

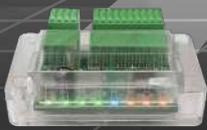
SOYAL[®]

WEB PLC & Expansion I/O Series

Programmable Logic Controller (WEB PLC) /
I/O Expansion Board / Two-Wire Control



◀ Programmable Logic Controller (WEB PLC)
AR-401-PLC-1616R / AR-401-PLC-0808R / AR-727-CM-PLC-0804R



4 Optically Isolated Input
4 MOSFET Output

▲ AR-403-IO-0404P

16-Port Type C Relay Output

▲ AR-401-IO-0016R

16 Optically Isolated Input
8 Type C Relay Output

▲ AR-401-IO-1608R

16 Optically Isolated Input
16 Type A Relay Output

▲ AR-401-IO-1616R

16 Optically Isolated Input
16 MOSFET Output

▲ AR-401-IO-1616M

Latching Power Relay
(with 2 Form A Contacts)

▲ AR-816RB

I/O Expansion Board

- Motor Forward and Reverse Control
- AR-816RB Two-Wire Control Only

Two-Wire Control

Feature

Modbus



Multi-Modbus Protocol Supported

TCP/IP to Wiegand ,TCP/IP to Serial
To get status of on board I/O, Modbus TCP or Modbus RTU over TCP are supported
Modbus TCP to Modbus RTU Auto Conversion
(Applicable for Ethernet & WIFI)

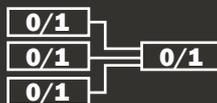


IoT Application

Wide applications in IoT monitoring, Factory Automation or remote monitoring equipment.

Cloud-based web programming, no need to purchase an HMI

Built-in HTTP server allows direct programming through a web page using a browser,eliminating the need for a human-machine interface.



Multi-Function Ethernet Networking Server

Two RS485 port for ModBus RTU over TCP or HEX to connect I/O module or SOYAL Access Control for releasing all doors when fire alarm. (AR-401-IO-0808R-U2)



Diversity of Timer Output

Output type: Counter / Timer
Timers: It features 8 timers
Counters: It possesses 32 edge-triggered counters



SCADA Software Supported

701Server/701Client support SCACA and Data-Based System.

SPECIFICATION

● Programmable Logic Controller (WEB PLC)

Model no.		AR-401-PLC-1616R	AR-401-PLC-0808R	AR-727-CM-PLC-0804R	
Protocol		ModBus-TCP, ARP, IP, TCP Server/Client,UDP, ICMP, HTTP, DHCP, NetBIOS			
Interface	Ethernet	10/100 Mbps Base T Ethernet <--> RS485 Support TCP/Server, TCP/Client, UDP Mode			
	PoE	—	PoE (Optional) 12W/1A	—	
	Serial port	RS485 X2,Baud Rate 2400 bps - 115200 bps(N,8,1),1K/1k Tx/Rx Buffer			
I/O	Input	Can select positive or negative triggering	Yes	Yes	Sink Input mode
		Optocoupling	X16	X8	X8
	Output	MOSFet Output	—	—	—
		Relay Output	4 Form C / 12 Form A 250VAC /30VDC/4A	8 Form C 250VAC /30VDC/10A	4 Form C (1A/30VAC, 1A/30VDC)
	Infrared	—	—	—	
I/O POWER	Standalone	Standalone	Built-in isolation		
Power Voltage		12-24 VDC	12 VDC	12-24 VDC	
Power Consumption		<4W	<2W	<2W	
Surge Suppression		400W peak power dissipation. Clamping time < 1 picosecond (theoretical) Power: bi-directional avalanche breakdown device. RS485 bi-directional avalanche breakdown device.			
Power Fuse		Power & RS485 both with PTC Protector			
Dimension	PCB	100(H)x147(W)x20(D)		106.5(H)x66(W)x27.7(D)	
	Panel Mounting Base	102(H)x175(W)x30(D)			
	Metal Box	180(H)x231(W)x62(D)			
Net weight(g)	PCB	approx.150		approx.120	
	Panel Mounting Base	approx. 240			
	Metal Box	approx.1760			
Operating Temperature		-20°C ~ +70°C		-20°C ~ +70°C	

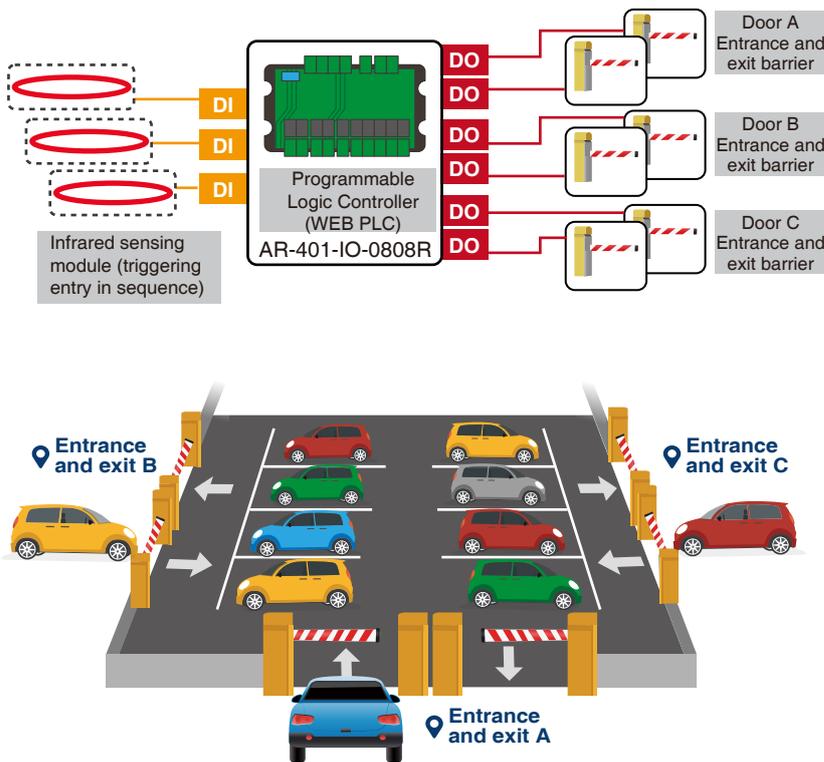
● I/O Expansion Board

Model no.		AR-401-IO-0016R	AR-401-IO-1616R	AR-401-IO-1616M	AR-401-IO-1608R	AR-403-IO-0202M-IR	AR-403-IO-0404M	AR-403-IO-0404P	
Protocol		Modbus RTU, Soyal							
Interface	Serial port	RS485 X1,Baud Rate 9600 bps - 19200 bps(N,8,1)				RS485 X1,Baud Rate 9600 bps(N,8,1)			
I/O	Input	Digital Input	—	—	—	X2	X4	—	
		Optocoupling	—	X16	X16	X16	—	—	●
	Output	MOSFet Output	—	—	X16	—	X2	X4	X4
		Relay Output	16 Form C 30VDC/1A ,125VAC/0.3A	16 Form A 250VAC /30VDC/4A	—	8 Form C 250VAC /30VDC/10A	—	—	—
	Infrared	—	—	—	—	●	—	—	
I/O POWER	—	Standalone	Standalone	Built-in isolation	—	—	Standalone		
Power Voltage		12-24 VDC							
Power Consumption		<4W				<1W			
Surge Suppression		400W peak power dissipation. Clamping time < 1 picosecond (theoretical) Power: bi-directional avalanche breakdown device. RS485 bi-directional avalanche breakdown device.							
Power Fuse		Power & RS485 both with PTC Protector							
Dimension	PCB	100(H)x147(W)x20(D)					60(H)x43(W)x20(D)		
	Panel Mounting Base	102(H)x175(W)x30(D)							
	Metal Box	180(H)x231(W)x62(D)							
Net weight(g)	PCB	approx. 100	approx.138	approx.76	approx.100	approx.31			
	Panel Mounting Base	approx.182	approx.221	approx.158	approx.182				
	Metal Box	approx.1760	approx.1760	approx.1760	approx.1760				
Operating Temperature		-20°C ~ +70°C							

APPLICATION & STRUCTURE DIAGRAM

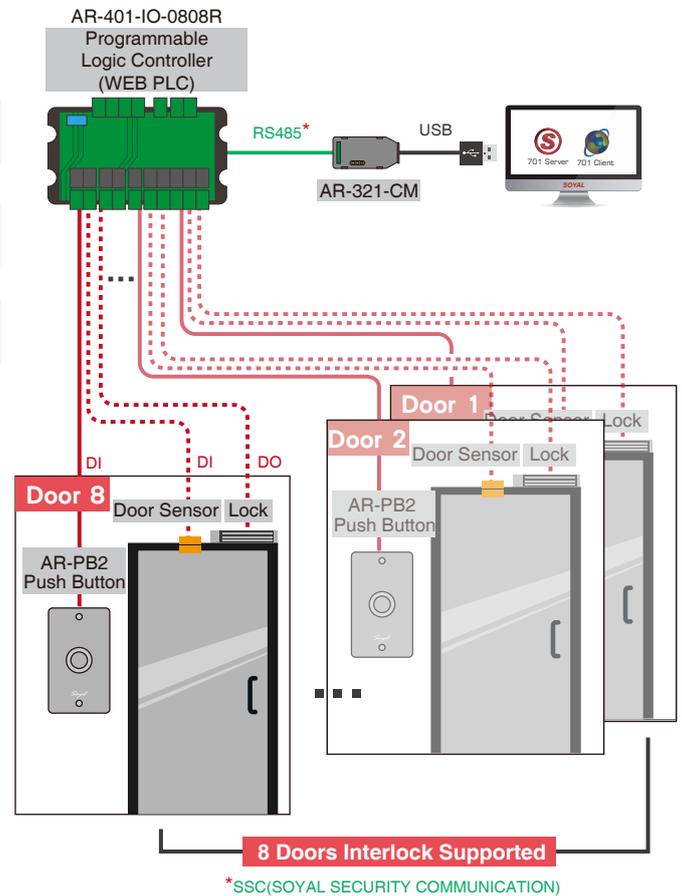
- The application of multiple entrances and full parking spaces in a parking lot.

Using the AR-401-IO-0808R WEB PLC logic function allows multiple entrances and exits of a parking lot to queue vehicles in sequence based on their arrival time when the parking lot is full.



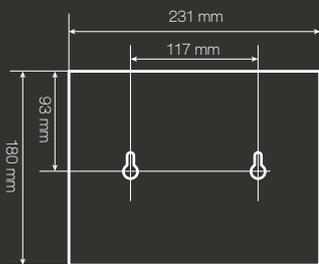
- Interactive logic control application

Customized logic control for various need, eg. 8 doors Interlock in clean room & Fire escape direction guide & Auto-unlock

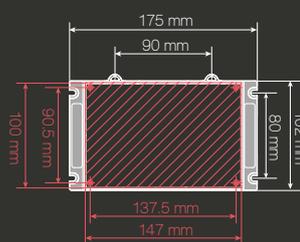


INSTALLATION(mm)

AR-401-PLC-1616R / AR-401-PLC-0808R / AR-401-IO-0016R
AR-401-IO-1616R / AR-401-IO-1616M / AR-401-IO-1608R



Metal Box (Front View)



DIN Rail Mount (Panel Mounting Base)
 PCB
 Panel Mounting Base (Front View)

HOW TO ORDER

AR-401-XXX-XXXXR-XX-X-X

類型

PLC= WEB PLC
I/O= I/O Expansion Board

Input Qty / Output Qty

0016=16 Output
0808= 8 Input & 8 Output
1608=16 Input & 8 Output

Output Type

R=Relay

Additional Features

N/A=No Additional Features
R=RTC

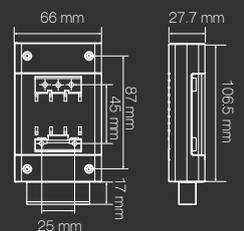
Additional Module

N/A=No Additional Module
P=POE Features

Type

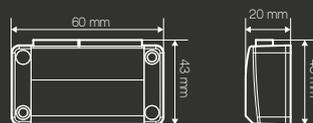
N/A=PCB
M=Metal Case
X=Plastic Mounting Base

AR-727-CM-PLC-0804R



(Front View) (Side View)

AR-403 Series



(Front View) (Side View)

AR-403-IO-XXXXM-XX

Input Qty / Output Qty

0001=1 Output
0202=2 Input & 2 Output
0404=4 Input & 4 Output

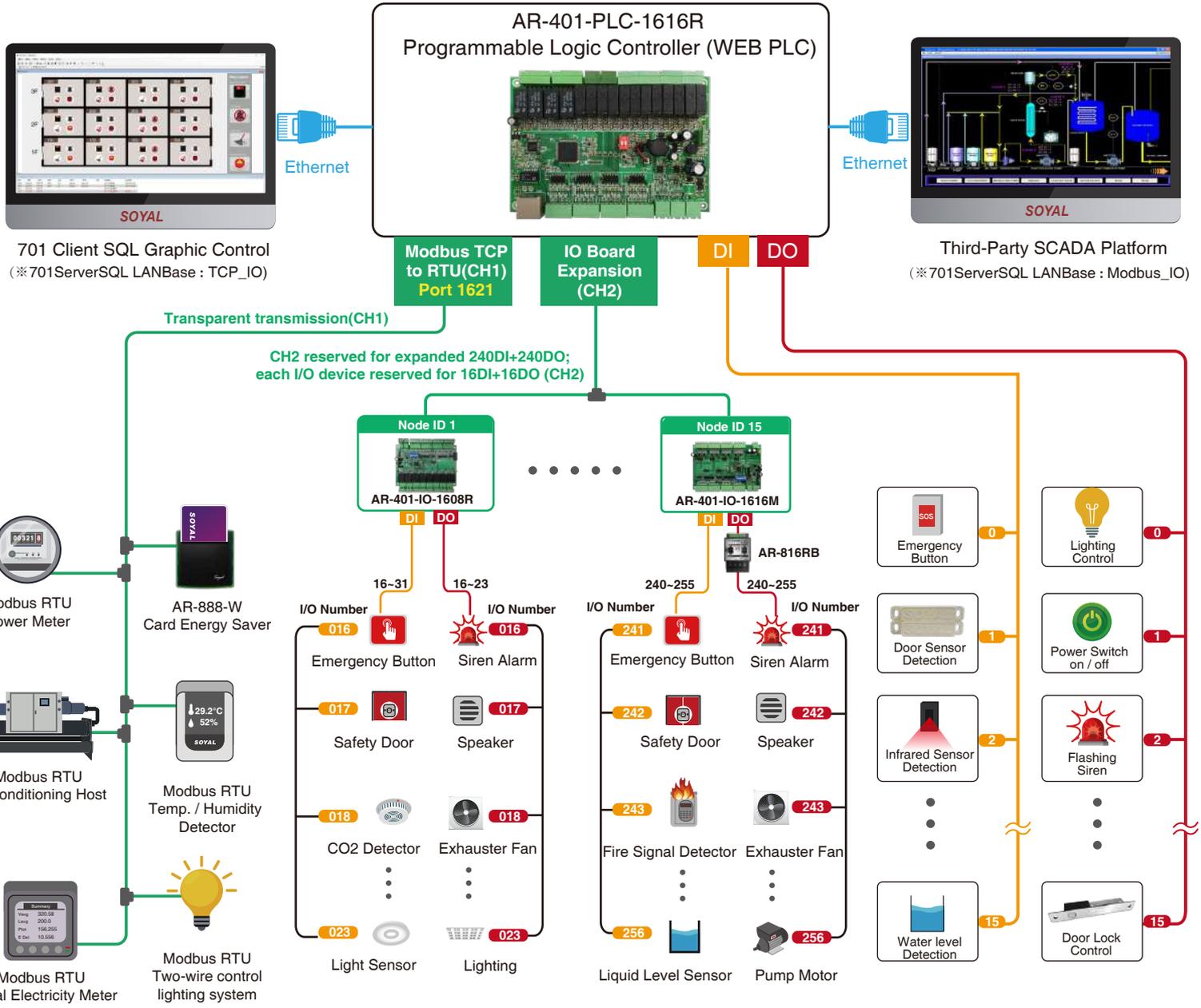
Output Type

M=Mosfet

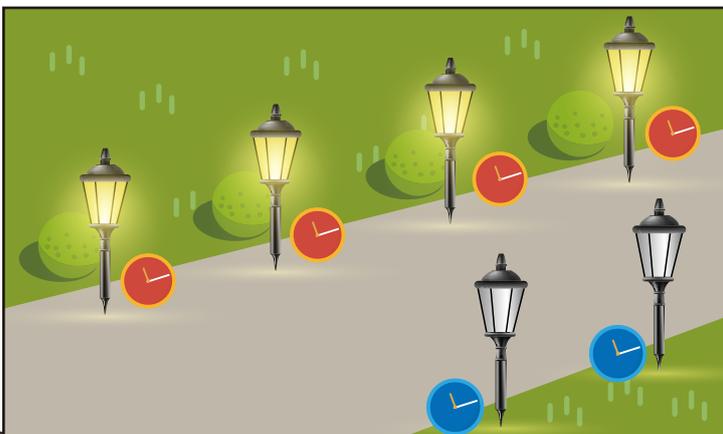
Additional Features

N/A=No Additional Features
IR=1 Infrared Output

PERIPHERALS / ACCESSORIES

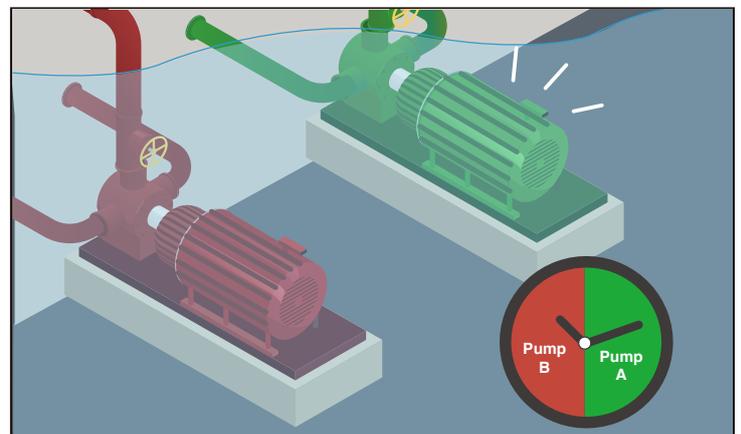


Automatic Scheduling of Landscape Lights in Communities/Parks



Control of Alternating Operation of Deepwater Motors

Through the WEB PLC scheduling function, it is possible to accurately calculate the operating hours of the motors, enabling timely replacement of running motors and thereby extending the service life of the motors.



More FAQ