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# RELAY, ELECTROMAGNETIC, NON-LATCHING, 28VDC, 2A, 2PDT, HALF-SIZE CRYSTAL CAN

ESCC Detail Specification No. 3601/003

Issue 7 March 2015



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No. 3601/003

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# ESCC Detail Specification

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# **DOCUMENTATION CHANGE NOTICE**

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DCR No.	CHANGE DESCRIPTION
892	Specification updated to incorporate technical changes per DCR.

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# 1 **GENERAL**

### 1.1 SCOPE

This specification details the ratings, physical and electrical characteristics, and test and inspection data for the component type variants and/or the range of components specified below. It supplements the requirements of, and shall be read in conjunction with, the ESCC Generic Specification listed under Applicable Documents.

# 1.2 APPLICABLE DOCUMENTS

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

(a) ESCC Generic Specification No. 3601.

# 1.3 TERMS, DEFINITIONS, ABBREVIATIONS, SYMBOLS AND UNITS

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

# 1.4 THE ESCC COMPONENT NUMBER AND COMPONENT TYPE VARIANTS

### 1.4.1 The ESCC Component Number

The ESCC Component Number shall be constituted as follows:

Example: 36010030126V1

- Detail Specification Reference: 3601003
- Component Type Variant Number: 01 (as required)
- Characteristic code: Rated Coil Voltage and Coil Resistance (26.5Vdc, 900Ω): 26V1 (as required)

# 1.4.1.1 Characteristics and/or Ratings Codes

Characteristics and/or ratings to be codified as part of the ESCC Component Number shall be as follows:

(a) The Rated Coil Voltage and Coil Resistance are expressed by means of the following codes:

Rated Coil Voltage	Coil Resistance	Code
(Vdc)	(Ω)	
26.5	900	26V1
26.5	700	26V2
12	190	12V1
12	150	12V2

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# 1.5 COMPONENT TYPE VARIANTS AND RANGE OF COMPONENTS

The component type variants and range of components applicable to this specification are as follows:

Variant Number	Case and Terminal Description (Note 1)	Coil Characteristics	Weight max (g)
01	Plain Case (No Mount) Solder Pin Terminals	Note 2	8.1
02	Raised Vertical Flange Mount Solder Pin Terminals	Note 2	8.8
03	Horizontal Flange Mount Solder Hook Terminals	Note 2	10
04	Horizontal Flange Mount Solder Pin Terminals	Note 2	9.7
05	Plain Case (No Mount) Solder Hook Terminals	Note 2	8.4
06	Raised Vertical Flange Mount Solder Hook Terminals	Note 2	9.1
09	Plain Case (No Mount) Long Solder Pin Terminals	Note 2	8.5

- 1. See Physical Dimensions and Terminal Identification.
- 2. The following Rated Coil Voltages and Coil Resistances are available and selectable for each Variant:

Rated Coil Voltage	Coil Resistance
26.5Vdc	900Ω
26.5Vdc	700Ω
12Vdc	190Ω
12Vdc	150Ω



# 1.6 MAXIMUM RATINGS

The maximum ratings shall not be exceeded at any time during use or storage.

Maximum ratings shall only be exceeded during testing to the extent specified in this specification and when stipulated in Test Methods and Procedures of the ESCC Generic Specification.

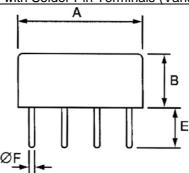
Characteristics	Symbols	Maximum Ratings	Units	Remarks
Coil Voltage Range	$V_{CR}$		Vdc	
		25 to 32		Rated Coil Voltage: 26.5Vdc
		11 to 15		Rated Coil Voltage: 12Vdc
Rated Resistive Load	I <sub>CR</sub>	2	Α	28Vdc resistive
Contact Current				Note 1
Rated Inductive Load	I <sub>CL</sub>	400	mΑ	28Vdc inductive
Contact Current				Inductance: 320mH
				Note 1
Overload Current	I <sub>OVERLOAD</sub>	4	Α	28Vdc resistive
Operating Temperature	T <sub>op</sub>	-65 to +125	°C	T <sub>amb</sub>
Range	·			
Storage Temperature Range	T <sub>stg</sub>	-65 to +125	°C	T <sub>amb</sub>
Soldering Temperature	T <sub>sol</sub>	+260	°C	Note 2

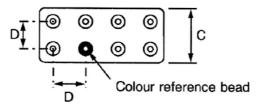
- 1. Relays should not be used in change-over mode where the potential difference between stationary contacts is greater than 10V and the switched current is greater than 100mA.
- 2. Duration 10 seconds maximum at a distance not less than 3mm from the device body. The same terminal shall not be resoldered until 3 minutes have elapsed.



#### 1.7 PHYSICAL DIMENSIONS AND TERMINAL IDENTIFICATION

#### Plain Case (No Mount) with Solder Pin Terminals (Variant 01) 1.7.1





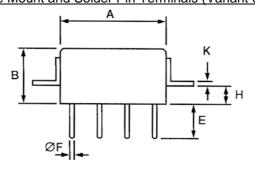
Symbols	Dimensions (mm)	
	Min	Max
Α	-	20.57
В	-	10.41
С	-	10.41
D	4.95	5.21
Е	4.24	5.4
ØF	0.66	0.86

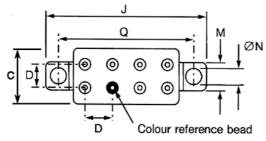
NOTES:

1. Terminal identification is specified by reference to the colour reference bead. See Functional



1.7.2 Raised Vertical Flange Mount and Solder Pin Terminals (Variant 02)





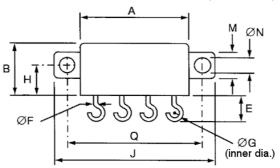
Symbols	Dimensions (mm)		
	Min	Max	
А	-	20.57	
В	-	10.41	
С	-	10.41	
D	4.95	5.21	
E	4.24	5.4	
ØF	0.66	0.86	
Н	3.1	3.3	
J	-	32.9	
K	0.5	0.8	
М	6.22	8.1	
ØN	3	3.55	
Q	26.6	27.4	

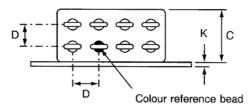
#### NOTES:

 Terminal identification is specified by reference to the colour reference bead. See Functional Diagram.



#### Horizontal Flange Mount and Solder Hook Terminals (Variant 03) 1.7.3



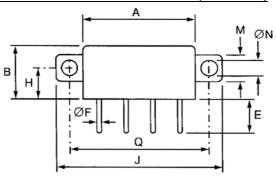


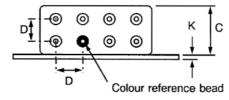
Symbols	Dimensions (mm)		
	Min	Max	
А	-	20.57	
В	-	10.41	
С	-	10.41	
D	4.95	5.21	
E	4.11	4.83	
ØF	0.66	0.86	
ØG	-	1.8	
Н	5.97	6.73	
J	-	32.64	
K	0.38	0.9	
M	6.22	8	
ØN	3	3.55	
Q	26.8	27.2	

NOTES: Terminal identification is specified by reference to the colour reference bead. See Functional Diagram.



# 1.7.4 <u>Horizontal Flange Mount and Solder Pin Terminals (Variant 04)</u>





Symbols	Dimensions (mm)		
	Min	Max	
Α	-	20.57	
В	-	10.41	
С	-	10.41	
D	4.95	5.21	
E	4.24	5.4	
ØF	0.66	0.86	
Н	5.97	6.73	
J	-	32.64	
K	0.38	0.9	
M	6.22	8	
ØN	3	3.55	
Q	26.8	27.2	

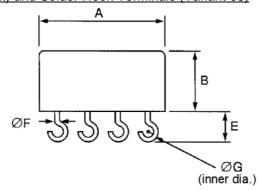
# **NOTES:**

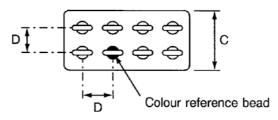
1. Terminal identification is specified by reference to the colour reference bead. See Functional Diagram.



1.7.5

Plain Case (No Mount) and Solder Hook Terminals (Variant 05)





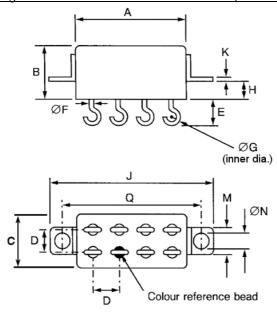
Symbols	Dimensions (mm)		
	Min	Max	
Α	-	20.57	
В	-	10.41	
С	-	10.41	
D	4.95	5.21	
E	4.11	4.83	
ØF	0.66	0.86	
ØG	-	1.8	

#### **NOTES:**

1. Terminal identification is specified by reference to the colour reference bead. See Functional Diagram.



#### 1.7.6 Raised Vertical Flange Mount and Solder Hook Terminals (Variant 06)

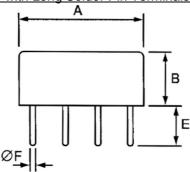


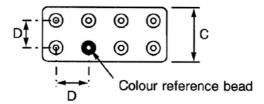
Symbols	Dimensions (mm)		
	Min	Max	
Α	-	20.57	
В	-	10.41	
С	-	10.41	
D	4.95	5.21	
E	4.11	4.83	
ØF	0.66	0.86	
ØG	-	1.8	
Н	3.1	3.3	
J	-	32.9	
K	0.5	0.8	
M	6.22	8.1	
ØN	3	3.55	
Q	26.6	27.4	

NOTES: Terminal identification is specified by reference to the colour reference bead. See Functional Diagram.



# 1.7.7 Plain Case (No Mount) with Long Solder Pin Terminals (Variant 09)





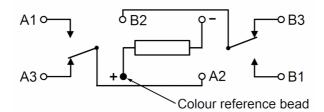
Symbols	Dimensions (mm)		
	Min	Max	
Α	-	20.57	
В	-	10.41	
С	-	10.41	
D	4.95	5.21	
Е	6.2	6.86	
ØF	0.66	0.86	

#### NOTES:

 Terminal identification is specified by reference to the colour reference bead. See Functional Diagram.



# 1.8 <u>FUNCTIONAL DIAGRAM</u>



#### NOTES:

- 1. As viewed from the terminal side with coil de-energised.
- 2. Individual terminal designations are for reference purposes only.

# 1.9 MATERIALS AND FINISHES

#### 1.9.1 Case

Copper nickel, hermetically sealed. Tin-lead alloy plating may be used.

### 1.9.2 Terminals

The lead material and finish shall by type D3, D4, F3 or F4 in accordance with the requirements of ESCC Basic Specification No. 23500.

# 2 REQUIREMENTS

# 2.1 GENERAL

The complete requirements for procurement of the components specified herein are as stated in this specification and the ESCC Generic Specification. Permitted deviations from the Generic Specification, applicable to this specification only, are listed below.

Permitted deviations from the Generic Specification and this Detail Specification, formally agreed with specific Manufacturers on the basis that the alternative requirements are equivalent to the ESCC requirement and do not affect the component's reliability, are listed in the appendices attached to this specification.

### 2.1.1 <u>Deviations from the Generic Specification</u>

None.

# 2.2 MARKING

The marking shall be in accordance with the requirements of ESCC Basic Specification No. 21700 and as follows.

The information to be marked on the component shall be:

- (a) The ESCC qualified components symbol (for ESCC qualified components only).
- (b) The ESCC Component Number.
- (c) Traceability information.



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# 2.3 TERMINAL STRENGTH

The test conditions for Terminal Strength, tested as specified in the ESCC Generic Specification, shall be as follows:

(a) Pull Test:

Applied Force: 15N

# 2.4 ELECTRICAL MEASUREMENTS AT ROOM, HIGH AND LOW TEMPERATURES

Electrical measurements shall be performed at room, high and low temperatures.

# 2.4.1 Room Temperature Electrical Measurements

The measurements shall be performed at  $T_{amb} = +22 \pm 3^{\circ}C$ .

Characteristics	Symbols	Test Method and	Rated Coil	Lir	nits	Units
		Conditions	Voltage (Vdc)	Min	Max	
Pick-up Voltage	U <sub>C</sub>	ESCC No. 3601				V
			26.5	-	13.5	
			12	-	6.8	
Drop-out Voltage	$U_{D}$	ESCC No. 3601				V
			26.5	1.5	6.5	
			12	0.7	3.5	
Operate Time	t <sub>C</sub>	ESCC No. 3601	All	-	4	ms
Release Time	t <sub>D</sub>	ESCC No. 3601	All	-	4	ms
Bounce Time	t <sub>B</sub>	ESCC No. 3601	All	-	2	ms
Insulation	Rı	ESCC No. 3601	All	10	-	GΩ
Resistance		$V_{TEST} = 100Vdc$				
Voltage Proof	VP	ESCC No. 3601	All	1000	-	Vrms
(Test Voltage)		Maximum Leakage		(Note 1)		
		Current $I_{LVP} = 1mA$		500	-	
				(Note 2)		
Voltage Proof	$I_{LVP}$	ESCC No. 3601	All	-	1	mA
Leakage Current		Note 3				
Contact Voltage	$V_D$	ESCC No. 3601	All	-	0.05 x I <sub>TEST</sub>	V
Drop		$I_{TEST} = 100 \text{mA max}$				
Coil Resistance	$R_B$	ESCC No. 3601				Ω
		Coil resistance = $900\Omega$	26.5	810	990	
		Coil resistance = $700\Omega$	26.5	630	770	
		Coil resistance = $190\Omega$	12	170	210	
		Coil resistance = $150\Omega$	12	135	165	

- 1. Points of application (1000V):
  - Between terminals (except coil) and case, coil de-energised.
  - Between terminals (except coil) and case, coil energised with Rated Coil Voltage.
  - Between coil and other terminals.
  - Between switching circuits, coil de-energised.
  - Between switching circuits, coil energised with Rated Coil Voltage.
- 2. Points of application (500V):
  - Between coil and case.
  - Between open contacts, coil de-energised.
  - Between open contacts, coil energised with Rated Coil Voltage.
- Measured during Voltage Proof test.



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# 2.4.2 <u>High and Low Temperatures Electrical Measurements</u>

Characteristics Symbols		Test Method and	Rated Coil	Limits		Units
		Conditions	Voltage (Vdc)	Min	Max	
Pick-up Voltage	U <sub>c</sub>	ESCC No. 3601 T <sub>amb</sub> = +125(+0 -5)°C and -65 (+5 -0)°C	26.5 12	-	19.8 9.9	V
Drop-out Voltage	U <sub>D</sub>	ESCC No. 3601 T <sub>amb</sub> = +125(+0 -5)°C and -65 (+5 -0)°C	26.5 12	1 0.6	14 6.5	V
Operate Time	t <sub>C</sub>	ESCC No. 3601 T <sub>amb</sub> = +125 (+0 -5)°C and -65 (+5 -0)°C	All	-	4	ms
Release Time	t <sub>D</sub>	ESCC No. 3601 T <sub>amb</sub> = +125 (+0 -5)°C and -65 (+5 -0)°C	All	-	4	ms
Bounce Time	t <sub>B</sub>	ESCC No. 3601 T <sub>amb</sub> = +125 (+0 -5)°C and -65 (+5 -0)°C	All	-	2	ms
Insulation Resistance	R <sub>I</sub>	ESCC No. 3601 T <sub>amb</sub> = +125 (+0 -5)°C V <sub>TEST</sub> = 100Vdc	All	100	-	МΩ
Contact Voltage Drop	V <sub>D</sub>	ESCC No. 3601 T <sub>amb</sub> = +125 (+0 -5)°C and -65 (+5 -0)°C I <sub>TEST</sub> = 100mA max	All	-	0.05 x I <sub>TEST</sub>	V

# 2.5 PARAMETER DRIFT VALUES

Parameter Drift Values shall be measured as specified in the ESCC Generic Specification.

Unless otherwise specified, the measurements shall be performed at  $T_{amb}$  = +22 ±3°C.

The test methods and test conditions shall be as per the corresponding test defined in Room Temperature Electrical Measurements.

The corresponding absolute limit values for each characteristic shall not be exceeded.

Characteristics	Symbols		Units		
		Drift Value	Absolute		
		Δ	Min	Max	
Pick-up Voltage	Uc	Note 1	Note 2	Note 2	V
Drop-out Voltage	U <sub>D</sub>	Note 1	Note 2	Note 2	V

- Drift Value (Δ) limits are not specified. Drift Values shall be recorded for information purposes only.
- 2. The limit specified in Room Temperature Electrical Measurements shall apply.



# 2.6 <u>INTERMEDIATE AND END-POINT ELECTRICAL MEASUREMENTS</u>

Unless otherwise specified, the measurements shall be performed at  $T_{amb}$  = +22 ±3°C.

Unless otherwise specified the test methods and test conditions shall be as per the corresponding test defined in Room Temperature Electrical Measurements.

Test Reference per	r Characteristics Symbols Limits		imits	Units	
ESCC No. 3601			Min	Max	
Thermal Shock	During 5th Cycle				
	Pick-up Voltage	U <sub>C</sub>	N	ote 2	V
	Drop-out Voltage	$U_D$	N	ote 2	V
	Operate Time	t <sub>C</sub>	N	ote 2	ms
	Release Time	$t_D$	N	ote 2	ms
	Final Measurements				
	Voltage Proof	VP	N	ote 3	Vrms
	Voltage Proof Leakage Current	I <sub>LVP</sub>	N	ote 3	mA
Low Level Sine	Final Measurements				
Vibration	Pick-up Voltage	Uc	N	ote 3	V
	Pick-up Voltage Drift	$\Delta U_{C}/U_{C}$	N	ote 1	%
	Drop-out Voltage	$U_D$	N	ote 3	V
	Drop-out Voltage Drift	$\Delta U_D/U_D$	N	ote 1	%
Random Vibration	Final Measurements				
	Pick-up Voltage	U <sub>C</sub>	N	ote 3	V
	Pick-up Voltage Drift	$\Delta U_{C}/U_{C}$	N	ote 1	%
	Drop-out Voltage	$U_D$	N	ote 3	V
	Drop-out Voltage Drift	$\Delta U_D/U_D$	N	ote 1	%
High Level Sine	Final Measurements				
Vibration	Pick-up Voltage	Uc	N	ote 3	V
	Pick-up Voltage Drift	$\Delta U_{C}/U_{C}$	N	ote 1	%
	Drop-out Voltage	$U_D$	N	ote 3	V
	Drop-out Voltage Drift	$\Delta U_D/U_D$	N	ote 1	%
Low Level	Final Measurements				
Mechanical Shock	Contact Voltage Drop	$V_D$	N	ote 3	V
	Pick-up Voltage	U <sub>C</sub>	N	ote 3	V
	Pick-up Voltage Drift	$\Delta U_{C}/U_{C}$	N	ote 1	%
	Drop-out Voltage	$U_D$	N	ote 3	V
	Drop-out Voltage Drift	$\Delta U_D/U_D$	N	ote 1	%
	Voltage Proof	VP	N	ote 3	Vrms
	Voltage Proof Leakage Current	I <sub>LVP</sub>	N	ote 3	mA

Note 3

 $R_{\text{\tiny B}}$ 

Ω



Test Reference per	Characteristics	Symbols	L	imits	Units
ESCC No. 3601			Min	Max	
High Level	Final Measurements				
Mechanical Shock	Contact Voltage Drop	$V_D$	N	ote 3	V
	Pick-up Voltage	Uc	N	ote 3	V
	Pick-up Voltage Drift	$\Delta U_{C}/U_{C}$	N	ote 1	%
	Drop-out Voltage	$U_D$	N	ote 3	V
	Drop-out Voltage Drift	$\Delta U_D/U_D$	N	ote 1	%
	Voltage Proof	VP	N	ote 3	Vrms
	Voltage Proof Leakage Current	I <sub>LVP</sub>	N	ote 3	mA
Resistance to	Final Measurements				
Soldering Heat	Insulation Resistance	Rı	N	ote 3	GΩ
	Contact Voltage Drop	$V_D$	N	ote 3	V
	Pick-up Voltage	Uc	N	ote 3	V
	Drop-out Voltage	$U_D$	N	ote 3	V
	Coil Resistance	R <sub>B</sub>	N	ote 3	Ω
Low Level Life	Final Measurements				
	Contact Voltage Drop	$V_D$	-	$0.1 \times I_{TEST}$	V
	Insulation Resistance	Rı	5000	-	МΩ
	Voltage Proof	VP	N	ote 3	Vrms
	Voltage Proof Leakage Current	I <sub>LVP</sub>	N	ote 3	mA
	Pick-up Voltage	Uc	N	ote 3	V
	Pick-up Voltage Drift	$\Delta U_{C}/U_{C}$	N	ote 1	%
	Drop-out Voltage	$U_D$	N	ote 3	V
	Drop-out Voltage Drift	$\Delta U_D/U_D$	N	ote 1	%
	Operate Time	t <sub>C</sub>	N	ote 3	ms
	Release Time	t <sub>D</sub>	N	ote 3	ms
	Bounce Time	t <sub>B</sub>	N	ote 3	ms

Coil Resistance





Test Reference per	Characteristics	Symbols	Limits		Units
ESCC No. 3601			Min	Max	
Resistive Life	During Monitoring				
	Contact Voltage Drop	$V_D$	-	2.8	V
	Final Measurements				
	Contact Voltage Drop	$V_{D}$	-	0.1 x I <sub>TEST</sub>	V
	Insulation Resistance	R <sub>i</sub>	5000	-	МΩ
	Voltage Proof	VP	N	ote 3	Vrms
	Voltage Proof Leakage Current	I <sub>LVP</sub>	N	ote 3	mA
	Pick-up Voltage	U <sub>C</sub>	N	ote 3	V
	Pick-up Voltage Drift	ΔU <sub>C</sub> /U <sub>C</sub>	N	ote 1	%
	Drop-out Voltage	$U_{D}$	N	ote 3	V
	Drop-out Voltage Drift	$\Delta U_D/U_D$	N	ote 1	%
	Operate Time	t <sub>C</sub>	N	ote 3	ms
	Release Time	t <sub>D</sub>	N	ote 3	ms
	Bounce Time	t <sub>B</sub>	N	ote 3	ms
	Coil Resistance	$R_B$	N	ote 3	Ω
Coil Life	During Step 1 of each Cycle				
	Contact Voltage Drop	$V_{D}$	N	ote 3	V
	Coil Resistance	R <sub>B</sub>	N	ote 3	Ω
	During Step 3 of 1st Cycle	.,,			.,
	Contact Voltage Drop	$V_D$		ote 2	V
	Operate Time	t <sub>C</sub>		ote 2	ms
	Release Time	t <sub>D</sub>	N	ote 2	ms
	During Steps 4 & 5 of 4th Cycle				
	Pick-up Voltage	U <sub>C</sub>	N	ote 2	V
	Drop-out Voltage	$U_D$	Ν	ote 2	V
	Final Measurements				
	Voltage Proof	VP		ote 3	Vrms
	Voltage Proof Leakage Current	I <sub>LVP</sub>		ote 3	mA
	Insulation Resistance	R <sub>I</sub>		ote 3	GΩ
	Contact Voltage Drop	$V_D$		ote 3	V
	Coil Resistance	$R_B$		ote 3	Ω
	Operate Time	t <sub>C</sub>		ote 3	ms
	Release Time	t <sub>D</sub>		ote 3	ms
	Bounce Time	t <sub>B</sub>	N	ote 3	ms



Test Reference per ESCC No. 3601

Intermediate

Current

Overload

No. 3601/003

Symbols

 $V_D$ 

 $R_{I}$ 

VΡ

 $I_{LVP}$ 

 $U_{C}$ 

 $\Delta U_C/U_C$ 

 $U_D$ 

 $\Delta U_D/U_D$ 

 $t_{C}$ 

 $t_D$ 

 $t_{B}$ 

 $R_B$ 

 $V_D$ 

 $V_D$ 

 $V_D$ 

 $R_{l}$ 

VΡ

 $I_{LVP}$ 

 $U_{C}$ 

 $\Delta U_{\rm C}/U_{\rm C}$ 

 $U_D$ 

 $\Delta U_D/U_D$ 

t<sub>E</sub>

 $t_D$ 

 $t_B$ 

 $R_B$ 

5000

Note 3

Note 3

Note 3

Note 1

Note 3

Note 1

Note 3

Note 3

Note 3

Note 3

Characteristics

Voltage Proof Leakage Current

**During Monitoring** 

Contact Voltage Drop

<u>Final Measurements</u> Insulation Resistance

Voltage Proof

Pick-up Voltage

**Drop-out Voltage** 

Operate Time

Release Time

**Bounce Time** 

Coil Resistance

Contact Voltage Drop

<u>Final Measurements</u>

Contact Voltage Drop

Insulation Resistance

Pick-up Voltage Drift

**Drop-out Voltage Drift** 

Voltage Proof Leakage Current

Voltage Proof

Pick-up Voltage

**Drop-out Voltage** 

Operate Time

Release Time

**Bounce Time** 

Coil Resistance

<u>During Monitoring</u>
Contact Voltage Drop

Pick-up Voltage Drift

**Drop-out Voltage Drift** 

ISSUE 7			
L	Units		
Min	Max		
-	300	mV	
5000	_	МΩ	
N	ote 3	Vrms	
N	ote 3	mA	
N	ote 3	V	
N	%		
N	V		
N	%		
N	ote 3	ms	
N	ote 3	ms	
N	ote 3	ms	
N	ote 3	Ω	
-	0.1 x I <sub>TEST</sub>	V	
-	1.4	V	
-	0.1 x I <sub>TEST</sub>	V	

МΩ

Vrms

mΑ

V

%

V

%

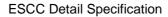
ms

ms

ms

Ω

- Parameter Drift shall be calculated referenced to the measurement immediately prior to the test in question. An additional initial measurement may be performed prior to the test in question if considered necessary. Drift limits are not specified. Drift Values shall be recorded for information purposes only.
- 2. The limits specified in High and Low Temperatures Electrical Measurements, as applicable to the same test temperature, shall apply.
- 3. The limits specified in Room Temperature Electrical Measurements shall apply.



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ISSUE 7

# 2.7 RUN-IN CONDITIONS

The test conditions for Run-in, tested as specified in the ESCC Generic Specification, shall be as follows:

(a) Test Temperature: +22 ±3°C.



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# APPENDIX A

# AGREED DEVIATIONS FOR LEACH INTERNATIONAL EUROPE (F)

ITEMS AFFECTED	DESCRIPTION OF DEVIATIONS
Materials and Finishes: Terminals	For components specified with terminal finish type 3, the tin-lead plating shall have a composition of 85 to 95% tin (remainder lead).
Deviations from the Generic Specification: Qualification and Periodic Tests (Chart F4)	Chart F4: Coil Life subgroup test sequence (under Endurance Subgroup 1): Coil Life and the subsequent tests shall only be performed for Qualification. They are not required for Periodic Testing except in the case of any significant change to the design.