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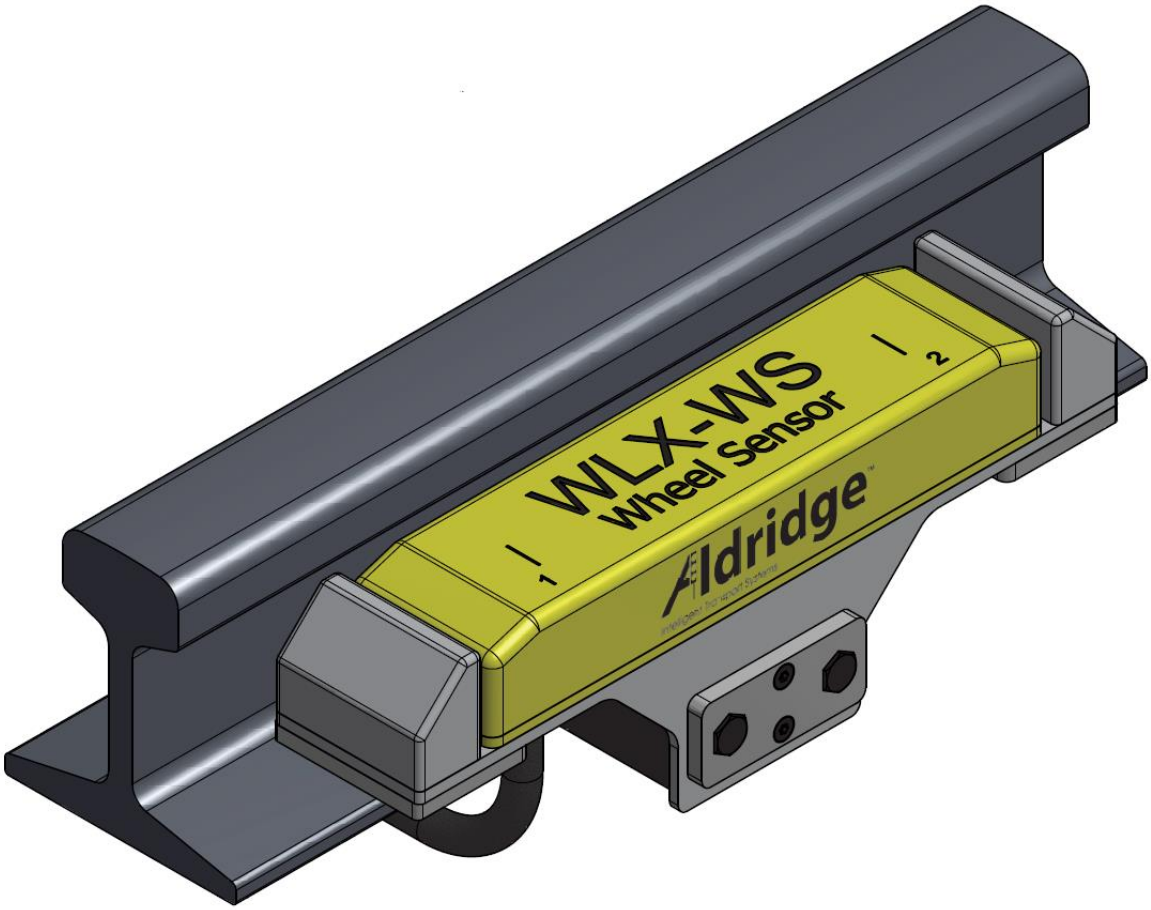
Intelligent Transport Systems

WLX-WFS

Inductive Wheel Flange Sensor



Features

- Sensor protected against surge voltages
- Sensor protected from impact by deflection blocks
- Sensor is pre-terminated in the factory with a 3m cable that is terminated into a track side disconnection box
- Sensor is mounted to the track using a proprietary rail claw with security features
- Rail claw includes option for securing the sensor to the track using a pad lock
- Anti-vibration and security tamperproof locking plates prevent theft and mechanical failure
- Sensor is a maintenance free design requiring no adjustments during the normal course of operation.

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Operation

The principal of operation of the sensor relies on the inductivity of the sensor coil being influenced by the introduction of ferrous materials (wheel flange) in close proximity to the sensor coils. This dampens the operating frequency of the coil which is detected by the WLX Controller Wheel Sensor Channel circuit.

Because the sensor head has two coils, evaluation of direction and speed can be determined by the WLX controller along with wheel count.

Applications

- Level Crossings
- Track vacancy detection
- Worker Protection systems

Specifications

Housing	Glass-filled nylon
Colour	Yellow
Weight	4.5Kg (including rail claw)
Electromagnetic compatibility	EN 50121-4, RCM
Protection Class	IP68
Sensor Dimensions	Height 50mm Length 280mm Width 80mm
Interface	Direct connection to WLX Controller Wheel Sensor inputs (analogue)
Sensor Technology	Inductive
Detection	Wheel flange
Wheel Diameter	300mm to 2200mm
Wheel Flange Width	>18mm
Wheel Flange Depth	15mm to 22mm below top of rail
Wheel Traversing Speed	0-160km/hr.
Rail profiles	All common profiles, 40 kg to 60 kg
Mounting	Adjustable Rail Claw with security features
Safety level	CENELEC requirements in accordance with EN 50126, EN 50128, EN 50129
Connection cable	3m pre-terminated tail, 4 cores + shield
Adjustment	Automatic, no electronics in trackside wheel sensor
Evaluation	Direction, Speed and Occupancy
Lightning Protection	Varistor / suppression diode
Environment **Temperature** **Humidity** **UV resistance**	 -40 °C to +85 °C Up to 100% Yes

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