

REVISIONS			
SYMBOL	DESCRIPTION	DATE	APPROVAL
--	Released	7/21/92	SAN
A	Revised per RN A-150 to add additional part numbers, mechanical notes and expanded electrical characteristics.	3/10/08	ZNG
ORIGINAL SIGNATURES ON FILE			

**SHEET REVISION STATUS**

SH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REV	A	A	A	A	A															
SH	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REV																				

<b>ORIGINATOR:</b> T. Perry/Paramax	<b>DATE</b> 6/23/92	<b>FSC: 5945</b>  Relays, Electromagnetic, Hermetically Sealed, 2PDT (2C), Low Level to 2 Amperes (0.150 Inch Terminal Spacing)
<b>APPROVED:</b> S. Archer-Davies/Paramax	6/23/92	
<b>CODE 311 APPROVAL:</b> P. Jones/GSFC	6/30/92	
<b>CODE 311 SUPERVISORY APPROVAL:</b> G. P. Kramer, Jr./GSFC	7/20/92	
<b>ADDITIONAL APPROVAL:</b>		<b>S-311-P-754/07</b>

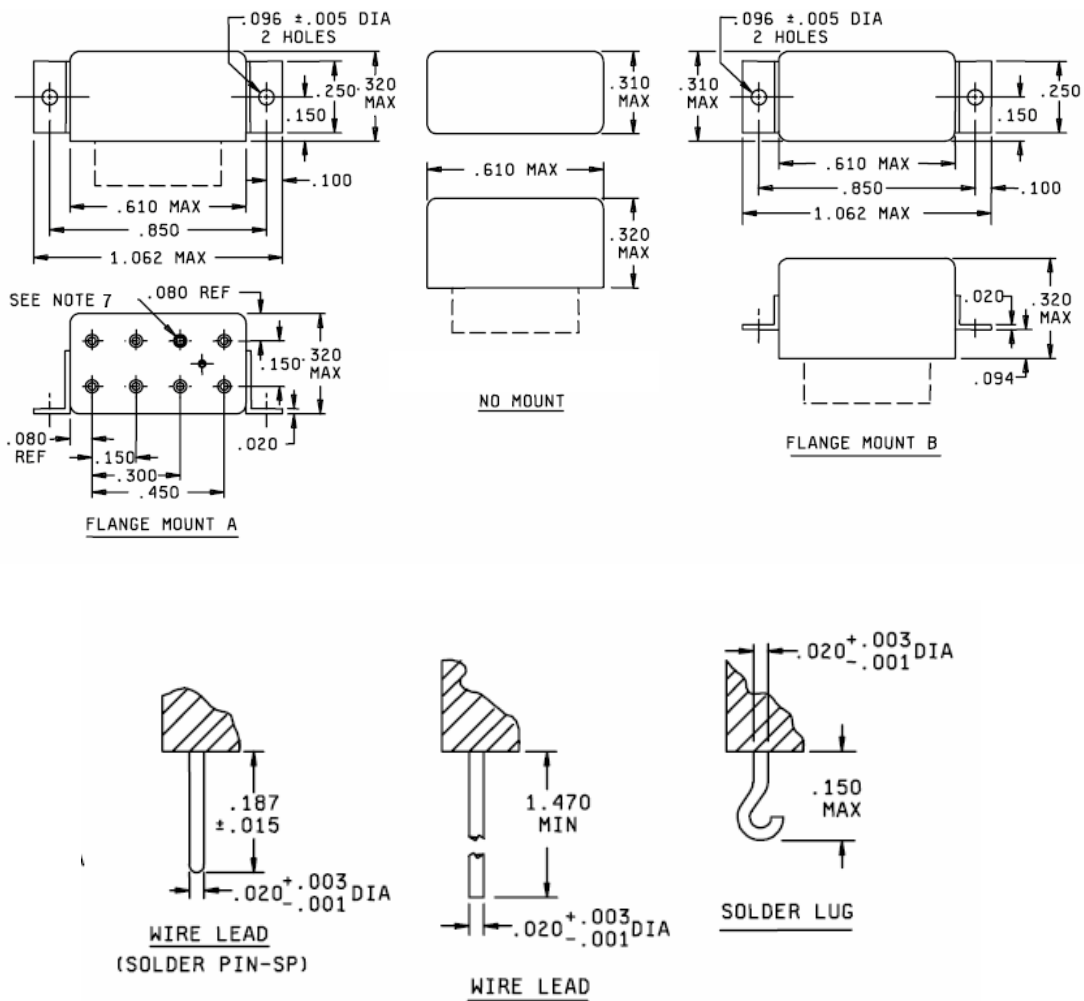
**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
GODDARD SPACE FLIGHT CENTER  
GREENBELT, MARYLAND 20771**

**CAGE CODE: 25306** **Page 1 of 5**

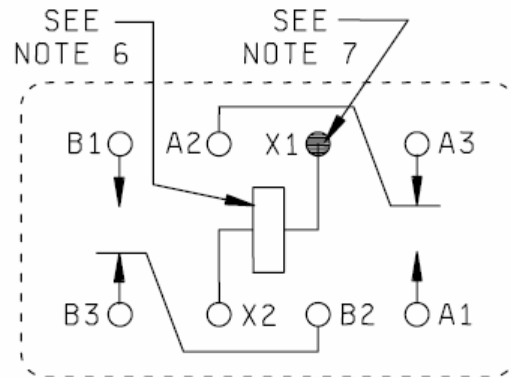
## GSFC DETAIL SPECIFICATION

RELAYS, ELECTROMAGNETIC, HERMETICALLY SEALED, 2PDT (2C), 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 and configuration.



CIRCUIT DIAGRAM  
 TERMINAL VIEW  
 DEENERGIZED POSITION

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are available in MIL-PRF-39016/13.
3. Unless otherwise specified, tolerance is  $\pm 0.010$  (0.25 mm).
4. Terminal locating dimensions shown are applicable to all type mounts.
5. The shape of lug terminals is optional.
6. Coil symbol optional in accordance with MIL-STD-1285.
7. Indicated terminal shall be identified with a contrasting bead.
8. Terminal markings B1 and B3 shall appear on the circuit diagram as a minimum; other terminal markings are for reference only.
9. Relays must be provided with unpainted enclosures.

**Figure 1.** Dimensions and configuration (continued).

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

Dash Number G311P754/07-			Mount	Coil Voltage (V dc) 2/		At 25 °C				Over Temperature Range		
Wire Lead (SP)	Lug	Wire Lead		Rated	Max	Coil Resistance Ohms ± 10%	Specified Pickup Value (V dc)	Specified Hold Value (V dc)	Specified Drop-out Value (V dc)	Specified Pickup Value (V dc)	Specified Hold Value (V dc)	Specified Drop-out Value (V dc)
099	058	061	A	6	8	56	2.7	1.6	0.3	3.8	2.2	0.18
070	001	067	B									
055	089	074	No Mount									
107	059	062	A	12	16	210	5.4	3.2	0.6	7.4	4.5	0.36
071	002	068	B									
056	090	076	No Mount									
115	060	063	A	26.5	35	1350	13.5	8.1	1.5	18.0	10.8	0.9
072	003	069	B									
057	091	078	No Mount									

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

2/ CAUTION: The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.

**Table 2. GSFC and MIL dash number similarities. 1/**

GSFC Dash Number G311P754/07-			Similar To	MIL Dash Number M39016/13-		
099	058	061		099	058	061
070	001	067		070	064	067
055	089	074		055	089	074
107	059	062		107	059	062
071	002	068		071	065	068
056	090	076		056	090	076
115	060	063		115	060	063
072	003	069		072	066	069
057	091	078		057	091	078

1/ Procurement is to the GSFC S-311-P-754/07 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-754/07 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-R-39016/13 except as detailed or modified herein.

### Electrical Measurements

Insulation resistance: 10,000 Mohm min.  
Dielectric strength: 500 V<sub>rms</sub>, 60 Hz  
Coil resistance: See Table 1  
Pickup voltage: See Table 1  
Dropout voltage: See Table 1  
Contact resistance: 50 milliohms max.  
Operate time: 4 ms max.  
Release time: 4 ms max.  
Bounce time: 1.5 ms max.  
Coil transient suppression: Not applicable  
Neutral screen: Not 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:  $1 \times 10^{-8}$  cc/sec max.  
Gross leak test: Applicable