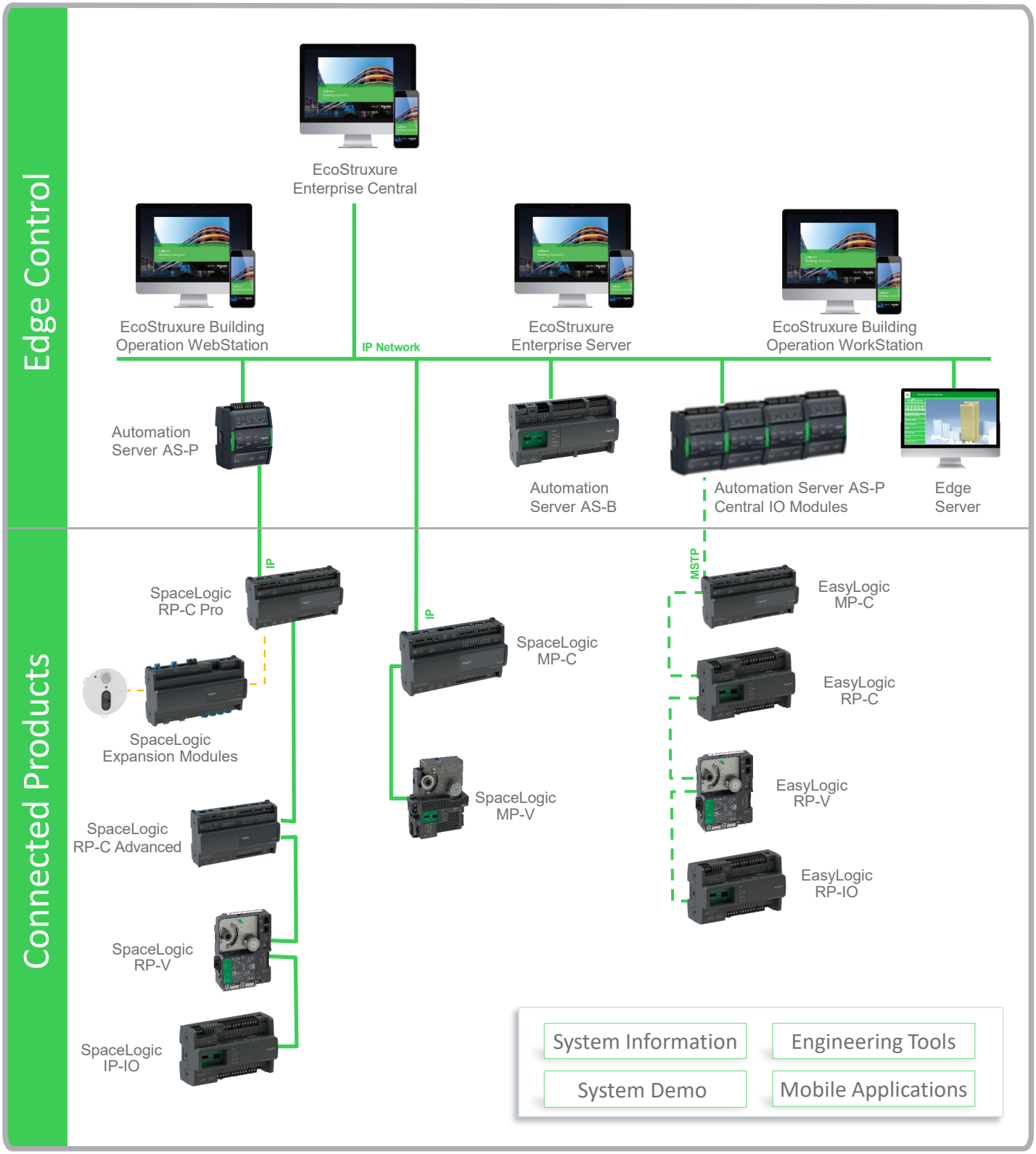
EcoStruxure Building Operation



EBO System Information

Overview

EcoStruxure Building Operation

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

+ Sales Materials

- Customer Presentation
- EcoStruxure Building Operation Flyer
- Sustainability Pack Flyer
- EBO Evolution Infographic
- Cyber Security & Building Automation Systems Brochure
- Secure Boot in EcoStruxure Brochure
- SpaceLogic BAA Controllers Brochure
- Smoke Control System Brochure
- Promotional Video

+ System Specification Sheets

- Compliance Pack – Specification Sheet
- Sustainability Pack – Specification Sheet

+ System Help

- EBO Web Help

+ System Reference Guides

- EcoStruxure Product Selection Guide
- System Reference Guide
- System Upgrade Reference Guide
- IT Reference Guide
- Technical Reference Guide
- Smoke Control System Design Guide
- Smoke Control System Enclosure Guide
- IT System Planning Guide

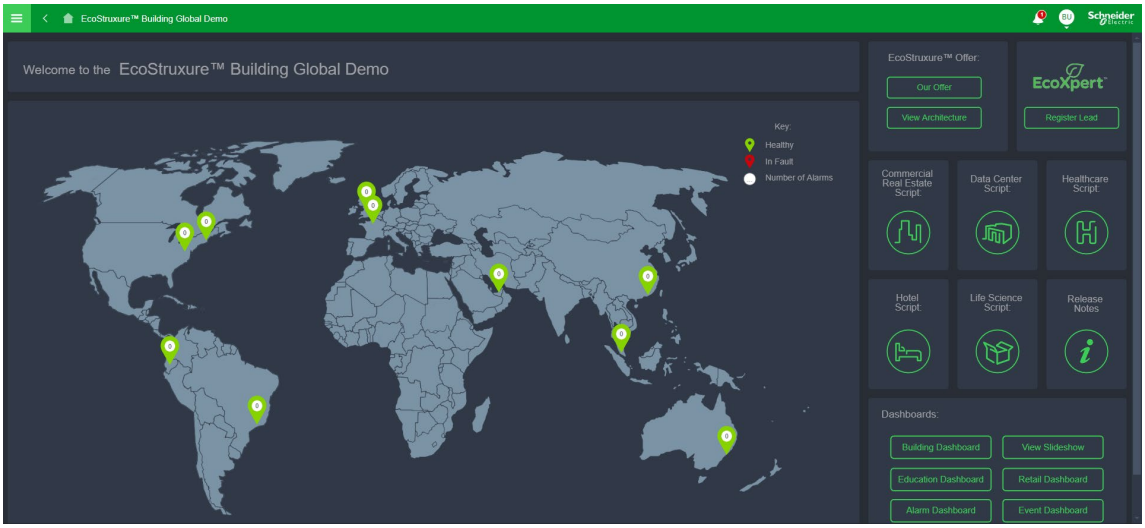
+ System Support Collateral

- Guide Specification
- Reference Architecture Diagrams
- Architectural Guidelines
- Part Number Summary and Hardware/Software Matrix
- Smoke Control System Approved Software Revisions

System Demo

Overview

EcoStruxure Building Operation



What is the EcoStruxure™ Building Global Demo?

The EcoStruxure™ Building Global Demo showcases the power of EcoStruxure Building and illustrates the abilities of the EcoStruxure Building architecture to build a deeply integrated solution across all building systems. It features high-end graphics, easy-to-use dashboards and extensive navigational features and full integration to the multiple offers that highlight the functionality and capabilities of EcoStruxure Building for end-users and facility managers

+ System Support Collateral
  - Global Demo Database v6.0.3 - Backup File - EcoStruxure Building
  - Demo – EcoStruxure Building Overview Information
  - Demo Site – EcoStruxure Building

Engineering Tools

EcoStruxure Building Operation

Project Configuration Tool

Project Configuration Tool is a powerful software tool that enables you to virtually engineer an EcoStruxure BMS. With this tool, you can minimize the time spent on site by designing, programming, and configuring the EcoStruxure BMS off-site. Project Configuration Tool enables you to run the Enterprise Central, Enterprise Server, and automation servers virtually, and simulate all functions, before you deploy the servers to the target EcoStruxure BMS.

Automated Engineering Tool

Automated Engineering Tool is a PC-based software platform that provides engineers with an efficient way to generate application content for EcoStruxure BMS servers and Project Configuration Tool (or Project Configuration Server). Automated Engineering Tool is designed to improve the engineering quality and consistency of HVAC applications for an EcoStruxure BMS while reducing the time to develop and deploy those applications.

Expert Tool

Expert Tool is a PC-based software application designed to help visualize the configuration of the EcoStruxure BMS servers. The tool enables a design, commissioning, or support engineer to see the relationship between the objects in the folder structure and generate documentation to support the commissioning or support process. Expert Tool enables an engineer to review and troubleshoot the internal bindings in an EcoStruxure BMS server. By connecting directly to the target server or by using an export of all or part of the folder structure, the engineer can check for missing or duplicated bindings. When connected to the target server, the engineer can view real-time values as they pass through the server application. In addition, Expert Tool provides features to assist with reporting and troubleshooting such as binding reports and database comparisons.

+ Project Configuration Tool
  - PCT Specification Sheet
  - PCT–V2 Specification Sheet
  - PCT–V2 Reference Guide

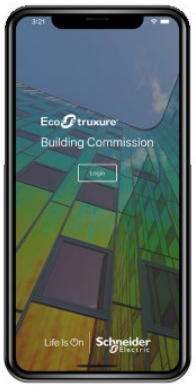
+ Automated Engineering Tool
  - AET – Specification Sheet

+ Expert Tool
  - Expert Tool - Specification Sheet

Mobile Applications

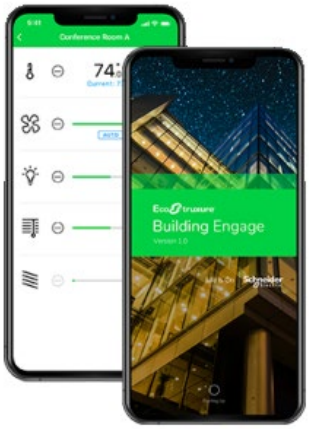
EcoStruxure Building Operation

Building Commission



The EcoStruxure Building Commission mobile application is designed to help airflow balancers, electricians, and technicians carefully and quickly pre-commission and commission SpaceLogic BACnet/IP devices, RP controller expansion modules, and EasyLogic BACnet MS/TP devices. The Commission mobile application allows light weight devices such as smartphones and tablets to be used to commission and test controllers without the need for EcoStruxure BMS servers to be connected, minimizing on-site time and reducing costs. Various checkout reports are available to confirm that the work has been done. The Commission mobile application can connect to a single BACnet/IP controller via Bluetooth or to a network of BACnet/IP controllers on the local network, using Wi-Fi or an Ethernet cable. The Commission mobile application does not require a license for activation and is available at no cost to the user. It is designed for use with Android, iOS (Apple), and Microsoft Windows 10 and Windows 11 devices, and is available for download from Google Play, Apple App Store, and Microsoft Store.

Building Engage



The EcoStruxure Building Engage mobile application provides flexibility and convenience for today's building occupants by enabling them to control comfort settings in an office or conference room from their smartphone.

Features

The Engage mobile application enables control of room temperature, fan speed, lights, and blinds/shades directly from a smartphone. A user can manage these settings when the application is connected to the RP controller. The Engage mobile application is free and available for download from Google Play and Apple App Store.

Simulation

Simulate mode is available for users to see the capabilities and benefits of the application without connecting to the RP controller.

Network Architecture

The Engage mobile application connects easily via BLE (Bluetooth Low Energy) to the RP controller. The application is compatible with RP-C (HVAC), RP-V (VAV), and RP controller expansion modules (lights and blinds).

+ Building Commission
  - Commission - Mobile Applications Specification Sheet
  - Commission – Reference Guide
  - Bluetooth Adapter Installation Sheet

+ Building Engage
  - Engage - Mobile Applications Specification Sheet

Enterprise Central

Overview

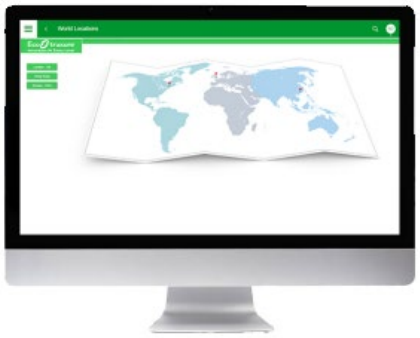
EcoStruxure Building Operation

Introduction

EcoStruxure Building Operation Enterprise Central is the top-tier EcoStruxure BMS server in a large Building Management System and is intended for system specific tasks and supervision. Enterprise Central can host several Enterprise Servers, which in turn can host multiple SpaceLogic™ automation servers. As the dedicated server at the top of the system architecture hierarchy, Enterprise Central provides an entry point from which you can configure, control, monitor, and search the entire system. Enterprise Central collects site-wide data for aggregation and archiving and serves as a single point of administration through WorkStation or WebStation.

For Corporate Facility Managers, Senior Engineering Managers, Chief Space Planners and others who need to manage their buildings in a global, aggregated, and efficient manner, Enterprise Central is an EcoStruxure BMS server that allows users to scale operations management across the largest buildings, campuses, and multi-site corporate real estate portfolios from a single location by generating aggregated reports, standardizing critical security policies, normalizing alarm presentation and prioritization, and auditing activity across the entire organization.

Unlike other BMSs which focus on a single location or on a single aspect of the operation, Enterprise Central provides a single pane of glass across all aspects of a large real estate portfolio.



Features

Enterprise Central has the following main features:

- Global view, access, and search of the system
- Centralized alarms and data management:
  - Alarms from multiple servers
  - Event logs from multiple servers
  - Extended trend logs from multiple servers
  - Historical data storage from multiple servers
- Scalability
- User and domain management
- Windows Active Directory integration

+ Software & Firmware

- Software
- EBO Release Notes

+ Specification Sheets

- Enterprise Central Specification Sheet

+ Additional Support Collateral

- WebHelp online documentation

Enterprise Server

EcoStruxure Building Operation

Overview

Introduction

An EcoStruxure BMS server is the core of the system and performs key functionality, such as control logic, trend logging, and alarm supervision. The Enterprise Server collects site-wide data for aggregation and archiving, and serves as a single point of administration through WorkStation or WebStation for the EcoStruxure BMS, Schneider Electric's intelligent Building Management System.

Features

The Enterprise Server is a central point in the EcoStruxure BMS architecture from which users can configure, control, and monitor the system.

Enterprise Server has the following main features:

- Semantics
- Networking powerhouse
- Global view of the system
- Text and graphics-based programming tools
- Centralized alarms and data management
- Reporting
- Authentication and permissions
- Advanced activity log
- WorkStation/WebStation interface

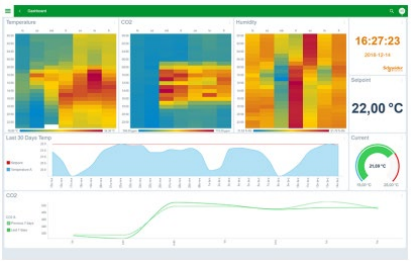
- Open building protocol support
- Native BTL-listed BACnet support
- BACnet/SC (Secure Connect) support
- Native OPC UA Client support
- Native LonWorks support
- Native Modbus support
- Web Services Support
- EcoStruxure Web Services support
- MQTT IoT protocol support
- IT friendly networking based on the TCP/IP suite of communication protocols
- TLS Support

+ Software & Firmware
  - Software
  - EBO Release Notes

+ Specification Sheets
  - Enterprise Server Specification Sheet

WebStation

EcoStruxure Building Operation



Introduction

EcoStruxure Building Operation WebStation is a web-based user interface for day-to-day operation in an EcoStruxure BMS. WebStation comes built in with every EcoStruxure BMS server, and provides easy access to the software from anywhere in the world.

Features

WebStation provides a rich, responsive user interface to access the EcoStruxure BMS servers using common web browsers on Windows PCs, Mac OS computers, Android and iOS tablets and smartphones. Users can view and manage dashboards, slide shows, graphics, alarms, schedules, trend logs and user accounts.

The dashboard functionality enables users to create their own pages to get an overview of how buildings perform, using easy-to-use and easy-to-read data visualization components. Basic energy consumption monitoring, alarm statistics, and environmental summaries are presented in clear ways on any device.

The EcoStruxure Building Operation software has a set of built-in components for visualization of live and historical data, including interactive widgets for alarm and event statistics to help management of alarms. For customers with additional requirements, custom dashboard components can be developed using the powerful graphics capabilities.

+ Software & Firmware
  - Software
  - EBO Release Notes

+ Specification Sheets
  - WebStation Specification Sheet

+ System Guides
  - WebStation Operating Guide

WorkStation

Overview

EcoStruxure Building Operation

Introduction

EcoStruxure Building Operation WorkStation is a fully featured environment for operating and administering all aspects of the software. WorkStation is the window through which users can monitor their energy usage and continuously improve their building's efficiency.

Operator features

WorkStation is the interface where users and engineers access their EcoStruxure BMS servers. You can view and manage graphics, alarms, schedules, trend logs, and reports. Engineers can configure and maintain all aspects of an EcoStruxure BMS.

Engineering features

Push-button engineering features help a project stay on time and on budget. The EcoStruxure Building Operation software not only reduces project engineering but it also expands the possibilities for monitoring and control by delivering on-site customization tools.

+ Software & Firmware
  - Software
  - EBO Release Notes

+ Specification Sheets
  - WorkStation Specification Sheet

+ System Guides
  - WorkStation Operating Guide
  - Plain English and Script Difference Guide
  - Function Block Editor and Menta Editor Difference Guide

Automation Server - Premium

Overview

EcoStruxure Building Operation

Introduction

At the core of an EcoStruxure BMS is an automation server, such as the SpaceLogic™ AS-P server. The AS-P server performs key functionality, such as control logic, trend logging, and alarm supervision, and supports communication and connectivity to the I/O and field buses. The distributed intelligence of the EcoStruxure BMS helps ensure fault tolerance against detected faults and provides a fully featured user interface through WorkStation and WebStation.

Features

The AS-P server is a powerful device that can act as a standalone server and also control Central IO modules and monitor and manage field bus devices. In a small installation, the embedded AS-P server acts as a standalone server, mounted with its Central IO modules in a small footprint. In medium and large installations, functionality is distributed over multiple automation servers that communicate over TCP/IP.

The AS-P server has the following features:

- Communications hub
- Variety of connectivity options
- Zigbee wireless network support
- Authentication and permissions through powerful systems
- WorkStation/WebStation interface
- Native BTL-listed BACnet support
- BACnet/SC node, hub, or router
- Native LonWorks support
- Native OPC UA Client support
- Native Modbus support
- Additional building protocol support
- Web Services support based open standards
- EcoStruxure Web Services support
- MQTT IoT protocol support
- External log storage option
- Reporting
- Scalable custom configurations
- I/O expansion option
- Text and graphics-based programming tools
- eMMC memory for data and backup
- IT friendly networking based on the TCP/IP suite of communication protocols
- TLS support
- Patented two-piece design
- Auto-addressing
- Simple DIN-rail installation
- Secure boot

+ Software & Firmware

- Software and Firmware
- EBO Release Notes

+ Specification Sheets

- AS-P Specification Sheet
- PS-24V Specification Sheet
- Wireless Adapter – Advanced Specification Sheet

+ Installation Sheets

- AS-P-NLS Server Installation Sheet
- AS-P-NL Server Installation Sheet
- AS-P-SBA Server Installation Sheet
- Wireless Adapter - Advanced Installation Sheet
- AS-P-SMK and AS-P-NLS-SMK Servers Installation Sheet
- AS-P and AS-P-S Server Models Installation Sheet
- PS-24V-BAA Power Supply Installation Sheet

Automation Server – Central IO Modules

Overview

EcoStruxure Building Operation

Introduction

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.

Features

Modular and scalable system

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

Patented two-piece design

Each module can be separated from its terminal base to allow the site to be wired prior to the installation of the electronics. The patented locking mechanism serves as handles for removing the module from its base. All critical components have a protective cover that permits convection cooling to occur.

+ Software & Firmware
  - Software and Firmware
  - EBO Release Notes

+ Specification Sheets
  - UI-8 DO-FC-4 and UI-8 DO-FC-4-H
  - DO-FC-8 and DO-FC-8-H
  - UI-8 AO-V-4 and UI-8 AO-V-4-H
  - UI-8 AO-4 and UI-8 AO-4-H
  - UI-16
  - AO-8 and AO-8-H
  - RTD-DI-16
  - AO-V-8 and AO-V-8-H
  - DO-FA-12 and DO-FA-12-H
  - DI-16
  - Wireless Adapter

+ Installation Sheets
  - Central IO IO Module Models
  - TB-IO-W1 Terminal Base
  - Wireless Adapter - Advanced

Automation Server – Basic

EcoStruxure Building Operation

Introduction

At the core of an EcoStruxure BMS is an automation server, such as the SpaceLogic™ AS-B server. The AS-B server performs key functionality, such as control logic, trend logging, and alarm supervision, provides built-in I/O, and supports communication and connectivity to the field buses. The distributed intelligence of the EcoStruxure BMS helps ensure fault tolerance against detected faults and provides a fully featured user interface through WorkStation and WebStation.

Features

The AS-B server is a powerful device with built-in power supply and I/O, which makes it suitable for control applications at the plant room level of a BMS in all sizes of buildings. The AS-B server can act as a standalone server or controller using its built in I/O and also monitor and manage field bus devices. In a small installation, the embedded AS-B server acts as a standalone server or controller, mounted in a small footprint. In medium and large installations, functionality is distributed over multiple automation servers that communicate over TCP/IP.

The AS-B server has the following features:

- Communications hub
- Models with a versatile mix of I/O points
- I/O expansion option
- Manual override function
- Built-in power supply
- Variety of connectivity options
- Zigbee wireless network support
- Authentication and permissions through powerful systems
- WorkStation/WebStation interface
- Native BTL-listed BACnet support
- BACnet/SC node, hub, or router
- Native OPC UA Client support
- Native Modbus support
- Web Services support based open standards
- EcoStruxure Web Services support
- MQTT IoT protocol support
- External log storage option
- Reporting
- Text and graphics-based programming tools
- eMMC memory for data and backup
- IT friendly networking based on the TCP/IP suite of communication protocols
- TLS support
- Simple DIN-rail installation
- Removable terminal blocks
- Efficient terminal management
- Protection circuitry against high-voltage transients, over currents, and short-circuits
- SpaceLogic Operator Display support

+ Software & Firmware

- Software and Firmware
- EBO Release Notes

+ Specification Sheets

- AS-B Specification Sheet
- Wireless Adapter – Advanced Specification Sheet

+ Installation Sheets

- AS-B Server Models Installation Sheet
- Wireless Adapter - Advanced Installation Sheet

Edge Server

EcoStruxure Building Operation

Overview

Introduction

As part of a scalable EcoStruxure Building Management System (BMS), Edge Server provides key functionality, such as control logic, trend logging, and alarm supervision, and supports communication and connectivity to IP based field buses. The distributed intelligence of the EcoStruxure BMS helps ensure fault tolerance against detected faults and provides a fully featured user interface through WorkStation and WebStation.

Edge Server has the same role in an EcoStruxure BMS as the automation server, such as SpaceLogic AS-P, but is software only using modern deployment and orchestration technologies.

Features

Edge Server is a powerful software component for customers who prefer use of container technologies for hosting software applications. In a small installation with IP based field controllers, Edge Server acts as a standalone server. In medium and large installations, functionality is distributed over multiple Edge Server instances that communicate over TCP/IP with Enterprise Server as the Operational Technology (OT) orchestrator.

Edge Server has the following features:

- Communications hub
- Container
- Authentication and permissions through powerful systems
- WorkStation/WebStation interface
- Native BTL-listed BACnet support
- BACnet/SC node, hub, or router
- Native OPC UA Client support
- Native Modbus support
- Web Services support based open standards
- EcoStruxure Web Services support
- MQTT IoT protocol support
- External log storage option
- Reporting
- Text and graphics-based programming tools
- I/O expansion option
- IT friendly networking based on the TCP/IP suite of communication protocols
- TLS support

+ Software & Firmware

- Software and Firmware
- EBO Release Notes

+ Specification Sheets

- Edge Server Specification Sheet

SpaceLogic – RP-C Pro

Overview

EcoStruxure Building Operation – EBO 2022 or newer

Introduction

SpaceLogic™ RP-C Pro is a high-power, fully programmable, IP based field controller that offers a multi-room connectivity hub for Connected Room Solutions.

The RP-C Pro controller has greater memory space for large room and luxury suite applications.

RP-C Pro comes either as a 24 VAC/DC or 230 VAC controller with 16 I/O points.

The controller is integrated into Connected Room Solutions and EcoStruxure Building Operation and is positioned for room control as well as well-being, comfort of occupants in an energy efficient way.

The RP-C Pro controller can also be reconfigured through the EcoStruxure Building Operation software to support BACnet MS/TP, instead of BACnet/IP.

The controller can either be used as a standalone BACnet/IP field controller, BACnet/SC node, or as part of an EcoStruxure BMS with a SpaceLogic AS-P or AS-B server or an Enterprise Server as the parent server.
The controller features a wireless chip, which enables commissioning of the controller with the Commission mobile application and allows tenants to change the room comfort settings using their smartphones with the Engage mobile application.
Web services enable web access directly to the controller, making the controller an open IoT hub in the room or space area.

RP-C Pro has the following features:

- IP enabled with dual-port Ethernet switch
- BACnet/SC node
- Full range of controller models
- Versatile onboard I/O point mix
- Optional covers
- Wireless connectivity
- Advanced monitoring
- Two configurable RS-485 ports
- Sensor bus for living space sensors
- Room bus for Connected Room Solutions
- Modbus RTU subnetwork
- KNX support (KNX Modbus gateway required)
- BACnet MS/TP support (adapter required)
- Engage mobile application for room comfort settings
- Commission mobile application for commissioning of the controller before the BMS is in place
- Full EcoStruxure Building Operation software support, providing efficient engineering tools
- Web services through RESTful API

+ Software & Firmware

- Software and Firmware
- Release Notes - Controller Firmware

+ Specification Sheets

- RP-C Specification Sheet
- RS-485 Adapters Specification Sheet
- Wireless Adapter – Advanced Specification Sheet
- SpaceLogic Sensors - SXWS Sensors for MP and RP IP Controllers - Specification Sheet

+ Installation Sheets

- RP-C 230 V Controller Models Installation Sheet
- RP-C-16C-F-230V Controller Installation Sheet
- RP-C 24 V Controller Models Installation Sheet
- Wireless Adapter - Advanced Installation Sheet
- RS-485 Adapter Installation Sheet
- RS-485 Power Adapter Installation Sheet

+ Reference Guides

- SpaceLogic & EasyLogic Hardware Reference Guide

SpaceLogic – RP Expansion Modules

Overview

EcoStruxure Building Operation – EBO 2022 or newer

RP Controllers 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

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

Module	Description
Insight Sensor	People counting, motion detection, and luminosity and sound level monitoring
Multi-sensor	Infrared motion detection and luminosity measurements
RP-C-RC-BLE	Remote Control for wireless connectivity to Multi Sensor and Insight Sensor
RP-C-EXT-KNX	KNX Modbus gateway
RP-C-EXT-REL-4	4-channel relay module
CRS-HH-REL-10	10-channel relay module
RP-C-EXT-ZB-DALI	Zigbee DALI light module
RP-C-EXT-ZB-0-10V	Zigbee 0-10V light module
RP-C-EXT-BL-4-HV-PD	Blind module with power distribution for high voltage
RP-C-EXT-0-10V-4-PD	0-10V light module with power distribution
RP-C-EXT-BL-SMI-2-LV-PD	SMI blind module with power distribution for low voltage
RP-C-EXT-BL-SMI-4-HV-PD	SMI blind module with power distribution for high voltage
RP-C-EXT-BL-2-LV-PD	Blind module with power distribution for low voltage
RP-C-EXT-DALI-M-PD	DALI light module with power distribution
RP-C-EXT-DALI	DALI light module without power distribution
RP-C-EXT-0-10V-4	0-10V light module without power distribution

+ Software & Firmware

- Software and Firmware
- Release Notes - Controller Firmware

+ Reference Guides

- RP-C-EXT-KNX Reference Guide
- RP-C-RC-BLE Reference Guide
- Remote Control Operating Guide
- SpaceLogic & EasyLogic Hardware Reference Guide

+ Specification Sheets

- Light Modules
  - RP-C-EXT-ZB-DALI
  - RP-C-EXT-ZB-0-10V
  - RP-C-EXT-0-10V-4-PD
  - RP-C-EXT-DALI-M-PD
  - RP-C-EXT-DALI
  - RP-C-EXT-0-10V-4
- Blind Modules
  - RP-C-EXT-BL-4-HV-PD
  - RP-C-EXT-BL-SMI-2-LV-PD
  - RP-C-EXT-BL-SMI-4-HV-PD
  - RP-C-EXT-BL-2-LV-PD
- Other Modules
  - Insight Sensor
  - Multi-sensor
  - RP-C-EXT-REL-4
  - RP-C-RC-BLE
  - RP-C-EXT-KNX
  - CRS-HH-REL-10

+ Installation Sheets

- Light Modules
  - RP-C-EXT-ZB-DALI and RP-C-EXT-ZB-0-10V
  - RP-C-EXT-DALI-M-PD and RP-C-EXT-DALI
  - RP-C-EXT-0-10V-4-PD and RP-C-EXT-0-10V-4
- Blind Modules
  - RP-C-EXT-BL-SMI-2-LV-PD and RP-C-EXT-BL-SMI-4-HV-PD
  - RP-C-EXT-BL-2-LV-PD and RP-C-EXT-BL-4-HV-PD
- Other Modules
  - RP-C-EXT-IS-BLE Insight-Sensor
  - RP-C-EXT-MS-BLE Multi-Sensor
  - CRS-HH-REL-10
  - RP-C-EXT-REL-4
  - RP-C-EXT-KNX

SpaceLogic – RP-C Advanced

Overview

EcoStruxure Building Operation – EBO 2022 or newer

Introduction

SpaceLogic™ RP-C Advanced is a room-purpose, fully programmable, IP based field controller that suits a wide range of HVAC applications and offers a room connectivity hub for Connected Room Solutions.

RP-C Advanced comes either as a 24 VAC/DC controller with 12 I/O points or as a 230 VAC controller with 16 I/O points.

The controller is integrated into Connected Room Solutions and EcoStruxure Building Operation and is positioned for room control as well as well-being, comfort of occupants in an energy efficient way.

The RP-C Advanced controller can also be reconfigured through the EcoStruxure Building Operation software to support BACnet MS/TP, instead of BACnet/IP.

The controller can either be used as a standalone BACnet/IP field controller, BACnet/SC node, or as part of an EcoStruxure BMS with a SpaceLogic AS-P or AS-B server or an Enterprise Server as the parent server.

The controller features a wireless chip, which enables commissioning of the controller with the Commission mobile application and allows tenants to change the room comfort settings using their smartphones with the Engage mobile application.

Web services enable web access directly to the controller, making the controller an open IoT hub in the room or space area.

RP-C Advanced has the following features:

- IP enabled with dual-port Ethernet switch
- BACnet/SC node
- Full range of controller models
- Versatile onboard I/O point mix
- Optional covers
- Wireless connectivity
- Advanced monitoring
- Two configurable RS-485 ports
- Sensor bus for living space sensors
- Room bus for Connected Room Solutions
- Modbus RTU subnetwork
- KNX support (KNX Modbus gateway required)
- BACnet MS/TP support (adapter required)
- Engage mobile application for room comfort settings
- Commission mobile application for commissioning of the controller before the BMS is in place
- Full EcoStruxure Building Operation software support, providing efficient engineering tools
- Web services through RESTful API

+ Software & Firmware

- Software and Firmware
- Release Notes - Controller Firmware

+ Specification Sheets

- RP-C Specification Sheet
- RS-485 Adapters Specification Sheet
- Wireless Adapter – Advanced Specification Sheet
- SpaceLogic Sensors - SXWS Sensors for MP and RP IP Controllers - Specification Sheet

+ Installation Sheets

- RP-C 230 V Controller Models Installation Sheet
- RP-C-16C-F-230V Controller Installation Sheet
- RP-C 24 V Controller Models Installation Sheet
- Wireless Adapter - Advanced Installation Sheet
- RS-485 Adapter Installation Sheet
- RS-485 Power Adapter Installation Sheet

+ **Reference** Guides

- SpaceLogic & EasyLogic Hardware Reference Guide

SpaceLogic – RP-V Advanced

Overview

EcoStruxure Building Operation – EBO 2022 or newer

Introduction

SpaceLogic™ RP-V is a room-purpose, fully programmable, IP based field controller dedicated for VAV cooling and Heating applications. The RP-V integrates a controller, a damper actuator, and an air flow sensor in a single compact unit for ease of installation. The RP-V can either be used as a standalone BACnet/IP controller, BACnet/SC node, or as part of an EcoStruxure BMS with a SpaceLogic AS-P or AS-B server or an Enterprise Server as the parent server. The RP-V can also be reconfigured through the EcoStruxure Building Operation software to use BACnet MS/TP, instead of BACnet/IP. The RP-V features a wireless chip, which enables commissioning of the controller with the Commission mobile application and allows tenants to change the room comfort settings using their smartphones with the Engage mobile application. RP-V comes in two models with different I/O count. Web services enable web access directly to the RP-V, making the controller an open IoT hub in the room or space area.

The RP-V has the following features:

- IP enabled with dual-port Ethernet switch
- BACnet/SC node
- Integrated damper actuator with feedback signal
- Torque rating of 10 Nm (88.5 lbf.in)
- Factory-calibrated air flow sensor
- Versatile onboard I/O point mix
- Built-in isolated power supply
- Wireless connectivity
- Advanced monitoring
- Two configurable RS-485 ports
- Sensor bus for living space sensors
- Room bus for Connected Room Solutions
- Modbus RTU subnetwork
- BACnet MS/TP support (adapter required)
- Engage mobile application for room comfort settings
- Commission mobile application for commissioning of the controller before the BMS is in place
- Full EcoStruxure Building Operation software support, providing efficient engineering tools
- Web services through RESTful API

+ Software & Firmware

- Software and Firmware
- Release Notes - Controller Firmware

+ Specification Sheets

- RP-V Specification Sheet
- SpaceLogic RS-485 Adapters Specification Sheet
- Wireless Adapter – Advanced Specification Sheet
- SpaceLogic Sensors - SXWS Sensors for MP and RP IP Controllers - Specification Sheet

+ Installation Sheets

- RP-V Controller Models Installation Sheet
- Wireless Adapter - Advanced Installation Sheet
- RS-485 Adapter Installation Sheet
- RS-485 Power Adapter Installation Sheet

+ Reference Guides

- SpaceLogic & EasyLogic Hardware Reference Guide

SpaceLogic – IP-IO Modules

Overview

EcoStruxure Building Operation

Introduction

SpaceLogic™ IP-IO module provides I/O expansion to your HVAC application over BACnet/IP. The module can share its I/O resources across applications running in automation servers, BACnet/IP controllers, or third-party systems. With the support of local alarms and local trend logs, the IP-IO module avoids unnecessary traffic over the network while being able to log important information locally. The IP-IO module can be installed near facilities in the field, away from the automation server or the BACnet/IP controller. All IP-IO models support an optional display that provides insight and control of the inputs and outputs.

The IP-IO module has the following features:

- IP enabled with dual-port Ethernet switch
- BACnet/SC node
- Versatile onboard I/O point mix
- Advanced monitoring
- Commission mobile application for commissioning of the controller before the BMS is in place
- Full EcoStruxure Building Operation software support, providing efficient engineering tools

For information on the maximum number of IP-IO modules that can be used with an automation server or a BACnet/IP controller, see the Architectural Guidelines.

+ Software & Firmware

- Software and Firmware
- Release Notes - Controller Firmware

+ Specification Sheets

- IP-IO Specification Sheet
- RS-485 Adapters Specification Sheet

+ Installation Sheets

- IP-IO-BAA IO Module Installation Sheet
- IP-IO-SMK IO Module Installation Sheet
- IP-IO IO Module Installation Sheet
- RS-485 Adapter Installation Sheet
- RS-485 Power Adapter Installation Sheet

+ Reference Guides

- SpaceLogic & EasyLogic Hardware Reference Guide

SpaceLogic – MP-C Pro

EcoStruxure Building Operation

Introduction

SpaceLogic™ MP-C Pro is a multi-purpose, fully programmable, IP based field controller. The MP-C models offer a flexible mix of I/O point types that suit a wide range of HVAC applications. MPC can either be used as a standalone BACnet/IP controller, BACnet/SC node, or as part of an EcoStruxure BMS with a SpaceLogic AS-P or AS-B server or an Enterprise Server as the parent server. The MP-C models support an optional display that provides insight and control of the inputs and outputs.

MP-C has the following features:

- IP enabled with dual-port Ethernet switch
- BACnet/SC node
- Versatile onboard I/O point mix
- Advanced monitoring
- Configurable RS-485 port
- Sensor bus for living space sensors
- Modbus RTU subnetwork
- Commission mobile application for commissioning of the controller before the BMS is in place
- Full EcoStruxure Building Operation software support, providing efficient engineering tools
- SpaceLogic Operator Display support

+ Software & Firmware

- Software and Firmware
- Release Notes - Controller Firmware

+ Specification Sheets

- MP-C Specification Sheet
- SpaceLogic RS-485 Adapters Specification Sheet
- SpaceLogic Sensors - SXWS Sensors for MP and RP IP Controllers - Specification Sheet

+ Installation Sheets

- MP-C-BAA Override Display Installation Sheet
- MP-C-BAA Controller Models Installation Sheet
- MP-C-SMK Controller Models Installation Sheet

+ Reference Guides

- SpaceLogic & EasyLogic Hardware Reference Guide

SpaceLogic – MP-V Room Controllers

Overview

EcoStruxure Building Operation

Introduction

SpaceLogic™ MP-V is a multi-purpose, fully programmable, IP based field controller dedicated for VAV cooling and heating applications. MP-V integrates a controller, a damper actuator, and an air flow sensor in a single compact unit for ease of installation. MP-V can either be used as a standalone BACnet/IP controller, BACnet/SC node, or as part of an EcoStruxure BMS with a SpaceLogic AS-P or AS-B server or an Enterprise Server as the parent server. MP-V can also be reconfigured through the EcoStruxure Building Operation software to use BACnet MS/TP, instead of BACnet/IP. MP-V comes in two models with different I/O count.

MP-V has the following features:

- IP enabled with dual-port Ethernet switch
- BACnet/SC node
- Versatile onboard I/O point mix
- Integrated damper actuator with feedback signal
- Factory-calibrated air flow sensor
- Advanced monitoring
- Configurable RS-485 port
- Sensor bus for living space sensors
- Modbus RTU subnetwork
- BACnet MS/TP support (adapter required)

+ Software & Firmware

- Software and Firmware
- Release Notes - Controller Firmware

+ Specification Sheets

- MP-V Specification Sheet
- RS-485 Adapters Specification Sheet
- SpaceLogic Sensors - SXWS Sensors for MP and RP IP Controllers - Specification Sheet

+ Installation Sheets

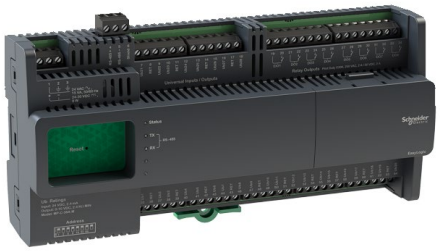
- MP-V Controller Models Installation Sheet
- MP-V-BAA Controller Models Installation Sheet
- MP-V-SMK Controller Models Installation Sheet

+ Reference Guides

- SpaceLogic & EasyLogic Hardware Reference Guide

EasyLogic – MP-C Field Controllers

EcoStruxure Building Operation – EBO 2023 or newer



Introduction

EasyLogic™ MP-C is a multi-purpose, fully programmable, BACnet MS/TP based field controller. The MP-C models offer a flexible mix of I/O point types that suit a wide range of HVAC applications. MP-C can either be used as a standalone field controller or as part of an EcoStruxure BMS with a SpaceLogic AS-P or AS-B server or an Enterprise Server as the parent server.

Native BACnet MS/TP support

The EasyLogic range of RP and MP controllers and RP-IO I/O modules natively communicate with automation servers and field devices using the BACnet MS/TP protocol.

The RS-485 port with 3-pole screw terminal block is used for connection to the BACnet MS/TP network.

The MP-C has the following features:

- Native BACnet MS/TP support
- Full range of controller models
- Versatile onboard I/O point mix
- Advanced monitoring
- EasyLogic living space sensors
- Full EcoStruxure Building Operation software support, providing efficient engineering tools

+ Software & Firmware

- Software and Firmware
- Release Notes - Controller Firmware

+ Specification Sheets

- MP-C Specification Sheet
- EasyLogic Sensors - Temperature Sensors - Analog - Specification Sheet

+ Installation Sheets

- MP-C Installation Sheet

+ Reference Guides

- SpaceLogic & EasyLogic Hardware Reference Guide

EasyLogic – RP-C

Overview

EcoStruxure Building Operation – EBO 2023 or newer

Introduction

EasyLogic™ RP-C is a room-purpose, fully programmable, BACnet MS/TP based field controller that suits a wide range of HVAC applications. The RP-C can either be used as a standalone field controller or as part of an EcoStruxure BMS with a SpaceLogic AS-P or AS-B server or an Enterprise Server as the parent server.

Native BACnet MS/TP support

The EasyLogic range of RP and MP controllers and RP-IO I/O modules natively communicate with automation servers and field devices using the BACnet MS/TP protocol.

The RS-485 port with 3-pole screw terminal block is used for connection to the BACnet MS/TP network.

The other RS-485 port (Com A), with RJ45 interface, can be configured to support either sensor bus or Modbus network. For more information, see section “Configurable RS-485 port”.

The RP-C has the following features:

- Native BACnet MS/TP support
- Full range of controller models
- Versatile onboard I/O point mix
- Built-in isolated power supply
- Optional covers
- Advanced monitoring
- Configurable RS-485 port
- Sensor bus for SpaceLogic living space sensors
- EasyLogic living space sensors
- Modbus RTU subnetwork
- Commission mobile application for commissioning of the controller before the BMS is in place
- Full EcoStruxure Building Operation software support, providing efficient engineering tools

+ Software & Firmware

- Software and Firmware
- Release Notes - Controller Firmware

+ Specification Sheets

- RP-C Specification Sheet
- EasyLogic Sensors - Temperature Sensors - Analog - Specification Sheet

+ Installation Sheets

- RP-C Installation Sheet

+ Reference Guides

- SpaceLogic & EasyLogic Hardware Reference Guide

EasyLogic – RP-V-5C-M

Overview

EcoStruxure Building Operation – EBO 2023 or newer

Introduction

EasyLogic™ RP-V-5C-M is a room-purpose, fully programmable, BACnet MS/TP based field controller dedicated for VAV cooling and Heating applications. The RP-V integrates a controller, a damper actuator, and an air flow sensor in a single compact package for ease of installation. The RP-V can either be used as a standalone field controller or as part of an EcoStruxure BMS with a SpaceLogic AS-P or AS-B server or an Enterprise Server as the parent server

Native BACnet MS/TP support

The EasyLogic range of RP and MP controllers and RP-IO I/O modules natively communicate with automation servers and field devices using the BACnet MS/TP protocol.

The RS-485 port with 3-pole screw terminal block is used for connection to the BACnet MS/TP network.

The other RS-485 port (Com A), with RJ45 interface, can be configured to support either sensor bus or Modbus network. For more information, see section “Configurable RS-485 port”.

The RP-V has the following features:

- Native BACnet MS/TP support
- Integrated damper actuator with feedback signal
- Factory-calibrated air flow sensor
- Versatile onboard I/O point mix
- Built-in isolated power supply
- Advanced monitoring
- Configurable RS-485 port
- Sensor bus for SpaceLogic living space sensors
- EasyLogic living space sensors
- Modbus RTU subnetwork
- Commission mobile application for commissioning of the controller before the BMS is in place
- Full EcoStruxure Building Operation software support, providing efficient engineering tools

+ Software & Firmware

- Software and Firmware
- Release Notes - Controller Firmware

+ Specification Sheets

- RP-V-5C-M Specification Sheet
- EasyLogic Sensors - Temperature Sensors - Analog - Specification Sheet

+ Installation Sheets

- RP-V-5C-M Installation Sheet

+ Reference Guides

- SpaceLogic & EasyLogic Hardware Reference Guide

EasyLogic – RP-IO Modules

Overview

EcoStruxure Building Operation – EBO 2023 or newer

Introduction

EasyLogic™ RP-IO module provides I/O expansion to your HVAC application over BACnet MS/TP. The I/O module can share its I/O resources across applications running in automation servers, RP and MP controllers, or third-party systems. With the support of local alarms and local trend logs, the I/O module avoids unnecessary traffic over the network while being able to log important information locally. The I/O module can be installed near facilities in the field, away from the automation server or the RP or MP controller.

Native BACnet MS/TP support

The EasyLogic range of RP and MP controllers and RP-IO I/O modules natively communicate with automation servers and field devices using the BACnet MS/TP protocol.

The RS-485 port with 3-pole screw terminal block is used for connection to the BACnet MS/TP network.

The RP-IO has the following features:

- Native BACnet MS/TP support
- Full range of I/O module models
- Versatile onboard I/O point mix
- Built-in isolated power supply
- Optional covers
- Advanced monitoring
- EasyLogic living space sensors
- Full EcoStruxure Building Operation software support, providing efficient engineering tools

A maximum of three RP-IO modules can be used with an RP or MP controller. For more information, see the Architectural Guidelines.

+ Software & Firmware

- Software and Firmware
- Release Notes - Controller Firmware

+ Specification Sheets

- RP-IO Modules Specification Sheet

+ Installation Sheets

- RP-IO Installation Sheet

+ Reference Guides

- SpaceLogic & EasyLogic Hardware Reference Guide