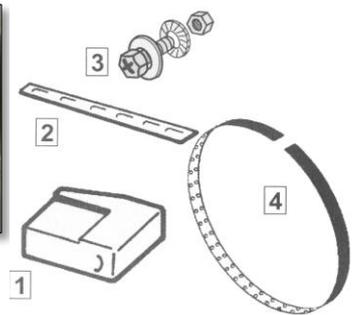
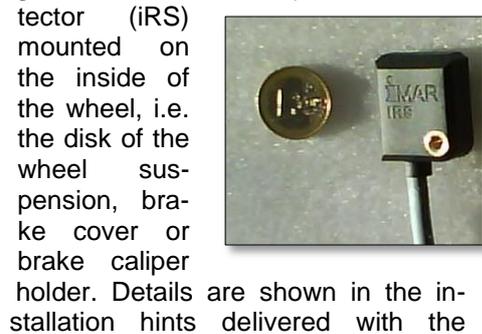


iMWS-V2

Magnetic Wheel Speed Sensor and Converter

iMAR provides a magnetic strip based wheel sensor for simple measurement of the velocity of a land vehicle (car, truck). The sensor operates with a magnetic strip glued inside of the rim (use a non-driven wheel!) and a special detector (iRS) mounted on the inside of the wheel, i.e. the disk of the wheel suspension, brake cover or brake caliper holder. Details are shown in the installation hints delivered with the



system. **Attention:** A careful mounting is as always essential for a careless operation.

The iMWS-V2 consists of four parts: The magnetic strip (4), the magnetic sensor head iRS (1), the signal converter (figure left) to provide A/B outputs and mounting material (2, 3). In comparison to the iMWS-V1, the iMWS-V2 is capable to measure velocities from 250 km/hr down to zero (!) velocity with an increased resolution (the iMWS-V1 had a lower velocity limitation to approx. 0.3 km/hr and 2.5 times worse resolution).

Technical Data for iMWS-V2:

Scale factor:	strip with approx. 10 mm / pulse at A/B counting (take the wheel's diameter into account additionally!)	
Output:	pulse per distance, 2 signals A/B, each 5 V (20 mA max) A and B each rectangular shape with approx. 10° phase shift Phase shift (+10° or -10°) indicates direction of vehicle's motion. User's counter interface shall be able to count signals with at least 20 µs phase shift	
Power Supply:	10-24 V DC (powered to iMWS-Converter)	
Power Consumption:	< 0.5 W	
Input:	1 m cable, 4 mm banana plugs	red: 10...24 V DC black: PGND
	Sub-D9, male	Pin 2: brown line of sensor head iRS (signal 1) Pin 4: yellow line of sensor head iRS (signal 2) Pin 8: white line of sensor head iRS (+9 V for sensor supply) Pin 9: green line of sensor head iRS (+9 V for sensor supply)
Output:	Sub-D9, female	Pin 6: A (e.g. to IMS odometer input) Pin 3: B (e.g. to IMS odometer input) Pin 7: GND (e.g. to IMS odometer input) Pin 1: GND (e.g. to IMS odometer input)
Signal Converter:	approx. 150 x 75 x 45 mm	
Environment:	IRS: Ingress Protection IP66, temperature -40...+85 °C (operating), 8...95 % rel. humidity Signal Converter: Ingress Protection IP50, temperature -40...+60 °C, 20...80 % rel. humid. Don't use the magnetic field based iMWS-V2 in magnetic contaminated environment	

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