INTERNATIONAL ROAD DYNAMICS INC.

www.irdinc.com

SAS - 1

Acoustic Sensor

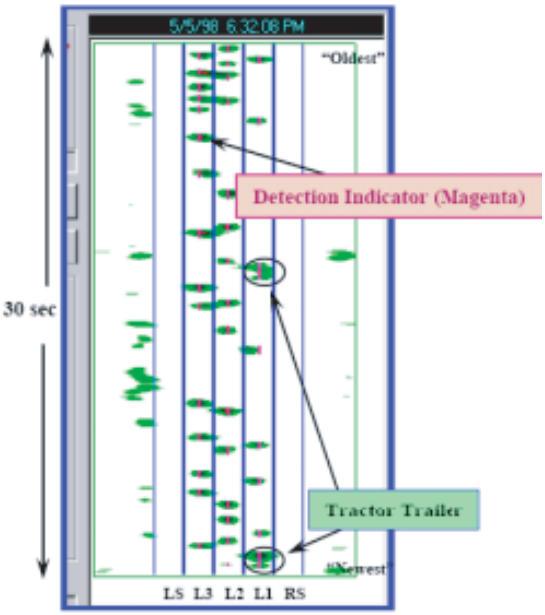
SMALL, LOW POWER, SIDE MOUNT, MULTI-LANE SENSOR

The SAS-1 operates in the adverse environments found on roadside structures. SAS-1 is an easy to use, programmable sensor ready to detect multiple lanes of traffic for real-time operations or to collect traffic counts with 3 levels of classification.

- Low Power, Multi-Lane Sensor
- Wireless Option Eliminates Home Run Cables
- Easy Installation Eliminates Lane Closures
- Ideal Back-fit for Failed Loops
- Built in Upgrade Path for Vehicle Type Identification
- Wrong Way Detection for Off-Ramp Warning
- Addressable to Support Networking

Advanced signal and spatial processing provides the capability for high resolution multi-lane traffic flow monitoring with no loss of “lane switchers” at the detection zone.

The SAS-1 is quickly and easily installed, with no lane closures needed for the “side-fire” configuration. Low power consumption supports operating entirely from solar power.



A SAS-1 Acoustic Highway “Image” as shown on SAS Monitor companion software, included with the sensor.

Each Point Shows Position and Strength of Each Vehicle’s Acoustic Intensity:
- Light Green is Weakest
- Dark Green/Red is Strongest

We make highways talk™

- ***MANAGEMENT***
- ***SAFETY***
- ***PRESERVATION***

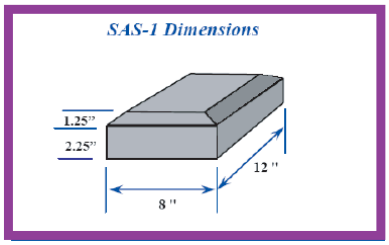
International Road Dynamics Inc. develops and maintains traffic management products and systems technology that make highways talk. What are they saying? They are providing information that roadway administrators need to manage traffic, preserve infrastructure and provide safety warnings to drivers.

IRD’s multi-discipline, innovative and customer-focused team is expert in advanced technologies, advanced traffic solutions and custom-designed systems.

CUSTOMER DRIVEN™

JUNE, 2005 REV C
PRINTED IN CANADA

MODEL SAS-1 ACOUSTIC SENSOR
Specifications



Number of Lanes and Message Formats
The SAS-1 can monitor 5 lanes and provides for several different interfaces depending on the communication link and the cabinet controller interface desired. The standard SAS-1 output message provides per lane traffic flow measurements of vehicle volume, lane occupancy, and average speed for a selectable update period (1 to 220 seconds). A bit serial vehicle presence relay message or opto-isolated dry contact vehicle presence relay signals (using the SAS Relay Interface) can be provided.

Measurement Archiving
Up to 60 days depending on size of installed Flash Memory (1, 2,or 4 Mbits).

Signal Interfaces

1) RS-422 (Standard)	Hard Wired Home Run (up to 2000 feet/610 meters)
2) RS-232 (Optional)	Hard Wired Home Run (up to 100 feet/30 meters)
3) Wireless (Optional)	Wireless Link (2.4 GHz Spread Spectrum)
4) Relay via SAS-RLY card	Type 170 Card, TS1, TS2, Terminal Block

Power

1) Supply Voltage at the Sensor	8 to 24 VDC
2) Required Power	Less than 2 Watts

Physical

1) Dimensions	12 in long x 8 in wide x 3.5 in deep (30.5 cm x 20.3 cm x 8.9 cm)
2) Weight (with Bracket)	Less than 7 lb (3.2 kg)
3) Material/Finish	Aluminum/Enamel/Stainless Steel Fasteners
4) Mounting Bracket	2 inch Diameter Aluminum Tube/Stainless Steel Bands
5) Operating Temp	-4° F to 167° F (-20° C to 75° C)
6) Humidity	5% to 100%
7) Shock	NEMA TS2-2.1.10
8)Vibration	NEMA TS2-2.1.9

Installation
Mount on roadside structure for coarse mechanical positioning so that the sensor face is pointing toward the center of the lanes to be monitored. After the SAS-1 is mechanically oriented and locked down, the position and size of each detection zone (up to 5) are electronically set using the SAS Monitor and Setup program. All SAS-1 set-up parameters are stored in non-volatile memory.

1) Height Above Pavement	25 ft to 40 ft (7 m to 12 m)
2) Horizontal Distance to First Detection Zone	5 ft to 30 ft (1 m to 9 m)
3) Coarse SAS-1 Orientation	Mechanical
4) Precise Detection Zone Position and Size	Electronic

International
Road Dynamics Inc.

ISO 9001:2000 Quality System Registered
Canadian Corporate Office

Corporate Office
702 - 43rd Street East
Saskatoon, Saskatchewan
Canada S7K 3T9
Tel: (306) 653-6600
Fax: (306) 242-5599
Toll Free: 1-877-7IRD-ITS (747-3487)
Email: info@irdinc.com

U.S. Office
2402 Spring Ridge Drive, Suite E
Spring Grove, IL
USA 60081
Tel: (815) 675-1430
Fax: (815) 675-1530

Publicly Traded on the TSX (Symbol IRD)
Find out more about IRD on our website: www.irdinc.com

PRINTED IN CANADA