EcoStruxure™
Innovation At Every Level

# Product Selection Guide

## EcoStruxure™ Building

Integrated building management system

se.com/ecostruxure-building

Life Is On Schneider Electric

EcoStruxure™ Innovation At Every Level

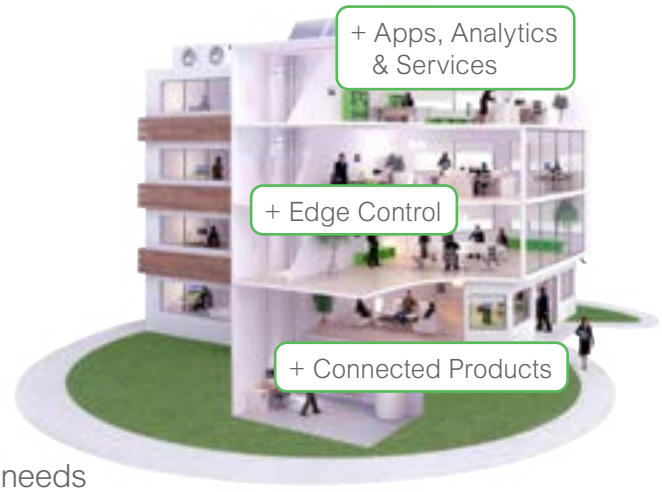
# Building

## Unlock building value, unleash productivity

Next generation EcoStruxure™ Building from Schneider Electric is The Open Innovation Platform of Buildings – a collaborative Internet of Things (IoT) solution that features a scalable, secure and global architecture to create future-ready smart buildings.

EcoStruxure Building securely connects hardware, software, and services over an Ethernet IP backbone to:

- Maximize building efficiency
- Optimize comfort and productivity
- Increase building value




EcoXperts™ and other system integrator partners also benefit from many new deployment tools to achieve:

- Up to 30% increase in engineering efficiency
- Up to 20% faster commissioning and installation
- 10x more scalability for large and multisite building needs

## EcoStruxure Connected Room Solutions deliver buildings of the future

Our latest IP-enabled hardware and software helps create engaging environments with personalized comfort and increased operational and energy efficiency. Harness the power of today's smart buildings and the IoT to:

- enable Building Owners to **future-ready** their building's infrastructure for easier expansions and retrofits
- offer a **personalized experience** to tenants and occupants
- enable System Integrators to **increase project capacity** and cost-competitiveness

## EcoStruxure Building delivers Innovation At Every Level

# EcoXpert™ Partner Program

One Program. One Network. Endless Opportunities.

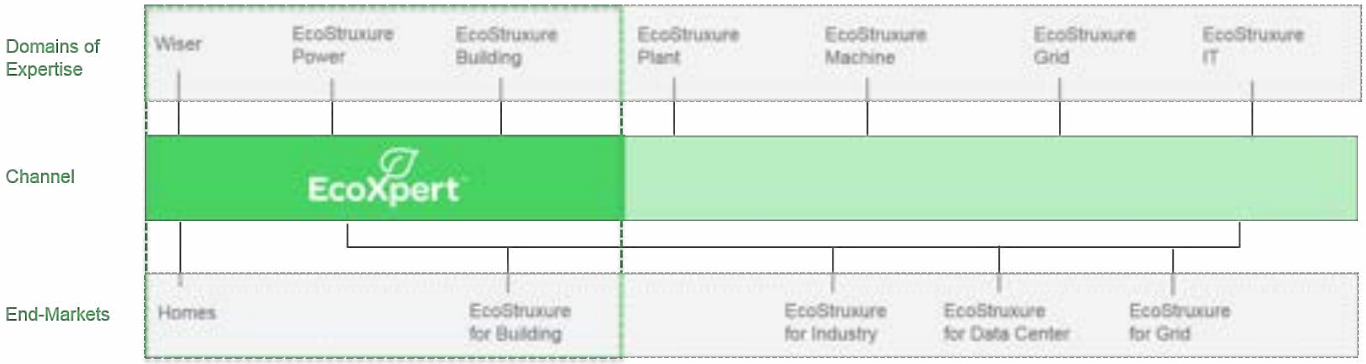
## Innovating smarter buildings, more reliable infrastructures, and optimized efficiency.

At Schneider Electric, we constantly look beyond the norm to provide innovative solutions, both in technology and in the way we do business. That's the idea behind the EcoXpert™ Partner Program – an esteemed partnership between Schneider Electric and more than 3,000 of the world's leading technology providers with best-in-class systems integration competencies. Working with partners we trust is as important to us as it is to our customers. Spanning more than 50 countries, EcoXpert companies are certified on our IoT-enabled EcoStruxure™ architecture and platform, enabling them to deliver innovative and sustainable solutions, through integrated technology and digitization, to our shared customers.

The EcoXpert Program enables our certified partners and valued customers to share in the experience of ensuring that **Life Is On** everywhere, for everyone, and at every moment.

Our mission is to connect expertise, ignite growth and enable success for our EcoXpert partner companies, because together we deliver best-in-class services and solutions to our valued customers.

## Our EcoXpert partners are the implementation arms of EcoStruxure in Homes and Buildings




Discover more about the EcoXpert Partner Program:
https://www.schneider-electric.com/ecoxpert

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## EcoStruxure Connected Room Solutions


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## SpaceLogic IP Controllers


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Accessories . . . . . S15


## BACnet® Controllers


BACnet b3 Series . . . . . B2
b3 Series Controllers . . . . . B3
b3 Series xP Expansion I/O Modules. . . . . B9
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## LonWorks® Controllers


Xenta™ Series . . . . . L2
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**Disclaimers**

- Not all products in the guide may be available in every country, please check availability with the local Schneider Electric office.
- Some product images are not images of the exact model, but are represented by a “series” image.
- Information within this guide is subject to change without notice.
- Schneider Electric is not responsible for inadvertent typographical errors or omissions.

# Flexible, personalized user workspace

EcoStruxure Building Operation provides an attractive, modern interface that can be organised by individual users to suit their needs. These preferences follow users regardless of where they log on. The information each user can access, such as graphics and alarms, can be managed at the job function, or individual level for added security and accountability.

# EcoStruxure™ Building Operation

**EcoStruxure™ Building Operation software** is the edge control heart of the EcoStruxure Building system to monitor, manage and control building systems. With an open integration platform, it securely facilitates the exchange of data from both Schneider Electric and third-party energy, lighting, HVAC, fire safety, security and workplace management systems to create future-ready smart buildings.

**Enterprise Central** dedicated supervisory server at the top of the EcoStruxure Building system architecture can integrate up to 10 Enterprise Servers, hosting as many as 2,500 Servers (AS-P and AS-B) to easily scale operations management across the largest buildings, campuses, and multisite real estate portfolios from a single location.

**Enterprise Server**, the Windows® applications version of the Building Operation Server, is the single point of administration through WorkStation, WebStation, and mobile applications. Enterprise Server collects site-wide data and configures, controls and monitors the entire system. It generates aggregated reports, standardizes critical security policies, normalizes alarm presentation and prioritization, and audits activity across the entire organization.

**Regulated-industries Compliance Pack** provides facility-wide accountability and traceability of environmental and security conditions that can impact the quality and safety in controlled environments. With electronic reports and signatures, Compliance Pack maintains a complete archive of all system events, consolidated into one reporting structure for effortless search and retrieval. It complies with the FDA's 21 CFR Part 11 and ALCOA principals. (Available with EcoStruxure Building Operation 3.2.)

**SpaceLogic Servers** at the edge control level of the architecture are automation servers for use in any application. SpaceLogic Servers feature dual Ethernet ports that elevate BACnet field bus communication to the IP level to modernize existing building management systems while keeping in place existing field buses and devices.

**WorkStation** interface provides users and engineers with access to SpaceLogic Edge Servers and Enterprise Servers to view and manage graphics, alarms, scheduling, trend logs and reports. WorkStation offers a new array of engineering efficiency tools and features to speed administrative functions, including standard applications, mass change/mass update; custom types and libraries, and more.

**WebStation** user interface provides a truly mobile experience for anytime, anywhere access to commonly used functions of EcoStruxure Building Operation on any platform without the installation of additional software. Developers can engineer once and the workspace automatically adapts the same high-quality user experience for desktop, tablet and mobile devices, saving valuable engineering time and resources.

**Smart Connector** is an open, extensible and configurable application framework that allows developers to create innovative new capabilities, applications and solutions that extend and enhance EcoStruxure™ Building.

**SmartDriver** is a custom driver for connection with other intelligent building devices that use non-native protocols (available with Building Operation v1.8.1 and later versions).

| Part Number | Product Name | Description |
|---|---|---|
| Enterprise Central | | |
| **SXWSWECXX00005** | Enterprise Central - 5 | The Enterprise Central is the Windows® application that aggregates and archives data from up to 5 EcoStruxure Enterprise Servers |
| **SXWSWECXX00010** | Enterprise Central - 10 | The Enterprise Central is the Windows® application that aggregates and archives data from up to 10 EcoStruxure Enterprise Servers |
| Enterprise Server | | |
| **SXWSWESXX00010** | Enterprise Server - 10 | The Enterprise Server is the Windows® application that aggregates and archives data from up to 10 Servers |
| **SXWSWESXX00050** | Enterprise Server - 50 | The Enterprise Server is the Windows® application that aggregates and archives data from up to 50 Servers |
| **SXWSWESXX00100** | Enterprise Server - 100 | The Enterprise Server is the Windows® application that aggregates and archives data from up to 100 Servers |
| **SXWSWESXX00250** | Enterprise Server - 250 | The Enterprise Server is the Windows® application that aggregates and archives data from up to 250 Servers |
| **SXWSWASES00001** | ES Hosting AS Pack -1 | Allows the addition of one more Servers than were supported by the original Enterprise Server purchased |
| **SXWSWNDES00010** | ES Hosting AS Pack - 10 | Allows the addition of 10 more Servers than were supported by the original Enterprise Server purchased |
| **SXWSWNDES00005** | ES Hosted Node Pack - 5 | Allow the addition of 5 servers or controllers to any of the interfaces supported by the Enterprise Server |
| **SXWSWNDES00010** | ES Hosted Node Pack - 10 | Allow the addition of 10 servers or controllers to any of the interfaces supported by the Enterprise Server |
| **SXWSWNDES00025** | ES Hosted Node Pack - 25 | Allow the addition of 25 servers or controllers to any of the interfaces supported by the Enterprise Server |
| **SXWSWNDES00050** | ES Hosted Node Pack - 50 | Allow the addition of 50 servers or controllers to any of the interfaces supported by the Enterprise Server |
| **SXWSWNDES00100** | ES Hosted Node Pack - 100 | Allow the addition of 100 servers or controllers to any of the interfaces supported by the Enterprise Server |
| **SXWSWNDES00300** | ES Hosted Node Pack - 300 | Allow the addition of 300 servers or controllers to any of the interfaces supported by the Enterprise Server |
| **SXWSWNDES00600** | ES Hosted Node Pack - 600 | Allow the addition of 600 servers or controllers to any of the interfaces supported by the Enterprise Server |

* The Enterprise Server is BACnet B-OWS and B-BC certified; the testing for this certification included the use of EcoStruxure Building Operation WorkStation as the HMI.

# EcoStruxure™ Building Operation (continued)

| Part Number | Product Name | Description |
|---|---|---|
| Clients | | |
| SXWSWCLIENT0001 | Building Operation Client - 1 | Fully featured environment for operating and administering all aspects of the system – 1 seat |
| SXWSWCLIENT0005 | Building Operation Client - 5 | Fully featured environment for operating and administering all aspects of the system – 5 seats |
| SXWSWCLIENT0010 | Building Operation Client - 10 | Fully featured environment for operating and administering all aspects of the system – 10 seats |
| SXWSWCLIENT0025 | Building Operation Client - 25 | Fully featured environment for operating and administering all aspects of the system – 25 seats |
| SXWSWCLIENT0999 | Building Operation Client - unl | Fully featured environment for operating and administering all aspects of the system – Unlimited seats |
| Integration | | |
| SXWSWSDRV00001 | Smart Driver License | Allow "drivers" to be deployed, loaded and run on the Enterprise Server and the SpaceLogic Controller - AS-P |
| SXWSWSCDL100001 | Smart Connector Deployment License | Allows the Smart Connector application to be deployed to a single server |
| Engineering Tools | | |
| SXWSWWORK00002 | WorkStation Professional | A full environment for operating and engineering all aspects of EcoStruxure Building Operation |
| SXWSWEDIT00001 | Editors | An environment that provides the ability to edit graphics, script programs and function block programs. |
| Add-On Features | | |
| SXWSWSNMP00001 | SNMP Alarming | This option provides support for SNMP alarm traps v3.0 notifications on any EcoStruxure Building server. |
| SXWSWEWSX00001 | EWS 1 | A common integration method to other Schneider Electric systems and services. Consume |
| SXWSWEWSX00002 | EWS 2 | A common integration method to other Schneider Electric systems and services. Consume and serve |
| SXWSWEWSX00003 | EWS 3 | A common integration method to other Schneider Electric systems and services. Consume, serve and gather history |
| SXWSWGWSX00001 | GWS | An integration method to other systems and services |
| SXWSWDASH00001 | Personal Dashboards license | Enables Personal Dashboard feature on one Enterprise Server or Enterprise Central |
| SXWSWECDBTS001 | TimescaleDB connection license | Enables high capacity historical storage in TimescaleDB on one Enterprise Central |
| SXWSWESDBTS001 | TimescaleDB connection license | Enables high capacity historical storage in TimescaleDB on one Enterprise Server |
| SXWSWCMPLPK001 | Regulated-industry Compliance Pack | Set of features to assist in validation in a regulated environment |
| SXWSWECPDFSS01 | Building Operation PDF Sign EC | Enables PDF documents to be digitally signed at time of generation - EC |
| SXWSWESPDFSS01 | Building Operation PDF Sign ES | Enables PDF documents to be digitally signed at time of generation - ES |
| SXWSWMQTTSRW01 | MQTT - Read/Write - ES | Enterprise Server publishes data to MQTT broker |
| SXWSWESSDZR001 | Building Operation Zoning – ES | Enables zoning in one ES and connected AS |
| SXWSWSTDBAC002 | Semantic DB - Plus CPU Cores - 2 | Extends semantic graph database capacity with 2 additional CPU cores |
| SXWSWSTDBAC006 | Semantic DB - Plus CPU Cores - 6 | Extends semantic graph database capacity with 6 additional CPU cores |
| SXWSWSTDBEUAC2 | Semantic DB - External Use Plus Cores - 2 | Enables programmatic queries from external tools to semantic graph database and extends capacity with 2 additional CPU cores |
| SXWSWSTDBEUAC6 | Semantic DB - External Use Plus Cores - 6 | Enables programmatic queries from external tools to semantic graph database and extends capacity with 6 additional CPU cores |
| SXWSWECSAML001 | SAML Authentication - EC | Enables SAML 2.0 authentication on Enterprise Central |
| SXWSWESSAML001 | SAML Authentication - ES | Enables SAML 2.0 authentication on Enterprise Server and connected SpaceLogic Edge Servers |

(*) Only supported by Managed Device / BYOD Customized deployment method.

(**) Supported by Managed Device / BYOD Customized and Generic: this requires an unlimited devices deployment license.

# Functionality matrix

WorkStation Standard - WorkStation software without graphics editor, script and function block programming editors.
WorkStation Pro - WorkStation software including graphics editor, script and function block programming editors.
WebStation - Direct access to an Automation Server and/or Enterprise Server using a web browser.
WebReports - Direct access to the Reports Server using a web browser.

| | WorkStation Standard[1] | WorkStation Pro[2] | WebStation |
|---|---|---|---|
| **Semantics** | | | |
| Navigate, Search, Filter, View semantic descriptions | Yes | Yes | Yes |
| Create and edit semantic descriptions | Yes | Yes | |
| **Dashboards** | | | |
| View dashboards | | | Yes |
| Create and edit public dashboards | Yes[3] | Yes[3] | Yes |
| Create and edit personal dashboards | | | Yes |
| View slide shows | | | Yes |
| Create and edit slide shows | Yes | Yes | Yes |
| Develop custom dashboard components | | Yes | |
| **Zoning** | | | |
| Graphical management | | | Yes[4] |
| Textual management | Yes[4] | Yes[4] | Yes[4] |
| **Alarms** | | | |
| View alarms | Yes | Yes | Yes |
| Manage alarms | Yes | Yes | Yes |
| Edit alarms | Yes | Yes | Yes[5] |
| Create alarms | Yes | Yes | |
| Support for flashing and audible alarms | Yes | Yes | Yes |
| Create and edit alarm filters | Yes | Yes | Yes |
| View events | Yes | Yes | Yes |
| **BACnet™** | | | |
| View priority array | Yes | Yes | Yes |
| Edit priority array | Yes | Yes | Yes |
| Create devices (includes device discovery) | Yes | Yes | |
| Manage BACnet backup and restore | Yes | Yes | |
| **Graphics** | | | |
| View graphics | Yes | Yes | Yes |
| Create and edit graphics | | Yes | |
| View graphics that use client API | | | Yes |
| Create graphics that use client API | | Yes | |
| **Trend Logs and Extended Trend Logs** | | | |
| View trend logs | Yes | Yes | Yes |
| Edit trend logs | Yes | Yes | Yes[6] |
| Create trend logs | Yes | Yes | Yes[7] |
| View multi trend log lists | Yes | Yes | Yes |
| Create and edit multi trend log lists | Yes | Yes | Yes |
| Export multi trend log lists | Yes[8] | Yes[8] | Yes[9] |
| View extended trend logs | Yes | Yes | Yes |
| Edit extended trend logs | Yes | Yes | Yes |
| Create extended trend logs | Yes | Yes | |
| **LonWorks** | | | |
| Create devices (includes device discovery) | Yes | Yes | |
| Manage devices | Yes | Yes | |
| View Network Variables (NVs) and Configuration Parameters (CPs) | Yes | Yes | Yes |
| Edit NVs and CPs | Yes | Yes | Yes |
| **Modbus®** | | | |
| Create devices | Yes | Yes | |
| Manage devices | Yes | Yes | |
| View values | Yes | Yes | Yes |
| Edit values | Yes | Yes | Yes |

1. WorkStation software without Graphics Editor, Script Editor, and Function Block Editor.
2. WorkStation software including Graphics Editor, Script Editor, and Function Block Editor.
3. Non-visual editing only.
4. Requires add-on license
5. Can edit alarm ranges, text, delay times, shunt variables, assignments, and deadband.
6. Can only change parameters, for example, interval time.
7. Can only create interval trend log type.
8. Export to XML, CSV, and XLSX supported.
9. Export to XML and XLSX supported.

# Functionality matrix, continued

| | WorkStation Standard[1] | WorkStation Pro[2] | WebStation |
|---|---|---|---|
| **Point Values** | | | |
| View values | Yes | Yes | Yes |
| Edit values (for example, change a setpoint) | Yes | Yes | Yes |
| **Programs** | | | |
| Create and edit customised programs | | Yes | |
| View graphical function block viewer | Yes | Yes | |
| **Notification Reports** | | | |
| Create and edit reports | Yes | Yes | |
| **Schedules and Calendars** | | | |
| View schedules and calendars | Yes | Yes | Yes |
| Edit schedules and calendars | Yes | Yes | Yes[11] |
| Create schedules and calendars | Yes | Yes | |
| Create multi schedule views | Yes | Yes | Yes |
| Edit and manage schedules in multi schedule view | | | Yes |
| **Users and User Groups** | | | |
| Create and edit users | Yes | Yes | Yes[12] |
| Create and edit user group membership | Yes | Yes | Yes[12] |
| Create and edit user groups | Yes | Yes | |
| Create and edit permissions | Yes | Yes | |
| **User Experience** | | | |
| View customized workspaces | Yes | Yes | Yes |
| View customized navigation panes | Yes | Yes | Yes |
| Log on as Windows Active Directory user | Yes | Yes | Yes |
| Log on using SAML 2.0 authentication | | | Yes |
| Automatic guest account log on | Yes | Yes | Yes |
| Password management | Yes | Yes | Yes |
| View saved searches | Yes | Yes | Yes |
| Create saved searches | Yes | Yes | |
| Edit saved searches | Yes | Yes | Yes |
| Simple and advanced searches | Yes | Yes | Yes |
| Kiosk mode | | | Yes |
| Bookmark views (web page URLs) | | | Yes |
| Bookmark favorite pages | | | Yes |
| Support for localization | Yes | Yes | Yes |
| Support for translation | Yes | Yes | Yes |
| Ability to change language on the client side | Yes | Yes | Yes |
| Use personal layout and filter favorites | Yes | Yes | Yes |
| Create and edit personal layout and filter favorites | Yes | Yes | Yes |
| Support for Dark Mode | | | Yes |
| Support custom accent color | | | Yes |
| **Other** | | | |
| Configure and edit I/O points, field buses, and communication ports | Yes | Yes | |
| Create and edit logical structure | Yes | Yes | |
| Create and edit views, panels, workspaces, and navigation panes | Yes | Yes | |
| View and configure Watch pane | Yes | Yes | Yes |
| Administer backup and restore of database | Yes | Yes | |
| Manage archiving | Yes | Yes | |

1. WorkStation software without Graphics Editor, Script Editor, and Function Block Editor.
2. WorkStation software including Graphics Editor, Script Editor, and Function Block Editor.
10. Can edit some parameters per report, can save changes or make a copy of the report with changes.
11. Can edit only existing schedules and calendars.
12. Cannot assign permissions.
13. Excluding Graphics Editor, Script Editor, and Function Block Editor.

# SpaceLogic Server – AS-P

The SpaceLogic Server – AS-P is an EcoStruxure server device at the Edge Level of the architecture. With superior performance, the AS-P simplifies system integration and modernization, and is the preferred choice for large, complex enterprise applications.

The AS-P and AS-B feature dual Ethernet ports to elevate BACnet field bus communication to the IP level. Modernize the BMS while keeping in place legacy field buses and devices to future-ready current systems and move buildings into the 21st century!

| | AS-P | AS-P-NL | AS-P-SMK |
|---|---|---|---|
| **Part Number** | **SXWASPXXX10001** | **SXWASPXXX10002** | **SWXASPXXX1S001** |
| **Communications** | | | |
| **Communication Interface** | LonWorks FTT-10, BACnet/IP, BACnet MS/TP, Modbus TCP (Client+Server), Modbus serial (Master+Slave), EWS, Generic WebSevice consume | BACnet/IP, BACnet MS/TP, Modbus TCP (Client+Server), Modbus serial (Master+Slave), EWS, Generic WebSevice consume | LonWorks FTT-10, BACnet/IP, BACnet MS/TP, Modbus TCP (Client+Server), Modbus serial (Master+Slave), EWS, Generic WebSevice consume |
| **Software** | | | |
| **Programability** | Function Block/Script<br>Programmable | Function Block/Script<br>Programmable | Function Block/Script<br>Programmable |
| **Physical** | | | |
| **Dimensions** | 90 W x 114 H x 64 D mm (3.60 W x 4.50 H x 2.50 D in.) | 90 W x 114 H x 64 D mm (3.60 W x 4.50 H x 2.50 D in.) | 90 W x 114 H x 64 D mm (3.60 W x 4.50 H x 2.50 D in.) |
| **Weight (including baseplate)** | 0.245 kg (0.54 lb) | 0.245 kg (0.54 lb) | 0.245 kg (0.54 lb) |
| **Power** | | | |
| **Power** | 24 VDC | 24 VDC | 24 VDC |
| **Consumption** | 10 W | 10 W | 10 W |
| **Environmental** | | | |
| **Operating Range** | 0°C to 50°C (32°F to 122°F)<br>0-95% RH<br>(non-condensing) | 0°C to 50°C (32°F to 122°F)<br>0-95% RH<br>(non-condensing) | 0°C to 50°C (32°F to 122°F)<br>0-95% RH<br>(non-condensing) |
| **CPU Internals** | | | |
| **CPU** | SPEAr320S, ARM926 core | SPEAr320S, ARM926 core | SPEAr320S, ARM926 core |
| **Memory** | 4 GB | 4 GB | 4 GB |
| **Battery** | No | No | No |
| **Real time clock** | Yes -10 days backup/Super Capacitor | Yes -10 days backup/Super Capacitor | Yes -10 days backup/Super Capacitor |
| **External Features** | | | |
| **Enclosure rating** | Eco Friendly ABS/PC, UL94 5VB, IP 20 (<12.5 mm protection) | Eco Friendly ABS/PC, UL94 5VB, IP 20 (<12.5 mm protection) | Eco Friendly ABS/PC, UL94 5VB, IP 20 (<12.5 mm protection) |
| **HOA Switches (DO/AO)** | N/A | N/A | N/A |
| **Manual Override of Outputs** | N/A | N/A | N/A |
| **Digital Status LEDs** | Yes | Yes | Yes |
| **Service Port** | Yes | Yes | Yes |
| **Terminals** | | | |
| **I/O Expansion** | Yes - Up to 29 modules/464 max I/O | Yes - Up to 29 modules/464 max I/O | Yes - Up to 29 modules/464 max I/O |
| **External Enclosure/Mounting** | | | |
| **Mounting** | DIN-rail or wall mount | DIN-rail or wall mount | DIN-rail or wall mount |
| **Certifications** | | | |
| **BTL** | Yes | Yes | Yes |
| **FCC** | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) |
| **Industry Canda (IC)** | ICES-003 (Emission) | ICES-003 (Emission) | ICES-003 (Emission) |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes | Yes | Yes |
| **CE - EU** | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes | Yes |
| **RoHS Directive** | Yes | Yes | Yes |
| **RCM** | Yes | Yes | Yes |
| **US Patent** | 8 207 842, 8 271 102, 7 994 438 | 8 207 842, 8 271 102, 7 994 438 | 8 207 842, 8 271 102, 7 994 438 |
| **UL-864** | No | No | Yes |

*Notes: EcoStruxure solution installations or BMS transitions requiring UL-864 certifications must use the SpaceLogic Controller AS-P-SMK (listed above).

AS-P and AS-B conform to the BACnet® Building Controller (B-BC) profile at protocol revision 12 by the BACnet Testing Laboratories (BTL®). StruxureWare™ Building Operation v1.9 is the certified firmware revision.

# Power Supply and Module Terminal Bases

The PS-24V is a power supply module that accommodates 24 VAC or 24 VDC input power. Each power supply module delivers reliable and consistent output power of 24 VDC to the backplane. It can deliver power to the AS-P and a number of I/O modules calculated from the Power Budget Table (located below). If more I/O modules are needed, another power supply can be added to the bus. The power supplies are isolated from each other while also providing communication pass-through.

PS-24V
Automation Server Power Supply

| Part Number | Product Name | Description |
|---|---|---|
| SXWPS24VX10001 | PS-24V | Power Supply 24 VAC or 21-30 VDC |
| SXWTBPSW110001 | TB-PS-W1 | Terminal Base Power Supply (Terminal Base required for each power supply) |
| SXWTBASW110002 | TB-ASP-W1 | Terminal Base AS-P (Terminal base required for each AS-P) |
| SXWTBIOW110001 | TB-IO-W1 | Terminal Base I/O (Terminal Base required for each I/O module) |

I/O Module
Terminal Base and Module Detail

**NOTE:** An appropriate terminal base is required for each module, including the AS-P, Power Supply and I/O Modules. See the above table for the correct part numbers.

# Power Supply Selection Table

| Power Requirements | | |
|---|---|---|
| SpaceLogic Edge Server – AS-P | 24 VDC / 10 W | |
| SpaceLogic Edge Server – AS-B | 24 VDC / 10 W | 24 VAC / 15 VA |
| **Power Requirements - Input only I/O** | **24 VDC Power** | |
| DI-16 | 1.6 W | |
| RTD-DI-16 | 1.6 W | |
| UI-16 | 1.8 W | |
| **Power Requirements - Output only I/O** | **24 VDC Power** | |
| DO-FA-12 | 1.8 W | |
| DO-FA-12-H | 1.8 W | |
| DO-FC-8 | 2.2 W | |
| DO-FC-8-H | 2.2 W | |
| AO-8 | 4.9 W | |
| AO-8-H | 4.9 W | |
| AO-V-8 | 0.7 W | |
| AO-V-8-H | 0.7 W | |
| **Power Requirements - Mixed I/O** | **24 VDC Power** | |
| UI-8/DO-FC-4 | 1.9 W | |
| UI-8/DO-FC-4-H | 1.9 W | |
| UI-8/AO-4 | 3.2 W | |
| UI-8/AO-4-H | 3.2 W | |
| UI-8/AO-V-4 | 1.0 W | |
| UI-8/AO-V-4-H | 1.0 W | |

Please refer to the appropriate Data Sheets for more information.

# I/O Modules

The Automation Server includes support for a broad spectrum of I/O modules. The variety of modules available ensures the right combination of points for any project, which keeps costs down for our customers. Some modules are available with Hand/Off/Auto (HOA) switches to provide override control of the outputs.

UI-16
16 Channel Universal Input

DI-16
16 Channel Digital Input

AO-8, AO-8-H
8 Channel Analog Output

| | UI-16 | DI-16 | AO-8, AO-8-H |
|---|---|---|---|
| **Part Number** | **SXWUI16XX10001** | **SXWDI16XX10001** | **SXWAO8XXX10001, SXWAO8HXX10001** |
| **Physical** | | | |
| **Dimensions** | 90 W x 114 H x 64 D mm (3.60 W x 4.50 H x 2.50 D in.) | 90 W x 114 H x 64 D mm (3.60 W x 4.50 H x 2.50 D in.) | 90 W x 114 H x 64 D mm (3.60 W x 4.50 H x 2.50 D in.) |
| **Weight (including baseplate)** | 0.269 kg (0.59 lb.) | 0.255 kg (0.56 lb.) | 0.279 kg (0.62 lb.) |
| **Power** | | | |
| **Power** | 24 VDC | 24 VDC | 24 VDC |
| **Consumption** | 1.8 W | 1.6 W | 0.7 W |
| **Environmental** | | | |
| **Operating Range** | 0 °C to 50 °C (32 °F to 122 °F) 0-95% RH (non-condensing) | 0 °C to 50 °C (32 °F to 122 °F) 0-95% RH (non-condensing) | 0 °C to 50 °C (32 °F to 122 °F) 0-95% RH (non-condensing) |
| **External Features** | | | |
| **Enclosure rating** | Eco Friendly ABS/PC, UL94 5VB, IP 20 (<12.5 mm protection) | Eco Friendly ABS/PC, UL94 5VB, IP 20 (<12.5 mm protection) | Eco Friendly ABS/PC, UL94 5VB, IP 20 (<12.5 mm protection) |
| **HOA Switches (DO/AO)** | No | No | Available on -H model |
| **Digital Status LEDs** | Yes | Yes | No |
| **Service Port** | No | No | No |
| **Terminals** | | | |
| **I/O Terminals** | Terminal base | Terminal base | Terminal base |
| **External Enclosure/Mounting** | | | |
| **Mounting** | DIN-rail or wall mount | DIN-rail or wall mount | DIN-rail or wall mount |
| **Certifications** | | | |
| **FCC** | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) |
| **Industry Canada (IC)** | ICES-003 (Emission) | ICES-003 (Emission) | ICES-003 (Emission) |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) |
| **C-UL US** | No | No | No |
| **CE - EU** | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes | Yes |
| **RoHS Directive** | Yes | Yes | Yes |
| **RCM** | Yes | Yes | Yes |
| **US Patent** | 7 994 438 | 7 994 438 | 7 994 438 |

# I/O Modules, continued

AO-V-8 , AO-V-8-H
8 Channel Analog Output
Voltage Points

DO-FA-12 , DO-FA-12-H
12 Channel Digital Output,
Form-A

DO-FC-8, DO-FC-8-H
8 Channel Digital Output,
Form-C

| | AO-8-V,<br>AO-8-V-H | DO-FA-12,<br>DO-FA-12-H | DO-FC-8,<br>DO-FC-8-H |
|---|---|---|---|
| **Part Number** | **SXWAOV8XX10001,<br>SXWAOV8HX10001** | **SXWDOA12X10001,<br>SXWDOA12H10001** | **SXWDOC8XX10001,<br>SXWDOC8HX10001** |
| **Physical** | | | |
| **Dimensions** | 90 W x 114 H x 64 D mm<br>(3.60 W x 4.50 H x 2.50 D in.) | 90 W x 114 H x 64 D mm<br>(3.60 W x 4.50 H x 2.50 D in.) | 90 W x 114 H x 64 D mm<br>(3.60 W x 4.50 H x 2.50 D in.) |
| **Weight (including baseplate)** | 0.279 kg (0.62 lb.) | 0.317 kg (0.70 lb.) | 0.332 kg (0.73 lb.) |
| **Power** | | | |
| **Power** | 24 VDC | 24 VDC | 24 VDC |
| **Consumption** | 0.7 W | 1.8 W | 2.2 W |
| **Environmental** | | | |
| **Operating Range** | 0 °C to 50 °C (32 °F to 122 °F)<br>0-95% RH (non-condensing) | 0 °C to 50 °C (32 °F to 122 °F)<br>0-95% RH (non-condensing) | 0 °C to 50 °C (32 °F to 122 °F)<br>0-95% RH (non-condensing) |
| **External Features** | | | |
| **Enclosure rating** | Eco Friendly ABS/PC, UL94 5VB,<br>IP 20 (<12.5 mm protection) | Eco Friendly ABS/PC, UL94 5VB,<br>IP 20 (<12.5 mm protection) | Eco Friendly ABS/PC, UL94 5VB,<br>IP 20 (<12.5 mm protection) |
| **HOA Switches (DO/AO)** | Available on -H model | Available on -H model | Available on -H model |
| **Digital Status LEDs** | No | Yes | Yes |
| **Service Port** | No | No | No |
| **Terminals** | | | |
| **I/O Terminals** | Terminal base | Terminal base | Terminal base |
| **External Enclosure/Mounting** | | | |
| **Mounting** | DIN-rail or wall mount | DIN-rail or wall mount | DIN-rail or wall mount |
| **Certifications** | | | |
| **FCC** | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) |
| **Industry Canada (IC)** | ICES-003 (Emission) | ICES-003 (Emission) | ICES-003 (Emission) |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) |
| **C-UL US** | No | No | Yes |
| **CE - EU** | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes | Yes |
| **RoHS Directive** | Yes | Yes | Yes |
| **RCM** | Yes | Yes | Yes |
| **US Patent** | 2002/96/EC | 2002/96/EC | 2002/96/EC |

# I/O Modules, continued

UI-8/AO-4, UI-8/AO-4-H
8 Channel Universal Inputs with 4 Analog Outputs

UI-8/AO-V-4, UI-8/AO-V-4-H
8 Channel Universal Inputs with 4 Channel Voltage Outputs
(UI-8/AO-V-4-H shown)

UI-8/DO-FC-4, UI-8/DO-FC-4-H
8 Channel Universal Inputs with 4 Channel Digital Outputs, Form-C

| | UI-8/AO-4, UI-8/AO-4-H | UI-8/AO-V-4, UI-8/AO-V-4-H | UI-8/DO-FC-4, UI-8/DO-FC-4-H |
|---|---|---|---|
| **Part Number** | **SXWUI8A4X10001, SXWUI8A4H10001** | **SXWUI8V4X10001, SXWUI8V4H10001** | **SXWUI8D4X10001, SXWUI8D4H10001** |
| **Physical** | | | |
| **Dimensions** | 90 W x 114 H x 64 D mm (3.60 W x 4.50 H x 2.50 D in.) | 90 W x 114 H x 64 D mm (3.60 W x 4.50 H x 2.50 D in.) | 90 W x 114 H x 64 D mm (3.60 W x 4.50 H x 2.50 D in.) |
| **Weight (including baseplate)** | 0.276 kg (0.61 lb.) | 0.276 kg (0.61 lb.) | 0.304 kg (0.67 lb.) |
| **Power** | | | |
| **Power** | 24 VDC | 24 VDC | 24 VDC |
| **Consumption** | 3.2 W | 1.0 W | 1.9 W |
| **Environmental** | | | |
| **Operating Range** | 0 °C to 50 °C (32 °F to 122 °F) 0-95% RH (non-condensing) | 0 °C to 50 °C (32 °F to 122 °F) 0-95% RH (non-condensing) | 0 °C to 50 °C (32 °F to 122 °F) 0-95% RH (non-condensing) |
| **External Features** | | | |
| **Enclosure rating** | Eco Friendly ABS/PC, UL94 5VB, IP 20 (<12.5 mm protection) | Eco Friendly ABS/PC, UL94 5VB, IP 20 (<12.5 mm protection) | Eco Friendly ABS/PC, UL94 5VB, IP 20 (<12.5 mm protection) |
| **HOA Switches (DO/AO)** | Available on -H model | Available on -H model | Available on -H model |
| **Digital Status LEDs** | Yes | Yes | Yes |
| **Service Port** | No | No | No |
| **Terminals** | | | |
| **I/O Terminals** | Terminal base | Terminal base | Terminal base |
| **External Enclosure/Mounting** | | | |
| **Mounting** | DIN-rail or wall mount | DIN-rail or wall mount | DIN-rail or wall mount |
| **Certifications** | | | |
| **FCC** | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) |
| **Industry Canada (IC)** | ICES-003 (Emission) | ICES-003 (Emission) | ICES-003 (Emission) |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes | Yes | Yes |
| **CE - EU** | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes | Yes |
| **RoHS Directive** | Yes | Yes | Yes |
| **RCM** | Yes | Yes | Yes |
| **US Patent** | 7 994 438 | 7 994 438 | 7 994 438 |

# I/O Modules, continued

RTD-DI-16
16 Channel Inputs (RTD and Digital) Combination Module

| | RTD-DI-16 |
|---|---|
| **Part Number** | **SXWRTD16X10001** |
| **Physical** | |
| **Dimensions** | 90 W x 114 H x 64 D mm (3.60 W x 4.50 H x 2.50 D in.) |
| **Weight (including baseplate)** | 0.269 kg (0.59 lb.) |
| **Power** | |
| **Power** | 24 VDC |
| **Consumption** | 1.6 W |
| **Environmental** | |
| **Operating Range** | 0 °C to 50 °C (32 °F to 122 °F) 0-95% RH (non-condensing) |
| **External Features** | |
| **Enclosure rating** | Eco Friendly ABS/PC, UL94 5VB, IP 20 (<12.5 mm protection) |
| **HOA Switches (DO/AO)** | No |
| **Digital Status LEDs** | Yes |
| **Service Port** | No |
| **Terminals** | |
| **I/O Terminals** | Terminal base |
| **External Enclosure/Mounting** | |
| **Mounting** | DIN-rail or wall mount |
| **Certifications** | |
| **FCC** | 47 CFR § 15, Class B (Emission) |
| **Industry Canada (IC)** | ICES-003 (Emission) |
| **UL** | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes |
| **CE - EU** | Yes |
| **WEEE - Directive of the European Union** | Yes |
| **RoHS Directive** | Yes |
| **RCM** | Yes |
| **US Patent** | 7 994 438 |

# I/O Modules – Inputs and Outputs

| | UI-16 | DI-16 | AO-8, AO-8-H | AO-8-V, AO-8-V-H | DO-FA-12, DO-FA-12-H | DO-FC-8, DO-FC-8-H |
|---|---|---|---|---|---|---|
| **Part Number** | SXWUI16XX10001 | SXWDI16XX10001 | SXWAO8XXX10001, SXWAO8HXX10001 | SXWAOV8XX10001, SXWAOV8HX10001 | SXWDOA12X10001, SXWDOA12H10001 | SXWDOC8XX10001, SXWDOC8HX10001 |
| **Universal Inputs** | 16 | | | | | |
| **Digital Contact** | • | | | | | |
| **Digital Counter - Low Speed** | | | | | | |
| **Digital Counter - Medium Speed** | • | | | | | |
| **Digital Counter - High Speed** | | | | | | |
| **Digital Supervised** | • | | | | | |
| **Analog Voltage - 0-1 V** | • | | | | | |
| **Analog Voltage - 0-5 V** | • | | | | | |
| **Analog Voltage - 0-10 V** | • | | | | | |
| **Analog Voltage - 2-10 V** | • | | | | | |
| **Analog Current - 0-20 mA** | • | | | | | |
| **Analog Current - 4-20 mA** | • | | | | | |
| **Analog Resistance** | • | | | | | |
| **Analog Thermistor - 10 k** | • | | | | | |
| **Analog Thermistor - 1.8 k** | • | | | | | |
| **Analog Thermistor - 1 k** | • | | | | | |
| **Analog Thermistor - 20 k** | • | | | | | |
| **Analog Thermistor - 2.2 k** | • | | | | | |
| **Analog RTD - Pt100** | | | | | | |
| **Analog RTD - Pt1000** | | | | | | |
| **Analog RTD - Ni1000** | | | | | | |
| **Analog RTD - LG Ni1000** | | | | | | |
| **Digital Inputs** | | 16 | | | | |
| **Digital Contact** | | • | | | | |
| **Counter - Low Speed** | | | | | | |
| **Counter - Medium Speed** | | • | | | | |
| **Counter - High Speed** | | | | | | |
| **Digital Outputs** | | | | | 12 | 8 |
| **Form A, SPST** | | | | | • | |
| **Form C, SPDT** | | | | | | • |
| **Triac** | | | | | | |
| **Analog Outputs** | | | 8 | 8 | | |
| **Voltage - 0-10 V** | | | • | • | | |
| **Current - 0-20 mA** | | | • | | | |

# I/O Modules – Inputs and Outputs, continued

| | UI-8/AO-4, UI-8/AO-4-H | UI-8/AO-V-4, UI-8/AO-V-4-H | UI-8/DO-FC-4, UI-8/DO-FC-4-H | RTD-DI-16 |
|---|---|---|---|---|
| **Part Number** | SXWUI8A4X10001, SXWUI8A4H10001 | SXWUI8V4X10001, SXWUI8V4H10001 | SXWUI8D4X10001, SXWUI8D4H10001 | SXWRTD16X10001 |
| **Universal Inputs** | 8 | 8 | 8 | 16* |
| **Digital Contact** | • | • | • | • |
| **Digital Counter - Low Speed** | | | | |
| **Digital Counter - Medium Speed** | • | • | • | • |
| **Digital Counter - High Speed** | | | | |
| **Digital Supervised** | • | • | • | |
| **Analog Voltage - 0-1 V** | • | • | • | |
| **Analog Voltage - 0-5 V** | • | • | • | |
| **Analog Voltage - 0-10 V** | • | • | • | |
| **Analog Voltage - 2-10 V** | • | • | • | |
| **Analog Current - 0-20 mA** | • | • | • | |
| **Analog Current - 4-20 mA** | • | • | • | |
| **Analog Resistance** | • | • | • | • |
| **Analog Thermistor - 10 k** | • | • | • | |
| **Analog Thermistor - 1.8 k** | • | • | • | |
| **Analog Thermistor - 1 k** | • | • | • | |
| **Analog Thermistor - 20 k** | • | • | • | |
| **Analog Thermistor - 2.2 k** | • | • | • | |
| **Analog RTD - Pt100** | | | | • |
| **Analog RTD - Pt1000** | | | | • |
| **Analog RTD - Ni1000** | | | | • |
| **Analog RTD - LG Ni1000** | | | | • |
| **Digital Inputs** | | | | |
| **Digital Contact** | | | | |
| **Counter - Low Speed** | | | | |
| **Counter - Medium Speed** | | | | |
| **Counter - High Speed** | | | | |
| **Digital Outputs** | | | 4 | |
| **Form A, SPST** | | | | |
| **Form C, SPDT** | | | • | |
| **Triac** | | | | |
| **Analog Outputs** | 4 | 4 | | |
| **Voltage - 0-10 V** | • | • | | |
| **Current - 0-20 mA** | • | | | |

# SpaceLogic Edge Server – AS-B

The SpaceLogic Edge Server – AS-B is the most compact, all-in-one BMS. It features flexible on-board universal I/O configurations and built-in power supply. An EcoStruxure server device, its powerful, compact design is ideal for small-to-medium main plant control applications. It offers lower total installation costs.

Note: Screw terminal blocks for the AS-B are now delivered with the controller. Spare is available. See accessories section on page E16.

| | AS-B-24P and AS-B-24H-P | AS-B-36-P and AS-B-36H-P |
|---|---|---|
| **Part Number** | **SXWASB24(X,H)10001, SXWASB24PX10001, SXWASB24HP10001 (hardware only, software not included)** | **SXWASB36(X,H)10001, SXWASB36PX10001, SXWASB36HP10001 (hardware only, software not included)** |
| **Communications** | | |
| **Communication Interface** | BACnet/IP, BACnet MS/TP, Modbus TCP (Client+Server), Modbus serial (Master+Slave), EWS, Generic WebSevice consume | BACnet/IP, BACnet MS/TP, Modbus TCP (Client+Server), Modbus serial (Master+Slave), EWS, Generic WebSevice consume |
| **Software** | | |
| **Programmability** | Function Block/Script Programmable | Function Block/Script Programmable |
| **Physical** | | |
| **Dimensions** | 198 W x 110 H x 64 D mm (7.8 W x 4.3 H x 2.5 D in.) | 198 W x 110 H x 64 D mm (7.8 W x 4.3 H x 2.5 D in.) |
| **Weight (including baseplate)** | 0.504 kg (1.111 lb) | 0.504 kg (1.111 lb) |
| **Power** | | |
| **Power** | 24 VAC/DC | 24 VAC/DC |
| **Consumption** | 10 W | 10 W |
| **Environmental** | | |
| **Operating Range** | 0°C to 50°C (32°F to 122°F) 0-95% RH (non-condensing) | 0°C to 50°C (32°F to 122°F) 0-95% RH (non-condensing) |
| **CPU Internals** | | |
| **CPU** | SPEAr320S, ARM926 core | SPEAr320S, ARM926 core |
| **Memory** | 4 GB | 4 GB |
| **Battery** | No | No |
| **Real time clock** | Yes -10 days backup/Super Capacitor | Yes -10 days backup/Super Capacitor |
| **External Features** | | |
| **Enclosure rating** | Eco Friendly ABS/PC, UL94 5VB, IP 20 (<12.5 mm protection) | Eco Friendly ABS/PC, UL94 5VB, IP 20 (<12.5 mm protection) |
| **HOA Switches (DO/AO)** | N/A | N/A |
| **Manual Override of Outputs** | Yes - On 'H' model | Yes - On 'H' model |
| **Digital Status LEDs** | Yes | Yes |
| **Service Port** | Yes | Yes |
| **Terminals** | | |
| **I/O Expansion** | No | No |
| **External Enclosure/Mounting** | | |
| **Mounting** | DIN-rail or wall mount | DIN-rail or wall mount |
| **Certifications** | | |
| **BTL** | Yes | Yes |
| **FCC** | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) |
| **Industry Canada (IC)** | ICES-003 (Emission) | ICES-003 (Emission) |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes | Yes |
| **CE - EU** | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes |
| **RoHS Directive** | Yes | Yes |
| **RCM** | Yes | Yes |
| **US Patent** | 8 207 842, 8 271 102, 7 994 438 | 8 207 842, 8 271 102, 7 994 438 |

*Notes: EcoStruxure Building installations or BMS transitions requiring UL-864 certifications must use the SpaceLogic Server AS-P-SMK (see page E6).

AS-P and AS-B conform to the BACnet® Building Controller (B-BC) profile at protocol revision 12 by the BACnet Testing Laboratories (BTL®). EcoStruxure™ Building Operation v1.9 is the certified firmware revision.

# SpaceLogic Server – AS-B – Inputs and Outputs

| | AS-B-24-P and AS-B-24H-P | AS-B-36-P and AS-B-24H-P |
|---|---|---|
| **Part Number** | **SXWASB24(X,H)10001, SXWASB24PX10001, SXWASBHP10001** | **SXWASB36(X,H)10001, SXWASB36PX10001, SXWASB36HP10001** |
| **Universal Inputs/Outputs** | 12-Ua 4-Ub | 20-Ua 8-Ub |
| **Digital Contact** | Ua/Ub | Ua/Ub |
| **Digital Counter - Low Speed** | | |
| **Digital Counter - Medium Speed** | • | • |
| **Digital Counter - High Speed** | | |
| **Digital Supervised** | Ua/Ub | Ua/Ub |
| **Analog Voltage - 0-1V** | Ua/Ub | Ua/Ub |
| **Analog Voltage - 0-5V** | Ua/Ub | Ua/Ub |
| **Analog Voltage - 0-10V** | Ua/Ub | Ua/Ub |
| **Analog Voltage - 2-10V** | Ua/Ub | Ua/Ub |
| **Analog Current - 0-20mA** | Ub | Ub |
| **Analog Current - 4-20mA** | Ub | Ub |
| **Analog Resistance** | Ua/Ub | Ua/Ub |
| **Analog Thermistor - 10k** | Ua/Ub | Ua/Ub |
| **Analog Thermistor - 1.8k** | Ua/Ub | Ua/Ub |
| **Analog Thermistor - 1k** | Ua/Ub | Ua/Ub |
| **Analog Thermistor - 20k** | Ua/Ub | Ua/Ub |
| **Analog Thermistor - 2.2k** | Ua/Ub | Ua/Ub |
| **Analog RTD - Pt100** | | |
| **Analog RTD - Pt1000** | Ua/Ub | Ua/Ub |
| **Analog RTD - Ni1000** | Ua/Ub | Ua/Ub |
| **Analog RTD - LG Ni1000** | Ua/Ub | Ua/Ub |
| **Digital Inputs** | 4 | |
| **Digital Contact** | • | |
| **Counter - Low Speed** | | |
| **Counter - Medium Speed** | | |
| **Counter - High Speed** | | |
| **Digital Outputs** | 4 | 8 |
| **Form A, SPST** | • | 4 |
| **Form C, SPDT** | | |
| **PWM** | • | • |
| **Triac** | | 4 |

Key:
Ua – Universal Type A
Ub – Universal Type B
I – Input
O – Output

Automation Server Family of Modules

# Accessories

The following accessories are available for the Automation Server Family of modules.

| Part Number | Product Name | Description |
|---|---|---|
| **SXWDINEND10001** | DIN-RAIL-CLIP-25 | DIN-Rail End Clip, package of 25 pieces |
| **SXWTERLBL10011** | PRINTOUT-A4-W1 | A4-Size blank printable adhesive label sheets for terminals (100 Sheets, 18 labels per Sheet) |
| **SXWTERLBL10012** | PRINTOUT-LTR-W1 | Letter-size blank printable adhesive label sheets for terminals (100 Sheets, 16 labels per Sheet) |
| **SXWSCABLE10002** | S-CABLE-L-1.5M | S-Cable extension cord for Automation Server I/O bus, L shaped connectors, 1.5 m |
| **SXWSCABLE10003** | S-CABLE-L-0.75M | S-Cable extension cable for Automation Server I/O bus, L-shaped connectors, 0.75 m |
| **SXWASBINS10001** | AS-B installer kit | Dummy unit, no electronics, just terminals. Supports easy wiring in the panel shop |
| **SXWASBCON10001** | AS-B Connector Kit | Spare screw terminals for all AS-B models |
| **SXWUSBADP10001** | USB-485-INET Interface Adapter | I/NET Adapter: Seperate hardware component, added to a SpaceLogic Controller - AS-P or Automation Server |

## SpaceLogic Edge Server add-on options

Add-on option part numbers are required to activate certain features. SpaceLogic Servers require an embedded license to activate features. An embedded license is not interchangeable with a Windows license.

| Part Number | Product Name | Description |
|---|---|---|
| SXWSWSNMPX0001 | EBO SNMP Alarming - SpaceLogic | Alarm notifications via SNMP – SpaceLogic Server |
| SXWSWEWSXX0001 | EBO WS EWS Consume - SpaceLogic | EcoStruxure Web Services (run-time) option – Consume only – SpaceLogic Server |
| SXWSWEWSXX0002 | EBO WS EWS C+Serve - SpaceLogic | EcoStruxure Web Services (run-time) option – Serve & Consume – SpaceLogic Server |
| SXWSWEWSXX0003 | EBO WS EWS C+S+Hist - SpaceLogic | EcoStruxure Web Services (run-time) option – Serve & Consume, plus Historical trend log data – SpaceLogic Server |
| SXWSWGWSXX0001 | EBO WS Gen Consume - SpaceLogic | Web Services (Generic Consume) option – SpaceLogic Server |
| SXWSWDASHX0001 | Personal Dashboards - SpaceLogic | Built-in dashboard functionality which enables users to create their own pages to get an overview of how buildings perform – SpaceLogic Server |
| SXWSWASDBXS001 | Timescale DB Option - SpaceLogic | Integration of an open, external SQL database for long term data and audit trail storage – SpaceLogic Server |
| SXWSWMQTTXRW01 | MQTT - Read/Write - SpaceLogic | SpaceLogic Server publishes data to MQTT broker |
| SXWSWASSAML001 | SAML Authentication - SpaceLogic server | Enables SAML 2.0 authentication on one SpaceLogic Edge Server |

* An embedded client license that will be activated on a SpaceLogic Server will always allow for the operation of a WebStation only. In order for WorkStation to operate it must have access to a Windows license on a PC that is running a Windows OS. Since WorkStation software requires a Windows operating system, then the license might be installed on the same PC or it might make use of a demo license.

## SpaceLogic User Interfaces (HMIs)

### SpaceLogic Advanced Display

Portable or permanent-mount tablet HMI (10.1-inch) specifically configured to interact with EcoStruxure Building user interfaces. Purpose-built on an Android 8.1 platform.

| Part Number | Product Name | Description |
|---|---|---|
| SXWADBUND10003 | Advanced Display 10.1-inch Bundle | |
| SXWADWIFI10001 | AD v3 Wi-Fi Module | |
| SXWADUSBC10001 | USB-C cable, Straight, 2.4m (7.87 ft) - Only for use with Wi-Fi module | |
| SXWADUSBC10002 | USB cable, Y-shaped, 1.35m (4.43 ft) | |
| SXWADUSBC10003 | USB cable, Y-shaped, 2.85m (9.35 ft) | |

### SpaceLogic Operator Display

This 7-inch panel mounted touch screen interface for SpaceLogic controllers is specifically designed for local monitoring of building controllers in equipment rooms.

| Part Number | Product Name | Description |
|---|---|---|
| HMIST6400SL | Operator Display 7-inch bundle (includes HMI device, installation gasket, installation fasteners, and power supply connectors) | |
| HMIZS53W1 | Installation gasket (1 piece) | |
| HMIZSFIXTF1 | Installation fasteners (2 pieces/set) | |
| XBTZ3004 | Power supply connector fro small panels (10 pieces/set) | |

## Wireless Connectivity

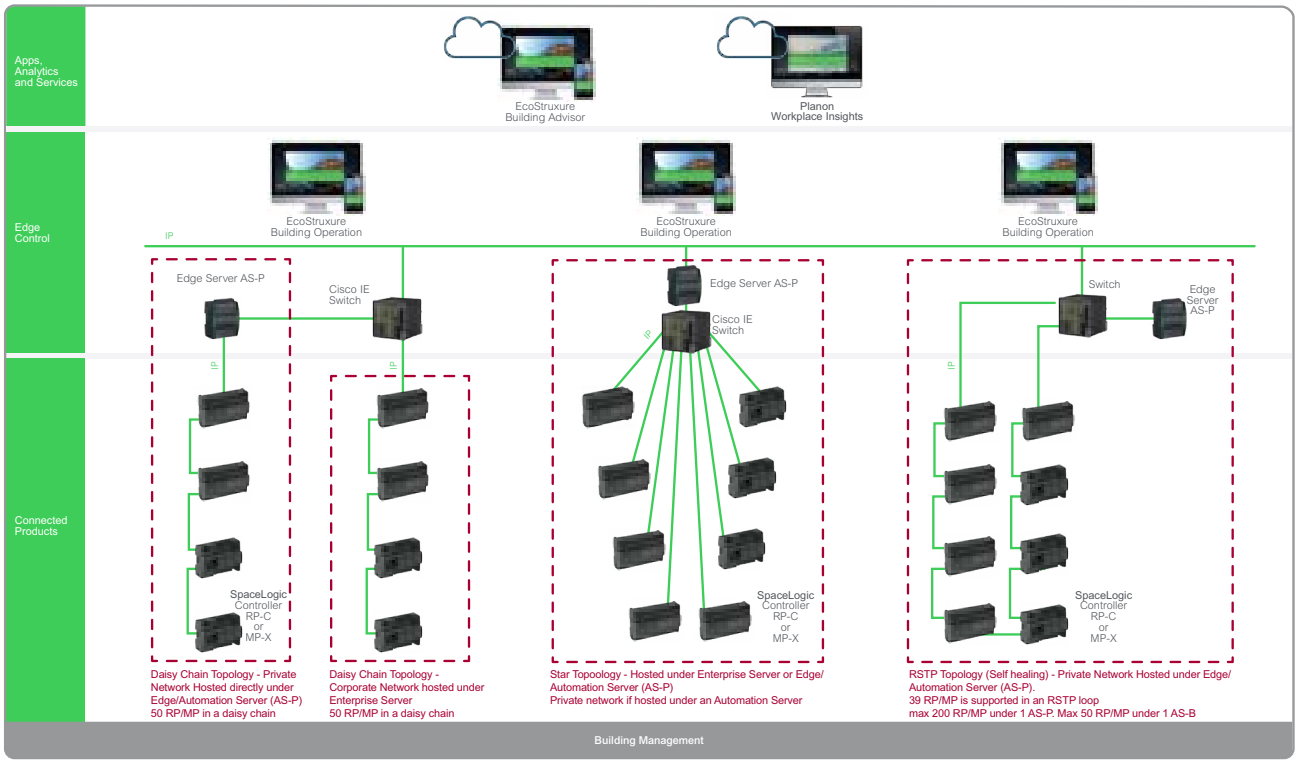
USB-based wireless adapter that enables Zigbee™ wireless connectivity for SpaceLogic Servers and SpaceLogic Controllers.

| Part Number | Product Name | Description |
|---|---|---|
| SXWZBAUSB10001 | ZB-A-USB | SpaceLogic Zigbee Adapter for the AS-P, AS-B and RP Series controllers |
| SXWUSBCRA10001 | USB-CRA | USB adapter plastic mounting cradle and wall plate |
| SXWUSBCBL10001 | USB-CBL-1 | USB Extension Cable of Length 1 m (3 ft) |
| SXWUSBCBL10002 | USB-CBL-3 | Plenum rated USB Extension Cable of Length 3 m (10 ft) |

## EcoStruxure™ Building

### Powered by EcoStruxure™ Building Operation

**End-to-end IP Architecture Options**




Schneider Electric and Cisco® together have developed, tested and validated this building system design to provide customers with confidence in knowing that their systems will securely connect to an end-to-end IP network with a resilient architecture that is easy to manage.

Life Is On Schneider Electric

# EcoStruxure
# Connected Room Solutions

Create engaging environments with personalized comfort and increased operational and energy efficiency, which are essential in today's connected world. Connected Room Solutions feature a modular BACnet/IP Controller, the SpaceLogic Controller RP-C with native web services and Bluetooth capabilities for control of HVAC, lights and blinds. Built on a flexible architecture, the RP-C provides a consistent IP story across the building together with our existing network and field level controllers. Complementary offers include the Engage employee mobile app, SpaceLogic Living Space Sensors, and EcoStruxure eCommission Building Mobile App.

# SpaceLogic IP Controller
## RP-C

Room Purpose Controller RP-C gives occupants the ability to control the room environment and personalize comfort while serving as a data hub for IoT devices. It leverages the latest wireless technologies as well as web services via the RESTful API for easy integration of IoT devices and fast installation. It is built on a flexible architecture that enables deployment with EcoStruxure Building Operation or any BMS.

# SpaceLogic Controllers – RP-C Advanced

The RP-C controllers are designed for fan coil, chilled beam and ceiling based systems. When used in combination with a variety of expansion modules, the controller can used for state-of-the-art lighting and blind control. These scalable and secure BACnet IP-based room controllers enable Connected Room Solutions. With an open IoT hub, it meets customers' future needs, including light and blind control and easy re-zoning. Also save time by managing commissioning conveniently with the EcoStruxure Building Commission mobile app.

SpaceLogic Controller – RP-C Advanced

SpaceLogic Controller – RP-C Advanced with external terminal cover

| | RP-C-12A-F-24V | RP-C-12B-F-24V | RP-C-12C-F-24V | RP-C-16A-F-230V |
|---|---|---|---|---|
| **Part Number** | SXWRCF12A10001 | SXWRCF12B10001 | SXWRCF12C10001 | SXWRCF16A10002 |
| **Communications** | | | | |
| **Communication Interface** | BACnet/IP, BTL B-AAC | BACnet/IP, BTL B-AAC | BACnet/IP, BTL B-AAC | BACnet/IP, BTL B-AAC |
| **Software** | | | | |
| **Programability** | Function Block/Script Programmable | Function Block/Script Programmable | Function Block/Script Programmable | Function Block/Script Programmable |
| **Physical** | | | | |
| **Dimensions** | 180 W x 110 H x 64 D mm (7.1 W x 4.3 H x 2.5 D in.) | 180 W x 110 H x 64 D mm (7.1 W x 4.3 H x 2.5 D in.) | 180 W x 110 H x 64 D mm (7.1 W x 4.3 H x 2.5 D in.) | 180 W x 110 H x 64 D mm (7.1 W x 4.3 H x 2.5 D in.) |
| **Weight (including terminal blocks)** | 0.370 kg (0.816 lb) | 0.390 kg (0.86 lb) | 0.390 kg (0.86 lb) | 0.720 kg (1.587 lb) |
| **Power** | | | | |
| **Power** | 24 VAC/DC | 24 VAC/DC | 24 VAC/DC | 230 VAC |
| **Consumption** | 23 VA | 23 VA | 23 VA | 65 VA |
| **Environmental** | | | | |
| **Operating Range** | 0°C to 50°C (32°F to 122°F) -40°C to 60°C (-40°F to 140°F) for rooftop | 0°C to 50°C (32°F to 122°F) -40°C to 60°C (-40°F to 140°F) for rooftop | 0°C to 50°C (32°F to 122°F) -40°C to 60°C (-40°F to 140°F) for rooftop | 0°C to 50°C (32°F to 122°F) |
| **Internals** | | | | |
| **CPU** | ARM Cortex-A7 single-core | ARM Cortex-A7 single-core | ARM Cortex-A7 single-core | ARM Cortex-A7 single-core |
| **On-board Bluetooth Low Energy** | Yes | Yes | Yes | Yes |
| **Battery** | No | No | No | No |
| **Real time clock** | Yes -7 days | Yes -7 days | Yes -7 days | Yes -7 days |
| **External Features** | | | | |
| **Enclosure rating** | UL94 5VB, Plenum rated, IP 20 (<12.5 mm protection) | UL94 5VB, Plenum rated, IP 20 (<12.5 mm protection) | UL94 5VB, Plenum rated, IP 20 (<12.5 mm protection) | UL94 5VB, IP 20 (<12.5 mm protection) |
| **Manual Override of Outputs** | No | No | No | No |
| **Optional cover** | Yes | Yes | Yes | Yes |
| **Intelligent Sensors** | SpaceLogic Living Space Sensors | SpaceLogic Living Space Sensors | SpaceLogic Living Space Sensors | SpaceLogic Living Space Sensors |
| **Sensor Bus** | Yes | Yes | Yes | Yes |
| **Room Bus** | Yes | Yes | Yes | Yes |
| **Terminals** | | | | |
| **I/O terminals** | Screw terminals | Screw terminals | Screw terminals | Screw terminals |
| **External Enclosure/Mounting** | | | | |
| **Mounting** | DIN-rail or wall mount | DIN-rail or wall mount | DIN-rail or wall mount | DIN-rail or wall mount |
| **Certifications** | | | | |
| **BTL** | Yes | Yes | Yes | Yes |
| **FCC** | 47 CFR §15, Subpart A and C, Class B (Emission) | 47 CFR §15, Subpart A and C, Class B (Emission) | 47 CFR §15, Subpart A and C, Class B (Emission) | No |
| **REACH** | Yes | Yes | Yes | Yes |
| **Innovation, Science and Economic Development Canada (ISED)** | Class B (Emission) | Class B (Emission) | Class B (Emission) | No |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Open Energy Management Equipment) | UL-916 (Open Energy Management Equipment) | No |
| **C-UL US** | Yes | Yes | Yes | No |
| **CE - EU** | Yes | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes | Yes | Yes |
| **RoHS Directive** | Yes | Yes | Yes | Yes |
| **RCM** | Yes | Yes | Yes | Yes |
| **eu.bac** | No | No | No | Yes |

All eu.bac certified products are found on the eu.bac web site www.eubaccert.eu

## SpaceLogic Controllers RP-C Advanced – Inputs and Outputs

| | RP-C-12A-F-24V | RP-C-12B-F-24V | RP-C-12C-F-24V | RP-C-16A-F-230V |
|---|---|---|---|---|
| **Part Number** | **SXWRCF12A10001** | **SXWRCF12B10001** | **SXWRCF12C10001** | **SXWRCF16A10002** |
| **Universal Inputs/Outputs** | 8-Ub | 8-Ub | 4-Ub | 8-Ub |
| **Digital Input** | Ub | Ub | Ub | Ub |
| **Counter Input** | Ub | Ub | Ub | Ub |
| **Supervised Input** | Ub | Ub | Ub | Ub |
| **Voltage Input (0-10 VDC)** | Ub | Ub | Ub | Ub |
| **Resistive Input** | Ub | Ub | Ub | Ub |
| **Current Input (0-20 mA)** | Ub | Ub | Ub | Ub |
| **Temperature Input** | Ub | Ub | Ub | Ub |
| **2-wire RTD Temperature Input** | Ub | Ub | Ub | Ub |
| **Thermistor Input - 10k** | Ub | Ub | Ub | Ub |
| **Thermistor Input - 1.8k** | Ub | Ub | Ub | Ub |
| **Thermistor Input - 1k** | Ub | Ub | Ub | Ub |
| **Thermistor Input - 20k** | Ub | Ub | Ub | Ub |
| **Thermistor Input - 2.2k** | Ub | Ub | Ub | Ub |
| **RTD Temp Input - Ni1000** | Ub | Ub | Ub | Ub |
| **RTD Temp Input - Pt1000** | Ub | Ub | Ub | Ub |
| **RTP Temp Input - LG-Ni1000** | Ub | Ub | Ub | Ub |
| **Voltage Output (0-10 VDC)** | Ub | Ub | Ub | Ub |
| **Digital Outputs** | | | | |
| **Solid-state Relay Output (MOSFET)** | 4 | | 4 | 4 |
| **Relay Output (Form A)** | | 3 | 3 | 3 |
| **High Power Relay Output (Form C)** | | 1 | 1 | 1 |

Key: Ub – Universal Type B

## SpaceLogic Controllers RP-C – Accessories

The following accessories are available for the SpaceLogic IP Controller – RP-C Advanced.

| Part number | Product Name | Description |
|---|---|---|
| SXWRPCCOV10001 | RP-C external terminal covers | Optional external covers for RP-C HVAC |

RP-C Advanced with optional covers

## Wireless Connectivity

USB-based wireless adapter that enables Zigbee™ wireless connectivity for SpaceLogic Servers and Controllers.

| Part Number | Product Name | Description |
|---|---|---|
| SXWZBAUSB10001 | ZB-A-USB | Zigbee Adapter for the AS-P, AS-B and RP Series controllers |
| SXWUSBCRA10001 | USB-CRA | USB adapter plastic mounting cradle and wall plate |
| SXWUSBCBL10001 | USB-CBL-1 | USB Extension Cable of Length 1 m (3 ft) |
| SXWUSBCBL10002 | USB-CBL-3 | Plenum rated USB Extension Cable of Length 3 m (10 ft) |

Zigbee Adapter

## SpaceLogic Sensors

Communicating sensors for SpaceLogic IP Controllers with the EcoStruxure Building Operation user interface. These sensors use an RJ-45 sensor bus that provides communication and power from the controller. For quick installation, up to four SpaceLogic sensors may be connected to each IP controller through the RJ-45 sensor bus using Cat 5/6 cable (22 to 26 AWG). A Bluetooth® adapter is available for commissioning and service. It is temporarily connected to installed communicating sensors and allows for quick setup and configuration. The Bluetooth adapter communicates to upload devices (smart phone, laptop, table, etc.) with the Living Space Sensor EcoStruxure Building Operation app installed via USB or Bluetooth communications. These sensors support light, blind and scene control when used with Connected Room Solutions.

SpaceLogic Living Space Sensors are modular and ordered in two parts: the sensor base and the cover. Four SpaceLogic communicating sensor base models are available that can be paired with any SpaceLogic cover model. CO2, Relative Humidity, and Temperature sensor base options provide an efficient, cost effective solution for living space air quality and comfort needs. Covers are available with a 61 mm (2.4") backlit color touchscreen and a three button non-display version for override and setpoint. Blank covers with no user interface are also available. All modular cover variants are available with and without passive infrared occupancy sensors.

Two complete sensor/cover combination model types are available:

- Temperature-only with LCD display. Communicating with three button cover. This is a low cost temperature sensor with a basic display.
- A two-wire, resistive-only, non-communicating temperature sensor is offered for a low cost conformance part. This uses an I/O port on the controller.

Combination models come with a sensor base and cover, and are available in White Optimum, Black Optimum or medium White Matte finishes. Combination units have the same form factor as the modular sensor bases and covers of the same housing type. (Combination units will not work with other covers.) Sensors measure the levels of CO2 (if equipped), RH (if equipped), and temperature of air in a living space application. The CO2 sensor operates within accuracy specifications for an interval of two years and can be field calibrated.

Find more information and part numbers on The EcoXpert Exchange: https://ecobuilding.schneider-electric.com/field-devices/sensors

## EcoStruxure Building Commission Mobile App

Reduce commissioning time, gain flexibility in project execution, and eliminate dependencies on network infrastructure. This mobile application enables device configuration (including network settings), I/O checkout operations and configuration across all RP Series controllers (as well as the MP Series). It is ideal for all skill-sets including those who may have limited familiarity with the Building Operation system. The Commission tool with Connected Room Solution support is available to download from iOS, Google Play, and Windows 10.

## EcoStruxure Engage Mobile App

Provides flexibility and convenience for today's building occupants, enabling them to control room temperature, fan speed, lights, and blinds/shades directly from a smartphone. Users can manage these settings when the mobile app is connected to the RP-C Controller. Free and downloadable from Google Play and Apple App Store.

## Glass Touch Panels and TC900 Series Fan Coil Thermostats

EcoStruxure Connected Room Solutions for Hotels provide room level interfaces for temperature, lighting, blind control and door lock integration, in addition to a single point of integration for other IoT devices to create integrated and engaging guest room environments with responsive, personalized guest comfort and increased operational and energy efficiency.

Among the offers in this solution are Glass Touch Panels with intuitive touch-screen interfaces to enable guest control of room temperature, lighting, curtains, services, and more. Available in a variety of glass color and backlight options, Glass Touch Panels are highly customizable to reflect each hotel's unique visual aesthetic, and are easy to design and configure via an intuitive web tool. Find more information on the EcoXpert Exchange here.

TC900 Series Fan Coil Thermostats are optimized for hotel applications. They feature microprocessor-based control and large backlit LCD screens which display operation status (cooling, heating, and ventilation), fan speed, room temperature and set-point. Find more information on the EcoXpert Exchange here.

# SpaceLogic Controllers - RP-C Expansion Modules for Light & Blinds

## Wireless Expansion Modules

The RP-C Controller enables expansion module to be connected wirelessly using Zigbee. These modules enable wireless lighting control for existing applications.

| Product | RP-C-EXT-ZB-0-10V | RP-C-EXT-ZB-DALI |
|---|---|---|
| Part Number | SXWREZB010110001 | SXWREZBDALI110001 |
| **Communication** | | |
| Communication Interface | Zigbee Adaptor | Zigbee Adaptor |
| **Physical** | | |
| Dimensions | 155 W x 44 H x 30 D mm (6.1 W x 1.7 H x 1.2 D in.) | 155 W x 44 H x 30 D mm (6.1 W x 1.7 H x 1.2 D in.) |
| Weight | 0.126 kg (0.278 lb) | 0.126 kg (0.278 lb) |
| **Power** | | |
| Nominal voltage | 220 to 240 VAC | 220 to 240 VAC |
| Power consumption | <1W | <1W |
| **Environmental** | | |
| Operating Range | -20 °C to +50 °C (-4 °F to +122 °F) | -20 °C to +50 °C (-4 °F to +122 °F) |
| Humidity | 85 % RH | 85 % RH |
| **Material** | | |
| Plastic flame rating | UL94 V-0 | UL94 V-0 |
| IP rating | IP 20 | IP 20 |
| Connectors | No | No |
| **Inputs** | | |
| Digital Inputs | No | No |
| **Outputs** | | |
| Type of Output | 0-10V | DALI |
| Number of outputs | 1 | 1 |
| Power Distribution | Yes | Yes |
| **Certifications** | | |
| FCC | No | No |
| UL | No | No |
| C UL | No | No |
| CE | Yes | Yes |
| WEEE- Directive of EU | Yes | Yes |
| RoHS | Yes | Yes |
| RCM | No | No |

# Connected Room Solutions (continued)

## Wired Expansion Modules

The RP-C provides a room bus, which allows RP Series expansion modules and multi-sensors to be connected to the controller for control of lights and window blinds, motion detection, and luminosity measurements.

| Product | RP-C-EXT-DALI-M-PD | RP-C-EXT-0-10V-4-PD | RP-C-EXT-BL-4-HV-PD | RP-C-EXT-BL-2-LV-PD |
|---|---|---|---|---|
| **Part Number** | **SXWREDAMPD10001** | **SXWRE0104PD10001** | **SXWREB4HVPD10001** | **SXWREB2LVPD10001** |
| **Communication** | | | | |
| Communication Interface | Room Bus | Room Bus | Room Bus | Room Bus |
| **Physical** | | | | |
| Dimensions | 198 W x 110 H x 64 D mm (7.8 W x 4.3 H x 2.5 D in.) | 198 W x 110 H x 64 D mm (7.8 W x 4.3 H x 2.5 D in.) | 198 W x 110 H x 64 D mm (7.8 W x 4.3 H x 2.5 D in.) | 198 W x 110 H x 64 D mm (7.8 W x 4.3 H x 2.5 D in.) |
| Weight | 0.433 kg (0.955 lb) | 0.418 kg (0.922 lb) | 0.437kg (0.963 lb) | 0.399 kg (0.880 lb) |
| **Power** | | | | |
| Nominal voltage | 230VAC | 230VAC | 230VAC | 230VAC |
| Power consumption | 0.3W | 0.3W | 0.3W | 0.3W |
| **Environmental** | | | | |
| Operating Range | 0 to 50 °C (32 to 122 °F) | 0 to 50 °C (32 to 122 °F) | 0 to 50 °C (32 to 122 °F) | 0 to 40 °C (32 to 104 °F) |
| Humidity | 20 to 90 % RH | 20 to 90 % RH | 20 to 90 % RH | 20 to 90 % RH |
| **Material** | | | | |
| Plastic flame rating | UL94 V-0 | UL94 V-0 | UL94 V-0 | UL94 V-0 |
| IP rating | IP 20 | IP 20 | IP 20 | IP 20 |
| Connectors | Yes | Yes | Yes | Yes |
| **Inputs** | | | | |
| Digital Inputs | 4 | 4 | 4 | 4 |
| **Outputs** | | | | |
| Type of Output | DALI | 0-10V | 230V | 24V |
| Number of outputs | 4 | 4 | 4 | 2 |
| Power Distribution | Yes | Yes | Yes | Yes |
| **Certifications** | | | | |
| FCC | Yes | Yes | Yes | Yes |
| UL | No | No | No | No |
| C UL | No | No | No | No |
| CE | Yes | Yes | Yes | Yes |
| WEEE-Directive of EU | Yes | Yes | Yes | Yes |
| RoHS | Yes | Yes | Yes | Yes |
| RCM | Yes | Yes | Yes | Yes |

RP-C Controller High Voltage SMI Blind Module

RP-C Controller Light Module - 0-10V

# SpaceLogic Controllers - RP-C Light & Blinds

| Product | RP-C-EXT-MS-BLE | RP-C-EXT-BL-SMI-4-HV-PD | RP-C-EXT-BL-SMI-2-LV-PD | RP-C-EXT-REL-4 | CRS-HH-REL-10 |
|---|---|---|---|---|---|
| **Part Number** | **SXWREMSBLE10001** | **SXWRESMI4HVPD10001** | **SXWRESMI2LVPD10001** | **SXWREREL410001** | **SXWHHREL10001** |
| **Communication** | | | | | |
| **Communication Interface** | Room Bus | Room Bus | Room Bus | Room Bus | Room Bus |
| **Physical** | | | | | |
| **Dimensions** | 97.5 mm (3.84 in.) overall diameter | 198 W x 110 H x 64 D mm (7.8 W x 4.3 H x 2.5 D in.) | 198 W x 110 H x 64 D mm (7.8 W x 4.3 H x 2.5 D in.) | 198 W x 110 H x 64 D mm (7.8 W x 4.3 H x 2.5 D in.) | 198 W x 110H x 64 D mm (7.8 W x 4.3 H x 2.5 D in.) |
| **weight** | 0.083 kg (0.183 lb) | 0.405 kg (0.893 lb) | 0.439 kg (0.968 lb) | 0.378 kg (0.833 lb) | 0.476 kg (1.050 lb) |
| **Power** | | | | | |
| **Nominal voltage** | 24 VDC | 230VAC | 230VAC | 100 to 277 VAC | 24 VDC |
| **Room bus power consumption** | 0.3W | 0.3W | 0.3W | 0.3W | 0.3W |
| **Environmental** | | | | | |
| **Operating Range** | 0 to 50 °C (32 to 122 °F) | 0 to 50 °C (32 to 122 °F) | 0 to 40 °C (32 to 104 °F) | 0 to 50 °C (32 to 122 °F) | 0 to 50 ˚C (32 to 122 ˚F) |
| **Humidity** | 20 to 90 % RH | 20 to 90 % RH | 20 to 90 % RH | 20 to 90 % RH | 20 to 90 % RH |
| **Material** | | | | | |
| **Plastic flame rating** | UL94 V-0 | UL94 V-0 | UL94 V-0 | UL94 V-0 | UL94 V-0 |
| **IP rating** | IP 20 | IP 20 | IP 20 | IP 20 | IP 20 |
| **Connectors** | No | Yes | Yes | Yes | 10 x 2-pin plus 2 x 9-pin screw terminal blocks for relay outputs and digital inputs respectively |
| **Inputs** | | | | | |
| **Digital Inputs** | no | 4 | 4 | 4 | 12 |
| **Outputs** | | | | | |
| **Type of Output** | no | 230V SMI | 24V SMI | Relays | Relays |
| **Number of outputs** | 0 | 4 | 2 | 4 | 10 |
| **Power Distribution** | no | Yes | Yes | Yes | No |
| **Certifications** | | | | | |
| **FCC** | Yes | Yes | Yes | Yes | Yes |
| **UL** | Yes | No | No | Yes | Yes |
| **C UL** | Yes | No | No | Yes | Yes |
| **CE** | Yes | Yes | Yes | Yes | Yes |
| **WEEE-Directive of EU** | Yes | Yes | Yes | Yes | Yes |
| **RoHS** | Yes | Yes | Yes | Yes | Yes |
| **RCM** | Yes | Yes | Yes | Yes | Yes |

RP-C Controller Relay Module

## SpaceLogic Controllers - RP-C Light & Blinds

| Product | RP-C-EXT-0-10V-4 | RP-C-EXT-DALI-1 | RP-C-EXT-KNX | RP-C-EXT-0-10V-UNIDIM-1 | RP-C-RC-BLE |
|---|---|---|---|---|---|
| **Part Number** | **SXWRE010410001** | **SXWREDALI110001** | **SXWREKNX10001** | **SXWRE010DIM10001** | **SXWRERCBLE10001** |
| **Communication** | | | | | |
| **Communication Interface** | Room Bus | Room Bus | Modbus | 0-10V extension module | Bluetooth |
| **Physical** | | | | | |
| **Dimensions** | 198 W x 110 H x 64 D mm (7.8 W x 4.3 H x 2.5 D in.) | 198 W x 110 H x 64 D mm (7.8 W x 4.3 H x 2.5 D in.) | 18 W x 90 H x 60 D mm (0.7 W x 3.5 H x 2.4 D in.) | 17.5W x35 mm DIN rail mount (0.7Wx 1.37 inch) | 57 W x 143 H x 18 D mm (2.24 W x 5.63 H x 0.71 D in.) |
| **weight** | 0.438 kg (0.965 lb) | 0.352 kg (0.776 lb) | 50 g (1.76 oz) | | 0.105 kg (0.231 lb) |
| **Power** | | | | | |
| **Nominal voltage** | 100 to 277 VAC | 100 to 277 VAC | 24VDC | 230VAC | 3.0 VDC |
| **Power Consumption** | 0.3W | 0.3W | <0.24W | 0.5W | n/a |
| **Environmental** | | | | | |
| **Operating Range** | 0 to 50 °C (32 to 122 °F) | 0 to 50 °C (32 to 122 °F) | -5 °C to +45 °C (23 °F to +113 °F) | -10 to 50 °C (14 to 122 °F) | 0 to 40 °C (32 to 104 °F) |
| **Humidity** | 20 to 90 % RH | 20 to 90 % RH | 5 to 93 % RH | n/a | 20 to 90 % RH |
| **Material** | | | | | |
| **Plastic flame rating** | UL94 V-0 | UL94 V-0 | UL94 V-0 | n/a | n/a |
| **IP rating** | IP 20 | IP 20 | IP 20 | IP 20 | IP 30 |
| **Connectors** | Yes | Yes | No | No | No |
| **Inputs** | | | | | |
| **Digital Inputs** | 4 | 4 | No | No | No |
| **Outputs** | | | | | |
| **Type of Output** | 0-10V | DALI | KNX | 230V | n/a |
| **Number of outputs** | 4 | 4 | 1 | 1 | 0 |
| **Power Distribution** | no | no | no | Yes | No |
| **Certifications** | | | | | |
| **FCC** | Yes | Yes | no | no | Yes |
| **UL** | Yes | Yes | no | no | no |
| **C UL** | Yes | Yes | no | no | no |
| **CE** | Yes | Yes | Yes | Yes | Yes |
| **WEEE- Directive of EU** | Yes | Yes | Yes | Yes | Yes |
| **RoHS** | Yes | Yes | Yes | Yes | Yes |
| **RCM** | Yes | Yes | No | No | Yes |

## Connector accessories for RP-C Controller Expansion Modules

The following external connectors needed for the expansion modules are available for order in quantities of 50 or 100.

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| Proposed acc. part number | Wieland Reference | Product Name | Connectors per packet |
|---|---|---|---|
| **SXWRPCCONWDI** | 91.921.2353.0 | Digital input Connector | 100 |
| **SXWRPCCONWWLIGHT2** | 91.922.3353.0 | Light output connector for 0-10V modules without power distribution | 100 |
| **SXWRPCCONWWLIGHT** | 91.922.3453.0 | Light output connector for DALI modules without power distribution | 100 |
| **SXWRPCCONWWPOW** | 91.931.4053.1 | Power supply input connector | 100 |
| **SXWRPCCONWWREL** | 91.932.4053.1 | Relay output connector | 100 |
| **SXWRPCCONWBLHV** | 91.942.4053.1 | High Voltage blind output connector | 50 |
| **SXWRPCCONWBLSMI** | 91.952.4053.1 | High Voltage SMI blind output connector | 50 |
| **SXWRPCCONWBLLV** | 91.952.4353.0 | Low Voltage blind output connector | 50 |
| **SXWRPCCONWWLIGHTPD** | 91.952.4453.0 | Light output connector for light modules with power distribution | 50 |

# SpaceLogic Controller
## MP Series

Next-generation IP field controllers and accessories extend the reach of EcoStruxure Building's open innovation platform with seamless scalability and flexible topologies that enable data transmission from connected equipment, and enhance the ability to diagnose and resolve issues faster.

# SpaceLogic Controllers – MP Series

The MP Series are designed for VAVs and fan coil, heat pump, roof top and air handling units. They feature scalable and flexible topologies that enable data transmission from connected equipment, which enhance the ability to diagnose and resolve issues faster. Also manage commissioning activities conveniently from mobile devices with the EcoStruxure Building Commission Mobile App.

SpaceLogic Controller – MP-C

Note: Screw terminals are prepopulated. Spare is available. See accessories section on page S6.

| | MP-C-15A | MP-C-18A | MP-C-18B | MP-C-24A | MP-C-36A |
|---|---|---|---|---|---|
| **Part Number** | **SXWMPC15A10001** | **SXWMPC18A10001** | **SXWMPC18B10001** | **SXWMPC24A10001** | **SXWMPC36A10001** |
| **Other Models** | MP-C-15A-SMK | MP-C-18A-SMK | MP-C-18B-SMK | MP-C-24A-SMK | MP-C-36A-SMK |
| **Part Number (UL-864 Smoke Control)** | SXWMPC15A1S001 | SXWMPC18A1S001 | SXWMPC18B1S001 | SXWMPC24A1S001 | SXWMPC36A1S001 |
| **Communications** | | | | | |
| **Communication Interface** | BACnet/IP, BTL B-AAC | BACnet/IP, BTL B-AAC | BACnet/IP, BTL B-AAC | BACnet/IP, BTL B-AAC | BACnet/IP, BTL B-AAC |
| **Software** | | | | | |
| **Programability** | Function Block/Script Programmable | Function Block/Script Programmable | Function Block/ Script Programmable | Function Block/ Script Programmable | Function Block/ Script Programmable |
| **Physical** | | | | | |
| **Dimensions** | 153 W x 110 H x 64 D mm (6.0 W x 4.3 H x 2.5 D in.) | 153 W x 110 H x 64 D mm (6.0 W x 4.3 H x 2.5 D in.) | 153 W x 110 H x 64 D mm (6.0 W x 4.3 H x 2.5 D in.) | 234 W x 110 H x 64 D mm (9.2 W x 4.3 H x 2.5 D in.) | 234 W x 110 H x 64 D mm (9.2 W x 4.3 H x 2.5 D in.) |
| **Weight (including terminal blocks)** | 0.358 kg (0.789 lb) | 0.371 kg (0.818 lb) | 0.361 kg (0.796 lb) | 0.495 kg (1.091 lb) | 0.547 kg (1.206 lb) |
| **Power** | | | | | |
| **Power** | 24 VAC/DC | 24 VAC/DC | 24 VAC/DC | 24 VAC/DC | 24 VAC/DC |
| **Consumption** | 12 W | 12 W | 12 W | 15 W | 18 W |
| **Environmental** | | | | | |
| **Operating Range6** | 0°C to 50°C (32°F to 122°F) 0-95% RH (non-condensing) -40°C to 60°C (-40°F to 140°F) for rooftop | 0°C to 50°C (32°F to 122°F) 0-95% RH (non-condensing) -40°C to 60°C (-40°F to 140°F) for rooftop | 0°C to 50°C (32°F to 122°F) 0-95% RH (non-condensing) -40°C to 60°C (-40°F to 140°F) for rooftop | 0°C to 50°C (32°F to 122°F) 0-95% RH (non-condensing) -40°C to 60°C (-40°F to 140°F) for rooftop | 0°C to 50°C (32°F to 122°F) 0-95% RH (non-condensing) -40°C to 60°C (-40°F to 140°F) for rooftop |
| **CPU Internals** | | | | | |
| **CPU** | ARM Cortex-A7 dual-core | ARM Cortex-A7 dual-core | ARM Cortex-A7 dual-core | ARM Cortex-A7 dual-core | ARM Cortex-A7 dual-core |
| **Memory** | 128 MB (DDR3 SDRAM) | 128 MB (DDR3 SDRAM) | 128 MB (DDR3 SDRAM) | 128 MB (DDR3 SDRAM) | 128 MB (DDR3 SDRAM) |
| **Battery** | No | No | No | No | No |
| **Real time clock** | Yes -7 days minimum | Yes -7 days minimum | Yes -7 days minimum | Yes -7 days minimum | Yes -7 days minimum |
| **External Features** | | | | | |
| **Enclosure rating** | Eco Friendly ABS/ PC, UL94 5V, IP 20 (<12.5 mm protection) | Eco Friendly ABS/ PC, UL94 5V, IP 20 (<12.5 mm protection) | Eco Friendly ABS/ PC, UL94 5V, IP 20 (<12.5 mm protection) | Eco Friendly ABS/ PC, UL94 5V, IP 20 (<12.5 mm protection) | Eco Friendly ABS/ PC, UL94 5V, IP 20 (<12.5 mm protection) |
| **HOA Switches (DO/AO)** | Add-On (see accessories) | Add-On (see accessories) | Add-On (see accessories) | Add-On (see accessories) | Add-On (see accessories) |
| **Manual Override of Outputs** | Yes | Yes | Yes | Yes | Yes |
| **Digital Status LEDs** | Yes | Yes | Yes | Yes | Yes |
| **Intelligent Sensors** | SpaceLogic Living Space sensors | SpaceLogic Living Space sensors | SpaceLogic Living Space sensors | SpaceLogic Living Space sensors | SpaceLogic Living Space sensors |
| **Sensor Bus** | Yes | Yes | Yes | Yes | Yes |
| **Terminals** | | | | | |
| **I/O terminals** | Two-piece terminal | Two-piece terminal | Two-piece terminal | Two-piece terminal | Two-piece terminal |
| **External Enclosure/Mounting** | | | | | |
| **Mounting** | DIN-rail or wall mount | DIN-rail or wall mount | DIN-rail or wall mount | DIN-rail or wall mount | DIN-rail or wall mount |
| **Certifications** | | | | | |
| **BTL** | Yes | Yes | Yes | Yes | Yes |
| **FCC** | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) |
| **REACH** | Yes | Yes | Yes | Yes | Yes |
| **Innovation, Science and Economic Development Canada (ISED)** | Class B (Emission) | Class B (Emission) | Class B (Emission) | Class B (Emission) | Class B (Emission) |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes | Yes | Yes | Yes | Yes |
| **CE - EU** | Yes | Yes | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes | Yes | Yes | Yes |
| **RoHS Directive** | Yes | Yes | Yes | Yes | Yes |
| **RCM** | Yes | Yes | Yes | Yes | Yes |
| **US Patent** | | | | | |

SpaceLogic Controllers MP-C and MP-V conform to the BACnet® Advanced Application Controller (B-AAC) profile at protocol revision 12 by the BACnet Testing Laboratories (BTL®). EcoStruxure solution installations or BMS transitions requiring UL-864 certifications must use the SpaceLogic Controller MP-C-xxx-SMK (listed above).

# SpaceLogic IP Controller MP-V

Note: Screw terminals are prepopulated. Spare is available. See accessories section on page S6.

| | MP-V-7A | MP-V-9A |
|---|---|---|
| **Part Number** | **SXWMPV7AX10001** | **SXWMPV9AX10001** |
| **Other Models** | MP-V-7A-SMK | MP-V-9A-SMK |
| **Part Number (UL-864 Smoke Control)** | SXWMPV7AX1S001 | SXWMPV9AX1S001 |
| **Communications** | | |
| **Communication Interface** | BACnet/IP, BTL B-AAC | BACnet/IP, BTL B-AAC |
| **Software** | | |
| **Programability** | Function Block/Script Programmable | Function Block/Script Programmable |
| **Physical** | | |
| **Dimensions** | 161 W x 198 H x 63 D mm (6.3 W x 7.8 H x 2.5 D in.) | 161 W x 198 H x 63 D mm (6.3 W x 7.8 H x 2.5 D in.) |
| **Weight (including baseplate)** | 1.13 kg (2.5 lb) | 1.13 kg (2.5 lb) |
| **Power** | | |
| **Power** | 24 VAC | 24 VAC |
| **Consumption** | 21 VA | 22 VA |
| **Environmental** | | |
| **Operating Range** | 0°C to 50°C (32°F to 122°F)<br>0-95% RH (non-condensing) | 0°C to 50°C (32°F to 122°F)<br>0-95% RH (non-condensing) |
| **CPU Internals** | | |
| **CPU** | ARM Cortex-A7 dual-core | ARM Cortex-A7 dual-core |
| **Memory** | 128 MB (DDR3 SDRAM) | 128 MB (DDR3 SDRAM) |
| **Battery** | No | No |
| **Real time clock** | Yes -7 days minimum | Yes -7 days minimum |
| **External Features** | | |
| **Enclosure rating** | Eco Friendly ABS/PC, UL94 V-0, IP 20 (<12.5 mm protection), Plenum Rated | Eco Friendly ABS/PC, UL94 V-0, IP 20 (<12.5 mm protection), Plenum Rated |
| **HOA Switches (DO/AO)** | N/A | N/A |
| **Manual Override of Outputs** | Yes | Yes |
| **Digital Status LEDs** | Yes | Yes |
| **Sensor Bus** | Yes | Yes |
| **Terminals** | | |
| **I/O Expansion** | No | No |
| **External Enclosure/ Mounting** | | |
| **Mounting** | wall mount | wall mount |
| **Certifications** | | |
| **BTL** | Yes | Yes |
| **FCC** | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) |
| **REACH** | Yes | Yes |
| **Innovation, Science and Economic Development Canada (ISED)** | Class B (Emission) | Class B (Emission) |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) |
| **UL-864** | Yes | Yes |
| **C-UL US** | Yes | Yes |
| **CE - EU** | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes |
| **RoHS Directive** | Yes | Yes |
| **RCM** | Yes | Yes |
| **US Patent** | | |

SpaceLogic Controllers MP-C and MP-V conform to the BACnet® Advanced Application Controller (B-AAC) profile at protocol revision 12 by the BACnet Testing Laboratories (BTL®). EcoStruxure solution installations or BMS transitions requiring UL-864 certifications must use the SpaceLogic Controller MP-V-xx-SMK (listed above).

# SpaceLogic IP Controllers (continued)

## SpaceLogic IP Controllers MP-C – Inputs and Outputs

| | MP-C-15A | MP-C-18A | MP-C-18B | MP-C-24A | MP-C-36A |
|---|---|---|---|---|---|
| **Part Number** | SXWMPC15A10001 | SXWMPC18A10001 | SXWMPC18B10001 | SXWMPC24A10001 | SXWMPC36A10001 |
| **Other Models** | MP-C-15A-SMK | MP-C-18A-SMK | MP-C-18B-SMK | MP-C-24A-SMK | MP-C-36A-SMK |
| **Part Number (UL-864 Smoke Control)** | SXWMPC15A1S001 | SXWMPC18A1S001 | SXWMPC18B1S001 | SXWMPC24A1S001 | SXWMPC36A1S001 |
| **Universal Inputs/Outputs** | 8-Ub | 10-Ub | 10-Ub | 16-Ub, 4Uc | 20-Ub, 8Uc |
| **Digital Input** | Ub | Ub | Ub | Ub/Uc | Ub/Uc |
| **Counter Input** | Ub | Ub | Ub | Ub/Uc | Ub/Uc |
| **Supervised Input** | Ub | Ub | Ub | Ub/Uc | Ub/Uc |
| **Voltage Input - (0-10V)** | Ub | Ub | Ub | Ub/Uc | Ub/Uc |
| **Resistive Input** | Ub | Ub | Ub | Ub/Uc | Ub/Uc |
| **Thermistor Input - 10k** | Ub | Ub | Ub | Ub/Uc | Ub/Uc |
| **Thermistor Input - 1.8k** | Ub | Ub | Ub | Ub/Uc | Ub/Uc |
| **Thermistor Input - 1k** | Ub | Ub | Ub | Ub/Uc | Ub/Uc |
| **Thermistor Input - 20k** | Ub | Ub | Ub | Ub/Uc | Ub/Uc |
| **Thermistor Input - 2.2k** | Ub | Ub | Ub | Ub/Uc | Ub/Uc |
| **RTD Temp Input - Pt100** | | | | | |
| **RTD Temp Input - Pt1000** | Ub | Ub | Ub | Ub/Uc | Ub/Uc |
| **RTD Temp Input - Ni1000** | Ub | Ub | Ub | Ub/Uc | Ub/Uc |
| **RTD Temp Input - LG-Ni1000** | Ub | Ub | Ub | Ub/Uc | Ub/Uc |
| **Voltage Output (0-10V)** | Ub | Ub | Ub | Ub/Uc | Ub/Uc |
| **Current Output (0-20mA)** | | | | Uc | Uc |
| **Digital Outputs** | 7 | 8 | 8 | 4 | 8 |
| **Form A Relay, SPST** | | 3 | | 4 | 8 |
| **Form C Relay, SPDT** | | | | | |
| **Triac** | 6 | 4 | 8 | | |
| **Form A High Power Relay, SPST** | 1 | 1 | | | |

Key: Ub – Universal Type B, Uc – Universal Type C

## SpaceLogic IP Controllers MP-V – Inputs and Outputs

| | MP-V-7A | MP-V-9A |
|---|---|---|
| **Part Number** | SXWMPV7AX10001 | SXWMPV9AX10001 |
| **Other Models** | MP-V-7A-SMK | MP-V-9A-SMK |
| **Part Number (UL-864 Smoke Control)** | SXWMPV7AX1S001 | SXWMPV9AX1S001 |
| **Universal Inputs** | 3 | 4 |
| **Digital Input** | Yes | Yes |
| **Counter Input** | Yes | Yes |
| **Supervised Input** | Yes | Yes |
| **Voltage Input - (0-10V)** | Yes | Yes |
| **Resistive Input** | Yes | Yes |
| **Thermistor Input - 10k** | Yes | Yes |
| **Thermistor Input - 1.8k** | Yes | Yes |
| **Thermistor Input - 1k** | Yes | Yes |
| **Thermistor Input - 20k** | Yes | Yes |
| **Thermistor Input - 2.2k** | Yes | Yes |
| **RTD Temp Input - Pt100** | | |
| **RTD Temp Input - Pt1000** | Yes | Yes |
| **RTD Temp Input - Ni1000** | Yes | Yes |
| **RTD Temp Input - LG-Ni1000** | Yes | Yes |
| **Voltage Output (0-10V)** | Yes | Yes |
| **Current Output (0-20mA)** | | |
| **Damper Position Feedback** | Yes | Yes |
| **Velocity Pressure Sensor** | Yes | Yes |
| **Digital Output** | 3 | 3 |
| **Form C Relay, SPDT** | | |
| **Triac** | Yes | Yes |
| **Form A High Power Relay, SPST** | | |
| **Analog Output** | 1 | 2 |
| **Voltage outputs (0-10 VDC)** | Yes | Yes |
| **Current Output (0-20 mA)** | Yes | Yes |
| **Damper Outputs** | | |
| **Form K, Triac Voltage** | Yes | Yes |

# SpaceLogic IP Controllers – IP-IO Series

As a network level IO resource the IP-IO Series is capable of sharing its local IO resources across one or multiple SpaceLogic Controllers or EcoStruxure Building Edge Servers over BACnet network.

Note: Screw terminals are prepopulated. Spare is available. See accessories section on page S6.

| | IP-IO-DI10 | IP-IO-UIO10 | IP-IO-UIO5DOFA4 |
|---|---|---|---|
| **Part Number** | **SXWIPIOAA10001** | **SXWIPIOBA10001** | **SXWIPIOCA10001** |
| **Other Models** | IP-IO-DI10-SMK | IP-IO-UIO10-SMK | IP-IO-UIO5DOFA4-SMK |
| **Part Number (UL-864 Smoke Control)** | SXWIPIOAA1S001 | SXWIPIOBA1S001 | SXWIPIOCA1S001 |
| **Communications** | | | |
| **Communication Interface** | BACnet/IP, BTL B-AAC | BACnet/IP, BTL B-AAC | BACnet/IP, BTL B-AAC |
| **Physical** | | | |
| **Dimensions** | 153 W x 110 H x 64 D mm (6.0 W x 4.3 H x 2.5 D in.) | 153 W x 110 H x 64 D mm (6.0 W x 4.3 H x 2.5 D in.) | 153 W x 110 H x 64 D mm (6.0 W x 4.3 H x 2.5 D in.) |
| **Weight (including terminal blocks)** | 0.358 kg (0.789 lb) | 0.358 kg (0.789 lb) | 0.358 kg (0.789 lb) |
| **Power** | | | |
| **Power** | 24 VAC/DC | 24 VAC/DC | 24 VAC/DC |
| **Consumption** | 9 W | 9 W | 9 W |
| **Environmental** | | | |
| **Operating Range6** | 0°C to 50°C (32°F to 122°F) 0-95% RH (non-condensing) -40°C to 60°C (-40°F to 140°F) for rooftop | 0°C to 50°C (32°F to 122°F) 0-95% RH (non-condensing) -40°C to 60°C (-40°F to 140°F) for rooftop | 0°C to 50°C (32°F to 122°F) 0-95% RH (non-condensing) -40°C to 60°C (-40°F to 140°F) for rooftop |
| **CPU Internals** | | | |
| **CPU** | ARM Cortex-A7 dual-core | ARM Cortex-A7 dual-core | ARM Cortex-A7 dual-core |
| **Memory** | 128 MB (DDR3 SDRAM) | 128 MB (DDR3 SDRAM) | 128 MB (DDR3 SDRAM) |
| **Battery** | No | No | No |
| **Real time clock** | Yes -7 days minimum | Yes -7 days minimum | Yes -7 days minimum |
| **External Features** | | | |
| **Enclosure rating** | Eco Friendly ABS/PC, UL94 5V, IP 20 (<12.5 mm protection) | Eco Friendly ABS/PC, UL94 5V, IP 20 (<12.5 mm protection) | Eco Friendly ABS/PC, UL94 5V, IP 20 (<12.5 mm protection) |
| **Add-on HOA / Display** | Add-On (see accessories) | Add-On (see accessories) | Add-On (see accessories) |
| **Manual Override of Outputs** | N/A | Yes | Yes |
| **Digital Status LEDs** | Yes | Yes | Yes |
| **Intelligent Sensors** | No | No | No |
| **Sensor Bus** | No | No | No |
| **Terminals** | | | |
| **I/O terminals** | Two-piece terminal | Two-piece terminal | Two-piece terminal |
| **External Enclosure/Mounting** | | | |
| **Mounting** | DIN-rail or wall mount | DIN-rail or wall mount | DIN-rail or wall mount |
| **Certifications** | | | |
| **BTL** | Yes | Yes | Yes |
| **FCC** | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) |
| **REACH** | Yes | Yes | Yes |
| **Innovation, Science and Economic Development Canada (ISED)** | Class B (Emission) | Class B (Emission) | Class B (Emission) |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes | Yes | Yes |
| **CE - EU** | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes | Yes |
| **RoHS Directive** | Yes | Yes | Yes |
| **RCM** | Yes | Yes | Yes |
| **US Patent** | | | |

SpaceLogic Controllers - IP-IO Series is pending certification of the BACnet Application Specific Controller (B-ASC) profile at protocol revision 14 by the BACnet Testing Laboratories (BTL®).

## SpaceLogic IP Controllers IP-IO – Inputs and Outputs

| | IP-IO-DI10 | IP-IO-UIO10 | IP-IO-UIO5DOFA4 |
|---|---|---|---|
| **Part Number** | **SXWIPIOAA10001** | **SXWIPIOBA10001** | **SXWIPIOCA10001** |
| **Other Models** | IP-IO-DI10-SMK | IP-IO-UIO10-SMK | IP-IO-UIO5DOFA4-SMK |
| **Part Number (UL-864 Smoke Control)** | SXWIPIOAA1S001 | SXWIPIOBA1S001 | SXWIPIOCA1S001 |
| **Digital Inputs** | 10 | | |
| **Universal Inputs/Outputs** | | 10-Ub | 5-Ub |
| **Digital Input** | | Ub | Ub |
| **Counter Input** | | Ub | Ub |
| **Supervised Input** | | Ub | Ub |
| **Voltage Input - 0-10V** | | Ub | Ub |
| **Resistive Input** | | Ub | Ub |
| **Thermistor Input - 10k** | | Ub | Ub |
| **Thermistor Input - 1.8k** | | Ub | Ub |
| **Thermistor Input - 1k** | | Ub | Ub |
| **Thermistor Input - 20k** | | Ub | Ub |
| **Thermistor Input - 2.2k** | | Ub | Ub |
| **RTD Temp Input - Pt100** | | | |
| **RTD Temp Input - Pt1000** | | Ub | Ub |
| **RTD Temp Input - Ni1000** | | | |
| **RTD Temp Input - LG Ni1000** | | Ub | Ub |
| **Voltage Output 0-10V** | | Ub | Ub |
| **Current Output 0-20mA** | | | |
| **Digital Outputs** | | | 4 |
| **Form A Relay, SPST** | | | 3 |
| **Form C Relay, SPDT** | | | |
| **Triac** | | | |
| **Form A High Power Relay, SPST** | | | 1 |

Key: Ub – Universal Type B, Uc – Universal Type C

SpaceLogic IP Controllers (continued)

## SpaceLogic IP Controllers – Accessories

The following accessories are available for the SpaceLogic Controllers.

| Part Number | Product Name | Description |
|---|---|---|
| **SXWMPCDSP10001** | MP-C DISPLAY | MP-C override display module |
| **SXWDINEND10001** | DIN-RAIL-CLIP | DIN-rail end clip, package of 25 pieces |
| **SXWMPVCON10001** | MP-V Connector Kit | Spare screw terminals for all MP-V models |
| **SXWMPCCON10001** | MP-C Connector Kit | Spare screw terminals for all MP-C models |
| **SXWBTAECXX10001** | eCommission Bluetooth Adapter | |

MP-C DISPLAY

DIN-RAIL-CLIP

SXWMPCCON10001

SXWMPVCON10001

*Touch Display supports user access to the following settings: HVAC mode (Cooling/Heating/Auto), Setpoint adjust, Override and Fan (On/Off/Auto)

# SpaceLogic IP Controllers – Accessories (continued)

## Actassi Structured Cabling Solution

Actassi connectivity work seamlessly with SpaceLogic Controllers. Get simple installation and ease of engineering deployment with a single source for BMS and network cabling needs. These physical network infrastructure solutions offer reliable and scalable IP backbone that enable a responsive BMS network.

| Part number | Region | Description (system) |
|---|---|---|
| **Global** | | |
| ACTPG6TLU001 | Global | Cat 6 field-term plug, UTP |
| ACTPG6PTU100 | Global | Cat 6 pass-through plug, UTP, 100-pack |
| ACTTLCPT | Global | Actassi crimping tool |
| ACTPG5EPTU100 | Global | Cat 5e pass-through plug, UTP, 100-pack |
| **AMER** | | |
| ACT4P6UCP1ARXGR | AMER | Cat 6 cable, UTP, 1000 ft (305 m), CMP, green |
| ACTPC6UBCP30AGR | AMER | Cat 6 patch cord, UTP, 30 ft (9 m), CMP, green |
| ACTPC6UBCP50AGR | AMER | Cat 6 patch cord, UTP, 50 ft (15 m), CMP, green |
| ACTPC6UBCP70AGR | AMER | Cat 6 patch cord, UTP, 70 ft (21 m), CMP, green |
| ACTPC6UBCP90AGR | AMER | Cat 6 patch cord, UTP, 90 ft (27 m), CMP, green |
| ACT4P5EUCP1ARXGR | AMER | Cat 5e cable, UTP, 1000 ft (305 m), CMP, green |
| ACTPC5EUBCP30AGR | AMER | Cat 5e patch cord, UTP, 30 ft (9 m), CMP, green |
| ACTPC5EUBCP50AGR | AMER | Cat 5e patch cord, UTP, 50 ft (15 m), CMP, green |
| ACTPC5EUBCP70AGR | AMER | Cat 5e patch cord, UTP, 70 ft (21 m), CMP, green |
| ACTPC5EUBCP90AGR | AMER | Cat 5e patch cord, UTP, 90 ft (27 m), CMP, green |
| **EMEA** | | |
| VDICD116118 | EMEA | Cat 6 cable, UTP, 305 m (1000 ft), Euroclass D, green |
| ACTPC6UBLS100GR | EMEA | Cat 6 patch cord, UTP, 10 m (32 ft), LSZH, green |
| ACTPC6UBLS150GR | EMEA | Cat 6 patch cord, UTP, 15 m (49 ft), LSZH, green |
| ACTPC6UBLS200GR | EMEA | Cat 6 patch cord, UTP, 20 m (65 ft), LSZH, green |
| ACTPC6UBLS250GR | EMEA | Cat 6 patch cord, UTP, 25 m (82 ft), LSZH, green |
| VDICD115118 | EMEA | Cat 5e cable, UTP, 305 m (1000 ft), Euroclass D, green |
| ACTPC5EUBLS100GR | EMEA | Cat 5e patch cord, UTP, 10 m (32 ft), LSZH, green |
| ACTPC5EUBLS150GR | EMEA | Cat 5e patch cord, UTP, 15 m (49 ft), LSZH, green |
| ACTPC5EUBLS200GR | EMEA | Cat 5e patch cord, UTP, 20 m (65 ft), LSZH, green |
| ACTPC5EUBLS250GR | EMEA | Cat 5e patch cord, UTP, 25 m (82 ft), LSZH, green |
| **PACIFIC** | | |
| ACT4P6UCM3RBGR | PACIFIC | Cat 6 cable, UTP, 305 m (1000 ft), PVC, green |
| ACTPC6UBCM100GR | PACIFIC | Cat 6 patch lead, UTP, 10 m (32 ft), PVC, green |
| ACTPC6UBCM150GR | PACIFIC | Cat 6 patch lead, UTP, 15 m (49 ft), PVC, green |
| ACTPC6UBCM200GR | PACIFIC | Cat 6 patch lead, UTP, 20 m (65 ft), PVC, green |
| ACTPC6UBCM250GR | PACIFIC | Cat 6 patch lead, UTP, 25 m (82 ft), PVC, green |
| ACT4P5EUCM3RBGR | PACIFIC | Cat 5e cable, UTP, 305 m (1000 ft), PVC, green |
| ACTPC5EUBCM100GR | PACIFIC | Cat 5e patch lead, UTP, 10 m (32 ft), PVC, green |
| ACTPC5EUBCM150GR | PACIFIC | Cat 5e patch lead, UTP, 15 m (49 ft), PVC, green |
| ACTPC5EUBCM200GR | PACIFIC | Cat 5e patch lead, UTP, 20 m (65 ft), PVC, green |
| ACTPC5EUBCM250GR | PACIFIC | Cat 5e patch lead, UTP, 25 m (82 ft), PVC, green |

a) Abbreviations: UTP (Unshielded Twisted Pair), CMP (Plenum-rated cable),

# BACnet controllers

# BACnet b3 Series

Schneider Electric's b3 controllers support the most advanced BACnet services, addressing all five interoperability areas: data sharing, scheduling, trending, alarming, and device management. Every BACnet controller in the b3 system is compliant with the ASHRAE standard and interoperate with third party BACnet devices.

# b3 Series Controllers

b3608
Local Controller

b3624
Local Controller

b3800
Local Controller

| Part Number | b3608 | b3624 | b3800 |
|---|---|---|---|
| **Communications** | | | |
| **Protocol** | BACnet Open Protocol | BACnet Open Protocol | BACnet Open Protocol |
| **Communication Interface** | MS/TP, 9600 -76,800 bit/s | MS/TP, 9600 -76,800 bit/s | MS/TP, 9600 -76,800 bit/s |
| **Software** | | | |
| **Programmability** | Script Programmable | Script Programmable | Script Programmable |
| **Physical** | | | |
| **Dimensions** | 153 W x 229 H x 54 D mm (6.01 W x 9.03 H x 2.14 D in.) | 153 W x 229 H x 54 D mm (6.01 W x 9.03 H x 2.14 D in.) | 153 W x 229 H x 54 D mm (6.01 W x 9.03 H x 2.14 D in.) |
| **Weight (including baseplate)** | 0.54 kg (1.19 lb.) | 0.54 kg (1.19 lb.) | 0.61 kg (1.34 lb.) |
| **Power** | | | |
| **Power** | 24 VAC +10% -15%, 50/60 Hz Class 2 limited power, 12-24 VDC (auto sensing AC/DC) | 24 VAC +10% -15%, 50/60 Hz Class 2 limited power, 12-24 VDC (auto sensing AC/DC) | 24 VAC +10% -15%, 50/60 Hz Class 2 limited power, 12-24 VDC (auto sensing AC/DC) |
| **Consumption** | 25 VA (3 A fuse overload MOV protected) | 25 VA (3 A fuse overload MOV protected) | 25 VA (3 A fuse overload MOV protected) |
| **Environmental** | | | |
| **Operating Range** | 0 °C to 49 °C (32 °F to 120 °F) 10-95% RH (non-condensing) | 0 °C to 49 °C (32 °F to 120 °F) 10-95% RH (non-condensing) | -23 °C to 60 °C (-10 °F to 140 °F) 10-95% RH (non-condensing) |
| **CPU Internals** | | | |
| **CPU** | Motorola Coldfire 32-bit, 10 Mhz | Motorola Coldfire 32-bit, 10 Mhz | Motorola Coldfire 32-bit, 10 Mhz |
| **Memory** | 1 MB flash, 128 kB SRAM | 1 MB flash, 128 kB SRAM | 1 MB flash, 128 kB SRAM |
| **Battery** | Replaceable, non-rechargeable lithium battery. Provides 5 years typical accumulated power failure backup of RAM memory. | Replaceable, non-rechargeable lithium battery. Provides 5 years typical accumulated power failure backup of RAM memory. | Replaceable, non-rechargeable lithium battery. Provides 5 years typical accumulated power failure backup of RAM memory. |
| **Real time clock** | Synchronized via BACnet service | Synchronized via BACnet service | Synchronized via BACnet service |
| **External Features** | | | |
| **Enclosure rating** | UL94 5 V (Plenum rated), IP 10 (<50 mm protection) | UL94 5 V (Plenum rated), IP 10 (<50 mm protection) | UL94 5 V (Plenum rated), IP 10 (<50 mm protection) |
| **HOA Switches (DO/AO)** | No | No | No |
| **Digital Status LEDs** | No | No | Yes |
| **Display** | No | No | No |
| **Intelligent Sensors** | Smart Sensor | Smart Sensor | Smart Sensor |
| **Service Port** | b3 | b3 | b3 |
| **Terminals** | | | |
| **I/O Terminals** | Fixed terminal | Fixed terminal | Fixed terminal |
| **I/O Expansion** | No | No | No |
| **External Enclosure/Mounting** | | | |
| **Enclosure class** | Open class (separate enclosure required) | Open class (separate enclosure required) | Open class (separate enclosure required) |
| **Mounting** | Wall mount | Wall mount | Wall mount |
| **Certifications** | | | |
| **BTL** | BTL: BACnet Advanced Application Controllers (B-AAC) with trending | BTL: BACnet Advanced Application Controllers (B-AAC) with trending | BTL: BACnet Advanced Application Controllers (B-AAC) with trending |
| **FCC** | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class A (Emission) |
| **Industry Canada (IC)** | ICES-003 (Emission) | ICES-003 (Emission) | ICES-003 (Emission) |
| **UL** | UL-916 (Energy Management Equipment), Optional UL-864 (Smoke Control System Equipment) UUKL | UL-916 (Energy Management Equipment), Optional UL-864 (Smoke Control System Equipment) UUKL | UL-916 (Energy Management Equipment), Optional UL-864 (Smoke Control System Equipment) UUKL |
| **C-UL US** | Yes | Yes | Yes |
| **CE - EU** | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes | Yes |
| **RoHS Directive** | Yes | Yes | Yes |
| **RCM** | Yes | Yes | Yes |

# b3 Series Controllers, continued

b3804
Local Controller

b3810
Local Controller

b3814
Local Controller

| Part Number | b3804 | b3810 | b3814 |
|---|---|---|---|
| **Communications** | | | |
| **Protocol** | BACnet Open Protocol | BACnet Open Protocol | BACnet Open Protocol |
| **Communication Interface** | MS/TP, 9600 -76,800 bit/s | MS/TP, 9600 -76,800 bit/s | MS/TP, 9600 -76,800 bit/s |
| **Software** | | | |
| **Programmability** | Script Programmable | Script Programmable | Script Programmable |
| **Physical** | | | |
| **Dimensions** | 153 W x 229 H x 54 D mm (6.01 W x 9.03 H x 2.14 D in.) | 184 W x 241 H x 54 D mm (7.26 W x 9.51 H x 2.14 D in.) | 184 W x 241 H x 54 D mm (7.26 W x 9.51 H x 2.14 D in.) |
| **Weight (including baseplate)** | 0.61 kg (1.34 lb.) | 0.75 kg (1.65 lb.) | 0.75 kg (1.65 lb.) |
| **Power** | | | |
| **Power** | 24 VAC +10% -15%, 50/60 Hz Class 2 limited power, 12-24 VDC (auto sensing AC/DC) | 24 VAC +10% -15%, 50/60 Hz Class 2 limited power, 12-24 VDC (auto sensing AC/DC) | 24 VAC +10% -15%, 50/60 Hz Class 2 limited power, 12-24 VDC (auto sensing AC/DC) |
| **Consumption** | 25 VA (3 A fuse overload MOV protected) | 30 VA (3 A fuse overload MOV protected) | 30 VA (3 A fuse overload MOV protected) |
| **Environmental** | | | |
| **Operating Range** | -23 °C to 60 °C (-10 °F to 140 °F) 10-95% RH (non-condensing) | 0 °C to 49 °C (32 °F to 120 °F) 10-95% RH (non-condensing) | 0 °C to 49 °C (32 °F to 120 °F) 10-95% RH (non-condensing) |
| **CPU Internals** | | | |
| **CPU** | Motorola Coldfire 32-bit, 10 Mhz | Motorola Coldfire 32-bit, 10 Mhz | Motorola Coldfire 32-bit, 10 Mhz |
| **Memory** | 1 MB flash, 128 kB SRAM | 1 MB flash, 256 kB SRAM | 1 MB flash, 256 kB SRAM |
| **Battery** | Replaceable, non-rechargeable lithium battery. Provides 5 years typical accumulated power failure backup of RAM memory. | Replaceable, non-rechargeable lithium battery. Provides 5 years typical accumulated power failure backup of RAM memory. | Replaceable, non-rechargeable lithium battery. Provides 5 years typical accumulated power failure backup of RAM memory. |
| **Real time clock** | Synchronized via BACnet service | Synchronized via BACnet service | Synchronized via BACnet service |
| **External Features** | | | |
| **Enclosure rating** | UL94 5 V (Plenum rated), IP 10 (<50 mm protection) | UL94 5 V (Plenum rated), IP 10 (<50 mm protection) | UL94 5 V (Plenum rated), IP 10 (<50 mm protection) |
| **HOA Switches (DO/AO)** | No | Yes - (8/0) | Yes - (4/4) |
| **Digital Status LEDs** | Yes | Yes | Yes |
| **Display** | No | No | No |
| **Intelligent Sensors** | Smart Sensor | Smart Sensor | Smart Sensor |
| **Service Port** | b3 | b3 | b3 |
| **Terminals** | | | |
| **I/O Terminals** | Fixed terminal | Two-piece terminal | Two-piece terminal |
| **I/O Expansion** | No | Up to 2 xP expansion modules | Up to 2 xP expansion modules |
| **External Enclosure/Mounting** | | | |
| **Enclosure class** | Open class (separate enclosure required) | Open class (separate enclosure required) | Open class (separate enclosure required) |
| **Mounting** | Wall mount | Wall mount | Wall mount |
| **Certifications** | | | |
| **BTL** | BTL: BACnet Advanced Application Controllers (B-AAC) with trending | BTL: BACnet Advanced Application Controllers (B-AAC) with trending | BTL: BACnet Advanced Application Controllers (B-AAC) with trending |
| **FCC** | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class A (Emission) |
| **Industry Canada (IC)** | ICES-003 (Emission) | ICES-003 (Emission) | ICES-003 (Emission) |
| **UL** | UL-916 (Energy Management Equipment), Optional UL-864 (Smoke Control System Equipment) UUKL | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes | Yes | Yes |
| **CE - EU** | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes | Yes |
| **RoHS Directive** | Yes | Yes | Yes |
| **RCM** | Yes | Yes | Yes |

# b3 Series Controllers, continued

b3850
Fan Coil, Heat Pump, VAV Zone Controller

b3851
Fan Coil & Heat Pump Zone Controller

b3853
Fan Coil, Heat Pump, Dual VAV Zone Controller

| Part Number | b3850 | b3851 | b3853 |
|---|---|---|---|
| **Communications** | | | |
| **Protocol** | BACnet Open Protocol | BACnet Open Protocol | BACnet Open Protocol |
| **Communication Interface** | MS/TP, 9600 -76,800 bit/s | MS/TP, 9600 -76,800 bit/s | MS/TP, 9600 -76,800 bit/s |
| **Software** | | | |
| **Programmability** | Script Programmable | Script Programmable | Script Programmable |
| **Physical** | | | |
| **Dimensions** | 207 W x 139 H x 62 D mm (8.16 W x 5.47 H x 2.44 D in.) | 207 W x 139 H x 62 D mm (8.16 W x 5.47 H x 2.44 D in.) | 207 W x 139 H x 62 D mm (8.16 W x 5.47 H x 2.44 D in.) |
| **Weight (including baseplate)** | 0.51 kg (1.08 lb) | 0.51 kg (1.08 lb) | 0.51 kg (1.08 lb) |
| **Power** | | | |
| **Power** | 24 VAC +10% -15%, 50/60Hz Class 2 limited power | 24 VAC +10% -15%, 50/60Hz Class 2 limited power | 24 VAC +10% -15%, 50/60Hz Class 2 limited power |
| **Consumption** | 20 VA (2A fuse overload MOV protected) | 20 VA (2A fuse overload MOV protected) | 20 VA (2A fuse overload MOV protected) |
| **Environmental** | | | |
| **Operating Range** | 0°C to 49°C (32°F to 120°F) 10-95% RH (non-condensing) | 0°C to 49°C (32°F to 120°F) 10-95% RH (non-condensing) | 0°C to 49°C (32°F to 120°F) 10-95% RH (non-condensing) |
| **CPU Internals** | | | |
| **CPU** | Motorola Coldfire 32-bit, 10Mhz | Motorola Coldfire 32-bit, 10Mhz | Motorola Coldfire 32-bit, 10Mhz |
| **Memory** | 1 MB flash, 128 kB SRAM | 1 MB flash, 128 kB SRAM | 1 MB flash, 128 kB SRAM |
| **Battery** | Replaceable, non-rechargeable lithium battery. Provides 5 years typical accumulated power failure backup of RAM memory. | Replaceable, non-rechargeable lithium battery. Provides 5 years typical accumulated power failure backup of RAM memory. | Replaceable, non-rechargeable lithium battery. Provides 5 years typical accumulated power failure backup of RAM memory. |
| **Real time clock** | Synchronized via BACnet service | Synchronized via BACnet service | Synchronized via BACnet service |
| **External Features** | | | |
| **Enclosure rating** | UL94 5V (Plenum rated), IP 10 (<50 mm protection) | UL94 5V (Plenum rated), IP 10 (<50 mm protection) | UL94 5V (Plenum rated), IP 10 (<50 mm protection) |
| **HOA Switches (DO/AO)** | No | No | No |
| **Digital Status LEDs** | No | No | No |
| **Display** | Option - xP Display | Option - xP Display | Option - xP Display |
| **Intelligent Sensors** | Smart Sensor | Smart Sensor | Smart Sensor |
| **Service Port** | b3 | b3 | b3 |
| **Terminals** | | | |
| **I/O Terminals** | Fixed terminal | Fixed terminal | Fixed terminal |
| **I/O Expansion** | Up to 2 xP expansion modules | Up to 2 xP expansion modules | Up to 2 xP expansion modules |
| **External Enclosure/Mounting** | | | |
| **Enclosure class** | Open class (separate enclosure required) | Open class (separate enclosure required) | Open class (separate enclosure required) |
| **Mounting** | Wall mount | Wall mount | Wall mount |
| **Certifications** | | | |
| **BTL** | BTL: BACnet Advanced Application Controllers (B-AAC) with trending | BTL: BACnet Advanced Application Controllers (B-AAC) with trending | BTL: BACnet Advanced Application Controllers (B-AAC) with trending |
| **FCC** | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class A (Emission) |
| **Industry Canada (IC)** | ICES-003 (Emission) | ICES-003 (Emission) | ICES-003 (Emission) |
| **UL** | UL-916 (Energy Management Equipment), Optional UL-864 (Smoke Control System Equipment) UUKL | UL-916 (Energy Management Equipment), Optional UL-864 (Smoke Control System Equipment) UUKL | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes | Yes | Yes |
| **CE - EU** | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes | Yes |
| **RoHS Directive** | Yes | Yes | Yes |
| **RCM** | Yes | Yes | Yes |

# b3 Series Controllers, continued

b3865-V
VAV Zone Controller

b3866-V
VAV Zone Controller

b3867
Terminal Controller

| Part Number | b3866-V | b3867 |
|---|---|---|
| **Communications** | | |
| **Protocol** | BACnet Open Protocol | BACnet Open Protocol |
| **Communication Interface** | MS/TP, 9600 -76,800 bit/s | MS/TP, 9600 -76,800 bit/s |
| **Software** | | |
| **Programmability** | Script Programmable | Script Programmable |
| **Physical** | | |
| **Dimensions** | 159 W x 197 H x 63 D mm (6.25 W x 7.75 H x 2.50 D in.) | 157 W x 89 H x 64 D mm (6.20 W x .3.50 H x 2.50 D in.) |
| **Weight (including baseplate)** | 1.04 kg (2.50 lb.) | 0.29 kg (0.64 lb.) |
| **Power** | | |
| **Power** | 24 VAC +10% -15%, 50/60 Hz Class 2 limited power | 24 VAC +10% -15%, 50/60 Hz Class 2 limited power |
| **Consumption** | <10 VA (fused overload MOV protected) | 4 VA (2 A fuse overload MOV protected) |
| **Environmental** | | |
| **Operating Range** | 0 °C to 50 °C (32 °F to 122 °F) 10-90% RH (non-condensing) | 0 °C to 49 °C (32 °F to 120 °F) 10-95% RH (non-condensing) |
| **CPU Internals** | | |
| **CPU** | Motorola Coldfire 32-bit, 10 Mhz | Motorola Coldfire 32-bit, 10 Mhz |
| **Memory** | 512 kB flash, 128 kB SRAM, programs/data max 56 kB, parameters 64 kB | 1 MB flash, 128 kB SRAM |
| **Battery** | Replaceable, rechargeable battery. Provides 30 days typical accumulated power failure backup of RAM memory. All data stored in Flash on power loss. | Replaceable, non-rechargeable lithium battery. Provides 5 years typical accumulated power failure backup of RAM memory. |
| **Real time clock** | No | Synchronized via BACnet service |
| **External Features** | | |
| **Enclosure rating** | N/A | UL94 5 V (Plenum rated), IP 10 (<50 mm protection) |
| **HOA Switches (DO/AO)** | No | No |
| **Digital Status LEDs** | No | No |
| **Display** | No | No |
| **Intelligent Sensors** | Smart Sensor | Smart Sensor |
| **Service Port** | b3 | b3 |
| **Terminals** | | |
| **I/O Terminals** | Two-piece terminal | Two-piece terminal |
| **I/O Expansion** | No | No |
| **External Enclosure/Mounting** | | |
| **Enclosure class** | Open class (separate enclosure required) | Open class (separate enclosure required) |
| **Mounting** | Wall mount | Wall mount |
| **Certifications** | | |
| **BTL** | BTL: BACnet Advanced Application Controllers (B-AAC) with trending | BTL: BACnet Advanced Application Controllers (B-AAC) with trending |
| **FCC** | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class A (Emission) |
| **Industry Canada (IC)** | ICES-003 (Emission) | ICES-003 (Emission) |
| **UL** | UL-916 (Energy Management Equipment), Optional UL-864 (Smoke Control System Equipment) UUKL | UL-916 (Energy Management Equipment), Optional UL-864 (Smoke Control System Equipment) UUKL |
| **C-UL US** | Yes | Yes |
| **CE - EU** | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes |
| **RoHS Directive** | Yes | Yes |
| **RCM** | Yes | Yes |

# b3 Series Controllers, continued

b3885-V
VAV Zone Controller

b3887 (without enclosure)
Terminal Controller

b3887-L-230
Terminal Controller

| Part Number | b3885-V | b3887 |
|---|---|---|
| **Communications** | | |
| **Protocol** | BACnet Open Protocol | BACnet Open Protocol |
| **Communication Interface** | MS/TP, 9600 -76,800 bit/s | MS/TP, 9600 -76,800 bit/s |
| **Software** | | |
| **Programmability** | Script Programmable | Script Programmable |
| **Physical** | | |
| **Dimensions** | 159 W x 197 H x 63 D mm (6.25 W x 7.75 H x 2.50 D in.) | 130 W x 111 H x 30 D mm (5.13 W x 4.40 H x 1.15 D in.) |
| **Weight (including baseplate)** | 1.04 kg (2.50 lb.) | 0.23 kg (0.50 lb.) |
| **Power** | | |
| **Power** | 24 VAC +10% -15%, 50/60 Hz Class 2 limited power | 24 VAC +10% -15%, 50/60 Hz Class 2 limited power |
| **Consumption** | <10 VA (fused overload MOV protected) | 10 VA (1 A fuse overload MOV protected) |
| **Environmental** | | |
| **Operating Range** | 0 °C to 50 °C (32 °F to 122 °F) 10-90% RH (non-condensing) | 0 °C to 49 °C (32 °F to 120 °F) 10-95% RH (non-condensing) |
| **CPU Internals** | | |
| **CPU** | Motorola Coldfire 32-bit, 10 Mhz | Motorola Coldfire 32-bit, 10 Mhz |
| **Memory** | 512 kB flash, 128 kB SRAM, programs/data max 56 kB, parameters 64 kB | 1 MB flash, 512 kB SRAM |
| **Battery** | Replaceable, rechargeable battery. Provides 30 days typical accumulated power failure backup of RAM memory. All data stored in Flash on power loss. | Replaceable, non-rechargeable lithium battery. Provides 5 years typical accumulated power failure backup of RAM memory. |
| **Real time clock** | No | Synchronized via BACnet service |
| **External Features** | | |
| **Enclosure rating** | N/A | UL94 5 V (Plenum rated), IP 10 (<50 mm protection) |
| **HOA Switches (DO/AO)** | No | No |
| **Digital Status LEDs** | No | No |
| **Display** | No | No |
| **Intelligent Sensors** | Smart Sensor | Smart Sensor |
| **Service Port** | b3 | b3 |
| **Terminals** | | |
| **I/O Terminals** | Two-piece terminal | Fixed terminal |
| **I/O Expansion** | No | No |
| **External Enclosure/Mounting** | | |
| **Enclosure class** | Open class (separate enclosure required) | Open class (separate enclosure required) |
| **Mounting** | Wall mount | Wall mount |
| **Certifications** | | |
| **BTL** | BTL: BACnet Advanced Application Controllers (B-AAC) with trending | BTL: BACnet Advanced Application Controllers (B-AAC) with trending |
| **FCC** | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class A (Emission) |
| **Industry Canada (IC)** | ICES-003 (Emission) | ICES-003 (Emission) |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes | Yes |
| **CE - EU** | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes |
| **RoHS Directive** | Yes | Yes |
| **RCM** | Yes | Yes |

# b3 Series Controllers, continued

b3887-L-115-C, b3887-L-230-C Terminal Controllers

b3920
System Controller

| Part Number | b3920, b3920-D |
|---|---|
| **Communications** | |
| **Protocol** | BACnet Open Protocol |
| **Communication Interface** | MS/TP, 9600 -76,800 bit/s |
| **Software** | |
| **Programmability** | Script Programmable |
| **Physical** | |
| **Dimensions** | 270.8 W x 330.2 H x 69.0 D mm (10.66 W x 13.00 H x 2.72 D in.) |
| **Weight (including baseplate)** | 1.58 kg (3.50 lb.) |
| **Power** | |
| **Power** | 115/230 VAC +10% -15%, 50/60 Hz |
| **Consumption** | 45 VA (3 A fuse overload MOV protected) |
| **Environmental** | |
| **Operating Range** | 0 °C to 49 °C (32 °F to 120 °F) 10-95% RH (non-condensing) |
| **CPU Internals** | |
| **CPU** | Motorola Coldfire 32-bit, 10 Mhz |
| **Memory** | 2 MB flash, 1 MB SRAM |
| **Battery** | Replaceable, non-rechargeable lithium battery. Provides 5 years typical accumulated power failure backup of RAM memory. |
| **Real time clock** | Synchronized via BACnet service |
| **External Features** | |
| **Enclosure rating** | UL94 5 V (Plenum rated), IP 10 (<50 mm protection) |
| **HOA Switches (DO/AO)** | Yes - (8/8) |
| **Digital Status LEDs** | Yes |
| **Display** | Option - xP Display |
| **Intelligent Sensors** | Smart Sensor |
| **Service Port** | b3 |
| **Terminals** | |
| **I/O Terminals** | Two-piece terminal |
| **I/O Expansion** | Up to 2 xP expansion modules |
| **External Enclosure/Mounting** | |
| **Enclosure class** | Open class (separate enclosure required) |
| **Mounting** | Wall mount |
| **Certifications** | |
| **BTL** | BTL: BACnet Advanced Application Controllers (B-AAC) with trending |
| **FCC** | 47 CFR § 15, Class A (Emission) |
| **Industry Canada (IC)** | ICES-003 (Emission) |
| **UL** | UL-916 (Energy Management Equipment), Optional UL-864 (Smoke Control System Equipment) UUKL |
| **C-UL US** | Yes |
| **CE - EU** | Yes |
| **WEEE - Directive of the European Union** | Yes |
| **RoHS Directive** | Yes |
| **RCM** | Yes |

# b3 Series xP Expansion I/O Modules

xPDI8
8 Channel Digital Output
Expansion Module

xPUI4
4 Channel Universal Input
Expansion Module

xPDO2
2 Channel Digital Output
Expansion Module

| Part Number | xPDI8 | xPUI4 |
|---|---|---|
| **Communications** | | |
| **Protocol** | xP Bus | xP Bus |
| **Physical** | | |
| **Dimensions** | 180 W x 82 H x 41 D mm (7.10 W x 3.21 H x 1.60 D in.) | 180 W x 82 H x 41 D mm (7.10 W x 3.21 H x 1.60 D in.) |
| **Weight (including baseplate)** | 0.22 kg (0.48 lb.) | 0.22 kg (0.48 lb.) |
| **Power** | | |
| **Power** | From xP bus with 400 mA power supply | From xP bus with 400 mA power supply |
| **Consumption** | 25 mA | 50 mA |
| **Environmental** | | |
| **Operating Range** | 0 °C to 49 °C (32 °F to 120 °F) 10-95% RH (non-condensing) | 0 °C to 49 °C (32 °F to 120 °F) 10-95% RH (non-condensing) |
| **External Features** | | |
| **Enclosure rating** | UL94 5VB, IP 10 (<50 mm protection) | UL94 5VB, IP 10 (<50 mm protection) |
| **HOA Switches (DO/AO)** | No | No |
| **Digital Status LEDs** | Yes | Yes |
| **Terminals** | | |
| **I/O Terminals** | Two-piece terminal | Two-piece terminal |
| **I/O Expansion** | N/A | N/A |
| **External Enclosure/Mounting** | | |
| **Enclosure class** | Open class (separate enclosure required) | Open class (separate enclosure required) |
| **Mounting** | Wall mount | Wall mount |
| **Certifications** | | |
| **BTL** | No | No |
| **FCC** | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class A (Emission) |
| **Industry Canada (IC)** | ICES-003 (Emission) | ICES-003 (Emission) |
| **UL** | UL-916 (Energy Management Equipment), UL-864 (Smoke Control System Equipment) UUKL | UL-916 (Energy Management Equipment), Optional UL-864 (Smoke Control System Equipment) UUKL |
| **C-UL US** | Yes | Yes |
| **CE - EU** | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes |
| **RoHS Directive** | Yes | Yes |
| **RCM** | Yes | Yes |

# b3 Series xP Expansion I/O Modules, continued

xPDO4
4 Channel Digital Output
Expansion Module

xPAO2
2 Channel Analog Output
Expansion Module

xPAO4
4 Channel Analog Output
Expansion Module

| Part Number | xPDO4 | xPAO2 | xPAO4 |
|---|---|---|---|
| **Communications** | | | |
| **Protocol** | xP Bus | xP Bus | xP Bus |
| **Physical** | | | |
| **Dimensions** | 180 W x 82 H x 41 D mm (7.10 W x 3.21 H x 1.60 D in.) | 180 W x 82 H x 41 D mm (7.10 W x 3.21 H x 1.60 D in.) | 180 W x 82 H x 41 D mm (7.10 W x 3.21 H x 1.60 D in.) |
| **Weight (including baseplate)** | 0.22 kg (0.48 lb.) | 0.22 kg (0.48 lb.) | 0.22 kg (0.48 lb.) |
| **Power** | | | |
| **Power** | From xP bus with 400 mA power supply | From xP bus with 400 mA power supply | From xP bus with 400 mA power supply |
| **Consumption** | 100 mA | 80 mA | 120 mA |
| **Environmental** | | | |
| **Operating Range** | 0 °C to 49 °C (32 °F to 120 °F) 10-95% RH (non-condensing) | 0 °C to 49 °C (32 °F to 120 °F) 10-95% RH (non-condensing) | 0 °C to 49 °C (32 °F to 120 °F) 10-95% RH (non-condensing) |
| **External Features** | | | |
| **Enclosure rating** | UL94 5VB, IP 10 (<50 mm protection) | UL94 5VB, IP 10 (<50 mm protection) | UL94 5VB, IP 10 (<50 mm protection) |
| **HOA Switches (DO/AO)** | Yes - (4/0) | Yes - (0/2) | Yes - (0/4) |
| **Digital Status LEDs** | Yes | Yes | Yes |
| **Terminals** | | | |
| **I/O Terminals** | Two-piece terminal | Two-piece terminal | Two-piece terminal |
| **I/O Expansion** | N/A | N/A | N/A |
| **External Enclosure/Mounting** | | | |
| **Enclosure class** | Open class (separate enclosure required) | Open class (separate enclosure required) | Open class (separate enclosure required) |
| **Mounting** | Wall mount | Wall mount | Wall mount |
| **Certifications** | | | |
| **BTL** | No | No | No |
| **FCC** | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class A (Emission) |
| **Industry Canada (IC)** | ICES-003 (Emission) | ICES-003 (Emission) | ICES-003 (Emission) |
| **UL** | UL-916 (Energy Management Equipment), UL-864 (Smoke Control System Equipment) UUKL | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes | Yes | Yes |
| **CE - EU** | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes | Yes |
| **RoHS Directive** | Yes | Yes | Yes |
| **RCM** | Yes | Yes | Yes |

# b3 Series Controllers – Inputs and Outputs

| Part Number | b3608 | b3624 | b3800 | b3804 | b3810 | b3814 |
|---|---|---|---|---|---|---|
| Universal Inputs | 8 | 24 | 8 | 8 | 8 | 8 |
| Digital Contact | • | • | • | • | • | • |
| Digital Counter - Low Speed | • | • | • | • | • | • |
| Digital Counter - Medium Speed | | | | | | |
| Digital Counter - High Speed | | | | | | |
| Digital Supervised | • | • | • | • | • | • |
| Analog Voltage - 0-1 V | | | | | | |
| Analog Voltage - 0-5 V | • | • | • | • | | |
| Analog Voltage - 0-10 V | | | | | • | • |
| Analog Voltage - 2-10 V | | | | | | |
| Analog Current - 0-20 mA | | | | | | |
| Analog Current - 4-20 mA | • | • | • | • | • | • |
| Analog Resistance | | | | | | |
| Analog Thermistor - 10 k | • | • | • | • | • | • |
| Analog Thermistor - 1.8 k | | | | | | |
| Analog Thermistor - 1 k | | | | | | |
| Analog Inputs | | | | | | |
| Voltage - 0-5 V | | | | | | |
| Voltage - 0-10 V | | | | | | |
| Velocity Pressure | | | | | | |
| Analog Thermistor - 10 k | | | | | | |
| Analog Thermistor - 1.8 k | | | | | | |
| Analog Thermistor - 1 k | | | | | | |
| Digital Outputs | | | 8 | 4 | 8 | 4 |
| Form A, SPST | | | | | | |
| Form C, SPDT | | | • | • | • | • |
| Triac | | | | | | |
| Analog Outputs | | | | 4 | | 4 |
| Voltage - 0-10 V | | | | • | | • |
| Current - 0-20 mA | | | | | | • |
| Damper Outputs | | | | | | |
| Form K, Triac | | | | | | |
| Voltage | | | | | | |
| Intelligent Sensors | 1 | 1 | 1 | 1 | 1 | 1 |
| Smart Sensor (b3) | • | • | • | • | • | • |

# b3 Series Controllers – Inputs and Outputs, continued

| Part Number | b3850 | b3851 | b3853 | b3866-V | b3867 |
|---|---|---|---|---|---|
| Universal Inputs | 4 | 4 | 4 | 4 | 4 |
| Digital Contact | • | • | • | • | • |
| Digital Counter - Low Speed | • | • | • | • | • |
| Digital Counter - Medium Speed | | | | | |
| Digital Counter - High Speed | | | | | |
| Digital Supervised | • | • | • | • | • |
| Analog Voltage - 0-1 V | | | | | |
| Analog Voltage - 0-5 V | • | • | • | • | • |
| Analog Voltage - 0-10 V | | | | | |
| Analog Voltage - 2-10 V | | | | | |
| Analog Current - 0-20 mA | • | • | • | | |
| Analog Current - 4-20 mA | | | | • | • |
| Analog Resistance | | | | | |
| Analog Thermistor - 10 k | • | • | • | • | • |
| Analog Thermistor - 1.8 k | | | | | |
| Analog Thermistor - 1 k | | | | | |
| Analog Inputs | 1 | | 2 | 1 | |
| Voltage - 0-5 V | | | | | |
| Voltage - 0-10 V | | | | | |
| Velocity Pressure | internal | | internal | internal | |
| Analog Thermistor - 10 k | | | | | |
| Analog Thermistor - 1.8 k | | | | | |
| Analog Thermistor - 1 k | | | | | |
| Digital Outputs | 4 | 4 | 4 | 3 | 5 |
| Form A, SPST | 3ch | 3ch | 3ch | | |
| Form C, SPDT | | | | | |
| Triac | 1ch | 1ch | 1ch | • | • |
| Analog Outputs | | | | 2 | 2 |
| Voltage - 0-10 V | | | | • | • |
| Current - 0-20 mA | | | | | |
| Damper Outputs | | | | 1 | |
| Form K, Triac | | | | | |
| Voltage | | | | internal | |
| Intelligent Sensors | 1 | 1 | 1 | 1 | 1 |
| Smart Sensor (b3) | • | • | • | • | • |

# b3 Series Controllers – Inputs and Outputs, continued

| Part Number | b3885-V | b3887 | b3920, b3920-D |
|---|---|---|---|
| Universal Inputs | 2 | 3 | 16 |
| Digital Contact | • | • | • |
| Digital Counter - Low Speed | | • | • |
| Digital Counter - Medium Speed | | | |
| Digital Counter - High Speed | • | | |
| Digital Supervised | • | • | • |
| Analog Voltage - 0-1 V | | | |
| Analog Voltage - 0-5 V | • | • | |
| Analog Voltage - 0-10 V | | | • |
| Analog Voltage - 2-10 V | | | |
| Analog Current - 0-20 mA | | | |
| Analog Current - 4-20 mA | • | • | • |
| Analog Resistance | | | |
| Analog Thermistor - 10 k | • | • | • |
| Analog Thermistor - 1.8 k | | | |
| Analog Thermistor - 1 k | | | |
| Analog Inputs | 1 | | |
| Voltage - 0-5 V | | | |
| Voltage - 0-10 V | | | |
| Velocity Pressure | internal | | |
| Analog Thermistor - 10 k | | | |
| Analog Thermistor - 1.8 k | | | |
| Analog Thermistor - 1 k | | | |
| Digital Outputs | 2 | 5 | 8 |
| Form A, SPST | | 1 channel | |
| Form C, SPDT | | | • |
| Triac | • | 4 channel | |
| Analog Outputs | | | 8 |
| Voltage - 0-10 V | | | • |
| Current - 0-20 mA | | | • |
| Damper Outputs | 1 | | |
| Form K, Triac | internal | | |
| Voltage | | | |
| Intelligent Sensors | 1 | 1 | 1 |
| Smart Sensor (b3) | • | • | • |

# b3 Series xP Expansion I/O Modules – Inputs and Outputs

| Part Number | xPDI8 | xPUI4 | xPDO4 | xPAO2 | xPAO4 |
|---|---|---|---|---|---|
| **Universal Inputs** | | 4 | | | |
| **Digital Contact** | | • | | | |
| **Digital Counter - Low Speed** | | 3 channel | | | |
| **Digital Counter - Medium Speed** | | | | | |
| **Digital Counter - High Speed** | | 1 channel | | | |
| **Digital Supervised** | | • | | | |
| **Analog Voltage - 0-1 V** | | | | | |
| **Analog Voltage - 0-5 V** | | • | | | |
| **Analog Voltage - 0-10 V** | | | | | |
| **Analog Voltage - 2-10 V** | | | | | |
| **Analog Current - 0-20 mA** | | | | | |
| **Analog Current - 4-20 mA** | | • | | | |
| **Analog Resistance** | | | | | |
| **Analog Thermistor - 10 k** | | • | | | |
| **Analog Thermistor - 1.8 k** | | | | | |
| **Analog Thermistor - 1 k** | | | | | |
| **Digital Inputs** | 8 | | | | |
| **Digital Contact** | • | | | | |
| **Counter - Low Speed** | | | | | |
| **Counter - Medium Speed** | | | | | |
| **Counter - High Speed** | • | | | | |
| **Digital Outputs** | | | 4 | | |
| **Form A, SPST** | | | | | |
| **Form C, SPDT** | | | • | | |
| **Triac** | | | | | |
| **Analog Outputs** | | | | 2 | 4 |
| **Voltage - 0-10 V** | | | | • | • |
| **Current - 0-20 mA** | | | | • | • |

The PCS enables offline engineering and project configuration of EcoStruxure Building Operation without the need for live equipment or for an engineer or technician to be onsite. Save time and reduce costs by engineering automation servers and the Enterprise Server offline and later deploying when live onsite.

Search keyword: Project Configuration Server

# MNB Series

Now native in EcoStruxure solution, the MNB series of MicroNet controllers are designed in accordance with BACnet® standards. When programmed or loaded with a pre-engineered application, these controllers provide control for packaged rooftops, heat pumps, fan coils, unit ventilators, and similar applications.

# MNB Series Controllers

MNB-1000

MNB-300

| Part Number | MNB-70 | MNB-300 | MNB-1000 |
|---|---|---|---|
| **Communications** | | | |
| **Protocol** | BACnet Open Protocol | BACnet Open Protocol | BACnet Open Protocol |
| **Communication Interface** | MS/TP, 9600-76,800 bit/s | MS/TP, 9600-76,800 bit/s | MS/TP, 9600-76,800 bit/s |
| **Software** | | | |
| **Preloaded Application/ASC** | No | No | No |
| **Programability** | WorkPlace Tech programmable | WorkPlace Tech programmable | WorkPlace Tech programmable |
| **Physical** | | | |
| **Dimensions** | 127 W x 92 H x 41 D mm (5 W x 3.625 H x 1.594 D in.) | 178 W x 100 H x 56 D mm (7.0 W x 3.94 H x 2.19 D in.) | 213 W x 278 H x 58 D mm (8.375 W x 10.937 H x 2.281 D in.) |
| **Weight (including baseplate)** | 1.1 lb. | 1.5 lb | 3.95 lb. |
| **Power** | | | |
| **Power** | 20.4 to 30 VAC, 50/60Hz | 20.4 to 30 VAC, 50/60Hz | 20.4 to 30 VAC, 50/60Hz |
| **Consumption** | 15 VA (plus DO loads) | 16VA | 50VA |
| **Environmental** | | | |
| **Operating Range** | 0°C to 55°C (32°F to 131°F) 5-95% RH (non-condensing) | -40°C to 60°C (-40°F to 140°F) 5-95% RH (non-condensing) | -40°C to 60°C (-40°F to 140°F) 5-95% RH (non-condensing) |
| **CPU Internals** | | | |
| **CPU** | 8 Bit | 8 Bit | 32 Bit |
| **Memory** | "Flash: 256K EEPROM: 4K" | "Flash: 256K EEPROM: 4K" | "DDR: 64M NOR Flash: 16M" |
| **Battery** | N/A | N/A | 72 hour |
| **Real time clock** | N/A | N/A | Yes |
| **External Features** | | | |
| **Enclosure rating** | NEMA-1, UL94 5V (Plenum rated) | N/A | N/A |
| **HOA Switches (DO/AO)** | No | No | No |
| **Digital Status LEDs** | Yes | Yes | Yes |
| **Display** | Via S-Link Sensor | Via S-Link Sensor | Via S-Link Sensor |
| **Intelligent Sensors** | Sensor Link (S-Link) | Sensor Link (S-Link) | Sensor Link (S-Link) |
| **Service Port** | MS/TP jack on controller | MS/TP jack on controller | MS/TP jack on controller |
| **Terminals** | | | |
| **I/O Terminals** | Fixed terminal | Fixed terminal | Fixed terminal |
| **I/O Expansion** | No | No | Up to 8 MNB-15s, each with 15 I/O points |
| **A/D Conversion - Inputs** | 12-bit | 12-bit | 12-bit |
| **A/D Conversion - Outputs** | 8-bit | 8-bit | 8-bit |
| **External Enclosure/Mounting** | | | |
| **Enclosure class** | N/A | NEMA-1 | NEMA-1 |
| **Conduit knockouts** | No | Yes | Yes |
| **Mounting** | Panel Mount | Panel Mount | Panel Mount |
| **Certifications** | | | |
| **BTL** | BTL: BACnet Application Specific Controller (B-ASC) | BTL: BACnet Application Specific Controller (B-ASC) | BTL: BACnet Application Specific Controller (B-ASC) |
| **FCC** | Part 15, Class A | Part 15, Class A | Part 15, Class A |
| **Industry Canda (IC)** | CAN/CSA 22.2, ULC/ ORD-C100-92, CAN-ULC-S527 | CAN/CSA 22.2, ULC/ ORD-C100-92, CAN-ULC-S527 | CAN/CSA 22.2, ULC/ ORD-C100-92, CAN-ULC-S527 |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment), UL-864 (Smoke Control) | UL-916 (Energy Management Equipment), UL-864 (Smoke Control) |
| **C-UL US** | UL Listed to Canadian Safety Standards (CAN/CSA 22.2). | UL Listed to Canadian Safety Standards (CAN/CSA 22.2). | UL Listed to Canadian Safety Standards (CAN/CSA 22.2). |
| **CE - EU** | 89/336/EEC, EN61326 | 89/336/EEC, EN61326 | 89/336/EEC, EN61326 |
| **WEEE - Directive of the European Union** | 2012/19/EU | 2012/19/EU | 2012/19/EU |
| **RoHS Directive** | RoHS II | RoHS II | RoHS II |
| **RCM** | Yes | Yes | Yes |

# MNB Series Controllers, continued

MNB-V1

MNB-V2

| Part Number | MNB-1000-15 | MNB-V1-2 | MNB-V2-2 |
|---|---|---|---|
| **Communications** | | | |
| **Protocol** | Modbus | BACnet Open Protocol | BACnet Open Protocol |
| **Communication Interface** | RS-485 | MS/TP, 9600-76,800 bit/s | MS/TP, 9600-76,800 bit/s |
| **Software** | | | |
| **Preloaded Application/ASC** | No | No | No |
| **Programability** | Program resides on parent controller | WorkPlace Tech programmable | WorkPlace Tech programmable |
| **Physical** | | | |
| **Dimensions** | 178 W x 100 H x 56 D mm (7.0 W x 3.94 H x 2.19 D in.) | "159 W x 197 H x 63 D mm (6.25 W x 7.75 H x 2.50 D in.)" | "159 W x 197 H x 63 D mm (6.25 W x 7.75 H x 2.50 D in.)" |
| **Weight (including baseplate)** | 1.5 lb. | 2.68 lb. | 2.65 lb. |
| **Power** | | | |
| **Power** | 20.4 to 30 VAC, 50/60Hz | 20.4 to 30 VAC, 50/60Hz | 20.4 to 30 VAC, 50/60Hz |
| **Consumption** | 16VA | 15VA | 15VA |
| **Environmental** | | | |
| **Operating Range** | -40°C to 60°C (-40°F to 140°F) 5-95% RH (non-condensing) | 0°C to 55°C (32°F to 131°F) 5-95% RH (non-condensing) | 0°C to 55°C (32°F to 131°F) 5-95% RH (non-condensing) |
| **CPU Internals** | | | |
| **CPU** | 8 Bit | 8 Bit | 8 Bit |
| **Memory** | "Flash: 256K EEPROM: 4K" | "Flash: 256K EEPROM: 4K" | "Flash: 256K EEPROM: 4K" |
| **Battery** | N/A | N/A | N/A |
| **Real time clock** | N/A | N/A | N/A |
| **External Features** | | | |
| **Enclosure rating** | N/A | UL94 5V (Plenum rated) | UL94 5V (Plenum rated) |
| **HOA Switches (DO/AO)** | No | No | No |
| **Digital Status LEDs** | Yes | Yes | Yes |
| **Display** | No | Via S-Link Sensor | Via S-Link Sensor |
| **Intelligent Sensors** | No | Sensor Link (S-Link) | Sensor Link (S-Link) |
| **Service Port** | No | MS/TP jack on controller | MS/TP jack on controller |
| **Terminals** | | | |
| **I/O Terminals** | Fixed terminal | Fixed terminal | Fixed terminal |
| **I/O Expansion** | No | No | No |
| **A/D Conversion - Inputs** | 12-bit | 12-bit | 12-bit |
| **A/D Conversion - Outputs** | 8-bit | N/A | 8-bit |
| **External Enclosure/Mounting** | | | |
| **Enclosure class** | NEMA-1 | NEMA-1 | NEMA-1 |
| **Conduit knockouts** | Yes | Yes | Yes |
| **Mounting** | Panel Mount | Shaft mount | Shaft mount |
| **Certifications** | | | |
| **BTL** | N/A | BTL: BACnet Application Specific Controller (B-ASC) | BTL: BACnet Application Specific Controller (B-ASC) |
| **FCC** | Part 15, Class A | Part 15, Class A | Part 15, Class A |
| **Industry Canada (IC)** | CAN/CSA 22.2 | CAN/CSA 22.2, ULC/ ORD-C100-92, CAN-ULC-S527 | CAN/CSA 22.2, ULC/ ORD-C100-92, CAN-ULC-S527 |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment), UL-864 (Smoke Control) | UL-916 (Energy Management Equipment), UL-864 (Smoke Control) |
| **C-UL US** | UL Listed to Canadian Safety Standards (CAN/CSA 22.2). | UL Listed to Canadian Safety Standards (CAN/CSA 22.2). | UL Listed to Canadian Safety Standards (CAN/CSA 22.2). |
| **CE - EU** | 89/336/EEC, EN61326 | 89/336/EEC, EN61326 | 89/336/EEC, EN61326 |
| **WEEE - Directive of the European Union** | 2012/19/EU | 2012/19/EU | 2012/19/EU |
| **RoHS Directive** | RoHS II | RoHS II | RoHS II |
| **RCM** | Yes | Yes | Yes |

# MNB Series Controllers – Inputs and Outputs

| Base Part Number | MNB-70 | MNB-300 | MNB-1000 | MNB-1000-15 | MNB-V1-2 | MNB-V2-2 |
|---|---|---|---|---|---|---|
| Universal Inputs | 3 | 6 | 12 | 6 | 3 | 3 |
| Digital Contact | • | • | • | • | • | • |
| Digital Counter - Low Speed | | | | | | |
| Digital Counter - Medium Speed | | • | | | | |
| Digital Counter - High Speed | | • | | | | |
| Digital Supervised | | | | | | |
| Analog Voltage - 0-1V | | | | | | |
| Analog Voltage - 0-5V | • | • | • | • | • | • |
| Analog Voltage - 0-10V | | | | | | |
| Analog Voltage - 2-10V | | | | | | |
| Analog Current - 0-20mA | • | • | • | • | • | • |
| Analog Current - 4-20mA | | | | | | |
| Analog Resistance | • | • | • | • | • | • |
| Analog Thermistor - 10k | • | • | • | • | • | • |
| Analog Thermistor - 1.8k | | | | | | |
| Analog Thermistor - 1k | • | • | • | • | • | • |
| Digital Inputs | | | 4 | | | |
| Digital Contact | | | • | | | |
| Counter - Low Speed | | | | | | |
| Counter - Medium Speed | | | | | | |
| Counter - High Speed | | | • | | | |
| Analog Inputs | | | | | | |
| Voltage - 0-5V | | | | | | |
| Voltage - 0-10V | | | | | | |
| Velocity Pressure | | | | | | |
| Analog Thermistor - 10k | | | | | | |
| Analog Thermistor - 1.8k | | | | | | |
| Analog Thermistor - 1k | | | | | | |
| Universal Outputs | 1 | 3 | 8 | 3 | | 1 |
| Digital Contact | • | • | | • | | • |
| Digital Counter - Low Speed | | | | | | |
| Digital Counter - Medium Speed | | | | | | |
| Digital Counter - High Speed | | | | | | |
| Digital Supervised | | | | | | |
| Analog Voltage - 0-1V | | | | | | |
| Analog Voltage - 0-5V | | | | | | |
| Analog Voltage - 0-10V | • | • | • | • | | • |
| Analog Voltage - 2-10V | | | | | | |
| Analog Current - 0-20mA | • | • | • | • | | • |
| Analog Current - 4-20mA | | | | | | |
| Analog Resistance | | | | | | |
| Analog Thermistor - 10k | | | | | | |
| Analog Thermistor - 1.8k | | | | | | |
| Analog Thermistor - 1k | | | | | | |
| Digital Outputs | 3 | 6 | 8 | 6 | | 3 |
| Form A, SPST | | | | | | |
| Form C, SPDT | | | | | | |
| Triac | • | • | • | • | | • |
| Analog Outputs | | | | | | |
| Voltage - 0-10V | | | | | | |
| Current - 0-20mA | | | | | | |
| Damper Outputs | | | | | 1 | 1 |
| Form K, Triac | | | | | internal | internal |
| Voltage | | | | | | |
| Intelligent Sensors | | | | | | |
| S-Link (MN-Sx for MNB) | • | • | • | | • | • |

# LonWorks Controllers

# Xenta Series

Xenta series controllers and I/O modules provide an open and flexible system architecture and access to standardized LonWorks-based network technology.

# Xenta Series Controllers

Xenta 102-ES
VAV Zone Controller

Xenta 102-AX
VAV Zone Controller

| | 102-ES | 102-AX |
|---|---|---|
| **Part Number** | **007305370** | **007305401** |
| **Communications** | | |
| **Protocol** | LonTalk communication protocol | LonTalk communication protocol |
| **Communication Interface** | TP/FT-10, 78 kbps | TP/FT-10, 78 kbps |
| **Software** | | |
| **Pre loaded Application/ASC** | Yes | Yes |
| **Physical** | | |
| **Dimensions** | 127 W x 126 H x 50 D mm<br>(5.0 W x 4.9 H x 1.9 D in.) | 159 W x 197 H x 63 D mm<br>(6.25 W x 7.75 H x 2.50 D in.) |
| **Weight** | 0.4 kg (0.88 lb.) | 1.04 kg (2.3 lb.) |
| **Power** | | |
| **Power** | 24 VAC ±20%, 50/60 Hz | 24 VAC ±10%, 50/60 Hz |
| **Consumption** | 6 VA with Xenta OP, Digital Outputs max 6 x 9 =114 VA ,<br>Total max 120 VA | 9 VA, Digital Outputs each 12 VA ,<br>Total max 36 VA |
| **Environmental** | | |
| **Operating Range** | 0 °C to 50 °C (32 °F to 122 °F) 0-95% RH (non-condensing) | 0 °C to 50 °C (32 °F to 122 °F) 0-90% RH (non-condensing) |
| **External Features** | | |
| **Enclosure rating** | UL94 5VB, IP 30 (<2.5 mm protection) | NEMA-1, UL94 5VB, IP 10 (<50 mm protection) |
| **HOA Switches (DO/AO)** | No | No |
| **Digital Status LEDs** | No | No |
| **Intelligent Sensors** | STR150 | STR150 |
| **Service Port** | Xenta OP | Xenta OP |
| **Terminals** | | |
| **I/O Terminals** | Fixed terminal | Two-piece terminal |
| **I/O Expansion** | No | No |
| **External Enclosure/Mounting** | | |
| **Enclosure class** | N/A | N/A |
| **Mounting** | DIN-rail or wall mount | VAV/FPB box mount |
| **Certifications** | | |
| **LonMark** | LonMark certified: VAV 8010 | LonMark certified: VAV 8010 |
| **FCC** | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class B (Emission) |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes | No |
| **CE - EU** | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes |
| **RoHS Directive** | Yes | Yes |
| **RCM** | Yes | Yes |

# Xenta Series Controllers, continued

Xenta 122-FC/24, 122-FC/230
Flexible Zone Controllers

| | 122-FC/24, 122-FC/230 |
|---|---|
| **Part Number** | **007307110, 007307120** |
| **Communications** | |
| **Protocol** | LonTalk communication protocol |
| **Communication Interface** | TP/FT-10, 78 kbps |
| **Software** | |
| **Pre loaded Application/ASC** | Hybrid |
| **Physical** | |
| **Dimensions** | 112 W x 110 H x 50 D mm<br>(4.37 W x 4.29 H x 2.00 D in.) |
| **Weight** | 0.3 kg (0.66 lb.) / 0.6 kg (1.3 lb) |
| **Power** | |
| **Power** | 24 VAC ±20%, 50/60 Hz<br>(230 V AC ±10%, 50–60 Hz) |
| **Consumption** | Controller and OP 4 VA, including digital outputs: FC/24: 84 VA, FC/230: 20 VA |
| **Environmental** | |
| **Operating Range** | 0 °C to 50 °C (32 °F to 122 °F)<br>0-90% RH (non-condensing) |
| **External Features** | |
| **Enclosure rating** | UL94 5VB, IP 20 (<12.5 mm protection) |
| **HOA Switches (DO/AO)** | No |
| **Digital Status LEDs** | No |
| **Intelligent Sensors** | STR150 |
| **Service Port** | Xenta OP |
| **Terminals** | |
| **I/O Terminals** | Fixed terminal |
| **I/O Expansion** | No |
| **External Enclosure/Mounting** | |
| **Enclosure class** | N/A |
| **Mounting** | DIN-rail or wall mount |
| **Certifications** | |
| **LonMark** | LonMark certified: 8501 Fan Coil |
| **FCC** | 47 CFR Part 15, Subpart B, Class B |
| **UL** | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes |
| **CE - EU** | Yes |
| **WEEE - Directive of the European Union** | Yes |
| **RoHS Directive** | Yes |
| **RCM** | Yes |

# Xenta Series I/O Modules

Xenta 411/412
10 Channel Digital Input Modules

Xenta 421A/422A
4 Channel Universal Input/5 Channel Digital Output Modules

| | 411, 412 | 421A, 422A |
|---|---|---|
| **Part Number** | **007302011, 007302031** | **007302450, 007302460** |
| **Communications** | | |
| **Protocol** | LonTalk communication protocol | LonTalk communication protocol |
| **Communication Interface** | TP/FT-10, 78 kbps | TP/FT-10, 78 kbps |
| **Physical** | | |
| **Dimensions** | 90 W x 110 H x 75 D mm (3.55 W x 4.33 H x 3.1 D in.) | 90 W x 110 H x 75 D mm (3.55 W x 4.33 H x 3.1 D in.) |
| **Weight (including baseplate)** | 0.595 kg (1.41 lb.) | 0.295 kg (0.65 lb.) |
| **Power** | | |
| **Power** | 24 VAC ±20%, 50/60 Hz | 24 VAC ±20%, 50/60 Hz |
| **Consumption** | 2 VA | 4 W, 8 VA transformer |
| **Environmental** | | |
| **Operating Range** | 0 °C to 50 °C (32 °F to 122 °F) 0-90% RH (non-condensing) | 0 °C to 50 °C (32 °F to 122 °F) 0-90% RH (non-condensing) |
| **External Features** | | |
| **Enclosure rating** | UL94 V-0, IP 20 (<12.5 mm protection) | UL94 V-0, IP 20 (<12.5 mm protection) |
| **HOA Switches (DO/AO)** | Available on 412 model | Available on 422A model |
| **Digital Status LEDs** | Available on 412 model | Available on 422A model |
| **Terminals** | | |
| **I/O Terminals** | Terminal base | Terminal base |
| **External Enclosure/Mounting** | | |
| **Enclosure class** | Enclosed class (no separate enclosure required) | Open class (separate enclosure required) |
| **Mounting** | DIN-rail or wall mount | DIN-rail or wall mount |
| **Certifications** | | |
| **LonMark** | No | LonMark® certified: Digital Input 20543, Analog Input 0520 |
| **FCC** | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class B (Emission) |
| **UL** | UL-916 (Energy Management Equipment), UL 3111-1 (Electrical Measuring and Test Equipment) | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes | Yes |
| **CE - EU** | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes |
| **RoHS Directive** | Yes | Yes |
| **RCM** | Yes | Yes |

# Xenta Series I/O Modules, continued

Xenta 451A / 452A
8 Channel Universal Input/2 Channel Analog Output Modules

Xenta 471
8 Channel Universal Input Module

Xenta 491/492
8 Channel Analog Output Modules

| | 451A, 452A | 471 | 491, 492 |
|---|---|---|---|
| **Part Number** | **007302850, 007302860** | **007302910** | **007303010, 007303030** |
| **Communications** | | | |
| **Protocol** | LonTalk communication protocol | LonTalk communication protocol | LonTalk communication protocol |
| **Communication Interface** | TP/FT-10, 78 kbps | TP/FT-10, 78 kbps | TP/FT-10, 78 kbps |
| **Physical** | | | |
| **Dimensions** | 90 W x 110 H x 75 D mm (3.55 W x 4.33 H x 3.1 D in.) | 90 W x 110 H x 75 D mm (3.55 W x 4.33 H x 3.1 D in.) | 90 W x 110 H x 75 D mm (3.55 W x 4.33 H x 3.1 D in.) |
| **Weight (including baseplate)** | 0.295 kg (0.65 lb.) | 0.495 kg (1.09 lb.) | 0.495 kg (1.09 lb.) |
| **Power** | | | |
| **Power** | 24 VAC ±20%, 50/60 Hz | 24 VAC ±20%, 50/60 Hz | 24 VAC ±20%, 50/60 Hz |
| **Consumption** | 3 W, 6 VA transformer | 4 W, 8 VA transformer | 3 W, 6 VA transformer |
| **Environmental** | | | |
| **Operating Range** | 0 °C to 50 °C (32 °F to 122 °F) 0-90% RH (non-condensing) | 0 °C to 50 °C (32 °F to 122 °F) 0-90% RH (non-condensing) | 0 °C to 50 °C (32 °F to 122 °F) 0-90% RH (non-condensing) |
| **External Features** | | | |
| **Enclosure rating** | UL94 V-0, IP 20 (<12.5 mm protection) | UL94 V-0, IP 20 (<12.5 mm protection) | UL94 V-0, IP 20 (<12.5 mm protection) |
| **HOA Switches (DO/AO)** | Available on 452A model | No | Available on 492 model |
| **Digital Status LEDs** | Available on 452A model | No | Available on 492 model |
| **Terminals** | | | |
| **I/O Terminals** | Terminal base | Terminal base | Terminal base |
| **External Enclosure/Mounting** | | | |
| **Enclosure class** | Enclosed class (no separate enclosure required) | Enclosed class (no separate enclosure required) | Enclosed class (no separate enclosure required) |
| **Mounting** | DIN-rail or wall mount | DIN-rail or wall mount | DIN-rail or wall mount |
| **Certifications** | | | |
| **LonMark** | LonMark certified: Analog Input 0520, Analog Output 0521 | No | No |
| **FCC** | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class A (Emission) |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment), UL 3111-1 (Electrical Measuring and Test Equipment) | UL-916 (Energy Management Equipment), UL 3111-1 (Electrical Measuring and Test Equipment) |
| **C-UL US** | Yes | Yes | Yes |
| **CE - EU** | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | Yes | Yes | Yes |
| **RoHS Directive** | Yes | Yes | Yes |
| **RCM** | Yes | Yes | Yes |

# Xenta Series Controllers – Inputs and Outputs

| | 102-ES | 102-AX | 122-FC/24, 122-FC/230 |
|---|---|---|---|
| Part Number | 007305370 | 007305401 | 007307110, 007307120 |
| Universal Inputs | | 4 | 4 |
| Digital Contact | | • | • |
| Digital Counter - Low Speed | | | |
| Digital Counter - Medium Speed | | | |
| Digital Counter - High Speed | | | |
| Digital Supervised | | | |
| Analog Voltage - 0-1 V | | | |
| Analog Voltage - 0-5 V | | • | |
| Analog Voltage - 0-10 V | | | • |
| Analog Voltage - 2-10 V | | | |
| Analog Current - 0-20 mA | | | |
| Analog Current - 4-20 mA | | | |
| Analog Resistance | | | |
| Analog Thermistor - 10 k | | • | |
| Analog Thermistor - 1.8 k | | | • |
| Analog Thermistor - 1 k | | | |
| Digital Inputs | 2 | | 3 |
| Digital Contact | • | | • |
| Counter - Low Speed | | | |
| Counter - Medium Speed | | | |
| Counter - High Speed | | | |
| Analog Inputs | 3 | 5 | • |
| Voltage - 0-5 V | | 4 channel | |
| Voltage - 0-10 V | 1 channel | | |
| Velocity Pressure | 1 channel internal | 1 channel internal | |
| Resistor, 10 k | | | • |
| Analog Thermistor - 10 k | | | |
| Analog Thermistor - 1.8 k | • | | |
| Analog Thermistor - 1 k | | | |
| Digital Outputs | 6 | 3 | 8 |
| Form A, SPST | | | 4 |
| Form C, SPDT | | | |
| Triac | • | • | 4 |
| Analog Outputs | 1 | | 3 |
| Voltage - 0-10 V | • | | • |
| Current - 0-20 mA | | | |
| Damper Outputs | | 1 | |
| Form K, Triac | | internal | |
| Voltage | | | |
| Intelligent Sensors | 1 | 1 | 1 |
| STR (Xenta) | • | • | • |

# Xenta Series I/O Modules – Inputs and Outputs

| | 411, 412 | 421A, 422A | 451A, 452A | 471 | 491, 492 |
|---|---|---|---|---|---|
| Part Number | 007302011, 007302031 | 007302450, 007302460 | 007302850, 007302860 | 007302910 | 007303010, 007303030 |
| **Universal Inputs** | | 4 | 8 | 8 | |
| Digital Contact | | • | • | | |
| Digital Counter - Low Speed | | | • | | |
| Digital Counter - Medium Speed | | • | | | |
| Digital Counter - High Speed | | | | | |
| Digital Supervised | | | | | |
| Analog Voltage - 0-1 V | | • | • | • | |
| Analog Voltage - 0-5 V | | • | • | • | |
| Analog Voltage - 0-10 V | | • | • | • | |
| Analog Voltage - 2-10 V | | • | • | • | |
| Analog Current - 0-20 mA | | • | • | • | |
| Analog Current - 4-20 mA | | • | • | • | |
| Analog Resistance | | • | • | | |
| Analog Thermistor - 10 k | | • | • | | |
| Analog Thermistor - 1.8 k | | • | • | | |
| Analog Thermistor - 1 k | | | | | |
| **Digital Inputs** | 10 | | | | |
| Digital Contact | • | | | | |
| Counter - Low Speed | | | | | |
| Counter - Medium Speed | • | | | | |
| Counter - High Speed | | | | | |
| **Digital Outputs** | | 5 | | | |
| Form A, SPST | | • | | | |
| Form C, SPDT | | | | | |
| Triac | | | | | |
| **Analog Outputs** | | | 2 | | 8 |
| Voltage - 0-10 V | | | • | | • |
| Current - 0-20 mA | | | | | |

Note: 421A, 422A, 451A, and 452A can also be used as distributed I/Os under an automation server.

# MNL Series

The MNL series of controllers are designed in accordance with LonMark® guidelines. When programmed or loaded with a pre-engineered application, these controllers provide control for packaged rooftops, heat pumps, fan coils, unit ventilators, and similar applications.

# MNL Series Controllers

MNL-50
Fan Coil, Heat Pump, Roof Top, Satellite Zone Controllers

MNL-100
Fan Coil, Heat Pump, Roof Top, Satellite Zone Controllers

MNL-110
Fan Coil Zone Controller

| | MNL-50 | MNL-100 | MNL-110 |
|---|---|---|---|
| **Part Number** | **MNL-5RF3, MNL-5RH3, MNL-5RR3, MNL-5RS3, MNL-5RS4** | **MNL-10RF3, MNL-10RH3, MNL-10RR3, MNL-10RS3, MNL-10RS4** | **MNL-11RF3** |
| **Communications** | | | |
| **Protocol** | LonTalk® communication protocol | LonTalk communication protocol | LonTalk communication protocol |
| **Communication Interface** | TP/FT-10, 78 kbps | TP/FT-10, 78 kbps | TP/FT-10, 78 kbps |
| **Software** | | | |
| **Pre loaded Application/ASC** | Yes | Yes | Yes |
| **Programmability** | WorkPlace Tech programmable | WorkPlace Tech programmable | WorkPlace Tech programmable |
| **Physical** | | | |
| **Dimensions** | 127 W x 112 H x 41 D mm (5.0 W x 4.5 H x 1.625 D in.) | 109 W x 111 H x 51 D mm (4.37 W x 4.29 H x 2.00 D in.) | 154.9 W x 107 H x 50 D mm (6.1 W x 4.2 H x 2.0 D in.) |
| **Weight (including baseplate)** | N/A | N/A | N/A |
| **Power** | | | |
| **Power** | 24 VAC +25% -15%, 50/60 Hz | 24 VAC +25% -15%, 50/60 Hz | 24 VAC +25% -15%, 50/60 Hz |
| **Consumption** | 12 VA (84 VA with DO loads @24 VA each) | 15 VA | 20.5 VA |
| **Environmental** | | | |
| **Operating Range** | -40 °C to 60 °C (-40 °F to 140 °F) 5-95% RH (non-condensing) | -40 °C to 60 °C (-40 °F to 140 °F) 5-95% RH (non-condensing) | -40 °C to 55 °C (-40 °F to 131 °F) 0-95% RH (non-condensing) |
| **CPU Internals** | | | |
| **CPU** | Neuron FT5000 | Neuron FT5000 | Neuron FT5000 |
| **Memory** | Flash = 64 byte or 512 k bit, EEProm 6 k bit or 8 k byte | Flash = 64 byte or 512 k bit, EEProm 6 k bit or 8 k byte | Flash = 64 byte or 512 k bit, EEProm 6 k bit or 8 k byte |
| **Battery** | N/A | N/A | N/A |
| **Real time clock** | No | No | No |
| **External Features** | | | |
| **Enclosure rating** | NEMA-1, UL94 5 V (Plenum rated) | NEMA-1, UL94 5 V (Plenum rated) | UL94 V-0 |
| **HOA Switches (DO/AO)** | No | No | No |
| **Digital Status LEDs** | No | No | No |
| **Display** | Via S-Link Sensor | Via S-Link Sensor | Via S-Link Sensor |
| **Intelligent Sensors** | Sensor Link (S-Link) | Sensor Link (S-Link) | Sensor Link (S-Link) |
| **Service Port** | LonWorks Network Jack via S-Link Sensor | LonWorks Network Jack | LonWorks Network Jack via S-Link Sensor |
| **Terminals** | | | |
| **I/O Terminals** | Fixed terminal | Terminal base | Fixed terminal |
| **I/O Expansion** | No | No | No |
| **A/D Conversion - Inputs** | Yes | Yes | Yes |
| **A/D Conversion - Outputs** | Yes | Yes | Yes |
| **External Enclosure/Mounting** | | | |
| **Enclosure class** | N/A | N/A | N/A |
| **Conduit knockouts** | No | No | No |
| **Mounting** | Wall mount | DIN-rail or wall mount | DIN-rail or wall mount |
| **Certifications** | | | |
| **LonMark** | LonMark certified: Fan Coil 8020, Heat Pump, Roof Top, Satellite | LonMark certified: Fan Coil 8020, Heat Pump, Roof Top, Satellite | LonMark certified: Fan Coil 8020 |
| **FCC** | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) |
| **Industry Canada (IC)** | Yes | Yes | Yes |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) | UL-873 (Temperature Indicating and Regulating Equipment) Recognized component and UL-916 (Energy Management Equipment) Recognized |
| **C-UL US** | Yes | Yes | Yes |
| **CE - EU** | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | No | No | No |
| **RoHS Directive** | No | No | No |
| **RCM** | Yes | Yes | Yes |

# MNL Series Controllers, continued

MNL-130
Fan Coil Zone Controller

MNL-150
Fan Coil, Heat Pump, Roof Top, Satellite Zone Controllers

MNL-200
Fan Coil, Heat Pump, Roof Top, Satellite Zone Controllers

| | MNL-130 | MNL-150 | MNL-200 |
|---|---|---|---|
| **Part Number** | **MNL-13RF3** | **MNL-15RF3, MNL-15RH3, MNL-15RR3, MNL-15RS3, MNL-15RS4** | **MNL-20RF3, MNL-20RH3, MNL-20RR3, MNL-20RS3, MNL-20RS4** |
| **Communications** | | | |
| **Protocol** | LonTalk communication protocol | LonTalk communication protocol | LonTalk communication protocol |
| **Communication Interface** | TP/FT-10, 78 kbps | TP/FT-10, 78 kbps | TP/FT-10, 78 kbps |
| **Software** | | | |
| **Pre loaded Application/ASC** | Yes | Yes | Yes |
| **Programmability** | WorkPlace Tech programmable | WorkPlace Tech programmable | WorkPlace Tech programmable |
| **Physical** | | | |
| **Dimensions** | 154.9 W x 107 H x 50 D mm (6.1 W x 4.2 H x 2.0 D in.) | 109 W x 111 H x 51 D mm (4.37 W x 4.29 H x 2.00 D in.) | 109 W x 111 H x 51 D mm (4.37 W x 4.29 H x 2.00 D in.) |
| **Weight (including baseplate)** | N/A | N/A | N/A |
| **Power** | | | |
| **Power** | 24 VAC +25% -15%, 50/60 Hz | 24 VAC +25% -15%, 50/60 Hz | 24 VAC +25% -15%, 50/60 Hz |
| **Consumption** | 21.5 VA | 15 VA | 15 VA |
| **Environmental** | | | |
| **Operating Range** | -40 °C to 55 °C (-40 °F to 131 °F) 0-95% RH (non-condensing) | -40 °C to 60 °C (-40 °F to 140 °F) 5-95% RH (non-condensing) | -40 °C to 60 °C (-40 °F to 140 °F) 5-95% RH (non-condensing) |
| **CPU Internals** | | | |
| **CPU** | Neuron FT5000 | Neuron FT5000 | Neuron FT5000 |
| **Memory** | Flash = 64 byte or 512 k bit, EEProm 6 k bit or 8 k byte | Flash = 64 byte or 512 k bit, EEProm 6 k bit or 8 k byte | Flash = 64 byte or 512 k bit, EEProm 6 k bit or 8 k byte |
| **Battery** | N/A | N/A | N/A |
| **Real time clock** | No | No | No |
| **External Features** | | | |
| **Enclosure rating** | UL94 V-0 | NEMA-1, UL94 5 V (Plenum rated) | NEMA-1, UL94 5 V (Plenum rated) |
| **HOA Switches (DO/AO)** | No | No | No |
| **Digital Status LEDs** | No | No | No |
| **Display** | Via S-Link Sensor | Via S-Link Sensor | Via S-Link Sensor |
| **Intelligent Sensors** | Sensor Link (S-Link) | Sensor Link (S-Link) | Sensor Link (S-Link) |
| **Service Port** | LonWorks Network Jack via S-Link Sensor | LonWorks Network Jack | LonWorks Network Jack |
| **Terminals** | | | |
| **I/O Terminals** | Fixed terminal | Terminal base | Terminal base |
| **I/O Expansion** | No | No | No |
| **A/D Conversion - Inputs** | Yes | Yes | Yes |
| **A/D Conversion - Outputs** | Yes | Yes | Yes |
| **External Enclosure/Mounting** | | | |
| **Enclosure class** | N/A | N/A | N/A |
| **Conduit knockouts** | No | No | No |
| **Mounting** | DIN-rail or wall mount | DIN-rail or wall mount | DIN-rail or wall mount |
| **Certifications** | | | |
| **LonMark** | LonMark certified: Fan Coil 8020 | LonMark certified: Fan Coil 8020, Heat Pump, Roof Top, Satellite | LonMark certified: Fan Coil 8020, Heat Pump, Roof Top, Satellite |
| **FCC** | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) |
| **Industry Canada (IC)** | Yes | Yes | Yes |
| **UL** | UL-873 (Temperature Indicating and Regulating Equipment) Recognized component and UL-916 (Energy Management Equipment) Recognized | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes | Yes | Yes |
| **CE - EU** | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | No | No | No |
| **RoHS Directive** | No | No | No |
| **RCM** | Yes | Yes | Yes |

# MNL Series Controllers, continued

MNL-800
Local Controller

MNL-V1RVx
VAV Zone Controller

MNL-V2RVx
VAV Zone Controller

| | MNL-800 | MNL-V1RVx | MNL-V2RVx |
|---|---|---|---|
| **Part Number** | **MNL-800-102** | **MNL-V1RV3-2** | **MNL-V2RV3-2** |
| **Communications** | | | |
| **Protocol** | LonTalk communication protocol | LonTalk communication protocol | LonTalk communication protocol |
| **Communication Interface** | TP/FT-10, 78 kbps | TP/FT-10, 78 kbps | TP/FT-10, 78 kbps |
| **Software** | | | |
| **Pre loaded Application/ASC** | Yes | Yes | Yes |
| **Programmability** | WorkPlace Tech programmable | WorkPlace Tech programmable | WorkPlace Tech programmable |
| **Physical** | | | |
| **Dimensions** | 216 W x 262 H x 101 D mm (8.5 W x 10.875 H x 4.25 D in.) | 159 W x 197 H x 63 D mm (6.25 W x 7.75 H x 2.50 D in.) | 159 W x 197 H x 63 D mm (6.25 W x 7.75 H x 2.50 D in.) |
| **Weight (including baseplate)** | N/A | N/A | N/A |
| **Power** | | | |
| **Power** | 24 VAC +25% -15%, 50/60 Hz | 24 VAC +25% -15%, 50/60 Hz | 24 VAC +25% -15%, 50/60 Hz |
| **Consumption** | 20 VA | 12 VA | 12 VA (84 VA with DO loads @24 VA each) |
| **Environmental** | | | |
| **Operating Range** | -40 °C to 60 °C (-40 °F to 140 °F) 5-95% RH (non-condensing) | 0 °C to 55 °C (32 °F to 131 °F) 5-95% RH (non-condensing) | 0 °C to 55 °C (32 °F to 131 °F) 5-95% RH (non-condensing) |
| **CPU Internals** | | | |
| **CPU** | SAF-C161, 10 MHz Clock speed, 16 bit word size | Neuron FT5000 | Neuron FT5000 |
| **Memory** | EPROM = 512; RAM = 128; EEPROM = 32 | Flash = 64 byte or 512 k bit, EEProm 6 k bit or 8 k byte | Flash = 64 byte or 512 k bit, EEProm 6 k bit or 8 k byte |
| **Battery** | Rechargeable, 3 days for clock and RAM | N/A | N/A |
| **Real time clock** | ±30 minutes/year at 25 °C (77 °F) | No | No |
| **External Features** | | | |
| **Enclosure rating** | N/A | NEMA-1, UL94 5 V (Plenum rated) | NEMA-1, UL94 5 V (Plenum rated) |
| **HOA Switches (DO/AO)** | No | No | No |
| **Digital Status LEDs** | No | No | No |
| **Display** | Via S-Link Sensor | Via S-Link Sensor | Via S-Link Sensor |
| **Intelligent Sensors** | Sensor Link (S-Link) | Sensor Link (S-Link) | Sensor Link (S-Link) |
| **Service Port** | LonWorks Network Jack | LonWorks Network Jack via S-Link Sensor | LonWorks Network Jack via S-Link Sensor |
| **Terminals** | | | |
| **I/O Terminals** | Terminal base | Fixed terminal | Fixed terminal |
| **I/O Expansion** | No | No | No |
| **A/D Conversion - Inputs** | Yes | Yes | Yes |
| **A/D Conversion - Outputs** | Yes | Yes | Yes |
| **External Enclosure/Mounting** | | | |
| **Enclosure class** | Open class (separate enclosure required) | N/A | N/A |
| **Conduit knockouts** | Yes - On enclosure | No | No |
| **Mounting** | Wall mount | Wall mount | Wall mount |
| **Certifications** | | | |
| **LonMark** | LonMark certified | LonMark certified: VAV 8010 | LonMark certified: VAV 8010 |
| **FCC** | 47 CFR § 15, Class A (Emission) | 47 CFR § 15, Class B (Emission) | 47 CFR § 15, Class B (Emission) |
| **Industry Canada (IC)** | Yes | Yes | Yes |
| **UL** | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes | Yes | Yes |
| **CE - EU** | Yes | Yes | Yes |
| **WEEE - Directive of the European Union** | No | No | No |
| **RoHS Directive** | No | No | No |
| **RCM** | Yes | Yes | Yes |

# MNL Series Controllers, continued

MNL-V3RV3
VAV Zone Controller

| | MNL-V3RV3 |
|---|---|
| **Part Number** | **MNL-V3RV3** |
| **Communications** | |
| **Protocol** | LonTalk communication protocol |
| **Communication Interface** | TP/FT-10, 78 kbps |
| **Software** | |
| **Pre loaded Application/ASC** | Yes |
| **Programmability** | WorkPlace Tech programmable |
| **Physical** | |
| **Dimensions** | 114 W x 127 H x 41 D mm (4.5 W x 5.0 H x 1.625 D in.) |
| **Weight (including baseplate)** | N/A |
| **Power** | |
| **Power** | 24 VAC +25% -15%, 50/60 Hz |
| **Consumption** | 12VA (102 VA with DO loads @24 VA each and triac load @18 VA each) |
| **Environmental** | |
| **Operating Range** | 0 °C to 55 °C (32 °F to 131 °F) 5-95% RH (non-condensing) |
| **CPU Internals** | |
| **CPU** | Neuron FT5000 |
| **Memory** | Flash = 64 byte or 512 k bit, EEProm 6 k bit or 8 k byte |
| **Battery** | N/A |
| **Real time clock** | No |
| **External Features** | |
| **Enclosure rating** | NEMA-1, UL94 5 V (Plenum rated) |
| **HOA Switches (DO/AO)** | No |
| **Digital Status LEDs** | No |
| **Display** | Via S-Link Sensor |
| **Intelligent Sensors** | Sensor Link (S-Link) |
| **Service Port** | LonWorks Network Jack via S-Link Sensor |
| **Terminals** | |
| **I/O Terminals** | Fixed terminal |
| **I/O Expansion** | No |
| **A/D Conversion - Inputs** | Yes |
| **A/D Conversion - Outputs** | Yes |
| **External Enclosure/Mounting** | |
| **Enclosure class** | N/A |
| **Conduit knockouts** | No |
| **Mounting** | Wall mount |
| **Certifications** | |
| **LonMark** | LonMark certified: VAV 8010 |
| **FCC** | 47 CFR § 15, Class B (Emission) |
| **Industry Canada (IC)** | Yes |
| **UL** | UL-916 (Energy Management Equipment) |
| **C-UL US** | Yes |
| **CE - EU** | Yes |
| **WEEE - Directive of the European Union** | No |
| **RoHS Directive** | No |
| **RCM** | Yes |

# MNL Series Controllers – Inputs and Outputs

| | MNL-50 | MNL-100 | MNL-110 | MNL-130 | MNL-150 |
|---|---|---|---|---|---|
| **Part Number** | MNL-5RF3, MNL-5RH3, MNL-5RR3, MNL-5RS3, MNL-5RS4 | MNL-10RF3, MNL-10RH3, MNL-10RR3, MNL-10RS3, MNL-10RS4 | MNL-11RF3 | MNL-13RF3 | MNL-15RF3, MNL-15RH3, MNL-15RR3, MNL-15RS3, MNL-15RS4 |
| **Universal Inputs** | 1 | 2 | 3 | 3 | 3 |
| **Digital Contact** | • | • | • | • | • |
| **Digital Counter - Low Speed** | | | | | |
| **Digital Counter - Medium Speed** | | | | | |
| **Digital Counter - High Speed** | | | | | |
| **Digital Supervised** | | | | | |
| **Analog Voltage - 0-1 V** | | | | | |
| **Analog Voltage - 0-5 V** | • | • | • | • | • |
| **Analog Voltage - 0-10 V** | | | | | |
| **Analog Voltage - 2-10 V** | | | | | |
| **Analog Current - 0-20 mA** | • | • | • | • | • |
| **Analog Current - 4-20 mA** | | | | | |
| **Analog Resistance** | • | • | • | • | • |
| **Analog Thermistor - 10 k** | | | | | |
| **Analog Thermistor - 1.8 k** | | | | | |
| **Analog Thermistor - 1 k** | • | • | • | • | • |
| **Digital Inputs** | 1 | 1 | | | |
| **Digital Contact** | • | • | | | |
| **Counter - Low Speed** | | | | | |
| **Counter - Medium Speed** | | | | | |
| **Counter - High Speed** | | | | | |
| **Analog Inputs** | | | | | |
| **Voltage - 0-5 V** | | | | | |
| **Voltage - 0-10 V** | | | | | |
| **Velocity Pressure** | | | | | |
| **Analog Thermistor - 10 k** | | | | | |
| **Analog Thermistor - 1.8 k** | | | | | |
| **Analog Thermistor - 1 k** | | | | | |
| **Digital Outputs** | 3 | 4 | 5 | 7 | 2 |
| **Form A, SPST** | • | • | 1 channel | 3 channel | • |
| **Form C, SPDT** | | | | | |
| **Triac** | | | 4 channel | 4 channel | |
| **Analog Outputs** | | | | | 2 |
| **Voltage - 0-10 V** | | | | | |
| **Current - 0-20 mA** | | | | | • |
| **Damper Outputs** | | | | | |
| **Form K, Triac** | | | | | |
| **Voltage** | | | | | |
| **Intelligent Sensors** | 1 | 1 | 1 | 1 | 1 |
| **S-Link (MN-Sx for MNL)** | • | • | • | • | • |

# MNL Series Controllers – Inputs and Outputs, continued

| | MNL-200 | MNL-800 | MNL-V1RVx | MNL-V2RVx | MNL-V3RV3 |
|---|---|---|---|---|---|
| **Part Number** | **MNL-20RF3, MNL-20RH3, MNL-20RR3, MNL-20RS3, MNL-20RS4** | **MNL-800-102** | **MNL-V1RV3-2** | **MNL-V2RV3-2** | **MNL-V3RV3** |
| Universal Inputs | 3 | 8 | 1 | 1 | 1 |
| Digital Contact | • | • | • | • | • |
| Digital Counter - Low Speed | | | | | |
| Digital Counter - Medium Speed | | | | | |
| Digital Counter - High Speed | | | | | |
| Digital Supervised | | | | | |
| Analog Voltage - 0-1 V | | | | | |
| Analog Voltage - 0-5 V | • | • | • | • | • |
| Analog Voltage - 0-10 V | | | | | |
| Analog Voltage - 2-10 V | | | | | |
| Analog Current - 0-20 mA | • | • | • | • | • |
| Analog Current - 4-20 mA | | | | | |
| Analog Resistance | • | • | • | • | • |
| Analog Thermistor - 10 k | | | | | |
| Analog Thermistor - 1.8 k | | | | | |
| Analog Thermistor - 1 k | • | • | • | • | • |
| Digital Inputs | 2 | 5 | 1 | 1 | 1 |
| Digital Contact | • | • | • | • | • |
| Counter - Low Speed | | | | | |
| Counter - Medium Speed | | 4 channel | | | |
| Counter - High Speed | | 1 channel | | | |
| Analog Inputs | | | 1 | 1 | 1 |
| Voltage - 0-5 V | | | | | |
| Voltage - 0-10 V | | | | | |
| Velocity Pressure | | | internal | internal | internal |
| Analog Thermistor - 10 k | | | | | |
| Analog Thermistor - 1.8 k | | | | | |
| Analog Thermistor - 1 k | | | | | |
| **Digital Outputs** | 6 | 8 | | 3 | 5 |
| **Form A, SPST** | • | | | • | 3 channel |
| **Form C, SPDT** | | • | | | |
| **Triac** | | | | | 2 channel |
| **Analog Outputs** | 2 | 4 | | 1 | 1 |
| **Voltage - 0-10 V** | | | | | |
| **Current - 0-20 mA** | • | • | | • | • |
| **Damper Outputs** | | | 1 | 1 | |
| **Form K, Triac** | | | internal | internal | |
| **Voltage** | | | | | |
| **Intelligent Sensors** | 1 | 1 | 1 | 1 | 1 |
| **S-Link (MN-Sx for MNL)** | • | • | • | • | • |

# Additional Resources

# Modernize your BMS with EcoStruxure Building

## Building automation technology is changing rapidly. New building management systems help deliver occupant satisfaction and productivity, are more secure, and provide better performance!

Future-ready your customers' buildings. Minimize the risk, downtime and cost of modernizing a BMS, and take advantage of new features and benefits, with EcoStruxure Building transition tools and services.

**Customer benefits:**

- Update and make your buildings IoT-ready while preserving existing site investments
- Leverage the benefits of Schneider Electric's preeminent building management system, including: a new user experience, new technology and new feature sets

**System integrator benefits:**

- Protect valued customer relationships with best-in-class solutions and conversion tools to ease customer site transitions
- Save time and labor costs by reusing components (controllers, sensors, wiring) and system design and configuration

**Mutual benefits:**

- Choose from multiple modernization path options to meet specific needs, schedules and budgets
- Enable access to connected offers; facilitate predictive and preventative cloud-enabled connected services

### Tools are available to support transition from any other building management systems:

| |
|---|
| TAC I/A Series™ – transitioniaseries |
| TAC I/NET™ – transitioninet |
| TAC Vista™ – transitionvista |
| Andover Continuum™ – transitioncontinuum |
| NETWORK 8000™ – transitionnw8000 |

Use the keywords to find all assets on The Exchnage.

Find comprehensive transition assets and tools on The Exchange:
https://ecobuilding.schneider-electric.com/transition-to-ecostruxure#tab/documents

Life Is On | Schneider Electric

# EcoStruxure Building Advisor

## Empowering you to achieve greater lifetime building efficiencies.

Facilities managers are faced with difficult challenges:

Tighter budgets, aging infrastructure, and higher energy costs demand a different approach to a building's operation and maintenance. Our comprehensive service portfolio combines people, technology and collaboration to help you lower operating costs, improve occupant comfort, and increase asset value.

You can benefit from:

- Field service engineers and data scientists who provide support and troubleshoot problems onsite and remotely
- Real-time system alarm monitoring and continuous building performance monitoring to anticipate issues
- Automated fault detection and diagnostics to speed resolution. We'll identify opportunities to save costs, improve comfort and well-being with cost justification
- Customized, detailed reports with deep insights on your building systems and expert advice with solutions

| | | Plus | Prime | Ultra | Managed Services |
|---|---|---|---|---|---|
| Monitoring | Alarm Monitoring | ✔ | ✔ | ✔ | |
| | Condition Monitoring | | ✔ | ✔ | ✔ |
| | Cloud Backup | ✔ | ✔ | ✔ | |
| Maintenance | Preventive Checks | | ✔ | ✔ | |
| | Remote Issue Resolution | ✔ | ✔ | ✔ | |
| | Condition-Based Checks | | | ✔ | |
| Reports & Consultation | Alarms and Site Work Report | ✔ | ✔ | ✔ | |
| | Site Health Report | | ✔ | ✔ | ✔ |
| | Site Health Report with ROI Justification | | | ✔ | ✔ |

Please find information on EcoStruxure Building Advisor on The Exchange:
https://ecobuilding.schneider-electric.com/ecostruxure-building-advisor

Life Is On | Schneider Electric

# Smart starts at the foundation of the BMS

## Connected products are an integral part of EcoStruxure Building, Schneider Electric's open innovative platform of buildings. Inclusive of valves, actuators, sensors and cabling management solutions, connected products help ensure optimal performance and comfort.

Valves, actuators and sensors interpret critical data points, sending real-time responses to changes in the physical environment while connectors and patch panels solve cabling network management challenges.

If connected products are not running at optimal efficiency, neither is the higher level BMS.

## How strong is your foundation?

Learn more about our BIM-enabled connected products here:
https://www.schneider-electric.com/en/work/support/building-information-modelling/

Please find all sales, marketing and technical documentation on Connected Devices on The Exchange:
https://ecobuilding.schneider-electric.com/field-devices#tab/documents

# Engineering efficiency tools; Increase simplicity. Save time.

Find more Efficiency Tools information on The Exchange:
https://ecobuilding.schneider-electric.com/tools

### Automated Engineering Tool (AET)

Drive efficiency and standardization with anytime access to a large selection of standard HVAC applications and components on this cloud-based repository. The AET enables users to create templates based on preexisting engineered solutions and reuse those templates on other projects or for similar applications on the same project.

Search keyword: AET

### Project Configuration Tool (PCT)

Produce proven solutions that are high quality and easy to maintain with the PCT, an offline engineering platform used for project configuration, server configuration and deployment. This virtual environment allows engineers to spend less time at the customer site, and design, program, model and analyze solutions in their own offices without the need for physical hardware.

Search keyword: PCT

### EcoStruxure eCommission Building Mobile App

Conveniently load controller applications, program and configure systems, conduct I/O checkout and air balancing, and more, for SpaceLogic Controllers all from a laptop computer or any IOS or Android device. These commissioning activities can be done early in the process even without a network infrastructure in place.

Search keyword: mp-x app

### Expert Tool

This PC-based software application helps visualize the configuration of EcoStruxure Building Enterprise Server and SpaceLogic Controllers. The tool enables design commissioning or support engineers to see the relationship between the objects on the folder structure and generate documentation to support the commissioning or support process.

Search keyword: Expert Tool

### Selection Tools

Find a range of product selection tools on The Exchange, including SE8000 and SE7000 Series Room Controllers, EcoStruxure Building Expert, Heat and Flow Meters, and HVAC Sensors, and Power Meters.

### Graphic Development Support

Outsource graphics development for building management system and user interface needs to our expert team of highly skilled graphic developers, ACAD engineers and Revit/ MEP specialists. They possess expertise in BMS graphics development, Building Information Modeling (BIM), 3D graphics and image rendering.

Search keyword: Graphic Development Support

https://ecobuilding.schneider-electric.com/tools

Please find information on Efficiency Tools on The Exchange:
https://ecobuilding.schneider-electric.com/

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# EcoStruxure™ Security Expert

## Your First Line of Defense in Building Security

Protect your building occupants and assets with EcoStruxure Security Expert, an integrated role-based physical access control and intrusion detection solution that unifies your building's security infrastructure and management systems into an easy to manage, single platform that enables faster, more efficient, and potentially life-saving decision making.

Available for small, mid and large enterprise environments, this solution provides extensive data handling capabilities that can store millions of credentials in off-line memory; while functioning independently and maintaining a unique database. Information is encrypted throughout the architecture, and complies with global agency listings. EcoStruxure Security Expert will also easily extend to multiple sites and future business expansions.

## One unified view

Connect anywhere from any device

Please find all sales, marketing and technical documentation for EcoStruxure Security Expert on The Exchange:
https://ecobuilding.schneider-electric.com/ecostruxure-security-expert#tab/documents

# Application-specific Room Controllers

## SE7000 and SE8000 Series.

## Cost effective alternative to direct digital controls.

Schneider Electric room controllers bridge the gap between the cost of stand-alone thermostats and the performance of DDC systems. They simplify installation and commissioning to control rooftop units, fan coil units, terminal units and heat pump applications in a wide variety of facilities. Our series of intelligent room controllers provide comfort and energy savings using their native application-specific control sequences, PID algorithms, occupancy detection and schedule management.

**SE8000 Series**
With rich, customizable features, the SE8000 Series enables significant energy savings with accurate temperature control in any space. The SE8000 room controllers can be easily integrated into most BMSs as well as to communicate wirelessly for ease of installation, flexibility and scalability.

**SE7000 Series**
The SE7000 digital controllers offer easy-to-install, thermostat-like functionality that sense occupancy and adjust set-point or fan speed control. Easily integrate into most BMSs. The wireless versions of the SE7000 provide a simple yet powerful solution which targets retrofit installations where running new communication wiring is prohibitive.

Please find all sales, marketing and technical documentation for Room Controllers on The Exchange:
https://ecobuilding.schneider-electric.com/room-controllers#tab/documents

# Quick Links

## Digital Tools & Resources

**The Exchange – EcoBuilding Extranet**

https://ecobuilding.schneider-electric.com

**MyExchange Mobile App**

https://schneiderelectric.showpad.biz

**iTunes (iOS) download**

https://itunes.apple.com/us/app/myexchange-schneider-electric/id911005711?mt=8

**Google Play (Android) download**

https://play.google.com/store/apps/details?id=com.showpad.myexchange&hl=en

**mySchneider App**

Tailored services, 24/7 self-service, and expert help

http://www.schneider-electric.com/b2b/en/support/myschneider-app/?c=Internal_News_LDC&pid=Email

## Sales, Marketing & Thought Leadership

**Sales Enablement Kit**

https://ecobuilding.schneider-electric.com/ecostruxure-building-operation/sales-support-library/sales-enablement-kits#Language!English!10910/tab/documents

**Sales Support Library**

https://ecobuilding.schneider-electric.com/ecostruxure-building-operation/sales-support-library#Language!English!10910/tab/documents

**Customer Success Stories**

https://ecobuilding.schneider-electric.com/ecostruxure-building-operation/sales-support-library/case-study#Language!English!10910/tab/documents

**Schneider Electric Videos**

https://www.youtube.com/user/SchneiderCorporate

**Schneider Electric Blog**

http://blog.schneider-electric.com/building-management/

**White Papers**

http://www.schneider-electric.com/ww/en/download/1555889-WhitePaperLanding

## Community & Product Support

**Building Management Community**

https://exchangecommunity.schneider-electric.com/t5/Building-Management-Systems/ct-p/building-management

**Knowledgebase (Lessons Learned)**

http://buildingskb.schneider-electric.com

**EcoStruxure Solution WebHelp**

https://ecostruxure-building-help.se.com

**Customer Care Center**

www.schneider-electric.com

Go to “Support” section tab and select your country of origin

Or install the **“mySchneider” mobile application** onto your Apple or Android device

mySchneider app

**Product Support**

https://ecobuilding.schneider-electric.com/support#tab/documents

Please find more EcoStruxure information on The Exchange:
https://ecobuilding.schneider-electric.com

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