



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%

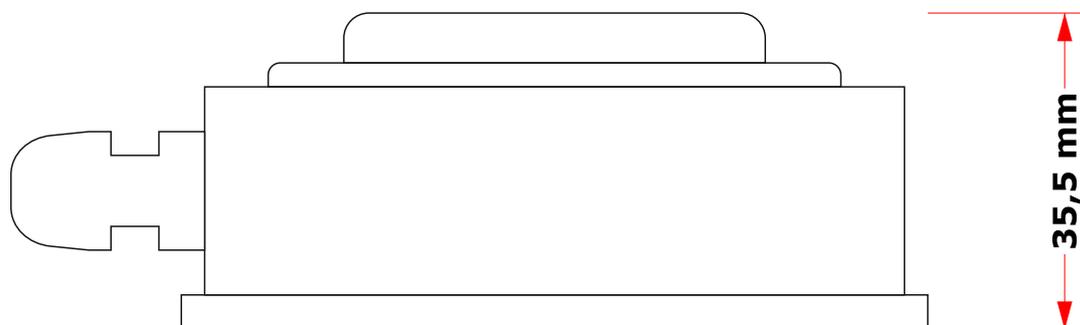
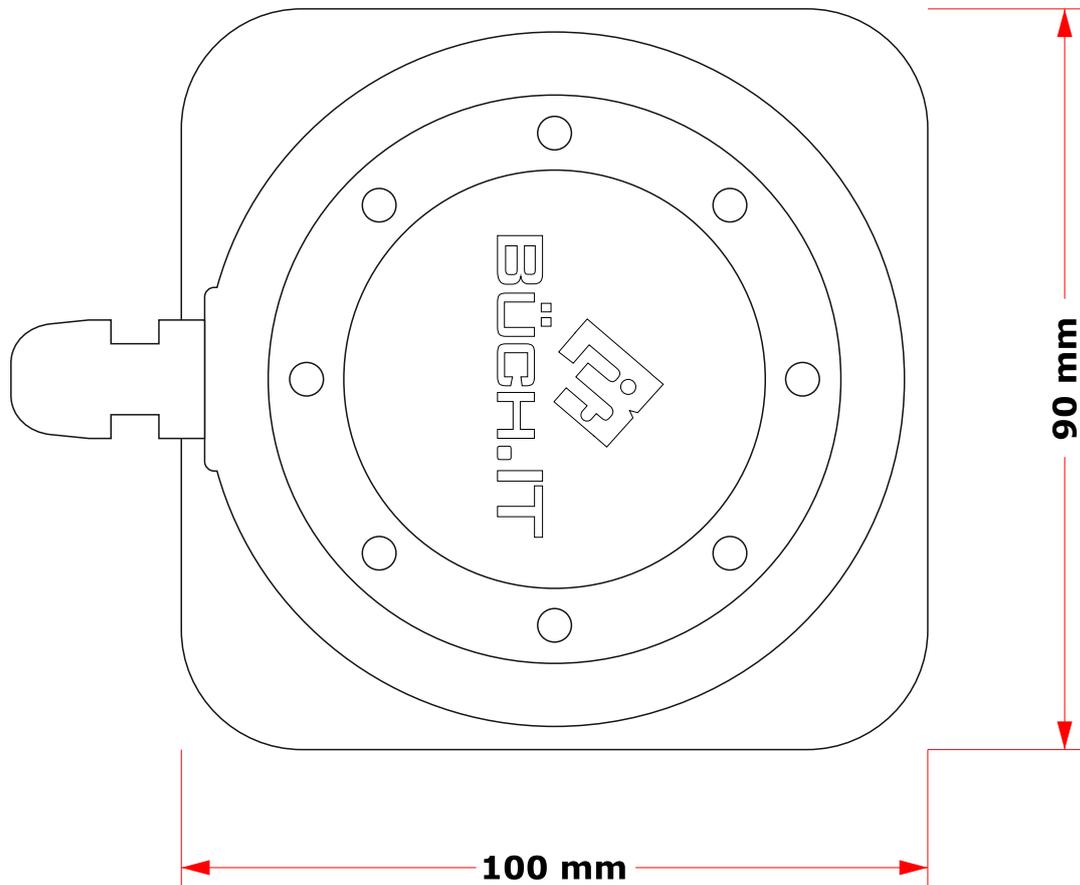
3dB Bandwidth
200 Hz

OTHER

Warranty
1 year limited warranty

GPS Performance / Accuracies

Speed	Accuracy: +/- 0.03 m/s (1 σ RMS) Resolution: up to 0.01 km/h Latency: <2ms (with time stamp) max. 500 km/h Refresh rate: max. 400Hz
Position accuracy	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
Heading	Resolution: 0.01°
Roll / Pitch	Accuracy: 0.05°



Büch.IT

Steinenbrück 18
57642 Alpenrod
Germany

<https://www.buech-it.de>
info@buech-it.de

+49-2662-500477-0