



AUSTRALIAN RAIL TRACK CORPORATION

INFRASTRUCTURE, STRATEGY AND PERFORMANCE

Engineering Standards and Documents

The following recommendation, together with attached supporting documentation, has been considered by the Manager Standards on 24th September 2007.

Documents:

Ref No:	08-08-10-078 Equipment Type Approval
Subject:	'MRD Rail Technologies' Earth Leakage Detector
Dated:	23 rd August 2007.

Prepared By: Arthur Haberlin, Signal Engineer - Equipment

Endorsed by: Trevor Moore, Signal Standards Engineer

Items Considered for Approval:

Manufacturer:	MRD Rail Technologies, Brisbane Queensland.
Product:	Earth Leakage Detectors.
Item Identification:	See list 05-0703-050a .

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 01	Standard Requirements for Signalling Electronic Systems	Issue 1 Revision 3	May '05
SPS 02	Environmental Conditions	Issue 1 Revision 2	May '05
SPS 05	Electrical & Electronic Components (Ratings & Construction Requirements)	Issue 1 Revision 3	May '05
SC 07 01	Signalling Power Systems	Issue 1 Revision 0	March '05

Specific Conditions of Approval:

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| <ul style="list-style-type: none">i. Rack mounted identification label shall indicate which polarity is connected to BUS1 and BUS2.ii. Not suitable for mounting in metal equipment cupboards (location cases) without specific temperature control features.iii. For use in accordance with ARTC specification SDS 25 and standard typical circuits only.iv. Only components from list 05-0703-050a may be utilised.v. Ongoing quality audits of the manufacturer's production and distribution systems to confirm procedures are adequate to maintain ARTC quality requirements shall be undertaken. |
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Certificate Issued to:

MRD Rail Technologies Pty Ltd 235 South Street Cleveland Queensland 4163

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.



John Furness
Manager Standards

APPROVAL No: 08-08-10-078

Approval Date: **24th September 2007.**



AUSTRALIAN RAIL TRACK CORPORATION LTD

Ref No: 05-0703- 050a

Date: 27th August 2007

Systems & Equipment Approval

Subject: 'MRD Rail Technologies' Earth Leakage Detectors.

The following lists the individual models (by catalogue number) of Earth Leakage Detectors by MRD Rail Technologies which are approved for use in signalling installations on ARTC infrastructure under Systems & Equipment Approval Certificate 08-08-10-078 subject only to any conditions shown on that Certificate and the Conditions of Use shown against individual types.

Model No.	Supply Voltage	Description	Conditions of Use
ELD-AC	110/120 V AC 50 Hz	AC only busbar monitoring.	♣ Busbar voltage 0 to 650V r.m.s.AC only. One fault indication only.
ELD-AC/DC	110/120 V AC 50 Hz	AC or DC busbar monitoring.	♣ Busbar voltage 0 to 650V r.m.s.AC or DC.
ELD-AC/DC-12	9-18 V DC	AC or DC busbar monitoring.	♣ Busbar voltage 0 to 650V r.m.s.AC or DC.
ELDAC/DC- AUTO-110	110/120 V AC 50 Hz	AC or DC busbar monitoring.	DIN rail mounting. Busbar voltage 0 to 650V r.m.s.AC & 8 to 60V DC.
ELDAC/DC- AUTO-12	9-18 V DC	AC or DC busbar monitoring.	DIN rail mounting. Busbar voltage 0 to 650V r.m.s.AC & 8 to 60V DC.
ELDAC/DC-PMB	n/a	Panel Mounting Bracket	For mounting ELDAC/DC- AUTO within a Q-relay style frame.

♣ Units in use are approved for continued use or recovery and re-installation, not to be purchased new.