



AUSTRALIAN RAIL TRACK CORPORATION

STANDARDS and SYSTEMS

Engineering Standards and Documents

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

Documents:

Ref No:	08-08-10-075 Equipment Type Approval
Subject:	'Crompton Greaves' QBCA1 12v Miniature Plug-in Relays
Dated:	12 th July 2007.

Prepared By: Arthur Haberlin, Signal Engineer - Equipment
Endorsed by: Trevor Moore, Signal Standards Engineer

Items Considered for Approval:

Manufacturer:	Crompton Greaves, Signalling Division, Dhar, India
Product:	Miniature Plug-in Safety Relay.
Item Identification:	Specification No.: QBCA1 - 4842072, Pin Code (BRB): ABCKS, Description - :QBCA1 - 2HF/4F/4B Contact & (Coil) 12v DC Configuration:

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	Issue 1 Revision 2	May '05
SPS 10	Specification Relays, Plug-in Vital	Issue 1 Revision 3	May '05

Specific Conditions of Approval:

- i.** Each relay shall successfully undergo an additional type specific acceptance testing by the Importer in Australia with a copy of the individual test certificate supplied to ARTC. The test certificate shall reference both the Factory and the Importer test results together with the individual testers' references.
- ii.** Especial care shall be exercised when inserting relays into a base drilled for a non-'Network Rail' pin code (pins positions S, T, X, Y or Z drilled) to ensure that the correct relay type is utilised.
- iii.** For use in accordance with ARTC specification SDS 25 – 'Circuit Design Standards' and standard typical circuits only.
- iv.** This item should be considered as included in list **01-0611-034a** attached to type approval ref: **08-08-10-044** dated 2nd February 2007.

Certificate Issued to:

Selectrix International Pty. Ltd.
2 Merchant Avenue
Thomastown
Melbourne
Victoria 3074

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: 08-08-10-075

Approval Date: **24th December 2007**

This certificate ~~Supersedes~~, ~~Supplements~~, ~~Suspends~~ prior approval number 08-08-10-044 which remains valid.