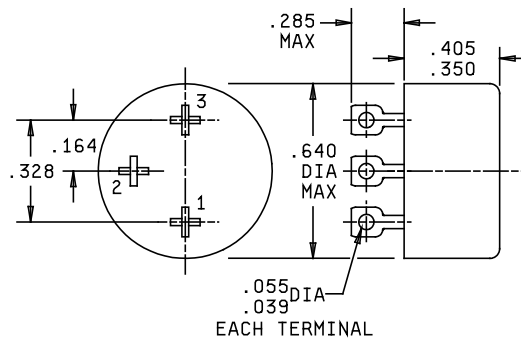


PERFORMANCE SPECIFICATION SHEET

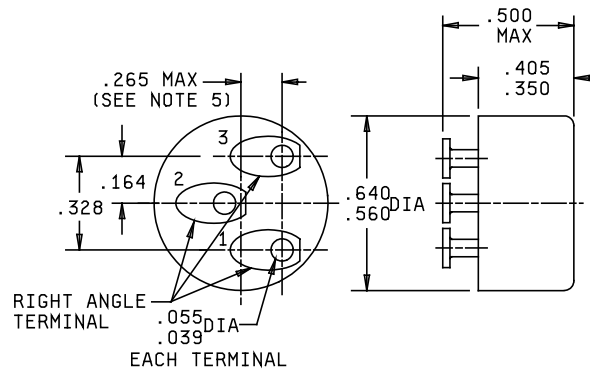
SWITCHES, THERMOSTATIC, (BIMETALLIC),
SUBMINIATURE, TYPE I, HERMETICALLY SEALED,
SINGLE POLE, DOUBLE THROW (SPDT), 2 AMPERES AND LOW LEVEL

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for acquiring the switches described herein shall consist of this specification and the latest issue of [MIL-PRF-24236](#).



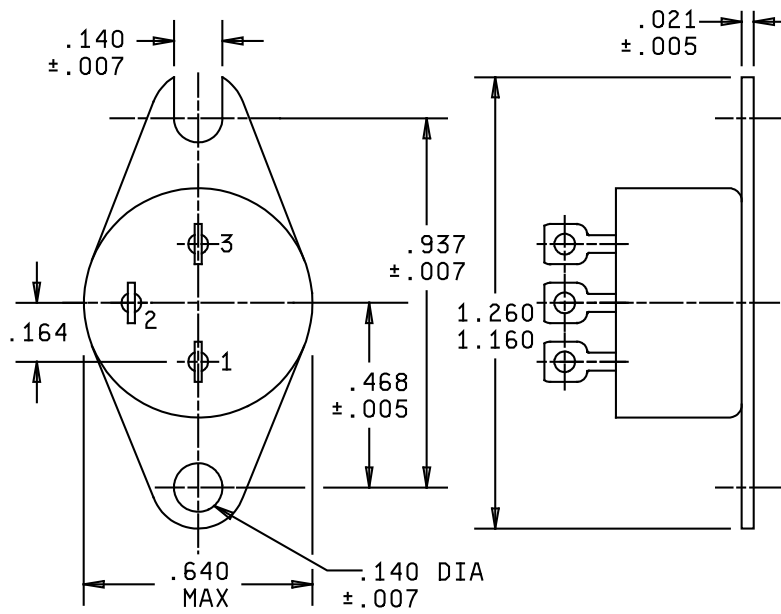
Configuration A (see note 6)



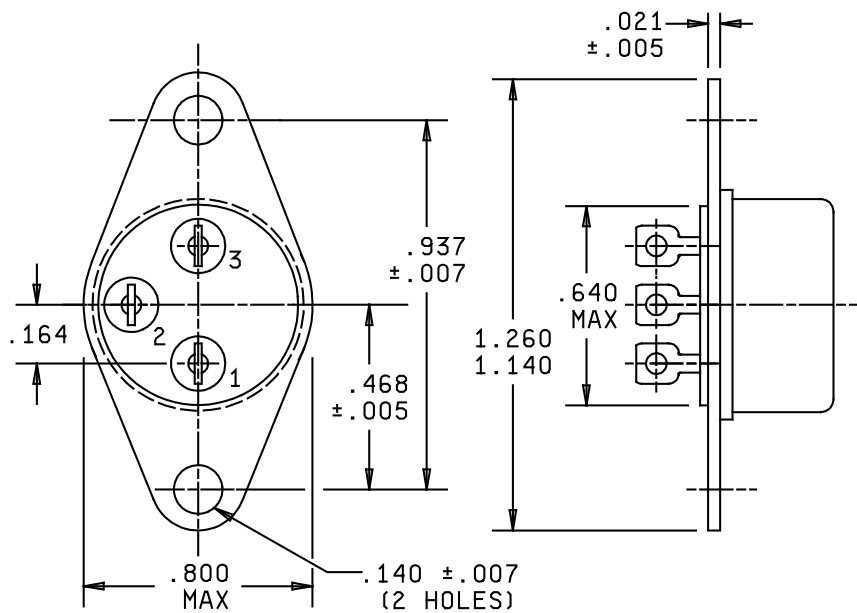
Configuration B (see note 6)

FIGURE 1. Switches.



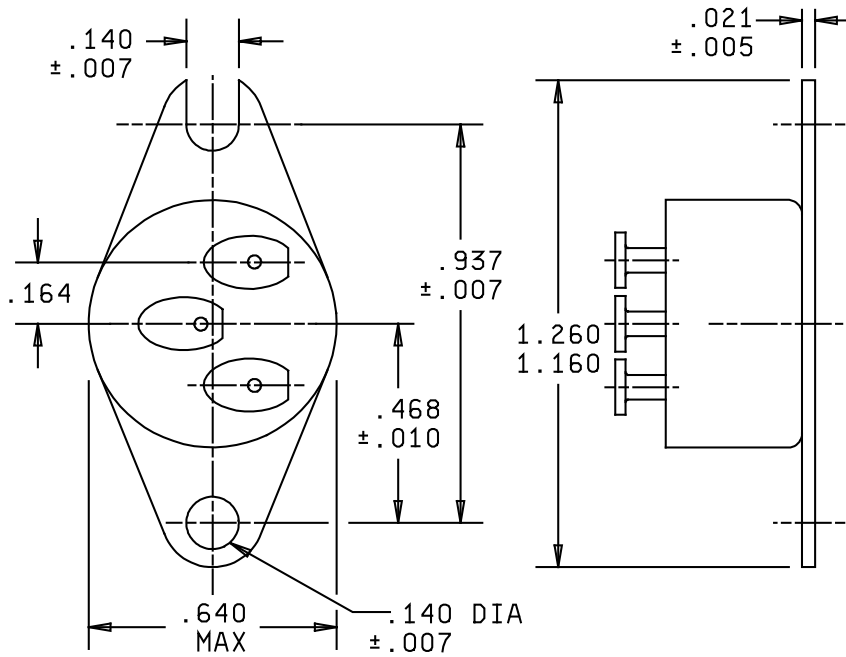
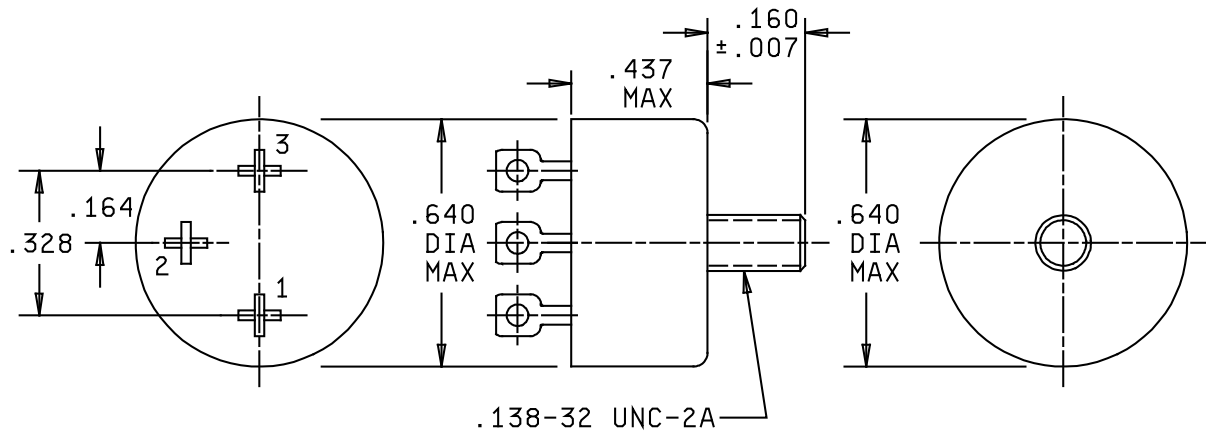


Configuration A1



Configuration A2

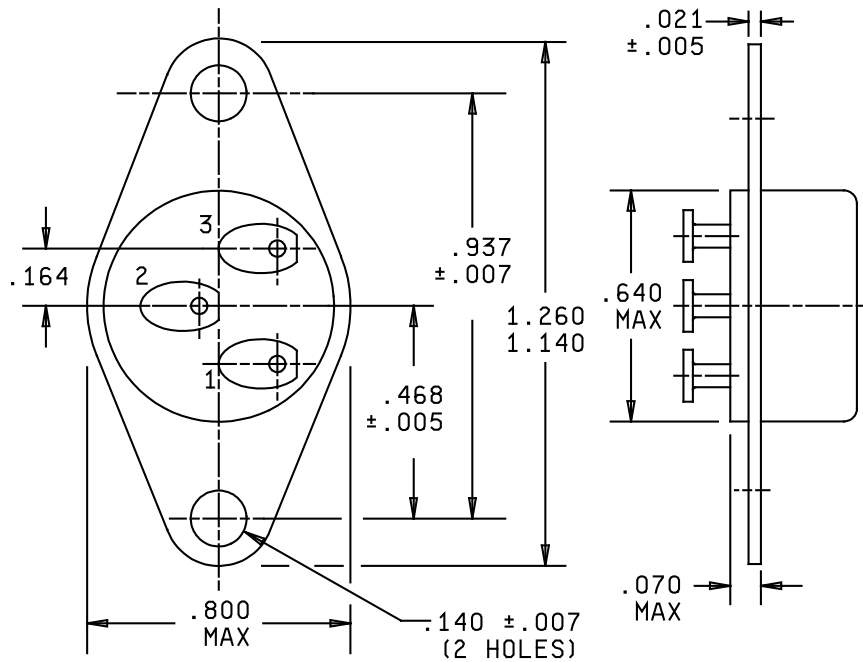
FIGURE 1. Switches - Continued.



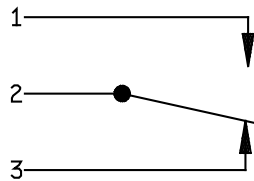
Configuration B1

Configuration A3 (stud mounted)

FIGURE 1. Switches - Continued.



Configuration B2

WIRING DIAGRAM

Below low temperature setting, circuit 1-2 is open.
Above high temperature setting, circuit 2-3 is open.

NOTES:

1. Dimensions are in inches. Unless otherwise specified, tolerance is $\pm .015$.
2. Exact shape of switch and terminals are optional provided dimensions specified are not exceeded.
3. This dimension not to exceed extended envelope of the switch.
4. Mounting brackets are not to be furnished.
5. Configurations A1, A2, and A3 use basic switches of configuration A.
Configurations B1, B2, and B3 use basic switches of configuration B.

FIGURE 1. Switches - Continued.

REQUIREMENTS:

Dimensions and configuration: See figure 1 and table I.

Operating temperature range: -65°F to 400°F.

Class: Class 4, except 80,000 feet and vibration 10 - 2,000 Hz, 10G.

Mounting: See figure 1.

Weight: Not to exceed .025 pound.

Creepage: Applicable.

Operating temperature and tolerance: See table II and table III.

Torque (switch mounting): 15 foot-pounds.

Electrical ratings: See table IV.

Endurance test: See table IV.

Low level: When specified, see PIN information.

QUALIFICATION:

Single submission: Restricted to switch submitted.

Group submission: See table V.

Part or Identifying Number (PIN): Consists of "M" prefix followed by specification sheet number; a dash (-); and a five- or six-letter code. The five-letter code identifies the configuration (code from table I); high temperature setting to the nearest 25°F (code from table II); high-temperature setting to the nearest 5°F and applicable tolerance (code from table III); low-temperature setting to the nearest 25°F (code from table II); and low-temperature setting to the nearest 5°F and applicable tolerance (code from table III). The six-letter code used in the following example identifies a switch of configuration A (figure 1) which actuates at 65°F $\pm$ 6°F and deactuates at 25°F $\pm$ 6°F and has low level capabilities.

Note: Refer to table VI to avoid generating a PIN that cannot be acquired.

EXAMPLE:

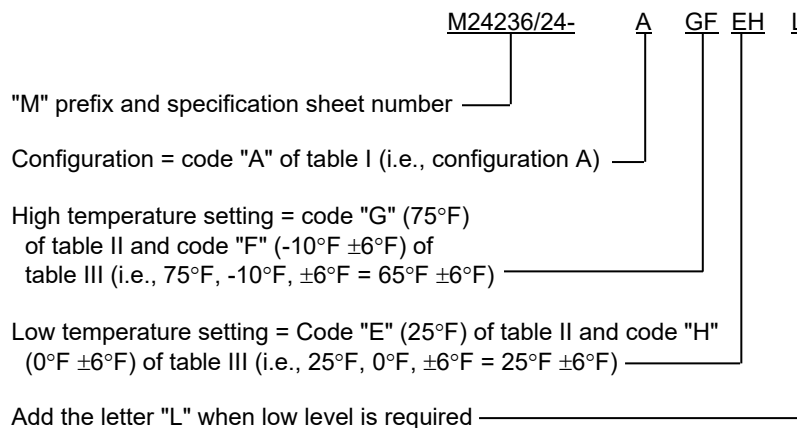


TABLE I. Configuration.

	Configuration						
Code - - - -	A	A1	A2	A3	B	B1	B2
	A	B	C	D	E	F	G

TABLE II. High temperature setting to the nearest 25°F.

Code	Temperature (°F)	Code	Temperature (°F)	Code	Temperature (°F)
A - - - -	-75	H - - - -	100	Q - - - -	275
B - - - -	-50	J - - - -	125	R - - - -	300
C - - - -	-25	K - - - -	150	S - - - -	325
D - - - -	0	L - - - -	175	T - - - -	350
E - - - -	25	M - - - -	200	U - - - -	375
F - - - -	50	N - - - -	225	V - - - -	400
G - - - -	75	P - - - -	250		

TABLE III. Temperature setting to the nearest 5°F.

	Unit					
	-10	-5	0	+5	+10	Tolerance
Code - - - - - - -	A	B	C	D	E	±4°F
Code - - - - - - -	F	G	H	J	K	±6°F
Code - - - - - - -	L	M	N	P	Q	±8°F
Code - - - - - - -	R	S	T	U	V	±10°F
Code - - - - - - -	W	X	Y	Z	1	±12°F

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TABLE IV. Electrical ratings.

Load	Altitude			Life cycles
	Sea level		80,000 feet	
	28 V	115 V, 60 Hz	28 V	
	(amperes)	(amperes)	(amperes)	
Resistive	2.0	2.0	2.0	100,000
inductive	1.0	1.0	1.0	100,000
Lamp	0.5	0.5	0.5	100,000
Low level ratings				
	30 millivolts dc <u>1/</u>			
	10 milliamperes			250,000

1/ Or 30 millivolts peak ac.

TABLE V. Extent of qualification.

Configuration	Number of samples required	Tests	Qualifies
A1	All in accordance with qualification table of MIL-PRF-24236	Complete in accordance with qualification inspection of MIL-PRF-24236	All
A, A2, B, B1, B2	Two each	Visual and mechanical	
A3	Two each	Visual and mechanical, torque, vibration, and shock	

TABLE VI. Available differential range and recommended tolerance.

Operating temperature range (°F)	Available differential range		Available tolerance	
	Min (°F)	Max (°F)	Low (°F)	High (°F)
-65 to -1	25	200	±8	±10
0 to 300	15	200	±6	±8
301 to 350	15	200	±8	±10
351 to 400	25	200	±12	±12

NOTE: Tolerances not listed in table VI shall be coordinated with manufacturers listed on the QPL for this specification sheet before specifying a particular "M" number. The fact that tolerances can be coded does not necessarily mean that it can be manufactured or acquired.

Referenced Documents:

[MIL-PRF-24236](#)

The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the previous issue.

Custodians:

Army - CR

Navy - EC

Air Force - 85

DLA - CC

Preparing activity:

DLA - CC

(Project 5930-2022-046)

Review activities:

Army - AR, AT, AV, CR4, MI

Navy - MC, OS

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil/>.