

Control unit

PINTSCH BAMAG RBUET

Processor controlled level crossing protection unit

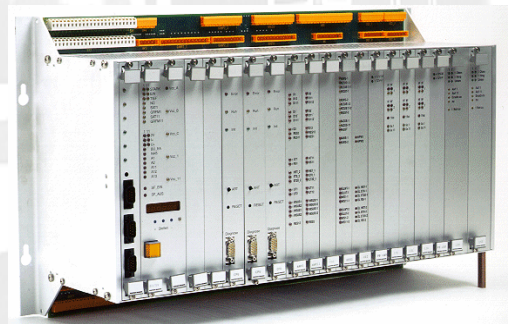
Use

The RBUET technology can be used for all types of applications in the area of level crossing protection. The control unit RBUET is designed as a vital 2-of-3 computer system. The chosen architecture results in a high safety level combined with high technical availability and low production costs. In addition, sophisticated diagnostic features lead to an increased operational availability. The RBUET supports all kinds of supervision like AOCL, ABCL, AHB, MCB and CCTV. All PINTSCH BAMAG components are approved by the EBA as the German railway board of control.

Design

The RBUET concept is based on the interaction between the fail-safe 2-of-3 control processor system and the peripheral groups for the train detection, roadside signals and barriers. Each control processor runs the same software in fixed cycles. System faults are detected by comparing the information between the three independent channels. The whole unit is located in a double European format rack.

The uninterruptible power supply of the RBUET is guaranteed by the PINTSCH BAMAG battery charging device GMC-E. The supply voltage is 230V AC.



basic rack

Features

The basic rack can be equipped for up to 6 roadside lights and 4 barriers. To attach up to 36 roadside lights, 12 barriers and 4 tracks (8 tracks for MCB and CCTV) to the RBUET additional racks with peripheral groups can be connected. It is also possible to connect an audible alarm. All elements such as signals or barriers are continuously monitored by the system. If needed, the barriers are able to be lowered in emergency situations.

Strike in (activation) and strike out (deactivation) can be realised by induction loops, track circuits, magnetic switches, manual switching equipment or interlocking.

In order to synchronize the level crossing control unit with adjacent level crossings or a related road traffic signal system a standardized interface group is available.

In combination with danger area warning systems, e.g. in the form of a radar scanner, the RBUET system can be configured as a fully automatic 4-quad level crossing protection.

Diagnostic

In order to achieve detailed diagnostic analysis and a quick repair of possible malfunctions, all important functions are displayed on the assembly groups. If necessary, a laptop can be connected to the control processor to chronologically access the operating and functional data sequences in the form of data. In this way the service staff can quickly recognize the cause of a malfunction. A mass storage unit allows the recording of data over longer periods of time. All diagnostic data can also be transmitted by radio or cable links, since it is possible to carry out the diagnostic analysis from a wide area operational centre.