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Pages 1 to 24

RELAYS, ELECTROMAGNETIC, NON-LATCHING

28Vdc, 2A, 2PDT, HALF-SIZE CRYSTAL CAN

ESA/SCC Detail Specification No. 3601/003



**space components
coordination group**

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DOCUMENTATION CHANGE NOTICE

Rev. Letter	Rev. Date	Reference	CHANGE Item	Approved DCR No.
		This issue supersedes Issue 5 and incorporates all modifications defined in the following DCR's:-		
		Cover page		None
		DCN		None
		Table 1(b)	: Nos. 3 and 5, Note 1 reference added	221164
			: Nos. 7 and 8, "amb" added to Symbol	23701
			: No. 9, in Remarks, Note reference amended to "2"	23701
			: New Note 1 added	221164
			: Existing Note 1 renumbered as "2"	23701
		Figures 2	: Colour reference bead added	23701
			: Symbols amended	23701
		Para. 4.2.4 & 4.2.5	: Para. 9.11 deviation retitled as "Mechanical Shock"	23701
			: Para. 9.12.2 deviation deleted in toto	23701
		Para. 4.3.1	: In text, "Para. 9.5" amended to "9.23"	23701
		Para. 4.3.3	: "Pull Test" added above Conditions	23701
		Para. 4.5.1	: Existing text deleted and new text added	23701
		Para. 4.5.4	: In first column, "6Vdc" deleted from the second level	23701
		Para. 4.6.1	: Text completed	23701
		Tables 2, 3, 4	: Title of 4th column and column details amended	23701
		Figure 4	: Figure 4 entry added	23701
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		Figure 5(a)	: Figure 5(a) entry added	23701
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		Para. 4.8	: Title amended	23701
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		P2. DCN		None
		P12. Figure 2(f)	: In the Table, dimension 'M max.' amended	221570
		P19. Table 2	: No. 9 Limits for 12V2 and 6V2 amended	221569
'B'	Jan. '01	P1. Cover page	: Title amended	221599
		P2. DCN		None
		P5. Para. 1.1	: 2nd line text amended	221599
		P6. Table 1(b)	: No. 1, Symbol amended	221599
			: No. 2, Characteristics, Symbol and Maximum Ratings amended	221599

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FIGURES

1	Not applicable	N/A
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4	Circuits for Electrical Measurements	N/A
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APPENDICES (Applicable to specific Manufacturers only)

None.

**1. GENERAL****1.1 SCOPE**

This specification details the ratings, physical and electrical characteristics, test and inspection data for a Relay, Electromagnetic, Non-Latching, 28Vdc, 2A, 2PDT, in a half-size crystal can. It shall be read in conjunction with ESA/SCC Generic Specification No. 3601, the requirements of which are supplemented herein.

1.2 COMPONENT TYPE VARIANTS

Variants of the basic type relays specified herein, which are also covered by this specification, are given in Table 1(a).

1.3 MAXIMUM RATINGS

The maximum ratings, which shall not be exceeded at any time during use or storage, applicable to the relays specified herein, are as scheduled in Table 1(b).

1.4 PARAMETER DERATING INFORMATION (FIGURE 1)

Not applicable.

1.5 PHYSICAL DIMENSIONS

The physical dimensions of the relays specified herein are shown in Figure 2.

1.6 CIRCUIT SCHEMATIC

The circuit schematic, showing lead identification etc. for the relays specified herein, is shown in Figure 3.

2. APPLICABLE DOCUMENTS

The following documents form part of this specification and shall be read in conjunction with it:-

- (a) ESA/SCC Generic Specification No. 3601 for Relays, Electromagnetic, Non-latching.
- (b) MIL-STD-202, Test Methods for Electronic and Electrical Component Parts.

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.

**SCC**ESA/SCC Detail Specification
No. 3601/003

Rev. 'B'

PAGE 6
ISSUE 6**TABLE 1(a) - TYPE VARIANTS**

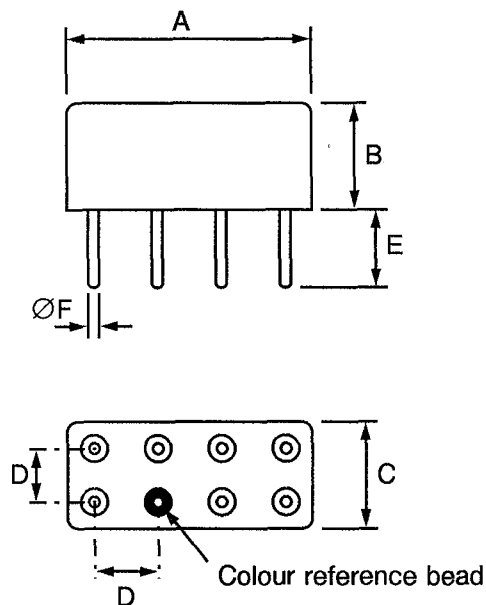
VARIANT	DESCRIPTION	FIGURE
01	Relay with Plug-in Terminals and Plain Case	2(a)
02	Relay with Plug-in Terminals and Horizontal Shoulder Brackets	2(b)
03	Relay with Solderable Hook-end Terminals and Vertical Shoulder Brackets	2(c)
04	Relay with Plug-in Terminals and Vertical Shoulder Brackets	2(d)
05	Relay with Solderable Hook-end Terminals and Plain Case	2(e)
06	Relay with Solderable Hook-end Terminals and Horizontal Shoulder Brackets	2(f)
07	Relay with Plug-in Terminals and Horizontal Shoulder Brackets (4 Holes)	2(g)
08	Relay with Solderable Hook-end Terminals and Horizontal Shoulder Brackets (4 Holes)	2(h)

TABLE 1(b) - MAXIMUM RATINGS

No.	CHARACTERISTICS	SYMBOL	MAXIMUM RATING	UNIT	REMARKS
1	Rated Coil Voltage:- 26V 12V 6V	V_{CR}	26.5 12 6.0	Vdc	
2	Coil Voltage Range:- 26V 12V 6V	V_{CR}	25 to 32 11 to 15 5.5 to 7.5	Vdc	
3	Rated Contact Current Resistive Load	I_{CR}	2.0	A	28Vdc resistive Note 1
4	Overload Current Resistive	I_{overl}	4.0	A	28Vdc resistive See Table 6
5	Rated Contact Current Inductive Load	I_{CL}	0.4	A	28Vdc inductive Inductance 0.32 Henry Note 1
6	Contact Resistance	R_C	50	m Ω	
7	High Temperature	T_{amb}	+ 125	$^{\circ}C$	
8	Low Temperature	T_{amb}	- 65	$^{\circ}C$	
9	Soldering Temperature	T_{sol}	+ 260	$^{\circ}C$	Note 2

NOTES

- Relays should not be used in change over-mode where the potential difference between stationary contacts is greater than 10V and the switched current is greater than 0.1A.
- Duration 10 seconds maximum at a distance of not less than 3.0mm from the device body and the same lead shall not be resoldered until 3 minutes have elapsed.

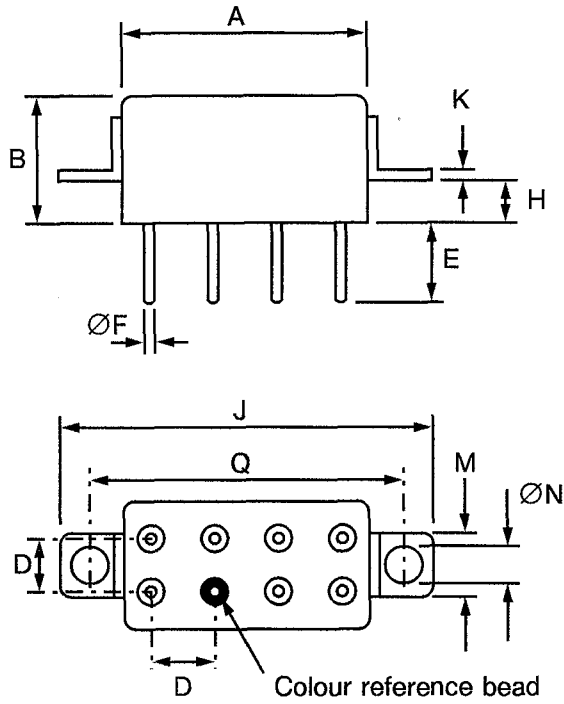
FIGURE 2 - PHYSICAL DIMENSIONS
FIGURE 2(a) - VARIANT 01, RELAY WITH PLUG-IN TERMINALS AND PLAIN CASE


SYMBOL	MILLIMETRES	
	MIN.	MAX.
A	-	20.57
B	-	10.41
C	-	10.41
D	4.98	5.18
E	4.24	5.33
ØF	0.66	0.86



FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

FIGURE 2(b) - VARIANT 02, RELAY WITH PLUG-IN TERMINALS AND HORIZONTAL SHOULDER BRACKETS

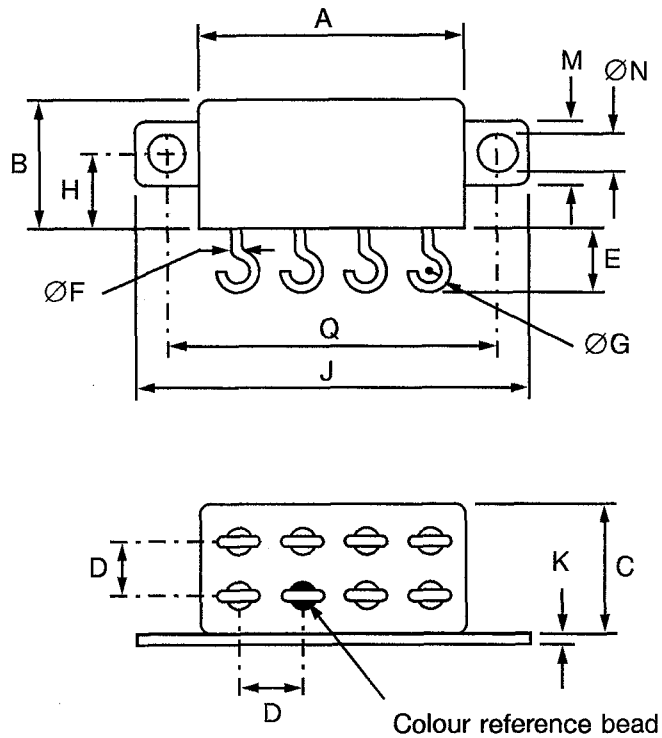


SYMBOL	MILLIMETRES	
	MIN.	MAX.
A	-	20.57
B	-	10.41
D	4.98	5.18
E	4.24	5.33
ØF	0.66	0.86
H	3.05	3.30
J	-	32.90
K	0.51	0.76
M	6.22	8.10
ØN	3.00	3.55
Q	26.60	27.40



FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

FIGURE 2(c) - VARIANT 03, RELAY WITH SOLDERABLE HOOK-END TERMINALS AND VERTICAL SHOULDER BRACKETS

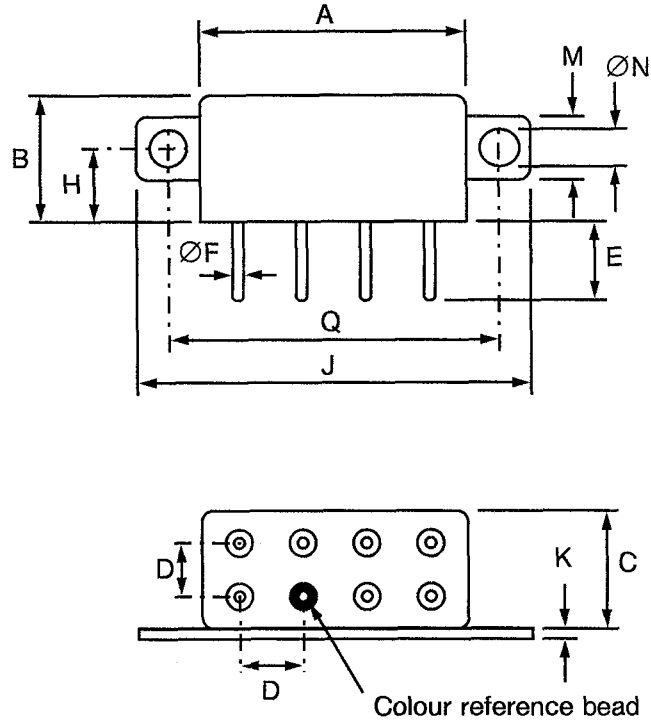


SYMBOL	MILLIMETRES	
	MIN.	MAX.
A	-	20.57
B	-	10.41
C	-	10.41
D	4.98	5.18
E	4.11	4.83
ØF	0.66	0.86
ØG	-	1.80
H	5.97	6.73
J	-	32.64
K	0.38	0.80
M	5.22	8.00
ØN	3.00	3.55
Q	26.80	27.20



FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

FIGURE 2(d) - VARIANT 04, RELAY WITH PLUG-IN TERMINALS AND VERTICAL SHOULDER BRACKETS

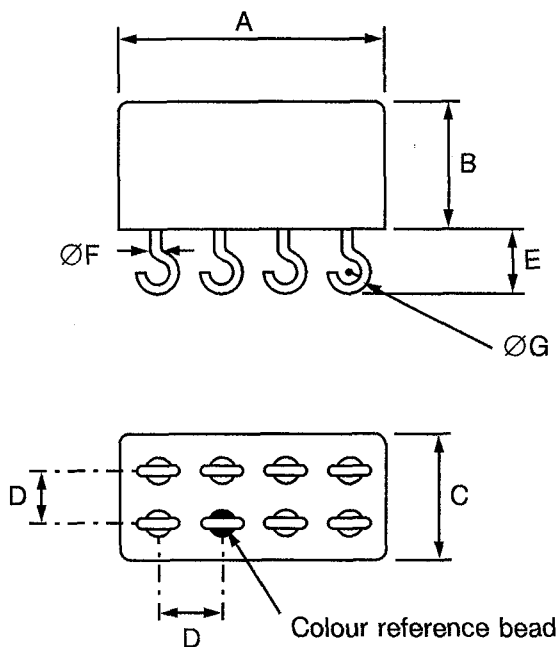


SYMBOL	MILLIMETRES	
	MIN.	MAX.
A	-	20.57
B	-	10.41
C	-	10.41
D	4.98	5.18
E	4.24	5.33
ØF	0.66	0.86
H	5.97	6.73
J	-	32.64
K	0.38	0.80
M	6.22	8.00
ØN	3.00	3.55
Q	26.80	27.20



FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

FIGURE 2(e) - VARIANT 05, RELAY WITH SOLDERABLE HOOK-END TERMINALS AND PLAIN CASE

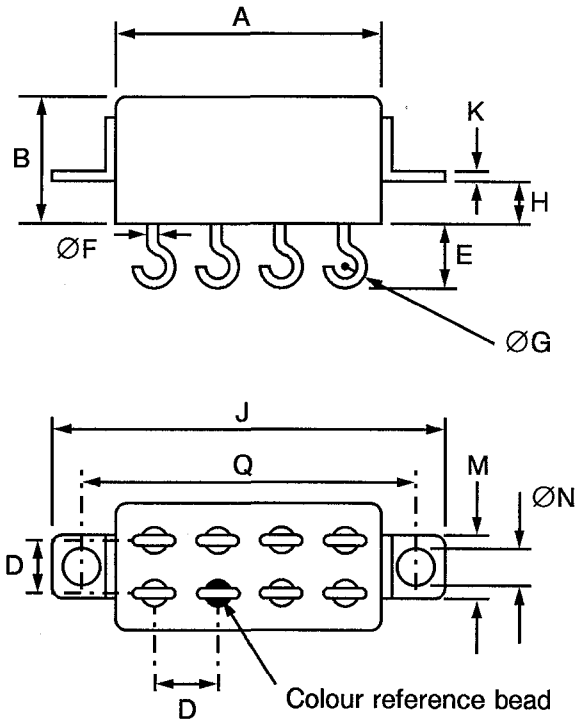


SYMBOL	MILLIMETRES	
	MIN.	MAX.
A	-	20.57
B	-	10.41
C	-	10.41
D	4.98	5.18
E	4.11	4.83
ØF	0.66	0.86
ØG	-	1.80



FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

FIGURE 2(f) - VARIANT 06, RELAY WITH SOLDERABLE HOOK-END TERMINALS AND HORIZONTAL SHOULDER BRACKETS

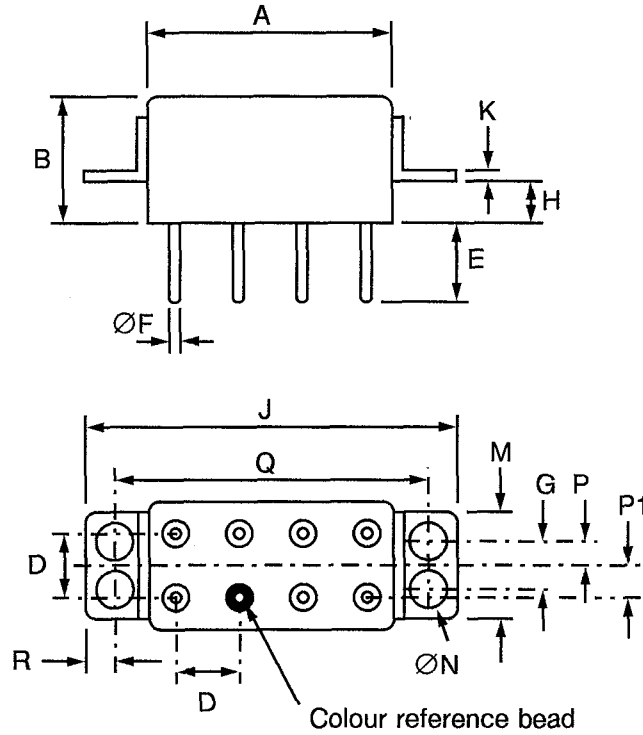


SYMBOL	MILLIMETRES	
	MIN.	MAX.
A	-	20.57
B	-	10.41
D	4.98	5.18
E	4.11	4.83
ØF	0.66	0.86
ØG	-	1.80
H	3.05	3.30
J	-	32.90
K	0.51	0.76
M	6.22	8.10
ØN	3.00	3.55
Q	26.60	27.40



FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

FIGURE 2(g) - VARIANT 07, RELAY WITH PLUG-IN TERMINALS AND HORIZONTAL SHOULDER BRACKETS (4 HOLES)

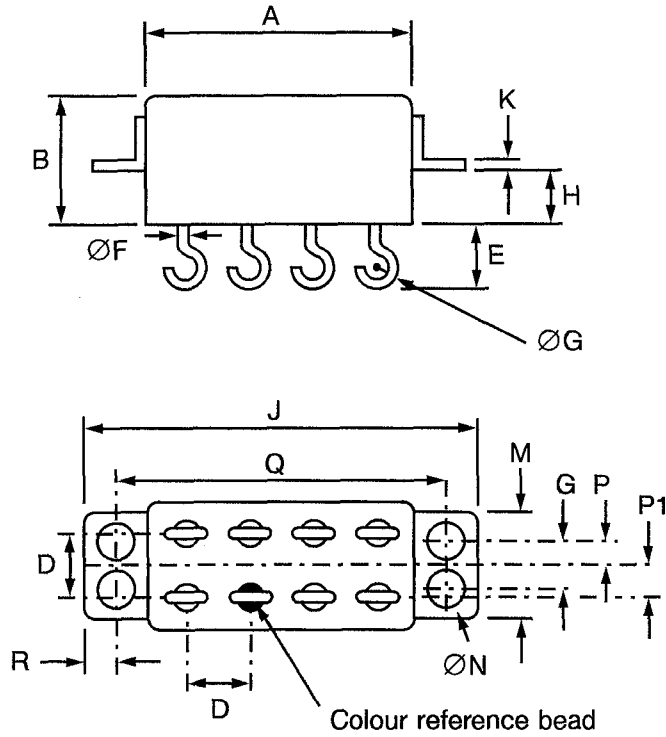


SYMBOL	MILLIMETRES	
	MIN.	MAX.
A	-	20.30
B	-	10.40
D	5.00	5.20
E	4.80	5.30
ØF	0.66	0.86
G	3.10	3.30
H	3.10	3.30
J	29.80	30.00
K	0.50	0.80
M	9.30	9.70
ØN	2.20	2.60
P	1.50	1.70
P1	2.40	2.70
Q	25.30	25.50
R	2.20	2.40



FIGURE 2 - PHYSICAL DIMENSIONS (CONTINUED)

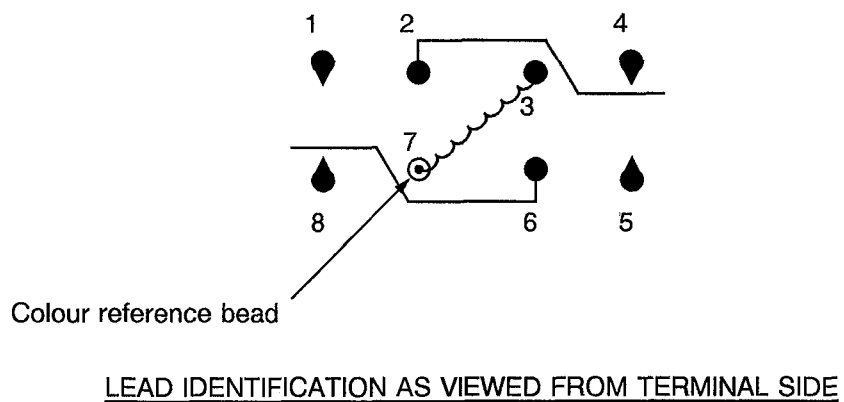
FIGURE 2(h) - VARIANT 08, RELAY WITH SOLDERABLE HOOK-END TERMINALS AND HORIZONTAL SHOULDER BRACKETS (4 HOLES)



SYMBOL	MILLIMETRES	
	MIN.	MAX.
A	-	20.30
B	-	10.40
D	5.00	5.20
E	4.10	4.80
ØF	0.64	0.89
G	3.10	3.30
ØG	1.70	1.90
H	3.10	3.30
J	29.80	30.00
K	0.50	0.80
M	9.30	9.70
ØN	2.20	2.60
P	1.50	1.70
Q	25.30	25.50
R	2.20	2.40



FIGURE 3 - CIRCUIT SCHEMATIC



NOTES

1. Numbers are for information only.

**4. REQUIREMENTS****4.1 GENERAL**

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

Deviations from the applicable Generic Specifications 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 components' reliability, are listed in the appendices attached to this specification.

4.2 DEVIATIONS FROM GENERIC SPECIFICATION**4.2.1 Deviations from Special In-process Controls**

None.

4.2.2 Deviations from Final Production Tests (Chart II)

None.

4.2.3 Deviations from Screening Tests (Chart III)

- (a) Para. 9.6, Vibration Scan, Level and Frequency Range:-
30g: 10 - 2000Hz.
20g: 2000 - 3000Hz.

4.2.4 Deviations from Qualification Tests (Chart IV)

- (a) Para. 9.10, Vibration, Level and Frequency Range:-
30g: 10 - 2000Hz.
20g: 2000 - 3000Hz.
- (b) Para. 9.11, Mechanical Shock: Test Condition 'A'.

4.2.5 Deviations from Lot Acceptance Tests (Chart V)

- (a) Para. 9.10, Vibration, Level and Frequency Range:-
30g: 10 - 2000Hz.
20g: 2000 - 3000Hz.
- (b) Para. 9.11, Mechanical Shock: Test Condition 'A'.



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 8.5 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: 14 ± 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 lead material shall be Type 'F' 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 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.

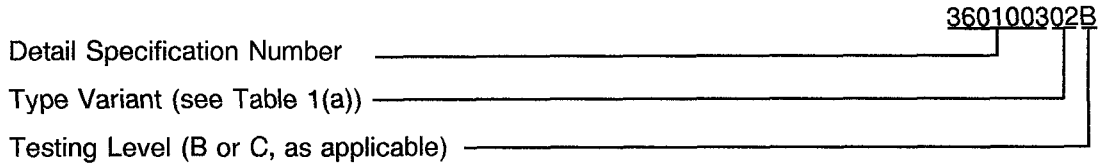
4.5.2 Terminal Identification

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



4.5.3 The SCC Component Number

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



4.5.4 Electrical Characteristics

The electrical characteristic to be marked is the rated coil voltage. The information shall be constituted and marked as follows:-

Coil Voltage	Coil Resistance	Code
26.5Vdc	900Ω	26V1
	700Ω	26V2
12Vdc	190Ω	12V1
	150Ω	12V2
6Vdc	50Ω	6V1
	37Ω	6V2

4.5.5 Traceability Information

Each component shall be marked in respect of traceability information as defined in ESA/SCC Basic Specification No. 21700.

4.6 ELECTRICAL MEASUREMENTS

4.6.1 Electrical Measurements at Room Temperature

The parameters to be measured at room temperature are scheduled in Table 2. Unless otherwise specified, the measurements shall be performed at $T_{amb} = +22 \pm 3 \text{ }^\circ\text{C}$.

4.6.2 Electrical Measurements at High and Low Temperatures

The parameters to be measured at high and low temperatures are scheduled in Table 3.

4.6.3 Circuits for Electrical Measurements (Figure 4)

Not applicable.

4.7 SCREENING

4.7.1 Miss Test

During the miss test, the contact resistance shall be continuously monitored and shall not exceed the values specified in Table 4.

4.7.2 Conditions for Screening

The requirements for screening are specified in Section 7 of ESA/SCC Generic Specification No. 3601. The conditions for screening shall be as specified in Table 5(a) of this specification.

4.7.3 Electrical Circuits for Screening (Figure 5(a))

Not applicable.

**TABLE 2 - ELECTRICAL MEASUREMENTS AT ROOM TEMPERATURE**

No.	CHARACTERISTICS	SYMBOL	ESA/SCC 3601 TEST METHOD	TEST CONDITION	LIMITS		UNIT
					MIN.	MAX.	
1	Pick-up Voltage:- 26V, 1 and 2 12V, 1 and 2 6V, 1 and 2	U_C	Para. 9.3.1	Para. 9.3.1	- - -	13.5 6.8 3.2	V
2	Drop-out Voltage:- 26V, 1 and 2 12V, 1 and 2 6V, 1 and 2	U_d	Para. 9.3.2	Para. 9.3.2	1.5 0.7 0.35	6.5 3.5 1.6	V
3	Operating Time	t_C	Para. 9.3.4	Para. 9.3.4	-	4.0	ms
4	Release Time	t_d	Para. 9.3.4	Para. 9.3.4	-	4.0	ms
5	Bounce Time	t_b	Para. 9.3.4	Para. 9.3.4	-	2.0	ms
6	Insulation Resistance	R_i	Para. 9.3.7	Para. 9.3.7 at 100Vdc	10 000	-	$M\Omega$
7	Voltage Proof	VP	Para. 9.3.6	Para. 9.3.6 Note 1	1 000	-	Vrms
8	Contact Voltage Drop	V_d	Para. 9.3.3	Para. 9.3.3	-	5.0	mV
9	Coil Resistance:- 26V2 12V2 6V2	R_B	Para. 9.3.5	Para. 9.3.5	630 135 33	770 165 41	Ω
	26V1 12V1 6V1				810 170 45	990 210 55	

NOTES

1. 500V between coil and case - between open contacts.

TABLE 3 - ELECTRICAL MEASUREMENTS AT HIGH AND LOW TEMPERATURES

No.	CHARACTERISTICS	SYMBOL	ESA/SCC 3601 TEST METHOD	TEST CONDITION	LIMITS		UNIT
					MIN.	MAX.	
1	Pick-up Voltage:- 26V, 1 and 2 12V, 1 and 2 6V, 1 and 2	U_C	Para. 9.3.1	Para. 9.3.1	- - -	18.0 8.4 4.4	V
2	Drop-out Voltage:- 26V, 1 and 2 12V, 1 and 2 6V, 1 and 2	U_d	Para. 9.3.2	Para. 9.3.2	1.0 0.6 0.3	- - -	V
3	Operating Time	t_C	Para. 9.3.4	Para. 9.3.4	1.0	4.0	ms
4	Release Time	t_d	Para. 9.3.4	Para. 9.3.4	-	4.0	ms
5	Bounce Time	t_b	Para. 9.3.4	Para. 9.3.4	-	2.0	ms
6	Insulation Resistance	R_i	Para. 9.3.7	Para. 9.3.7 at 100Vdc Note 1	100	-	MΩ

NOTES

1. This measurement shall be made only at the high temperature condition.

FIGURE 4 - CIRCUITS FOR ELECTRICAL MEASUREMENTS

Not applicable.

TABLE 4 - MEASUREMENTS DURING SCREENING

No.	CHARACTERISTICS	SYMBOL	ESA/SCC 3601 TEST METHOD	TEST CONDITIONS	MAXIMUM LIMIT	UNIT
10	Miss Test, Contact Resistance	R_C	Para. 9.8	Para. 9.8	100	Ω

TABLE 5(a) - CONDITIONS FOR SCREENING

No.	CHARACTERISTICS	SYMBOL	CONDITION	UNIT
1	Ambient High Temperature	T_{amb}	+ 125(+ 0 - 3)	$^{\circ}C$
2	Ambient Low Temperature	T_{amb}	- 65(+ 3 - 0)	$^{\circ}C$
3	Ambient Room Temperature	T_{amb}	+ 22 \pm 3	$^{\circ}C$

TABLE 5(b) - CONDITIONS FOR OPERATING LIFE TEST

No.	CHARACTERISTICS	SYMBOL	CONDITION	UNIT
1	Ambient High Temperature	T_{amb}	+ 125(+ 0 - 3)	$^{\circ}C$
2	Contact Load, Resistive	V I	28 2.0	Vdc Adc

FIGURE 5(a) - ELECTRICAL CIRCUITS FOR SCREENING

Not applicable.

FIGURE 5(b) - ELECTRICAL CIRCUITS FOR OPERATING LIFE TESTS

Not applicable.



4.8 ENVIRONMENTAL AND ENDURANCE TESTS (CHARTS IV AND V OF ESA/SCC GENERIC SPECIFICATION No. 3601)

4.8.1 Measurements and Inspections on Completion of Environmental Tests

The parameters to be measured and inspections to be performed on completion of environmental tests are scheduled in Table 6. Unless otherwise stated, the measurements shall be performed at $T_{amb} = +22 \pm 3$ °C.

4.8.2 Measurements and Inspections during Endurance Tests

The parameters to be measured and inspections to be performed during endurance tests are scheduled in Table 6. Unless otherwise stated, the measurements shall be performed at $T_{amb} = +22 \pm 3$ °C.

4.8.3 Measurements and Inspections on Completion of Endurance Tests

The parameters to be measured and inspections to be performed on completion of endurance tests are scheduled in Table 6. Unless otherwise stated, the measurements shall be performed at $T_{amb} = +22 \pm 3$ °C.

4.8.4 Conditions for Operating Life Tests (Part of Endurance Testing)

The requirements for operating life testing are specified in Section 9 of ESA/SCC Generic Specification No. 3601. The conditions for operating life testing shall be as specified in Table 5(b) of this specification.

4.8.5 Electrical Circuits for Operating Life Tests (Figure 5(b))

Not applicable.



TABLE 6 - MEASUREMENTS AND INSPECTIONS ON COMPLETION OF ENVIRONMENTAL TESTS AND AT INTERMEDIATE POINTS AND ON COMPLETION OF ENDURANCE TESTING

No.	ESA/SCC GENERIC SPEC. NO. 3601		MEASUREMENTS AND INSPECTIONS		SYMBOL	LIMITS		UNIT
	ENVIRONMENTAL AND ENDURANCE TESTS (1)	TEST METHOD AND CONDITIONS	IDENTIFICATION	CONDITIONS		MIN.	MAX.	
01	Vibration	Para. 9.10 and Para. 4.2.4 of this spec.	Measurements during Test Contact Monitoring Final Measurements Visual Examination	ESA/SCC 3601 Para. 9.10 -	- -	- -	- -	- -
02	Mechanical Shock	Para. 9.11 and Para. 4.2.4 of this spec.	Measurements during Test Contact Monitoring Final Measurements Electrical Measurements Visual Examination	ESA/SCC 3601 Para. 9.11 Table 2 Items 7-8-1-2 -	- -	- -	Table 2 -	- -
03	Overload	Para. 9.12 and Table 1(b) Item 4 of this spec.	Measurements during Test Contact Voltage Drop Final Measurements Fuse Continuity Contact Voltage Drop Insulation Resistance Voltage Proof (all Points) Electrical Measurements	ESA/SCC 3601 Para. 9.12.1 - Table 2 Item 8 Table 2 Item 6 Table 2 Item 7 Table 2 Items 1-2-3-4-5-9	V _d - V _d R _i VP	Para. 9.12.1 - 20 5000 -	Continuity Table 2 Table 2	mV mV MΩ Vrms
04	Thermal Shock	Para. 9.13	During 5th Cycle Electrical Measurements at +125°C Electrical Measurements at -65°C Final Measurements Visual Examination Voltage Proof (all Points)	In Conditioning Chamber Table 3 Items 1-2-3-4-7 Table 3 Items 1-2-3-4 - Table 2 Item 7	- - - VP	- -	Table 3 Table 3 Table 2	- - - Vrms
05	Salt Spray	Para. 9.14	Final Measurements Visual Examination Electrical Measurements Voltage Proof (all Points)	- Table 2 Items 1-2-3-4-5-6-8-9 Table 2 Item 7	- - VP	- -	Table 2 Table 2	- - Vrms
06	Intermediate Current	Para. 9.16	Measurements during Test Contact Voltage Drop Final Measurements Insulation Resistance Voltage Proof (all Points) Electrical Measurements Contact Voltage Drop	ESA/SCC 3601 Para. 9.16.1 Table 2 Item 6 Table 2 Item 7 Table 2 Items 1-2-3-4-5-9 ESA/SCC 3601 Para. 9.16.1	V _d - R _i VP V _d	Para. 9.16.1 - 5000 -	Table 2 Table 2 Table 2	mV MΩ Vrms mV
07	Terminal Strength	Para. 9.17 and Para. 4.3.3 of this spec.	Visual Examination	ESA/SCC 3601 Para. 9.17.3	-	-	-	-

NOTES

1. The tests in this table refer to either Chart IV or V and shall be used as applicable.



TABLE 6 - MEASUREMENTS AND INSPECTIONS ON COMPLETION OF ENVIRONMENTAL TESTS AND AT INTERMEDIATE POINTS AND ON COMPLETION OF ENDURANCE TESTING (CONT'D)

No.	ESA/SCC GENERIC SPEC. NO. 3601		MEASUREMENTS AND INSPECTIONS		SYMBOL	LIMITS		UNIT
	ENVIRONMENTAL AND ENDURANCE TESTS (1)	TEST METHOD AND CONDITIONS	IDENTIFICATION	CONDITIONS		MIN.	MAX.	
08	Resistance to Soldering Heat	Para. 9.18	Electrical Measurements	Table 2 Items 1-2-6-8-9		Table 2		
09	Operating Life Resistive	Para's 9.19, 9.19.1 and Table 5(b) of this spec.	Measurements during Test Contact Voltage Drop Final Measurements Fuse Continuity Contact Voltage Drop Insulation Resistance Voltage Proof (all Points) Electrical Measurements	ESA/SCC 3601 Para. 9.19.1 - Table 2 Item 8 Table 2 Item 6 Table 2 Item 7 Table 2 Items 1-2-3-4-5-9	V _d - V _d R _i VP	Para. 9.19.1 Continuity - 5000	20 - -	mV mV MΩ Vrms
10	Operating Life Low Level Load and Mechanical Life	Para. 9.19.2	Measurements during Test Contact Voltage Drop Final Measurements Contact Voltage Drop Insulation Resistance Voltage Proof (all Points) Electrical Measurements	ESA/SCC 3601 Para. 9.19.2 Table 2 Item 8 Table 2 Item 6 Table 2 Item 7 Table 2 Items 1-2-3-4-5-9	V _d V _d R _i VP	Para. 9.19.2 - 5000	10 -	mV mV MΩ Vrms
11	Coil Life	Para. 9.20	Initial Measurements Electrical Measurements After 100 hours Electrical Measurements at -65°C At 250, 500, 750 hours Electrical Measurements During Last Cycle Electrical Measurements at +125°C Electrical Measurements at -65°C Final Measurements Electrical Measurements Visual Examination	Table 2 Items 8-9 Table 2 Item 8 Table 3 Items 3-4 Table 2 Items 8-9 Table 3 Items 1-2 Table 3 Items 1-2 Table 2 Items 3 to 9		Table 2 Table 2 Table 3 Table 2 Table 3 Table 3 Table 2	- - - - -	- - - -

NOTES

1. The tests in this table refer to either Chart IV or V and shall be used as applicable.