# readID™ One
# SE 1220 MNP

USB Reader for MIFARE Classic® CSN/Sector,
MIFARE Ultralight® CSN, MIFARE® DESFire® CSN/App,
EM 4102, FSK Prox & HiTag2 CSN

## Functional description

Design for easy registration of RFID cards in access control software. The card reader interface connects to a pc via USB (2.0) and the required driver is automatically loaded (Windows, MAC OS & Linux).

When presenting a card or tag to the readID™ One card reader the card data is transferred to pc as keyboard data. The card reader contains both a 13,56 MHz and 125 kHz radio.

This allows for integration with existing software where card data usually is being typed into the system.

The readID™ One card reader supports the following encryption types:
Crypto1 for MIFARE Classic and 128 Bit AES for MIFARE DESFire EV1/2/3.

| CARD TECHNOLOGY | DATA TYPES | DATA | FREQUENCY |
|---|---|---|---|
| NXP MIFARE Classic® | Sector data or UID/CSN | 32, 56 & 128 Bit | 13,56 MHz |
| NXP MIFARE® DESFire® | App data (AES) or UID/CSN | 56 & 8-256 Bit | 13,56 MHz |
| NXP MIFARE Ultralight® | UID/CSN | 32 & 56 Bit | 13,56 MHz |
| ISO 14443A | UID/CSN | 32 & 56 Bit | 13,56 MHz |
| ISO 15693 | UID/CSN | 64 Bit | 13,56 MHz |
| EM 4102 / TK 4100 | UID/CSN | 40 Bit | 125 kHz |
| FSK Prox | Card Data | 26-37 Bit | 125 kHz |
| HiTag™ 2 CSN | UID/CSN | 32 Bit | 125 kHz |

The custom format allows for verification of valid data received on bit length and selecting part of the card number by use of offset and data length. Output data can be formatted as decimal or hexadecimal and can be truncated – Please see the user manual for the SBR 0814 / 0904 / 0952 / 0962 / 0993 / 1001 / 1030 / 1220 product family.

Security Engineering ApS
Birkholmsvej 33
DK-2800 Kgs. Lyngby
Tel. +45 87 30 04 45
www.securityengineering.dk

SECURITY ENGINEERING

## How to order

When ordering a card reader please specify: product number & configuration in the following manor:

| | | |
|---|---|---|
| **Version** | SE 1220 MNP | readID™ One |
| **Configuration** | SE 1220 SFN | Format ID: xx , CR = On / Off, Leading Zero Removal, Reverse Byte Order |

## Selecting data format

The firmware in the readID™ One card reader allows for multiple output formats in order to match the card data presentation in the receiving system.
The chip serial number of a MIFARE or Prox card or tag is stored in binary format but is often displayed in decimal format. To allow easy integration the most commonly used formats have been implemented in the standard firmware.
Each format has multiple selectable options, one for enabling 'Enter/CR' as end of transmission character and one for enabling format specific options like padding (#xxx…xxx#), Full Length UID, Leading Zero Removal, Reverse Byte Order can also be selected.

On site configuration requires seucu.exe utility, which is freely downloadable from *www.securityengineering.dk*
The current format list is available on the website.

## Audio & visual indication

The readID™ One card reader is equipped with a buzzer for acoustic indication and a set of multicolor LEDs for visual indication.
At connection of the unit to the USB port the LED sequence red -> yellow -> green indicates correct initialization.
Transmission of data is indicated with a green flash and activation of the buzzer.
Errors in the card data is indicated with a double red flash and activation of the buzzer.

## Firmware

The USB reader can be firmware updated in field using the seucu.exe utility, which is freely downloadable from *www.securityengineering.dk.*
Standard firmware supports USB HID - Human Interface Device class with keyboard emulation.
Alternative firmware is available with USB CDC – Communication Device Class for COM-port emulation.

## Data

| | |
|---|---|
| **Dimensions** | 89 x 57 x 12 mm (L x W x H) |
| **Color** | Black |
| **Connection** | USB A Connector on fixed cable – USB 2.0 interface |
| **Cable** | Fixed mount / 1,8 m / Black – Option for 0,5 m cable |
| **Commodity code** | 8471.60.70.00 |
| **Country of Origin** | DK |
| **ECCN code (US)** | N |
| **Export list number (EU)** | N |



SECURITY ENGINEERING