

# EC-BOS-9

Multi-Protocol Web Building  
Controller



## Overview

The EC-BOS-9 is a compact, embedded controller and server platform for connecting multiple and diverse devices and sub-systems. With Internet connectivity and Webserving capability, the EC-BOS-9 provides integrated control, supervision, data logging, alarming, scheduling and network management. It streams data and graphical displays to a standard Web browser via an Ethernet or wireless LAN, or remotely over the Internet.

The EC-BOS-9 operates with EC-Net™ web-based building management platform powered by the Niagara Framework®.

## Features & Benefits

- Scalable licensing model and modular hardware make the EC-BOS-9 suitable for installation in small buildings, as well as across large multi-unit campuses when combined with an EC-Net Supervisor
- Integrates many communication protocols and automation systems including HVAC, lighting, energy, and industrial/processing
- Two on-board isolated RS-485 ports for connecting to various common networks, e.g. BACnet MS/TP, Modbus RTU
- Option modules for additional physical network connections, e.g. LONWORKS® FTT-10A, RS-232, RS-485

# Model Selection

To order a fully functional EC-BOS-9, the following three components are required: EC-BOS-9, Core Software, Software Maintenance Agreement (SMA). If ordering a demo core, an SMA is not required. Refer to the [EC-Net Selection Tool](#) to calculate the required components.

## EC-BOS-9 Core Software

**Example:** EC-BOS-9 Core - 100 Devices/5000 Points

Series	Devices/Points <sup>1</sup>
<b>EC-BOS-9 Core:</b> EC-BOS-9 core software. Includes standard open drivers. Requires EC-Net 4.13 or higher. Software Maintenance Agreement (SMA) must be purchased in conjunction with core software.	<b>5 Devices/250 Points:</b> Supports up to 5 devices and 250 points. <b>10 Devices/500 Points:</b> Supports up to 10 devices and 500 points. <b>25 Devices/1250 Points:</b> Supports up to 25 devices and 1250 points. <b>100 Devices/5000 Points:</b> Supports up to 100 devices and 5000 points. <b>200 Devices/10000 Points:</b> Supports up to 200 devices and 10000 points.
<b>EC-BOS-9 Core – Demo:</b> EC-BOS-9 core software. Includes all available drivers. Supports up to 500 devices and 25000 points. Runs on EC-Net 4.13 or higher. Note: This license expires annually, and its renewal is covered by the EC-Net Support Fee.	N/A

1. Devices/Points cannot be added to the Demo version (EC-BOS-9 Core – Demo) of the EC-BOS-9 core software.

For more information regarding the EC-Net drivers currently offered by Distech Controls, refer to the [EC-Net Drivers Reference Guide](#).

## EC-BOS-9 Software Maintenance Agreement

Software maintenance is required when purchasing an EC-BOS-9. The minimum initial software maintenance plan is 18 months. Optional 3- or 5-year maintenance may be substituted.

If Maintenance coverage is not purchased for any period, the price of Maintenance for the next period for which it is purchased will be (a) the Maintenance fee for the period(s) for which Maintenance was not purchased, up to a maximum of 5 years; and (b) the Maintenance fee for the next year.

These software maintenance plans are ordered separately according to the EC-BOS-9 model chosen. See the price list for more details. Take advantage of the Asset Manager online tool to receive notifications about SMA expirations and Enterprise SMA to align all SMA expiration dates to a single one for the entire system.

**Example:** EC-BOS-9 (100 Device Core) 3 year SMA

Series	Software Maintenance Agreement
<b>EC-BOS-9 (5 Device Core)</b> <b>EC-BOS-9 (10 Device Core)</b> <b>EC-BOS-9 (25 Device Core)</b> <b>EC-BOS-9 (100 Device Core)</b> <b>EC-BOS-9 (200 Device Core)</b>	<b>18 month SMA:</b> Initial 18-month software maintenance agreement. Must be purchased in conjunction with initial core software. Optional 3 or 5 year maintenance may be substituted. <b>1 year SMA:</b> 1-year software maintenance agreement (includes new and interim releases). <b>3 year SMA:</b> 3-year software maintenance agreement (includes new and interim releases). <b>5 year SMA:</b> 5-year software maintenance agreement (includes new and interim releases).

## EC-BOS-9 Device Upgrade Pack

**Example:** EC-BOS-9 Device Upgrade Pack - 25

Series	Devices/Points
<b>EC-BOS-9 Device Upgrade Pack:</b> EC-BOS-9 device upgrade pack purchased in conjunction with or any time <u>after</u> initial core software purchase.	<b>10:</b> Adds support for additional 10 devices and 500 points to core software. <b>25:</b> Adds support for additional 25 devices and 1250 points to core software. <b>50:</b> Adds support for additional 50 devices and 2500 points to core software.

## EC-BOS-9 Hardware Accessory

Example: EC-BOS-9 Wall Plug Module

Accessory	Description
EC-BOS-9 Wall Plug Module	100-240VAC, 50/60 Hz. Wall Adapter – Connects to the 2.5mm barrel plug 24V input on the EC-BOS-9 and includes US, EU, UK, and AU style plugs.

## EC-BOS-9 Add-on Modules

Example: IO-R-16

Add-on Module	Description
EC-NPB8-LON	Add-on single port LON FTT10A module.
EC-NPB8-2X-485	Add-on dual port RS-485 module.
EC-NPB8-232	Add-on single port RS-232 module.
IO-R-16	16 Point IO Module. Powered by IO-R-34. Connected to the EC-BOS-9 remotely over RS485.
IO-R-34	34 Point IO Module. Powered by 24VAC/DC. Capable of powering (4) IO-R-16 modules. Connected to the EC-BOS-9 remotely over RS485.

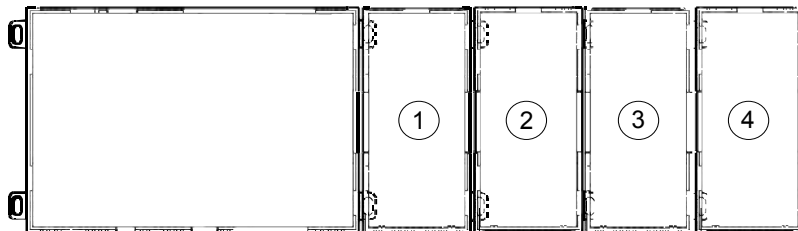
## Expansion Modules

Modules	Description	Maximum Expansion Modules Supported
EC-NPB8-LON	Add-on single port LON FTT10A module.	4
EC-NPB8-2X-485	Add-on dual port RS-485 module.	2
EC-NPB8-232	Add-on single port RS-232 module.	4
IO-R-16	16 Point IO Module	16 <sup>1</sup>
IO-R-34	34 Point IO Module	8 <sup>1</sup>

1. For detailed information about maximum number of modules supported and maximum combinations, refer to the EC-BOS-9 I/O Modules datasheet.

Maximum Combinations (see figure below):

Expansion 1	Expansion 2	Expansion 3	Expansion 4
EC-NPB8-232 OR EC-NPB8-LON	EC-NPB8-232 OR EC-NPB8-LON	EC-NPB8-232 OR EC-NPB8-LON	EC-NPB8-232 OR EC-NPB8-LON
EC-NPB8-2X-485	EC-NPB8-232 OR EC-NPB8-LON	EC-NPB8-232 OR EC-NPB8-LON	EC-NPB8-232 OR EC-NPB8-LON
EC-NPB8-2X-485	EC-NPB8-2X-485	EC-NPB8-232 OR EC-NPB8-LON	



# Product Specifications

## Platform

Processor	NXP iMX8M+ Quad Core CPU
Memory	2GB LPDDR4 RAM
	- Removable 8GB micro-SD card
	- Real-time clock
	- Batteryless
	- Secure boot

## Communications

USB type C connector	Debug port
RS-485	2 isolated RS-485 with selectable bias and termination
Ethernet	2 10/100/1000MB Ethernet ports
BACnet Listing	(pending)

## Power Supply

Voltage	24VAC/DC power supply
Consumption	24VA (24VAC); 24W (24VDC)

## Environmental

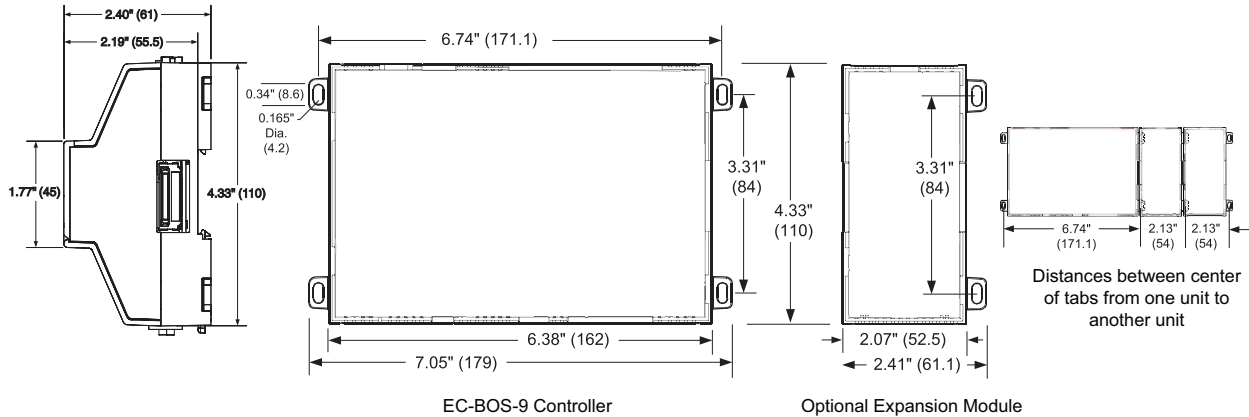
Operating Temperature	-20 to 60°C (-4 to 140 °F)
Storage Temperature	-40 to 85°C (-40 to 185 °F)
Relative Humidity	5% to 95% - Non condensing
Shipping and Vibration	ASTM D4169, Assurance Level II
MTTF	10 years+

## Operating Systems

EC-Net 4 4.13 or later

## Standards and Regulations

UL	UL 916
	C-UL listed to Canadian Standards Associations (CSA)
	C22.2 No. 205-M1983 "Signal Equipment"
CE	EN 61326-1
FCC	Part 15 Subpart B, Class B, Part 15 Subpart C
R&TTE Compliance	1999/5/EC R&TTE Directive
Other compliances	CCC, SRRC, RSS, RoHS



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Specifications subject to change without notice.

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