

# SS Speed Sensors

Compact and responsive solution  
for GNSS-based speed measurement systems

**Supports GPS,  
GLONASS,  
Galileo and  
BeiDou**

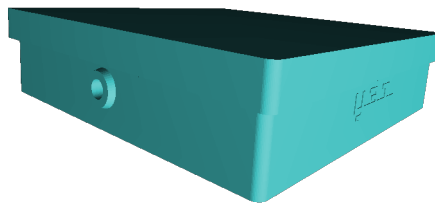
High sensitivity with data updates rates up to 10 Hz

Client-specific hardware and container design and  
color customization available

GNSS augmentation (SBAS) support including:  
WAAS, EGNOS, MSAS, GAGAN

Speed accuracy up to  
0.1 m/s for 95%  
of measurements

Operating temperature  
-30 °C to +80 °C



Satellite-based speed  
sensing is suitable for difficult  
conditions where sinking and  
slipping cause failures

Wide range of voltage input for  
maximum flexibility  
(8-40V DC)

Multi-band, multi-system GNSS support for global coverage

Lightweight and easy-to-mount waterproof container

Cold starts in less than 30 seconds and hot starts within  
2 seconds

Low power consumption

**Water and dust  
protection up to  
IP67**

**For latest product information, please visit our website  
or contact one of our offices.**

## FEATURES

72-channel GNSS tracker or 184-channel GNSS tracker  
GPS/QZSS L1 C/A, GLONASS L10F, BeiDou B1, Galileo E1B/C  
DGPS SBAS L1 C/A: WAAS, EGNOS, MSAS, GAGAN  
Concurrent L1/L2 signal reception\*  
Concurrent 2/3/4 constellation tracking (default GPS+GLONASS)  
Calibration-free operation with quick warm-up time  
Typical 10Hz, Up to 20Hz data update rates\*  
Operating temperatures: -30 °C to +80 °C  
Client-specific hardware and container color customization  
Dimensions: 90mm x 90mm x 25mm (WxLxH)  
12V - 24V DC nominal input  
8V - 40V DC acceptable input voltage  
Less than 200 grams including cable (4x0.22mm LIYY, unshielded)  
Power consumption: <100 mA @ 12V  
Cold start time: less than 30 seconds

\* Optional feature, availability varies

## INTERFACE

**BROWN** : DC In (8-40V)  
**WHITE** : GROUND  
**GREEN** : GPS ready signal, HIGH: Not ready, LOW: Ready\*  
**YELLOW** : Pulse signal, according to speed and specification  
Default signal: 130 pulses/m according to DIN 9684 / ISO 11786  
UART, Analog output, NMEA 0183 output, 5v/3.3v logic level available\*

## PRECISION

**SENSITIVITY** : up to 167 dBm  
**HORIZONTAL ACCURACY** : 2.0 m CEP  
**SPEED ACCURACY** : <0.1m/s 95% of samples

## MODELS

**SS22**-\* 2 constellation, single band(L1 only) GNSS SS receiver  
**SS33**-\* 3 constellation, single band(L1 only) GNSS SS receiver  
**SS48**-\* 4 constellation, dual-band(L1 + L2) GNSS SS receiver  
\* 6 to 20 character model configuration string

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