

Roadway Sensors

Vantage Edge[®]2

[A machine vision processor that delivers superior performance in adverse weather conditions]

The Vantage Edge2 processor is a key component in the family of Vantage video detection solutions. The module combines state-of-the-art technology with sophisticated algorithms to deliver dependable vehicle detection required for today's complex transportation systems. The Edge2 processor features single, dual or quad video inputs to maximize configuration efficiencies for intersection control, highway monitoring and ramp metering flow control applications.

The processor module is complimented by multiple Input/Output and Extension Modules that provide flexible and expandable solutions to meet the needs of larger and more complex intersection configurations. The Edge2 processor module and its associated expansion modules fit into standard detector racks to simplify installation and setup. All modules are designed as a simple and cost-effective replacement for the inductive loop amplifier module configuration.

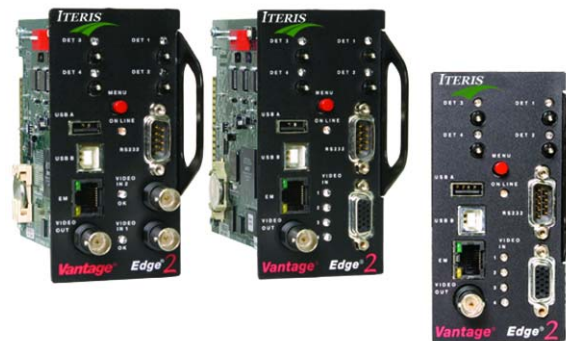
Optionally, all processor and output detector cards can be inserted into the Vantage rack system allowing for greater flexibility over individual configurations and for better operational control.

The Edge2 processor and all of its associated modules can be completely configured by using a mouse and video monitor only, eliminating the need for expensive laptops or PDA devices.

Installation and Configuration

The Edge2 processor card is hot swappable and is easy to set up and configure. All you need is a mouse to configure virtual zone operation for intersection, highway monitoring or ramp metering operations. Configuration is performed through the user-friendly menu system built in to the Edge2 processor. Virtual zones can be configured for presence, delay, extension, or count functions. Count, Speed, Occupancy (CSO) detection zones provide traffic count, speed, occupancy, and classification data. Incident detection zones can be set up to identify slow moving or stopped vehicles, vehicles traveling in the wrong direction, highway congestion or other customized event conditions. Data is stored in the processor that can be retrieved using the Vantage Remote Access Software (VRAS).

All Vantage processor and output modules interface directly with NEMA TS-1 and TS-2, Type 170/2070 ATC controllers and cabinet wiring schema.



Features

- Available in single dual or quad video inputs
- Extension modules in 2, 4 or 32 channel configurations
- Fits into Type 170/2070 input files, NEMA TS-1 and TS-2 detector racks
- Easy to use menu interface
- Need only a mouse and monitor to configure
- Auto senses input voltage (+12 or +24 VDC)
- High intensity LEDs for easier viewing of status conditions
- Up to 24 virtual zones per video input
- Up to 24 outputs per video input
- Virtual zones can be assigned with Boolean logic for greater control
- Fail-safe outputs for video loss, low contrast and equipment failure
- Non-volatile memory data storage
- Self test on power up
- RS-232 serial port for ease of remote access and maintenance



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Benefits

- Plug and play operation enables use of existing detector rack thereby extending the life of the controller and cabinet equipment
- Simple to use interface reduces training time and improves productivity levels
- Ease of set up and minimal lane closure time reduces manpower cost and keeps traffic flowing during equipment installation
- Expandable and modular system allows for optimal configuration that helps to reduce cost while preserving room for incremental growth

Typical Applications

- Intersection flow control
- Ramp metering
- Traffic data collection
- Bicycle detection
- Traveler information system input
- Temporary and construction zone vehicle detection replacement
- Moving or wrong way motion detection
- Automatic Incident Detection (AID) in tunnels and on bridges

Vantage Family Products

- Machine Vision Processor modules
- Input and Output Extension modules
- Communications modules
- Flexible and expandable detector rack systems
- Cameras optimized for video detection applications

Technical Specifications

Power	<ul style="list-style-type: none">• 12 or 24 VDC, 7W maximum• Consumption<ul style="list-style-type: none">▪ @12VDC - 490mA▪ @24VDC - 280mA
Video	<ul style="list-style-type: none">• Input type<ul style="list-style-type: none">▪ NTSC, PAL▪ 75Ohm 1 Vpp• 1 input channel<ul style="list-style-type: none">▪ Single BNC connector• 2 input channel<ul style="list-style-type: none">▪ Dual BNC connector• 4 input channel<ul style="list-style-type: none">▪ DB15 video input connector (cable supplied)• Output – All models<ul style="list-style-type: none">▪ Single BNC connector
Communications	<ul style="list-style-type: none">• RS-232 serial port• USB port for pointer control
Detector I/O	<ul style="list-style-type: none">• Outputs (open collector +24VDC nominal 50mA)<ul style="list-style-type: none">▪ 4 on rear edge of module• Inputs<ul style="list-style-type: none">▪ 4 on rear edge of module
Status Indicators	<ul style="list-style-type: none">• 4 LEDs indicate output detection state• 4 LEDs indicate video source
Environmental	<ul style="list-style-type: none">• -35°F to +165°F (-37°C to +74°C)• 0% to 95% humidity non-condensing• 0.5G, 3 axes, 5-30Hz vibration tested• 10G in all 3 axes for shock testing
Mechanical	<ul style="list-style-type: none">• 7" L x 4.5" H x 2.31" W. (17.78cm x 11.43cm x 5.86cm)• 0.8lb (.363Kg)
Warranty	<ul style="list-style-type: none">• 3 years limited warranty
Regulatory	<ul style="list-style-type: none">• NEMA TS-2 compliant• FCC part 15, Class A



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