

Contactless Smart Card Readers

DR 4205SC Universal Smart Card Reader Series



DR4205SC-Series Readers are built to support the latest developments in contactless Smart Cards and let owners keep pace with this emerging technology. Besides standard reading of non-secured Smart Card chip serial numbers, the DR4205SC is specially made to access encrypted memory sectors of today's Smart Cards. Providing secure, convenient and flexible project handling, the DR4205SC is more than a reader, it is a Smart Card sub-system for access control, incorporating encryption, key-management and data conversion functionality.

The unique configuration card concept for project individual settings of security keys and various functional parameters allows true ownership of project secrets and independent card sourcing by the system owner. With the additional multi-configuration capability,

different user card types can be accepted at the same time through one reader. This is an important feature which allows to:

- Move to a different user card type with smooth transition
- Changing secret project keys in the running system without replacing all user cards at a time
- Parallel use of different card types within a project
- Make use of public cards (e.g. national ID-cards, driver licenses, health cards, banking cards) for the access control system

The DR4205SC has a micro-processor which enables client specific functions. It serves as the platform for our Smart Card support and consultancy services, keeping the complexity at our experts and providing a maximum of convenience for installation, service and usage.

FEATURES

RF Air-Interface

- ISO14443 A+B full range compliant (level 1-4)
- ISO15693 full range compliant (level 1-3)
- MIFARE compliant
- Legic-compliant version available
- Individual microcontroller card-OS support on request
- Anticollision with additional card search algorithm to read the right card among others in a wallet

Encryption/Supportable Card Types

- MIFARE classic encryption
- LEGIC encryption
- my-d encryption
- DES, 3-DES

- ISO7816 ID-0 security module (SAM) option
- Card operating system proprietary encryption algorithms on request
- Reader software upload capability to support future card types
- File system addressing (e.g. MIFARE)

Application Directory, (MAD) Network and User Interface

- RS485 S-Net, Wiegand
- Audible tone and programmable three-colour LED activity signals

Security, System and Functional Features:

- Configuration card technology
- Secure and convenient key management

- Project individual security keys
- Ownership of project keys by system owner
- Independent card sourcing
- Multiple configuration processing
- Built-in data conversion function
- Integrated keypad version available
- Tamper switch



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FEATURES AND SPECIFICATIONS

	DR4205SC DR4205SCK	DR4205SCE DR4205SCKE	DR4205SC-L DR4205SCK-L	DR4205SCE-L DR4205SCKE-L
Dimensions	5.3 x 5.74 x 1.27 in (13,3 x 14.6 x 3.2 cm)			
	K version with integrated keypad: 5.3 x 5.74 x 1.5 in (13.3 x 14.6 x 3.8 cm)			
Supported Technologies	ISO14443A/B ISO15693	ISO14443A/B ISO15693	Legic	Legic
Encryption	Milfare	Milfare	Legic Prime	Legic Prime
Additional Encryption (optional by firmware)	My-d, DES, 3-DES, individual	My-d, DES, 3-DES, individual	Legic Advant	Legic Advant
Maximum Read/Write Range	ISO14443:10 cm ISO15693:15 cm	ISO14443: 10 cm ISO15693: 15 cm	Standard: 6 cm Supertag: 10 cm	Standard: 6 cm Supertag: 10 cm
Exciter Field Frequency	13.56 MHz	13.56 MHz	13.56 MHz	13.56 MHz
Card read Cycle	50 ms			
Multiple card reading	Functionally Unlimited: physically about 5 to 10 cards (Legic: one card)			
Power source	+ 10 to + 28 DVC			
Power consumption	3 W max. DCDC conversion			
Interface to controller	S-Net: RS485, wiring Dual twisted pair Wiegand: 5 wire: 26 or 34 bit Wiegand standard: other number of bits on request			
Indicators	Single three colour LED (green/amber/red): audible tone: programmable			
Tamper protection	YES			
Installation	Recessed, wall mount, rear access			
Operating Temperature	-25 to + 65°C	-25 to + 65°C	-25 to + 65°C	-25 to + 65°C
Operating Humidity	0 to 90 % non-cond.	10 to 100% cond. (IP45)	0 to 90 % non-cond.	0 to 100% cond. (IP45)
Weight	350 g	500 g	350 g	500 g
Colour	Charcoal			
Case construction	High-Impact Lexan: 94V-2 UI flame Class rating: UV resistant			

*Maximum read/write range might vary depending on physical environment of installation and card quality

DR4205SC are supplied from stock as standard Smart Card readers which access the chip serial number of any ISO-compliant Smart Card. This is the functional level reached by most readers on the market today but this is a non-secured operation and is not recommended for secure projects. With the DR4205SC's unique configuration concept, there are three configuration package options to turn the reader into project-specific, secured operation.

Standard

This package provides configuration details when the card's specification has not yet been defined or is in use in the field. The project-individual security information will be stored in a pre-defined sector.

Tailored

When the card specification is already defined, the tailored package will allow the implementation of the access control application besides other applications already existing on the card. This approach allows the information to be accessed in a secure manner to fulfill customer specific needs.

Creator

The configuration creator package includes a set of blank configuration cards, PC-software and a PC-connectable card programming device. This enables a customer to define the secret project keys by himself, limiting the number of people sharing this sensitive information to the absolute minimum. Along with a special card encoding tool, even the card encoding can be done without publishing the secret information to anyone else.

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