

# PEGASEM SAT200 Series

Satellite Based Vehicle Speed Sensor

## Features

- Non-contact measurement
- Speed acquisition from GPS and GLONASS satellites
- Independent from weather conditions and road surface
- 100 Hz speed update rate
- Integrated LCD display
- Dead reckoning input for optional connection of a wheel or radar sensor
- Low signal latency (< 10ms)
- Pulse output
- Analogue speed output
- USB Interface
- Suction cup holder for the display on the windshield
- Active external antenna with magnetic foot
- Fits within seconds
- Excellent price/performance ratio



SAT200 receiver with integrated speed display, gooseneck holder and suction cup

(PEGASEM WSS) or a radar speed sensor (PEGASEM GSS). This allows care-free dead reckoning in situations with a limited or missing sky view.

analogue speed output, PWR IN and USB interface.

The PEGAVIEW software for MS Windows can display a graphical speed curve and record distance travelled from the sensor's serial port.

For easy transportation a case is available which carries the SAT200 receiver, antenna, gooseneck holder, cables and optional accessories.

## Applications

- Vehicle Speed Sensor for land, water and air
- Distance Measurement
- Brake Test
- Fuel Consumption Test
- Vehicle Sound Analysis
- Interval Marking
- Off-Road Test
- Vehicle Homologation



SAT200 rear panel connectors

The SAT200 extends the scope of PEGASEM's speed sensor family to the satellite based devices. The SAT200 combines superior measuring precision used with 5<sup>th</sup> wheels with unsurpassed ease of mounting. This measuring principle offers the greatest independence from weather and road conditions. The only drawback for any satellite based speed sensor is the requirement for a free sky view. For applications where this cannot be granted the SAT200 offers an auxiliary input to connect a wheel sensor

The auxiliary sensor is permanently recalibrated when the satellite receiver works under good signal conditions. With its integrated display the SAT200 offers an excellent price performance ratio for professional measurement applications. In many cases it can replace conventional speed sensors based on mechanics, optics or microwave. The digital frequency and analogue speed output offers an easy connection to most data acquisition units. The speed and distance information is also available on the sensor's USB interface for linking it to a notebook computer. It comes with sockets for speed pulses and

## Technical Data

Receiver and Display	Value	Unit	Comment
Size	128x72x21	mm	
Weight	220	grams	Without suction cup holder
Power supply voltage	8 to 32	VDC	
Power supply current	typ. 80	mA	@ 12 VDC
Pulse output	TTL compatible		
Pulse rate	100	per m	
Speed error rate	< 0.2	km/h	Eight or more satellites in view
Display	480x272	pixel	Background illuminated
Display Resolution	0.1	km/h	
Analogue speed output	1	V per 100 km/h	Rate is user settable, BNC socket
Speed range	0.1 to 400	km/h	
Auxiliary input signal	Distance Pulses		TTL square wave from dead reckoning sensor (optional)
Aux input connector	SUB-D-9M		
Cold start delay	45	sec	Typical time delay for a valid speed signal after power up with no aux sensor connected.
Serial interface	USB		Mini USB connector Comes with 1.8m USB cable
<b>External Antenna</b>			
ANT-SAT200-3 Size	38x40x10	mm	Water resistant, magnetic base GPS and GLONASS compatible Fixed cable (L=3m) on antenna side, SMA connector on other side
<b>Optional Accessories</b>			
Transport case	46x38x15	cm	Black with red shutters
CAB-SMAF-SMAM-5	5	m	Optional antenna cable extension

## Ordering Information

SAT200 Series	Comment
SAT200-OE-2	USB port, 2m Power supply cable, open ends
SAT200-BAN-2	USB port, 2m Power supply cable, Banana plugs
SAT200-CIG-2	USB port, 2m Power supply cable, Cigarette Lighter Connector
<b>Optional Accessories</b>	
CASE-SAT	Transport case for SAT200 and accessories
GSS15C <sup>1)</sup>	Radar dead reckoning sensor
WSS <sup>1)</sup>	Wheel speed dead reckoning sensor

<sup>1)</sup> See GSS or WSS datasheet respectively