

REVISIONS

SYMBOL	DESCRIPTION	DATE	APPROVAL
--	Released	7/21/92	SAN
A	Revised per RN A-154 to add additional part numbers, mechanical notes and expanded electrical characteristics.	12/23/08	JS
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																	
SH	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
REV																					

ORIGINATOR: T. Perry/Paramax	DATE 6/23/92	FSC: 5945
APPROVED: S. Archer-Davies/Paramax	6/23/92	Relays, Electromagnetic, Hermetically Sealed, 2PDT (2C), Low Level to 1 Ampere, Internal Diode for Coil Transients, (TO-5 Enclosure)
CODE 311 APPROVAL: P. Jones/GSFC	6/30/92	
CODE 311 SUPERVISORY APPROVAL: G. P. Kramer, Jr./GSFC	7/20/92	
ADDITIONAL APPROVAL:		S-311-P-754/04

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

CAGE CODE: 25306 **Page 1 of 4**

GSFC DETAIL SPECIFICATION

RELAYS, ELECTROMAGNETIC, HERMETICALLY SEALED, 2PDT (2C), LOW LEVEL TO 1 AMPERE, INTERNAL DIODE FOR COIL TRANSIENTS, (TO-5 ENCLOSURE)

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

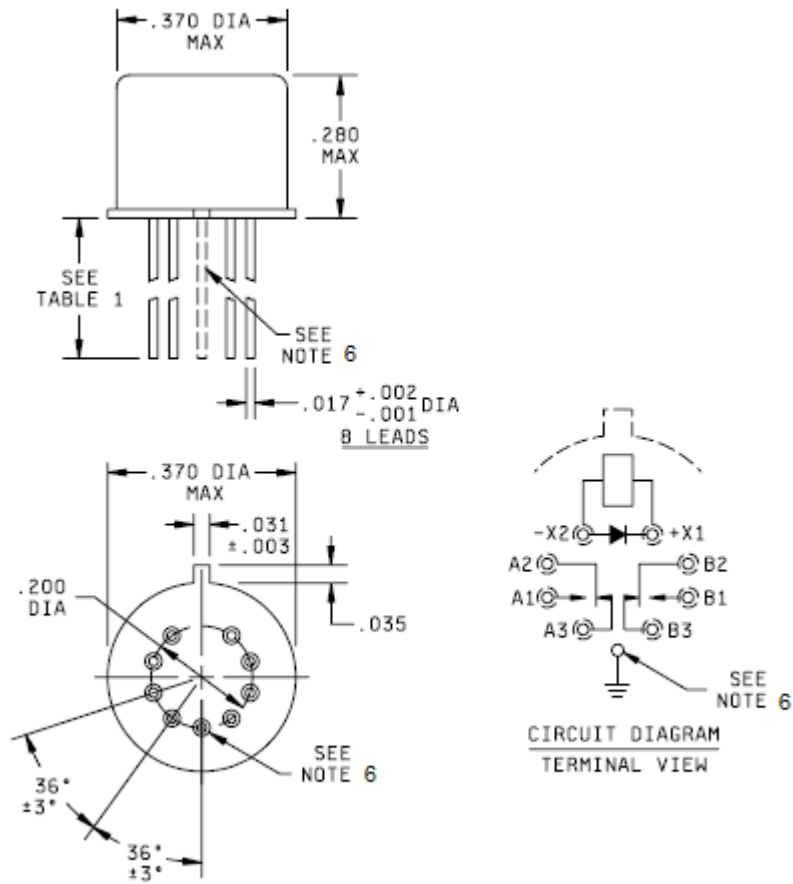


Figure 1. Dimensions and configuration.

NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerance is $\pm .010$ inches.
3. Relays shall have a plus (+) sign placed on the circuit diagram as shown.
4. Coil symbol optional in accordance with MIL-STD-1285.
5. Circuit diagram shown on part is the terminal view.
6. The grounding pin show is a noninsulated case ground applicable to -089 through -093 (see Table 1)

Table 1. Dash numbers and characteristics. 1/

Dash Number G311P754/04-			Coil Voltage (V dc) 2/		At 25 °C				Over Temperature Range		
.187 leads +.040 -.010	.500 min leads	.500 min leads with ground	Rated	Max	Coil Resis- tance Ohms \pm 10%	Speci- fied Pickup Value (V dc)	Speci- fied Hold Value (V dc)	Speci- fied Drop- out Value (V dc)	Speci- fied Pickup Value (V dc)	Speci- fied Hold Value (V dc)	Speci- fied Drop- out Value (V dc)
035	001	089	6.0	8.0	98	3.5	2.0	0.28	4.5	3.2	0.18
036	002	090	9.0	12	220	5.3	3.0	0.54	6.8	4.9	0.35
037	003	091	12	16	390	7.0	4.0	0.63	9.0	6.5	0.41
038	004	092	18	24	880	10.5	6.0	0.91	13.5	10.0	0.59
039	005	093	26.5	32	1,560	14.2	8.0	1.37	18.0	13.0	0.89

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 G311P754/04-			Similar To	MIL Dash Number M39016/15-		
035	001	089		035	077	089
036	002	090		036	078	090
037	003	091		037	079	091
038	004	092		038	080	092
039	005	093		039	081	093

1/ Procurement is to the GSFC S-311-P-754/04 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-754/04 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-39016/15 except as detailed or modified herein.

Electrical Measurements

Insulation resistance: 5,000 Mohm min. @ 100 Vdc

Dielectric strength: 500 V_{rms}, 60 Hz

Coil resistance: See Table 1

Pickup voltage: See Table 1

Dropout voltage: See Table 1

Contact resistance: 100 milliohms max.

Operate time: 2 ms max.

Release time: 4 ms max.

Bounce time: 2 ms max.

Coil transient suppression: Applicable

Neutral screen: Not applicable

Vibration

Sinusoidal: 20 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: 1×10^{-8} cc/sec max.

Gross leak test: Applicable