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 / IPcommunication interface can be selected forming a network loop ; Bulit-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-ine RTC (Real Time Clock) for accurate date and time calucation 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.
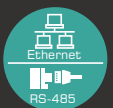
Support UPS

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 Broswer

Web   Youtube

- Support RS485 communication encryption, SSC (Soyal Security Communcation)
- Support RS485 / Ethernet communication interface for networking connection to LAN/ WAN / ADSL ; Support communication protocol of TCP/IP、DHCP、ICMP、ARP
- Built-in watchdog that can prevent the device from hang up.
- Support Auto-Arming/Disarm Zone Setting
- Built-in 2 WG Port that be able to connect 2 WG readers
- Support alarm output while devices are disconnected
- Built-in 4 Digital Input / output that be able to open all door locks in fire or emergency event.
- Built-in DI Fire input , all door locks can be automatically unlocked in case of Fire or Emergency.

- 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.
- One controller support 16 RS485 readers and one computer can control up to 4064 RS485 readers.
- 63 sets of Time zone / 255 sets of Door Group , be able to set holiday and level , link with other zones.
- Support 14+2 doors Anti-pass back; be able to assign which door is for entry and which door is for exit.
- Alternative door group selection ; common door group or individual door group
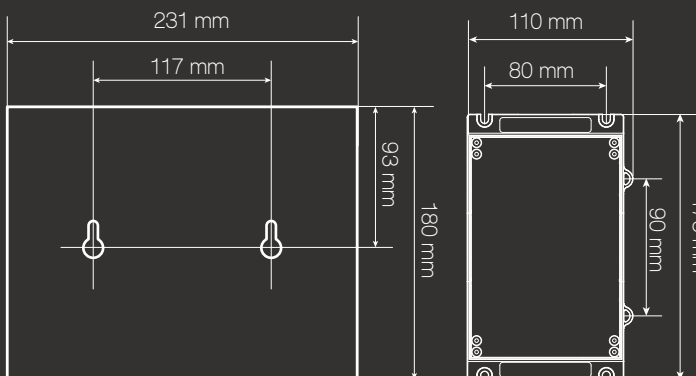
SPECIFICATION

User Capacity	Standard : 16000人 Optional : 32000人 / 65000人		
Event Log	32000		
Power Voltage	9-24VDC		
Power Consumption	<3W		
Communication interface	Host	Host Node 1~254		
		RS-485	9600bps(N,8,1)	
		Ethernet	10/100M Base T	
	Slave Reader	WG	2 Readers	0 Readers
		CH1(RS-485)	6 Readers	8 Readers
		CH2(RS-485)	8 Readers	
DI Input	2 Egress / 2 Door State 1 Fire Input		
DO Output	2 Door Lock Relay 1 Alarm Relay		
Communication Redundancy	Host port		
Anti-Passback	16 Doors		
Door Group	Yes		
Time Zone	63		
Dimension(mm)	Metal Casing	180(H)x231(W)x62(D)	
	Mounting Plate	110(H)x175(W)x32(D)	
	PCB	110(H)x175(W)x32(D)	
Weight(g)	Metal Casing	1754±10	
	Mounting Plate	244±10	
	PCB	164±10	
Housing Material	Metal/ABS		
Others	Support UPS AR-716-TC		
Enviroment	Operating Temperature	-20℃ ~ +65℃	
	Storage Temperature	-25℃ to +70℃	
	Operating Humidity	20%~90%	
	Storage Humidity	5%~95%	

WHAT WE OFFER

✔ Built-in LED Indicator
Built-in power and data trasmission 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 runing.

✔ 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 forcelly 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 runing.

✔ Parameters Setting and Sending message to Remote Server via Broswer
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)

231 mm
117 mm
93 mm
180 mm
110 mm
80 mm
90 mm
175 mm

▲ Metal Box   ▲ Plastic Mounting Base

HOW TO ORDER

AR-716-EXX-X-X

Additional Module
A=TCP/IP Module

Doors No.
02=Dual Doors (WG)
16=16 Doors (RS485)+ 2 WG
18=18 Doors (RS485)+ 2 WG

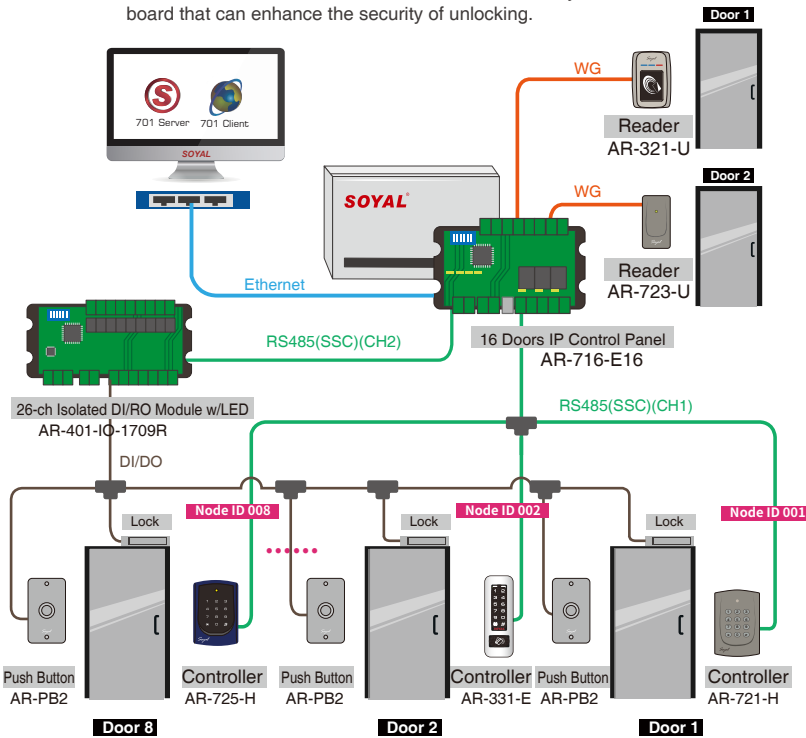**Type**
N/A=PCB
M=Metal Case
X=Plastic Mounting Base
(AR-716-E18 does not have plastic mounting base option)
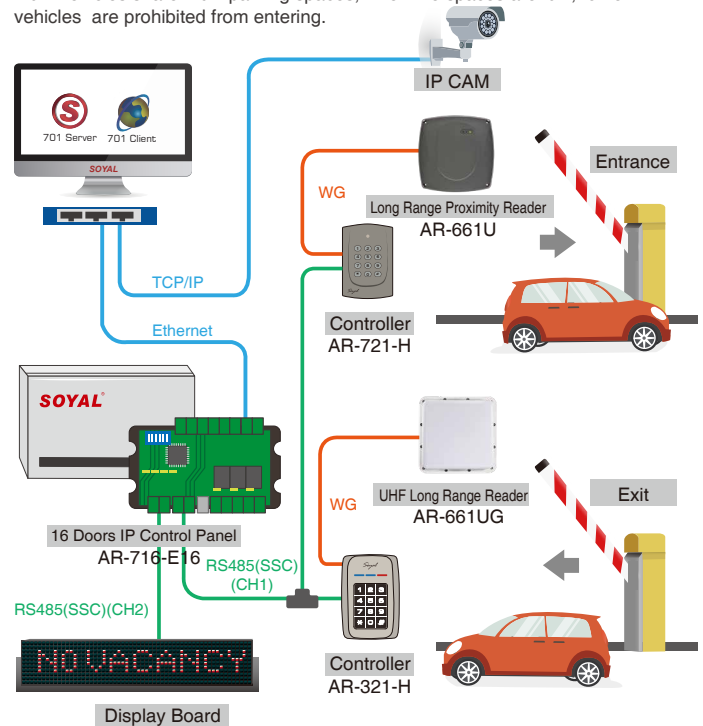
APPLICATION & STRUCTURE DIAGRAM

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.

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Door 1
WG
Reader
AR-321-U

Door 2
WG
Reader
AR-723-U

Ethernet

16 Doors IP Control Panel
AR-716-E16

RS485(SSC)(CH2)

26-ch Isolated DI/RO Module w/LED
AR-401-IO-1709R

DI/DO

RS485(SSC)(CH1)

Node ID 008   Node ID 002   Node ID 001

Lock   Lock   Lock

Push Button
AR-PB2

Controller
AR-725-H

Push Button
AR-PB2

Controller
AR-331-E

Push Button
AR-PB2

Controller
AR-721-H

Door 8   Door 2   Door 1

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
- determined 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.

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IP CAM

WG
Long Range Proximity Reader
AR-661U

Entrance

Controller
AR-721-H

TCP/IP

Ethernet

16 Doors IP Control Panel
AR-716-E16

UHF Long Range Reader
AR-661UG

WG

Exit

RS485(SSC)(CH1)

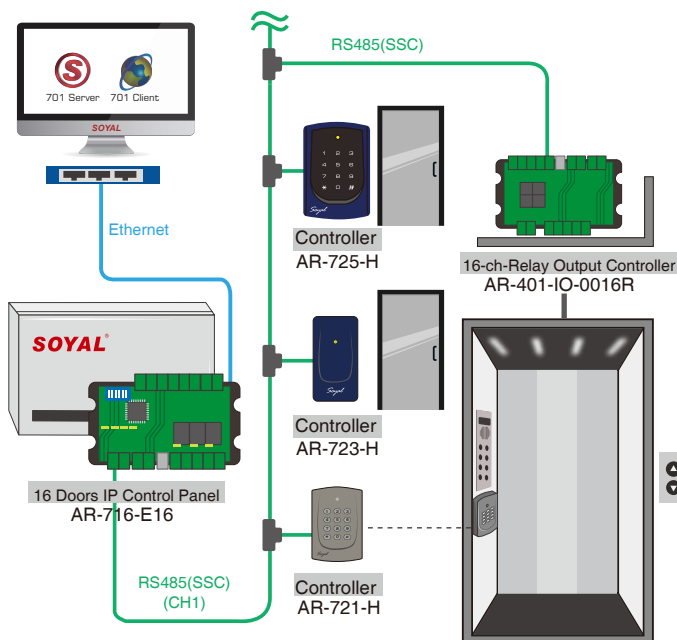RS485(SSC)(CH2)

NO VACANCY

Controller
AR-321-H

Display Board

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.
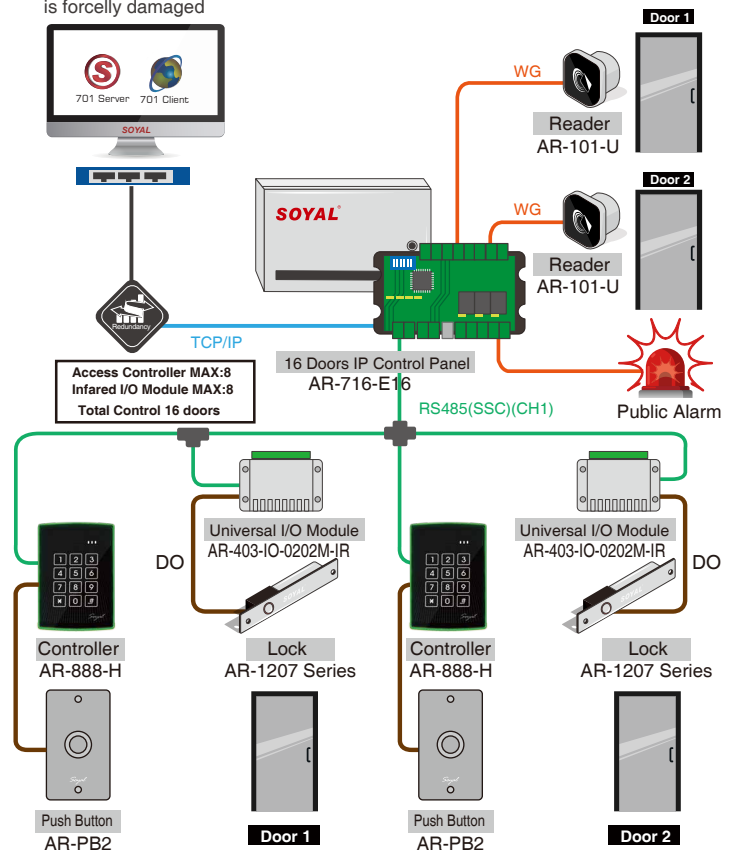Installing Multi-door controller in Center Control Room connecting with computer allow the manager to easily set up parameters and edit user floors card at any time.
The lift control panel installed in the equipment room on top of the building is more convenient for inspection and maintenance.

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RS485(SSC)

Controller
AR-725-H

16-ch-Relay Output Controller
AR-401-IO-0016R

Controller
AR-723-H

Ethernet

SOYAL

16 Doors IP Control Panel
AR-716-E16

RS485(SSC)
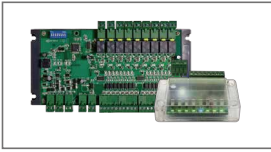(CH1)

Controller
AR-721-H

REMOTE I/O MODULE CONTROL

Multi-door controller suppport 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 forcelly damaged

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Door 1
WG
Reader
AR-101-U

Door 2
WG
Reader
AR-101-U

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TCP/IP

Redundancy

Access Controller MAX:8
Infared I/O Module MAX:8
Total Control 16 doors

16 Doors IP Control Panel
AR-716-E16

Public Alarm

RS485(SSC)(CH1)

Universal I/O Module
AR-403-IO-0202M-IR

DO

Controller
AR-888-H

Lock
AR-1207 Series

Universal I/O Module
AR-403-IO-0202M-IR

DO

Controller
AR-888-H

Lock
AR-1207 Series

Push Button
AR-PB2

Door 1

Push Button
AR-PB2

Door 2

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

NETWORKING

• Software

701 Server 701 Client

UDP Updater

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
RS232

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

• 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

• 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.

More FAQ