

INCH-POUND

MIL-PRF-24236/2J
w/Amendment 3
17 April 2018

SUPERSEDING
MIL-PRF-24236/2J
w/Amendment 2
10 January 2017

PERFORMANCE SPECIFICATION SHEET

SWITCHES, THERMOSTATIC, (BIMETALLIC), TYPE I, SINGLE POLE, SINGLE THROW (SPST), 5 AMPERES

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

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-PRF-24236.

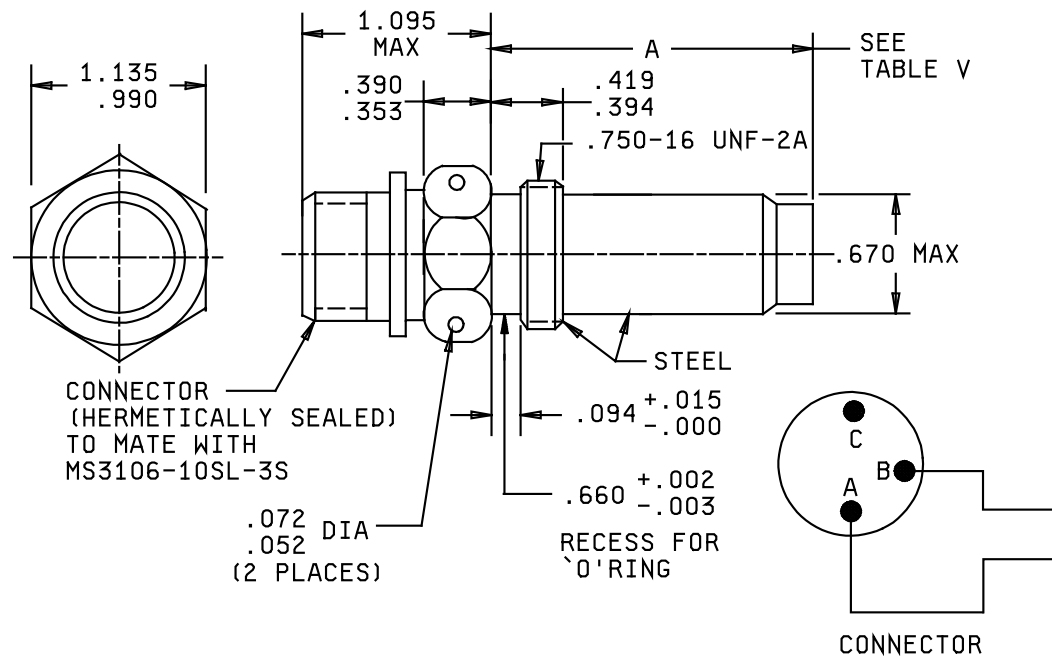


FIGURE 1. Switches, thermostatic, (bimetallic), type I.



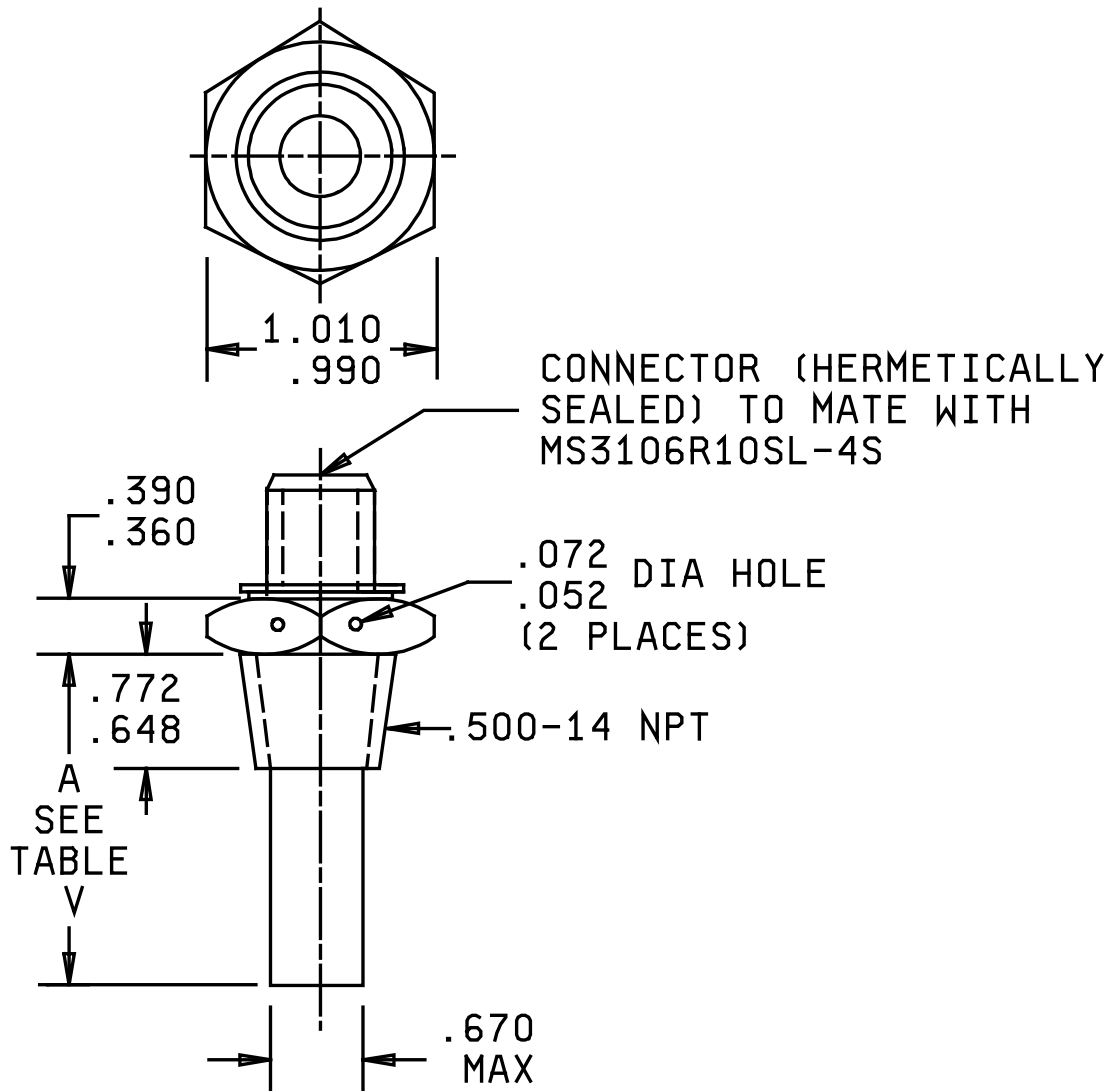


FIGURE 1. Switches, thermostatic, (bimetallic), type I - Continued.

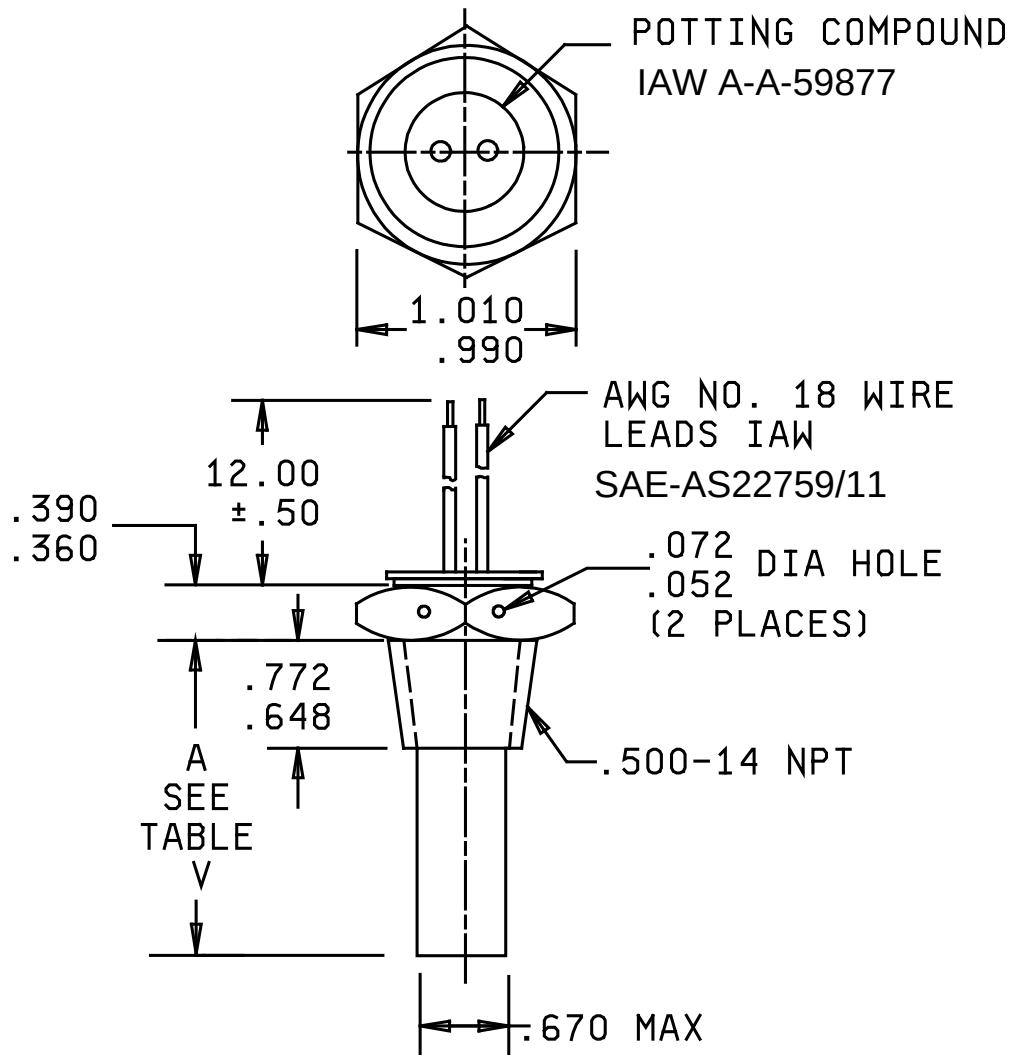


FIGURE 1. Switches, thermostatic, (bimetallic), type I - Continued.

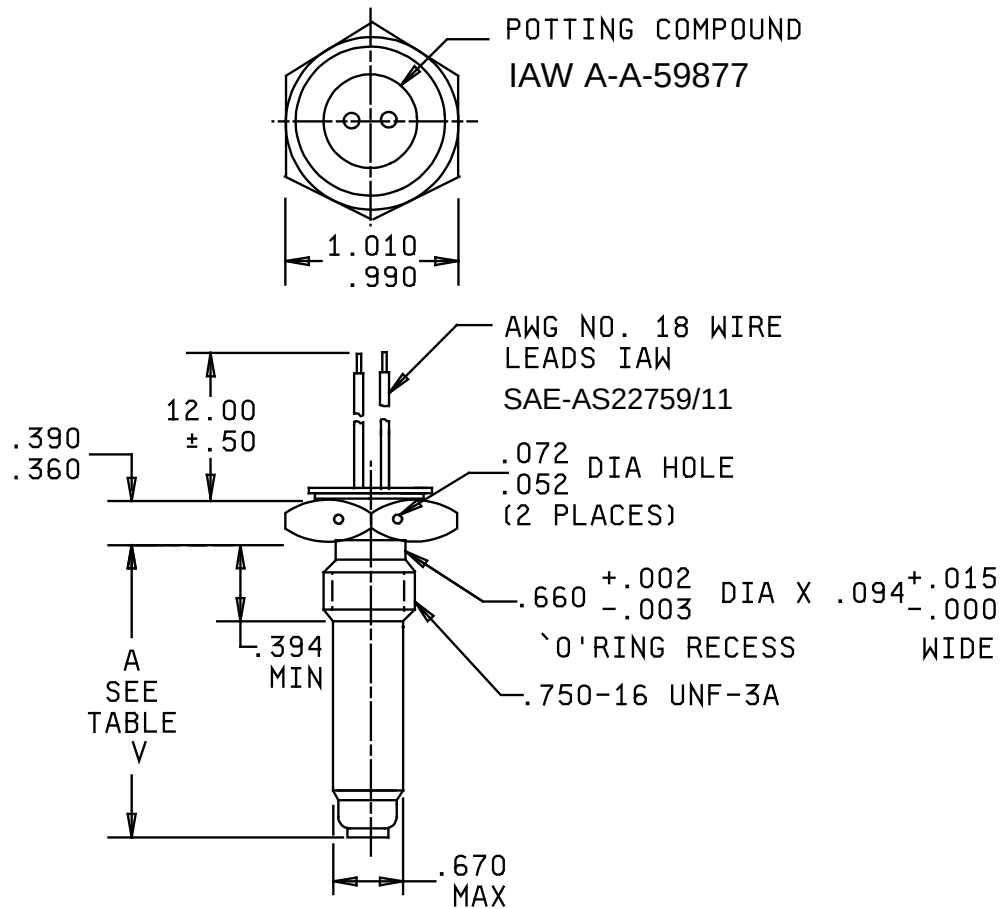
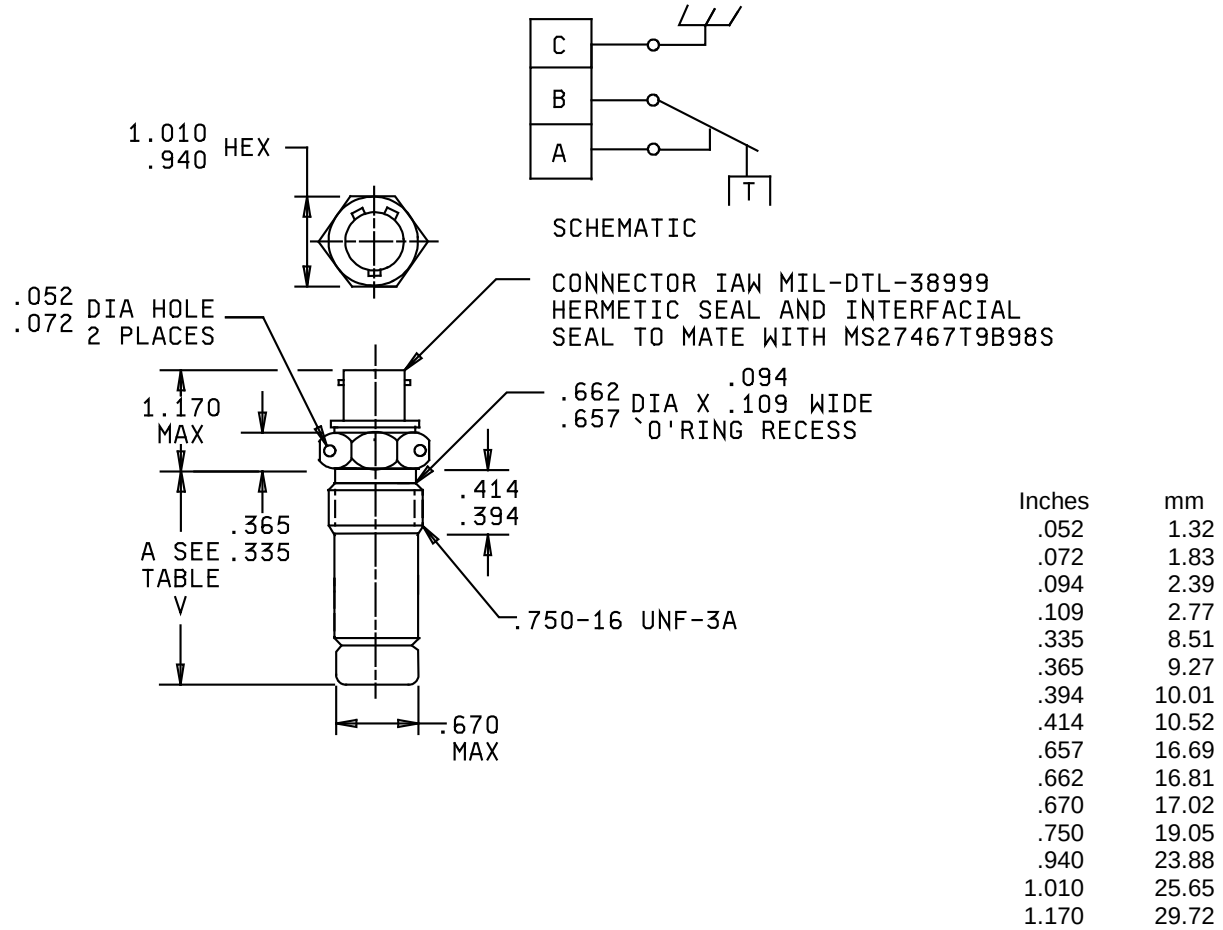


FIGURE 1. Switches, thermostatic, (bimetallic), type I - Continued.

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NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Do not use in applications where basic switch will be exposed to pressures over 250 psig.

FIGURE 1. Switches, thermostatic, (bimetallic), type I - Continued.

REQUIREMENTS:

Dimensions and configuration: See figure 1 and table I.

Operating temperature range: -75°F to +500°F.

Exposure temperature: -85°F to +500°F.

Class: 4, except 30 g's for configuration 5 only.

Mounting: See figure 1.

Weight: Approximately .21 pound (95.26 grams).

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

Torque:

Connector: 8 foot-pounds.

Switch mounting: 15 foot-pounds.

Electrical ratings:

Figure 1, configurations 1 through 4. See table IV.

Figure 1, configuration 5. 1/

Load: 2 amperes, resistive.

Intermediate current: Applicable 25,000 cycles.

Low level: Applicable 50,000 cycles.

Endurance: See table IV.

TABLE I. Configuration and contact action.

Configuration						Contact action
	1	2	3	4	5	
Code	A	C	E	G	J	Open on increasing temperature
Code	B	D	F	H	K	Close on increasing temperature
Code	A	C	E	G	J	Close on decreasing temperature
Code	B	D	F	H	K	Open on decreasing temperature

1/ Switches shall be subjected only to low level loads prior to delivery for use.

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Part or Identifying Number (PIN): PIN shall be assigned as illustrated below:

M24236/2-	A	B	G	F	E	H
Specification sheet number	Configuration and contact action (see table I)	Probe length (see table V)	High temperature setting to the nearest 25°F (see table II)	High temperature setting to the nearest 5°F and its tolerance (see table III)	Low temperature setting to the nearest 25°F (see table II)	Low temperature setting to the nearest 5°F and its tolerance (see table III)
Example:	Configuration A opens on increasing temperature (A from table I)	Dimension B is 2.00 ± .030	75°F (G from table II)	-10°F ±5°F (F from table III)	25°F (E from table II)	+0°F ±5°F (H from table III)
$75^{\circ}\text{F} - 10^{\circ}\text{F} \pm 5^{\circ}\text{F} = 65^{\circ}\text{F} \pm 5^{\circ}\text{F}$ $25^{\circ}\text{F} + 0^{\circ}\text{F} \pm 5^{\circ}\text{F} = 25^{\circ}\text{F} \pm 5^{\circ}\text{F}$						

PIN M24236/2-ABGFEH identifies a temperature switch of configuration 1 with a 2.00 ± .030 inch probe length which opens on increasing temperature at 65°F ±5°F and closes on decreasing temperature at 25°F ±5°F.

Qualification:

Group submission: If basic switches are not qualified to MIL-PRF-24236/1, the entire qualification table of MIL-PRF-24236 applies. If basic switches are qualified to MIL-PRF-24236/1, table VI applies.

TABLE II. Codes for temperature settings to within 25°F.

Temperature	Code	Temperature	Code	Temperature	Code
-75	A	125	J	325	S
-50	B	150	K	350	T
-25	C	175	L	375	U
0	D	200	M	400	V
25	E	225	N	425	W
50	F	250	P	450	X
75	G	275	Q	475	Y
100	H	300	R	500	Z

TABLE III. Codes for temperature to within 5°F.

Units	Tolerance					
	±3°F	±5°F	±8°F	±10°F	±15°F	±25°F
-10	A	F	L	R	W	2
-5	B	G	M	S	X	3
0	C	H	N	T	Y	4
+5	D	J	P	U	Z	5
+10	E	K	Q	V	1	6

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TABLE IV. Electrical ratings and endurance.

Load	28 V (amperes)	115 V, 60 Hz (amperes)	Life cycles
Resistive	5.0	2.0	100,000
Inductive	2.5	1.0	100,000
Lamp	1.0	0.5	100,000

TABLE V. Probe length for figure 1, configurations 1 through 5.

Code	Dimension A $\pm$.030 (0.76 mm)	
	<u>Inches</u>	<u>mm</u>
A	1.50	(38.1)
B	2.00	(50.8)
C	2.50	(63.5)
D	3.00	(76.2)
E	4.00	(101.6)

TABLE VI. Group submission for switches containing qualified basic switches to MIL-PRF-24236/1.

Configuration	Number of samples required	Tests	Extent of approval
1	3 each	Visual and mechanical examination Torque, vibration, shock and seal	All
2, 3, and 4	2 each	Torque, visual, and mechanical	
5	4 each	Intermediate current, low level	

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Referenced Documents:

A-A-59877
MIL-PRF-24236
MIL-PRF-24236/1
MIL-DTL-38999
SAE-AS22759/11

The margins of this specification are marked with vertical lines to indicate where modifications from this amendment 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.

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:

DLA - CC

(Project 5930-2018-003)

Review activities:

Army - AR, AT
Navy - AS, MC, SH
Air Force - 19, 99

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/>.