
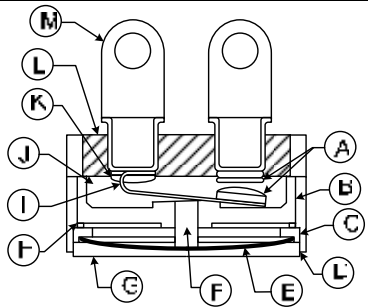


**Figure 13. 3500 Series Military Thermostats**

	 <p style="margin-top: 10px;"> <b>A</b> Contacts  <b>B</b> Ceramic insulator  <b>C</b> Disc retainer  <b>D</b> Laser weld  <b>E</b> Bimetal disc  <b>F</b> Ceramic transfer pin  <b>G</b> Cap  <b>H</b> Capping washer  <b>I</b> Contact arm  <b>J</b> Backfill dry gas  <b>K</b> Weld cap  <b>L</b> Glass header  <b>M</b> Terminals         </p>
<p>The 3500 Series is a single-pole, single-throw switch activated by a snap-action bimetal disc. It meets or exceeds the requirements of MIL-PRF-24236 and is designed for potential military and commercial aircraft applications. It is not QPL listed (see the 3MS1 QPL Series). The case is laser welded to form a hermetically sealed steel housing, with a glass-to-metal seal at the terminal junction. Temperature calibrations are pre-set at the factory, and each unit is thermally and mechanically inspected. It is available to open or close on temperature rise.</p>	<p>Potential applications:</p> <ul style="list-style-type: none"> <li>• Military aircraft</li> <li>• Commercial aircraft</li> <li>• Military vehicles</li> </ul>

**Table 34. 3500 Series Standard Temperature Characteristics**

Temperature Setpoint Range	Tolerance		Nominal Differential °C [°F]	Max. Differential °C [°F]
	Open °C [°F]	Close °C [°F]		
-45,6 °C to 17,8 °C [-50 °F to 0 °F]	±8,3 [±15]	±8,3 [±15]	16,7 to 33,3 [30 to 60]	-
	±5,6 [±10]	±5,6 [±10]	16,7 to 33,3 [30 to 60]	-
	±4,4 [±8]	±4,4 [±8]	11,1 to 27,8 [20 to 50]	-
-17,2 °C to 93,3 °C [1 °F to 200 °F]	±8,3 [±15]	±8,3 [±15]	16,7 to 33,3 [30 to 60]	-
	±5,6 [±10]	±5,6 [±10]	16,7 to 33,3 [30 to 60]	-
	±4,4 [±8]	±4,4 [±8]	11,1 to 27,8 [20 to 50]	-
	±2,8 [±5]	±2,8 [±5]	5,6 to 22,2 [10 to 40]	-
	±2,2 [±4]	-	-	4,4 [8]
	-	±2,2 [±4]	-	4,4 [8]
93,9 °C to 148,9 °C [201 °F to 300 °F]	±8,3 [±15]	±8,3 [±15]	16,7 to 33,3 [30 to 60]	-
	±5,6 [±10]	±5,6 [±10]	16,7 to 33,3 [30 to 60]	-
	±4,4 [±8]	±4,4 [±8]	11,1 to 27,8 [20 to 50]	-
	±2,8 [±5]	±2,8 [±5]	5,6 to 22,2 [10 to 40]	-
	±2,2 [±4]	-	-	4,4 [8]
	-	±2,2 [±4]	-	4,4 [8]
149,4 °C to 176,6 °C [301 °F to 350 °F]	±8,3 [±15]	±8,3 [±15]	16,7 to 33,3 [30 to 60]	-
	±5,6 [±10]	±5,6 [±10]	16,7 to 33,3 [30 to 60]	-
	±4,4 [±8]	±4,4 [±8]	11,1 to 27,8 [20 to 50]	-
	±2,8 [±5]	-	-	5,5 [10]
	-	2,8 [±5]	-	5,5 [10]
	177,2 °C to 204,4 °C [351 °F to 400 °F]	±8,3 [±15]	±8,3 [±15]	16,7 to 44,4 [30 to 80]
±5,6 [±10]		±5,6 [±10]	16,7 to 33,3 [30 to 60]	-
±4,4 [±8]		±4,4 [±8]	8,3 to 10,6 [15 to 19]	-
±3,3 [±6]		-	-	8,3 [15]
-		±4,4 [±8]	-	8,3 [15]

**Table 35. 3500 Series Specifications**

Characteristic	Parameter
Switch type	SPST
Reset type	automatic
Amperage	5 A resistive
Voltage	28 Vdc
Operating temperature range	-51 °C to 204 °C [-60 °F to 400 °F]
Environmental exposure range	-65 °C to 260 °C [-85 °F to 500 °F]
Dielectric strength	MIL-STD-202, Method 301, 1250 Vac
Insulation resistance	MIL-STD-202, Method 302, 500 MOhm
Contact resistance	MIL-STD-202, Method 307, 50 mOhm max.
Hermetic seal	MIL-STD-202, Method 112, Cond. C
Moisture resistance	MIL-STD-202, Method 106
Shock	MIL-STD-202, Method 213, 400 G
Vibration	MIL-STD-202, Method 204, 20 G
Acceleration	MIL-STD-202, Method 212, 20 G
Thermal shock	MIL-STD-202, Method 107, Cond. B
Salt spray*	MIL-STD-202, Method 101, Cond. B
Housing material	cold rolled plated steel
Marking	MIL-STD-1285
Weight	7,5 g [0.26 oz] (brackets and lead wire not included)

\*Not applicable to thermostats with brackets or those operating at temperatures above 162,8°C [325 °F].

**Table 36. 3500 Series Contact Ratings**

Load Type	Life Cycles	28 Vac/dc	115 Vac
Resistive	100,000	5 A	2 A
Inductive	100,000	2.5 A	1 A
Lamp	100,000	1 A	0.5 A