

NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

Certificate No. TAC 08-08-10-100

Approval date 23/11/2018
Approved by GM Technical Standards
Report no. RIC Predecessor Approval
Report date n/a

This certificate is issued to

Signal Maintenance Engineer Akhil Chopra

In respect of

Manufacturer Elf Electronics
Product description **Cerberus Level Crossing Monitor – V4**
Item identification Cerberus level crossing monitor – V4
Application Limited approval – restricted to 26 sites on the Portland Line, Victoria
Relevant Standards ESD-03-01 Level Crossing Design
 ESC-03-01 Level Crossing Equipment
 SPS 05 Electrical & Components (Ratings & Construction Requirements)
 EST-20-01 Signals Standards and Equipment Training Courses
 ESC-09-02 Lightning and Surge Protection Requirements
 SMS-02 Cerberus Level Crossing Monitoring Equipment
 ESI-05-01N Level Crossing Monitor - Hardware Reset

Conditions of Approval

General	<ol style="list-style-type: none"> For use in accordance with ARTC specifications and typical circuits only. Only items on the Approved Items List shall be used in designs for ARTC or actually installed on the ARTC network. Project Engineers and Third Party Contractors shall inform the supplier Elf Electronics that the equipment is to be used on the ARTC network when placing the order.
Supplier	<ol style="list-style-type: none"> All documentation from the supplier supporting this system shall be in English. All diagnostic systems, support systems and tools associated with the Product shall display all information in English. The Supplier shall submit to ARTC any updates to the support documents listed in Table 3 The supplier grants to ARTC the permission to publish the documents on the ARTC Engineering Extranet so that those signals staff internal and external involved in supporting the system may reference the information. The Supplier remains accredited to ISO 9001 specifically for these products. The Supplier advises ARTC on a 12 monthly basis that

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	<p>the ISO 9001 accreditation is current. ARTC reserves the right to conduct its own audit of the manufacture and supply of these components to AS 19011.</p> <p>8. Any subsequent change to the design, materials or manufacturing process of the product is not covered by this approval. The Supplier shall notify ARTC of any modification or changes in order to obtain a valid updated type approval certificate.</p> <p>9. All items shall be fitted with a readily visible label stating the Manufacturer/Supplier, Product group, item name, revision level, serial number, date of manufacturer and manufacturer's identification product number.</p>
<p>Signal Designers</p>	<p>10. Any individual working with or designing a system of the product for the ARTC network shall have completed the respective endorsed training course. The individual shall have the product on their statement of competency for design with a level 2 or shall work under appropriate mentorship and supervision.</p> <p>11. All designs for application on the ARTC network shall be in accordance with the relevant ARTC engineering and signalling standards.</p> <p>12. All details and settings for the design shall be included in the circuit sheets.</p>
<p>Signal Maintenance, Installation & Testing</p>	<p>13. Any individual working with the product on the ARTC network shall have completed the respective endorsed training course. The individual shall have the product on their statement of competency for maintain and/or install and/or test with a level 2 or shall work under appropriate mentorship and supervision.</p> <p>14. There are no field serviceable components within the units. Any failed units shall be replaced. Units shall only be repaired and overhauled by certified workshops.</p>

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 updated certificate. This may require the submission of a Product Information Pack in accordance with AS7702 for the changed product.

Note/Comments Applies for all active level crossings sites in NSW.
For Victoria - 26 sites on the Portland Line only.

Issue date 26 November 2018 **Expiry date** n/a

Issued by  **John Furness**
ARTC Manager Standards