

AUTOMOTIVE READER

CONTACTLESS SMARTCARD READER + μ SIM/SAM



Automotive Reader is a ISO 14443 (A&B), ISO 15693 and Mifare contactless reader/writer. Its integrated μ SIM/SAM coupler is ready to receive a SAM smartcard for advanced security applications.

KEY FEATURES

With a compact and robust design and FCI interface, Automotive Reader fits easily into vehicles. It is a serial device, easy to operate under any operating system.

Automotive Reader reads and writes any Mifare or ISO/IEC 14443 (1, 2, 3 and 4) or ISO/IEC 15693 contactless card.

A FEW TYPICAL APPLICATIONS

- Self service vehicles
- Transportation ticket issuing
- Strong authentication

SPRINGCARD & PRO ACTIVE

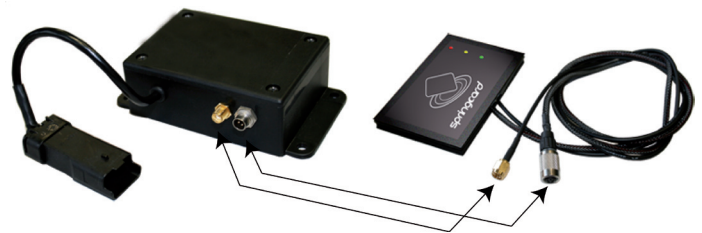
Established in 2000, Pro Active is an innovative provider of smartcard-related solutions, and one of the leaders in the contactless-reader market.

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

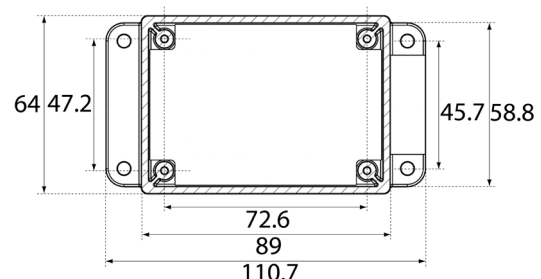
MECHANICAL CHARACTERISTICS

Dimensions are in **mm**

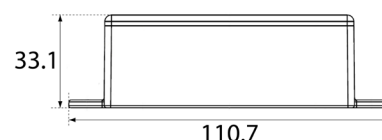
How to connect the device to its dedicated antenna, StickerAntenna (sold separately) :



Top sectional view :



Side view :



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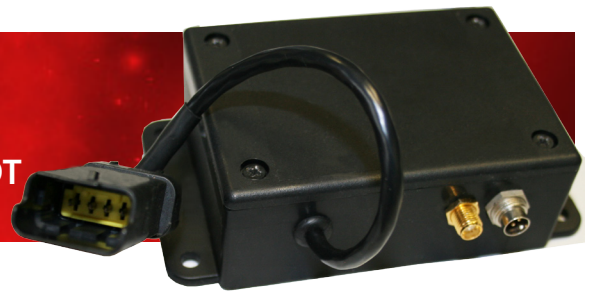
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Pro Active

AUTOMOTIVE READER

CONTACTLESS SMARTCARD READER + μ SIM/SAM SLOT



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 8 cm depending on card and on environment
Card baud rate	106, 212, 424 or 848 kbps
Supported cards (partial list) :	
<ul style="list-style-type: none"> ▪ NXP (Philips) ICODE1, ICODE-SLI, etc ▪ Texas Instrument TagIT ▪ NXP (Philips) MIFARE Classic & UltraLight ▪ NXP (Philips) DESFIRE, SmartMX, ProX ▪ Infineon SLE66 family ▪ ST MicroElectronics SR, SRI, SRIX families ▪ HID iClass, Inside PicoTag ▪ ASK CTS256/CTS512 ▪ Calypso (CD97, CD21, GTML, etc)¹ 	
And virtually any ISO/IEC 14443 A or B compliant smartcard, or ISO/IEC 15693 compliant RFID label	

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

SIM / SAM interface	
Card format	ID-000 (μ SIM)
Number of slots	1
Standards	ISO/IEC 7816, T=0 & T=1
Smartcard class	A and A/B (5V or 3.3V cards)
Clock frequency	3,6864 MHz
Card baud rate	Up to 115200 bps

Serial Interface	
Connector	4 pin FCI male connector
Power supply	12V +/- 20%.
Baud rate	38400 bps

Hardware specifications	
Dimensions (LxWxH)	89 x 64 x 33 mm
Housing material	ABS - 94VO
Weight	132 g
FCI cable	15 cm

Antenna connectors	
Connector 1	Circular female connector - Binder series 711 To be used with StickerAntenna
Connector 2	SMA female connector IO dedicated to RF communication

Software	
Drivers	Windows, Linux, ...
API and SDK	SpringProx API - Free SDK available API compliant with existing products (Spring-Prox-CF, CSB4, CSB5, K531,...)

Environment and safety	
Operating temperature	0 → +70°C
Storage temperature	-40 → +85°C
Durability	10 000 SIM/SAM insertions
MTBF	500 000 hours
CE mark	EN50082 / EN55022 class B
Other standards	RoHS, FCC pending

ORDER CODES

PART #	Description
SC9351	Automotive Reader Antenna not provided
ANT-1	StickerAntenna (3 LEDs) Cables are provided

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PRO ACTIVE company with a capital of 227 000 €
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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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