

GPS Speed Converter

The GPS Speed Converter, developed by Sioux Logena 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 Logena GPS Speed Converter, converts GPS signals in to a speed pulse signal. This signal can be used to drive your speedometer.

GPS
Satellite



GPS Speed
Converter

Speedometer



Knowledge and expertise

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

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) Postition: 2.5 m

Technical Specifications

Specifications

| | |
|--------------------------|---------------------|
| Product name | GPS Speed Converter |
| Sioux Logena 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