AnsaldoSTS

MicroLok II® HB Cardfile

The MicroLok II HB is a control system for both railroad and mass transit wayside interlocking equipment and is configurable for vital and non-vital use.
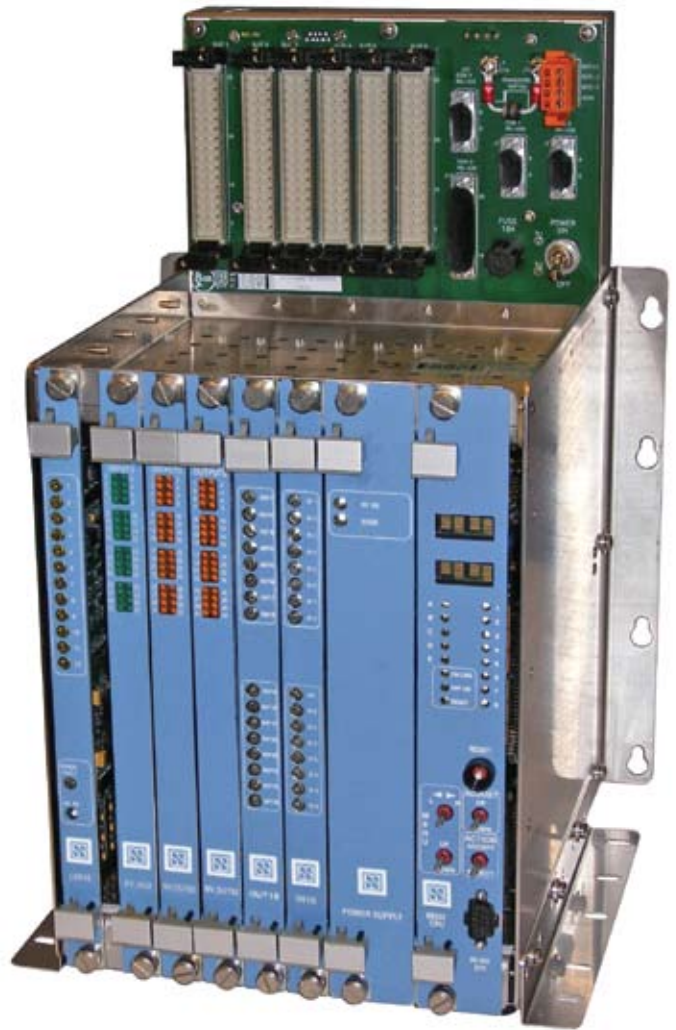
General Description

The MicroLok II® HB is the next generation in the family of MicroLok II wayside control technology, filling the gap between the larger MicroLok II and the smaller MicroLok II Object Controller.

The MicroLok II HB uses all but one of the standard MicroLok II boards, simplifying spare part inventories. Maintenance is simplified with all electrical interfaces swapped out from the front. The MicroLok II HB can use any existing MicroLok II 48-pin cards, providing unparalleled versatility. Its built-in ports provide simple serial connections to the box, eliminating the cost of traditional CPU cabling. Its space-saving design offers the same full range of capabilities as the MicroLok II, but in a compact enclosure that fits into a standard wayside case for shelf or wall mounting.

How It Works

The MicroLok II HB's versatile, application-specific hardware configurations provide users with cost-effective and efficient solutions to performing key wayside functions, including:

- Vital control of wayside signals (color light signal lamps and searchlight signal mechanisms)
- Switch machine control and switch point position monitoring
- Switch lock position monitoring
- Mainline track circuits monitoring for occupancy indications and circuit problems such as a faulty insulated joint or broken rail (Microtrax or Ecode)

- PTC compliance with Microlok II VitalNet co-processor
- Through-the-rails communications to adjacent wayside control systems: Microtrax or Ecode
- Interlocking OS track circuit monitoring
- Cab signal carrier/code generation
- Line wire communications interfacing
- Local manual control of wayside signals and switch machines for maintenance and contingency operations
- Vital serial communications to compatible interlocking control and coded track circuit systems (protocol function of CPU software)
- Non-vital controller logic
- Non-vital (code line) communications to remote office

The MicroLok II HB's modular design enables each customer to configure a system to meet the specific control and interface requirements for their application. It uses familiar Boolean algebra for application control design logic that makes it an easy-to-use program for anyone with railway signaling familiarity.

The MicroLok II HB protects the safety of passengers and freight by verifying end-to-end rail integrity, including train detection, defective insulated joints or broken rail. It uses a radio link or other remote communication system in dark territories to provide advanced notification of track conditions to approaching trains. Users can control all signal types and drive relay or solid state outputs, with the ability to receive input from external sources.

Features

- Front-mounted cable design
- Compatible with all standard 48-pin MicroLok II connector/cable assemblies
- Uses all 48-pin MicroLok II Printed Circuit Boards (PCB), except 32-Channel Non-Vital I/O
- Optional Ethernet communications (N17006202)
- Fills the gap between full-size MicroLok II cardfiles and MicroLok II Object Controller
- Can be wall or shelf mounted

Benefits

- Smaller spare part inventories
- Simplified maintenance with front-mounted cabling
- Full range of MicroLok II capabilities in a versatile space-saving design

Ordering Information

MicroLok II HB – P/N – N18003901
Optional Ethernet communications – P/N - N17006202

Operating Specifications

Parameter	Value
System Power Source Voltage	+9.8 to +16.2VDC, Fuse Protected (10A) Minimum voltage required for system start is 11.2VDC
Power Connection	Four position WAGO connector on top panel of cardfile
Temperature Range	-40° C to +70° C
Humidity	0% to 95% non-condensing

Mechanical Specifications

Parameter	Value
Height	17.19 in. (43.7 cm)
Width	11.0 in. (27.9 cm)
Depth	11.0 in. (27.9 cm)
Material	Stainless steel
Weight	15 lb. (6.8 kg) for the assembled unit
Mounting	Wall or Shelf Mount, cardfile is equipped with mounting ears on the rear and bottom sides

	Standalone		Integrated	
	VitalNet 6	VitalNet 24	HB	HB2X
Switch Monitoring	X	X	X	X
Vital Aspect Monitoring	X	X		
Hazard Detector Monitoring	X	X	X	X
Vital Voltage detection	X	X	X	X
Vital Current Sensor	X	X		
Approach lighting	X	X	X	X
Interlocking Logic			X	X
Nb of inputs	6	24	up to 96	up to 224
MicroLok II board set and tool set			X	X
MicroTrax long distance track circuit			X	X
Ecode track circuit			X	X
Small footprint	X	X		
LED compatible (for search light replacement)			X	X
Integrated Data Recorder	X	X	X	X
Battery Monitoring or Analog input	X	X		
Temperature Input	X	X		

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