

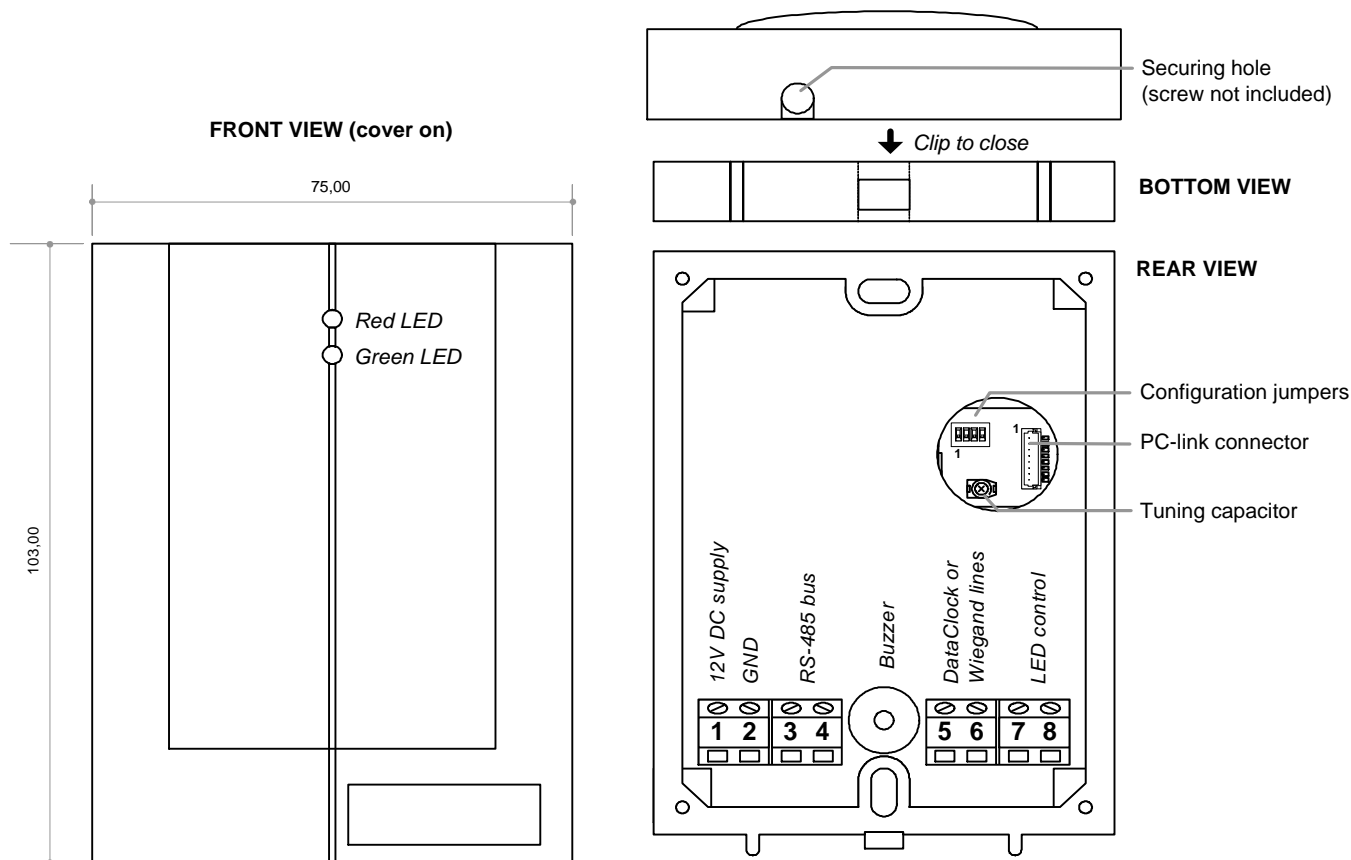
WALL-MOUNT CONTACTLESS READER

IWM-K531 is a wall-mount proximity reader. It reads serial number from any standard ISO/IEC 14443 contactless card, including Philips 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**ORDER CODES**

IWM-K531-485	Wall-mount contactless reader, RS-485 output.
IWM-K531-WGD	Wall-mount contactless reader, Wiegand output.
IWM-K531-DTC	Wall-mount contactless reader, Dataclock output.

Output configuration can easily be changed afterwards.
3 different order codes are provided for convenience only.

PIN ASSIGNMENT

	IWM-K531-485	IWM-K531-WGD	IWM-K531-DTC
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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Pro Active
Parc Gutenberg
13 voie Lacardon
91120 Palaiseau
France

Phone : +33 1 64 53 20 10
Fax : +33 1 64 53 20 18
e-mail : info@pro-active.fr
website : www.pro-active.fr

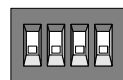
S.A.S. au capital de 227 000 €
R.C.S. EVRY B 429 665 485
A.P.E. 722 Z
VAT # : FR 27 429 665 482 00015

WALL-MOUNT CONTACTLESS READER**SPECIFICATIONS**

ISO compliance	ISO/IEC 14443-A/B 1, 2 & 3	RS-485 operation	(IWM-K531-485) 2-wire RS-485 serial bus with optional addressing <i>Up to 8 readers can be operated on the same bus</i> 38400bps (default) or 9600bps ²
RFID operating frequency	13.56 MHz	Baud rate :	
Card reading distance	5cm typ., min 0cm, max 8cm <i>depending both on card characteristics and Installation particularities</i>	Distance to controller :	max 30m
Supported cards	Philips MIFARE Classic & UltraLight Philips DESFIRE, SmartMX, MIFARE ProX Infineon SLE66 STMicroelectronics ST19 ... Other cards (Calypso ¹ , Jewel, SR176...) : on request.	Output format ³ :	64 bits (8 bytes) ASCII hexadecimal strings (16 characters) Driven by short commands over the serial link.
Transmitted data	14443-A : card's unique ID (4, 7 or 12 bytes) 14443-B : card PUPI (4 bytes) <i>A specific reader firmware may be developed on request to retrieve data on memory or T=CL cards</i>	Wiegand operation	(IWM-K531-WGD) 2-wire interface DATA1 & DATA0 active low max 30m
Buzzer	Single-tone beeper	Output format ³ :	32 bits (4 bytes)
Power supply	12 V DC <i>linear supply recommended</i>	Red & green LEDs :	Driven by the controller (2 input lines, active low)
Consumption	average : 80mA (at 12V DC) peak : 250mA (at 12V DC)	Dataclock operation	(IWM-K531-DTC) 2-wire interface DATA & CLOCK active low max 30m
CE mark	EN50082 / EN55022 class B	Output format ³ :	32 bits BCD (10 digits)
		Red & green LEDs :	Driven by the controller (2 input lines, active low)
		Temperature range	Operation : 0°C → +45°C Storage : -10°C → +55°C
		Housing	ABC-94HB
		Color	Black
		Dimensions h x l x d	103 x 75 x 23 (mm)
		Weight	180g

¹ Calypso card support is subject to extra license fees² Software configuration to be done through PC-link connector³ Output format can be changed through PC-link connector**CONFIGURATION JUMPERS**

ON



1 2 3 4

	ON	OFF
1	Dataclock or Wiegand ⁴	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

⁴ Depending on software configuration

Use a small sharp pin to change jumper configuration.

Default factory settings :

	1	2	3	4
IWM-K531-485	off	on	on	off
IWM-K531-WGD	on	off	off	off
IWM-K531-DTC	on	off	off	off

SOFTWARE CONFIGURATION

Secured configuration cards can be bought at Pro-Active for a fast software configuration of the reader.

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.

Default factory software configuration :

	E ² PROM settings
IWM-K531-485	00000203
IWM-K531-WGD	00010103
IWM-K531-DTC	00010503

INSTALLATION PRECAUTIONS

This device is a contactless reader ; it uses inductive coupling (magnetic field) for card reading. 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 (aluminium or steel door frame, iron-armed concrete walls...) will lead to shorter operating distance and increased power consumption.

Device must be protected from rain and excessive humidity.

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