



Underground Mining

Proximity Detection Systems (PDS) and Collision Prevention Systems (CPS) are vital safety tools for underground mines, and reduce hazards created by trackless mining machines (TMMs) moving in confined spaces where pedestrians are present.

Booyco Electronics pioneered the use of Very Low Frequency (VLF) technology in underground mining. This technology allows signals to be transmitted through rock walls ensuring vital communication between sensors on pedestrians and TMMs.

The Booyco PDS and CPS can detect as many as seven TMMs and 20 pedestrians in one scenario in the underground environment. By design, these market leading systems are intrinsically safe and working off clean 12 Volt power will not ignite methane gas or coal dust in fiery mines making these preferable to deploying multiple explosion proof enclosures. A similar intrinsically safe design is used in hard rock operations.

The latest Booyco CXS solution is a comprehensive and integrated response to Level 7, Level 8 and Level 9 safety levels – as defined by the Earth Moving Equipment Safety Round Table (EMESRT), and adopted by the Minerals Council of South Africa.

For underground mines, the Booyco Electronics Asset Management System (BEAMS) can integrate with a lamp room management system. This ensures legal compliance to South African mining industry lamp room requirements. It allows for asset locating of the mine's safety equipment such as lamps, self-contained self-rescuers and gas instrumentation.





We are geared for Level 9.





















