

GE Transportation

The ElectroLogIXS family of wayside electronics is designed to simplify the way you control your railroad. This versatile platform can be configured for advanced interlocking control, for crossing prediction, or for intermediate signaling.

- I ElectroLogIXS VLC for interlocking control
- X ElectroLogIXS XP4 for crossing prediction
- S ElectroLogIXS EC5 for intermediate signaling

Sharing modules and software tools across these applications can decrease your design time, simplify installation and maintenance, maximize training effectiveness, and reduce spares inventory requirements.

The multi-purpose ElectroLogIXS VLC provides control of power switch machines and DC lighting of signal lamps. It offers a direct interface to Electro Code 5 track circuits and to the DC track relays for the plant tracks and provides emulation of most code system protocols.

The ElectroLogIXS VLC replaces most vital and non-vital relays at an interlocking. Its software package, Logic Station (ACE), allows signal design engineers to program vital signal logic for the VLC using relay logic diagrams.

ElectroLogIXS VLC

For Interlocking Control

ElectroLogIXS VLC



Architecture

The ElectroLogIXS VLC consists of a chassis motherboard assembly, plug-in modules, a Control Display Unit (CDU) and personality modules with high-density terminal connections for hard wiring the system to wayside signal and track circuit connections. All modules have front-panel indicators that display module health status and function indicators for monitoring active I/O signals. The CDU or a computer terminal connected to the diagnostic port serves as the human/machine interface for system installation and setup, parameter adjustment, and system testing and troubleshooting.

Advanced Wayside Signal Functions

ElectroLogIXS is designed to increase system availability and simplify installation and maintenance. Design attributes include graceful degradation, providing assurance that single I/O failures will not affect the other operational modules. The ElectroLogIXS also includes one-person digital setup for lamps and track circuits, common development software tools, and simplified diagnostics and recorder functions.

Recording and Diagnostics

The ElectroLogIXS VLC has a built-in recorder that logs up to 440 elements per time-stamped vital or non-vital event, as well as changes to system configuration and error messages. All recorded events can be printed both track side and in the office. Troubleshooting has also been simplified. Fault messages are flashed on the CDU display to pinpoint the fault condition and lead maintenance personnel directly to corrective action, both inside and external to the equipment.

Application

Logic Station is a suite of application development tools from GE - Transportation. The package contains the project developer for file management, the ACE compiler to generate application equations in relay logic diagrams, the validator utility to certify compiled files, and a simulator to debug applications prior to installation. This tool set is designed for use with other GE - Transportation products including VHLC and EC5.

Communications and Networking

ElectroLogIXS VLC can accommodate several types of communications I/O modules. The CIO-1A module provides access for local and remote event log and diagnostics monitoring along with an office communications connection. Other CIO-type modules can provide up to two vital serial connections to other devices. This multi-drop network solution can expand interlocking design limits by connecting multiple units as zone controllers.

Specifications

Number of Tracks

Up to 8 track circuits

Maximum Track Circuit Length

23,000 feet @ 3 ohms per
1,000 feet ballast

Lamp Control

16 outputs per module;
9 modules per system (maximum)

Cab Signal Generator Controls

16 outputs per module;
2 modules per system
Cab rates 50, 75, 120, 180, 270

Vital Inputs/Outputs

8 inputs/6 outputs per module;
9 modules per system (maximum)

Operating Voltage

9.5 to 16.5 VDC

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