

# Fingerprint

**SOYAL®**

## Access control system

simple . flexible . secure



Soyal biometric fingerprint scanner with extensive security access function. Precisely control who (user) can enter where (door group) at what time (time zone) using what method (card and/ or pin).

- Ultra FAST 970 msec 1:1000 fingerprint identification.
- All fingerprint is encrypted with 26 bit AES for higher security.
- Able to read fingerprint orientation in tolerance of +45° and - 45°
- High capacity performance support up to 10,000 card users and 4500 fingerprint templates.
- Can set different access method following up to 63 interval within same day.
- Ability to set expiry date for users.
- Advance attendance "Auto" change shif duty or "manually" press function key (F1,F2,F3,F4).
- User friendly big LCD showing welcome screen, employee alias name, time, date display to avoid any employee clocking time dispute.
- Time attendance, access control reporting and hardware parameter settings available from software.
- Programable scheduled output to extenal music box for shift announcement.
- Alarm function - force entry, door open too long and tamper warning.
- Built in watchdog to prevent system hang.



**AR821EF\_OS**  
Optical sensor



**AR821EF\_CS**  
Capacitive sensor



Turnstile access



Time attendance



Door access

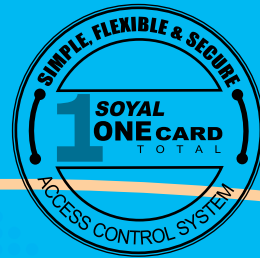


High level security



ONE FOR ALL HARDWARE, ALL IN ONE SOFTWARE

# Fingerprint RFID access control system



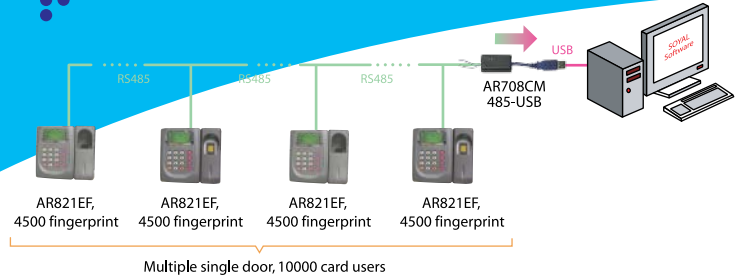
AR821EF is a single door controller with built in fingerprint scanner and proximity card reader. Card reader can be used for user that have fingerprint problem. There are two types of scanner, optical scanner for accurate scanning while capacitive sensor to support wider range of fingerprint condition. AR821EF allow more extensive control level for higher security protection. AR821EFi has built in 727i TCPIP module for network support.

There are 2 types of reader available: AR821EF (Standard 125Khz) and AR821EF\_1356 (Mifare 13.56Mhz).

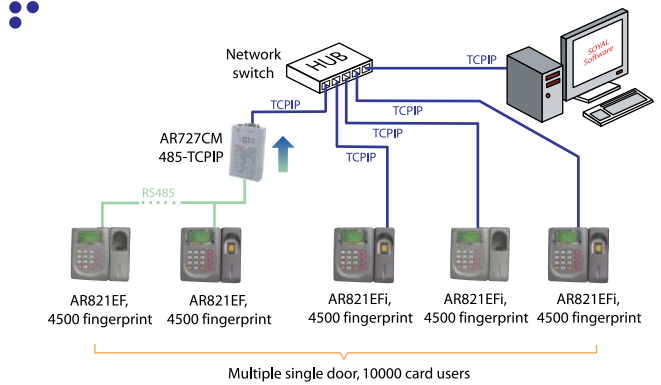
## AR821EF specification

Card user	10000 card users	
Event memory	11000	
Time zone	63	
Holiday per year	120	
Door group	255	
Anti-passback	YES (card anti-passback only)	
Time attendance	First-IN-Last-OUT and Time duty based	
Alarm function	Door sensor input for tamper, force entrance, door open too long	
Duress function	4 duress code pin number	
DirectPC software support	YES	
Expiry date setting	Ending expiry date for up 5000 users	
Multi reader networking under 716 controller	NO	
External Wiegand port for anti-passback function	YES	
Push button input	YES	
Access Mode	Check FP	Fingerprint only *
	No Check FP	Card only / Card or PIN / Card + PIN

## RS485 network connection



## TCPIP network connection



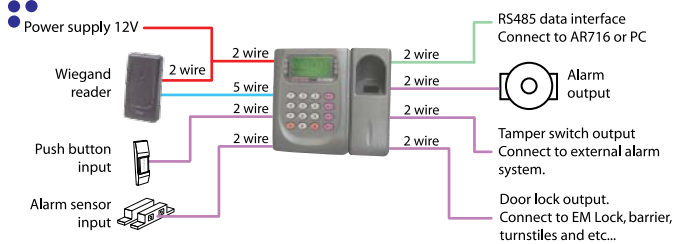
## AR821EF Fingerprint feature

Fingerprint Sensor	Optical Sensor AR821EF_OS	Capacitive Sensor AR821EF_CS
Fingerprint Modul's CPU	400 MHz DSP	
EER	<0.1%	
Enrollment time	800 msec	500 msec
1:1 Verification time	800 msec	500 msec
1:1000 Identification time	970 msec	650 msec
Image size	384 Bytes	
Fingerprint capacity	4500	
Encryption	256 bit AES (fingerprint data protection)	
Sensor size (mm)	63 (L) X 43 (W) X 10(H)	

## AR821EF Parameter

RF reading frequency	EM 125 KHz or Mifare 13.56Mhz
Reading range	8 - 15 cm
Door relay output (EM Lock / Electric lock)	12V / 2A N.O. / N.C. / COM Latch type
Door unlock time interval	Pre-set time 0.1 to 600 sec
Alarm relay output (Buzzer)	12V / 2A N.O. / N.C. (set by jumper) COM common 1-600 sec
Serial port	RS485, 9600, N, 8, 1
Ethernet in AR821EFi	10M
Power consumption	9-24 VDC. Less than 5W.
Operating temperature	-20°C to +75°C
Dimension (mm)	132 (L) x 144 (W) x 102 (H)
Weight	470 g

## Standalone connection



## Accessories



\* when "Check Fingerprint" function is enabled, FP checking would be always in the highest priority which supasses other requirements. Although the user is asked to use card or / and PIN to access, as long as his (her) fingerprint is identified, he(he) is still allowed to access.

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Features, specifications and dimensions are subject to change without notice.

Authorized dealer