



MICROLOK® II WAYSIDE CONTROL SYSTEM

General Description

The MicroLok® II Wayside Control System combines all of the fail-safe functions of railway signaling and control into one space-saving, easy-to-maintain cardfile powered by a user-friendly software package. Its wide range of capabilities eliminates previous needs for cumbersome vital logic relays. Whether rail networks are in need of vital control logic, non-vital control logic, or non-vital code communications, the MicroLok II Wayside Control System offers unparalleled flexibility in a single scalable package.

How It Works

The MicroLok II system is available in a variety of configurations designed to suit a range of applications. The impressive flexibility of this product provides users with a cost-effective yet efficient solution to perform key wayside functions, both in the field and remotely. These functions include but are not limited to:

- Vital Interlocking Control
- Non-Vital Code Systems Applications
- Positive Train Control Compatible
- Train Detection
- Track Circuit Integrity
- Coded Track Circuit Communication
- Cab Signaling Code Generation
- Vital and Non-Vital Inputs and Outputs
- Incandescent and LED Signal Lighting
- Serial Communications
- Event Recording

No matter which configuration is chosen, the user-friendly design of the MicroLok II allows customers to program controls tailored to each unique application. The system uses the familiar Boolean algebra for application control logic design, making it an easy-to-use program for anyone with railway signaling familiarity. For signaling locations across entire rail networks, the MicroLok II system is the most comprehensive solution.

Its versatile design includes the vital control logic, electronic coded track circuits, and the I/O capacity required at intermediate signal and repeater locations, as well as other wayside control points. MicroLok II protects the safety of both passengers and freight alike by verifying end-to-end rail integrity, including train detection, defective insulated joints, or broken rail. In dark territories, this reliable solution works with a radio link or other remote communication system to provide advanced notification of track conditions to approaching trains. In addition, the system enables users to control all signal types, drive relay, or solid-state outputs while having the ability to receive input from external sources.

For added value, the MicroLok II Wayside Control System can record events with a time and date stamp for any variable, input, or output that is used by the system. These event files are easily accessed and read via a laptop PC, and the MicroLok II Development System.

FEATURES & BENEFITS

- IP connectivity for both onsite and remote communication
- Windows®-based development system for software development and user interface
- Built-in, user-specified event logging
- LAN-based TCP/IP networks
- Advanced notification of rail conditions
- Remote site control capabilities
- MicroTrax® and / or ECode Track Circuits
- Incandescent or LED Signals
- Very High Reliability

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Advantages:

- Direct drive color-light, position-light, searchlight signals/mechanisms and LED lights
- Hot-filament checking of signal lamps
- Micro-Trax AC-coded circuit:
 - Reliable operation in poor
 - Low frequency allows extremely long track circuits
 - Twenty programmable user codes
- E-Code DC-coded track circuit:
 - Compatible with Electrocode
 - 60 Hz interference immunity
 - Compatible with highway-crossing audio-frequency
 - OS track circuits
- Boolean Logic:
 - Logic-table programming from route and aspect charts

- Window-based development system:
 - Enable user to write, compile and check application
 - Ability to convert application logic into equivalent relay circuits
 - Application-logic comparison tool
 - Reverse application-logic compiler
 - Maintenance tool for software loading, configuring, and data extraction
 - Enables user to write, compile and check application
 - Diagnostics via alpha-numeric displays and PC serial link
- Flash Memory:
 - No EPROM burner or eraser necessary
 - Variable names held in flash memory
- Functional Equivalent:
 - 4095 relays with 50 contacts/relay
 - 400 adjustable timers
- Four user-definable serial links supporting MicroLok:
 - Genisys and PEER
 - Onboard Local Control Panel

MECHANICAL SPECIFICATIONS

Sample Applications:

- Direct control of wayside signals
- Switch-machine control and switch point monitoring
- Switch-lock position monitoring
- Monitoring of mainline track circuits
- Through-the-rails communications to adjacent wayside control systems
- Monitoring of interlocking OS track circuits
- Cab-signal carrier/code generation
- Line-wire circuits to Coded Track interfacing
- Vital processing for Ansaldo STS Four-Quadrant Gate
- Serial link to interface to external LCP
- LED signal control

Contact Information

Contact your account representative for information on how to order our MicroLok II Wayside Control System.

Ansaldo STS

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