



# EBO




## Building Management System

**EcoStruxure Building Operations (EBO)** is an open and scalable Building Management System (BMS) software platform that enables control and management of multiple building systems and devices by securely facilitating data exchange with building services including energy, lighting, HVAC, fire safety and security systems. It delivers data and insights for decision-making to improve energy management and increase efficiency for better building performance and carbon emission reduction. It features high-quality 2D and 3D graphics to visualize building data, event and alarm tracking, and open-source databases allowing exports of data, trend logs and detailed reporting. Salient EBO features include:

- Role specific personalized dashboards providing visualization and increased understanding
- Best in class alarm management to keep building managers on top of building issues
- Powerful custom reports sharing building trends and performance
- Native networking capabilities and data encryption ensuring system management is simple and transactions secure.
- Support for popular building communication protocols like BACnet, LonWorks and Modbus, and Web Services.
- Compliant to cybersecurity standards IEC62443-4-1 and IEC 62443-3-3 with built-in data security based on ISO 27043.
- Secure user access management with role-based access control
- Mobile friendly design enabling on the go and remote viewing within facility intranet.
- Scalable Vector Graphics that allow users to zoom in to see details without losing clarity.

### EcoStruxure Building Operations Hardware

**Automation Server** functionality includes control logic, trend logging and alarm supervision. It supports communication and connectivity to the equipment inputs and outputs (I/O) and field buses. **SpaceLogic Controller MP-V** is a dedicated VAV controller that integrates a controller, a damper actuator, and an air flow sensor in a single compact package. The SpaceLogic Automation servers and SpaceLogic Controllers can operate as standalone Direct Digital Controllers, or they can be interconnected to form part of a BMS system.

			
Device Name	SpaceLogic Automation Server AS-P	SpaceLogic Automation Server AS-B	SpaceLogic Controller MP-V
Supply Power	10 W, 24 ~ 30 VDC	10 W, 24 ~ 30 VDC	22 VA, 24 VAC
Output Ports	Up to 30 I/O modules (each with 8, 12 or 16 I/O)	24I/O, 36 I/O	7 points/9 points
Communication	Modbus TCP/IP and RTU		BACnet IP
	BACnet/IP and MS/TP		
	LonWorks	N/A	
Ports	Two Ethernet ports		
	Two RS-485 ports	One RS-485 port	N/A
Memory Capacity	512 MB	256 MB	128 MB
Mounting	Din-rail or Wall Mount		Wall Mount
WxHxD (mm)	90 x 114 x 64	198 x 110 x 64	166 x 198 x 63
Weights (kg)	0.32	0.51	1.13

### ECOSTRUXURE BUILDING OPERATIONS SOFTWARE

APPLICATIONS	FEATURES
<b>WorkStation</b>	Windows application that provides interface for engineering SpaceLogic Controllers, Automation Servers and Enterprise Servers. It includes graphics editor, script and function block programming editors. Application allows end users to further customize the deployed BMS.
<b>WebStation</b>	Provides interface to access BMS (automation servers and enterprise servers) using web browsers on Windows PCs, Mac OS computers, Android and iOS tablets and smartphones.
<b>Enterprise Server</b>	Windows application for large BMS deployment featuring more than 1 automation server. It aggregates and logs data from Automation Servers and includes 3 client users. Licensing based on the number of automations servers hosted (10, 50, 100 and 250).
<b>Smart Connector APIs</b>	Open-source developer framework for 3rd party software integration to the BMS.
<b>SmartDriver</b>	Custom driver for connection of BMS with other intelligent building devices that use non-native protocols