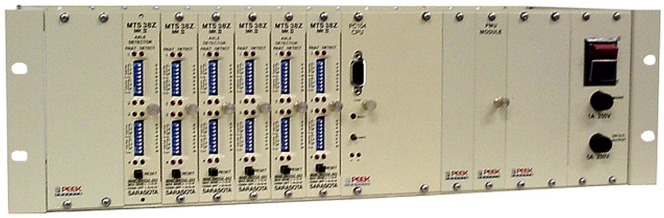
ADR-6000

Automatic Data Recorder

- High Accuracy Classification in Congestion
- Axle Classification Using Only Loops
- Modular single or multilane data collection system
- Permanent Rack Mounted Traffic Counter/Classifier
- Up to 24 Loop Inputs (6 Lanes)
- Scheme “F” or Custom Classification
- Long Sensor Life (10-20 years on loops)
- High-speed Communications and Telemetry
- 4 Mb. Onboard Memory – increased storage capacity
- PCMCIA Memory Option – more storage
- U.S. Standard or Metric Units
- Enhanced by IDRIS® Technology
- Battery “Sentinel”

Enhanced with Idris Technology



ADR-6000

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Smart Loop Classification

Traffic in the United States has increased 30 percent in the past ten years, and the number of cars on the road is projected to increase by 50% in the next decade. As vehicular traffic increases, it has become increasingly difficult to collect traffic data accurately in congestion using traditional sensors such as piezos, road-tube or standard inductive loops. As our freeways and urban areas become more congested data quality deteriorates. Traditional sensors do not count accurately at low speeds or with bumper-to-bumper traffic. Traditional Inductive Loop technology can join vehicles resulting in lower counts. Piezos and road tube sensors will miss axles or miscalculate spacing at low or irregular speeds resulting in inaccurate vehicle classification. States have not been able to provide accurate data to the FHWA from major arterials and urban freeways, especially at peak times because traditional sensors are unable to cope with recurring congestion due to sensor saturation.

PEEK TRAFFIC, INC. (PTI) in Sarasota Florida has responded to this critical problem by combining 40 years of expertise in both data collection and inductive loops with advanced inductive loop detection algorithms called Idris® Smart Loops developed by Diamond Consulting Services Ltd (DCS).

By combining the Idris® Algorithms with special Peek inductive loop detectors, Peek and DCS developed the first urban data collection device to collect accurate axle classification and volume data in heavily congested areas (≥95% accuracy in congestion or free-flow), using inductive loop technology.

The ADR-6000 utilizes sophisticated signal processing techniques to extract minute changes in inductance from standard loops. This provides intelligent profiling classification and wide area tracking of vehicles under conditions ranging from free-flow to stop-and-go traffic, ideal for demanding ITS and urban data collection requirements. The ADR-6000 will allow Transportation Engineers to better understand traffic characteristics in urban environments, during peak hours, or anywhere accurate data historically has been unobtainable.

ADR-6000 Specifications

Operational Characteristics:

The ADR-6000 is a modular single or multilane data collection system, which offers accurate vehicle count and axle based classification in traffic conditions ranging from free flow to stop and go congestion. The classification scheme used is configurable based on any features extracted by the ADR-6000. These features include vehicle length, speed, or number and spacing of axles. The ADR-6000 can be setup and operated by remote telemetry or directly in the field with a computer using simple communications software. The remote telemetry link can be via modem or direct connection and can be simple ASCII transfer or protocol protected. If the ADR-6000 is part of a complex system, it will continue to operate as a standalone unit in the event of telemetry link failure.

Accuracy: Class ≥ 95% within 95% confidence.

Physical Description:

The ADR-6000 is an instrument rack-based unit expandable by plug-in modules. The ADR-6000 may also be shelf or panel mounted. Electrical connections (external) are via rear-mounted plugs and sockets for loop inputs and serial communications. Optional plug in modules are additional detectors and UPS controllers. All modules are Eurocard in size with DIN standard connectors.

Power Supply: 115VAC and optional battery backup.

Dimensions: Weight: Less than 8 pounds

Size: 5.25"H x 11.125"W x 7.75"D

Temperature: - 40°C to + 70°C

Inputs: Up to 24 inductive loops-standard

(consult factory for higher capacity)

Microprocessor: 486-100Mhz processor

Capacity: 64K Compact Flash

4MB DRAM

512KB ROM

PCMCIA slot is available for transferring data

Operating System: Linux®

Communications: Two RS232 ports serial baud rate 300 to 38,400.

One port dedicated for local engineering user, front and rear socket provided.

One port for user system interface configurable for modem or direct connection.

Options:

1. Up to 6 lanes from one unit (Consult Factory for applications greater than 6 lanes).

2. Battery backup power supply and controller.

3. PCMCIA for data collection.

Peek ADR-6000 Supportive Software

Of importance to the user of modern counters/classifiers is the operating and reporting software, which supports, controls and formats the resultant data. A user-friendly Windows® software package is available to complement the Peek ADR-6000. This software is the Traffic Operations Processing Software (TOPS) program, which is available from Peek Traffic, Inc. - Sarasota.

The TOPS software program provides essential reports while enabling remote or local setup of the Peek ADR-6000 and collection of data by manual or automatic telemetry polling of remote field sites via modem connection. TOPS® will run on any Windows 95/98® or NT® 4.0 platform. This allows operation on a wide variety of desktop or laptop computers and some palmtops. The TOPS program will allow system configuration, will read all or selected files and will generate a complete suite of daily, weekly and monthly reports. A user definable classification tree function, within the program, provides the ability to customize the classification and to transfer the new scheme to the Peek ADR-6000. Processed data files may be exported to various other software.

Quality Assurance Testing

Each unit is individually tested for correct operation during a computer controlled environmental chamber test cycle, based on the NEMA TS2 standards. All input circuits have been designed and tested to the NEMA TS2 standards for surge (lightning) protection.

Two Year Limited Warranty

Peek Traffic, Inc. warrants this product against manufacturing defects in materials and workmanship for two years from date of shipment from the Peek Traffic, Inc. factory. Specific contracts and regional laws may vary or alter these terms.

Peek Traffic, Inc. products are protected by one or more U.S. and international patents.

For specific warranty information, contact your local representative or Peek Traffic, Inc. Peek Traffic, Inc. reserves the right to make changes to this product with out notice.

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