



PRODUCT INFORMATION

SENSORS FOR THE TYRE PRESSURE MONITORING SYSTEM (TPMS)



Motorservice has expanded its portfolio in the area of sensors to include active sensors for the tyre pressure monitoring system (TPMS).

The 30 articles cover a global vehicle fleet of approx. 222 million vehicles.

The sensors are available in versions as clamp-in sensors with cap nut and as snap-in sensors with rubber coating.

These are active sensors (433 MHz) in the direct TPMS (see background information on the last page).

YOUR ADVANTAGES

- OE quality
- Large market coverage
- Extensive stress tests to guarantee Pierburg quality
- Quick and easy sensor installation
- Ready to use right away, no programming required (plug-and-play)
- Meet the OE specifications in terms of form, function and vehicle use



**PI 2131**

For technical personnel only!

2/3

TPMS SENSORS IN THE RANGE

Pierburg no.	OEM	Ref. no.	Type *)
7.14060.00.0	Renault	A 453 905 75 01, 40 70 056 42R, 93461364	Snap-in
7.14060.01.0	Renault	40700-3VU0A, 40 70 056 63R	Clamp-in
7.14060.02.0	Mercedes-Benz / BMW	36 10 6 877 937, A 000 905 41 04, 36 10 6 887 147	Clamp-in
7.14060.03.0	BMW	36 10 6 881 890	Clamp-in
7.14060.04.0	Volkswagen	2N0 907 251 A	Clamp-in
7.14060.05.0	Mercedes-Benz	A 000 905 39 07	Clamp-in
7.14060.06.0	Ford	EV6T-1A180-DD, 2318530	Snap-in
7.14060.07.0	Toyota	42607-02031	Clamp-in
7.14060.08.0	Ford	F2GT-1A180-CE, 5285838	Snap-in
7.14060.09.0	HKMC	52933-D4100, 52933-F2000	Clamp-in
7.14060.10.0	Ford	JX7T-1A180-DA, 2197279	Snap-in
7.14060.11.0	Suzuki	43139-52S14, 43139-52S14-000	Clamp-in
7.14060.12.0	HKMC	52933-C1100	Snap-in
7.14060.13.0	GM	13581561	Snap-in
7.14060.14.0	PSA	9811536380	Snap-in
7.14060.15.0	HKMC	52933-3N100, 52933-B1100, 52933-2J100	Clamp-in
7.14060.16.0	Mitsubishi	1612477080, 4250C477	Clamp-in
7.14060.17.0	Chrysler / Fiat	95523608, 670034786	Clamp-in
7.14060.18.0	Ford	BB5T-1A180-BA, 5091251	Snap-in
7.14060.19.0	GM	13598775, 10 10 063	Clamp-in
7.14060.20.0	Chrysler	68193586AC, 53386476	Snap-in
7.14060.21.0	Nissan / Mercedes-Benz	40700-6WY0C, A 470 905 78 00	Clamp-in
7.14060.22.0	GM	13598773, 13540602	Snap-in
7.14060.23.0	Mercedes-Benz	A 447 905 17 04	Snap-in
7.14060.24.0	GM	13506028	Snap-in
7.14060.25.0	Toyota	42607-02070, 42607-F4020	Clamp-in
7.14060.26.0	Volvo	4H23-1A189-AE, 31445474, FX23-1A189-AA	Clamp-in
7.14060.27.0	HKMC	52940-BV100, 52940-CG100	Snap-in
7.14060.28.0	Mercedes-Benz	A 000 905 84 13, 000 905 84 13	Clamp-in
7.14060.29.0	Chrysler	K68241067AB, 53351971	Snap-in



*) Clamp-in type: clamp-in sensors with cap nut



*) Snap-in type: snap-in sensors with rubber coating

All content including pictures and diagrams is subject to change. For assignment and replacement, refer to the current catalogues or systems based on TecAlliance.



BACKGROUND INFORMATION ON TPMS

The tyre pressure monitoring system (TPMS) ensures that the tyres maintain the correct tyre pressure.

In the event of loss of pressure, the driver is alerted via the TPMS warning lamp.

All newly registered passenger cars have been fitted with TPMS ex works since 01/11/2014 at the latest.

A distinction is made between passive (“indirect”) and active (“direct”) TPMS.

PASSIVE (“INDIRECT”) TPMS

- The system calculates the tyre air pressure using the wheel speed sensors (“ABS sensors”) across the rolling circumference:

When air escapes a tyre, the rolling circumference decreases and the wheel rotates more quickly.

- Passive TPMS uses components that are already present in the vehicle and only the software is expanded here.
- The system detects the loss of pressure but not which tyre is affected.
- Indirect TPMS does not detect if all four tyres have a similarly low tyre pressure!

ACTIVE (“DIRECT”) TPMS

- One battery-operated sensor is fitted in each wheel rim, which constantly measures the air pressure and temperature inside the tyre.
- The data is sent wirelessly to the on-board computer.
- The benefit of this is air pressure and temperature monitoring in real time for the particular wheel.
- The sensor batteries have a durability of around seven to ten years or around 225,000 km. As the batteries cannot be replaced, the sensor must be replaced afterwards.



NOTE

If one sensor battery is flat, the other three may also soon be flat. We therefore recommend switching all four sensors at once.



TPMS WARNING LAMP

- If there is no malfunction in the TPMS, the TPMS warning lamp lights up when starting a vehicle and goes out again after a few seconds.
- If the TPMS warning lamp lights up continuously, the air pressure in one or more tyres is too low. Some vehicles also provide a visual depiction of the tyre pressure.
- If the TPMS warning lamp lights up and flashes for 60–90 seconds before it lights up continuously, this indicates a system malfunction (e.g. flat sensor battery, missing or defective sensor, incorrect sensor for the vehicle type).

WHAT ARE THE ADVANTAGES OF A TPMS?

- Up to 40% of all road accidents are associated with insufficient tyre pressure.
- A reduced tyre pressure of around 0.4 bar below the set-point value results in increased abrasion on the tyres. Less abrasion increases the durability of the tyres.
- The higher rolling resistance with insufficient tyre pressure ensures increased fuel consumption of up to 0.3 l per 100 km, which in turn increases CO₂ emissions.