Features That Make a Difference:

- Fast card and fingerprint verification, uses 1:1 fingerprint match at the door
- Secure storage of fingerprints on the central AC2000 server and on the S610f internal database
- Fingerprint module gives a high resolution scan and detects conductivity of the living tissue beneath the skin
- Integral reading support for 13.56 MHz Mifare/DESfire smartcard technology
- Fast fingerprint enrollment and connection over 10/100 Mbps Ethernet, no need for an intelligent controller in the system design
- Structured database allows storage of large amounts of cardholder records for off-line card validation
- Keypad for configuration and optional Personnel Identification Number (PIN)
- 4 analogue inputs to monitor alarm conditions and 2 changeover relay outputs to activate door strike or other equipment
- FIPS201 certified

The S610f Card and Fingerprint Reader is a fully integrated biometric and access control Reader. Used as part of the AC2000 access control system, the S610f controls access to restricted areas where an additional biometric layer of security is required.

The reader, has on-board 10/100Mbps Ethernet and communicates directly with the AC2000 host server removing the need for an intelligent control panel in the system design. Featuring a controller, advanced IP card reader and single biometric solution all in one, the S610f fingerprint reader meets requirements for three stage identity authentication (card, PIN, and biometric verification) using one device.

Using a powerful 32bit processor and a large internal database, the S610f gives full off-line card validation and biometric verification decision at the door, even when host communication is not available.

The IP30 rated (indoor use) polycarbonate enclosure houses the reader electronics and comes with a large 4x3 Keypad, graphical display screen and three LED indicators.

The reader has 4 analog inputs, which can be used to monitor door and alarm conditions for transmission to the host computer. Two outputs are also available to control the activation of door locks or other equipment.

Fully integrated biometrics & access control solution

The S610f features a controller, advanced IP card reader and fingerprint module all in one device.

Single process & network solution

Fingerprint enrollment is captured and stored via the AC2000 access control system at the same time as cardholder enrollment. This offers clients a single solution and eradicates the requirement to purchase a separate biometric reader and software application to link to the access control system.

Host Communications

The S610f has an on-board 10/100 Mbps Ethernet allowing for fast fingerprint enrollment over the TCP/IP network using encryption. The S610f communicates directly with the AC2000 host server, removing the need for an intelligent control panel in the system design.

Onboard Card Reading Technology

The S610f supports on-board card reading technologies for 13.56 MHz Mifare/DESFire.
### Off-line Card Validation

The card details and biometric templates are initially downloaded to the reader's memory from the host computer with subsequent changes to card data automatically sent as updates. This ensures that the reader has up-to-date card information when operating in off-line mode. Operating in off-line mode the reader can hold in excess of 123,000 fingerprint templates.

### Specification

#### Physical
- **Size**: 190 x 120 x 44mm
- **Weight**: 590g with connectors
- **Housing**: Flame retardant polycarbonate containing fully encapsulated electronics.
- **Color**: Dark and Light Gray

#### Power Requirements
- **Voltage**: 9 – 14Vdc
- **Current Consumption**: 400mA (passive), 480mA (active)

#### Environmental
- **IP Rating**: IP30
- **Temperature**: 0°C to 55°C (32°F to 131°F)
- **LED Indicators**: Three high intensity LED indicators, Red, Amber and Green
- **LCD Indicators**: 32 x 122 dots Monochrome Graphics LCD with backlight
- **Keypad**: 12 character, standard layout, tactile response keypad

#### Functionality
- **Inputs**: Four analog inputs – voltage supplied, 4 state (tamper detect)
- **Outputs**: Two relay fitted – changeover volt free contacts
- **Rating**: 30Vac & 5A
- **Duration**: Programmable suppression device (diode, MOV) required at load
- **Memory**: 2MB battery backed memory
- **Database battery backup**: 3.0V rechargeable Lithium-Ion

#### Requirements
- **AC2000**
- **AC2000 Lite v6 upwards**
- **AC2000 Airport v6.6 upwards**
- **RTC Ethernet Reader Controller**

### Reader Messages

The S610f has a large graphical LCD which is used to display a number of predefined messages to cardholders to inform them when using the reader e.g. Place Finger, Retry Finger, Bad Biometric, Wrong TimeZone, Lost/Stolen Card, Card About to Expire, Access Granted etc. Messages displayed by the S610f can be modified via the AC2000 software.

### Database
- **Cardholders**: Storage of up to 123,000 cardholders (Card number, Two fingerprint templates, Timezone, PIN, Card Status).
- **Transactions**: Up to 8,000 transactions in offline mode.
- **Configuration**: Operational parameters are downloaded from the host. Some configuration settings completed locally using integrated keypad.
- **Operating Modes**: Door, Passenger (extended opening), Turnstile, Control Post.

### Communication Interface
- **To Exit Reader**: RS485
- **Interfaces**: Two Wiegand interfaces with a maximum cable length of 150M
- **Connection**: 2 part JST connector
- **To system Host**: 10/100 base-T TCP/IP using CAT5 Unshielded twisted pair cable
- **Connection**: RJ45

### Off-line Card Validation

The card details and biometric templates are initially downloaded to the reader's memory from the host computer with subsequent changes to card data automatically sent as updates. This ensures that the reader has up-to-date card information when operating in off-line mode. Operating in off-line mode the reader can hold in excess of 123,000 fingerprint templates.

### Related Products

- AC2000
- AC2000 Airport
- AC2000 Lite

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