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<td>6/12/92</td>
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**ORIGINAL SIGNATURES ON FILE**

**SHEET REVISION STATUS**

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**ORIGINATOR:**  
T. Perry/Paramax  

**APPROVED:**  
S. Archer-Davies/Paramax  

**CODE 311 APPROVAL:**  
P. Jones/GSFC  

**CODE 311 SUPERVISORY APPROVAL:**  
G. P. Kramer, Jr./GSFC  

**ADDITIONAL APPROVAL:**  

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**  
**GODDARD SPACE FLIGHT CENTER**  
**GREENBELT, MARYLAND 20771**  

**CAGE CODE:** 25306
GSFC DETAIL SPECIFICATION

RELAYS, ELECTROMAGNETIC, HERMETICALLY SEALED, 4PDT (4C), LATCHING, LOW LEVEL TO 2 AMPERES (0.150 INCH TERMINAL SPACING)

The requirements for procuring the relays described herein shall consist of this specification and the current revision of GSFC S-311-P-754.

Figure 1. Dimensions, configuration and circuit diagram.
NOTES:
1. Dimensions are in inches.
2. Unless otherwise specified, tolerance is ±0.010 inches (0.25 mm).
3. Metric equivalents are given for general information only.
4. Terminal indicated shall be identified by a contrasting bead. Relays shall have (+) and (-) signs placed on the circuit diagram as shown.
5. Terminal numbers in circuit diagram are for reference only. Numbers do not appear on relay.
6. Energizing the indicated coil with the indicated polarity and voltage shall cause the relay contacts to assume the position shown.
7. Coil symbol optional in accordance with MIL-STD-1285.

Table 1. Dash numbers and characteristics. 1/ 2/

<table>
<thead>
<tr>
<th>GSFC PART NUMBER 4/</th>
<th>Similar to MIL Part Number 4/</th>
<th>Mount</th>
<th>Terminal</th>
<th>Coil Voltage</th>
<th>Coil resistance at +25°C Tolerance ±10% (ohms)</th>
<th>Specified pickup (latch/ reset) Value (voltage) (V dc) 3/</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Rated V dc</td>
<td>MAX V dc</td>
<td>+25°C Over temp. range</td>
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<tr>
<td>G311P754/08-001</td>
<td>M39016/31-001</td>
<td>No mount</td>
<td>Wire lead (SP)</td>
<td>6.0</td>
<td>7.2</td>
<td>37</td>
</tr>
<tr>
<td>G311P754/08-002</td>
<td>M39016/31-002</td>
<td>No mount</td>
<td>Wire lead (SP)</td>
<td>12.0</td>
<td>14.5</td>
<td>145</td>
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<tr>
<td>G311P754/08-003</td>
<td>M39016/31-003</td>
<td>No mount</td>
<td>Wire lead (SP)</td>
<td>26.5</td>
<td>35.0</td>
<td>975</td>
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<tr>
<td>G311P754/08-004</td>
<td>M39016/31-004</td>
<td>Flange</td>
<td>Solder lug</td>
<td>6.0</td>
<td>7.2</td>
<td>37</td>
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<tr>
<td>G311P754/08-005</td>
<td>M39016/31-005</td>
<td>Flange</td>
<td>Solder lug</td>
<td>12.0</td>
<td>14.5</td>
<td>145</td>
</tr>
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<td>G311P754/08-006</td>
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<td>Flange</td>
<td>Solder lug</td>
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<td>35.0</td>
<td>975</td>
</tr>
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</table>

1/ Each relay possesses high and low level capabilities. However, relays previously tested or used above 10 mA resistive at 6 V dc maximum or peak ac open circuit are not recommended for subsequent use in low level applications.

2/ WARNING: When latching relays are installed in equipment, the latch and reset coils should not be pulsed simultaneously. Coils should not be pulsed with less than the rated coil voltage.
3/ A 10% increase in latch and reset voltages is allowed during and after rated life.

4/ Procurement is to the GSFC S-311-P-754/08 dash numbers ONLY. MIL dash numbers are for reference only and do not comply with all of the requirements in the GSFC S-311-P-754 and GSFC S-311-P-754/08 specifications.

REQUIREMENTS:

Operating Temperature Range: -65° C to +125° C

Other: All requirements (contact ratings, life test requirements, environmental data, etc.) shall be as specified in MIL-PRF-39016/31 except as detailed or modified herein.

Electrical Measurements

   Insulation resistance: 10,000 Mohm min.
   Dielectric strength: 500 V_{rms}, 60 Hz
   Coil resistance: See Table 1
   Pickup voltage (latch & reset): See Table 1
   Dropout voltage: Not applicable
   Contact resistance: 50 milliohms max.
   Operate time: 4 ms max.
   Release time: Not applicable.
   Bounce time: 2 ms max.
   Coil transient suppression: Not applicable
   Neutral screen: Applicable

Vibration

   Sinusoidal: 30 g (55 – 3,000 Hz)
   Random: Not applicable

High-temperature soak: Applicable
High-temperature run-in: Not applicable
Low-temperature run-in: Applicable
Room-temperature run-in: Applicable

Seal

   Fine leak test: 1 x 10^{-8} cc/sec max.
   Gross leak test: Applicable

Outgassing

   Marking ink: Not applicable.
   Adjunct sealant: Not applicable.

Enclosures: Relays must be provided with unpainted enclosures.