



DriverSeat Innovations Heavy Commercial TPMS & Telemetry System

Technical Specification Datasheet | Model: DS-TPMS-26 | Dual 12V/24V Commercial Fleet Grade

Model DS-TPMS-26	Voltage 12V / 24V Dual	Wheels Up to 26 Positions
Interface RS232 Telemetry	Max Pressure 14 Bar / 203 PSI	

Executive Overview

The DriverSeat Innovations Commercial Tyre Pressure Monitoring System (TPMS) provides real-time pressure and temperature monitoring across heavy transport, utility plant, and mixed commercial fleets. Engineered specifically for harsh operational environments, the system features:

Native 12V/24V Dual-Voltage Power

Connects directly across 12V light commercial utilities and 24V heavy rigs without external voltage converters.

RS232 Serial Telemetry

Feeds live pressure, temperature, and alarm data directly into 3rd-party telematics platforms and in-cab ELDs.

High-Pressure Capacity

Built for heavy-duty commercial tyres with operating thresholds up to **14 Bar (203 PSI)**.

Automated Trailer Swap

Smart RF repeaters store sensor IDs locally for seamless drop-and-hook trailer swapping without driver re-pairing.

Key Commercial Advantages

Zero Recurring Monthly Fees

Pure hardware solution with no monthly software subscriptions.

Mixed-Fleet Flexibility

Installs seamlessly on everything from 12V service vans to 24V multi-axle heavy haulers.

26-Wheel Scalability

Monitors up to **26 wheel positions** across **14 pre-programmed** layout configurations.

Integrated Telemetry

Outputs raw RS232 data streams directly to in-cab displays or telematics tracking units.

26

Max Wheel Positions

14

Pre-Set Vehicle Layouts

14

Bar Max Pressure

203 PSI

\$0

Monthly Subscription Fee

System Overview & Alarm Performance

Feature	Specification
System Voltage	12V / 24V DC Dual Input (B+ Constant, ACC Ignition, Ground)
Maximum Pressure Rating	≤ 14 Bar (203 PSI)
Wheel Monitoring Capacity	6 to 26 wheel positions (14 pre-set vehicle arrangements)
RF Transmit Frequency	433.92 MHz
Certifications & Standards	GB 26149-2017, FCC Part 15 Class B
Fast Leak Warning Threshold	Triggers on pressure drop > 0.8 Bar within a short window
High Temperature Warning	Default 90°C threshold (User configurable)
Low Battery Alert	Triggers when sensor voltage drops below 2.3V

In-Cab Receiver Host & Data Interface

Parameter	Specification
Input Voltage Range	12V / 24V DC Vehicle System Supply
Telemetry Interface	Dedicated RS232 Serial Communication Port
Power Architecture	External 12V/24V line + built-in 3.5V–4.2V rechargeable Lithium battery
Current Consumption	12mA (Active Display) / 4.5mA (Screen Dim / Telemetry Mode)
RF Receiver Sensitivity	-95 dBm
Operating Temperature Range	-30°C to 80°C
Dimensions & Weight	13.5 cm × 6.5 cm × 2.2 cm / 230 g ± 5 g

Smart Chassis RF Repeater

Trailer & Range Extension Unit — enables seamless drop-and-hook operations with local sensor ID storage.

Parameter	Specification
Input Power	12V / 24V DC Vehicle ACC Chassis Circuit
Ingress Protection Rating	IP67 Waterproof & Dustproof chassis mount
Current Consumption	4.5mA (Standby) / < 50mA (RF Forwarding)
Transmit Power Output	< 10 dBm @ 433.92 MHz
Operating Temperature Range	-40°C to 85°C
Dimensions & Weight	11.7 cm × 7.9 cm × 2.2 cm / 120 g ± 3 g

IP67 Rated

Fully waterproof & dustproof for chassis mounting

-40°C to 85°C

Widest operating temperature range in the system

4.5mA Standby

Ultra-low draw on vehicle ACC circuit

Sensor Mounting Options & Technical Specs

Spec / Feature	External Cap	Internal Valve	Internal Paste-On	Internal Bundled
Mounting Style	External 8V1 thread	Valve stem hole	Inner tire casing glue	Rim center groove (304 SS strap)
Unit Weight	12 g ± 1 g	16 g ± 1 g	37 g ± 1 g	35 g ± 1 g
Battery Type	CR1632 (135 mAh)	CR2050 (345 mAh)	CR2050 (345 mAh)	CR2050 (345 mAh)
Operating Temp	-30°C to 80°C	-40°C to 125°C	-40°C to 125°C	-40°C to 125°C
RF Transmit Power	> -20 dBm	> -12 dBm	> -12 dBm	> -12 dBm
Construction	Glass Fiber Nylon / Alloy	Glass Fiber Nylon	Nylon + EPDM Rubber	Nylon + 304 Stainless Steel

❏ Internal sensor variants (Valve, Paste-On, Bundled) offer significantly higher battery capacity (345 mAh vs 135 mAh) and a wider operating temperature range (-40°C to 125°C vs -30°C to 80°C) compared to the External Cap sensor.

Commercial Contact & Support

DriverSeat Innovations Ltd

Commercial Fleet & Telemetry Division

Website: www.driverseat.co.nz

Email: michael@driverseat.co.nz

DS-TPMS-26 At a Glance

- Dual 12V/24V commercial fleet grade
- Up to 26 wheel positions, 14 pre-set layouts
- RS232 serial telemetry output
- IP67-rated RF repeater for trailer operations
- Four sensor mounting configurations available
- GB 26149-2017 & FCC Part 15 Class B certified
- Zero recurring monthly subscription fees