

SOYAL[®]

I/O Module

AR-401-IO

Serial-to-Ethernet Server with I/O Module /
16-ch-Relay Output Controller /26-ch Isolated DI/RO Module w/LED

AR-403-IO

Universal I/O Module



▲ Serial-to-Ethernet Server with I/O Module
AR-401-IO-0808R-U2

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

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



▲ Universal I/O Module
AR-403-IO-0404M-E

▲ Universal I/O Module
AR-403-IO-0001M-IR

▲ Universal I/O Module
AR-403-IO-0202M
AR-403-IO-0404M

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

Features

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.



Customizable Firmware

In-field firmware update to support
customized firmware per conditional logic
control



Diversity of Timer Output

Remote control & program digital ON/OFF
timer (1-600 secs & Inverted Output & time-in-
tegration Output) to substitute traditional timer.



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)



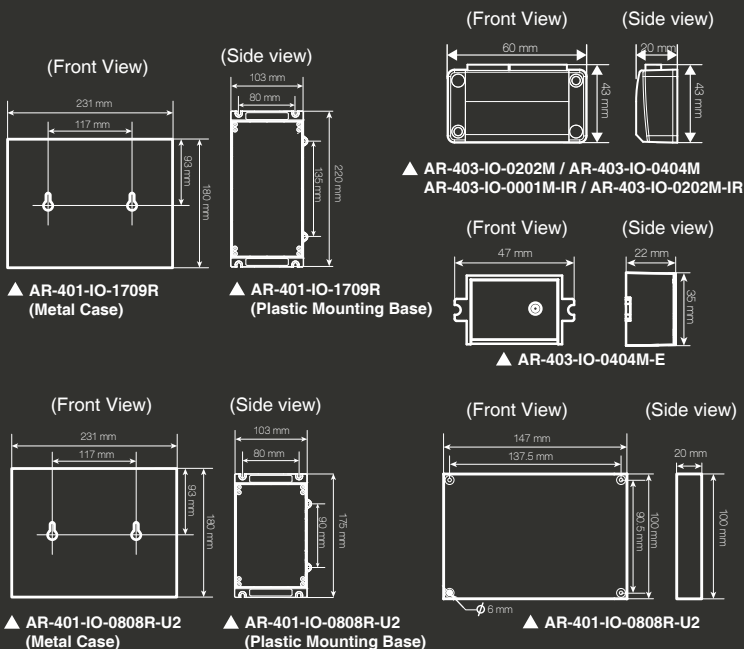
SCADA Software Supported

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

SPECIFICATION

| Model No. | 401-IO-0808R-U2 | 401-IO-0016R | 401-IO-1709R | 403-IO-0202M | 403-IO-0202M-IR | 403-IO-0404M 403-IO-0404M-E | 403-IO-0001M-IR |
|--------------------------|---|--|---|--|--|--|---|
| Interface | Ethernet | support TCP/Server \ TCP/Client \ UDP Mode | — | | | | — |
| | Serial port (CH1/CH2) | RS485 * 2 support TCP/Server \ TCP/Client \ UDP Mode | RS485 * 1 | | | | — |
| | Baud Rate | Baud Rate 4800 bps - 115200 bps | 9600 bps (N,8,1) | | | | — |
| Digital Inputs / Outputs | 8 Digital Input 8 Relay Output | 16 Relay Output (Form C) | 17 Digital Input 9 Relay Output (Form C) | 2 Digital Input 2 Digital Output (MosFET) | 2 Digital Input (with 1 IR) 2 Digital Output (MosFET) | 4 Digital Input 4 Digital Output (MosFET) | 1 Digital Output (IR) |
| PoE | PoE option, 12W/1A | — | | | | — | |
| Protocol | Modbus, Soyal | | | | | | — |
| LED Indicator | Power, Tx/Rx, Input: Close/Open, Relay: On/Off | Power: Tx/Rx, Relay On/Off | Power, Tx/Rx, Input: Close/Open, Relay: On/Off | Power: Tx/Rx, D.O./D.I | | Red LED indicate DO active 1 DO infrared output | |
| Watchdog Function | Yes | | | | | | Yes |
| Surge Suppression | 400W peak power dissipation. Clamping time < 1 picosecond (theoretical) Power: bi-directional avalanche breakdown device. RS485 bi-directional avalanche breakdown device. | | | | | | — |
| Fuses | Dual PTC Protection For Power & RS485 | | | | | | — |
| Isolation | Optical 5kv | — | Optical 5kv | — | | — | |
| Power Supply | 9-24 VDC | | | | | | 9-24 VDC or DC 0V |
| Power Consumption | <2W | <8W | <4W | <1W | | <0.5W | |
| Dimension(mm) | PCB: 191(W)x100(H)x20(D) Panel Mounting Base : 225(W)x97(H)x44(D) Metal Box: 231(W)x180(H)x62(D) | PCB: 150(W)x100(H)x20(D) Panel Mounting Base : 175(W)x100(H)x20(D) Metal Box: 231(W)x180(H)x62(D) | PCB: 191(W)x100(H)x20(D) Panel Mounting Base : 225(W)x97(H)x44(D) Metal Box: 231(W)x180(H)x62(D) | 403-IO-0202M \ 403-IO-0202M-IR: 60(W)x20(H)x43(D) 403-IO-0404M-E: 48(W)x24(H)x35(D) | | 60(W)x20(H)x43(D) | |
| Weight (g) | approx 232 | approx 1780 | approx 455(PCB Only) | 403-IO-0202M \ 403-IO-0202M-IR: approx 31 403-IO-0404M-E: approx 23 | | approx 28 | |
| OS Supported | Windows 7/8/10, Win Server 2008/2012/2016 | | | | | | — |
| Network/Device setting | 701Server, 701Client, Commview.exe | | | | | | — |
| Environment | Operating Temperature: -20°C ~ +70°C | | Storage Temperature: -40°C to +75°C | | Operating Humidity: 0%-90% (non-condensing) | | Storage Humidity: 0%-95% (non-condensing) |

INSTALLATION(mm)



HOW TO ORDER

AR-401-IO-XXXXR-XX-X-X

Input Qty / Output Qty

0016=16 Output
 0808= 8 Input & 8 Output
 1709=17 Input & 9 Output

Output Type

R=Relay

Additional Features

N/A=No Additional Features
 U2=UART * 2

Additional Module

N/A=No Additional Module
 P=POE Features

Type

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

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

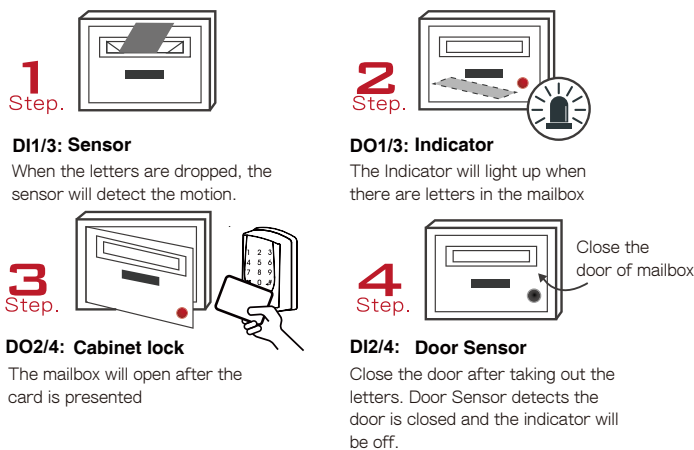
APPLICATION & STRUCTURE DIAGRAM

• Mail box/Storage Application

AR-403-IR I/O Infrared module integrated to send command via RS485. Saving labor cost from wiring. LED Indicators as reminder of letter arrival.

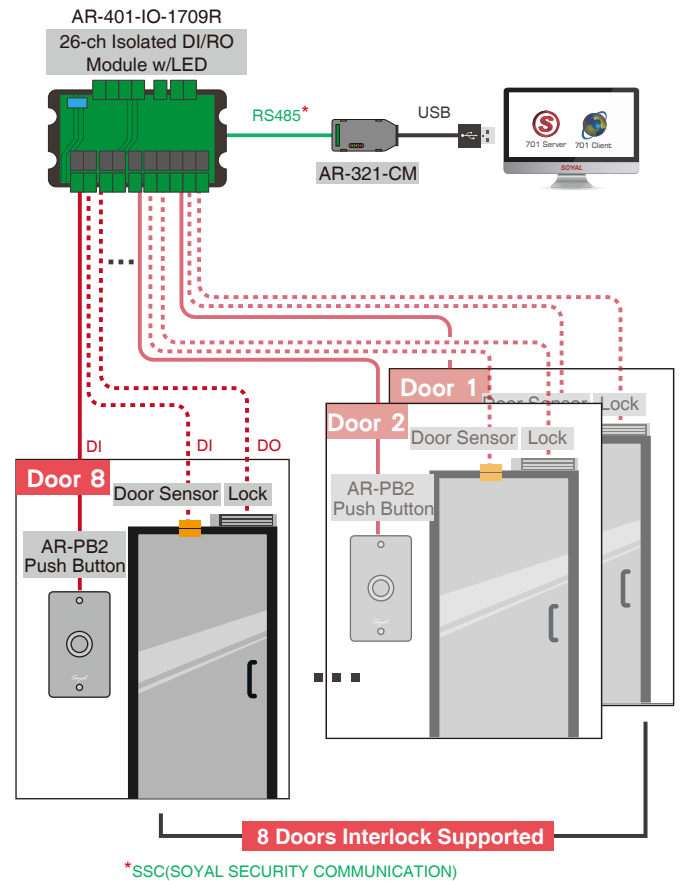


Direction for use



• Interactive logic control application

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



*SSC(SOYAL SECURITY COMMUNICATION)

Universal I/O Module

MOSFET Gate Output. Up to 2000mA High power MOSFET output

01 Standard Modbus I/O Module

Remote Control

- Sequential Control - Frequency adjustable
- Continuous pulse output
- Support Modbus RTU/SOYAL Protocol

Programmable Controller, Inverter, Embedded Computer, Touch panel PC, Industrial PC

02 Mailbox Module

Input

- Letters arriving detection (DI)
- Mailbox door contact detector

Output

- Indicator for letters inside
- Output trigger for mailbox lock opening
- Output Alarm

When the letters are dropped the sensor will detect the motion.

The Indicator will light up when there are letters in the mailbox.

The mailbox will lock when the door is closed.

Door Sensor detects the door is closed and the indicator will be off.

03 Multiple delay function

Output 1: Rising edge trigger (DO1)

Output 2: Rising edge trigger (DO2)

Output 3: Toggle trigger (DO3)

Output 4: Non-inversion Pulse Delay (DO4)

CommView to setup delay time

04 Rear Detection / Front Detection (Main direction recognition)

Front Detection

Rear Detection

www.soyal.com **SOYAL** ACCESS CONTROL SYSTEM



Digital Module for Machinery Management

AR-403-IO-0404M has built-in RS485 interface and support Modbus protocol. Due to its compact size, it's perfectly mount on machinery without taking much space. With software or PLC, it enables security monitoring on machinery operation, also expansion applications, such as operation hours record, maintenance reminder.

PERIPHERALS / ACCESSORIES

Remotely control I/O status

Support various devices on one Scada Mapping

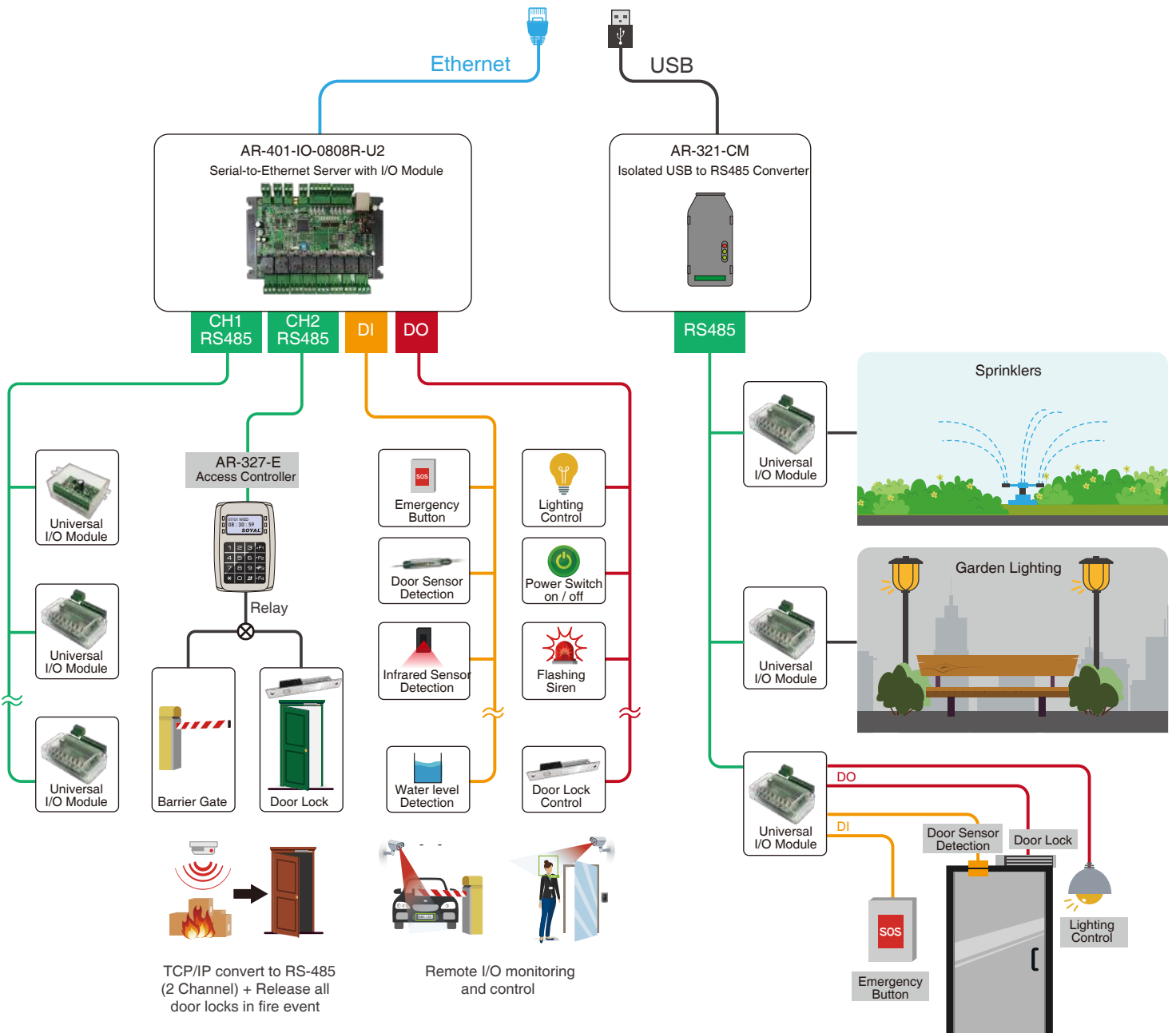
Create multiple windows for each Scada Mapping

Set up abnormal events indicator for pop-up message

New icon status and mapping is available

Create your own icon and mapping

Stop Door Open Output
Hold Door Open Output
Keep Door Open Output
Activate Arming
Inactivate Arming



More FAQ