# Automation Server I/O Module Family

## Enables StruxureWare Building Operation v1.3

The Automation Server includes support for a broad spectrum of I/O modules that can be combined to meet the unique requirements of each installation. An Automation Server can have a maximum of 32 modules, including one Automation Server and a mixture of Power Supply modules and I/O modules.

Make the most of your energy℠

**Schneider Electric**

# StruxureWare Building Operation Automation Server I/O Module Family Features

Each high density I/O module is designed to accommodate a fixed number of inputs and outputs. Some I/O modules only support a single electrical type, such as digital inputs. Other modules support a combination of electrical types, such as universal inputs mixed with digital outputs. The variety of modules available ensures the right combination of points for any project.

### Modular and scalable
The Automation Server is part of a modular system that delivers power and communications on a common bus. Connecting modules is a one-step process: just slide the modules together using the built-in connectors.

### Patented two-piece design
Each module can be separated from its terminal base to enable the site to be wired prior to the installation of the electronics. The patented locking mechanism also serves as handles for removing the module from its base. All critical components have a protective cover that permits natural convection cooling to occur.

### Hot-connect / Hot-swap
Because critical applications require 24-hour operation, Schneider Electric designed the Automation Server and its family of I/O modules for hot-connection of terminal bases and hot-swapping of servers and modules to their bases. This design ensures continuous power and communication during service operations.
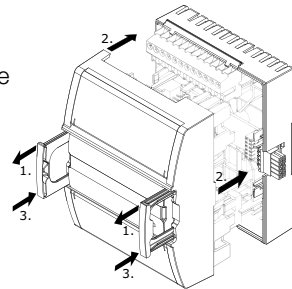
## PRODUCT AT A GLANCE

- Modular and scalable
- Patented two-piece design
- Hot-connect/ Hot-swap
- Auto-addressing
- Simple DIN-rail installation
- Efficient terminal management
- Accommodates multiple row panel installations
- Hand/Off/Auto switches
- LED status indicators
- Protection

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# Automation Server I/O Module Family
# Features (continued)

## Auto-addressing

The auto-addressing feature eliminates the need for setting DIP switches or pressing commission buttons. With the Automation Server family, each module automatically knows its order in the chain and assigns itself accordingly - significantly reducing engineering and maintenance time.

## Simple DIN-rail installation

Fasteners easily snap into a locked position for panel installation. The fastener has a quick-release feature for easy DIN rail removal.

## Efficient terminal management

The I/O module terminals are clearly labelled and protected by a transparent cover. The input and output terminals are at the top and bottom of each module and are accessible for maintenance without removing the module. The StruxureWare Building Operation WorkStation software can generate custom as-built labels for each module. Pre-perforated letter and A4 size label sheets are available as an accessory.

## Accommodates multiple row panel installations

The Automation Server module family uses built-in connectors for single row connectivity. If a panel size requires multiple rows, interconnection cables are available.

## Hand/Off/Auto switches

Some modules are available with Hand/Off/Auto (HOA) switches to provide override control of the outputs. Analog outputs with HOA switches also have a potentiometer to modulate the output signal when the switch is in the hand position. The position of the HOA switch is readable through user interfaces, such as the StruxureWare Building Operation WorkStation software, enabling more precise monitoring and control.
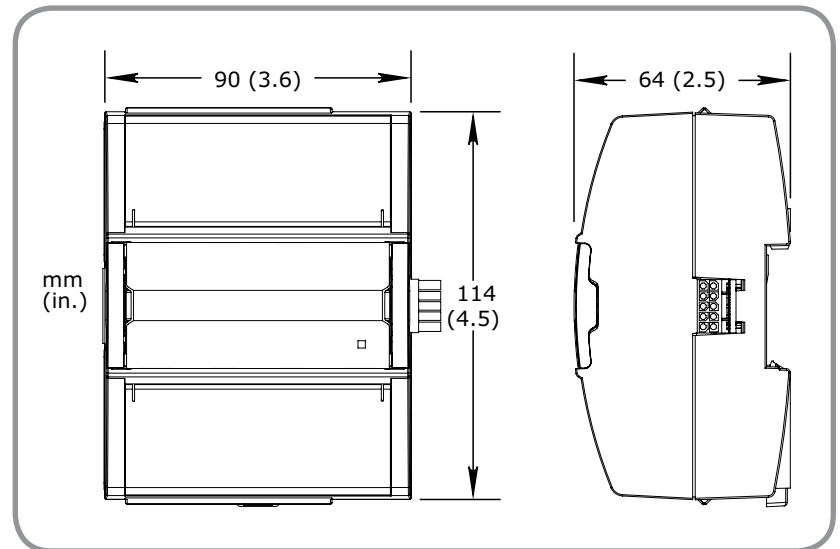
## LED status indicators

Every module has a status indicator that denotes the health and status of that module. Some modules also have LEDs that can be configured to indicate the state of a digital input or output.

## Protection

Unipolar voltage suppressors on all inputs protect against high voltage or current during both transient events as well as improper wiring.

## Dimensional drawing

# Automation Server I/O Module Family Specifications

The following technical specifications apply to all I/O modules, unless otherwise noted.

**I/O bus power**
24 VDC, max. 30 W per I/O bus power supply, Class 2

**Maximum addresses per I/O bus**
32

**Operation environment**

**Ambient temperature, operating**
0 to 50 °C (32 to 122 °F)

**Ambient temperature, storage**
–20 to +70 °C (–4 to +158 °F)

**Humidity**
Max. 95 % RH (non-condensing)

**Mechanical**

**Dimensions including terminal base**
90 W x 114 H x 64 D mm
(3.6 W x 4.5 H x 2.5 D in.)

**Enclosure**
Eco Friendly ABS/PC

**Enclosure rating**
IP 20

**Plastic rating**
UL94-5VB rated plastic

**Mounting**
DIN-rail mounting or with screws on wall

The following technical specifications apply to all UI modules:

**Thermistor Accuracy**

**Non-linearized 1.8 kohm and 10 kohm**
-50 to -30 °C: +/- 1.5 °C (-58 to -22 °F: +/-2.7 °F)
-30 to 0 °C: +/-0.5 °C (-22 to 32 °F: +/-0.9 °F)
0 to 50 °C: +/-0.2 °C (32 to 122 °F: +/-0.4 °F)
50 to 100 °C: +/-0.5 °C (122 to 212 °F: +/-0.9 °F)
100 to 150 °C: +/-1.5 °C (212 to 302 °F: +/-2.7 °F)

**Balco 1 kohm**
-50 to 150 °C: +/-1.5 °C (-58 to 302° F: +/-2.7 °F)

**Linearized 10 kohm**
-50 to -30 °C: +/-3.0 °C (-58 to -22 °F: +/-5.4 °F)
-30 to 0 °C: +/-1.0 °C (-22 to 32 °F: +/-1.8 °F)
0 to 50 °C: +/-0.3 °C (32 to 122 °F: +/-0.5 °F)
50 to 100 °C: +/-0.5 °C (122 to 212 °F: +/-0.9 °F)
100 to 150 °C: +/-2.0 °C (212 to 302 °F: +/-3.6 °F)

## I/O Module Inputs and Outputs

| Device name | Inputs | | | | | | | | Outputs | | | | | HOA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Digital | | | | Analog | | | | Digital | | | Analog | | |
| | Quantity | Contact | Counter | Supervised | Voltage | Current | Resistance | Thermistor | Quantity | Form-A | Form-C | Voltage | Current | |
| **Input Only** | | | | | | | | | | | | | | |
| DI-16 | 16 | x | x | | | | | | | | | | | |
| UI-16 | 16 | x | x | x | x | x | x | x | | | | | | |
| **Output Only** | | | | | | | | | | | | | | |
| DO-FA-12 | | | | | | | | | 12 | x | | | | |
| DO-FA-12-H | | | | | | | | | 12 | x | | | | x |
| DO-FC-8 | | | | | | | | | 8 | | x | | | |
| DO-FC-8-H | | | | | | | | | 8 | | x | | | x |
| AO-8 | | | | | | | | | 8 | | | x | x | |
| AO-8-H | | | | | | | | | 8 | | | x | x | x |
| AO-V-8 | | | | | | | | | 8 | | | x | | |
| AO-V-8-H | | | | | | | | | 8 | | | x | | x |
| **Mixed IO** | | | | | | | | | | | | | | |
| UI-8/DO-FC-4 | 8 | x | x | x | x | x | x | x | 4 | | x | | | |
| UI-8/DO-FC-4-H | 8 | x | x | x | x | x | x | x | 4 | | x | | | x |
| UI-8/AO-4 | 8 | x | x | x | x | x | x | x | 4 | | | x | x | |
| UI-8/AO-4-H | 8 | x | x | x | x | x | x | x | 4 | | | x | x | x |
| UI-8/AO-V-4 | 8 | x | x | x | x | x | x | x | 4 | | | x | | |
| UI-8/AO-V-4-H | 8 | x | x | x | x | x | x | x | 4 | | | x | | x |

### Accesory part numbers

**DIN-RAIL-CLIP, DIN-Rail End Clip**
Package of 25 pieces
P/N: SXWDINEND10001

**PRINTOUT-A4-W1, Printout sheets for Terminal Labels**, A4 sheet size, 100 Sheets, 18 labels per Sheet
P/N: SXWTERLBL10011

**PRINTOUT-LTR-W1, Printout sheets for Terminal Labels**
Letter sheet size, 100 Sheets, 16 labels per Sheet
P/N: SXWTERLBL10012

**S-CABLE-I, S-Cable extension cord for Automation Server I/O bus Straight connectors**, 1.5 m
P/N: SXWSCABLE10001

**S-CABLE-L, S-Cable extension cord for Automation Server I/O bus L shaped connectors**, 1.5 m
P/N: SXWSCABLE10002

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