Security Expert Smartcard Reader Mini

The Security Expert Smartcard Reader provides a complete 13.56MHz (MIFARE / DESFire) smart card RFID solution. Compatible with all Wiegand data capable control systems and incorporating RS-485 communication, Security Expert Smartcard Readers allow for rapid deployment of secure technology in any environment.

Available in a choice of black or white, you can select the model to fit your needs and your decor.

Feature Highlights

- Provides support for DESFire and MIFARE cards
- Encrypted RS-485 or standard Wiegand connection
- Optional Bluetooth / NFC credential reading
- Configurable LED strip: 2 color control (blue and green) via external LED wiring, 16 color selectable for Security Expert function codes (RS-485 connection only)
- Fully encapsulated design with environment IP Rating of IP65 for outdoor and indoor operation
- Read range up to 60mm (2.36") with proximity ISO cards
- Optional Vandal Resistant Cover
- Built-in clone detection when using Schneider Electric Secured MIFARE

Flexible Communication

Choose between the intelligent RS-485 connection for fast, flexible, secure communication, or Wiegand for compatibility with all standard access control systems. RS-485 provides the added benefits of being easier and more cost effective to wire and deploy, and allows for direct integration with Security Expert systems enabling you to make changes on the fly once readers are installed. RS-485 also allows for longer cable runs and offers a simpler firmware update process.

IP65 Protection

The IP65 environmental rating provides a high degree of protection from the elements, making the reader suitable for harsh environments. Readers can be mounted indoors or outdoors, located anywhere from the car park gate to the office door.

Optional Bluetooth / NFC Credential Reading

Bluetooth / NFC capability enables you to use your smartphone as your access credential for maximum convenience.

Equipped with support for most modern iPhone and Android devices, you can unlock the door using a unique access credential that is supplied by the Security Expert Mobile App, entered against your user record in Security Expert, and authenticated by a secure cloud based server.

Configurable LED Strip

The Smartcard reader provides the ability to change the color of the LED strip (16 colors available) to show when a function has started, succeeded or failed. For example, when a function is used to arm an area, you can set the LED to change to purple to show that the function has started, yellow to show that the area has armed successfully, and red to indicate that the function has failed.

This feature is only supported when the reader is wired using RS-485.

Clone Card Detection

Built-in clone detection when using Schneider Electric Secured MIFARE means that even while it may be possible to copy a single MIFARE credential, use of that credential is detected and prevented.

Clone card detection operates in the following modes:

- **Clone Card Read** detects that a clone card has been presented but continues normal operation.
- **Clone Card Notify*** detects that a clone card has been presented and notifies the reader expander.
- **Clone Card Destroy** detects that a clone card has been presented and modifies the card so that it can no longer be read.

*The notify functionality is only supported by Smartcard readers that are using RS-485 configuration.

Optional Features

A range of optional features means there is a model to suit everyone.

- Available with Bluetooth / NFC connectivity
- Opt for either black or white according to your decor

Available Models and Optional Features

The Smartcard Reader comes in three sizes and with a range of optional features.

	Keypad	125kHz	13.56MHz	Bluetooth
Mullion Mount	115 x 45 x 18mm (4.53 x 1.77 x 0.71")			
SX-DRD-SB 13.56MHz/125KHz Card Reader (Black)		✓	✓	
SX-DRD-SB-BT 13.56MHz/125KHz Card Reader with Bluetooth /NFC (Black)		✓	✓	✓
SX-DRK-SB 13.56MHz/125KHz Card Reader with PIN (Black)	✓	✓	✓	
SX-DRK-SB-BT 13.56MHz / 125kHz Card Reader with PIN and Bluetooth /NFC (Black)	✓	✓	✓	✓
SX-DRK-SW-BT 13.56MHz / 125kHz Card Reader with PIN and Bluetooth /NFC(White)	✓	✓	✓	✓
SX-RD-SB 13.56MHz Card Reader (Black)			✓	
SX-RD-SB-BT 13.56MHz Card Reader with Bluetooth /NFC (Black)			✓	✓
SX-RD-SW 13.56MHz Card Reader (White)			✓	
SX-RD-SW-BT 13.56MHz Card Reader with Bluetooth /NFC (White)			✓	✓
SX-RK-SB 13.56MHz Card Reader with PIN (Black)	✓		✓	
SX-RK-SW 13.56MHz Card Reader with PIN (White)	✓		✓	
SX-RK-SB-BT 13.56MHz Card Reader with PIN and Bluetooth / NFC (Black)	✓		✓	✓
SX-RK-SW-BT 13.56MHz Card Reader with PIN and Bluetooth /NFC (White)	✓		✓	✓
Wall Plate	115 x 73 x 18mm (4.53 x 2.87 x 0.71”)			
SX-RD-XB-BT 13.56MHz Card Reader with Bluetooth /NFC (Black)			✓	✓
SX-RD-XW-BT 13.56MHz Card Reader with Bluetooth /NFC (White)			✓	✓
SX-DRD-XB 13.56MHz/125KHz Card Reader (Black)		✓	✓	
SX-DRD-XB-BT 13.56MHz/125KHz Card Reader with Bluetooth /NFC (Black)		✓	✓	✓
SX-DRK-XB 13.56MHz/125KHz Card Reader with PIN (Black)	✓	✓	✓	
SX-DRK-XB-BT 13.56MHz / 125kHz Card Reader with PIN and Bluetooth /NFC (Black)	✓	✓	✓	✓
SX-DRK-XW-BT 13.56MHz / 125kHz Card Reader with PIN and Bluetooth /NFC (White)	✓	✓	✓	✓

	Keypad	125kHz	13.56MHz	Bluetooth
SX-RD-XB 13.56MHz Card Reader (Black)			✔	
SX-RD-XW 13.56MHz Card Reader (White)			✔	
SX-RD-XB-BT 13.56MHz Card Reader with Bluetooth (Black)			✔	✔
SX-RK-XB 13.56MHz Card Reader with PIN (Black)	✔		✔	
SX-RK-XW 13.56MHz Card Reader with PIN (White)	✔		✔	
SX-RK-XB-BT 13.56MHz Card Reader with PIN and Bluetooth /NFC (Black)	✔		✔	✔
SX-RK-XW-BT 13.56MHz Card Reader with PIN and Bluetooth /NFC (White)	✔		✔	✔
Mini	84 x 45 x 17mm (3.31 x 1.77 x 0.67”)			
SX-DRD-MB-BT 13.56MHz/125KHz Card Reader with Bluetooth (Black)		✔	✔	✔
SX-RD-MW 13.56MHz Card Reader (White)			✔	
SX-RD-MB 13.56MHz Card Reader (Black)			✔	
SX-RD-MB-BT 13.56MHz Card Reader with Bluetooth / NFC (Black)			✔	✔
SX-RD-MW-BT 13.56MHz Card Reader with Bluetooth / NFC (White)			✔	✔

Technical Specifications

Operating Voltage	12VDC (9.5 to 14VDC)
Operating Current	118mA (peak, reading)
Card Read Range	Mifare 60mm (2.36")* DESFire EV1 ISO 15mm (0.6")*
Tag Read Range	Mifare 35mm (1.18")* DESFire EV1 ISO 6mm (0.23")*
Bluetooth Read Range	Proximity mode: up to 0.5m (1.6ft) Configurable** Action unlock (shake): up to 5m (16.4ft) Configurable**
NFC Read Range	Up to 60mm***
Wiegand Interface	Multiple format 26 or 34 Bit data 0 and data 1, card defined.
OSDP	V2.1.5
Max Cable Distance	150m (492ft)
Frequency	13.56 MHz ISO/IEC 14443 Type A* 125kHz pulse width modulated†
Multi Conductor Cable	22Awg alpha 5196, 5198, 18Awg alpha 5386, 5388
Environment IP Rating	IP65
Operating Temperature	-35˚ to 65˚C (-31˚ to 149˚F)
Storage Temperature	-10˚ to 85˚C (14˚ to 185˚F)
Dimensions (H x W x D)	84 x 45 x 17mm (3.31 x 1.77 x 0.67”)
Weight	80g (2.82oz)

* Applies to the Mifare/DESFire model only

** Applies to the Bluetooth enabled models only

*** Applies to the NFC enabled models only

Regulatory Notices

Federal Communications Commission (FCC)

FCC Rules and Regulations CFR 47, Part 15, Class A.

This equipment complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference; (2) This device must accept any interference received, including interference that may cause undesired operation.

Industry Canada

ICES-003

This is a Class A digital device that meets all requirements of the Canadian Interference-Causing Equipment Regulations.

CAN ICES-3 (A)/NMB-3(A)

RCM (Australian Communications and Media Authority (ACMA))

This equipment carries the R-NZ label and complies with EMC and radio communications regulations of the Australian Communications and Media Authority (ACMA) governing the Australian and New Zealand (AS/NZS) communities.

CE – Compliance to European Union (EU)

Conforms to European Union (EU) Low Voltage Directive (LVD) 2014/35/EC, Electro-Magnetic Compatibility (EMC) Directive 2014/30/EU and RoHS Recast (RoHS2) Directive: 2011/65/EU.

This equipment complies with the rules, of the Official Journal of the European Union, for governing the Self Declaration of the CE Marking for the European Union as specified in the above directive(s) per the provisions of the following standards:

Security Grade 3, Environmental Class IV, EN 50131-1:2006, EN 50131-3:2009, EN 50131-6:2008, Recognition class 2 (readers without a keypad), Recognition class 3 (readers with a keypad).

UL/ULC (Underwriters Laboratories)

- UL 294 for Access Control System Units
- CAN/ULC S319 for Electronic Access Control Systems