



# **GPS 100.ADAS**

**TECHNICAL SPECIFICATION**



The gps100.ADAS is an All-in-One Solution to measure velocity, position and movement of a vehicle. The system is weatherproof and designed to mount on top of a vehicle.

GNSS Antenna and IMU is integrated – no external cables needed. Adding to that is an RF-Module inside the device to communicate to one or more other systems (moving or static). The RF frequency is 2.4GHz and useable world-wide.

Output of the Data is by CAN (CAN-FD compatible) or Analog (only velocity).

Optional RTK-Support is available.

### **Applications:**

- Speed Sensor
- Speed and Position w/ RTK-Support
- Brake-Testing
- Acceleration
- ADAS

### **Data Output:**

Velocity, Position, Status, GNSS-Data, Inclination, Acceleration (X Y Z), Gyro (X Y Z), Moving Vector, Distance to other devices (N, E, D and resulting Vector scaled in mm)

**GENERAL****GNSS-System**

up to 200Hz

**CPU**

High-Performance  
ARM Cortex  
200MHz  
Real-Time-Operating

**LED / Buttons**

Power-On  
State-Button

**Housing**

Anodized weatherproof  
(IP67) Aluminium  
Magnetic mount  
Optional suction cup

**Supply**

9V to 70V DC  
max. 700mA

**Temperature**

Operation & Storage  
-40 °C to 85 °C

IMU is calibrated for the  
temperature range of  
-40° to 85°

**INPUT****CAN**

1 Channel,  
CAN FD up to 8MBaud  
Compatible to CAN classic

**OUTPUT****Analog**

1 Analog Output for Velocity  
0 - 5V, 10mV / kmh

**IMU****GYRO**

**Range**  
+/- 2000 °/sec

**Nonlinearity**  
< 0.1% FS

**3dB Bandwidth**  
250 Hz

**Stability**  
< 5°/hr

**ACCELEROMETER**

**Range**  
+/- 16g

**Nonlinearity**  
< 0.5% FS

**3dB Bandwidth**  
250Hz

**Stability**  
<0.04mg

**MAGNETOMETER**

**Resolution**  
0.25mG

**Full Range**  
5 G

**Linarity**  
<0.1%

**3dB Bandwidth**  
200 Hz

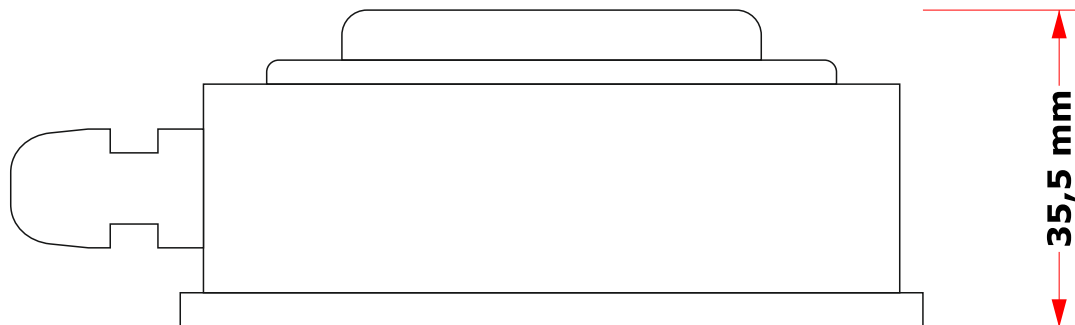
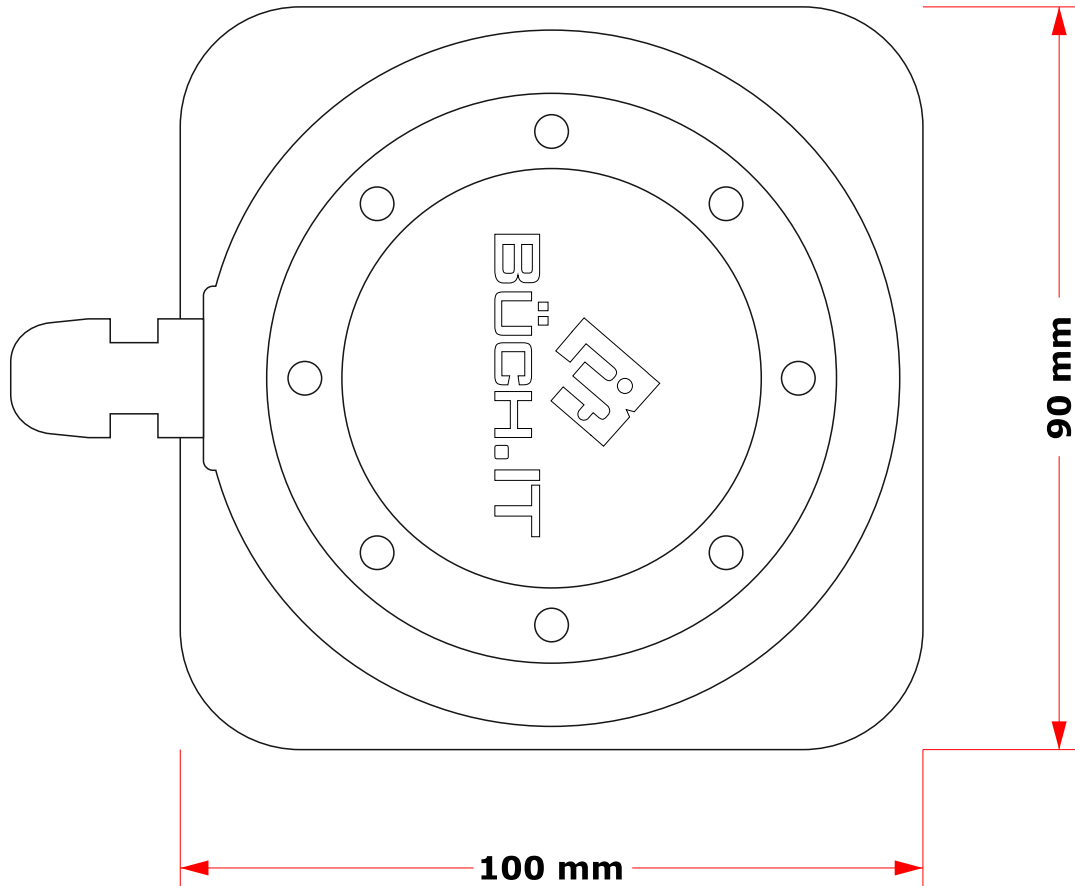
**OTHER**

**Warranty**  
1 year limited warranty

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**GPS Performance / Accuracies**

<b>Speed</b>	Accuracy: +/- 0.03 m/s (1 $\sigma$ RMS) Resolution: up to 0.01 km/h Latency: <2ms (with time stamp) max. 500 km/h  Refresh rate: max. 400Hz
<b>Position accuracy</b>	H (SBAS):1.0m (L1 + L2) V (SBAS):1.5m (L1 + L2)  H (RTK):<2cm (L1+L2+RTK) V (RTK):<2cm (L1+L2+RTK)  Refresh rate: max. 400Hz
<b>Heading</b>	Resolution: 0.01°
<b>Roll / Pitch</b>	Accuracy: 0.05°



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