The Schrader Electronics GM Clamp In Sensor is designed to be used in a direct measurement TPM (Tire Pressure Monitoring) System. The TPM Sensor is intended to interface to a receiver/decoder that has been designed to accept the TPM sensor protocol.

The TPM Sensor is designed to monitor a vehicle's tyre pressure whilst driving or stationary. An electronic unit inside each tyre (referred to as the TPM Sensor or TPM transmitter) mounted to the valve stem, periodically measures actual tyre pressure/temperature. By means of an RF link, this pressure information is transmitted to a receiver/decoder. The incoming radio frequency signals are decoded, and the data used to inform the driver of the tyre pressure information via the vehicles TPM interface.

TPM Sensor main functions are:

- Regularly measure the tyre pressure.
- Monitor if the wheel is moving.
- Periodically transmit tyre pressure using an RF link and a specific protocol.
- Monitor condition of the battery and notify the system during an RF transmission if the battery performance degrades.
- Notify the system if there are abnormal pressure variations (leak) in the tyre.

Consumer Use Modes	Manufacturing & Service Modes	Mode of Operation	Explanation	Frequency of Transmission
	X	Forced Transmission "Learn Mode" (dealer / plant)	On receipt of a particular LF sequence this Forced transmission allows the interrogation of the sensor in the vehicle factory or dealership	Forced Transmission as required
	X	Low battery	Transmitter in normal operation when a low battery flag has been set - wheel is rotating	Transmission rate depending on Drive mode
	X	Off Mode	Part is in an off state, No transmissions, Exit by LF orΔP	No transmissions
X		Stationary Mode		
X		Wake Mode	First transmittion in normal operation - when wheel is rotating then moves into drive mode	At the start of wheel rtation
X		Fartory Drive Mode	Transmitter in normal operation - wheel is rotating	Transmission rate every 10secs
X		Drive Mode	Transmitter in normal operation - wheel is rotating	Transmission rate every 60secs
		Pressure Re-Measure Mode	Transmitter in normal operation and meassuresment sample which is less then 5 counts than the pervious sample	Alarm transmission as required