MEDIA RELEASE

▶ *POWER SYSTEMS*

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New sensors for the tyre pressure monitoring system

MS Motorservice International GmbH has expanded its sensor range to include active sensors (433 MHz) for the tyre pressure monitoring system (TPMS). The 30 new items can be used in around 222 million vehicles worldwide. They are available as clamp-in sensors and snap-in sensors.

The replacement parts specialist is offering the sensors on the aftermarket with OEM quality. They are made by its sister company Pierburg. They meet OE specifications in terms of form, function, and use on vehicles – as confirmed by comprehensive stress tests. Besides reliable quality, the sensors offer quick and easy installation. They can then be used immediately, with no need for any programming (plug-and-play). Since 01.11.2014, all newly registered cars come with a TPMS. So there is enormous potential on the automotive aftermarket.

Up to 40 per cent of all road accidents are attributable to inadequate tyre pressure. Even a reduction in tyre pressure of around 0.4 bar below the prescribed level will result in increased wear and therefore shorten a tyre's life. The higher rolling resistance associated with excessively low tyre pressure also increases fuel consumption by up to 0.3 litres for every 100 kilometres. This in turn increases CO_2 emissions and means motorists have to pay more at the pump. The tyre pressure monitoring system (TPMS) ensures tyres are always at the correct pressure. Drivers are alerted to any loss of pressure via the TPMS warning light. A distinction is made between passive ('indirect') and active ('direct') versions of the TPMS.

How the passive and active TPMS work

With the passive TPMS, also referred to as indirect TPMS, the system calculates the tyre pressure from the rolling circumference with the help of ABS sensors: if air has escaped from a tyre, the rolling circumference reduces and the wheel rotates faster. The passive TPMS uses components already on the vehicle. It is really only a software upgrade. And while the system does detect loss of pressure, it cannot identify which tyre is affected. Similarly, the indirect TPMS cannot detect whether all four tyres are experiencing a similar reduction in tyre pressure. With the active (direct) TPMS, a battery-powered sensor is fitted to each wheel rim and constantly measures air pressure and temperature in the tyre. The data is sent via wireless transmission to the trip computer. The advantage is that air pressure and temperature can be accurately monitored for

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individual wheels in real time. The sensor batteries last for around seven to ten years or around 225,000 kilometres. As batteries cannot be replaced, a new sensor is needed when they run out. Once one sensor battery runs out, it is likely the other three will do so soon. So it always makes sense to replace all four sensors at the same time.