

## Verasys® Equipment Controller Catalog Page

### Description

The Verasys® Equipment Controller (VEC) is part of the SMART Equipment Controller family. The VEC runs pre-engineered applications and provide the inputs and outputs required to monitor and control HVAC equipment.

The VECs include an integral real-time clock that enables the controllers to monitor and control schedules, calendar trends, and to operate for extended periods of time as stand-alone controllers when offline from the system network.

Refer to the *Verasys System Product Bulletin (LIT-12012342)* for important product application information.

### Repair Parts

If the VEC fails to operate within its specifications, replace the unit. For a replacement unit, contact the nearest representative.

Verasys Equipment Controller



### Selection Chart

#### Verasys Equipment Controller

Code Number	Description
LC-VEC100-0	Verasys Equipment Controller 24 volts with display, third-party RTU (VAV, COBP)

### Technical Specifications

Verasys Equipment Controller (Part 1 of 2)	
<b>Supply Voltage</b>	24 VAC, 20 VAC minimum/30 VAC maximum, 50/60 Hz, power supply Class 2 (North America), Safety Extra-Low Voltage (SELV) (Europe)
<b>Power Consumption</b>	<b>20 VA maximum</b> <b>Note:</b> VA rating does not include any power supplied to the peripheral devices connected to Binary Outputs (BOs) or Configurable Outputs (COs), which can consume up to 12 VA for each BO or CO, for a possible total consumption of an additional 60 VA (maximum).
<b>Ambient Conditions</b>	<b>Operating:</b> -4°F to 158°F (-20°C to 70°C); 10% to 95% RH noncondensing; Pollution Degree 2 <b>Storage:</b> -40°F to 185°F (-40°C to 85°C); 5% to 95% RH noncondensing
<b>Addressing</b>	<b>BACnet® MS/TP:</b> Valid field controller device addresses 4–127 Device addresses 0–3 and 128–255 are reserved and not valid field controller addresses.
<b>Communications Bus</b>	<b>BACnet® MS/TP:</b> 3-wire FC bus between the supervisory controller and field controller. 4-wire SA Bus between controller, network sensors and other sensor and actuator devices, includes a lead to source 15 VDC supply power from the controller to bus devices
<b>Processor</b>	RX631 Renesas® 32-bit microcontroller
<b>Memory</b>	16 MB flash memory and 8 MB RAM
<b>Input and Output Capabilities</b>	<b>Five Universal Inputs:</b> Application dependent, available in three modes (Refer to the Verasys Equipment Controller (VEC) Installation Instructions ( <i>Part No. 24-10143-1272</i> ) for usage): <ul style="list-style-type: none"> <li>Voltage Input: 0 VDC to 10 VDC</li> <li>Current Sense Input: 4 mA to 20 mA</li> <li>Resistive inputs/Dry Contact inputs</li> </ul> <b>Four Binary Inputs:</b> Defined as Dry Contact maintained or Pulse Counter/Accumulator Mode <b>Three Configurable Outputs:</b> User-configurable, 2 available modes: <ul style="list-style-type: none"> <li>Analog output: 0 to 10 VDC, 10 mA</li> <li>Triac output: 24 VAC, 0.5 A (Externally sourced powered)</li> </ul> <b>One Utility Output Power Port (24~ OUT):</b> Ability to deliver 24 VAC <b>Four Binary Outputs (Relays):</b> Single-pole, Single-Throw. Dry Contacts rated 240 VAC <ul style="list-style-type: none"> <li>UL: 240 VAC 5A Resistive, 1.9 LA/11.1LRA, D300 Pilot Duty, 158°F/70°C (30,000 cycles)</li> <li>IEC: 240 VAC 3A Resistive, 3A Inductive, Cos=0.6, -4°F to 158°F (-20°C to 70°C) (100,000 cycles)</li> </ul> <b>Note:</b> Reference all relay commons to the same pole of the supply circuit. <b>Two Binary Outputs (Triacs):</b> Output: 24 VAC or 240 VAC, 0.5 A (externally powered) <b>Note:</b> Reference all triac commons to the same pole of the supply circuit.
<b>Analog Input/Analog Output Resolution and Accuracy</b>	<b>Analog Input:</b> 15-bit resolution <b>Analog Output:</b> 15-bit resolution, +/- 200 mV accuracy in 0 to 10 VDC applications
<b>Mounting</b>	Horizontal on single 35 mm DIN rail mount (preferred), or screw mount on flat surface with three integral mounting clips on controller
<b>Housing</b>	<b>Enclosure material:</b> Polycarbonate Lexan SABIC EXL9330)
<b>Dimensions (H x W x D)</b>	6.45 in. x 4.92 in. x 2.08 in. (164 mm x 125 mm x 53 mm) excluding terminals and mounting clips

The performance specifications are nominal and conform to acceptable industry standards. For applications at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls shall not be liable for damages resulting from misapplication or misuse of its products. © 2019 Johnson Controls. [www.johnsoncontrols.com](http://www.johnsoncontrols.com)



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<b>Verasys Equipment Controller (Part 2 of 2)</b>	
<b>Weight</b>	1.1 lb (0.5 kg)
<b>CE</b>	<b>United States:</b> UL Listed, File E107041, CCN PAZX, UL 916, Energy Management Equipment FCC Compliant to CRF47, Part 15, Subpart B, Class A
	<b>Canada:</b> UL Listed, File E107041, CNN PAZX7 CAN/CSA C22.2 No.205, Signal Equipment Industry Canada Compliant, ICES-003
	<b>Europe:</b> Johnson Controls declares that this product is also in compliance with the essential requirements and other relevant provisions of the EMC Directive and Low Voltage Directive Declared as Electronic Independently mounted control, suitable for DIN rail mounting. Intended to mount in remote panel. Type 1.C (Micro-interruption), 330 V rated impulse voltage. 125°C ball pressure test.
	<b>Australia and New Zealand:</b> RCM Mark, Australia/NZ Emissions Compliant