

Mini-KEP POS Readers



A X E Z E

RFID Access Control Products



Overview

The Axeze KEP range of products are point of sale readers that are compatible with the Axeze Access Control reader and Reader/controller products in that the same transponders can be used on all the products. The KEP products are normally used with the wristband transponder and this same transponder could be used with KES and KEN Access Control products. The cables are brought out of the ends of the cases to allow the unit to sit on a bench or be attached to the side of a cash register. The MiniKEP range is a small footprint version of the KEP range of readers. All readers in the range are fitted with internal antenna coils.

Note

Users of Windows 2000 and Windows XP must ensure they can initialize the Keyboard port without a keyboard present if they intend to use the KEP-PS2-M readers without a keyboard. See the Axeze PC Wedge software and the USB or D9 serial readers for a solution for systems based on these operating systems

Variations

Product Code	Output	Weight
KEP-5V-M	Inverted TTL	72g
KEP-5V-MS	RS-232	75g
KEP-12V-M	RS-232	90g
KEP-12V-MS	RS-232	85g
KEP-PS2-M	PS2	110g
KEP-USB-M	USB	75g

Physical Specifications

Color	Black
Dimensions	80 mm x 40 mm x 20 mm

Mounting

The MiniKEP range of products have the antenna coil in the rear of the unit and optimum read range should not be mounted with the back against a metal surface. The mounting tape supplied with the unit suits mounting the unit on its edge. Ensure the surfaces to be bonded are cleaned with Isopropyl alcohol and then thoroughly dried before applying the bonding tape.

Electrical Specifications

Power Requirements

	Voltage	Current
KEP-12V-M	12VDC *	58 mA (avg.)
KEP-12V-MS	12VDC **	58 mA (avg.)
KEP-5V-M	+5VDC Regulated **	50 mA (avg.)
KEP-5V-MS	+5VDC Regulated **	58 mA (avg.)
KEP-PS2-M	+5V from PS2 port	50 mA (avg.)
KEP-USB-M	+5V from USB port	55 mA (avg.)

* 500mA SMPS plug pack is supplied with each unit sold in Australia

** power via pin 9 of COMs connector

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The above specifications are subject to change without notice

• **Electrical Specifications (Cont.)**

Cables

KEP-5V-M	720 mm long with DB9 (F) connector
KEP-5V-MS	720 mm long with DB9 (F) connector
KEP-12V-M	1200 mm long with DB9 (F) connector and 2.1mm in-line DC socket
KEP-12V-MS	1200 mm long with DB9 (F) connector
KEP-PS2-M	2000 mm long with PS2 (M) connector
KEP-USB-M	1200 mm long with USB A (F)

All Readers

Read Speed Range	< 200mS
Card	Up to 160 mm
Key Fob	Up to 100 mm
Wristband	Up to 160 mm
Tx Frequency	134.2KHz AM
Rx Frequency	134.2 –123.2.KHz FSK

KEP-5V-M/MS, KEP-12V-M/MS, KEP-USB-M only

Tag Identification number size	16 ¹⁶	(18,446,744,073,709,5511,616)
Block Check Character size	4 ¹⁶	(4,294,967,296)
Communications		
Data type	Binary	
Baud rate	9600	
Parity	None	
Data Bit	8	
Stop Bits	1	
Phase and Logic		
KEP-5V-M	Inverted TTL (TX only)	
KEP-5V-MS	3 wire RS232 (EIA/TIA-232E)	
KEP-12V-MS	3 wire RS232 (EIA/TIA-232E)	
KEP-12V-M/MS	3 wire RS232 (EIA/TIA-232E)	

A special version of the KEP-12V-M with 7 bit ASCII output is available for GAP **Solutions** terminals. The output format is ^LJOAAAAAAAA[CR][LF] where "^L" represents a control character and "A" is an ASCII character.

KEP-PS2-M only (See also KEP Configuration software (KEPCfg))

The following table illustrates the various formats available from the KEP-PS2-M.

Format Code	VJ	MF	RC	IS	11	JO
Pre-amble	%VJ	1	1	;11	;11	%JO
No. of characters *	6	9	6	6	6	6
Post-amble	?			?	?	?
Enter Key	Y	Y	Y	N	Y	Y
Repetitions	Off	Off	Off	Off	Off	Off

*(The reported characters are based on two or three least significant bytes of tag ID)

Indicator LED

Flashing red	Power on
Solid red	Tag in range

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Software

The **KEP Configuration** software is used to configure readers with firmware revisions earlier than V4.00 to output the format in the table above. Readers with version 4 firmware are for use with the PC Wedge software only and are suitable to use with W/R transponders. This means customers, for a little extra will be able to order tailor made wristbands.

The **PC Wedge** software is a Windows based program that allows the host PC based terminal to intercept wristband and card data received at a serial port and send it to the keyboard buffer after formatting it to suit the target POS system. The pre-amble and post-amble may use any printable keyboard character (ASCII 32 to 126). The data may be Decimal or Hexadecimal. The delay before a card is repeated is programmable and may be set to 0. The Enter Key may be added as required.

USB Drivers

The KEP-USB-M requires Virtual Com Port (VCP) drivers to be loaded on the host PC. These are available from the support page of the USB chip manufacturer's website <http://www.ftdichip.com/FTDrivers.htm> . The most recent drivers should be used and Axeze recommends updating to driver version 2.04.16 (17th February 2009) for best performance.

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