



GPS Speed Converter

The GPS Speed Converter, developed by Sioux Technologies answers the need in the market to convert GPS signals in to a speed pulse signal.

Often we see in specific markets such as marine, special- or off highway vehicles the need for an alternative vehicle speed signal. The Sioux GPS Speed Converter, converts GPS signals in to a speed pulse signal. This signal can be used to drive your speedometer.



Knowledge and expertise

Sioux is specialized in developing and integrating software and hardware applications in the automotive industry. With our expert knowledge, Sioux is the technical partner of leading companies in the market. Also specific products like a Tachograph Replacement Unit and a Door Control Unit, help us to support our clients.

GPS
Satellite



GPS Speed
Converter

Speedometer

Connections

- Speed pulse output for a speedometer

Features

- 8 - 16 V DC (optional 8 - 32 V DC)
- GP ABS sealed housing
- L1 frequency, C/A code
- TTFF ~ 1s hot fix
- Multicolour status LED
- GPS Accuracy (Unaided) Position: 2.5 m

Technical Specifications

Specifications

Product name	GPS Speed Converter
Sioux part number	1000701

Power supply

Operating supply voltage range	8 - 16 V DC
Maximum peak voltage	60V for 100ms
Power consumption (operating)	< 10 mA at 12 V / > 10mA at 24V

Hardware characteristics

Environmental protection class	IP63
Operating temperature range	-30 to + 85 °C
Storage temperature range	-40 to + 85 °C
EMC specification	Pre-compliant with Automotive directive 2004/104/EC: - Radiated and conducted emission - Radiated and conducted immunity
RoHS compliant	Yes
Connection	Open wire ends
Dimensions	76.30 x 35.00 x 15.00 mm (L x W x H)
Weight	50 grams
Housing	GP ABS material, sealed
Color	Black Enclosure - RAL 9011 - UL94 - HB
Recommended screw torque	15 - 20 ozf.in (10 - 15 cN.m)
Cable Length	2,5m / 8.2ft
Cable thickness	0,25mm ² / 30 awg

GPS Sensor

General	L1 frequency, C/A code (SPS), 48 channels SiRF/CSR GSD4e Chipset
Update rate	1Hz fix/s
Accuracy (Unaided)	Position: 2.5 m (CEP50) Velocity: 0.01 m/s (50%) Time: 1 us (typ.)
TTFF (Time To First Fix)	Cold start (out of the box) : 35 s typ. Warm start : 35 s typ. Hot start : 1 s typ.
Sensitivity	Acquisition (cold): -147 dBm Re-Acquisition: -162 dBm Tracking: -163 dBm
Load dump protection	102 V / 400ms

Outputs

Speed signal	0 - 10 V; 4 mA @ 0 - 8kHz
LED multicolor	Orange flashing 1 Hz : Start-up mode, searching for GPS Green : Connected to GPS Red flashing 1 Hz : Cannot find GPS Red : System Failure

Pinning

White	KL30 (Vbatt)
Red	*KL15 (Ignition)
Black	KL31 (GND)
Blue	Speed Signal High
Green	CAN1-Low
Yellow	CAN1-High

*Option

