BOSCH
Invented for life

S Series Reader

- **Aesthetic Looking to Suit Modern Architecture**
- **High Quality Industrial Polycarbonate Material**
- **16 x 2 Lines LCD with Backlight**
- **4 x LEDs Indicators for 'Power', 'Status', 'Alarm' and 'Armed'**
- **16 Digit Soft-Touch Keypad (0-9 & F1-F4)**
- **Built-in Buzzer**
- **Highly Reliable and Consistent Read Range**
- **Suitable for Multi-Applications**
- **Compatible with TCU-9000i Intelligent Controller**

Overview

The S Series Readers are designed to with the TCU-9000i Intelligent Controller for multiple applications such as access control, time and attendance, guard tour, arming and disarming of intrusion alarms and on/off control of other field devices.

It is constructed from high quality industrial polycarbonate material designed to withstand harsh environments and has a high degree of vandal resistance.

The LCD display supports multi-language text and graphics with a bright backlight to enhance visibility even in dimly lighted area. The 4 x LEDs provides indication for 'Power', 'Status', 'Alarm' and 'Armed'. The soft-touch keypads consist of standard 0 to 9 keys with additional 4x function keys.

The S Series Readers are available in different types of card scheme to suit different level of security requirement. Card schemes include 13.56 MHz Mifare technology or 125 KHz Proximity technology.

Fingerprint Biometric

Fingerprint biometrics is based on the distinctive characteristics of the human fingerprint. It is estimated that the chance of two people, including twins, having the exact same fingerprint is less than one in a billion.

Once a fingerprint is enrolled into the system, the authentication process takes place at the reader.

Enrollment

1. The fingerprint image is captured.
2. It is converted into a template and stored into the card. S Series is able to support 2 fingerprint templates per card.

Different levels of security are available:
Secured: Card ID + Fingerprint
Highly Secured: Card ID + Fingerprint + PIN code
Max Secured: Card ID + Fingerprint A & Fingerprint B (same sequence during enrollment) + PIN code

Authentication (example of secured method)

1. When a card is presented to the reader, Card ID and biometric template(s) are read by the reader.
2. User's fingerprint template is then read by the fingerprint optical module of the reader.
3. Using complex algorithms, User's template is matched against the stored template read from the card.
4. If both the Card ID and fingerprint template is valid, access will be granted at the door.

Hardware Specification

Reader Interface Board
Microprocessor CPU Design
Full Duplex Communication to Host
Hardware Watch-Dog
Reader Interface Port: Entry and Exit

Mifare Module
Operating Frequency: 13.56 MHz
Comply with ISO 14443 Type A Standard
Bi-Directional Data Transmission

Proximity Module
Transmit Frequency: 125 KHz
Excite Frequency: 125 KHz

FingerPrint Module
Templates Database: 720 / 2560 / 4000
Sensor Type: Optical
Sensor Resolution: 500 dpi
Sensor Size: 16 x 14mm
Image Size: 356 x 292 Pixel
Template Size: 400 Byte
Power Supply: 12-24VDC @ 0.25A Max, Idle @ 0.11A
Communication Interface: RS485, RS232, Wiegand, TTL, Clock/Data
Verification Time: <1 second
False Accept Rate, FAR: <1/100,000
False Reject Rate, FRR: <1/1,000
Enrollment Time: <10 seconds

Display Indicators
16 x 2 Lines LCD with Backlight (selected models)
4 x LEDs Indicators for 'Power', 'Status', 'Alarm' and 'Armed'

General
Input Supply: 12VDC @ 160mA or More
(Linear power supply recommended)
Max Cable Distance to TCU-9000i Controller: 300m via CTU
Read Range: Up to 7cm (Maybe Affected by Installation Condition)

Mechanical Specifications
Reader Module Dimension: H140 x W110 x D40mm
FingerPrint Module Dimension: H115 x W65 x D40mm
Housing Material: ABS (UL94V-O) Fully Waterproof, Polycarbonate UL94
Weight: 300g
Colour: Metallic Front and Pantone Charcoal Base

Operating Environment
Operating Temperature: 0°-50°C (32°-120°F)
Humidity: 10%-90% Non-Condensing

Ordering Information

Model | Description

ADC-25379 | S Series Entry Reader with LCD & Keypad
S Series Entry Card Reader with LCD and Keypad for Mifare Card Scheme

ADC-23479 | S Series Entry Reader with LCD & Keypad
S Series Entry Card Reader with LCD and Keypad for HID Card Scheme

ADC-23482 | S Series Entry Reader with LCD & Keypad
S Series Entry Card Reader with LCD and Keypad for EM Card Scheme

ADC-25415 | S Series Entry Reader with Biometric
S Series Entry Card Reader with FingerPrint Biometric, LCD and Keypad for Secured Mifare Card Scheme

ADC-25382 | S Series Exit Reader with LEDs
S Series Exit Card Reader with LEDs Only. For Mifare Card Scheme

ADC-23480 | S Series Exit Reader with LEDs
S Series Exit Card Reader with LEDs Only. For HID Card Scheme

ADC-23483 | S Series Exit Reader with LEDs
S Series Exit Card Reader with LEDs Only. For EM Card Scheme

ADC-25417 | S Series Exit Reader with Biometric
S Series Exit Card Reader with FingerPrint Biometric, LEDs Only for Mifare Card Scheme

Product Selection Matrix

Hardware Selection Matrix			S Series Readers (Card Scheme)			External Reader
			Mifare (Secured)	HID	EM	HID / EM Prox
Terminal Control Unit (TCU-9000i)			ADC-25555	ADC-25555	ADC-25555	ADC-25555
Cable Terminal Unit (CTU)			ADC-23091	ADC-23091	ADC-23091	
						ADC-23484
Serial I/O Unit (SIO)			ADC-22039	ADC-22039	ADC-22039	ADC-22039
Reader Model	Entry	LCD+KEYPAD	ADC-25379	ADC-23479	ADC-23482	
		Fingerprint	ADC-25415			
	Exit	LEDs	ADC-25382	ADC-23480	ADC-23483	
		Fingerprint	ADC-25417			

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