„BARRIER" METAL DETECTOR
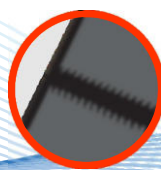
EmWeA ®

„Barrier" Tramp Metal Detector

Reliable tramp metal detection in bulk materials.

Replacement for **Thermo**Ramsey Oretronic.

Fe Detection in iron ore.

Mn Detection of non-magnetic manganese steel.

Tramp metal detection on belt splice.

740 L=210 Tramp metal detection by size and/or length.

Reliable Protection for Your Equipment

The „Barrier" metal detector was developed for the detection of manganese steel in the flow of hematite and magnetite iron ores. It is suitable for iron ore with an iron content of up to 70%, as well as other highly mineralized or magnetic ores. Steel cord belts are also no problem. The metal detector automatically detects magnetic and non-magnetic metals and ensures trouble-free operation of crushing plants in the mining and manufacturing industries.

„BARRIER" METAL DETECTOR

Detection in Iron Ore

Works with hematite and magnetite iron ores with an iron content of up to 70%.

Detection of Manganese Steel

The sensitivity to magnetic metals and non-magnetic manganese steels is the same.

Detection on Belt Splices

Enables the detection of tramp metals on riveted belts, even directly at the connection.

Find Metals Easily

Thanks to the accurate display of the metal position on the conveyor belt.

System Description:

The metal detector stops the conveyor belt for manual removal or controls an electromagnetic separator for automatic removal. If a tramp metal is detected, its size and length, the metal detected, and its position relative to the search coil are displayed.

The „Barrier" metal detector prevents damage to the conveyor belt that could be caused by long bars at transfer points. There is a mode in which it only detects long metal objects of a certain length.

① Conveyor search coil 1D203
② Belt clip detector module 1C503
③ Metal position module 1C301
④ Conversion module 2M409F/2M409A
⑤ Control module 3B409M; or
⑥ Control module 3B409E; or
⑦ Operator panel 5E409

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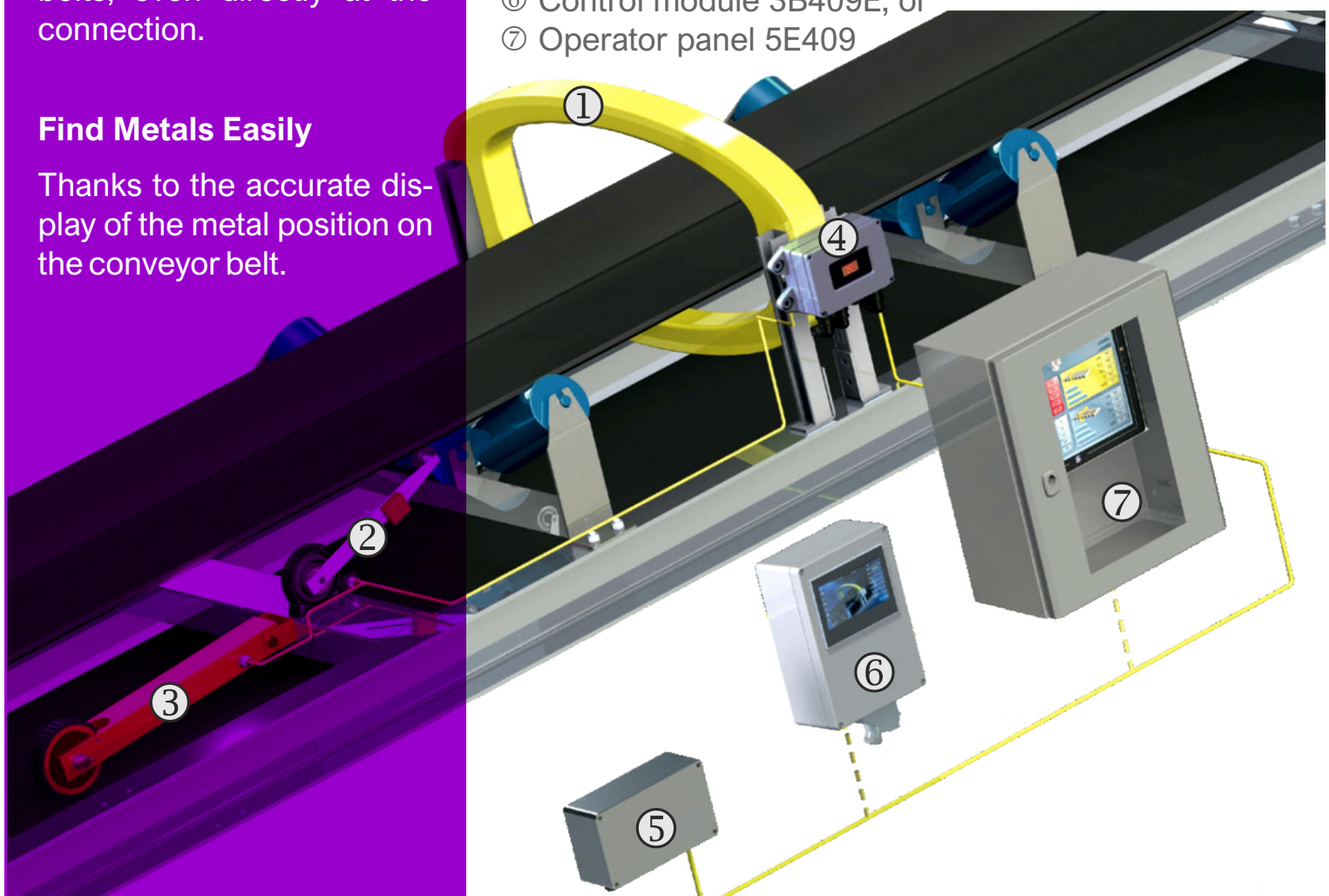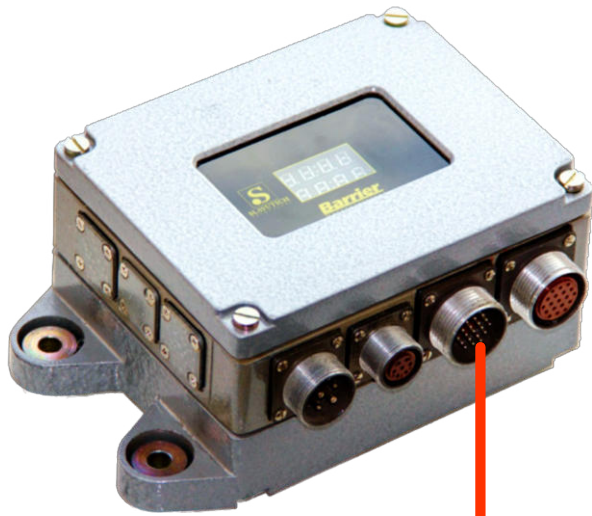
Control Module 2M409F

The 2M409F module handles metal detection, automatic adjustment to changes in iron ore composition, sensitivity correction, as well as calculation of the size and length of the detected metal and its position on the conveyor belt.

Unlike many other metal detectors, if several tramp metals are detected, the 2M409F displays their total number. This avoids overlooking metals during manual searches.

Control Module 3B409E

The 3B409E module provides visualization and control of the metal detector, network connection via Ethernet (Modbus/TCP) or RS485 (Modbus/RTU), user access control system, event log, and visualization of the primary data of the metal detector in real-time mode.

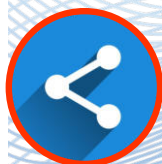3B409E can be installed up to 50 meters from the search coil of the metal detector.

„BARRIER" METAL DETECTOR

Features

Remote diagnosis
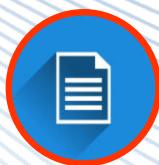
Autocorrect settings

Network capability
Modbus/TCP; Modbus/RTU; CAN bus

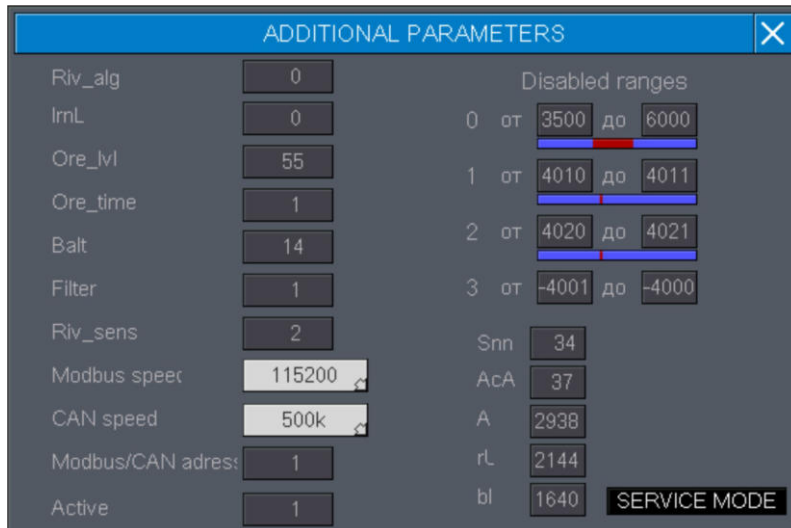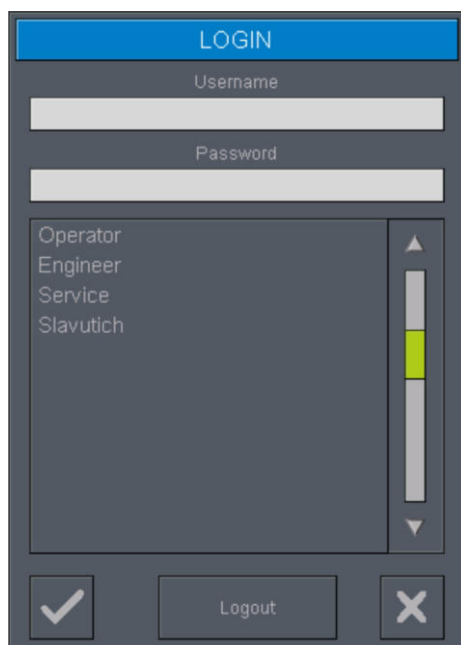**Visualization and data analysis**

User access restriction

Event log

Automatic Correction of Settings when Product Properties Change

The autocorrection of the metal detector settings is carried out by analyzing the material to be measured, comparing the data obtained with preset product profiles and automatically changing the profile.

User Access Restriction

Operate up to 255 users with varying access levels. Each authorization is registered in the event log.

Fine Tuning

Real-time access to all parameters of the metal detector allows you to make adjustments without having to go directly to the production line during operation:

- Product compensation
- Belt splice adjustment
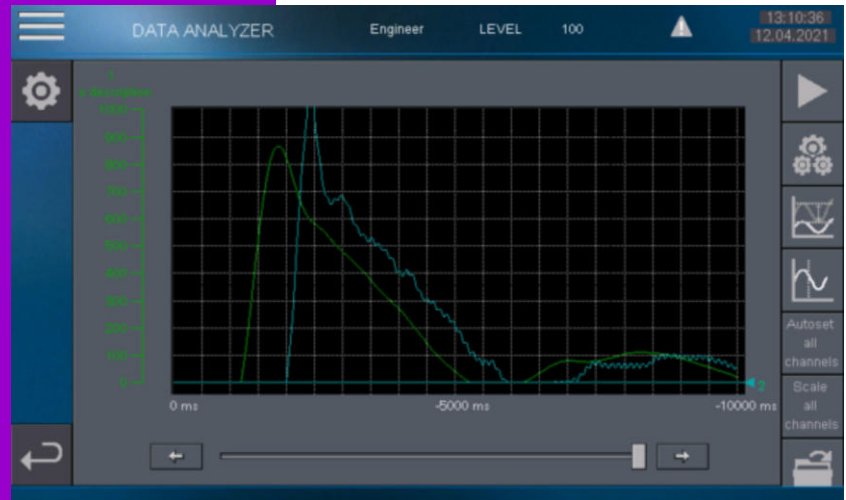- Sensitivity setting

„BARRIER" METAL DETECTOR

Remote Diagnostics

Remote management via VNC, and full access to view and configure all metal detector parameters via Modbus/TCP (Ethernet).

Data Analysis

Real-time visualization of metal detector data with the ability to view each channel by trigger, fix, and scaling.

Sensitivity Mode

Two sensitivity modes can be activated individually or together: by length, and/or by total size of the tramp metal. Each mode has its own output signal.

Control of Operator Actions

Carried out through event log analysis, it enables reliable assessment of metal detection, and data storage on a USB drive.

Operating the Metal Detector while Welding

Possible at a distance of 2 meters from the search coil without loss of sensitivity.

„BARRIER" METAL DETECTOR

Metal Detectors for Demanding Applications

We are a leading company with over 30 years of experience in the use of industrial metal detectors for highly enriched and magnetic ores. Since 1991, we have installed over 700 different types of tramp metal detectors for many industries including metallurgy and mining.

We continue to modernize our „Barrier" metal detectors while maintaining pin-to-pin compatibility with older models. This means we can also guarantee support for older metal detectors.

Thanks to the continuous development and modernization of technologies, we guarantee our customers reliable and efficient solutions that meet the highest industry standards.