

## SPRINGPROX-CF & CFUP

### COMPACT FLASH CONTACTLESS READER/WRITER



SpringProx-CF and SpringProx-CF-UP are contactless reader/writer suitable on Compact Flash port.

#### KEY FEATURES

Directly powered by the Pocket PC, SpringProx-CF and SpringProx-CF-UP give your Pocket PC full access to the contactless world.

#### SUPPORTED CONTACTLESS SMARTCARDS

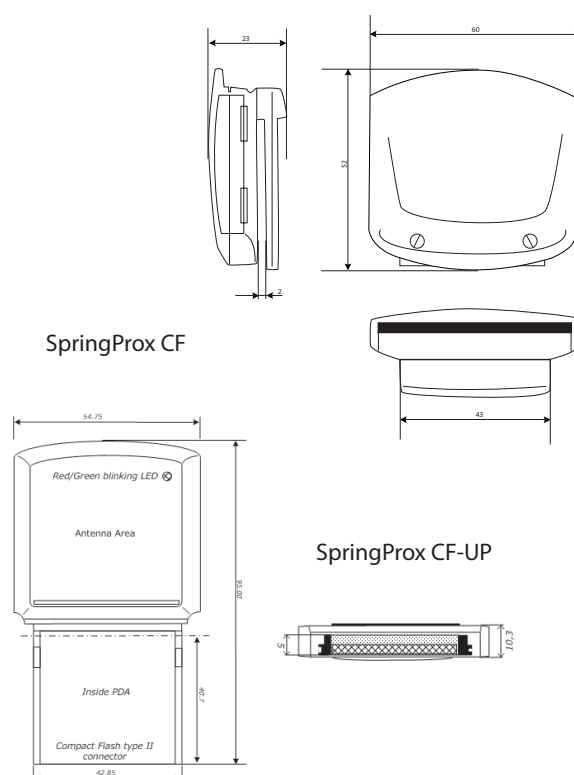
SpringProx CF and SpringProx CF-UP are compliant with ISO/IEC 14443 A/B standards. List of supported chips includes :

- NXP (Philips) : ICODE1, ICODE-SLI, Mifare Classic and UltraLight, Desfire, ProX, SmartMX,
- Texas Instrument : TagIT,
- ST MicroElectronics : SR176, SRiX...
- ASK CTS256B and CTS512B,
- HID iClass and Inside PicoTag,
- MultOS or JavaCard T=CL cards,
- Calypso transportation cards,
- NFC mobile phones or other NFC-capable objects (tag emulation mode)

#### A FEW TYPICAL APPLICATIONS

- Ticketing
- Tracking
- Loyalty
- Access control

#### MECHANICAL SPECIFICATIONS



#### 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 has been created to distribute Pro Active's contact and contactless products worldwide, under a single brand name.

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**Pro Active**

## SPRINGPROX-CF & CFUP

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### TECHNICAL SPECIFICATIONS

#### Contactless smartcard interface

Standards	ISO/IEC 14443 A and B, T=CL
RFID carrier	13.56 MHz
Operating distance	SpringCard CFUP : 0 to 5 cm SpringCard CF : 0 to 2cm depending on card and on environment
Card baud rate	106, 212 or 424 kbit/s

#### Supported cards (partial list) :

- NXP (Philips) ICODE1, ICODE-SLI, ...
- 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...)<sup>1</sup>

And virtually any ISO/IEC 14443 A or B compliant smartcard, or ISO/IEC 15693 compliant RFID label

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

#### SpringProx-CF Hardware specifications

Interface	CompactFlash type I
Housing Material	ABS-PP
Dimensions (LxWxH)	23 /30 x 60 x 52 mm
Weight	≈ 35g
Color	Anthracite grey

#### SpringProx-CFUP Hardware specifications

Interface	CompactFlash type II
Status indicator	bi-color LED
Housing Material	ABS
Dimensions (LxWxH)	11 x 54,75 x 95 mm
Weight	≈ 30g
Color	Black

#### Environment and safety

Operating temperature	0 → +70°C
Storage temperature	-40 → +85°C
MTBF	500 000 hours
CE mark	EN50082 / EN55022 class B
Other standards	RoHS, FCC pending

#### CompactFlash interface

Standard	SpringProx-CF : CompactFlash type I SpringProx-CFUP : CompactFlash type II
Power supply	Powered by the handheld (3.3V - 5V tolerant) ≈30mA with RF field OFF ≈180mA with RF field ON
Drivers	Seen as a Plug'N'Play serial port Uses standard driver from Windows CE / Mobile
API and SDK	SpringProx API - Free SDK available

### ORDER CODES

PART #	Description
SP-CF03	SpringProx-CF unit with card holder
SP-CFUP	SpringProx-CFUP unit suitable on CF type II

#### 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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