

## **OTR Tyre Pressure Sensor**

Doran 360<sup>™</sup> Tyre Pressure Monitoring Systems

After more than two years of market research, product development, independent lab certification and field testing, LSM Technologies / Doran is introducing a new Doran  $360^{\text{TM}}$  tyre pressure sensor for off-the road (OTR) tyres.

The OTR tyre pressure sensor is specifically designed to reliably perform in the harsh environments found in mining, quarry and other off-road vehicle applications.

## **OTR Tyre Pressure Sensor Features:**

- Patent pending seal design with built-in filter to withstand rim conditioners and other liquids present in OTR tyres
- Three-piece field replaceable brass seal for consistent valve core depression
- High performance Lithium-Ion battery for enhanced tolerance to temperature extremes and longer life
- Large High-Impact Nylon Housing allows for additional potting material to protect the internal sensor components from damage caused by vibration, impact and extreme operating conditions

In addition to rigorous field testing, the Doran OTR tyre pressure sensor has successfully passed tests using SAE standards for temperature, vibration and chemical/water resistance at an independent a2La accredited testing facility.

Each large bore sensor is produced with a patent pending seal design which includes a built-in filter to minimise the negative effect on tyre pressure sensors from rim conditioners and other liquids typically found in OTR tyres.

The field replaceable three-piece seal design is made with brass and temperature resistant seals to ensure consistent valve core depression while minimising the potential for leaks.

In addition to the seal design, a high performance Lithium-Ion battery in used to withstand extreme hot and cold temperatures to provide long life and consistent RF signal transmission.

A proprietary potting material encapsulates and stabilises the internal components of the sensor to protect against vibration, impact and maximise durability.

Each tyre pressure sensor is laser-etched with a unique 12-digit serial number that is used to program the sensor and the baseline pressure setting to a specific wheel position on the in-cab Doran monitor.

The Doran OTR tyre pressure sensor can also provide digital tyre pressure and temperature readouts to the Doran SmartLink™ programming tool for walk-around tyre checks and also integrated into the LSM Technologies SAFETYTRAX web based In- Vehicle Monitoring System for live alerts, recording, reporting, analysis of pressure and temperature data.

Doran OTR tyre pressure sensors are included with the Doran 360<sup>™</sup> OTR tyre pressure monitoring systems and are backwards compatible with, and can be retrofit on existing Doran CE360 tyre pressure monitoring systems in the field.

SENSOR SPECIFICATIONS	
Pressure Range	69 to 1300 kpa (10 to 188 psi)
Accuracy	+/- 2 PSI over the pressure range
Operating Frequency	434.10 MHz
Operating Temperature Range	-40 to 125 DegC (-40°F to +257°F)
Storage Temperature Range	-40 to 125 DegC (-40°F to +257°F)
Material & Potting	High impact nylon with potting to encapsulate and secure internal components
Battery	Lithium Ion (internal, non-rechargeable & non-replaceable)
Dimensions	39.97 mm x 39.46 mm (1.57 "dia x 1.55 " H)
Valve Stem Thread Size	Large Bore 12.24 mm (.482-26)
Weight	46.95 grams (1.7 oz)
DORAN 360TM	TPMS WARNINGS/ALERTS
Level I Low Pressure	12.5% below programmed baseline tyre pressure
Level II Low Pressure	25% below programmed baseline tyre pressure
High Pressure (Optional)	25% above programmed baseline tyre pressure
High Temperature	Activated when air in sensor reaches





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- Extending Critical Component Service Life.
- Reducing Equipment Damage.
- Providing significant costs downs in Maintenance.
- Increased Productivity.

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Enhancing Workplace Safety & Operator Health.