

SOYAL[®]

Slim Series

AR-331-H

Slim Design Proximity Controller

Slim and elegant design, supporting 125kHz or 13.56MHz
Suitable for various control modes and cascade structure



Slim Design

Suitable for installation in narrow place

Support SOYAL Cascade Structure

Built-in multiple control modes:

1. One door
2. Two door (with WG reader)

Invisible Keypad

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

Various Control Modes

Flexible use, can be standalone and networking

Anti-Vandalism

Choose your housing material either made in Zinc Alloy material for metal housing or ABS for plastic housing. Metal housing is designed to prevent damage and destruction on controller when force open or breaking the controller is occurring, it will remain at its place.

As RS485 Reader

Not only a controller, but an encrypted RS485 reader if utilized with other brand's controller

Features



Invisible Keypad



Uniform Design



Dust and Waterproof



Dual Indicator



Metal VS ABS



Slim Design



Web



Youtube

- 125kHz or 13.56MHz Access Controller Built-in Hardware Watchdog & Real Time Clock Function
- Standalone / Networking / Support Cascade Structure
- Support RS485 communication encryption, SSC (Soyal Security Communication)
- In-Field Firmware Upgrade
- Arming / Force Alarm / Unclose Alarm
- Use '#' as a replacement of doorbell button
- Duress Code & Output
- Multi Operation Mode
- Multi Output: Door lock output (0.1-600 sec. and toggle mode) & alarm output (1-600 sec.)
- Silent Operation Mode: Push Button and All Mute
- Support One and Half Door, and One and Half Door Anti-Passback
- Auto Open Time Zone: Built in 2 time zones, with Control Panel up to 63 time zones.
- Assign user for Door Group (up to 254) and Time Zone (up to 11, with control panel up to 63)
- Holiday Edit Up to 120 days a year
- Auto Relock for Anti-Trailing and Sneaking
- Access control, lift control, time attendance, payroll, and SCADA: graphic monitoring & remote control function
- Support DESFire tags (Crypto comply with EAL4+)

SPECIFICATION

Communication interface	Host	RS485/9600 bps (N, 8, 1)
	Serial	UART PORT (Output only)/4800 bps (N, 8, 1) SSC (Soyal Security Communication)
Frequency	125kHz	13.56MHz
Supported Tags	ISO18000-2: EM4001 and EM4095 compatible	ISO 14443 Mifare Ultralight, Classic, DESFire NFC (card simulation)
Crypto	—	CC Certification: 3DES Crypto comply with EAL4+
RFID Reading Range	3-7 CM	1-3 CM
UID Bits	*Reading range will be shorter in metal surface installation. The solution is to add 2CM distance or layer between the wall and the controller. 24-32 (Adjustable)	
DI/DO	DI	Egress / Door State
	RO	Door Lock Relay
	DO	Door Lock Output / Duress Output / Alarm Output Arming Output (share same terminal with Security trigger signal Output)
Doors/Floors Number	1.5 Doors / 32 Floors	
User Capacity	3000	
Event Log	1500	
Indicator	LED	2 Bi-Color LED(Blue/Yellow : Green/ Red)
	Buzzer	1
TAMPER	Limit switch (1 Form C/ 1000mA / 30VDC)	
Dimension (mm)	158(H)X55(W)X30(D)	
Housing Material	Housing	Zinc Alloy / PC
	Keypad	Illuminated Keypad / Invisible Keypad function*
Color	Chrome	
Weight (g)	Zinc Alloy: approx. 245 / PC: approx. 140	
Power Consumption	<3W	
Power Voltage	9-24VDC	
Ingress Protection	IP56	
Enviroment	Operating Temperature	-20°C ~ +70°C
	Storage Temperature	-40°C ~ +75°C
	Operating Humidity	0%~90% (non-condensing)
	Storage Humidity	0%~95% (non-condensing)

KEYPAD FEATURES

1. Illuminated Touch Keypad

All-in-One: Have access by either swiping valid tags or entering PIN. Configuration setting can also directly proceed via its keypad.



2. Keypad-less

RFID Only: Have access by swiping valid tags. Numerical keypad is unavailable and quick keyless editing via Authorization Card /Master Card



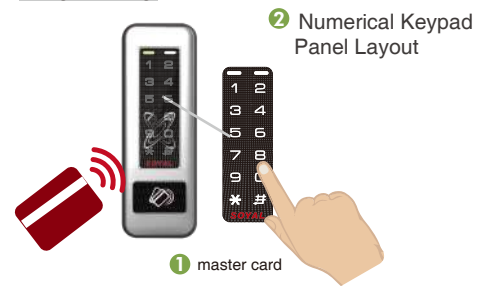
3. Illuminated Touch Keypad Invisible

Keypadless Controller of Slim Series built-in invisible touch keypad function for non numerical keypad panel, in which after enabling the function, press keypad for keypad command configuration setting.

Operational method:

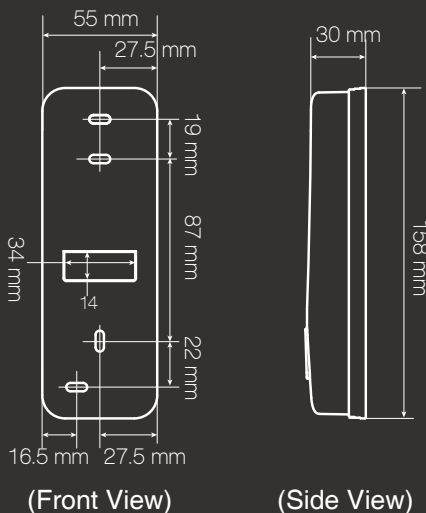
1. Swipe authorization card or master card to enable the keypad function
2. Cover original panel with Numerical Keypad Panel Layout (layout available for download and please print it)
3. Operate configuration setting according to the numerical keypad position. After done with configuration, remove the Numerical Keypad Panel Layout

Programming



Numerical Keypad
Panel Layout
Download

INSTALLATION(mm)



HOW TO ORDER

AR-331-HXR1111XX

Frequency
B=125kHz / D=13.56MHz

RTC
R=Built-in RTC

Communication
1=RS485

Waterproof
1=Weatherproof

Housing Material
M=Metal Housing (Zinc Alloy)
P=Plastic Housing (ABS)

Keypad Selection
T=Keypad Touch Panel
S=Keypadless
(no keypad function)
S=Keypadless
Invisible Keypad w/ MPLA-331EB01 (+)

Type
1=Standard

Color
1=Silver(Chrome)

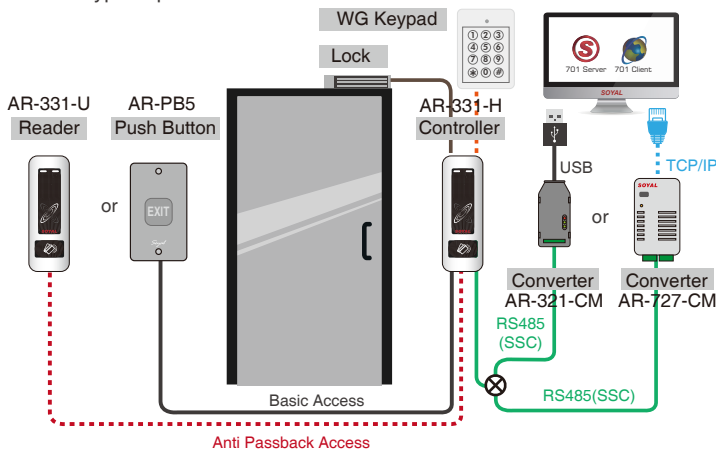
APPLICATION & STRUCTURE DIAGRAM

● STANDALONE & NETWORKING ACCESS CONTROL

Basic Access: the most basic access, exiting venue is only by pressing a push button

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.

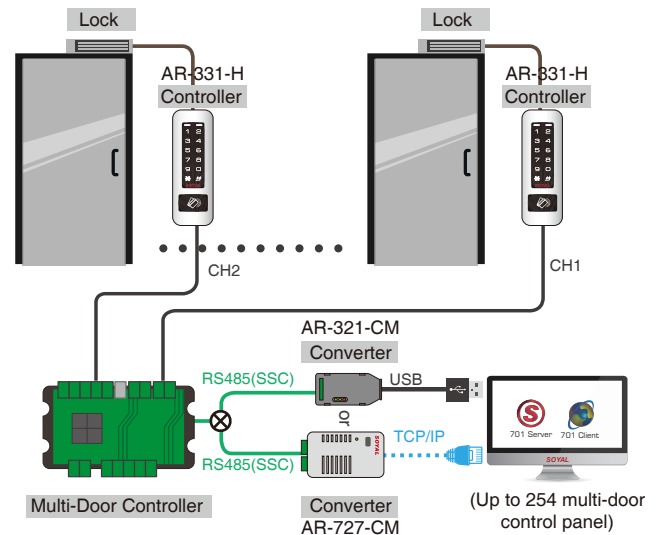
Networking: beside configuration through Wiegand Keyboard and Master Card, you can also link AR-331-H with Soyal converter to PC for configuration via SOYAL Software or for anti-cloning and encryption process.



--3000 User, 11 Timezone--

● CASCADE STRUCTURE

Upgrade user capacity without replacing AR-331-H installed with additional hardware of SOYAL Multi-Door Control Series. Under Multi-Door Control Panel, when RS485 communication is working normally, AR-331-H will be a Slave Reader of Control Panel. Once its communication is cut off, AR-331-H will automatically be Access Control and have control on its user and parameter setting.



--16000 User, 63 Timezone--

● SOYAL DESFire

Accomplishes with crypto AEL4+, SOYAL DESFire provide even better service for distributor and user who required highest level of security without hustle, no supported tools and programming needed.

Step 1 Select your controllers



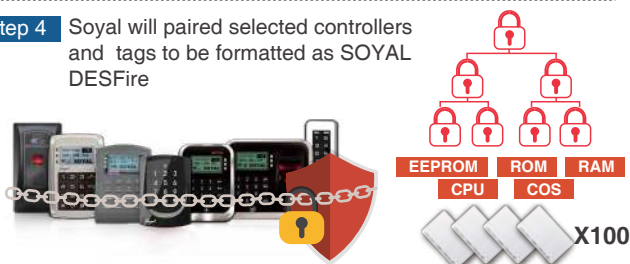
Step 2 Select DESFire tags type (cards, round keyfob, square keyfob)



Step 3 Select tags quantity



Step 4 Soyal will paired selected controllers and tags to be formatted as SOYAL DESFire



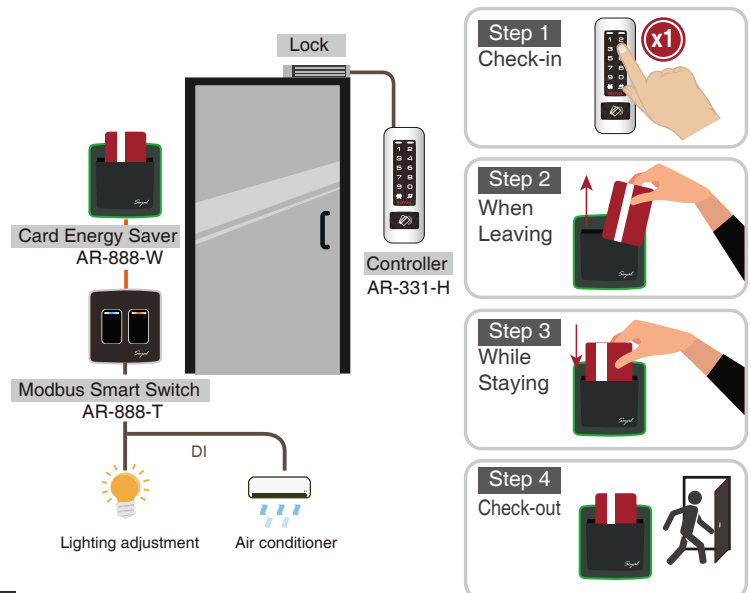
Step 5 Once customer received the orders, it is ready to use and feel safe with none anti-cloning cases and controller will only read paired tags only.



● BED & BREAKFAST: FIRST ACCESS WITH ONE TIME PIN

SOYAL offer variations of access like access by card, card or PIN, and card + PIN. On the next level of access variations, you can also set up first access by one time PIN feature and the next access will be access by card.

- Step 1. Check-in: Enter room by entering PIN provided by the management
- Step 2. When Leaving: Take out room card from AR-888-W when leaving the room
- Step 3. While Staying: Put in room card into AR-888-W for access to lamp, air-conditioner, and all I/O in the room
- Step 4. Check-out: Leaving the room by put back room card into energy saver for the next guest



PERIPHERALS / ACCESSORIES

HIGH LEVEL SECURITY

- Anti-Cloning Kits



Mifare Encryption

Encoder: AR-725-P
w/Authorization Tags
Software: Mifare Key



Desfire Encryption

Encoder: AR-837-P
w/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

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 / Alarm/Siren / Burglary Security System



AR-331-H

- Slim Series



Slim Design Multi-Function Controller / Proximity Reader

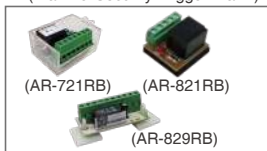
AR-331-E / AR-331-K/U
Fingerprint Access Controller
AR-331-EF



Stainless Steel Push Button

AR-PB5 Series

- External Relay Output (Alarm & Security Trigger Alarm)



1 Form C relay with time delay

AR-721RB
1 Form C relay
AR-821RB
2 Form C relay
AR-829RB

- Programming



External Wiegand Keyboard

AR-WG-KEYBOARD-V2 (DMOD-WGKBA05)

Keyless Editing

Self programmed master card

- Necessary



Power Supply

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

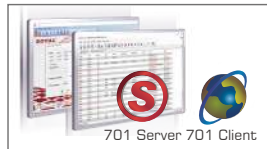


Proximity Tags

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

NETWORKING

- Software



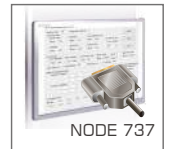
File Based & Data Based Interchangeable Software for Access Control, Time Attendance, Status Monitoring and Configuration

701 Server & 701 Client



Firmware Upgrade

ISP Tools



Parameter Setting

Node 737

- Signal/Interface Converter



Isolated USB to RS-485

AR-321-CM

Isolated RS232 to RS485

AR-321-CM-485232



Ethernet to RS485

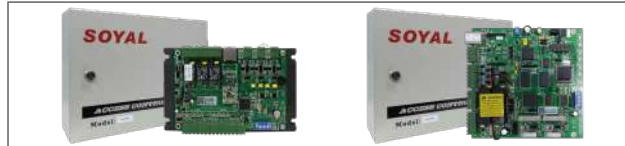
AR-727-CM
AR-727-CM-IO-0804M
(with I/O for Fire Alarm to open all doors)



TTL to RS-485

For external module converter

- Large User Capacity & Multi-Door AntiPassback



Multi-Door Control Series

AR-716-E16: 16 Doors IP Control Panel
AR-716-E18: 18 Doors Networking Control Panel

FAQ

Q: How to Integrate SOYAL with Face & License Plate Recognition?

A: As Face Recognition is more and more in demand, SOYAL provide resources and two integration method. The integration will grant access via face recognition by sending converting face data to UID to Soyal system (software/hardware) that later will resulting in access granted or denied, based on the availability user data on Soyal database system. As the integration method is various, we offer flexibility of integration based on what customer preferred.

Q: What is the difference between SOYAL Home Series and Enterprise Series Controller?

A: SOYAL access controller classified into two categories in term of specification; Home Series and Enterprise Series. SOYAL Home Series controller has already include all basic standalone and networking access controller that you need. But E series controller provide what Home 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.



More FAQ