

## FUNKYGATE-SU

WALL-MOUNTED RFID & CONTACTLESS READER



FunkyGate contactless reader is the new generation reader for highly secured access control systems. Key points are **security, interoperability and evolutivity**.

### KEY FEATURES

**Interoperability** : *FunkyGate* is not only able to read serial numbers from virtually any 13.56MHz contactless card, but it is also able to fetch particular data from Mifare or advanced T=CL cards. Thanks to its fully configurable output format, *FunkyGate* integrates itself in any access-control system.

**Evolutivity** : FunkyGate configuration is made of 4 different sets, thus allowing different kind of cards to be used at the same time on the site, making it possible to rotate authentication keys periodically leads to improved security.

**Security** : FunkyGate is able to communicate with NXP DESFire, to verify a numeric signature and to diversicate authentication keys for top-of-art security levels. *FunkyGate* is equipped with an anti-tamper facility : 2 magnet sensors positioned respectively on the reader's back-face and front-face prevent removal or opening.

### SPRINGCARD & PRO ACTIVE

Established in 2000, **Pro Active** is an innovative provider of smartcard-related solutions, and one of the leaders on the contactless-reader market.

**SpringCard** distributes **Pro Active's** contact and contactless products worldwide under a single brand name.

### FEW TYPICAL APPLICATIONS

- high secured buildings access controll
- cash or vending machine

### DETAILED VIEWS



PIN Assignements

	RS-232	USB
1	12V power supply	Unconnected
2	GND	Unconnected
3	TX (reader to host)	Unconnected
4	RX (host to reader)	Unconnected
J3	Unconnected	USB (to host)

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**Pro Active**

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### TECHNICAL SPECIFICATIONS

#### Contactless smartcard interface

Standards	ISO/IEC 14443 A and B, T=CL ISO/IEC 15693 and 18000-3
RFID carrier	13.56 MHz
Operating distance	up to 6 cm depending on card and on environment
Card baud rate	106 kps (ISO 14443) 26 kbps (ISO 15693)
Supported cards (partial list) :	<ul style="list-style-type: none"> <li>▪ NXP (Philips) ICODE1, ICODE-SLI, ...</li> <li>▪ Texas Instrument TagIT</li> <li>▪ NXP (Philips) MIFARE Classic &amp; UltraLight</li> <li>▪ NXP (Philips) DESFIRE, SmartMX, ProX</li> <li>▪ Infineon SLE66 family</li> <li>▪ ST MicroElectronics SR, SRI, SRIX families</li> <li>▪ HID iClass, Inside PicoTag</li> <li>▪ ASK CTS256/CTS512</li> <li>▪ Calypso (CD97, CD21, GTML...)<sup>1</sup></li> </ul>
And virtually any ISO/IEC 14443 A or B compliant smartcard, or ISO/IEC 15693 compliant RFID label	

#### Hardware specifications

Dimensions (LxWxH)	103 x 75 x 23 mm (approx)
Housing material	ABS-94HB + PC
Color	Black
Weight	≈ 180g

#### Environment and safety

Operating temperature	-20 → +80°C
Storage temperature	-40 → +85°C
MTBF	500 000 hours
CE mark	EN50082 / EN55022 class B
Other standards	RoHS

#### Security and configuration

Field configuration through master cards or by the communication line	
Anti-tamper facility	2 magnet sensors: - on the back-side to stop removing - on the front-side to stop opening

#### RS232 mode<sup>2</sup>

3-wire RS-232 serial communication RX/TX at +12/-12V	
Distance to computer	max 3m
Baud rate	1200, 2400, 4800, 9600, 19200, 38400
Output format	Hexadecimal string, 4 to 16 bytes (8 to 32 chars)
LEDs and buzzer	Driven by short commands
External Power	12V DC - linear supply recommended - 9 → 30 V
Consumption	80mA average - 200mA peak

#### USB mode<sup>2</sup>

USB1.1 virtual serial communication port	
Connector	Type B connector at the back of the reader
Distance to computer	max 2.5m
Power supply	Bus powered (≈250mA under 5V)
Drivers	Windows, Windows CE, Linux
Consumption	100 mA average - 250 mA peak
USB and Alimentation	Usb electric intensity average 4mA if external power used
Output format, LEDs and	Same as RS-232 mode

<sup>1</sup> Calypso card operation is subject to an extra license fee. Contact us for information.

<sup>2</sup> Output format, baud rates and related transmission options are fully configurable through serial or USB connection, or using master cards

### ORDER CODES

PART #	Description
IWMX-10-SU	FunkyGate-SU wall mounted contactless reader RS232/USB

#### PRECAUTIONS FOR INSTALLATION

This device is a contactless reader; it uses inductive coupling (magnetic field) to power the cards and communicate with them. Precaution must be taken to keep the reader far from any source of perturbation (e.g. other readers, computers...). Installing the reader near a metal surface (aluminium or steel plate...) will lead to shorter operating distance and increased power consumption. SpringCard has a long experience installing contactless couplers in various kind of devices. Do not hesitate to contact us if you need any assistance.

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