C. ELECTRICAL REQUIREMENTS:

1. COIL CURRENT: MUST OPERATE (EITHER DIRECTION) IN ACCORDANCE WITH TABLE 1.

2. COIL RESISTANCE: IN ACCORDANCE WITH TABLE 1.

3. CONTACT RESISTANCE: SHALL BE 1.0 OHM MAXIMUM WHEN MEASURED WITH 100 MILLIAMPERES FROM A & VDC OPEN CIRCUIT VOLTAGE (CONTACTS SHALL NOT SWITCH THE MEASURING LOAD). 100 PERCENT OF UNITS PROCURED SHALL BE INSPECTED FOR THIS CHARACTERISTIC.

4. DIELECTRIC STRENGTH:
   (a) AT AC LEVEL: 1000 VOLTS RMS MINIMUM FOR 5 SECONDS MINIMUM WITHOUT DAMAGE, ARCING OR BREACHING BETWEEN EACH Switching CIRCUIT AND OTHER CIRCUITS. 500 VOLTS RMS MINIMUM FOR 5 SECONDS MINIMUM BETWEEN OPEN CONTACTS AND BETWEEN COILS AND BETWEEN COILS AND FRAME.

5. INSULATION RESISTANCE: 1,000 MEGOHMS MINIMUM AT 500 Volts DC BETWEEN MUTUALLY INSULATED TERMINALS.. OPEN Switching Contacts Energized or NOT. COIL AND CLOSE AT PLUS 25 DEGREES CENTIGRADE (1000 MEGOHMS AT 125 DEGREES CENTIGRADE). CONTACTS AND FRAME.

6. OPERATE AND RELEASE TIME: EACH 9 MILLISECONDS MAXIMUM AT SUGGESTED SOURCE VOLTAGE OF TABLE 1.

7. TRANSFER TIME: 1.0 MILLISECONDS MAXIMUM.

8. CONTACT BOUNCE: 2.0 MILLISECONDS MAXIMUM.

9. CONTACT CHATTER: 10.0 MICROSECONDS MAXIMUM DURING VIBRATION AND SHOCK AS SPECIFIED IN ND 1002046.

10. CONTACT RESISTANCE: 1.0 OHM MAXIMUM WHEN MEASURED WITH 100 MILLIAMPERES FROM A & VDC OPEN CIRCUIT VOLTAGE (CONTACTS SHALL NOT SWITCH THE MEASURING LOAD). 100 PERCENT OF UNITS PROCURED SHALL BE INSPECTED FOR THIS CHARACTERISTIC.

11. LEAK RATE: UNITS SHALL BE DEGASSED, BACK FILLED TO ONE 205 CUBIC CENTIMETERS/SECOND .AT 1 ATMOSPHERE PRESSURE DIFFERENTIAL. THE LEAK RATE SHALL BE LESS THAN 10°8 CUBIC CENTIMETERS/SECOND AT 1 ATMOSPHERE PRESSURE DIFFERENTIAL.

PROCURE ONLY FROM APPROVED SOURCES LISTED IN HD 1002034 FOR THIS DRAWING.
3. DESIGN:

A. ELECTRICAL RATINGS:

1. COIL VOLTAGE (SUGGESTED SOURCE): IN ACCORDANCE WITH TABLE I.
2. MAXIMUM COIL POWER: 0.6 WATTS MAXIMUM PER COIL AT PLUS 25 DEGREES CENTIGRADE; DEPARTED TO 0.25 WATTS PER COIL AT PLUS 125 DEGREES CENTIGRADE.
3. CONTACT RATING (PER POLE): 0.9 AMPERES AT 52 VOLTS DC (INDUCTIVE LOAD) OR 1 AMPERES AT 115 VOLTS RMS (RESISTIVE LOAD, CASE NOT GROUND) OR 0.25 AMPERES (CASE GROUNDED).
4. CONTACTS SHALL BE CAPABLE OF SWITCHING DRY-CIRCUIT CONDITIONS OF 1.0 MICROAMPERE AT 1.0 MILLIVOLT WITH THE STIPULATION THAT NO LOAD GREAT ERR THAN 10 MILLIAMPERES HAVE BEEN SWITCHED PRIOR TO DRY-CIRCUIT LOAD. CONTACT RESISTANCE SHALL BE 100 OHMS MAXIMUM.
5. COIL PULL-IN POWER (SENSITIVITY): IN ACCORDANCE WITH TABLE I.
6. DIELECTRIC STRENGTH (AT 70,000 FEET): 450 VOLTS RMS MINIMUM.
7. COIL Parameters:

<table>
<thead>
<tr>
<th>COIL</th>
<th>RESISTANCE AT 25°C</th>
<th>MUST OPERATE AT 125°C</th>
<th>MAX CURRENT AT 125°C</th>
<th>SUGGESTED VOLTAGE SOURCE (SENSITIVITY)</th>
<th>MINIMUM PULL-IN POWER (SENSITIVITY)</th>
<th>LEAD LENGTH</th>
</tr>
</thead>
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<tr>
<td>1-1</td>
<td>190</td>
<td>30</td>
<td>30</td>
<td>12</td>
<td>175</td>
<td>210/190</td>
</tr>
<tr>
<td>2-2</td>
<td>850</td>
<td>15</td>
<td>16</td>
<td>25</td>
<td>175</td>
<td>210/190</td>
</tr>
</tbody>
</table>

B. CONSTRUCTION:

1. CONTACT FORM AND SWITCHING ACTION: 2 FORM C CONTACTS (BREAK BEFORE MAKE); DOUBLE POLE, DOUBLE THROW, POLARIZED WITH MAGNETIC LATCHING ACTION.
2. CONTACT MATERIAL: APPLICABLE FOR RATED LOAD.
3. LEAD MATERIAL: LEAD-NICKEL-COBALT ALLOY (ADVANCED) IN ACCORDANCE WITH MIL-ST-327, TYPE A.
4. CASE: ALL-WELDED CONNECTIONS WITH A HERMETICALLY SEALED CASE. CASE MATERIAL SHALL BE COPPER-NICKEL.

C. QUALIFICATION REQUIREMENTS:

1. LIFE: LIFE OF THIS UNIT SHALL BE 100,000 CYCLES MINIMUM WHEN TESTED PER MIL-STD-102, TYPE 2. FOR THE LIFE TESTS, THE CLASSIFICATION OF THIS RELAY MAY BE GENERAL PURPOSE OR LOW-LEVEL WITH THE STIPULATION AS STATED UNDER CONTACT RATING.
2. OPERATING TEMPERATURE RANGE: UNITS SHALL BE CAPABLE OF OPERATING WITHIN THE ELECTRICAL REQUIREMENTS OF THIS SPECIFICATION WHEN EXPOSED TO AMBIENT TEMPERATURES FROM MINUS 65 DEGREES CENTIGRADE TO PLUS 125 DEGREES CENTIGRADE.
3. THERMAL SHOCK: UNITS SHALL BE CAPABLE OF WITHSTANDING THERMAL SHOCK FROM MINUS 65 DEGREES CENTIGRADE TO PLUS 125 DEGREES CENTIGRADE.
4. THE SALT SPRAY TEST PER MIL-R-5757 IS NOT APPLICABLE.

D. ENVIRONMENTAL REQUIREMENTS:

1. HUMIDITY (MOISTURE RESISTANCE): UNITS SHALL BE CAPABLE OF WITHSTANDING RELATIVE HUMIDITY UP TO 98 PERCENT.
2. OPERATING TEMPERATURE RANGE: UNITS SHALL BE CAPABLE OF OPERATING WITHIN THE ELECTRICAL REQUIREMENTS OF THIS SPECIFICATION WHEN EXPOSED TO AMBIENT TEMPERATURES FROM MINUS 65 DEGREES CENTIGRADE TO PLUS 125 DEGREES CENTIGRADE.
3. THERMAL SHOCK: UNITS SHALL BE CAPABLE OF WITHSTANDING THERMAL SHOCK FROM MINUS 65 DEGREES CENTIGRADE TO PLUS 125 DEGREES CENTIGRADE.

4. SPECIAL CONDITIONS:

A. THE MANUFACTURER SHALL SUBJECT EACH RELAY TO THE MISS TEST AS FOLLWS:

1. LOAD SHALL BE 20 MICROAMPERES MAXIMUM (REACTIVE) AT 20 MILLIVOLTS MAXIMUM DRY-CIRCUIT VOLTAGE.
2. TEST SPEED SHALL BE 5 CYCLES, OR LESS, PER SECOND.