

1. HARDWARE: Vehicle GPS-GSM/GPRS MODULES



GuardMagic VB5

Special GPS-GPRS vehicle module for fuel transportation companies (Road tanker monitoring). Multi tank support.

For On-Line Monitoring System (Vehicle fleet monitoring systems, AVL, fuel trailer monitoring etc.). Universal communication protocol. Easy to installation and easy to use.

- GSM 900/1800/1900 GPRS (or GSM/GPRS Quad);
- Two main operation mode (Standard, Packet);
- Internal memory (130 TH records) for data storing;
- Immobilization function;
- Main fuel tanks monitoring function – up to **THREE** tanks (GuardMagic DLLS1 sensor with digital communication interface EIA-485);
- Cargo fuel tanks monitoring function – up to **ELEVEN** cargo tanks, cargo compartments (GuardMagic DLLS, GuardMagic DLLE with digital communication interface EIA-485);
- Temperature (and Humidity) monitoring function (up to SEVEN sensors);
- GPS monitoring (geographical location, speed);
- Driver ID transmitting;
- Status signal transmitting:

Crash, Panic, Event, Engine Overheat, Fuel Tank Empty (FTA), Attempt to Theft, Ignition, Car Alarm, GPS Alarm, Power Alarm.



GuardMagic VB8

Special GPS-GPRS vehicle module for fuel transportation companies (Road tanker monitoring). Multi tank support

For On-Line Monitoring System (Vehicle fleet monitoring systems, AVL, fuel trailer monitoring etc.). Universal communication protocol. Easy to installation and easy to use.

- GSM 900/1800/1900 GPRS (or GSM/GPRS Quad);
- Two main operation mode (Standard, Packet);
- Internal memory (130 TH records) for data storing;
- Immobilization function;
- Main fuel tanks monitoring function – up to **THREE** tanks (GuardMagic DLLS1 sensor with digital communication interface EIA-485);
- Cargo fuel tanks monitoring function – up to **ELEVEN** cargo tanks, cargo compartments (GuardMagic DLLS, GuardMagic DLLE sensor with digital communication interface EIA-485);
- Two independent EIA-485 communication bus for fuel sensors (one for vehicle regular tanks , other for cargo tanks);
- Temperature monitoring function (up to SEVEN sensors);
- GPS monitoring (geographical location, speed);
- Driver ID transmitting;
- Status signal transmitting:

Crash, Panic, Event, Engine Overheat, Fuel Tank Empty (FTA), Attempt to Theft, Ignition, Car Alarm, GPS Alarm, Power Alarm.

Starting in January 2011

Notes:

- Brief specification, see: "GPS-GPRS vehicle modules-Table".
- Prices, see: "GuardMagic-prices1-_main products", point 1.2



2. HARDWARE: FUEL LEVEL SENSORS FOR FUEL CARGO TANKS (COMPARTMENTS)



GuardMagic DLLS1ct Robust Digital Fuel and Oil level sensor for standard and heavy application

Mobile objects and stationary objects application: Road Fuel Tankers, Towboats, Fuel Storage etc. For connection to GuardMagic JBB01 (protective barrier junction box). No moving parts.

- Multi sensors system;
- Internal filter;
- Communication interface: EIA-485;
- Sensor serial connection;
- Operation liquids: crude, oil, fuel oil, transformer oil, diesel fuel, gasoline, kerosene;
- Ambient temperature: -40 ... +80;
- Temperature of measurement liquids: -40 ...+ 105;
- Resolution: 1024 or 4096 levels;
- Anti vandal casting aluminum cover (IK 10 protection) ;
- IP 67 protection;
- Strong mounting;
- One cable without connector. Cable length 3 meters;
- Available sensor length: 1300mm, 1500mm, 1700mm, 1980mm, 2500mm, 3000mm.



GuardMagic DLLE1ct Robust Explosive Proof Digital Fuel level sensor for standard and heavy application.

Operation only with **GuardMagic JBB01** (intrinsically safe barrier).

Mobile objects and stationary objects application: Road Fuel Tankers, Fuel Storage etc. No moving parts.

- Multi sensors system;
- Communication interface: EIA-485;
- Operation liquids: oil, lube oil, transformer oil, fuel oil, diesel fuel, gasoline, kerosene;
- Ambient temperature: -40 ... +80;
- Temperature of measurement liquids: -40 ...+ 105;
- Resolution: 1024 or 4096 levels;
- Anti vandal casting aluminum cove (IK 10 protection) ;
- IP 67 protection;
- Strong mounting;
- Available sensor length: 1300mm, 1500mm, 1700mm, 1980mm, 2500mm, 3000mm.;

Notes:

- Prices, see: "GuardMagic-prices2-_fuel sensors", point 1.2, point 1.4

3. HARDWARE: ADDITIONAL COMPONENT (for sensor connection in fuel trailer)



GuardMagic JBB01

Die-cast anti vandal IP 65 protected "**Junction Box**" with internal two channels intrinsically safe barriers.

For fuel level sensor intrinsically safe connecting to EIA-485 communication bus in fuel trailer (cargo tanks, fuel storage etc.).

Independently support two fuel level sensors.

EIA-485 communication bus.

Support GuardMagic DLLS, Guardmagic DLLE fuel level sensors.

Notes:

- Prices, see: "GuardMagic-prices2-_fuel sensors", point 6.1



4. HARDWARE: FUEL LEVEL SENSORS FOR VEHICLE REGULAR FUEL TANKS MONITORING



GuardMagic DLLS1a **Robust Digital Fuel and Oil level sensor for standard and heavy application**

Mobile objects and stationary objects application: Trucks, Road Fuel Tankers, Special Machinery, Locomotives, Towboats, Fuel Storage, DG, Power Transformers etc. No moving parts.

- Multi sensors system;
- Internal filter;
- Communication interface: EIA-485;
- Sensor serial connection;
- Operation liquids: crude, oil, fuel oil, transformer oil, diesel fuel, gasoline, kerosene;
- Ambient temperature: -40 ... +80;
- Temperature of measurement liquids: -40 ... + 105;
- Resolution: 1024 or 4096 levels;
- Anti vandal casting aluminum cover (IK 10 protection) ;
- IP 67 protection;
- Strong mounting;
- One cable with SuperSeal connector;
- Available sensor length: 300 mm – 3000mm.



GuardMagic DLLS1b **Robust Digital Fuel and Oil level sensor for standard and heavy application**

Mobile objects and stationary objects application: Trucks, Road Fuel Tankers, Special Machinery, Locomotives, Towboats, Fuel Storage, DG, Power Transformers etc. No moving parts.

- Multi sensors system;
- Internal filter;
- Communication interface: EIA-485;
- Sensor serial connection;
- Interface repeater;
- Operation liquids: crude, oil, fuel oil, transformer oil, diesel fuel, gasoline, kerosene;
- Ambient temperature: -40 ... +80;
- Temperature of measurement liquids: -40 ... + 105;
- Resolution: 1024 or 4096 levels;
- Anti vandal casting aluminum cover (IK 10 protection) ;
- IP 67 protection;
- Strong mounting;
- Two cables with SuperSeal connector;
- Available sensor length: 300 mm – 3000mm.

Notes:

- Prices, see: "GuardMagic-prices2-_fuel sensors", point 1.1



5. MAIN TECHNOLOGICAL TOOLS



GuardMagic VB programming tool

(Serial interface RS-232)

The technological complete set for programming and changes of adjustments of modules GuardMagic VB, by a personal computer.

(need only one)



GuardMagic DLLS-DLLE programming tool

The technological complete set for sensor programming and changes of adjustments of GuardMagic DLLS, GuardMagic DLLE fuel level sensors by a personal computer.

Set consist of: GuardMagic SCA (sensor connection adapter), AC/DC power adapter, connection cables, technological software;

(need only one)

6. MONITORING SERVICE (SOFTWARE): VEHICLE GPS-GPRS MONITORING



GPS WEB monitoring service

Coverage: **All world**

Service for vehicle WEB monitoring (vehicle monitoring via Internet).
Vehicle modules series GuardMagic VB.

Visualization on maps, reports generation