SOYAL®

Slim Series

AR-331-E

Slim Design Multi-Function Controller

Elegant and slim design, suitable for installation in narrow place, metal housing enhances collision resistance



Communication Redundancy

Support TCP/IP and RS485 interface, when main communication disconnects, deputy communication will work to maintain normal work

HTTP WEB Server Remote Management

Controller is able to remotely managed at any time via browsers not restricted by computer brands or mobile phone brands

2 Sets of UART Ports

Flexible integration with peripheral devices, like I/O module, floor control panel, LED display, infrared thermo-camera, etc.

Support SOYAL Cascade Structure

Built-in multiple control modes:
1. One door
2. Two door (with WG reader)
3. Multiple doors (with multi-door control panel)

Slim Appearance

Suitable for installation in narrow place and limited area

Anti-Vandalism Metal Frame Selectable

Metal frame is able to enhance protection and reduce destruction upon collision and damage

Invisible Keypad

Keypad function is workable without numerical number. Activate keypad when doing programming of the controller and back to no keypad function once finished

Features

Waterproof (IP65) | Invisible Keypad | Dual Indicator | Slim Design | Metal VS ABS | Dual-Band Frequency

Web | Youtube

- Dual communication interfaces: RS485 and Ethernet (10/100M Base T)
- Built-in watchdog, real time clock, anti-vandalism switch, ingress protection, alarm setting, holiday edit, auto open door time zone, door group, door status DI, anti-pass-back function and duress code & output
- Support user capacity: 16,000 / 32,000 / 65,000 users
- Support floor control: 64 / 32 / 16 floors
- In case Ethernet disconnects, controller is still able to identify UID and record event log
- Multiple access mode: card only, card or password, card and password
- Two doors control: Two sets of push button and door status, relay output for lock and WG output for reader
- Multiple DO outputs: Lock, alarm, arming, duress and digital relay
- Supported frequency: 125kHz, 13.56MHz and dual band
- Support reader mode: Not only a controller, but an encrypted RS485 reader if utilized with other brand's controller
- Standalone / Networking is switchable during working
- Support RS485 communication encryption, SSC (Soyal Security Communication)
- Seamless touch keypad has good waterproofing to prevent moisture; word on keypad doesn't disappear due to abrasion

SPECIFICATION

Frequency	B (125Khz)	ISO18000-2: EM4001 and EM4095 compatible
	D (13.56Mhz)	ISO14443/ISO 7816-4 Mifare Ultralight, Classic, Plus / DESFire EV1, EV2 / NFC (card simulation) / ISO15693 / Felica
	S (Dual Band)	125kHz: ISO18000-2: EM4001and EM4095 compatible 13.56MHz: ISO14443 /ISO 7816-4 Mifare Ultralight, Classic, Plus / DESFire EV1, EV2 / NFC (card simulation) /ISO15693 / Felica
UID Bits		24~64 Bit (Adjustable)
RF Reading Range		125Khz: 3-7 cm ； 13.56Mhz: 1-3 cm ； Dual Band: 1-7 cm
Crypto		13.56Mhz / Dual Band: CC Certification: AES Crypto comply with EAL5+
Communication interface	Host	RS-485 (9600 bps) / TCP/IP (Optional By Order) / POE (Optional By Order) / SSC (Soyal Security Communication)
	Serial	TTL UART (4800~115200 bps) X2 (half-duplex)
	Wiegand Input	Wiegand 26~64
	Wiegand Output	Wiegand Data 0, Data 1 and Arming Output, Duress Output share the same terminal
DI/DO	DI	Egress X2 / Door Status X2
	Relay ouput	Door Lock Relay / Alarm Relay
	Open Collect Output	Arming Output / Security trigger signal / Duress Output / Alarm Output / Wiegand Port open door
Doors		2
User Capacity / Floors Number		16,000 Users/64 Floors (Default value)；32,000 Users/32 Floors；65,000 Users/16 Floors
Event Log		32,000
Power Voltage		9-24VDC
Power Consumption		<5W
Indicator		2 Bi-Color LED (Blue/Yellow；Green/ Red) / 1 Buzzer
TAMPER		Limit switch(1 Form C/ 1000mA / 30VDC)
Housing Material		PC / Zinc Alloy
Color		Chrome
Keypad		Illuminated Touch-Panel /* Invisible Keypad Function
Dimension (mm)		158(H)X55(W)X30(D)
Net Weight(g)		PC: approx. 140 / Zinc Alloy: approx. 245
Ingress Protection		IP65
Environment	Operating Temperature	-20℃ ~ +70℃
	Storage Temperature	-40℃ ~ +75℃
	Operating Humidity	0%~90% (non-condensing)
	Storage Humidity	0%~95% (non-condensing)

WHAT WE OFFER

Double Doors Control

Connected with Reader, it can manage 2 access control by a single unit of controller. The second set of access control also has the exit switch, door contact status and door output control, can also set different access level (such as - can access Door A but can not access Door B).

Real-Time Event Log Integration

After reading card, IP-based controller will actively send the event logs through port 8031 for the integration with the 3rd party program.

Auto-Schedule Function

AR-327-E special firmware connects with DO module AR-401RO16B, using Lift Control program enabling you to control each Digital Output and formulate a time schedule for each output, up to 64. It's suitable for each various switching devices, such as lighting, sprinkler system, air conditioning, etc

Extended Application of Auto Open Time

The Wiegand reader Auto-Open time zone setting is able to control the infrared activation function / output the second set of door contact functions at a specific time.

Auto-Alarm Function

Built-in 16 sets of alarm to output flash light, alarm clock, broadcast system, and each set of alarm can set the output time.

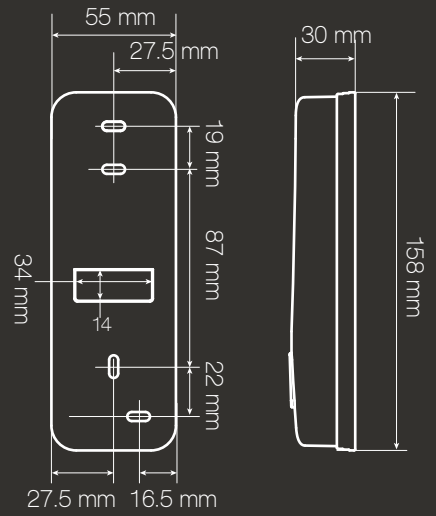
With 2 Sets of UART Port

It can be applied to:
(1) 256-point Mailbox Management System
(2) Auto-scheduling control function-64-point DO control
(3) Printer integration
(4) Voice module (AR-721V-V2)

Reader Mode Supported

Controller can be set to Reader mode, with Wiegand output that can be integrated with various brands of controllers, with a dual-band format that turns into Wiegand dual-band Reader.

INSTALLATION(mm)



(Front View) (Side view)

HOW TO ORDER

AR-331-EXR1111XXX

Frequency
B=125kHz
D=13.56MHz
S=125KHz+13.56MHz

RTC
R=Built-in RTC

Communication
1=RS485

Waterproof
1=Weatherproof

Color
1=Silver

Type
1=Standard

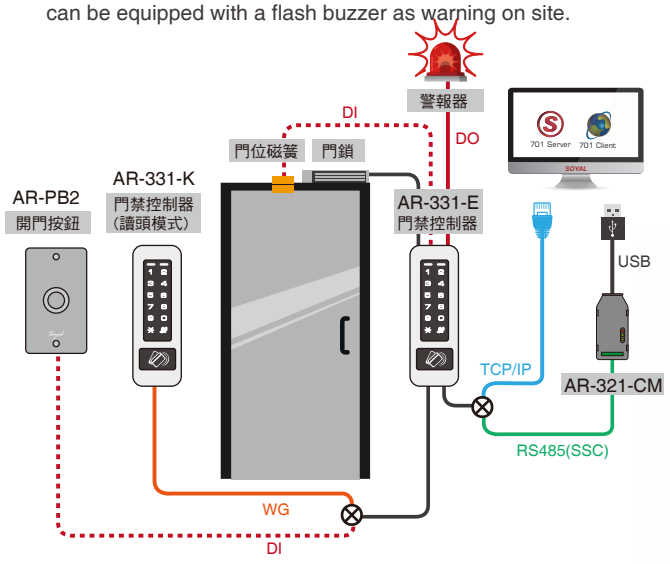
Type
TM=Keypad Touch Panel + Metal Housing
TP=Keypad Touch Panel+ Plastic Housing
SM=Without Keypad + Metal Housing
SP=Without Keypad + Plastic Housing

Additional Module
A=TCP/IP Module
P=POE Features

APPLICATION & STRUCTURE DIAGRAM

STANDALONE & NETWORKING ACCESS CONTROL

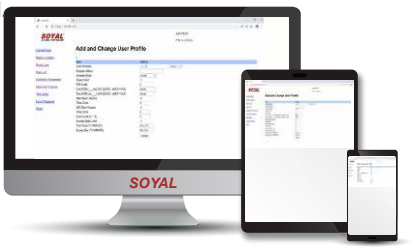
Anti Passback: restrict user to re-enter before exiting venue or increase security level by having access reader at the other side of the door. Both entering and exiting will required swipe card or keyfob for access.
AR-331-E can detect abnormal event with the door contact status in arming mode. When a forced entry or door opening too long, an alarm is generated and sent to the software, AR-331-E alarm output can be equipped with a flash buzzer as warning on site.



--16,000 User, 63 Timezone--

BUILT-IN HTTP WEB SERVER

IP-Based Controller has built-in HTTP WEB Server for Access Control, just input IP address, have it logged in to remotely control a single controller, enabling adding User card, time zone setting, review event logs, etc, even more can remotely open/close door regardless the brand of computer and smart phone. As long as there is a WEB browser, the remote management function can be achieved

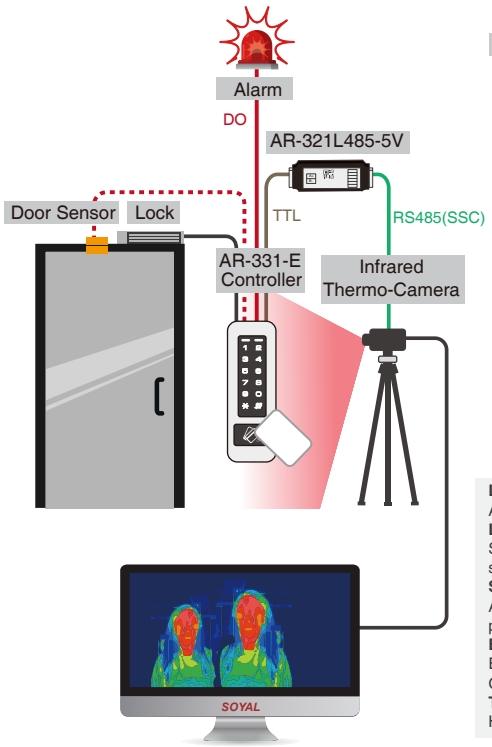


Remote setting by computer, Pad, Smartphone



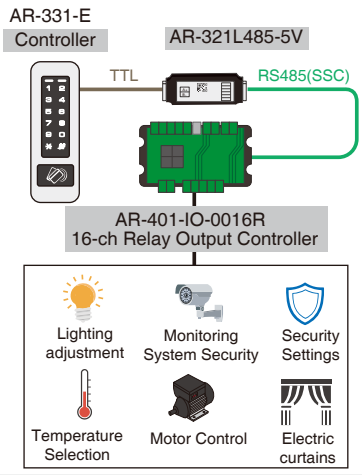
INTEGRATED WITH TEMPERATURE DETECTION SYSTEM

Access Controller integrate with Temperature detection, personnel temperature is too high when swiping the card, door will not be open, also linkage to the alarm system to remind administrator.



AUTO-SCHEDULING

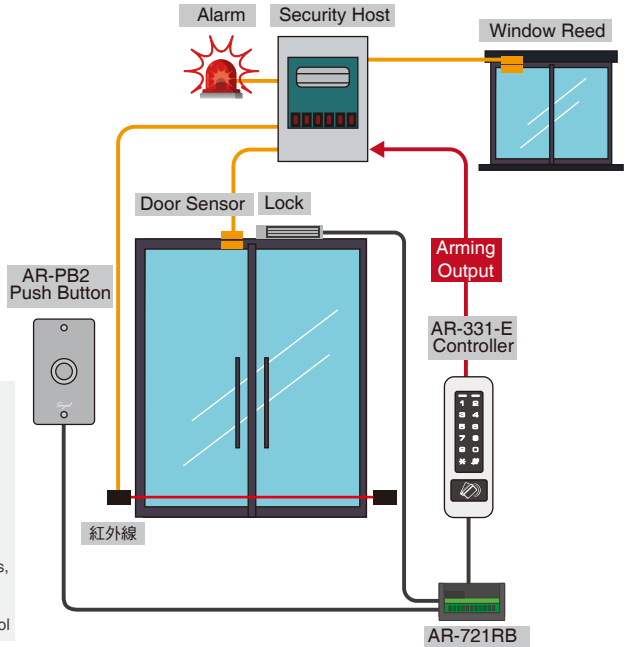
Smart Home System : AR-331-E connect with DO module for auto-control, can formulate a ime schedule for each output, up to 64. It's suitable for each various switching devices.



Lift Control:
Auto-Open by time zone setting in particular floors
Lighting adjustment:
Smart lighting control combined with traditional switch and digital control
Sprinkler system:
Auto-Watering activated by time zone in different places
Electric curtains:
Electric equipment control such as Electric curtains, Gasshut-off valves and etc.
Temperature Selection:
Heating and cooling Air Conditioning system control

INTEGRATED WITH BURGLARY SYSTEM

AR-327-E metal material makes it solid and sturdy for anti-vandalism, connecting digital signal module to distribute control exit button and electric lock, that preventing from door unlocked when if controller is destroyed; when there is a burglary system indoor, that can be activated/inactivated by access controller, after inputting arming code+ swiping valid card it trigger Digital Output (Pulse/Latch), a arming LED on AR-327-E to judge the status whether in arming mode, the best choice of Access Control Solution.



PERIPHERALS / ACCESSORIES

HIGH LEVEL SECURITY

- Anti-Cloning Kits



Mifare Encryption
Encoder: AR-725-P
Authorization Tags
Software: Mifare Key



Desfire Encryption
Encoder: AR-837-P
Authorization Tags
Software: 323D Master

- Expansion I/O Control



I/O Modules
AR-401 Series:
Multiple Channel I/O Module
AR-403 Series: Tiny Digital I/O Module



AR-331-E

STANDALONE

- Input/Output



Locks
Magnetic Lock
AR-0600M
Electric Bolt Lock
AR-1207 Series
Cabinet Lock
AR-1211-P/AR-1213-P
Electric Strike
AR-YS-130NO/AR-YS-131NO



Door Sensor / Push Button / Alarm / Burglary Security System

NETWORKING

- Software



File Based & Data Based Interchangeable Software for Access Control, Time Attendance,Status Monitoring and Configuration
701ServerSQL & 701ClientSQL



Firmware Upgrade
Udp Updater



Remote Lift Control and Time Table Setting
Lift Control

- Signal/Interface Converter



POE Module
AR-MDL-RJ45-POE-12V12W



Isolated USB to RS-485
AR-321-CM
Isolated RS232 to RS-485 Converter
AR-321-CM-485232



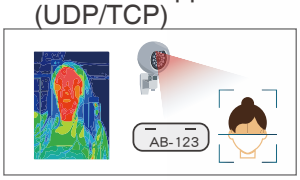
Ethernet to RS485
AR-727-CM
AR-727-CM-IO-0804M
(with I/O for Fire Alarm to open all doors)

- Multi-Door AntiPassback



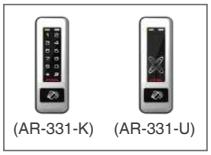
Multi-Door Control Series
AR-716-E16: 16 Doors IP Control Panel
AR-716-E18: 18 Doors IP Control Panel

- Extensive Applications (UDP/TCP)



Infrared Thermo-Camera, LPR (License Plate Recognition)

- Slim Series



Touch Keypad Proximity Reader
AR-331-K

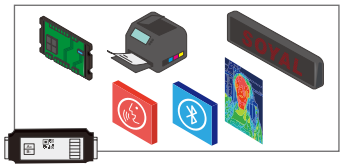
Proximity Reader
AR-331-U

- External Relay Output
(Security / Arming / Duress / WIEGAND Unlock Door/Alarm)



1 Form C relay with time delay
AR-721RB
1 Form C relay
AR-821RB
2 Forcm C relay
AR-829RB

- UART Port x 2



Lift Control / I/O Module / Printer / LED display / Voice Module / Bluetooth Module / Infrared Thermo-Camera

- Programming • Necessary



Keyless Editing
Self programmed master card



Power Supply
BP-W12-1500 (1.5A)
BP-W15-2400 (2.4A)



Proximity Tags
125kHz: EM
13.56MHz: Mifare Classic, Mifare Plus, Mifare Desfire, UltraLight
Tags Selection: Thin Card, Round Keyfob, Square Keyfob

FAQ

Q: What is the difference betweeen SOYAL H Series and E Series Controller?

A: SOYAL access controller classified into two categories in term of specification; H Series and E Series.

SOYAL H Series controller has already include all basic standalone and networking access controller that you need. But E series controller provide what H Series controller has already have,and more advanced features like built in more user capacity, UART Port for extension module, and extension interface like Ethernet and POE.

Q: How to set the IP address offline without computer for AR-331-E?

A: Besides online setting IP address by computer via the built-in HTTP Web Server, offline setting by keypad is also workable, that suited on site or when IP address is unknown.

- The default IP address: 192.168.1.127
- To edit IP address: for example: 192.168.77.10

STEP 1. Entering programming mode
STEP 2. Input 01*0*192168077010# by keypad.

More FAQ