



AUSTRALIAN RAIL TRACK CORPORATION

INFRASTRUCTURE, STRATEGY AND PERFORMANCE

Engineering Standards and Documents

The following recommendation, together with the attached supporting documentation, has been considered at the ARTC Safety Committee Meeting held on 14th November 2005.

Documents:

Ref No:	08-08-10-013 - Systems & Equipment Approval
Subject:	'Phoenix' Wiring Terminals and Fuse Holders
Dated:	9 th November 2005.

Prepared By: Arthur Haberlin, Signalling Engineer

Endorsed by: Trevor Moore, Signalling Standards Engineer

Items Considered for Approval:

Manufacturer:	Phoenix Contact GmbH & Co. KG
Product:	Wiring Terminals and Fuse Holders
Item Identification:	See item list Ref No: 08-0509-003a

The items in the form presented at the review date were approved for System & Equipment Approval to be used on all ARTC jurisdictions in accordance with the manufacturers published performance criteria and subject to the following.

Relevant ARTC Specifications:

Ref. No.	Title	Status	Date
SPS 02	Environmental Conditions	Issue1 Revision 2	May '05
SCP 20	Installation of Equipment Racks & Termination of Cables and Wiring	Issue 1 Revision 2	March '05
SC 02 01	Installation of Equipment Racks & Termination of Cables and Wiring	Issue 1 Revision 2	March '05
SCP 04	Solderless Terminals, Screw and Spring Clamp Terminal Blocks	Issue 1 Revision 3	May '05

Specific Conditions of Approval:

- i.** For use in accordance with standard typical circuits only.
- ii.** Only components from list reference **08-0509-003a** may be utilised.
- iii.** The selection of the type of terminal to be applied in each instance should be determined by the standards applicable to the circuit being terminated.
- iv.** Manufacturers current, voltage and environmental specifications shall exceed the relevant ARTC specification limits for the service and location in which the terminals are to be installed.
- v.** Wiring to be terminated shall be of a material and cross sectional area which are within the manufacturers specifications for the terminal type to be installed.
- vi.** Individual Wiring Terminals and Fuse Holder type selection shall conform to the typical circuit and construction drawings applicable to the service and location. The reasons for the selection of a particular terminal type shall be documented in the design submission.
- vii.** Replacement of existing terminals and/or extension of existing terminal bars for similar circuit types, where the existing enclosure is unaltered, may utilise the same terminal types as those previously installed.

Certificate Issued to:

Phoenix Contact Pty. Ltd.
130-140 Parraweena Road
Taren Point
N.S.W. 2229

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 19011:2003.

Any subsequent change to the design, materials or manufacturing process is not covered by this approval.

Approved for use in the ARTC.

APPROVAL No: 08-08-10-013

John Cowie
Manager Standards & Systems



AUSTRALIAN RAIL TRACK CORPORATION LTD

Ref No: 08-0509-003a

Date: 16th September 2005

System & Equipment Approval

Subject: 'Phoenix' Wiring Terminals and Fuse Holders

The following lists the individual types (by catalogue number) of Wiring Terminals and Fuse Holders manufactured by Phoenix Contact GmbH & Co. KG which are approved for use in signalling circuits on ARTC infrastructure under System & Equipment Approval Certificate **08-08-10-013** subject only to any conditions shown on that Certificate and the Conditions of Use shown against individual types.

Catalogue No.	Mounting Rail	Terminal Type	Conditions of Use
Feed Through Terminals			
13 02 01 1 #	DIN 32	K4	
13 02 07 9 #	DIN 32	K4/E	Only to be used individually.
13 03 01 0 #	DIN 32	K10	
13 03 07 8 #	DIN 32	K10/E	Only to be used individually.
13 04 01 9 #	DIN 32	K16	
13 04 07 7 #	DIN 32	K16/E	Only to be used individually.
30 01 01 9 #	DIN 32/35	UK 2.5	May not be used to terminate external cables.
30 03 01 7 ¶	DIN 32/35	UK 4	
30 04 36 2	DIN 32/35	UK 5 N	
30 05 01 5 ¶	DIN 32/35	UK 10	
30 05 07 3	DIN 32/35	UK 10 N	
30 06 01 4 #	DIN 32/35	UK 16	
30 06 04 3	DIN 32/35	UK 16 N	
30 07 01 3 ¶	DIN 32/35	UK 25	
30 08 01 2	DIN 32/35	UK 35	



AUSTRALIAN RAIL TRACK CORPORATION LTD

Catalogue No.	Mounting Rail	Terminal Type	Conditions of Use
Heavy Duty Feed Through			
30 10 01 3	DIN 32/35	UKH 95	Minimum Conductor 25mm ² .
30 10 11 0	DIN 32/35	UKH 150	Minimum Conductor 35mm ² .
30 10 21 7	DIN 32/35	UKH 240	Minimum Conductor 95mm ² .
21 30 20 8 ¶	DIN 32/35	UHV 25 M8/M8	
21 30 21 1 ¶	DIN 32/35	UHV 50 M10/M10	
21 30 22 4 ¶	DIN 32/35	UHV 95 M12/M12	
21 30 23 7 ¶	DIN 32/35	UHV 150 M12/M12	

- Old catalogue number, approved for use from spares stock only.

¶ - Old catalogue number available on extended lead time.