

1. HARDWARE: FUEL LEVEL SENSORS



GuardMagic DLLS1a (soon)
Universal 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;
- 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 – 2500mm.

Directly connection to **GuardMagic modules: mTF3; VB3, VB4, VB5, FSM2, FSM3**



GuardMagic DLLS1b (soon)
Universal 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;
- Two cables with SuperSeal connector;
- Available sensor length: 300 mm – 2500mm.

Directly connection to **GuardMagic modules: mTF3; VB3, VB4, VB5, FSM2, FSM3**



GuardMagic DLLS1ct (soon)
Universal 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;
- 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 2 meters;
- Available sensor length: 1300mm, 1500mm, 1700mm, 1980mm, 2500mm.

Directly connection to **GuardMagic modules: mTF3; VB3, VB4, VB5, FSM2, FSM3**



GuardMagic DLLS2a; DLLS2b; DLLS2ct

(in development)

Universal Digital Fuel and Oil level sensor for standard and heavy application

Stationary objects application: Fuel Storage, Fuel station etc.
(mobile application only with an additional fastening system for measuring rod)

- No moving parts;
- Multi sensors system;
- Internal filter;
- Communication interface: EIA-485;
- Sensor serial connection (GuardMagic DFLS2b)
- 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 (DLLS2a version);
- Two cables with SuperSeal connector (DLLS2b version);
- One cable without connector. Cable length 2 meters (DLLS2ct version);
- Available sensor length : 2000mm – 6000mm

Directly connection to **GuardMagic modules: mTF3; VB3, VB4, VB5, FSM2, FSM3**



GuardMagic DLLE1

(in development)

Universal Digital Fuel and Oil level sensor for standard and heavy application

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;
- Operation only with GuardMagic JBB01 (intrinsically safe barrier);
- 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: 1000 mm – 2500mm;

Directly connection to **GuardMagic modules: mTF3; VB3, VB4, VB5, FSM2, FSM3**



GuardMagic DLLE2

(in development)

Universal Digital Fuel and Oil level sensor for standard and heavy application

Stationary objects application: Fuel Storage, Fuel station etc.
(mobile application only with an additional fastening system for measuring rod)

- No moving parts;
- Multi sensors system;
- Communication interface: EIA-485;
- Operation liquids: oil, lube oil, transformer oil, fuel oil, diesel fuel, gasoline, kerosene;
- Operation only with GuardMagic JBB01 (intrinsically safe barrier);
- 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: 2000 mm – 6000mm;

Directly connection to **GuardMagic modules: mTF3; VB3, VB4, VB5, FSM2, FSM3**



GuardMagic FLPa/V5

Electronic Fuel Level Sensors (not moving parts) with analog output voltage for Vehicle and Land application.

Output voltage GuardMagic FLPa/V5 : 0 ... 4,5 V.

Output voltage GuardMagic FLPa/V9 : 0 ... 9 V.

Probe length: from 200mm till 6000 mm.

L1: length = 200mm ... 1100mm.

L2: length = 1200mm ... 1700mm.

GuardMagic FLPa can be installed in any type of motor vehicles, tractors, construction and agricultural machines or diesel-electric locomotives or stationary tank.



GuardMagic DFLS3 (Base model).

Mobile objects and stationary objects application

Electronic Fuel Level Sensors (not moving parts) with digital communication interface for fuel monitoring and fuel measurement system.

Communication interface: EIA-485.

Resolution: 1024 levels.

Probe length: from 200mm till 4000 mm.

L1: length = 200mm ... 1100mm.

L2: length = 1200mm ... 1700mm.

L4: length = 2000mm ... 4000mm (integral. Consist of independent pipes).

L5: length = 4000mm ... 6000mm (integral. Consist of independent pipes. For stationary).

Directly connection to **GuardMagic modules: mTF3; VB3, VB4, VB5, FSM2, FSM3**



GuardMagic DFLS3-CT (Special version for road fuel tanker)

Electronic fuel level sensors (not moving parts) with digital communication interface for fuel monitoring and fuel measurement system.

Can be mounting in anti vandal junction box: GuardMagic JB3; GuardMagic JB02.

Communication interface: EIA-485.

Resolution: 1024 levels.

Sensor length:

- 1700 mm ;
- 1980mm;
- 2450mm (integral)

Directly connection to **GuardMagic modules: mTF3; VB3, VB4, VB5, FSM2, FSM3**



2. HARDWARE: SPECIAL ADDITIONAL COMPONENTS



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 DFLS3, GuardMagic DLLS, Guardmagic DLLE fuel level sensors.



GuardMagic JB02 (GM2.214)

Additional die-cast anti vandal IP 65 protected “**Cover Box**” set for GuardMagic DFLS3-CT fuel level sensor.

Set consist of necessary components for sensors mounting.



GuardMagic JB3 (GM2.214)

Die-cast anti vandal IP 65 protected “**Junction-Cover Box**” set for GuardMagic DFLS3-CT fuel level sensor.
Sensor protection and sensor connecting to EIA-485 communication bus.

Is intended for mounting DLFS3-CT sensors in road fuel trailer, cargo tank, fuel storage.

3. HARDWARE: TECHNOLOGICAL COMPONENTS



GuardMagic DLLS-DLLE programming tool

The technological complete set (sensor adapter + software) for programming and changes of adjustments of GuardMagic DLLE, GuardMagic DLLE fuel level sensors by a personal computer