



**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.



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INTERNATIONAL ROAD DYNAMICS INC.
www.irdinc.com

AS-600 SERIES SINGLE/DUAL TIRE SENSOR

Enhanced Vehicle Classification

INNOVATIVE SENSOR DESIGN

When installed with IRD Treadles, the Single/Dual (S/D) Tire Sensor can be used in pre-classification and post-auditing toll systems, thereby providing operators with the option of including additional vehicle classes. The IRD Single/Dual Tire Sensor can be used alone or in conjunction with the IRD Toll Treadle System to differentiate between single and dual tire groups on vehicle axles. The S/D system operates independent of vehicle speed which means it can be used in stop-and-go traffic.

When the S/D Sensor is used in conjunction with IRD Treadles, it is one of the sensors contained in the treadle itself. Therefore, a separate slot does not need to be cut into the roadway for the S/D Sensor.

The S/D Logic Card interfaces the S/D Tire Sensor to a variety of processing electronics for applications such as Toll Roads and Weigh-In-Motion. The S/D Logic Card distinguishes between a single or dual tire combination via the signal from one S/D Tire Sensor. The S/D Logic Card has a dynamic threshold for tire sensor detection with self-tuning capabilities, and is designed to produce a diagnostic output that indicates any sensor failures.

ADVANTAGES

Innovative Design - Sensor is actually one of the sensors in an IRD Dynax® Treadle

Proven and Tested – IRD's S/D Tire Sensor has been used to detect single and dual axle combinations for over 5 years

Robust – Capable of withstanding the pressure and impact of thousands of vehicles a day

Versatile – Operates independent of vehicle speed and in stop-and-go traffic

Durable – Capable of enduring all types of weather conditions including rain, snow, sleet, extreme heat and cold, and freeze/thaw cycles. IRD Single/Dual Sensors are impervious to moisture, gasoline, vehicle lubricants and roadway de-icing chemicals.

Quick replacement time – Less than one hour required to replace S/D Tire Sensor in an IRD DYNAX® Treadle



IRD products and components are protected by one or more U.S. and Canadian patents. IRD reserves the right to change, modify, or improve its products at any time without notice.

AS 600 SERIES SINGLE/DUAL TIRE SENSOR Specifications



AS 600 SERIES SINGLE/DUAL SENSOR

- Constructed of a reliable, force sensing resistive technology
- Sealed in a semi-rigid material, impervious to moisture and roadway chemicals
- Operates independent of vehicle speed (up to 140 kph [87 mph]) and in stop-and-go traffic
- Two (2) standard lengths of 3.048m (10 feet) and 2.44m (8 feet). Custom lengths can also be manufactured up to 10 feet.
- Active length of up to 1524 mm (60 inches) to detect single and dual tire axles. Optionally a totally active sensor can be manufactured for axle detection; 1524mm (60inches) active to detect single or dual tire axles and the other 1524mm (60inches) to detect only axles.
- Can be used alone or in conjunction with IRD Treadle Systems

SINGLE/DUAL LOGIC CARD

- Accommodates up to three (3) DYNAX® Axle Sensors and one (1) DYNAX® S/D Tire Sensor
- Outputs are opto-isolated
- Dynamic threshold for tire sensor detection with self-tuning capabilities
- Produces an output pulse when a dual tire axle is detected on the tire sensor
- Operates from either +12 VDC power supply or a +15 to +30 VDC power supply
- Produces a diagnostic output to indicate when the S/D sensor has failed
- Maintenance / diagnostic feature available via a RS-232 serial port
- Dimensions for the S/D Logic Card are: 419 mm x 121 mm (16.50 inches x 4.75 inches)

NOTE: The S/D Tire Sensor system is designed to operate for minimum 153 mm (6 inches) tire widths with a minimum space between the tires of 77 mm (3 inches). The system shall work with tire widths up to 330 mm (13 inches).

ACCURACY AND PERFORMANCE OF AS-616 SINGLE/DUAL TIRE DETECTOR

- Temperature operating range of -29°C to +71°C (-20°F to 160°F)
- Warranted up to 1 million tire hits
- Mean time to replace is less than one hour



Please contact IRD for all your traffic systems and product needs.



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