

Roadway Sensors

Vantage® RZ4 Camera

[Optimized for traffic video detection]

The Vantage® Camera offers the best all-round performance for the capture of vehicles in a variety of lighting and weather conditions. Most video detection systems require a clean and stable video signal to function correctly. In contrast to other CCTV type cameras, the Vantage camera delivers a constant and regulated video signal that is easily processed by the Vantage video detection systems.

The camera assembly is sealed in a weather-resistant enclosure specifically designed for outdoor use. To prevent sun glare and to protect the housing from the weather elements, the camera is fitted with a moveable sunshield to allow the camera to be pointed in any direction. The sunshield also extends beyond the front of the camera housing to protect the housing glass from rain and the formation of icicles that could hinder the view of the camera.

The camera housing incorporates an adjustable mounting bracket that allows the camera to be positioned correctly. The mounting bracket is pre-drilled for easy attachment to a variety of poles and other street fixtures simplifying installation and set up.

The camera is virtually maintenance-free with no active moving parts. To prevent the build up of condensation and ice on the lens glass, the camera housing is fitted with a heater that ensures a clear view at all times.

The Vantage Camera has been optimized for use in outdoor conditions specifically for the viewing of traffic flows at the intersection, on the highway, on bridges or in tunnels. The camera's image is normally adjusted to view up to 4 or 5 lanes of traffic. Other uses for video detection include: Ramp Metering, Pedestrian Detection, Red Light Enforcement as well as Bicycle Detection. It all depends upon where and how you position the Vantage Camera.

Installation and Configuration

The Vantage camera has been designed to simplify and reduce the time needed to install and configure the unit on a pole or other fixture. The camera housing is supplied sealed from the factory with two connectors on the rear edge. Water-tight plugs are easily assembled on site to ensure rapid connection and long term use. Once the camera is mounted using the supplied camera bracket, the camera needs to be focused and zoomed to achieve the correct field of view. This is performed using the Vantage Lens Adjustment Module (LAM) as illustrated on this information sheet. The LAM must be used to access the camera controls which are secured within the camera housing thus maintaining the watertight seal.



Features

- Camera
 - Color or monochrome image sensors available
 - Latest CCD Sensing element and DSP technology
 - Electronic shutter and auto iris lens
 - Auto focus with manual override
- Camera Housing
 - Sealed housing to IP67 specification
 - Integrated adjustable sunshield
 - Auto-sensing power supply – 115/240 VAC 50/60 Hz
 - Internal heater with proportional power control
 - Integrated mounting bracket
 - Separate connectors for power and video
- Options
 - DC power for solar or battery applications
 - 2.4Ghz wireless operation
 - Junction Box adapter for field terminations



Roadway Sensors

Benefits

- Optimized for outdoor traffic situations that aids video detection
- Integrated mounting brackets reduce installation and setup time
- Connectors located on back faceplate simplifies cable connection
- Proportional power-controlled internal heater prevents ice and condensation resulting in improved video detection performance in adverse weather conditions.

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
- Video detector rack systems

The camera produces color or monochrome images of roadway scenes for detection of vehicle traffic. Camera is mounted tilted down 20°, or more, below horizontal to avoid direct view of sun or horizon.

Vantage LAM Option

The LAM (Lens Adjustment Module) is an easy-to-use hand held device that allows field adjustment of the camera settings. The unit is available in NTSC or PAL format, and can be used with or without a monitor.



Technical Specifications

Imager	768 x 494 effective pixels
	470 TV lines minimum
	Automatic white balance
	>50 dB S/N ratio
	.1 lux capable
Lens	Focal length and focus adjustable through connector at rear of housing for a horizontal field of view ranging from 5.4° wide to 50.7° wide
Connections	BNC connector for video at rear of housing. Power connector for line power, DC input, neutral, and safety ground at rear of housing.
Physical	
Weight	5.7 pounds (2.6 Kg), including camera, lens, housing, sunshield, and mounting bracket
Dimensions	17" (43.2cm) long x 5" (12.7cm) diameter (without mounting bracket)
Environment	
Temperature	-31° F to +140° F (-35° C to +60° C)
Humidity	0% to 100%
Vibration	0.5G, 3 axes, 5-30 Hz
Power	
Standard	115/230 VAC (45W max.) 50/60 Hz
Option	12V DC (30W max.)



Information furnished by Iteris is believed to be accurate and reliable. However, Iteris does not warrant the accuracy, completeness, or fitness for use of any of the information furnished. No license is granted by implication or otherwise under any intellectual property. Specifications subject to change without notice.