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highways  
talk™**

- **MANAGEMENT**
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- **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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## **Model 4020 SSWIM Scale Slow Speed Weigh-In-Motion System**

IRD's Slow Speed Weigh-In-Motion (SSWIM) Scale can accurately weigh vehicles at speeds between 0 and 20 km/h (0 and 12 mph). Its low operation cost, ease of installation and high accuracy make it the ideal choice for checking truck weights, including axle compliance and bridge formula compliance.



### **DESCRIPTION**

The Model 4020 Scale utilizes two shear beam load cells for weight measurement. Since each scale is approximately 10 feet (3 meters) wide, only one scale would be required per lane. Each scale is mounted flush with the road surface in roads of 175 mm (7 in) minimum depth. The Model 4020 Scale functions in all weather conditions.

### **APPLICATIONS**

- Freight Terminals
- Commercial Fleet Axle Weight Monitoring
- Axle Compliance
- Truck Weigh Stations/Citations
- Border Crossings
- Ports
- Weight Enforcement at Toll Operations (WIM@Toll™)

# Slow Speed WIM Scale Model 4020



## LOW LIFE CYCLE COST

The Model 4020 Scale provides a low cost alternative to traditional static weigh scales. The Model 4020 Scale is designed specifically for Weigh-In-Motion and provides axle weighing capabilities at a fraction of the cost of a traditional static scale. Maintenance costs are low and life cycle costs are attractive. An IRD Model 4020 Scale System can typically be installed and maintained for less than the regular maintenance of a traditional static scale.

## SYSTEM OPERATION

The Model 4020 SSWIM Scale can be adapted to various applications through systems that incorporate the scale, in road sensors, a processor unit, traffic control devices, a driver display and/or printer.

The system operates in both slow speed WIM and static scale modes. In the WIM mode, the operator directs the truck to the scale where it rolls over the scale at a low speed. In static mode, the truck must stop with each set of axles on the scale so individual axle weights can be calculated. When the weighing operation is complete, the user can view results on a display or print a ticket for weight verification. When used for enforcement actual weights can be compared to the legal limit and citations can be printed. This data can also be stored in a database if further analysis is desired.

## ACCURACY

The Model 4020 increases in accuracy with a decrease in speed. When used in static scale mode it will measure the GVW with an accuracy of  $\pm 0.5\%$ . When used as a dynamic scale, weighing vehicles operating at speeds from 0-5 km/h (0-3 mph), the Model 4020 provides an accuracy of  $\pm 1\%$  when measuring GVW.

Speed	Accuracy
<b>Static</b>	
(Static) 0 km/h (0 mph)	Gross wt. $\pm 0.5\%$ of applied
<b>Dynamic</b>	
0-5 km/h (0-3 mph)	Gross wt. $\pm 1.0\%$ of applied
5-10 km/h (3-6 mph)	Gross wt. $\pm 1.5\%$ of applied
10-20 km/h (6-12 mph)	Gross wt. $\pm 2.0\%$ of applied

## SPECIFICATIONS

Scale Weight	900 kg (2000 lbs)
Dimensions - Sensor	737 x 3127 x 276 mm (29 x 124 x 11 in)
Maximum Capacity	40,000 kg (88,000 lbs)

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