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# RELAY, ELECTROMAGNETIC, LATCHING, 28VDC, 1A, 2PDT, TO5 CAN

ESCC Detail Specification No. 3602/002

Issue 4 November 2018



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# **DOCUMENTATION CHANGE NOTICE**

(Refer to https://escies.org for ESCC DCR content)

DCR No.	CHANGE DESCRIPTION
1168	Specification updated to incorporate changes per DCR.



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# 1 GENERAL

# 1.1 <u>SCOPE</u>

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 <u>APPLICABLE DOCUMENTS</u>

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

(a) ESCC Generic Specification No. 3602.

# 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: 36020020126V

Detail Specification Reference: 3602002

• Component Type Variant Number: 01 (as required)

• Characteristic code: Rated Coil Voltage (26.5Vdc): 26V (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) Rated Coil Voltage expressed by means of the following codes:

Rated Coil Voltage (Vdc) 26.5	Code
26.5	26V
18	18V
12	12V
9	9V
6	6V
5	5V



# 1.4.2 <u>Component Type Variants and Range of Components</u>

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

Variant Number	Coil Circuit Description (Note 1)	Minimum Lead Length L (mm) (Note 2)	Rated Coil Voltage (Vdc)	Weight max (g)
01	Independent Latch and Reset Coils	38	26.5, 18, 12, 9, 6, 5	2
02	Independent Latch and Reset Coils	4.75	26.5, 18, 12, 9, 6, 5	1.5
03	Independent Latch and Reset Coils	3.2	26.5, 18, 12, 9, 6, 5	1.5
04	Latch and Reset Coils with Common Negative Terminal	38	26.5, 18, 12, 9, 6, 5	2
05	Latch and Reset Coils with Common Negative Terminal	4.75	26.5, 18, 12, 9, 6, 5	1.5
06	Latch and Reset Coils with Common Negative Terminal	3.2	26.5, 18, 12, 9, 6, 5	1.5

# **NOTES:**

- 1. See Para. 1.7 Functional Diagram.
- 2. See Para. 1.6 Physical Dimensions and Terminal Identification



# 1.5 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.

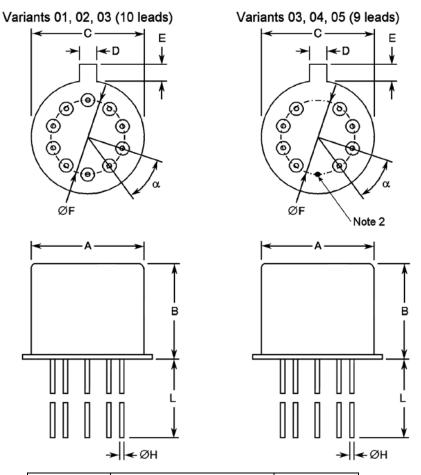
Characteristics	Symbols	Maximum Ratings	Units	Remarks
Coil Voltage Range	Vcr	25 to 32 17 to 24 11 to 16 8.5 to 12 5.5 to 8 4.5 to 6	Vdc	Rated Coil Voltage: 26.5Vdc Rated Coil Voltage: 18Vdc Rated Coil Voltage: 12Vdc Rated Coil Voltage: 9Vdc Rated Coil Voltage: 6Vdc Rated Coil Voltage: 5Vdc
Rated Resistive Load Contact Current	Icr	1	А	28Vdc resistive Note 1
Rated Inductive Load Contact Current	IcL	200	mA	28Vdc inductive, Inductance: 320mH, Note 1
Overload Current	IOVERLOAD	2	А	28Vdc resistive
Operating Temperature Range	Тор	-65 to +125	°C	Tamb
Storage Temperature Range	T <sub>stg</sub>	-65 to +125	°C	Tamb
Soldering Temperature	T <sub>sol</sub>	+260	°C	Note 2

# **NOTES:**

- 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 lead shall not be resoldered until 3 minutes have elapsed.



# 1.6 PHYSICAL DIMENSIONS AND TERMINAL IDENTIFICATION



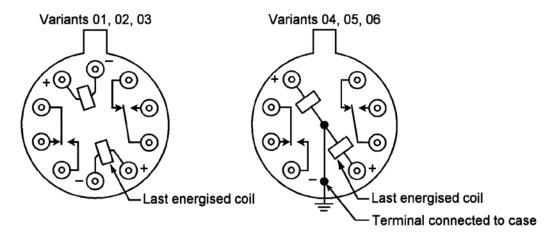
Symbols	Dimensi	ons (mm)	Remarks
	Min	Max	
Α	-	8.5	
В	-	7	
С	-	9.4	
D	0.7	0.9	Note 1
E	0.8	1	Note 1
ØF	4.83	5.33	
ØH	0.41	0.48	
L	Note 3	-	
α	36°	BSC	

# **NOTES:**

- Terminal identification is determined by reference to the tab position. See Para. 1.7
  Functional Diagram.
- 2. This lead is connected to the case. All other leads are electrically insulated from the case. See Para. 1.7 Functional Diagram.
- 3. See Para. 1.4.2 Component Type Variants and Range of Components for dimension L value.



# 1.7 <u>FUNCTIONAL DIAGRAM</u>



# **NOTES:**

- 1. As viewed from the terminal side with coil de-energised.
- 2. All leads are electrically insulated from the case except for the coil common negative terminal of Variants 04, 05, 06, which is connected to the case.

# 1.8 <u>MATERIALS AND FINISHES</u>

#### 1.8.1 Case

Nickel, hermetically sealed.

# 1.8.2 <u>Leads</u>

The lead material and finish shall by type D2 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 (see Para. 1.4.1).
- (c) Traceability information.

# 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: 4.4N

• Duration: 10s

(b) Bend Test (Test Condition C):

• Load: 227g

# 2.4 <u>ELECTRICAL MEASUREMENTS AT ROOM, HIGH AND LOW TEMPERATURES</u>

Electrical measurements shall be performed at room, high and low temperatures. Consolidated notes are given in Para. 2.4.3 after the tables.

# 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	Lim	nits	Units
		Conditions	Voltage (Vdc)	Min	Max	
Latch Voltage	UL	ESCC No. 3602				V
		Note 1	26.5	9.5	14.2	
			18	6.9	10.5	
			12	4.6	7	
			9	3.5	5.3	
			6	2.3	3.5	
			5	1.6	2.8	
Reset Voltage	UR	ESCC No. 3602				V
		Note 1	26.5	9.5	14.2	
			18	6.9	10.5	
			12	4.6	7	
			9	3.5	5.3	
			6	2.3	3.5	
			5	1.6	2.8	
Latch Time	t∟	ESCC No. 3602	All	-	1.5	ms
Reset Time	t <sub>R</sub>	ESCC No. 3602	All	-	1.5	ms
Bounce Time	t <sub>B</sub>	ESCC No. 3602	All	-	2	ms
Insulation	Rı	ESCC No. 3602	All	10	-	GΩ
Resistance		V <sub>TEST</sub> = 100Vdc				





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Characteristics	Symbols	Test Method and	Rated Coil	Lin	nits	Units
		Conditions	Voltage (Vdc)	Min	Max	
Voltage Proof (Test Voltage)	VP	ESCC No. 3602 Maximum Leakage Current I <sub>LVP</sub> = 1mA	All	500	-	Vrms
Voltage Proof Leakage Current	I <sub>L</sub> VP	ESCC No. 3602 Note 2	All	ı	1	mA
Contact Voltage Drop	V <sub>D</sub>	ESCC No. 3602 I <sub>TEST</sub> = 100mA max	All	-	0.1 x I <sub>TEST</sub>	V
Coil Resistance	R <sub>B</sub>	ESCC No. 3602				Ω
		Both coils	26.5	1800	2200	
			18	1017	1243	
			12	450	550	
			9	252	308	
			6	108	132	
			5	55	67	

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

Characteristics	Symbols	Test Method and	Rated Coil	Li	Units	
		Conditions	Voltage (Vdc)	Min	Max	
Latch Voltage	UL	ESCC No. 3602	, ,			V
		$T_{amb} = +125 (+0 -5)^{\circ}C$	26.5	-	18	
		and -65 (+5 -0)°C	18	-	13.5	
		Note 1	12	-	9	
			9	-	6.8	
			6	-	4.5	
			5	-	3.5	
Reset Voltage	UR	ESCC No. 3602				V
		$T_{amb} = +125 (+0.5)^{\circ}C$	26.5	-	18	
		and -65 (+5 -0)°C	18	-	13.5	
		Note 1	12	-	9	
			9	-	6.8	
			6	-	4.5	
			5	-	3.5	
Latch Time	t∟	ESCC No. 3602	All	-	1.5	ms
		T <sub>amb</sub> = +125 (+0 -5)°C and -65 (+5 -0)°C				
Reset Time	t <sub>R</sub>	ESCC No. 3602	All	-	1.5	ms
		T <sub>amb</sub> = +125 (+0 -5)°C and -65 (+5 -0)°C				
Bounce Time	t <sub>B</sub>	ESCC No. 3602	All	-	2	ms
		$T_{amb} = +125 (+0.5)^{\circ}C$				
le o dotion	Б	and -65 (+5 -0)°C ESCC No. 3602	All	100		ΜΩ
Insulation Resistance	Rı	$T_{amb} = +125 (+0.5)^{\circ}C$	All	100	-	IVILL
redictarioe		$V_{TEST} = 100 Vdc$				
Contact Voltage	V <sub>D</sub>	ESCC No. 3602	All	-	0.1 x I <sub>TEST</sub>	V
Drop		$T_{amb} = +125 (+0.5)^{\circ}C$	"		2	
		and -65 (+5 -0)°C				
		I <sub>TEST</sub> = 100mA max				



# 2.4.3 Notes to Electrical Measurements Tables

- The coil voltage rise time shall be less than 0.1t<sub>L</sub> or 0.1t<sub>R</sub>. The coil voltage shall be maintained for a minimum duration of 10t<sub>L</sub> or 10t<sub>R</sub>.
- Measured during Voltage Proof test.

#### 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<sub>amb</sub> = +22 ±3°C.

The test methods and test conditions shall be as per the corresponding test defined in Para. 2.4.1 Room Temperature Electrical Measurements.

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

Characteristics	Symbols			Units	
		Drift Value	Abso		
		$\Delta$	Min	Max	
Latch Voltage	U∟	Note 1	Note 2	Note 2	V
Reset Voltage	U <sub>R</sub>	Note 1	Note 2	Note 2	V

#### NOTES:

- 1. Drift Value ( $\Delta$ ) limits are not specified. Drift Values shall be recorded for information purposes only.
- 2. The limit specified in Para. 2.4.1 Room Temperature Electrical Measurements shall apply.

# 2.6 INTERMEDIATE AND END-POINT ELECTRICAL MEASUREMENTS

Unless otherwise specified, the measurements shall be performed at T<sub>amb</sub> = +22 ±3°C.

Unless otherwise specified the test methods and test conditions shall be as per the corresponding test defined in Para. 2.4.1 Room Temperature Electrical Measurements.

Test Reference	Characteristics	Symbols	Limits		Units
per			Min	Max	
ESCC No. 3602					
Thermal Shock	During 5th Cycle				
	Latch Voltage	$U_L$	Note 2		V
	Reset Voltage	$U_R$	Note 2		V
	Latch Time	t∟	Note 2		ms
	Reset Time	$t_R$	Note 2		ms
	Final Measurements				
	Voltage Proof	VP	N	Note 3	
	Voltage Proof Leakage Current	$I_{LVP}$	N	ote 3	mA



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Per   SCC No. 3602	Test Reference	Characteristics	Symbols	L	imits	Units
Low Level Sine Vibration				Min	Max	
Vibration		Final Magauramenta				
Latch Voltage Drift   AUL/UL   Note 1   %			11	N.I.	a4a 0	\ \/
Reset Voltage   UR	Vibration					
Reset Voltage Drift						
Random Vibration						-
Latch Voltage		•	$\Delta U_R/U_R$	N	ote 1	%
Latch Voltage Drift   AUL/UL   Note 1   %   Reset Voltage   UR   Note 3   V   Note 1   %   Note 3   V   Note 3   V   Note 3   V   Note 4   %   Note 4   %   Note 5   V   Note 1   %   %   Note 5   V   Note 1   %   %   Note 1   %   %   Note 3   V   Note 3   V   Note 3   V   Note 3   V   Note 4   Note 3   V   Note 5   Note 5   V   Note 6   N	Random Vibration					
Reset Voltage   VR		<u> </u>				
Reset Voltage Drift		=				
High Level Sine   Catch Voltage   Catch Vol						
Vibration		Reset Voltage Drift	$\Delta U_R/U_R$	N	ote 1	%
Latch Voltage Drift   AU_I/U_L   Note 1   % Reset Voltage   Reset Voltage Drift   AU_R/U_R   Note 3   V	_	Final Measurements				
Reset Voltage   UR	Vibration	Latch Voltage	U∟	N	ote 3	V
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Latch Voltage Drift	$\Delta U_L/U_L$	N	ote 1	%
Description   Contact Voltage Drop   VD		Reset Voltage	$U_R$	N	ote 3	V
Mechanical Shock   Contact Voltage Drop   V <sub>D</sub>   Note 3   V     Latch Voltage   U <sub>L</sub>   Note 3   V     Latch Voltage Drift   ΔU <sub>L</sub> /U <sub>L</sub>   Note 1   %     Reset Voltage Drift   ΔU <sub>R</sub>   Note 3   V     Reset Voltage Drift   ΔU <sub>R</sub> /U <sub>R</sub>   Note 1   %     Voltage Proof   VP   Note 3   V     Voltage Proof Leakage Current   I <sub>LVP</sub>   Note 3   V     High Level   Final Measurements   Contact Voltage Drop   V <sub>D</sub>   Note 3   V     Latch Voltage Drift   ΔU <sub>L</sub> /U <sub>L</sub>   Note 3   V     Latch Voltage Drift   ΔU <sub>L</sub> /U <sub>L</sub>   Note 1   %     Reset Voltage Drift   ΔU <sub>R</sub> /U <sub>R</sub>   Note 1   %     Reset Voltage Proof   V <sub>P</sub>   Note 3   V     Reset Voltage Proof   V <sub>P</sub>   Note 3   V     Reset Voltage Proof   V <sub>P</sub>   Note 3   V     Voltage Proof   V <sub>P</sub>   Note 3   V     Voltage Proof Leakage Current   I <sub>LVP</sub>   Note 3   V     Resistance to   Soldering Heat   Insulation Resistance   R <sub>I</sub>   Note 3   V     Latch Voltage   V <sub>D</sub>   Note 3   V     Reset Voltage   V <sub>D</sub>   Note 3   V     Latch Voltage   V <sub>D</sub>   Note 3   V     Latch Voltage   V <sub>D</sub>   Note 3   V     Reset Voltage   V <sub>D</sub>   Note 3   V     Latch Voltage   V <sub>D</sub>   Note 3   V     Reset Voltage   V <sub>D</sub>   Note 3   V     Latch Voltage   V <sub>D</sub>   Note 3		Reset Voltage Drift	$\Delta U_R/U_R$	N	ote 1	%
Latch Voltage		Final Measurements				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Mechanical Shock	Contact Voltage Drop	$V_D$	N	ote 3	V
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Latch Voltage	$U_L$	N	ote 3	V
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Latch Voltage Drift	$\Delta U_L/U_L$	N	ote 1	%
Voltage Proof   VP		Reset Voltage	$U_R$	N	ote 3	V
$\begin{tabular}{ l l l l l l l l l l l l l l l l l l l$		Reset Voltage Drift	$\Delta U_R/U_R$	N	ote 1	%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Voltage Proof	VP	Note 3		Vrms
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Voltage Proof Leakage Current	I <sub>LVP</sub>	Note 3		mA
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	High Level	Final Measurements				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Mechanical Shock	Contact Voltage Drop	$V_D$	N	ote 3	V
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Latch Voltage	$U_L$	N	ote 3	V
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Latch Voltage Drift	$\Delta U_L/U_L$	N	ote 1	%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Reset Voltage	$U_R$			V
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Reset Voltage Drift	$\Delta U_R/U_R$	N	ote 1	%
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		_				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Voltage Proof Leakage Current	$I_{LVP}$	N	ote 3	mA
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Resistance to	Final Measurements				
Latch Voltage UL Note 3 V Reset Voltage U <sub>R</sub> Note 3 V	Soldering Heat		$R_{l}$	N	ote 3	GΩ
Latch Voltage UL Note 3 V Reset Voltage U <sub>R</sub> Note 3 V						
Reset Voltage U <sub>R</sub> Note 3 V		,				V
						V
Coil Resistance R <sub>B</sub> Note 3 Ω		_				



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Test Reference	Characteristics	Symbols	Limits		Units
per ESCC No. 3602			Min	Max	
Low Level Life	Final Measurements			•	
	Contact Voltage Drop	$V_D$	-	0.2 x ITEST	V
	Insulation Resistance	$R_{l}$	5000	-	МΩ
	Voltage Proof	VP	N	ote 3	Vrms
	Voltage Proof Leakage Current	$I_{LVP}$	N	ote 3	mA
	Latch Voltage	$U_L$	N	ote 3	V
	Latch Voltage Drift	$\Delta U_L/U_L$	N	ote 1	%
	Reset Voltage	$U_R$	N	ote 3	V
	Reset Voltage Drift	$\Delta U_R/U_R$	N	ote 1	%
	Latch Time	t∟	N	ote 3	ms
	Reset Time	t <sub>R</sub>	N	ote 3	ms
	Bounce Time	t <sub>B</sub>	N	ote 3	ms
	Coil Resistance	$R_B$	Ν	ote 3	Ω
Resistive Life	During Monitoring				
	Contact Voltage Drop	$V_D$	-	2.8	V
	Final Measurements			Į	
	Contact Voltage Drop	$V_D$	-	0.2 x ITEST	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
	Latch Voltage	$U_L$	N	ote 3	V
	Latch Voltage Drift	$\Delta U_L/U_L$	N	ote 1	%
	Reset Voltage	$U_R$	N	ote 3	V
	Reset Voltage Drift	$\Delta U_R/U_R$	N	ote 1	%
	Latch Time	t∟	N	ote 3	ms
	Reset Time	t <sub>R</sub>	N	ote 3	ms
	Bounce Time	$t_B$	N	ote 3	ms
	Coil Resistance	$R_B$	N	ote 3	Ω



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Test Reference	Characteristics	Symbols	Limits		Units
per ESCC No. 3602			Min	Max	
Coil Life	During Step 1 of each Cycle				
	Contact Voltage Drop	$V_{D}$	N	ote 3	V
	Coil Resistance	$R_B$	Note 3		Ω
	During Ston 2 of 4 of Cools				
	During Step 3 of 1st Cycle				.,
	Contact Voltage Drop	$V_D$		ote 2	V
	Operate Time	t <sub>E</sub>		ote 2	ms
	Release Time	$t_D$	N	ote 2	ms
	During Steps 4 & 5 of 4th Cycle				
	Latch Voltage	U∟	N	ote 2	V
	Reset Voltage	$U_R$	N	ote 2	V
	Final Measurements				
	Voltage Proof	VP	N	ote 3	Vrms
	Voltage Proof Leakage Current	$I_{LVP}$		ote 3	mA
	Insulation Resistance	Rı	N	ote 3	GΩ
	Contact Voltage Drop	$V_{D}$	N	ote 3	V
	Coil Resistance	$R_B$	N	ote 3	Ω
	Latch Time	t∟	N	ote 3	ms
	Reset Time	$t_R$	N	ote 3	ms
	Bounce Time	t <sub>B</sub>	Note 3		ms
Intermediate	During Monitoring				
Current	Contact Voltage Drop	$V_{D}$	-	300	mV
	Final Measurements				
	Insulation Resistance	Rı	5000	_	ΜΩ
	Voltage Proof	VP		ote 3	Vrms
	Voltage Proof Leakage Current	I <sub>LVP</sub>		ote 3	mA
	Latch Voltage	UL	N	ote 3	V
	Latch Voltage Drift	∆U∟/U∟	N	ote 1	%
	Reset Voltage	$U_R$	N	ote 3	V
	Reset Voltage Drift	$\Delta U_R/U_R$		ote 1	%
	Latch Time	t∟	N	ote 3	ms
	Reset Time	$t_R$		ote 3	ms
	Bounce Time	t <sub>B</sub>		ote 3	ms
	Coil Resistance	R <sub>B</sub>	N	ote 3	Ω
	Contact Voltage Drop	$V_{D}$	-	0.2 x ITEST	V



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Test Reference	Characteristics	Symbols	Limits		Units
per ESCC No. 3602			Min	Max	
Overload	During Monitoring				
	Contact Voltage Drop	$V_D$	-	1.4	V
	Final Measurements				
	Contact Voltage Drop	$V_D$	-	0.4 x I <sub>TEST</sub>	V
	Insulation Resistance	Rı	5000	-	МΩ
	Voltage Proof	VP	Ν	ote 3	Vrms
	Voltage Proof Leakage Current	$I_{LVP}$	Note 3		mΑ
	Latch Voltage	U∟	Note 3		V
	Latch Voltage Drift	$\Delta U_L/U_L$	Ν	ote 1	%
	Reset Voltage	$U_R$	Note 3		V
	Reset Voltage Drift	$\Delta U_R/U_R$	Ν	ote 1	%
	Latch Time	t∟	Ν	ote 3	ms
	Reset Time	$t_{R}$	N	ote 3	ms
	Bounce Time	t <sub>B</sub>	N	ote 3	ms
	Coil Resistance	$R_B$	N	ote 3	Ω

# **NOTES:**

- 1. 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 Para. 2.4.2 High and Low Temperatures Electrical Measurements, as applicable to the same test temperature, shall apply.
- 3. The limits specified in Para. 2.4.1 Room Temperature Electrical Measurements shall apply.

# 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.



# APPENDIX A AGREED DEVIATIONS FOR REL STPI (F)

ITEMS AFFECTED	DESCRIPTION OF DEVIATIONS
Para. 2.1.1, Deviations from the Generic Specification: Production Control – Chart F2	Special In-Process Controls: Thermal Shock shall be replaced by the following:
	Thermal Shock in accordance with MIL-STD-202, Test Method 107, Test Condition B (5 Cycles) except that the exposure time at each temperature extreme shall be 1 hour.
	Data Points: Coil Resistance shall be monitored continuously during testing as specified in Room Temperature Electrical Measurements. As a minimum, the minimum and maximum Coil Resistance measurements during testing shall be recorded against component serial number.
Para. 2.1.1, 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.