SOYAL®

Nation Series

AR-721-H

Multi Functional Access Controller

Classic and popular multi-functional controller of SOYAL with high scalability, durability and CP value



Hot Sale Controller of SOYAL

Best-selling controller over the past 10 years, high CP value, multiple functions. Can meet most users' demands.

Selectable Frequency

125KHz: Support EM card
13.56MHz : Support Mifare, NFC (emulate UID), DESFire (Crypto comply with EAL4+)

Expandable User Capacity to More than 10,000 Users

Built-in multiple control modes:
1. One door, one and half door
2. Multiple doors (with multi-door controller), can be more than 10,000 user capacity

As RS485 Reader

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

Features

Lift Control | Alarming for Abnormal Event | In-Field Firmware Upgrade | Arming and Disarming | Watchdog | Anti-Passback

Web | Youtube

- Built-in hardware watchdog, real time clock, arming, force alarm, door close delay alarm, doorbell and duress code & output
- Built-in door auto open time zone, holiday edit, door group & time setting. With multi-door control panel, support more time and group sets
- Standalone / Networking / Support Cascade Structure
- Support RS485 communication encryption, SSC (Soyal Security Communication)
- In-field firmware upgrade
- Multiple access mode: card only, card or password, card and password
- Multi output: door lock output (0.1-600 sec. and toggle mode) & alarm output (1-600 sec.)
- Silent operation mode: push button mute and all mute Auto relock for anti-trailing and sneaking
- Access control, lift control, time attendance, payroll and SCADA: graphic monitoring & remote control function

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	1. ISO 14443 Mifare Ultralight, Classic, DESFire EV1 2. NFC (card simulation)
Crypto		——	CC Certification: 3DES Crypto comply with EAL4+
RFID Reading Range		10-18CM	2-8CM
UID Bits		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		1024	
Event Log		1100	
Indicator	LED	Bi-Color LED Ring Indicator GREEN= arming, disarming/standby mode & access granted RED= abnormal event: access denied & alarming	
	Buzzer	1	
TAMPER		Limit switch (1 Form C/ 1000mA / 30VDC)	
Dimension (mm)		111(H)X77(W)X26(D)	
Material	Housing	ABS	
	Keypad	Rubber	
Color		Silver & Gray & Black	
Weight (g)		approx. 100	
Power Consumption		<3W	
Power Voltage		9-24VDC	
Ingress Protection		None	
Enviroment	Operating Temperature	-20℃ ~ +70℃	
	Storage Temperature	-40℃ ~ +75℃	
	Operating Humidity	0%~90% (non-condensing)	
	Storage Humidity	0%~95% (non-condensing)	

WHAT WE OFFER

Industrial Grade / High Durability

Made of industrial grade materials in compliance with RoHS, which is far higher than general commercial grade, Soyal products work well in extreme environment with long working life.

Anti-Cloning and Anti-Duplicate

We provide anti-cloning and encryption for whole system to tighten up the security. It supports DESFire in compliance with EAL4+, more secure than other brand's controller.

Support Soyal Cascade Structure

When scaling your system it is not only having more hardware, higher security level, and more spaces to control; it also means there will be more people with access. Without replacing or changing installed hardware, adjust your controller user capacities by adding external Multi-Door Controller; from a thousand to more than ten thousand user capacity.

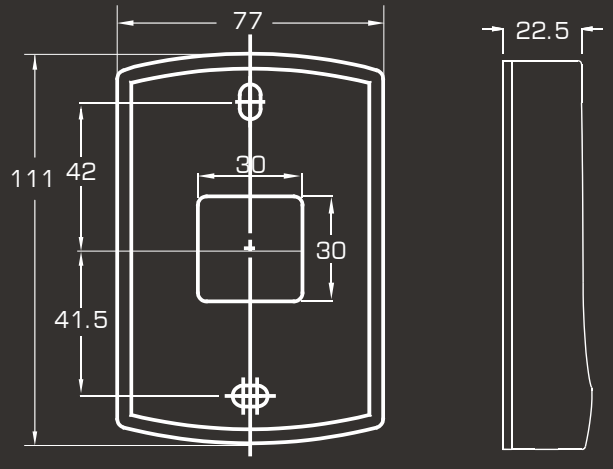
High Scalability, Beyond Access Controller

Each product manufactured by Soyal is made for total solution and to offer flexibility. For instance, Soyal main product is access controller but you can find Soyal on other application like offline consumption device, charging device, and many more just by changing its firmware.

No Exclusivity, Open Integration Resources

SOYAL provides open sources such as SDK and protocol document that have "no-exclusively and open source integration" characteristic. SOYAL also supports integrations, like JSON, Graphic QL, Julia, Modbus, so customers can easily develop their own software.

INSTALLATION(mm)



(Front View) (Side View)

HOW TO ORDER

AR-721-HXR1NX1

Frequency
B=125kHz / **D**=13.56MHz

RTC
R=Built-in RTC

Communication
1=RS485

Waterproof
N=Non Waterproof

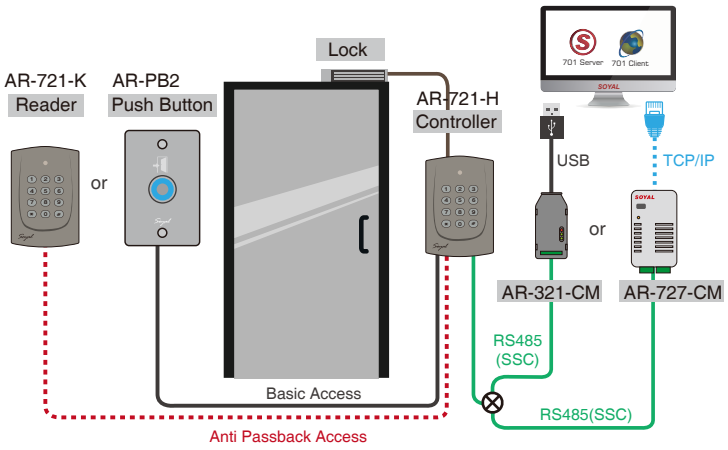
Type
1=Standard

Color
1=Silver
2=Gray
B=Black

APPLICATION & STRUCTURE DIAGRAM

STANDALONE & NETWORKING ACCESS CONTROL

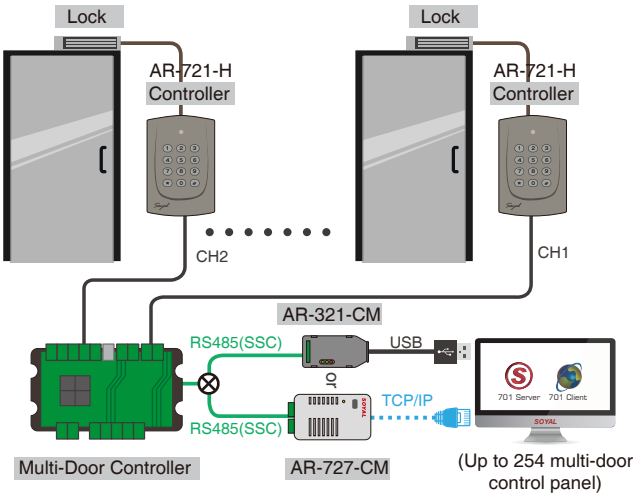
Basic Access: the most basic access, exiting venue is only by pressing a push button
Anti Passback: restrict user to re-enter before exiting venue or increase security level by having access reader at the other side of the door. Both entering and exiting will required swipe card or keyfob for access.
Netwoking: beside configuration through Wiegand Keyboard and Master Card, you can also link AR-721-H with Soyal converter to PC for configuration via SOYAL Software or for anti-cloning and encryption process.



--1024 User, 11 Timezone--

CASCADE STRUCTURE

Upgrade user capacity without replacing AR-721-H installed with additional hardware of SOYAL Multi-Door Control Series.
Under Multi-Door Control Panel, when RS485 communication is working normally, AR-721-H will be a Slave Reader of Control Panel. Once its communication is cut off, AR-721-H will automatically be Access Control and have control on its user and parameter setting.

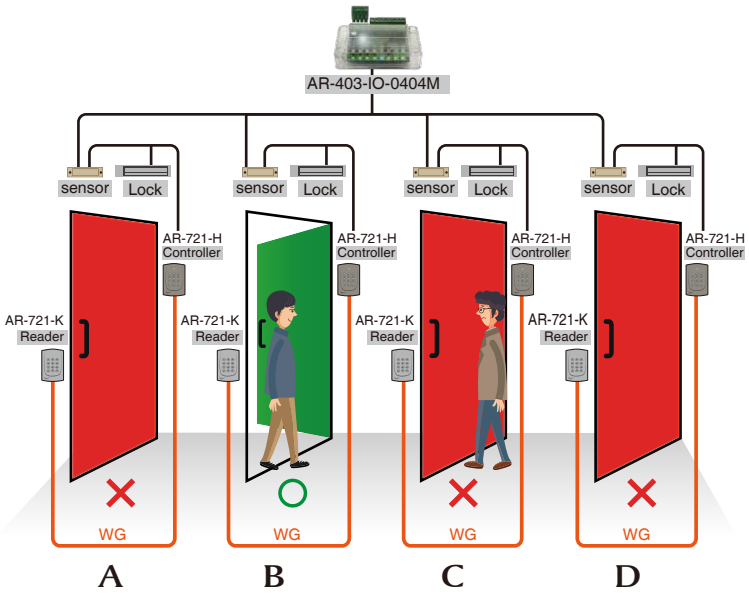


--16000 User, 63 Timezone--

INTERLOCK CONTROL SYSTEM

Suitable for rooms that required high hygiene for example clean room technology or laboratories that certain doors may only be opened if others are closed. Besides providing restriction for more than one door open at the same time, SOYAL AR-721-H provides user access to open door which only authorized user with valid tags can open the door.

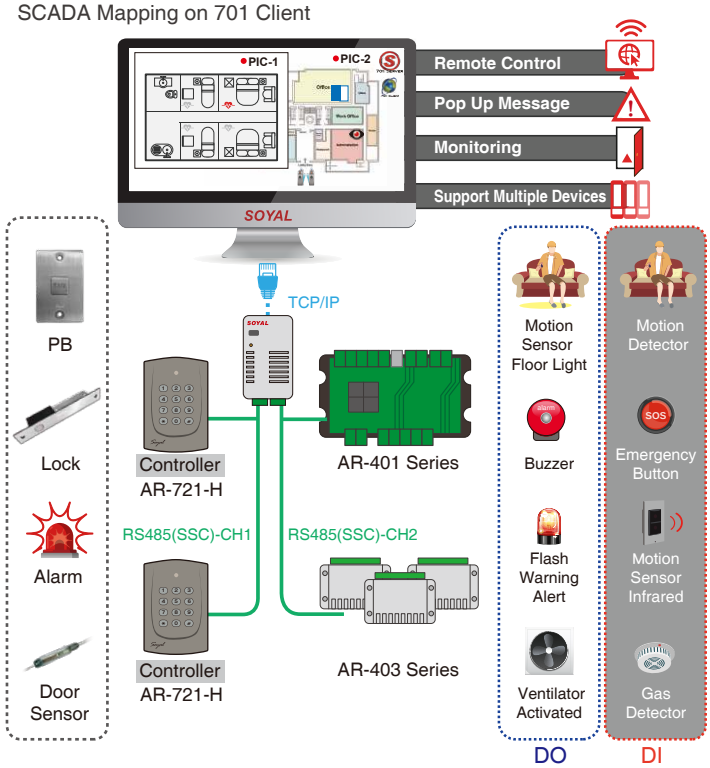
DOOR SENSOR V:Open X:Can't open	Door Open			
	Ao	Bo	Co	Do
	O	X	X	X
	X	O	X	X
	X	X	O	X
	X	X	X	O



SCADA: Remote Control and Monitoring System

SOYAL provide both access controller and I/O module exist on the same system of SCADA for remote control and monitoring system.

- Remotely control 721-H I/O status(ON or OFF), doors status (open or close), and arming/disarming status
- Set up abnormal events indicator for pop-up message
- Monitoring controllers and door status on site through graphical control
- Support multiple devices on one SCADA Mapping and multiple SCADA Mapping on 701 Client



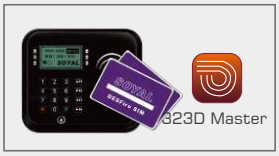
PERIPHERALS / ACCESSORIES

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-721-H

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

- 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

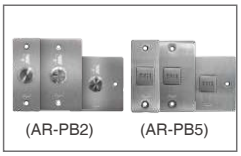


Multi-Door Control Series
AR-716-E16: 16 Doors IP Control Panel
AR-716-E18: 18 Doors Networking Control Panel

- Nation Series

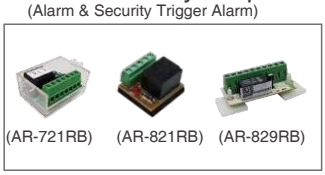


16.000 User IP Based Access Controller
AR-327-E / AR-727-E
Wiegand Reader
AR-723-U



Stainless Steel Push Button
AR-PB2 & 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

- Necessary

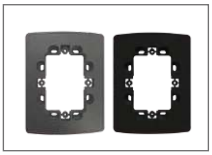


Power Supply
BP-W12-1500 (1.5A)
BP-W15-2400 (2.4A)



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

- Installation Mounting Panel



Color: Gray / Black
AR-HT-98128

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 betweeen 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