

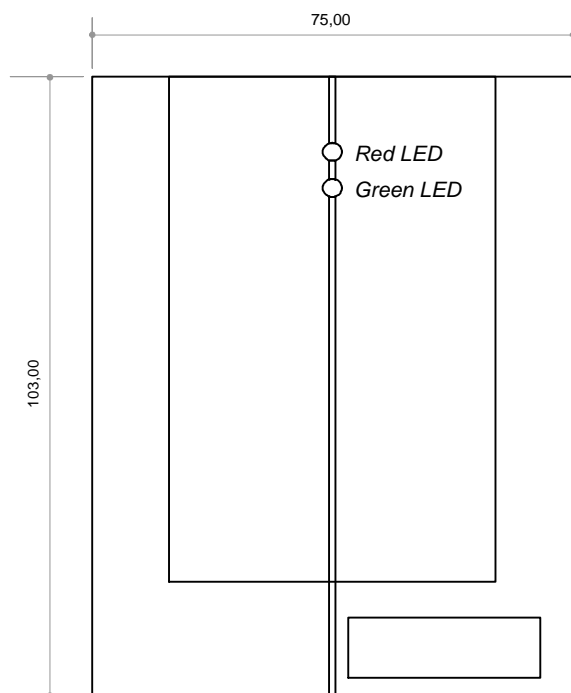
**WALL-MOUNT CONTACTLESS READER (RS-485/WIEGAND/DATACLOCK)**

**IWM-K531-WD** is a wall-mount proximity reader. It reads serial number from any standard ISO/IEC 14443 contactless card, including NXP popular MIFARE and DESFire families.

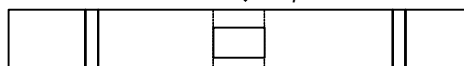
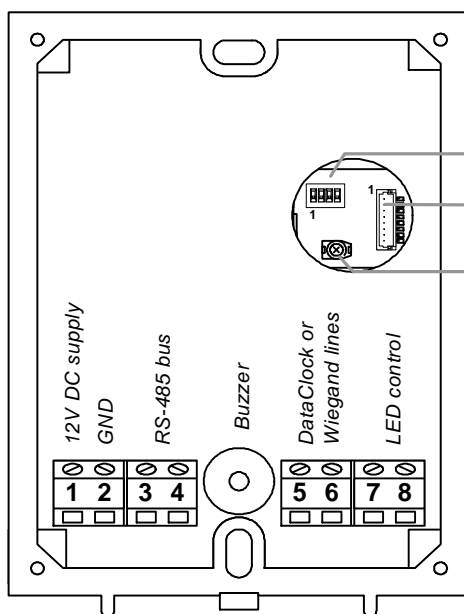
This reader is primarily dedicated to residential or corporate access control, but can also be used in cash or vending machines. 3 output modes are available :

- Wiegand,
- Dataclock (ISO2 / Magstripe),
- RS-485,

Frame length and format for each output mode can be configured by software.

**DETAILED VIEWS****FRONT VIEW (cover on)**

↓ Clip to close

**BOTTOM VIEW****REAR VIEW****PIN ASSIGNMENT**

	RS-485	Wiegand	Dataclock
1	VCC - 12 V DC power supply		
2	GND - common		
3	RS-485 bus A	Not used	Not used
4	RS-485 bus B	Not used	Not used
5	Not used	Data 0 output	Data output
6	Not used	Data 1 output	Clock output
7	Not used	Red LED input	
8	Not used	Green LED input	

Pins marked as "not used" must be kept unconnected

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**TECHNICAL DATASHEET**

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**WALL-MOUNT CONTACTLESS READER (RS-485/WIEGAND/DATACLOCK)****SPECIFICATIONS**

<b>ISO compliance</b>	ISO/IEC 14443-A/B 1, 2 & 3	<b>RS-485 mode</b>	2-wire RS-485 serial bus with optional addressing <i>Up to 8 readers can be operated on the same bus</i>
<b>RFID operating frequency</b>	13.56 MHz	Baud rate <sup>2</sup> :	38400bps or 9600bps
<b>Card reading distance</b>	5cm typ., min 0cm, max 8cm <i>depending both on card characteristics and Installation particularities</i>	Distance to controller :	max 30m
<b>Supported cards</b>	NXP MIFARE Classic & UltraLight NXP DESFIRE, SmartMX, MIFARE ProX Infineon SLE66 STMicroelectronics ST19 ... Other cards (Calypso <sup>1</sup> , Jewel, SR176...) : on request.	Output format <sup>3</sup> :	64 bits (8 bytes) ASCII hexadecimal strings (16 characters)
<b>Transmitted data</b>	14443-A : card's unique ID (4, 7 or 12 bytes) 14443-B : card PUI (4 bytes) <i>A specific reader firmware may be developed read other data from memory or T=CL cards</i>	Red & green LEDs :	Driven by short commands
<b>Buzzer</b>	Single-tone beeper	<b>Wiegand mode</b>	2-wire interface DATA1 & DATA0 active low
<b>Power supply</b>	12 V DC <i>linear supply recommended</i>	Distance to controller :	max 30m
<b>Consumption</b>	average : 80mA (at 12V DC) peak : 250mA (at 12V DC)	Output format <sup>3</sup> :	32 bits (4 bytes)
<b>CE mark</b>	EN50082 / EN55022 class B	Red & green LEDs :	Driven by the controller (2 input lines, active low)
		<b>Dataclock mode</b>	2-wire interface DATA & CLOCK active low
		Distance to controller :	max 30m
		Output format <sup>3</sup> :	32 bits BCD (10 digits)
		Red & green LEDs :	Driven by the controller (2 input lines, active low)
		<b>Temperature range</b>	Operation : 0°C → +45°C Storage : -10°C → +55°C
		<b>Housing</b>	ABC-94HB
		<b>Color</b>	Black
		<b>Dimensions h x l x d</b>	103 x 75 x 23 (mm)
		<b>Weight</b>	180g

<sup>1</sup> Calypso card support is subject to extra license fees<sup>2</sup> Software configuration to be done through PC-link connector or using master cards<sup>3</sup> Output format is configurable through PC-link connector or using master cards**CONFIGURATION JUMPERS**

ON



1 2 3 4

	ON	OFF
1	Dataclock or Wiegand <sup>4</sup>	RS-485
2	Red LED input disabled	Red LED input enabled
3	Green LED input disabled	Green LED input enabled
4	Buzzer enabled	Buzzer disabled

<sup>4</sup> Depending on software settings

Use a small and sharp pin to change jumper position.

Typical configuration :

	1	2	3	4
RS-485 mode		ON	ON	ON
Wiegand mode	ON			ON
Dataclock mode	ON			ON

**SOFTWARE SETTINGS**

Secured "master cards" are provided by Pro-Active for an easy configuration of reader's software.

Alternatively, use optional INT-USB-232 interface to connect the IWM-K531 reader to a computer through the *PC-Link connector* to edit software configuration.

Please refer to PMAA060 reference manual for details regarding configuration and operating instructions.

Typical configuration :

	E <sup>2</sup> PROM settings
RS-485 mode	00000203
Wiegand mode	00010103
Dataclock mode	00000503

**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.

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