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ORIGINAL SIGNATURES ON FILE

SHEET REVISION STATUS

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ORIGINATOR: T. Perry/Paramax.  
DATE: 6/23/92  
FSC: 5945

APPROVED: S. Archer-Davies/Paramax  
DATE: 6/23/92

CODE 311 APPROVAL: P. Jones/GSFC  
DATE: 6/30/92

CODE 562 SUPERVISORY APPROVAL: G.P. Kramer, Jr./GSFC  
DATE: 7/20/92

ADDITIONAL APPROVAL:  
S-311-P-754/06

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

CAGE CODE: 25306  
Page 1 of 5
GSFC DETAIL SPECIFICATION

RELAY, ELECTROMAGNETIC, HERMETICALLY SEALED, 2PDT (2C), PERMANENT MAGNET DRIVE, 10 AMPERE, ALL WELDED

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

Table I. Part Numbers and Characteristics

<table>
<thead>
<tr>
<th>GSFC Part Number</th>
<th>Similar to MIL Part Number</th>
<th>Terminal Type</th>
<th>Coil Voltage (nominal@+25°C)</th>
<th>Pickup Voltage (max. across temp range)</th>
<th>Dropout Voltage (min. across temp range)</th>
<th>DC Coil Resistance (min.)</th>
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<tbody>
<tr>
<td>G311P754/06-001</td>
<td>M83536/9-023</td>
<td>Solder Hook</td>
<td>28.0 Vdc</td>
<td>18.0 Vdc</td>
<td>1.5 Vdc</td>
<td>280Ω</td>
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<tr>
<td>G311P754/06-002</td>
<td>M83536/9-024</td>
<td>Socket Pin</td>
<td>28.0 Vdc</td>
<td>18.0 Vdc</td>
<td>1.5 Vdc</td>
<td>280Ω</td>
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<td>G311P754/06-003</td>
<td>M83536/9-022</td>
<td>Solder Pin</td>
<td>28.0 Vdc</td>
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<td>1.5 Vdc</td>
<td>280Ω</td>
</tr>
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</table>

FIGURE 1. Dimensions and configurations.
FIGURE 1. Dimensions and configurations - Continued.
Notes:

1. Plane of critical motion for vibration and shock is Y-axis.

2. Socket pin terminals shall provide the operational, environmental, and interface characteristics to enable a reliable interconnect to gold-plated contacts. Terminals, except the polarizing pin, shall be gold plated. One system for gold plating that may be used is ASTM B488, type 3, class 1.25 with a nickel underplate of 50 to 150 microinches thick. The gold plating system shall enable the product to meet the performance requirements of this specification.

3. Gaskets shall provide a reliable seal between the relay and mating socket that will meet the environmental, operational, and interface requirements of the relay with the mating socket. The gasket shall have shore hardness 15 to 35, thickness .050 ± .005". Gasket material according to SAW-AMS3332 has been considered acceptable provided it meets the outgassing requirements in GSFC S-311-P-754., para. 3.2.2.

4. Indicated terminals shall be identified by a contrasting bead.

5. The finish on solder hook or solder pin terminals shall contain a minimum of 3% lead.

6. Relays must be provided with unpainted enclosures.

7. There shall be affixed to the relay a suitable legible circuit diagram that identifies each terminal location.

REQUIREMENTS:

Operating Temperature Range: -70°C to +125°C

Other: All requirements (contact ratings, life test requirements, environmental data, etc.) shall be as specified in MIL-PRF-83536/9 except as detailed or modified herein.

Electrical measurements

- Insulation resistance: see MIL-PRF-83536/9
- Dielectric strength: see MIL-PRF-83536/9
- Coil resistance: see Table I
- Pickup voltage: see Table I
- Dropout voltage: see Table I
- Contact voltage drop: see MIL-PRF-83536/9
- Operate time: 10 ms max.
- Release time: 10 ms max.
- Bounce time: 1 ms max.
- Coil transient suppression: not applicable
- Neutral screen: not applicable

Vibration

- Sinusoidal: 30 g (10 – 3000 Hz)
- Random: not applicable

REQUIREMENTS (continued)
High temperature soak…………………………………………………… not applicable
High temperature run-in…………………………………………… applicable at +85°C
Low temperature run-in………………………………………….. not applicable
Room temperature run-in………………………………………… not applicable

Seal
  Fine leak test………………………………………………………… 1 X 10^-8 cc/sec max.
  Gross leak test………………………………………………………… applicable

Custodian:

Code 562
QPLD Administrator
NASA Goddard Space Flight Center
Greenbelt, MD  20771