



AWIA Underground

Location, monitoring and diagnostic system
for underground machines



AWIA Underground

Description of the system

AWIA Underground is a system designed for non-methane mining plants. The system is used for machinery management and allows to control and optimize the costs associated with the operation of various types of machinery and equipment:

- ✓ mobile mining equipment,
- ✓ locomotives,
- ✓ weighting systems.

Its main task is collection and visualization of measurement data used for machine location and diagnostics.

Functionality

AWIA Underground allows obtaining a vast range of measurement data (geographical coordinates, movement speed, engine speed, fuel level), data from dedicated measurement units (flow meters, diagnostic probes, sensors, analogue and digital sensors) and also data coming directly from the vehicle's CAN bus. Geographical location of the ground equipment is retrieved from the integrated GPSR receiver, whereas the location of the underground equipment is based on RFID technology.

Functionality

In order to be archived, data from one or several **AWIA Underground** devices is sent to the central server via wireless GSM network, Wi-Fi or radiating cable (in the case of devices operating underground).

Each event associated with refueling is recorded in the system with the time stamp, what enables to compare the amount of fuel in the tank and the amount used by the particular machine. The process of verification is done automatically, without possibility of interference in the measurement system and loss of fuel in cases different than exploitation.

Visualization of collected data takes place via web browser. By identifying the operator and monitoring the amount of fuel taken by him, **AWIA Underground** system allows actual management of fuel economy.

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Due to the modular construction, it is possible to configure the system depending on the needs and requirements of the Investor.

