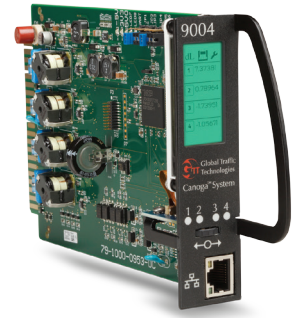


CANOGA™ | Traffic Sensing System

Canoga™ 9004 Vehicle and Bicycle Detector A Matched Component of the Canoga™ Traffic Sensing System



DESCRIPTION

The Canoga 9004 Vehicle and Bicycle Detector measures vehicle and bicycle presence simultaneously, along with count and roadway occupancy, with industry-leading accuracy and reliability through superior inductive vehicle detection. In addition, it can provide specific bicycle-related data, so you can promote bicycle use by providing priority to cyclists and encouraging your city to be greener. The Canoga 9004 is a four-channel vehicle and bicycle detector designed to meet U.S. control cabinet rack standards. Using newly installed or existing standard inductive loops, the Canoga 9004 can detect and classify bikes in dedicated bike lanes or roads with a mix of bicycles and other vehicular traffic. When required a dedicated output can be configured to indicate detected bicycles. When a bicycle is detected, you have the option to give it priority over vehicles. The Canoga 9004 may be configured and monitored using GTT's Central Management Software (CMS).

With CMS, users are able to easily change a detector's configuration, view binning data, monitor traffic in real-time (including speed, class and length) and view detector status. The Canoga 9004 Vehicle and Bicycle Detector allows remote access through an Ethernet port from the front of the detector and a serial port on the back panel connector. The communication method between CMS and the intersection is proprietary to prevent unauthorized access.

OPERATING CHARACTERISTICS

The Canoga 9004 Vehicle and Bicycle Detector has built-in protection against lightning-induced and other transients. User-programmed settings and data gathered by the detector are stored in non-volatile memory.

FEATURES

Two independent ports are available for local and remote communications:

- Front panel T10/100 base Ethernet port
- Back panel transmit/receive pin connectors for multi-drop TIA485 (RS485) or RS232 single point communication

The Canoga 9004 Vehicle and Bicycle Detector uses the ports for local or remote configuration of the detector for disturbance identification, to monitor and retrieve real-time activity and to access data-logging and binning information.

Single-loop speed and count capability at low speeds** with 99.5% accuracy. Passenger car vs other vehicle classification accuracy is

greater than 90%.** Speed accuracy for individual passenger vehicles is 90%; 95% for aggregate speeds.** Speed accuracy for all classes of vehicles is 90% in aggregate.

Dual-loop speed and count capability at low speeds with 99.5% accuracy. Capture speed and classify with 95% aggregate accuracy for 5+1 classes.

Tuning range of 20 to 2,500 microhenries.

Sensitivity settings are available per channel, making the 9004 optimal for sensing objects such as bicycles.

Self-tuning frequency adjustment with up to eight frequency settings per channel manually.

*Patent pending

†Standard inductive loops only

**Mix Dependent

Be better equipped to manage the ever-growing population of bicycle riders at signalized intersections.

About GTT

Global Traffic Technologies, LLC (GTT), formed in 2007 from 3M's pioneering Intelligent Transportation Systems business, is the manufacturer of Opticom™ priority control systems and Canoga™ traffic sensing systems.

SOLUTIONS FOR:



Vehicle Traffic



Bicycle Traffic



Canoga™ 9004 Vehicle and Bicycle Detector

Remote reset input allows an external reset of the detector. When input voltage on pin C is pulled below 6 VDC for > 17 milliseconds, the detector resets all active channels and establishes a new reference for each “On” loop within four seconds.

Internal loop diagnostic records and stores type of loop fault and time of occurrence.

Channel by channel programmability of all vehicle detection parameters are programmable separately for each channel. This includes the sensitivity, background adapt rate, recovery method, wash delay time and wash adapt rate.

Status output indicates “on” when channel is okay.

Opto-isolated Darlington pair switch outputs.

Loop or micro-loop operation.

Four channels on a single width card.

Flexible channel assignments for loop pairs.

Home run length of 2500’.

Historical faults to the last 50.

Sufficient on-board flash, non-volatile storage for 168 hours of speed, class and count data for a traffic level of 1,000 vehicles per hour per lane.

Front panel LCD display:

- Loop frequency
- L/dL
- Loop inductance
- Channel call status
- Sensitivity graph
- Sensitivity level
- Mode of operation

- Diagnostics
- Vehicle counts (vehicle, motorcycle and bicycle counts)
- Last vehicle speed (vehicle, motorcycle and bicycle speed)
- Vehicle class (including cars, trucks, semis and bicycles)
- Open loop fault
- Shorted loop fault
- Excessive inductance change
- Historical faults
- Call delay 0-300 seconds
- Call extension 0-75 seconds
- Max presence 18 hours

Communications port activity indication

- Ethernet LED indicates connection status

ENVIRONMENTAL

- **Temperature:** -29° F (-34° C) to +165° F (+74° C)
- **Humidity:** 5% to 95% (non-condensing)
- **Electrical:** 10.8 VDC to 37.8 VDC
< 50 milliamperes/channel at 24 VDC
120 milliamperes/unit typical at 24 VDC with LCD heater “OFF”
400 milliamperes/unit typical at 24 VDC with LCD heater “ON”

PHYSICAL DIMENSIONS

- **Net Weight:** 6.3 oz. (179 g)
- **Width:** 1.13 in. (2.87 cm)
- **Height PC board:** 4.5 in. (11.43 cm)
- **Face plate:** 4.5 in. (11.43 cm)
- **Depth:** 7.1 in. plus .55 in. for handle (18 cm plus 1.4 cm for handle)

Global Traffic Technologies, LLC
7800 Third Street North
St. Paul, Minnesota 55128-5441
1-800-258-4610
651-789-7333
www.gtt.com

Global Traffic Technologies Canada, Inc.
157 Adelaide Street West
Suite 448
Toronto, ON M5H 4E7
Canada
1-800-258-4610



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