VALVE-MOUNTED WHEEL UNIT SENSOR

COMMERCIAL VEHICLE TPMS COMPONENTS

The wheel unit sensors are mounted to the valve on the inside of the rim. They can be mounted with an adjustable angle, making them suitable for almost any rim configuration.

Features

TIRE PRESSURE MONITORING:

- GSR compliant
- Tire pressure by wheel location
- Temperature compensated pressure sensing
- High pressure / low pressure warning
- High temperature warning
- Spare tire monitoring

AUTO-LOCATION:

- Automatic location of all tire sensors to correct wheel positions, eliminating need for manual programming of tire sensors.

TIRE FILL ASSIST:

- Allows vehicle operator to fill tire to exact, temperature compensated, pressure rating.
- Removes the need for a separate pressure gauge.

TIRE LOCK WARNING:

- Warning when a tire does not rotate
- Can be combined with a lowered position of a tag / lift axle

TIRE BURST WARNING:

- Detects fast pressure drop caused by tire blow out
- Sends a warning signal, including specific tire location, within 500ms of the event
- Allows for vehicle reaction control upon a tire burst event

SPECIFICATIONS

Sample Rate	**Temperature**	Every 15 sec
	Pressure	Every 15 sec (<200ms at Tire Burst)
	Motion	Every 15 sec
Transmission	**Drive Mode**	Every 15 sec
	Event Mode	<200ms at Tire Burst
	Stationary Mode	Every 120 sec
Functionality	**Frequency**	433MHz (315 MHz Japan) worldwide approvals
	Temp Range	-40° to +125° Celsius
	Pressure Range	0 to 14 Bar relative
	Temp Accuracy	+/- 2 °C
	Pressure Accuracy	+/- 200mBar within -40°C to 125°C.
	Battery Life	Minimal 6 up to well over 8 years depending the feature set to be supported

Functionality	Tire Pressure Tire Temperature Battery Warnings Temperature Compensation Tire Warnings WAL/PAL Auto Tire Location Auto Learn Tire Lock Warning Tire Burst Warning Tire Fill Assist

COMPONENTS

VMS MOUNTING

Flexible Valve Angle

>100o adjustable valve angle accommodates diverse valve types

Mount valve to rim

Place sensor against rim and install M6 screw

Torque screw to complete installation

Manual Learn

Overview: A manual learn system requires each tire sensor to be programed with a Low Frequency tool in order to pair the sensor with tire location and to the specific gateway.
Advantages: Lower overall system cost based on complexity and lower component count.
Disadvantages: Requires purchased of low frequency tool to be used for servicing tires in the system.

Auto-locate

Overview: A auto-locate system uses Sensata patented wireless auto-location (WAL) and phase auto-location technology (PAL) to automatically locate and program tire location and pair to ECU.
Advantages: No additional tool is required to program the tire sensor and location for tire service.
Disadvantages: Requires additional eRx module to provide reliable WAL sensing.

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