DOCUMENT CHANGE REQUEST

DCR number 130	Changes required for: N/A	Originator: Philippe Baviere
Date: 2004/07/01	Date sent: 2004/07/01	Organisation: CNES
Status: IMPLEMENTED		

Title:	Relays Electromagnetic Non-Latching 28Vdc 10A 2PDT		
Number:	3601/001	Issue:	1

Other documents affected:

3601/003-2, 3601/004-1, 3601/007-2, 3601/009-1, 3601/012-2, 3602/001-1, 3602/003-3, 3602/004-1, 3602/005-2, 3602/006-1, 3602/009-2, 3602/010-2, 3602/014-1, 3602/019-1

Page:

para 4.3.3 Terminal strength in each specification

Paragraph:

para 4.3.3 Terminal strength in each specification

Original wording:

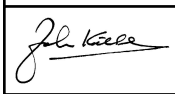
Proposed wording:

Summary:
- Direction & Duration requirements are deleted for the Pull test (so that the defualt condition of: along the lead axis; with 5 to 10 sec duration applies).
- Some applied force values are modified for the Pull Test (to make consistent between specs based on the lead diameter)
- Some minor editorial changes are included

See attached mark-up pages for details in each specification.

Justification:

Standardisation within the ESCC specifications for all similar relay types (with crystal can package) in line with the default MIL STD 202 method 211 Test condition A, Pull Test method, plus consistency in the test conditions applied.
Editorial changes are included for the purposes of consistency, clarification, and deletion of redundant information.

Attachments:
130att.pdf, null
Modifications:
N/A
Approval signature:

Date signed:
2004-07-01

4.3 MECHANICAL REQUIREMENTS

4.3.1 Dimension Check

The dimensions of the relays specified herein shall be verified in accordance with the requirements set out in Para. 9.23 of ESA/SCC Generic Specification No. 3601 and shall conform to those shown in Figure 2.

4.3.2 Weight

The maximum weight of the relays specified herein shall be 41 grammes.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESA/SCC Generic Specification No. 3601. The test conditions shall be as follows:-

Pull Test

Applied Force: 50 Newtons.

~~Duration: 15 to 30 seconds.~~

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

Copper nickel, welded construction, Sn/Pb plated. Neither electro-deposited tin nor any paint shall be used.

4.4.2 Terminal Material and Finish

The terminal material shall be Type 'H' with Type '4' finish in accordance with the requirements of ESA/SCC Basic Specification No. 23500.

4.5 MARKING

4.5.1 General

The marking of components delivered to this specification shall be in accordance with the requirements of ESA/SCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accommodate all of the marking specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked and the order of precedence, shall be as follows:-

(a) Terminal Identification.

(b) The SCC Component Number.

(c) Electrical Characteristics.

(d) Traceability Information.

4.5.2 Terminal Identification

Terminal identification shall be marked on the relay in accordance with Figure 3.

4.3 MECHANICAL REQUIREMENTS

4.3.1 Dimension Check

The dimensions of the relays specified herein shall be verified in accordance with the requirements set out in Para. 9.23 of ESCC Generic Specification No. 3601 and shall conform to those shown in Figure 2.

4.3.2 Weight

The maximum weight of the relays specified herein shall be 8.5 grammes.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESCC Generic Specification No. 3601. The test conditions shall be as follows:-

Pull Test

* Applied Force: ~~14.4~~ 15 Newtons.

* ~~Duration: 10 seconds.~~

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

Copper nickel, welded construction. Electro-deposited tin shall not be used. EP 90/10 SnPb alloy may be used.

4.4.2 Terminal Material and Finish

The lead material shall be Type 'F' with Type '3' finish in accordance with the requirements of ESCC Basic Specification No. 23500.

4.5 MARKING

4.5.1 General

The marking of components delivered to this specification shall be in accordance with the requirements of ESCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accommodate all of the marking specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked and the order of precedence, shall be as follows:-

(a) Terminal Identification.

(b) The ESCC Component Number.

(c) Electrical Characteristics.

(d) Traceability Information.

4.5.2 Terminal Identification

Terminal identification shall be marked on the relay can in accordance with Figure 3.

3. TERMS, DEFINITIONS, ABBREVIATIONS, SYMBOLS AND UNITS

For the purpose of this specification, the terms, definitions, abbreviations, symbols and units specified in ESA/SCC Basic Specification No. 21300 shall apply.

4. REQUIREMENTS

4.1 GENERAL

The complete requirements for procurement of the relays specified herein are stated in this specification and ESA/SCC Generic Specification No. 3601 for Electromagnetic Non-Latching Relays. Deviations from the Generic Specification, applicable to this specification only, are listed in Para. 4.2.

Deviations from the applicable Generic Specification and this Detail Specification, formally agreed with specific Manufacturers on the basis that the alternative requirements are equivalent to the ESA/SCC requirements and do not affect the component's reliability, are listed in the Appendices attached to this specification.

4.2 DEVIATIONS FROM GENERIC SPECIFICATION

4.2.1 Deviations from Final Production Tests (Chart II)

None.

4.2.2 Deviations from Screening Tests (Chart III)

None.

4.2.3 Deviations from Environmental and Endurance Tests (Charts IV and V)

(a) Para. 9.11, Shock: Test condition 'I'.

(b) Para. 9.12.2, Overload, inductive: Not applicable.

(c) Para. 9.19.2, Low level load: Not applicable.

4.3 MECHANICAL REQUIREMENTS

4.3.1 Dimension Check

The dimensions of the relays specified herein shall be checked. They shall conform to those shown in Figure 2.

4.3.2 Weight

The maximum weight of the relays specified herein shall be 33 grammes.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESA/SCC Generic Specification No. 3601. The test conditions shall be as follows:-

* Pull Test

Applied Force : 50N.

* ~~Duration : 15 to 30 seconds~~.

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.3 MECHANICAL REQUIREMENTS

4.3.1 Dimension Check

The dimensions of the relays specified herein shall be verified in accordance with the requirements set out in Para. 9.23 of ESCC Generic Specification No. 3601 and shall conform to those shown in Figure 2.

4.3.2 Weight

The maximum weight of the relays specified herein shall be 41 grammes.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESCC Generic Specification No. 3601. The test conditions shall be as follows:-

Pull Test

Applied Force: 50 Newtons.

~~Duration: 15 to 30 seconds.~~ *

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

Copper nickel, welded construction, Sn/Pb plated. Neither electro-deposited tin nor any paint shall be used.

4.4.2 Terminal Material and Finish

The terminal material shall be Type 'H' with Type '3 or 4' finish in accordance with the requirements of ESCC Basic Specification No. 23500.

4.5 MARKING

4.5.1 General

The marking of components delivered to this specification shall be in accordance with the requirements of ESCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accommodate all of the marking specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked and the order of precedence, shall be as follows:-

(a) Terminal Identification.

(b) The ESCC Component Number.

(c) Electrical Characteristics.

(d) Traceability Information.

4.5.2 Terminal Identification

Terminal identification shall be marked on the relay can in accordance with Figure 3.

4.3 MECHANICAL REQUIREMENTS

4.3.1 Dimension Check

The dimensions of the relays specified herein shall be verified in accordance with the requirements set out in Para 9.23 of ESA/SCC Generic Specification No. 3601 and shall conform to those shown in Figure 2.

4.3.2 Weight

The maximum weight of the relays specified herein shall be 82 grammes.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESA/SCC Generic Specification No. 3601. The test conditions shall be as follows:-

Pull Test

Applied Force: 50 Newtons minimum for terminal diameter greater than 1.2mm.
25 Newtons minimum for terminal diameter equal to or smaller than 1.2mm.

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

Copper nickel, welded construction. Neither electro-deposited tin nor any paint shall be used.

4.4.2 Terminal Material and Finish

The terminal material shall be Type 'H' with Type '3 or 4' finish in accordance with the requirements of ESA/SCC Basic Specification No. 23500.

4.5 MARKING

4.5.1 General

The marking of components delivered to this specification shall be in accordance with the requirements of ESA/SCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accommodate all of the marking specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked and the order of precedence, shall be as follows:-

(a) Terminal Identification.

(b) The SCC Component Number.

(c) Electrical Characteristics.

(d) Traceability Information.

4.5.2 Terminal Identification

Terminal identification shall be marked on the relay can in accordance with Figure 3.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESCC Generic Specification No. 3601. The test conditions shall be as follows:-

(a) Pull Test

Applied Force: 10 Newtons.

* ~~Duration: 10 seconds.~~

(b) Bend Test

* Load: 5 ~~5.0~~ Newtons.

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

The case material shall be copper nickel, hermetically sealed.

4.4.2 Terminal Material and Finish

The terminal material shall be Type 'D' with Type '3' finish in accordance with the requirements of ESCC Basic Specification No. 23500.

4.5 MARKING

4.5.1 General

The marking of all components delivered to this specification shall be in accordance with the requirements of ESCC Basic Specification No. 21700. Each component shall be marked in respect of:-

(a) Terminal Identification.

(b) The ESCC Component Number.

(c) Electrical Characteristics.

(d) Traceability Information.

4.5.2 Terminal Identification

Terminal identification shall be marked on the relay in accordance with Figure 3.

4.5.3 The ESCC Component Number

Each component shall bear the ESCC Component Number which shall be constituted and marked as follows:

360101202B

Detail Specification Number

Type Variant (see Table 1(a))

Testing Level

4.3.2 Weight

The maximum weight of the relays specified herein shall be 46 grammes.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESA/SCC Generic Specification No. 3602. The test conditions shall be as follows:-

* Pull Test

Applied Force: 50 Newtons for 1.6mm diameter terminals.
15 Newtons for 0.7mm diameter terminals.

* ~~Duration: 15 to 60 seconds.~~

* ~~Any direction: 45 ± 5° from normal axis of terminal.~~

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

Copper nickel, welded construction, Sn/Pb plated. Neither electro-deposited tin nor any paint shall be used.

4.4.2 Terminal Material and Finish

The terminal material shall be Type 'H' with Type '4' finish in accordance with the requirements of ESA/SCC Basic Specification No. 23500.

4.4.3 Gaskets

Silicone material.

4.5 MARKING

4.5.1 General

The marking of all components delivered to this specification shall be in accordance with the requirements of ESA/SCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accomodate all of the marking specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked and the order of precedence, shall be as follows:-

(a) Terminal Identification.

(b) The SCC Component Number.

(c) Electrical Characteristics.

(d) Traceability Information.

4.5.2 Terminal Identification

Terminal identification shall be marked on the relay in accordance with Figure 3.

4.3 MECHANICAL REQUIREMENTS

4.3.1 Dimension Check

The dimensions of the relays specified herein shall be verified in accordance with the requirements set out in Para. 9.5 of ESCC Generic Specification No. 3602 and shall conform to those shown in Figure 2.

4.3.2 Weight

The maximum weight of the relays specified herein shall be 8.5 grammes.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESCC Generic Specification No. 3602. The test conditions shall be as follows:-

Pull Test

Applied Force: ~~14 ± 1.4~~ 15 Newtons.

~~Duration: 10 seconds.~~

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

Copper nickel, welded construction. Electro-deposited tin shall not be used. EP 90/10 SnPb alloy may be used.

4.4.2 Terminal Material and Finish

The terminal material shall be Type 'H' with Type '3' finish in accordance with the requirements of ESCC Basic Specification No. 23500.

4.5 MARKING

4.5.1 General

The marking of all components delivered to this specification shall be in accordance with the requirements of ESCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accomodate all of the marking specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked and the order of precedence, shall be as follows:-

(a) Terminal Identification.

(b) The ESCC Component Number.

(c) Electrical Characteristics.

(d) Traceability Information.

4.5.2 Terminal Identification

Terminal identification shall be marked on the relay can in accordance with Figure 3.

4.3 MECHANICAL REQUIREMENTS

4.3.1 Dimension Check

The dimensions of the relays specified herein shall be verified in accordance with the requirements set out in Para 9.5 of ESA/SCC Generic Specification No. 3602 and shall conform to those shown in Figure 2.

4.3.2 Weight

The maximum weight of the relays specified herein shall be 80 grammes.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESA/SCC Generic Specification No. 3602. The test conditions shall be as follows:-

Pull Test

* Applied Force: 50 Newtons ~~minimum~~.

* ~~Duration: 5 seconds minimum.~~

* ~~Para's 9.17.2 and 9.17.3 are not applicable.~~

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

Copper nickel, welded construction, Sn/Pb plated. Neither electro-deposited tin nor any paint shall be used.

4.4.2 Terminal Material and Finish

The terminal material shall be Type 'H' with Type '3 or 4' finish in accordance with the requirements of ESA/SCC Basic Specification No. 23500.

4.5 MARKING

4.5.1 General

The marking of all components delivered to this specification shall be in accordance with the requirements of ESA/SCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accomodate all of the marking specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked and the order of precedence, shall be as follows:-

(a) Terminal Identification.

(b) The SCC Component Number.

(c) Electrical Characteristic.

(d) Traceability Information.

4.5.2 Terminal Identification

Terminal identification shall be marked on the relay can in accordance with Figure 3.

4.3.2 Weight

The maximum weight of the relays specified herein shall be 41.5 grammes.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESCC Generic Specification No. 3602. The test conditions shall be as follows:-

Pull Test

Applied Force: 50 ~~45~~ Newtons.

~~Duration: 10 to 15 seconds.~~

~~Direction: Normal axis of terminal.~~

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

Copper nickel, welded construction. Electro-deposited tin shall not be used. EP 90/10 SnPb alloy may be used.

4.4.2 Terminal Material and Finish

The terminal material shall be Type 'H' with Type '3' finish in accordance with the requirements of ESCC Basic Specification No. 23500.

4.5 MARKING

4.5.1 General

The marking of all components delivered to this specification shall be in accordance with the requirements of ESCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accomodate all of the marking specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked and the order of precedence, shall be as follows:-

(a) Lead Identification.

(b) The ESCC Component Number.

(c) Electrical Characteristics.

(d) Traceability Information.

4.5.2 Terminal Identification

Terminal identification shall be marked on the relay can in accordance with Figure 3.

4.3 MECHANICAL REQUIREMENTS

4.3.1 Dimension Check

The dimensions of the relays specified herein shall be verified in accordance with the requirements set out in Para 9.5 of ESA/SCC Generic Specification No. 3602 and shall conform to those shown in Figure 2.

4.3.2 Weight

The maximum weight of the relays specified herein shall be 82 grammes.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESA/SCC Generic Specification No. 3602. The test conditions shall be as follows:-

Pull Test

* Applied Force: 50 Newtons ~~minimum~~ for terminal diameter greater than 1.2mm.
25 Newtons ~~minimum~~ for terminal diameter equal to or smaller than 1.2mm.

* ~~Duration: 5 seconds minimum~~

* ~~Para's 9.17.2 and 9.17.3 are not applicable.~~

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

Copper nickel, welded construction. Neither electro-deposited tin nor any paint shall be used.

4.4.2 Terminal Material and Finish

The terminal material shall be Type 'H' with Type '3 or 4' finish in accordance with the requirements of ESA/SCC Basic Specification No. 23500.

4.5 MARKING

4.5.1 General

The marking of all components delivered to this specification shall be in accordance with the requirements of ESA/SCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accomodate all of the marking specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked and the order of precedence, shall be as follows:-

(a) Terminal Identification.
(b) The SCC Component Number.
(c) Electrical Characteristics.
(d) Traceability Information.

4.5.2 Terminal Identification

Terminal identification shall be marked on the relay can in accordance with Figure 3.

4.3 MECHANICAL REQUIREMENTS

4.3.1 Dimension Check

The dimensions of the relays specified herein shall be verified in accordance with the requirements set out in Para 9.5 of ESA/SCC Generic Specification No. 3602 and shall conform to those shown in Figure 2.

4.3.2 Weight

The maximum weight of the relays specified herein shall be 46 grammes.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESA/SCC Generic Specification No. 3602. The test conditions shall be as follows:-

Pull Test

* Applied Force: 50 Newtons minimum for 1.6mm diameter terminals.
15 Newtons minimum for 0.7mm diameter terminals.

* ~~Duration: 5 seconds minimum~~

* ~~Para's 9.17.2 and 9.17.3 are not applicable.~~

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

Copper nickel, welded construction, Sn/Pb plated. Neither electro-deposited tin nor any paint shall be used.

4.4.2 Terminal Material and Finish

The terminal material shall be Type 'H' with Type '3 or 4' finish in accordance with the requirements of ESA/SCC Basic Specification No. 23500.

4.5 MARKING

4.5.1 General

The marking of all components delivered to this specification shall be in accordance with the requirements of ESA/SCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accomodate all of the marking specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked and the order of precedence, shall be as follows:-

(a) Terminal Identification.
(b) The SCC Component Number.
(c) Electrical Characteristics.
(d) Traceability Information.

4.5.2 Terminal Identification

Terminal identification shall be marked on the relay can in accordance with Figure 3.

4.3 MECHANICAL REQUIREMENTS

4.3.1 Dimension Check

The dimensions of the relays specified herein shall be verified in accordance with the requirements set out in Para. 9.5 of ESCC Generic Specification No. 3602 and shall conform to those shown in Figure 2.

4.3.2 Weight

The maximum weight of the relays specified herein shall be 8.5 grammes.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESCC Generic Specification No. 3602. The test conditions shall be as follows:-

Pull Test 15

* Applied Force: 1~~±1.4~~ Newtons.

* ~~Duration: 10 seconds.~~

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

Copper nickel, welded construction. Electro-deposited tin shall not be used. EP 90/10 SnPb alloy may be used.

4.4.2 Terminal Material and Finish

The terminal material shall be Type 'H' with Type '3' finish in accordance with the requirements of ESCC Basic Specification No. 23500. (See Table 1(a) for Type Variants).

4.5 MARKING

4.5.1 General

The marking of all components delivered to this specification shall be in accordance with the requirements of ESCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accomodate all of the marking specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked and the order of precedence, shall be as follows:-

(a) Terminal Identification.

(b) The ESCC Component Number.

(c) Electrical Characteristics.

(d) Traceability Information.

4.5.2 Terminal Identification

Terminal identification shall be marked on the relay can in accordance with Figure 3.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESA/SCC Generic Specification No. 3602. The test conditions shall be as follows:-

(a) **Pull Test**

Applied Force: 15 Newtons for hook terminals .
50 Newtons for mounting studs (Variant 01 only).
160 Newtons for main contact terminals.

~~Duration: 5 to 10 seconds.~~

~~Para's 9.17.2 and 9.17.3 are not applicable, but a torque test shall be performed in both directions on main contact terminals and mounting studs with the following conditions:~~

Applied Torque: 0.65 Nm for mounting studs (Variant 01 only).
1.5 Nm for main contact terminals.

~~Duration: 5 to 15 seconds.~~

(b) Torque Test
In accordance with MIL-STD-202 Method 211 Test Condition E.

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

Copper nickel, welded construction, Sn/Pb plated. Neither electro-deposited tin nor any paint shall be used.

4.4.2 Terminal Material and Finish

For auxiliary contacts, the terminal material shall be Type 'H', with Type '3' finish and for main contacts the terminal material shall be Type 'O' both in accordance with the requirements of ESA/SCC Basic Specification No. 23500.

Main contacts studs shall be equipped with stainless steel nuts and beryllium copper washers, both silver plated.

4.4.3 Mounting Studs (Variant 01 only)

Mounting studs shall be made of Fe-Ni alloy.

4.5 MARKING

4.5.1 General

The marking of all components delivered to this specification shall be in accordance with the requirements of ESA/SCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accomodate all of the marking specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked and the order of precedence, shall be as follows:-

(a) Terminal Identification.
(b) The SCC Component Number.
(c) Electrical Characteristics.
(d) Traceability Information.

4.3.3 Terminal Strength

The requirements for terminal strength testing are specified in Section 9 of ESA/SCC Generic Specification No. 3602. The test conditions shall be as follows:-

(a) Pull Test

Applied Force: 10 Newtons.

~~Duration: 10 seconds.~~

(b) Bend Test

Load: 5 Newtons.

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the relays specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

The case material shall be copper nickel, hermetically sealed.

4.4.2 Terminal Material and Finish

The terminal material shall be Type 'D' with Type '3' finish in accordance with the requirements of ESA/SCC Basic Specification No. 23500.

4.5 MARKING

4.5.1 General

The marking of all components delivered to this specification shall be in accordance with the requirements of ESA/SCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accomodate all of the marking specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked and the order of precedence, shall be as follows:-

(a) Terminal Identification.

(b) The SCC Component Number.

(c) Electrical Characteristics.

(d) Traceability Information.

4.5.2 Terminal Identification

Terminal identification shall be marked on the relay can in accordance with Figure 3.