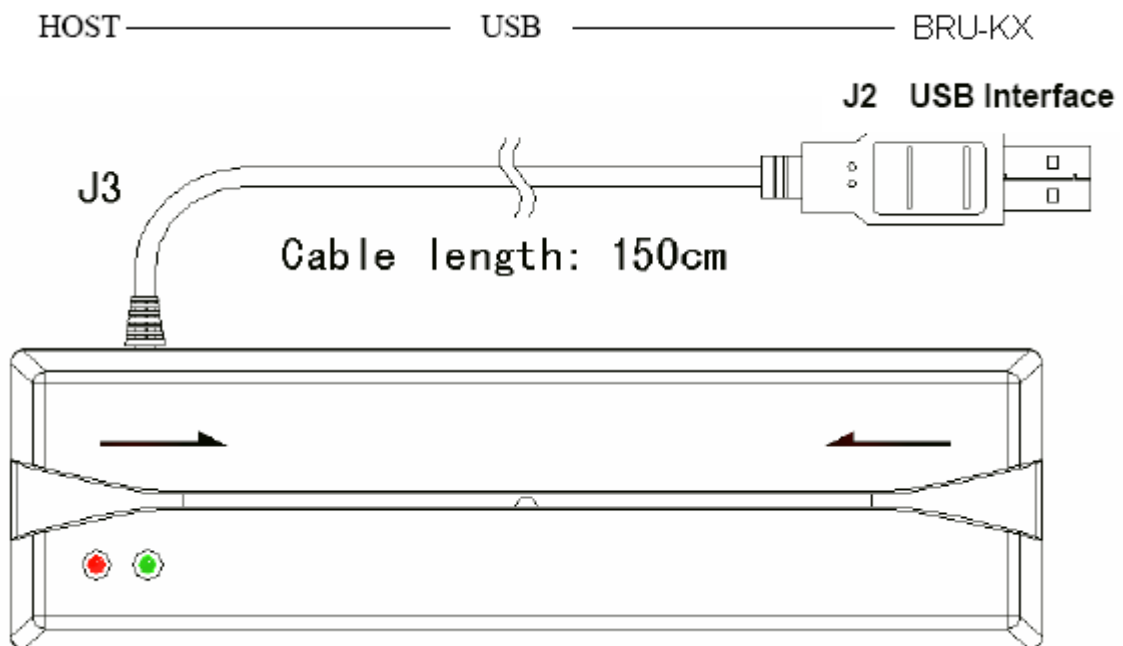
## 4 Environmental Requirements

Storage ambient temperature: -30°C to +70°C  
 Operating ambient temperature: -20°C to +70°C  
 Storage ambient relative humidity: 0% to 95%  
 Operating ambient relative humidity: 20% to 90%

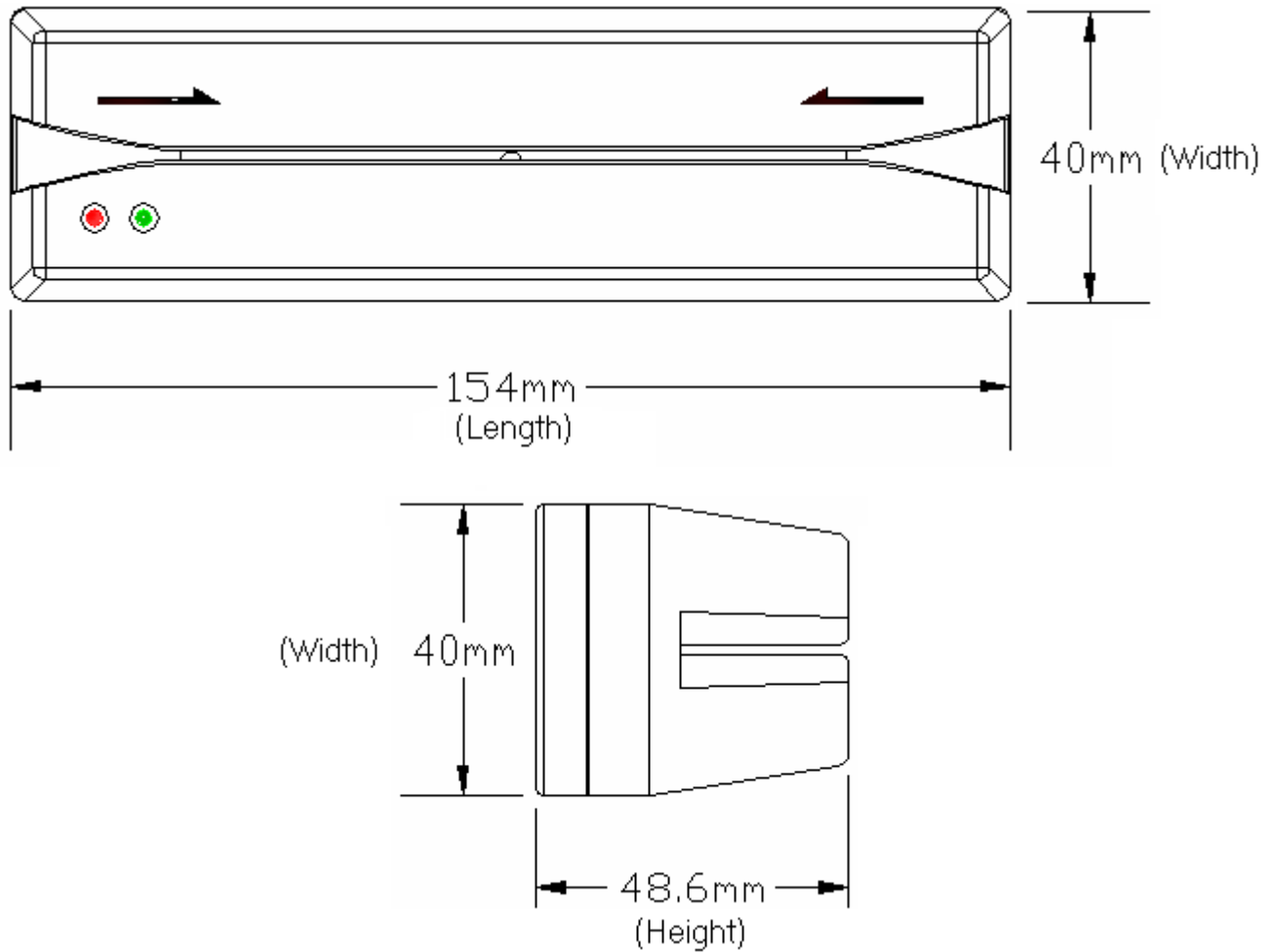
## 5 Indicator Led Description

Color	Signal	Description
Green	OK	Card reading is normal
Red	Error	Card reading is abnormal

## 6 System Block Diagram



## 7 Dimension Drawing



## 8 Switch Settings

USB Interface			
Switch No.	On-Off Status		Function Description
SW1	(see the following table of Baud Rate) *		SW1 e SW2 are used only to configure Baud Rate *
SW2	(see the following table of Baud Rate) *		SW1 e SW2 are used only to configure Baud Rate *
SW3	ON: Switch	OFF: Do not switch	Switch in track 1 and track 3
SW4	ON: Do not beep	OFF: Beep	Beep after a card is swiped
SW5	ON: Do not alarm	OFF: Alarm	Alarm 3 times if an error has occurred
SW6	ON: Use ";"	OFF: Use "+"	If SW7 is OFF, you can choose the character with whom Track 3 will start
SW7	ON: Disable	OFF: Enable	Inserisce i caratteri di inizio e fine in ogni traccia.
SW8	ON: Add	OFF: Do not add	Aggiunge un "INVIO" alla fine.

**Default settings are: SW1 and SW8 ON, other switches OFF.**

* Switch Settings for Baud Rate		
SW1	SW2	Baud Rate
OFF	OFF	2400
OFF	ON	4800
ON	OFF	9600
ON	ON	19200

**By default SW1 is ON and SW2 is OFF.**