

VYKON Edge Controller 10 (VEC-10)

Frequently Asked Questions

Q: Where can I find specification detail on the VEC-10?

A: You can find the data sheet and other collateral posted on vykon.com. Technical documentation, including dimensions, agency listings, IO mixture, input and output power specification, environmental specifications and more, is posted on the Niagara Community website.

Q: How many points of IO does the VEC-10 have?

A: The VEC-10 has 10 points of IO. Specifically, 5 universal inputs, 3 digital outputs and 2 analog inputs. See the data sheet posted on vykon.com for more detail.

Q: Does the VEC-10 support 20Hz pulse inputs?

A: No, the VEC-10 does not support 20Hz pulse inputs, instead it supports a 1Hz maximum pulse rate. See the data sheet posted on vykon.com for more detail on the universal inputs available.

Q: Are the digital outputs relay or triac?

A: The VEC-10 has 3 digital outputs that are triacs rated for 24VAC @ .5 amps.

Q: Does the VEC-10 have Wi-Fi capabilities?

A: No, the VEC-10 does not have Wi-Fi capabilities. The VEC-10 is WIRED IP only.

Q: Does the VEC-10 have an SD card like the JACE® 8000?

A: No, the VEC-10 does not have a SD card. The Niagara Framework® software is loaded directly onto the VEC-10.

Q: Does the VEC-10 have an internal battery?

A: No, the VEC-10 does not have an internal battery. The VEC-10 must be powered via a Uninterruptable Power Supply (UPS), should operation during power failures be a requirement.

Q: Does the VEC-10 have a real-time clock?

A: Yes, the VEC-10 has a capacitor backed real-time clock with the capability to operate without power for 14 days. Room temperature accuracy: +- 2.5 minutes/month. Accuracy over operating temperature range: +- 5 minutes/month.

Q: How many RS-485 serial ports does the VEC-10 have?

A: The VEC-10 has a single non-isolated RS-485 serial port. The port can be used to connect a single IO-R-34 or up to 3 Modbus or BACnet devices.

Q: Does the VEC-10 have a RS-232 port?

A: No, the VEC-10 does not have a RS-232 port.

Q: Does the VEC-10 support LON?

A: No, the VEC-10 does not support LON. The VEC-10 includes drivers for BACnet, Modbus and SNMP only.

Q: Can the VEC-10 support the JACE communication expansion modules?

A: No, the VEC-10 is unable to support the JACE communication expansion modules (NPB-8000-2x-485, NPB-8000-LON, NPB-8000-232).

Q: What version of the Niagara Framework is needed for the VEC-10?

A: The VEC-10 supports Niagara 4.7 or later.

Q: Does the VEC-10 support Niagara AX?

A: No, the VEC-10 supports Niagara 4.7 or later.

Q: Does the VEC-10 run the full version of Niagara?

A: Yes, the VEC-10 runs the full version of Niagara. All features and functionality of Niagara are available in the VEC-10.

Q: Can I purchase the VEC-10 without Niagara software included?

A: No, the VEC-10 is a bundled product and includes both the hardware and software.

Q: Does the VEC-10 require an SMA?

A: SMA purchase is neither required nor available. The VEC-10 includes all software updates released for commercial use by Tridium for the life of Niagara 4, but not for any later versions.

Q: How is the VEC-10 licensed?

A: The VEC-10 comes with a license that includes 3 devices and 50 points. The VEC-10 includes BACnet, Modbus and SNMP drivers. The VEC-10 does not have any option or upgrade packs to increase the number of points or devices.

Q: Can I add more proxy points or devices to my license?

A: No, the VEC-10 comes with a standard license that includes 3 devices and 50 total points. The VEC-10 does not have any option or upgrade packs to increase the number of points or devices.

Q: Can I add drivers to the VEC-10?

A: The VEC-10 includes BACnet, Modbus and SNMP. No other drivers are supported on the VEC-10.

Q: How many external devices can I connect via the IP or RS-485 serial network on the VEC-10?

A: The VEC-10 supports 3 devices or up to 50 total points on the IP and/or RS-485 serial network.

Q: How many IO R modules can I connect to the VEC-10?

A: You may connect a single IO-R-34 to the VEC-10.

Q: Can I connect an IO-R-16 to the VEC-10?

A: No, the VEC-10 only supports a single IO-R-34.

Q: Does the IO-R-34 consume capacity from my VEC-10 core license?

A: No, the IO-R-34 operates over the NRIO network (Niagara Remote IO network), which, like niagaraDriver, is excluded from capacity restrictions on the VEC-10.

Q: What is the default IP address for the VEC-10?

A: Upon first startup when IP connectivity is detected, the VEC-10 initially requests an IP address via DHCP. If a DHCP address is not found, the VEC-10 falls back to a static IP address based on its serial number.

Q: How can I determine the fallback static IP address of my VEC-10 based on its serial number?

A: The static IP address is determined based on the serial number. The IP address will be set to 192.168.1xx.xx, where xx.xx is the last 4 digits of the serial number. For example, if the serial number is 123456789, the fallback IP address would be 192.168.167.89.

Q: What is the subnet mask of my fallback static IP address?

A: 255.255.0.0

Q: The VEC-10 includes two Ethernet ports, how are they different than the JACE 8000?

A: The JACE 8000 has two Ethernet ports that are isolated, meaning that they cannot route data between the two ports and are not capable of daisy chaining. The VEC-10 includes two Ethernet ports that are capable and by default will route data between the two ports to allow for daisy chaining.

Q: When set to daisy chain mode, what are the IP addresses of my two Ethernet ports?

A: In daisy chain mode, the IP address of the two Ethernet ports are identical and have an address set by a DHCP server, a fallback static address or user defined address.

Q: Can my Ethernet ports be isolated (non-daisy chain mode)?

A: Yes, the VEC-10 defaults to daisy chain mode, however the Ethernet ports can be configured to be isolated (non-routable), similar to the JACE 8000.

Q: What are the IP addresses of my two Ethernet ports if the VEC-10 is configured to be isolated (non-daisy chain mode)?

A: If the VEC-10's Ethernet ports are configured to be isolated, the primary IP address will default to the DHCP or fallback address. The secondary IP address will be defined by the user. The primary IP address may also be defined by the user.

Q. Can I connect the VEC-10 to my Niagara Supervisor?

A: Yes, the VEC-10 can be added to a Niagara Supervisor's Niagara Network and managed just like any other Niagara device.

Q. Can I connect the VEC-10 to my JACE 8000?

A: Yes, the VEC-10 can be added to a JACE 8000's Niagara Network and managed just like any other Niagara device. When physically connecting the VEC-10 to the secondary port of a JACE 8000, it is important to note that the device will only be able to be managed/visible by the local JACE 8000 as the JACE's Ethernet ports are isolated.

Q: What agency certifications does the VEC-10 have?

A: Please see the VEC-10 data sheet posted on vykon.com for the most up-to-date information.

Q: What environmental conditions can the VEC-10 operate in?

A: See the data sheet posted on vykon.com for more detail on environmental conditions.

Q: When does the warranty start on the VEC-10?

A: The hardware warranty starts when purchased from Tridium and is valid for 18 months.

Q: If the hardware fails, what is the warranty process?

A: Please contact your distributor for details