WALL-MOUNT CONTACTLESS READER (RS-232/USB)
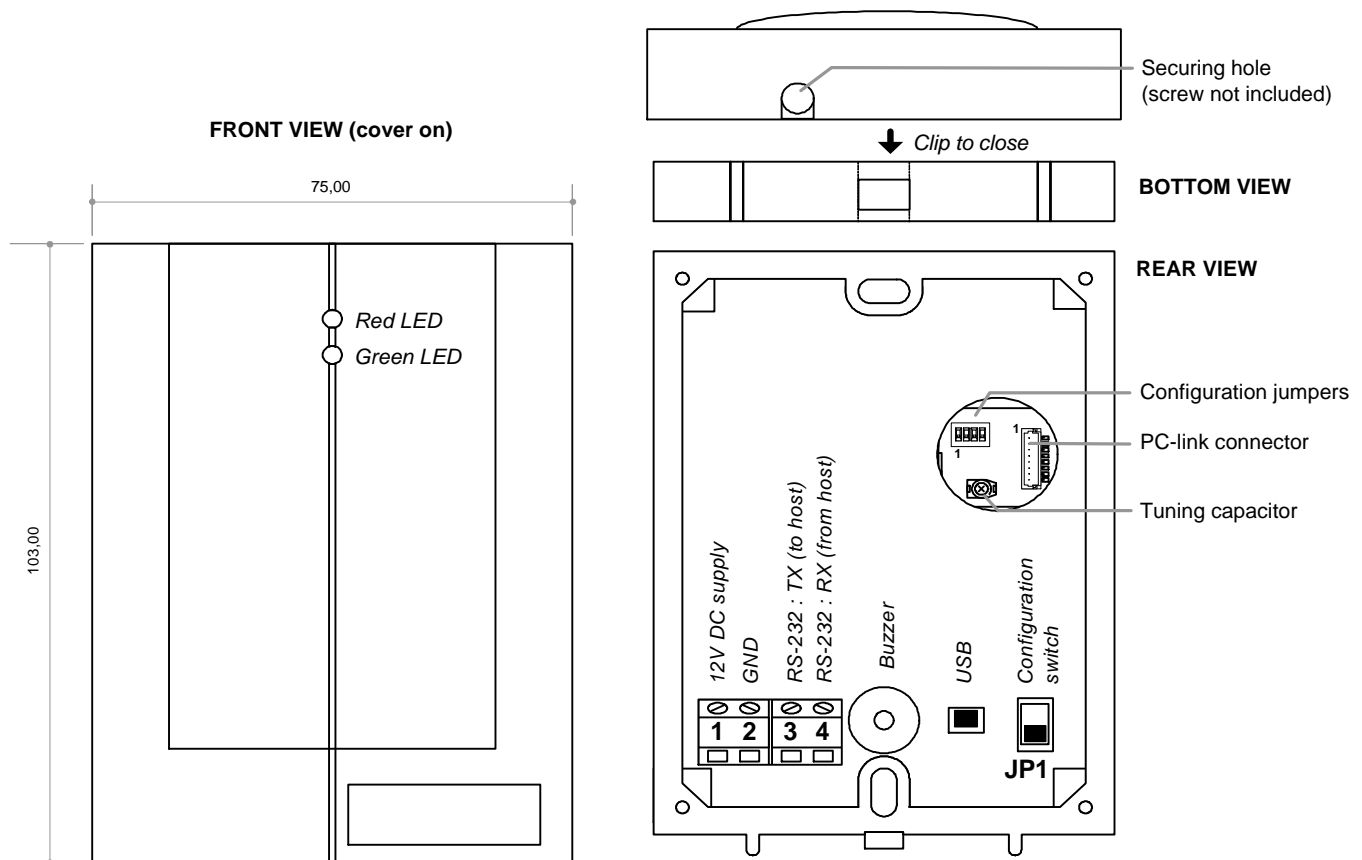
IWM-K632-SU is an highly customizable wall-mount contactless reader. It reads virtually any kind of ISO/IEC 14443 proximity cards, and ISO/IEC 15693 vicinity tags or transponders.

This reader is intended to be used for corporate access control with high level security requirements. It is also suitable for cash or vending machines. 2 output modes are available :

- RS-232,
- USB (virtual serial device, using FTDI USB to RS-232 bridge).

Frame length and format are fully customizable.

DETAILED VIEWS

FRONT VIEW (cover on)

75,00

103,00

Red LED
Green LED

Securing hole
(screw not included)

↓ *Clip to close*

BOTTOM VIEW

REAR VIEW

Configuration jumpers

PC-link connector

Tuning capacitor

12V DC supply
GND
RS-232 : TX (to host)
RS-232 : RX (from host)
Buzzer
USB
Configuration switch

1 2 3 4

JP1

PIN ASSIGNMENT

	RS-232	USB
1	12 V power supply	*Not used*
2	Ground	*Not used*
3	TX	*Not used*
4	RX	*Not used*
J3	*Not used*	USB to computer

Pins marked as "not used" must be kept unconnected

TECHNICAL DATASHEET

IWM-K632-SU

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SPECIFICATIONS

ISO compliance	ISO/IEC 14443-A/B 1, 2, 3 & 4 ISO/IEC 15693 1, 2 & 3	**RS-232 mode**	3-wire RS-232 serial communication *RX / TX at +12/-12 V*
RFID operating frequency	13.56 MHz	Distance to computer :	max 3m
Card reading distance	5cm typ., min 0cm, max 8cm *depending both on card characteristics and Installation particularities*	**USB mode** Distance to computer :	Standard USB 1.1 interface, type B connector *Seen as a virtual serial port, with drivers available for Windows, Linux and others*[4] max 3m
Supported cards[2]	NXP ICODE1 NXP MIFARE Classic & UltraLight NXP DESFIRE, SmartMX, MIFARE ProX Infineon SLE66 STMicroelectronics ST19 … Other cards (Calypso[1], Jewel, SR176…) : on request.	**Common information** Baud rate[3] : Output format[3] : LEDs & buzzer :	 1200, 2400, 4800, 9600, 19200, 38400 or 115200 bps Hexadecimal string, 4 to 16 bytes (8 to 32 chars) Driven by short commands
Buzzer	Single-tone beeper		
Power supply	RS-232 mode : 12 V DC 250mA *linear supply recommended* USB mode : self-powered by USB *bus must be able to deliver 400mA*	**Temperature range**	Operation : 0°C → +45°C Storage : -10°C → +55°C
Consumption at 12V DC	average : 80mA peak : 250mA	**Housing** **Color**	ABC-94HB Black
CE mark	EN50082 / EN55022 class B	**Dimensions h x l x d** **Weight**	103 x 75 x 23 (mm) 180g

[1] Calypso card support is subject to extra license fees
[2] 1 to 4 card accepting templates can be defined through PC-link connector or using master cards
[3] Output format, baud rates and related transmission options are fully configurable through PC-link connector or using master cards
[4] See www.ftdichip.com for a complete list

HARDWARE CONFIGURATION

Jumpers

ON

1 2 3 4

	ON	OFF
1	Normal mode	Console mode
2	Flash mode	Normal mode
3	Buzzer enabled	Buzzer disabled
4	*Not used*	

Use a small and sharp pin to change jumper position.
Flash mode must be set only for firmware upgrade operation. Select "console mode" (jumper 1 OFF) only when configuring the reader through PC-link connector.

JP1 switch

RS-232   USB

JP1   JP1

SOFTWARE SETTINGS

Secured "master cards" can be provided by Pro-Active or generated using **iwmk632cfg** Windows-based software, for an easy configuration of the reader.

Alternatively, software configuration can be defined through RS-232 or USB connection.

Please refer to PMAA061 reference manual for details regarding configuration and operating instructions.

INSTALLATION PRECAUTIONS

Reader is shipped un-configured. Appropriate configuration must be applied (configuration jumpers and software settings) before installing the reader.

This device is a contactless reader ; it uses inductive coupling (magnetic field) to power and read the cards. Precaution must be taken to keep the reader free from any source of perturbation (e.g. other readers, lift machines, electrical motors…). Installing the reader on a metal surface (aluminum or steel door frame, iron-armed concrete walls…) may dramatically shorten operating distance and increase power consumption.

The reader must be protected from rain and excessive humidity.

TECHNICAL DATASHEET

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