

SOYAL[®]

Multi-Door & Large Capacity Control

AR-716-E16

16 Doors IP Control Panel

It is used in large-scale access control architecture for personnel entry and exit control and parking lot access management; RS-485 or TCP / IP communication interface can be selected forming a network loop ; Built-in Wiegand input port to be able to connect with various types of WG readers.



Communication Module

Built-in RS485 or optional TCP/IP communication interface for networking connection and management setting on Computer.

Time Management

Built-in RTC (Real Time Clock) for accurate date and time calculation and built-in watchdog that can prevent the device from hang up.

Large-scale Architecture

Each controller can connect up to 16 units of RS485 reader and 2 units of WG reader for Multi-door Entry / Exit access control ; each RS485 reader can be connected to one WG reader to entry and exit using Card / PIN , or be able to connected to one push button for exit; it also support to connect 16 units of 2-WG door controller AR-716-E02 for 32 doors control solving the shortcomings of WG signal transmission distance limitation.

Support UPS

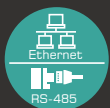
Be able to connect one UPS Power supply AR-716-TC-P to keep the device running during power outage to enhance system safety



Installation Design

Complied with Industrial standard and locking design; Quick-release terminal design for wiring, convenient for installation and maintenance

Features



Communication Redundancy



Data Redundancy



Multi-door Anti-passback



Release All Door Locks in Fire event



Multiple LED Indicator



Send message to Remote Server via Browser



Web



Youtube

- Each unit support 16 RS485 reader, 2 Wiegand Reader (WG Port), 3 relay output, 5 digital input include fire alarm release all doors.
- Support RS485 / Ethernet communication interface for networking connection to LAN/ WAN / ADSL ; Support communication protocol of TCP/IP, DHCP, ICMP, ARP
- Built-in HTTP WEB Server to remotely access control management through WEB browsers
- Support Auto-Arming/Disarm Zone Setting
- Support alarm output while devices are disconnected
- Support 14+2 doors anti-passback; be able to assign which door is for entry and which door is for exit and trigger Alarm output when Anti-pass back error ; Anti-pass back status can be automatically reset by time zone setting.
- Built-in power and data trasmission LED indicators for convenient debugging and status judgement.
- Support communication encryption SSC (Soyal Security Communication)
- 63 sets of time zone / 255 sets of door group, be able to set holiday and level, linked to other zones
- Built-in power, signal transmission indicators, watchdog to prevent hanging up, alarm output when devices disconnect, two Wiegand input ports, multi-door anti-passback setting and time zone auto reset
- Alternative door group selection: common door group or individual door group

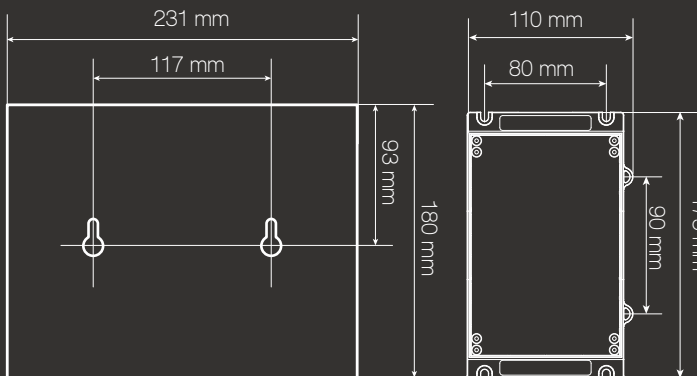
SPECIFICATION

Interface	Host	RS-485	RS485 : 9600bps(N,8,1)
		TCP/IP	TCP/IP : 10/100M Base T
	Slave Reader	CH1(RS-485)	8 Readers
		CH2(RS-485)	8 Readers(Node ID 1, 2 and WG Port 0, 1 share the same Door Number)
	WG	2 Readers(WG Port 0, 1 and Node ID 1, 2 share the same Door Number)	
Door Numbers		16-32	
User Capacity		16,000 (Default value) / 32,000 / 65,000	
Event Log		32000	
DI/DO	DI	Built-in	Engress X2 / Fire Alarm input X1 Reserved DI X1
	DO / Relay Output	Built-in	Door Lock Relay X2 / Alarm Relay X1 Reserved RO X1
Watchdog Function		Standard	
Power Supply		9-24 VDC	
Power Consumption		<3W	
Communication Redundancy		Host port	
Anti-Passback		16Doors	
Door Group		Yes	
Time Zone		63	
Others		Support UPS AR-716-TC	
Dimension (mm)	PCB	100(H)x147(W)x20(D)	
	With Plastic Mounting Base	103(H)x175(W)x32(D)	
	With Metal Casing	180(H)x231(W)x62(D)	
Net Weight (g)	PCB	164±10	
	With Plastic Mounting Base	244±10	
	With Metal Casing	1754±10	
	Operating Temperature	-20°C ~ +70°C	
Environment	Storage Temperature	-40°C ~ +75°C	
	Operating Humidity	0%~90%(non-condensing)	
	Storage Humidity	0%~95%(non-condensing)	

WHAT WE OFFER

- ✔ **Built-in LED Indicator**
 Built-in power and data transmission LED indicators for convenient debugging and status judgement
- ✔ **Release All Door Locks in Fire event**
 Built-in DI Fire alarm contact that can be connected with fire alarm input detector; All door locks can be released in case of Fire or emergency accident occurs
- ✔ **Multi-door Anti-passback**
 It is capable of accomplishing up to 14+2 Entry & Exit management in door control or car-parking system; Effectively control the entry of people and vehicles to prevent one card for multi-use. A variety of different functions and applications can effectively achieve as needed.
- ✔ **Communication Redundancy**
 Support Dual Communication interface RS485 and TCP/IP; While one of interface is failed, another interface can be worked as backup to make the system running.
- ✔ **Expansion I/O Control**
 Be able to connect I/O Extension Board for higher security door access control that the door lock can not be unlocked even if the door is forcibly damaged and support lift control as well.
- ✔ **Communication Redundancy**
 Support Dual Communication interface RS485 and TCP/IP; While one of interface is failed, another interface can be worked as backup to make the system running.
- ✔ **Parameters Setting and Sending message to Remote Server via Browser**
 All parameters, user data can be managed by IP browser without software installation in PC; two Message Listening Ports can actively send out Event Logs to assigned Server for other security system such as CCTV, Fire Alarm to integrate.

INSTALLATION(mm)



▲ Metal Box

▲ Plastic Mounting Base

HOW TO ORDER

AR-716-EXX-X-X

Doors No.

- 02=Dual Doors (WG)
- 16=16 Doors (RS485)+ 2 WG
- 18=18 Doors (RS485)+ 2 WG

Additional Module
A=TCP/IP Module

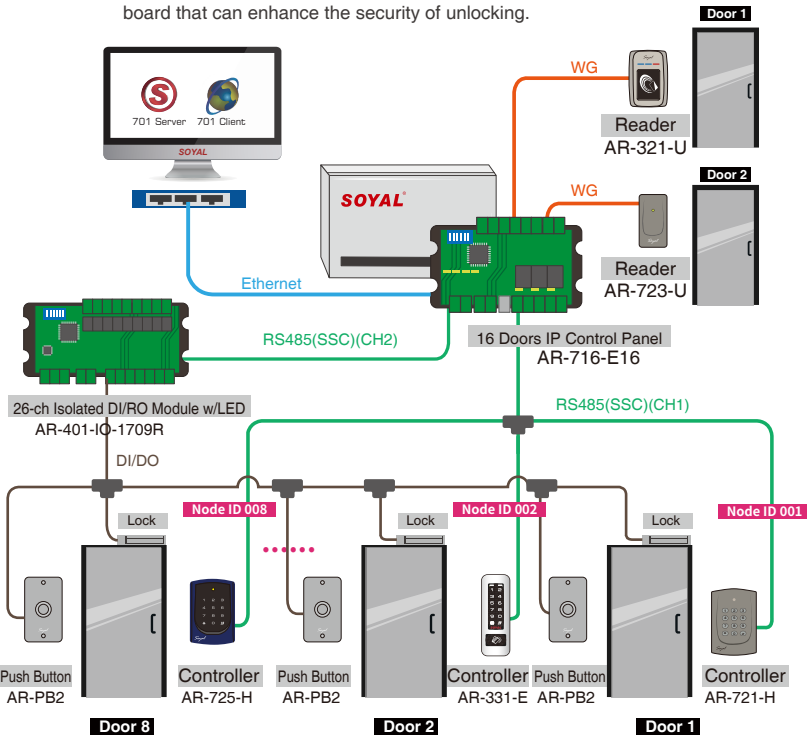
Type

- N/A=PCB
- M=Metal Case
- X=Plastic Mounting Base (AR-716-E18 does not have plastic mounting base option)

APPLICATION & STRUCTURE DIAGRAM

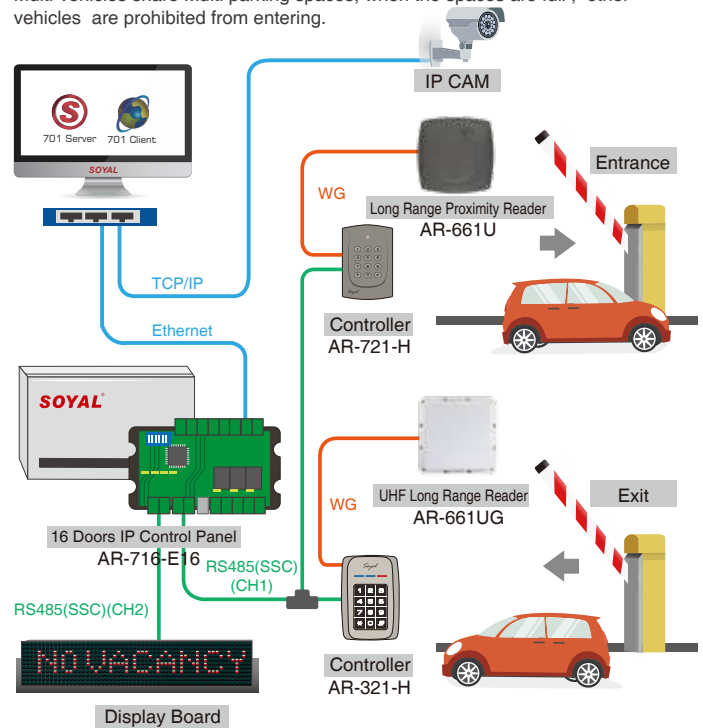
● ENHANCE THE SECURITY OF UNLOCKING UNDER MULTI-DOOR CONTROL STRUCTURE

One Multi-door controller can connect many different types of RS485 readers and WG readers for Multi-door access control and Single / Global Anti-pass back access. Door lock can be connected via the relay of the extensional I/O board that can enhance the security of unlocking.



● SHARING PARKING SPACE SOLUTION

- Installing RFID long range reader at the entry of Parking lots; when the vehicle is coming and the E-tag on vehicle is detected by RFID reader; the reader will determine if the tag is valid to open the barrier for access or invalid to deny.
- Status Display : Anti-passback error, No Vacancy and invalid card. Multi-vehicles share Multi parking spaces; when the spaces are full , other vehicles are prohibited from entering.

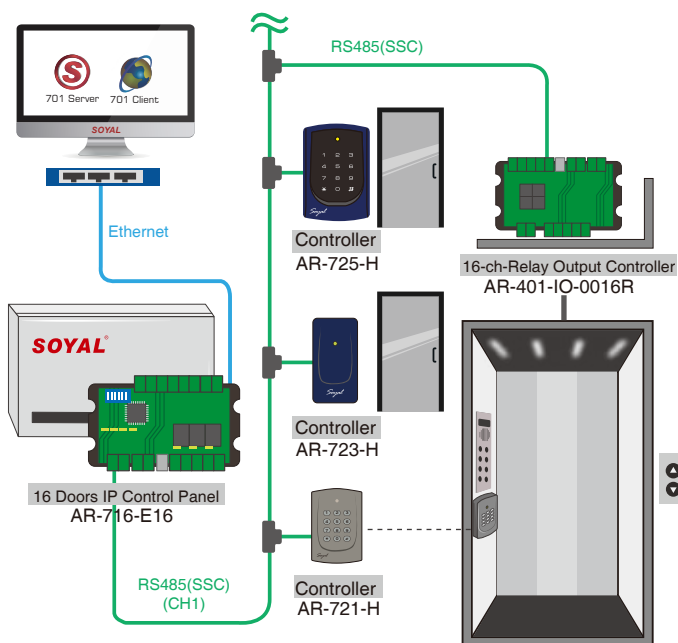


● CENTRALIZED LIFT CONTROL STRUCTURE

One Multi-door controller AR-716-E16 can manage up to 16000 users and 14 lifts with up to 64 floors in each lift by connecting maximum 14 units of RS485 readers and 56 units of lift controller AR-401-RO16 through its two RS485 channel CH1 and CH2.

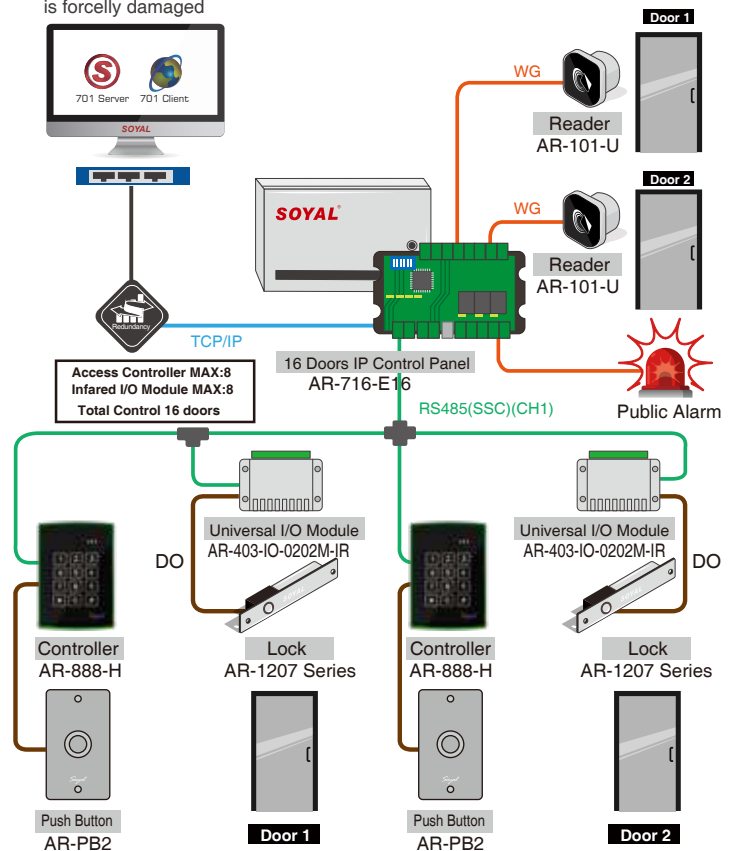
Installing Multi-door controller in Center Control Room connecting with computer allow the manager to easily set up parameters and edit user floors card at any time.

The lift control panel installed in the equipment room on top of the building is more convenient for inspection and maintenance.



● REMOTE I/O MODULE CONTROL

Multi-door controller support to connect I/O Extension Board for higher security door access control ,in which the door lock can not be unlocked even if the door is forcibly damaged



PERIPHERALS / ACCESSORIES

EXPANSION I/O CONTROL

- Expansion I/O Control



I/O Modules

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



Uninterruptible Power Supply

AR-716-TC-P

- WG Reader



Proximity Reader

AR-723-U



Proximity Reader

AR-101-U/ AR-101-PBI



AR-716-E16



Proximity Reader

AR-321-U



Proximity Reader

AR-721-K



Proximity Reader

AR-725-K



Proximity Reader

AR-888-K/U

- Necessary



Power Supply

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

- External Relay Output

(Digital Security Relay / Arming / Duress / Alarm)



1 Form C relay with time delay

AR-721RB

1 Form C relay

AR-821RB



2 Form C relay

AR-829RB

NETWORKING

- Software



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

701 Server & 701 Client



Firmware Upgrade

UDP Tools

- Signal/Interface Converter



USB to RS485

AR-321-CM

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)



Serial-to-Ethernet Networking Module

DMOD-NETMA-2

- RS485 Controller



H Series Access Controller

AR-723-H / AR-321-H / AR-721-H



E Series Access Controller

AR-327-E / AR-727-E

- Multi-door Control Series



2 Doors Networking Control Panel

AR-716-E02

- Input/Output



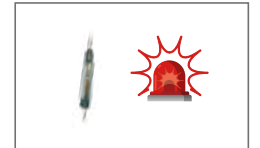
Locks

Magnetic Lock AR-0600M-270

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

FAQ

Q: What is the difference of card capacity between Multi-door controller AR-716-E18 and AR-716-E16?

A: The default card capacity of AR-716-E16 is 16383 and can be also changed to 32000 or 65000 as needed ; the event log capacity is 32000.

Q: How to keep controller and reader running normally when the power failure?

A: Please purchase one UPS Power supply AR-716-TC that can provide power and keep the device running normally the power failure.

