

Certificate No. NESAS048

Version No. 1.2

Approval date 18 August 2022

Approved by A/GM Technical Standards

This certificate is issued to

Supplier Hitachi Rail Australia Pty Ltd
11 Viola Place Eagle Farm
QLD 4009

In respect of

Manufacturer Hitachi Rail Australia Pty Ltd

Product description 'Hitachi Rail Australia Pty Ltd' Microlok II Interlocking System

Item identification See approved item list

Application ARTC Network wide

Relevant Standards SPS 02 Environmental Conditions
SPS 05 Electrical & Electronic Components (Ratings & Construction Requirements)
SCP 17 Computer-Based Interlocking Requirements
SCP 23 Design of Microlok Interlockings

Conditions of Approval

- For use in accordance with ARTC specification SCP23, SDS25 and standard typical circuits only.
- Only the latest approved version of the executive software, together with the associated development system software, may be used in new works installations.
- All cardfiles at a site (included in the same circuit book) shall use the same version of the executive software.
- Only components listed may be utilised.

A general condition of approval is that the supplier remains accredited to ISO 9001 specifically for these products and ARTC is advised on a 12 monthly basis that accreditation is current. ARTC reserves the right to conduct its own audit of the manufacture and supply of these components to AS 19011.

Any subsequent change to the design, materials or manufacturing process is not covered by this approval. The manufacturer should notify ARTC of any modification or changes in order to obtain a valid certificate.

Note/Comments

NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

Issue date 18/08/2022

Expiry date N/A

Issued by

Manager Signalling Standards ARTC

Approved Item List:

Catalogue No.	Revision	Component	Conditions of Use
Cards and Cardframes			
N16902101	Rev 0	System Cardfile	
N18003901	n/a	HB Cardfile	
N16905301		Split Cardfile	
#	Rev 3	Central Processing Unit Δ	Base board N17001301 ¶
N17061301	Rev 8		Base board N17003401. Ensure correct executive software version is loaded before installation.
N17002001	n/a	EEPROM	
N17061003	Rev 1	16 Vital Input (50V)	
N17061001	Rev 4	16 Vital Input (12V)	♣
N17060501	Rev 4	16 Vital Output (12V)	♣@
N17066801	n/a	16 Vital Output (12V)	
N17061601	Rev 5	8 Vital Output, 8 Vital Input (12V)	♣@ May only be used as the sole Vital Input and Output card in a cardfile.
N17060101	Rev 12	Vital Lamp Driver	@ May drive LED signals directly only with CPU running executive 8.00 or later.
N4519100701	Rev 7	Coded Track Circuit PCB	@ May be connected only to rails where no traction current flows.
N17061501	Rev 3	Non-vital Non-isolated Input & Output	♣@
N17062701	Rev 2	Non-vital Isolated Output	@
N17063701	Rev 2	Non-vital Isolated Input	
N17061401	Rev 0	Code System Interface	For use with codeline EPROM: N4518000202 (U.S.& S. Genisys)
N16660301	Rev 4	Power Supply 3A at 5v DC.	@ Input voltage 9.8v to 16.2v DC.

NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

Catalogue No.	Revision	Component	Conditions of Use
N16661203	Rev 1	Power Supply 5A at 5v DC.	@ Input voltage 9.8v to 32.0v DC. May be used to replace existing N1660301.
N17006202	n/a	Serial-To-Ethernet Converter PCB	Use with N18003901 (HB Cardfile)
N17003101	n/a	48-pin Address Select PCB	
Software / Tools			
#	Rev 3.2	Executive	¶
#	Rev 3.4		¶
#	Rev 4.01		¶
N4512321701	Rev 5.10		¶
N8001010830	Rev 8.30		
N8001010873	Rev 8.73		§
#	Rev 3.4		Reverse Compiler
N4512321776	Rev 4.00	Use when altering executive 4.01 sites.	
N4512321773	Rev 4.01	Development System	Use when altering executive 4.01 sites.
N4512321774			Two diskettes & CD-ROM.
N4512321777	Rev 1.0	Application Logic Comparison Tool	Use when altering executive 4.01 sites.
N4513231781	Rev 5.10	Development System. Incorporates Reverse Compiler and Logic Comparison Tool	Use when altering executive 5.10 sites. Supports Microtrax boards.
N8001020830	Rev 8.30		Development Version
N8001020860	Rev 8.67		
N8001030830	Rev 8.30		Maintainer Version
N8001030860	Rev 8.67		
N4512321772	Rev 4.01	Maintenance Tool (Monitor)	
SM-6800A, SM-6800B, SM-6800C, SM-6800D	Rev 2.5 or later	System Documentation	
SM-8584			Addendum to SM-6800C

NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

Catalogue No.	Revision	Component	Conditions of Use
ML2-RS-006		Platform Safety Application Guideline	
Ancillary Hardware			
N4518350101	Rev 11	Coded Track Interface Panel	For use with Microtrax equipment.
N322500701	Rev 35	Vital Relay, PN-150B	For use as VCOR
N4513760302	n/a	PN-150B Base	Relay approval also covered in Microlok I & Microtrax approvals.
M4511422702	n/a	PN-150B Contact Springs	
N322505701	n/a	Vital cut-off Relay PN-150 HD	
N17001102	Rev 3	Isolation Module (50v)	Requires minimum 15v power supply to ensure adequate output voltage.
N4518502902	n/a	Blanking Panel, Single Slot	
N4518502901	n/a	Blanking Panel, Double Slot	
N4518502903	n/a	Blanking Panel, Triple Slot	

- Number no longer in catalogue; U.S.& S. will advise correct ordering information if required for maintenance replacements.

¶ - Approved for existing installations only.

♣ - All input/output circuits must run entirely within a single location.

@ - All output circuits shall be wired through a suitable disconnect terminal.

Δ - One unused serial interface to be made available on suitable terminals or connector.

§ - Catalogue No. N8001010001 refers to the latest production executive software release, which may not be ARTC approved.