Its track-proven technology and years of reliability have made the GE Vital Logic Controller a rail industry leader in solid state interlocking control in North America.

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

The VHLC 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 VHLC using relay logic diagrams.

The basic VHLC system consists of the chassis, power supply, Vital Logic Processor, Auxiliary Communication Processor, and Site Specific Module. Various configurations for different code system emulations are available.

Vital Logic Controller VHLC
A Leader in Interlocking Control
VHLC Components

The VHLC chassis has positions for up to 12 modules. Of these 12 slots, 9 can be configured with various combinations of input/output modules as required for a specific application. Vital serial links allow up to 3 separate VHLC chassis to be connected together providing additional expansion.

Vital Logic Processor (VLP)*

Auxiliary Communications Processor (ACP)*

Site Specific Module (SSM)*

+5 Volt Power Supply*

Coded Circuit Interface (CCI)
  Allows interface to one or two Electro Code track interface chassis (8 track circuits) and provides 16 coded outputs to drive cab signal converters.

Vital Signal Driver (VSD)
  Provides 16 outputs for DC control of signal lamps. Hot and cold lamp filament tests allow detection of burned-out signal lamps.

Vital General Purpose Input/Output (VGPIO)
  Contains 8 vital inputs and 8 vital outputs.

16 Vital General Purpose Input (16VGPI)
  Contains 16 vital inputs.

8 Vital General Purpose Input (8VGPI)
  Contains 8 vital inputs.

Non-vital Input/Output (NVIO)
  Contains 16 non-vital inputs and 16 non-vital bipolar outputs.

32 Non-vital Input (32NVI)
  Contains 32 non-vital inputs.

*Required for each VHLC Chassis

Serial Interface Modules

Various serial interface modules provide communications capability with carrier, modems, data radio and wire line.

- RS-232 Serial Interface
- Dual Port RS-232 Module
- RS-422/485 Module
- HLC Modem Module
- DC Code Line Interface Module
- Current Loop Adapter Module

Accessories

Electro Code Track Interface
  The Electro Code track interface chassis receives, monitors, and transmits track signals. It can hold four Electro Code track interface circuits. Each VHLC chassis can interface with two of these chassis providing eight Electro Code track circuits.

  The following circuit modules are available:
  - Track Filter Module (9H)
  - Regulated Track Converter Module (2R)
  - Track Receiver Module (7K)
  - Line Modules (2L, 7L, and 9L)
  - Filter Module (214)
  - Cab Signal Filter Module (CSF-XX-TC)

Specifications

**Electrical**
  Voltage: 10 to 16 VDC

**Operating Temperature**
  Minimum: -40°F (-40°C)
  Maximum: +158°F (+70°C)

**Relative Humidity**
  95%, non-condensing

**Dimensions**
  Height: 13 in (330.2 mm)
  Width: 19 in (483.0 mm)
  Depth: 14 in (355.6 mm)

**Weight**
  33 pounds (15.0 kg)

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