Autoscope® ENCORE

Description

The advances in digital video and broadband communication technologies continue to open doors to new applications for Intelligent Transportation Systems (ITS) - enhancing traffic networks and inspiring new ITS capabilities. Whether for surveillance, vehicle detection, data collection, or traffic monitoring systems, digital video and broadband communications are increasing ITS performance. Improving cost efficiencies and access to strategic traffic information is helping transportation professionals improve safety, reduce vehicle emissions, and mitigate traffic congestion.

Autoscope ENCORE features EasyLink connectivity, providing simple installation to the traffic cabinet and integration to an agency's IP-based communications network. A standard CAT-5 cable connects *ENCORE* sensors into a network providing easy user access to video, traffic data, and legendary *Autoscope* vehicle detection.

ENCORE technology uses IP-based addressing with a unique Ethernet MAC address. *ENCORE* sensors employ a dual-core processor with sophisticated image analysis and Advanced RISC Machine (ARM) general-purpose processing in a small SoC package for exceptional performance and low power consumption. Multi-threaded software processes video images in real-time to detect vehicles, extract traffic data, identify incidents, and transmit detector outputs, while simultaneously streaming quality MPEG-4 video.

Safe and secure, password-protected *ENCORE* sensors are accessible via common Internet browsers. The embedded web server represents a convenient way for authorized users to view streaming video, modify configurations, and monitor system performance remotely. Configuration Wizards are present for programming both intersection and highway applications through the Network Browser or the web interface.

Each *ENCORE* sensor is accessed and powered by "3-wires-only", broadband-over-power cable, no coaxial cable required. An environmentally protected connector simplifies the task of completing secure field terminations. Zoom control and detector configuration may be conducted remotely or at the cabinet. The unique aperture helps keep the faceplate clean for longer periods of time between routine maintenance.

Benefits

- Cost-effective ITS solutions for traffic management
- Field-proven detection accuracy and reliability
- Easy to install and configure
- Flexible design meets a variety of detection and surveillance applications
- Superior to other detection systems in value and performance

Features

- EasyLink connectivity for IP-addressable broadband communications
- Web server interface for easy setup
- Streaming digital MPEG-4 video output
- User-definable password protection
- Vehicle detection, traffic data measurement, speed, and incident detection
- Bicycle detection
- Smoke/Fire detection
- Integrated color camera, zoom lens, and dual-core processor for advanced image processing
- Direct real-time iris and shutter speed control
- Fail-safe detector outputs with the *Autoscope TAP*
- Non-volatile memory data storage
- High energy transient protection
- Local language support

Setup & Operation

The *Autoscope ENCORE* unit makes it easier than ever to set up and customize to meet application requirements. The *Autoscope Configuration Wizard*® quickly sets up intersection or highway incident detection applications. Simple mouse of keyboard operations allow custom positioning for virtual detectors per field-of-view. Detection zones provide traffic count, presence, speed, and incident detection alarms. Incident types include freeway congestion, stopped vehicles, wrong direction vehicles, slow-moving vehicles, bicycles, pedestrians, smoke/fire, debris, or other customized alarms. Real-time polling or stored data include volume, occupancy, five vehicle classes by length, density, and other traffic data for selected periods or by phase.

Detector outputs can be assigned to interface with NEMA TS1/TS2, Type 170/179 and 2070 ATC controller via the optional *TAP*. Traffic data is quickly integrated into proprietary software applications with the optional *Autoscope Software Developer's Kit (SDK)*. Extensive Boolean Logic capabilities provide flexibility in detector layouts to help validate an event or incident alarm.

Applications

- Traffic incident management for highways, tunnels, and bridges
- Junction control
- Traffic data collection
- Work-zone safety and traffic control
- Traveler information systems
- Bicycle detection
- Remote video surveillance
- Sub-system of ATMS system

Power

- 15W
- 110/220 VAC 50/60 Hz

Video

- Digital streaming MPEG-4 video output

Lens

- 10x continuous focus lens
- Standard configuration:
  - Horizontal: 5° to 46°
  - Vertical: 3.8° to 34.8°
  - Focal Length: 0.16 in. to 1.65 in. (4 mm to 42 mm)

Camera

- CCD ¼ in. diam. (4.5 mm)
- Horizontal resolution: NTSC > 470 TVL
- Sensitivity (at lens, full video, AGC off, 1/60 sec) 2.0 lux (color)
- Signal-to-noise > 50 dB
- Synchronization: Crystal lock

Effective Pixels

- NTSC: 380K (768 x 494)

Housing & Sunshield

- Image sensor and processor sealed in a water-proof and dust-tight NEMA-4 housing (IP 67)
- Thermostatically controlled faceplate heater
- Adjustable weather and sunshield with drip guard
- Weatherproof rear connector

Communications

- EasyLink (broadband communications (up to 5 Mb/sec) with RJ-45 connection from required *ENCORE/Terra Interface Panel (TIP)*

Environmental

- -29°F to +140°F (-34°C to +60°C)
- Up to 100% relative humidity per MIL-E-5400T paragraph 4.3.24.4

Dimensions and Weight

- Overall H x W x L (with sunshield and bracket):
- 9.5 in x 4.75 in. x 10.75 in. (24 cm x 11 cm x 27 cm)
- 3.7 lb (1.6 kg)
- Mounting: Standard camera bracket tilt-top provided

Options

- Paint color

Warranty

- Three-year warranty
- Extended warranty package to six years

Regulatory

- CE EN 55022, EN 61000-6-1, EN 60950
- FCC Part 15, Class A

Product Support

- Product support and training by team of factory-trained *Autoscope* technical support specialists

3360 E. La Palma, Anaheim, CA 92806-2856
Tel: (714) 630-3700 • Fax: (714) 630-6349
E-mail: sales@econolite.com
38113E0111-5

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