

**CASTLE**®

TOTAL SECURITY SOLUTION

# A Step Ahead In Product Development

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- More card users capacity
- Alarm monitoring
- Guard tour
- Short message services (SMS)
- Emergency key (E-key)



Endorsed By:



# FEATURES

## 1. Electronic Key (E-Key)

The electronic key is mounted inside the reader casing. Users are able to release/override door locks connected to the system.

This new technology will identify the correct command code from the door interface to release the door

## 2. Dual Card Access Mode

The activation of this mode will allow tighter security control. The feature will be programmed to allow users access under the condition of 2 authorize cards at the same time. The dual card access mode can be assigned to all card users in the present database.

## 3. Short Message Service (In bound / Out bound)

The system is designed to allow admin to assign a short message to card users. When the card user is accessing the door, an alert sound and message will generate and allow the card user to view his/her message. Users are allowed to read and delete the message from the reader.

## 4. Guard Tour Mode / Fire Alarm

The system may be programmed to monitor the job performance of the guards stationed at their premises. The guards will have to register their presence on the readers and will be recorded on the controller database. It ensures the guards perform their duties at the locations assigned to them.

## 5. Alarm Features

The system has a built-in 2 supervised input points per door interface. Users are allowed to activate and deactivate the alarm mode manually from the reader interface. Alarm pass code are required to arm and disarm the alarm function. Users are allowed to configure their personal pin code from the controller and the PC software. The system is also capable to detect the wrong alarm PIN input, after 3 attempts of wrong PIN, will auto activate to the keypad lockout.

## 6. Multi-Door Interlocking Feature

This feature disallows more than 1 door to be released at a time. Users

may configure the interlocking door list, which could have a maximum 10 groups of interlocking set at 5 doors per group. For instance, the system will identify if all the door falls under the listed group is opened at that time before the first door released is locked.

## 7. Door Release Button Time Zone Control

This feature is activated by time zone (Time Control)

## 8. Ethernet

The system is embedded with Ethernet capabilities.

## 9. Door Communication

Maximum 32 doors is controlled by a controller.

## 10. Access Counter

Users are able to configure the access count on a single door. Each valid access will be recorded in the system as one count. If the counter reaches the specified counter, additional access will be denied. This will provide restriction and keep record of the number of accesses allowed in a high security area.

## 11. Card User Capacity

The system supports 20,000 card users per controller and is expandable.

## 12. Event Transactions

A maximum of 30,000 transactions are allowed and is expandable.

## 13. General Purpose Out (GP Output), Auxiliary Output (AU Output)

Controller is equipped with a GP output. It will trigger in accordance to the time configured by users. Selectable/switchable output to Auxiliary where output trigger by programmable events.

## 14. Reader Lock

Temporary lockout of the reader keypad to prevent unauthorized person attempts to tamper with the device.

# TECHNICAL SPECIFICATION

## READER

<b>Card Reading Distance (10 Digits)</b>	Proximity = +/-8cm, MIFARE = +/-5cm
<b>Card Reading Format</b>	ABA track I, W/legend26
<b>Housing</b>	Well Design and high grade ABS casing to protect the reader and PCB
<b>Display Unit</b>	Graphics 32x122 LCD with blue backlight display
<b>Operating Temperature</b>	0-65 °C
<b>Humidity</b>	95% non-condensing
<b>Audible Device</b>	Yes
<b>Polarity Protection</b>	Yes
<b>Cabling</b>	RS485 standard cabling
<b>Processor</b>	16 bits microcontroller
<b>RTC</b>	Not available
<b>Baud Rate (DIU to reader)</b>	19,200bps
<b>EMI Protection</b>	Yes
<b>Input Voltage</b>	12Vdc - 13.8Vdc
<b>Input Current</b>	1A
<b>Communication Cable Usage</b>	1 pair from door interface to reader interface
<b>Electronic Key (E-Key)</b>	Override key

## SMARTBOX (DOOR INTERFACE UNIT)

<b>Processor</b>	16 bits microcontroller
<b>Housing</b>	ABA track I, W/legend26
<b>Battery Backup</b>	3.6 Vdc onboard rechargeable battery
<b>Operating Temperature</b>	0-65 °C
<b>Humidity</b>	95% non-condensing
<b>Audible Device</b>	Yes
<b>Polarity Protection</b>	Yes
<b>Cabling</b>	RS485 standard cabling
<b>Wiring</b>	Door lock, door release button and door sensor are connect to door interface in order to provide more security against the unauthorized break-in
<b>RAM</b>	1Mbytes
<b>RTC</b>	Yes
<b>Input/Output</b>	4 (optional) abd 2 relay output
<b>Baud Rate (DIU to reader)</b>	19,200bps
<b>EMI Protection</b>	Yes
<b>Input Voltage</b>	12Vdc - 13.8Vdc
<b>Input Current</b>	1A
<b>Communication Cable Usage</b>	1 pair from door interface to reader interface

# TECHNICAL SPECIFICATION

## CONTROLLER

Input/Output	1 fire alarm input /2 relay outputs	RTC	Yes
Door Connectivity	Single Door/ Multiple Door capabilities	Door Card Storage	Up to 20,000 card holders storage
Short Message Services (SMS)	Inbound and Outbound	RAM	1MByte
Optional Interface	GSM Transceiver	Watchdog	Internal and external
Housing	Metal-casing coated with epoxy	Battery backup	3.6Vdc onboard rechargeable battery
Display unit	2x20 characters LCD display	EMI Protection	Onboard EMI Protection for relay output
Baud Rate (PC to Controller)	9600bps	Audible device	Onboard buzzer
Baud Rate (CTR to DIU)	19200bps	Input voltage	12Vdc - 13.8 Vdc
Communication Cable Usage	1 pair for PCI to controller and 1 pair to DIU (Single bus)	Input current	1A
Operating Temperature	0 - 65° C	Polarity Protection	Yes
Humidity	95% non-condensing	Cabling	RS485 standard cabling
UART Capacity	6 UART	Buzzer (Repeat)	Yes
DIP Switch Setting	4 way address setting	Operation Mode	* Card mode * Card + Pin mode * Pin mode only * Dual card Mode
Programming Mode Security	2 level of password * Technician password * Master password	Event Transaction	Up to 30,000 transaction storage
Time Zone	0 - 255 sets	Anti-passback Features	Available
Holiday Setting	100 sets programmable holiday	Time Set	0 - 255 sets
Programming Setting	16 keys of keypad for menu driven programming	Output	General purpose and auxiliary
Operating Frequency	24 MHz		
Processor	16 bits microprocessor		

## ORDERING INFORMATION

Stock Code	Description	Dimension/Weight
DC-2/4/8/12/16/24/32	i-Cass 2/4/8/12/16/24/32 doors controller	H: 400 X W: 244 X D:75 mm/ 2.0 Kg
i-SCB	Smart control box c/w switching power supply	H: 150 X W: 110 X D:40 mm/ 0.6 Kg
DR-IPROXM	Proximity reader c/w 16 keys silicon rubber keypad, reader interface unit, e-key & ABS casing with blue graphic LCD	H: 150 X W: 110 X D:40 mm/ 0.6 Kg
DR-ISMC	Contact-less smart card reader (MIFARE card serial number) c/w 16 keys rubber keypad, reader interface unit, e-key & ABS casing with blue graphic LCD	H: 150 X W: 110 X D:40 mm/ 0.6 Kg
i CIPS - 1/8/16	i-Soft standard c/w PC-interface unit [1, 2-8, 9-16 controller version]	H: 150 X W: 90 X D:25 mm/ 1.0 Kg

iCASS Series

# SOFTWARE FEATURES

This SmartGuard software was designed for ease of use by all levels of user. It runs on the most popular operating system - Microsoft Windows.

- Proprietary DBASE file format.
- Flexible menu access level for different categories accessing the software.
- Control up to 16 controllers, which will manage to control up to 512 doors.
- Dynamic graphical floor plan displaying upon alarm triggering.
- User configurable door access counter for a specify door.
- Comprehensive reports on listing the data setup on the system, which to be used to communicate with the controller as well as reader with comprehensive working shift setting.
- User configurable anti-passback zone code setting.
- Useful system 'LOG OUT' function which will lock the system instead of shutting down the system.
- 256 sets of user definable operation time, set time zone and door accessibility setting.
- 2 sets of LOCAL PINS to access through a particular door for the controller.
- 10 sets of GLOBAL PINS to access through all the doors in the system.
- User definable door interlocking group - maximum of 5 doors per group.
- Useful tools to aid user on changing the system password as well as card PIN.
- General-purpose relay triggering time zone setting.
- Operation mode: \* Card only \* Card + PIN \* PIN mode only \* Dual Card Mode
- 2 extra users definable data field in maintaining the card user management module.
- Online transaction display: \* Latest transaction \* Latest alarm \* Floor plan \* Controller list \* Door list  
\* Individual card user transaction
- Interactive short message service setup and 3 sets of phone setting for GSM module (Optional).
- User configurable event triggering relay and 20 types pf transaction code for event triggering relay.
- Different types of alarm beeping sound, through the internal PC buzzer.
- User definable leaves type setup, as well as staff leaves application.
- Useful housekeeping tools include data file re-index, data file exporting, data file restore and back-up, as well as transaction file purging.
- Informative reports to aid user on analyzing the daily transactions, time attendance and card user movement.

# SYSTEM CONFIGURATION

