Product Specification – NES Garage Ventilation Controller

Overview

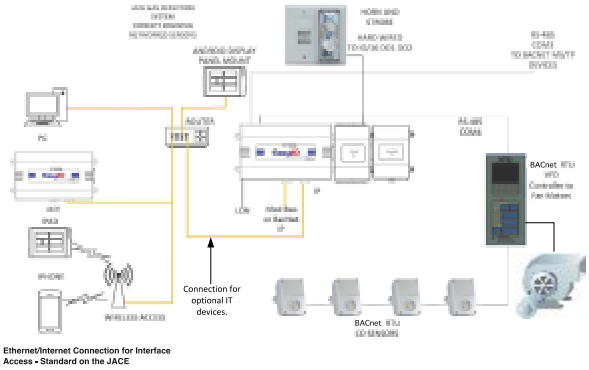
The NES TR is built on Tridium's powerful and durable JACE controller utilizing Niagara programming. It is designed to provide optimum functionality and system features, including scalability, i.e., they can be custom designed according to customer requirements, and an "open" communications platform that comports with any BMS and/or EMS communication protocol. Furthermore, they distinguish themselves by their ability to interface with variable frequency drive (VFD) technology to track real-time energy consumption / savings.

- → The NES Tridium JACE controller relies on the Tridium JACE 8000, which operates with Niagara 4, the latest version of the Niagara Framework®, providing optimum performance.
- → It is configurable to serve from 25 devices – CO & NO_2 sensors, VFDs, and temperature & humidity sensors – up to 200 devices.

The NES TR controller is Internet accessible via any Internet browser, with an optional, onboard display to facilitate trouble-free commissioning, system adjustments and troubleshooting. The controller is designed to control a single zone or multiple zones, and it can control multiple garage fan motors and VFDs.

Key Features:

- Niagara Tridium-based controller.
  - UL 916 listed
  - C-UL listed to CSA
- Accessible by any web browser.
- Compatible with building systems utilizing BACnet®, Modbus®, Metasys®, LonWorks® and many other communication protocols.
- Graphics module provides detailed, real-time views of system component performance, e.g., individual CO sensor readings, milliamp continuity, etc.
- Provides alerts for calibration and replacement of sensors.
- Provides energy usage and savings reports on screen and emailed.
- Provides critical alarm notification via emailed notifications.
- Trending available for all points, and trend reports can be generated and saved as a PDF or as an excel document on your PC.
- Adjustable occupied, unoccupied, enable and purge schedules.
- High Level (100 ppm for more than 15 minutes) activates horn and sends out an email alert if the controller has Internet access.

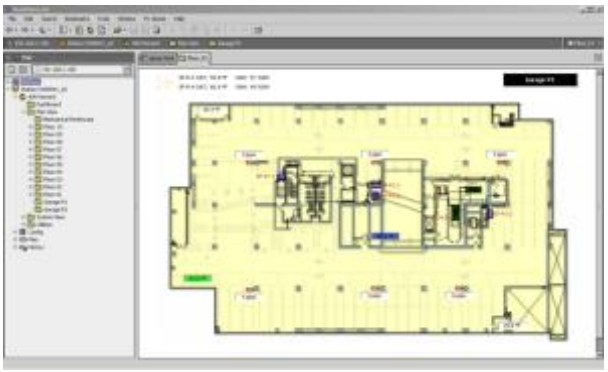


- Can control multiple BACnet- and or Modbus-enabled VFD's.
- NEMA 1 metal enclosure rated UL50 (file: E27567, Type 1), CSA Approved (file LL42184,Type 1) Dimensions: 24"W X 24"H X 8"D
- UL Approved, Class 2 110V to 24 VDC Power Supply integrated in enclosure.
- Employs BACnet or Modbus CO sensors, reducing installation and maintenance costs.
- Sensor error activates strobe and is alarmed in the alarm console.
- On-call service for sites that have scheduled on call personnel.
- **Fully complies with the new CA, OR and WA code requirements for garage ventilation**, as well as other states with stricter CO and NO_2 sensor system/garage ventilation standards.

Options:

- Panel-mounted, 9-inch Android display.
- Fault indication Strobe.
- High Level Horn.

- Front panel interface to allow power and communications for laptops – when a wireless router is not employed.
- Wireless router.
- System graphics, e.g., floor plans.
- Drivers for various protocols such that this system can communicate with an existing BMS. These include, but are not limited to BACnet IP and Lon IP.



Sequence of Operation

- The NES system utilizes an innovative, smart-control logic that detects and measures vehicle fumes in the garage and then modulates garage fan speeds to prevent carbon monoxide (CO) and nitrogen dioxide (NO2) levels from exceeding predefined set points (measured in parts per million) for an extended period of time.
- Our innovative system incorporates variable frequency drive (VFD) technology, syncing it with our digital garage ventilation controllers and CO (and NO2) sensors such that it:
  - ✓ Enables the motors to run continuously at low speeds;
  - ✓ Creates a reservoir of fresh air in the garage such that CO (and NO2) concentrations are prevented from exceeding pre-defined sensor trip points; and
  - ✓ Prevents motors from instantaneously ramping from low to high speed(s).

For More Information Contact:

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