

Figure 8. 3106 Series Low Level Hermetic Thermostats


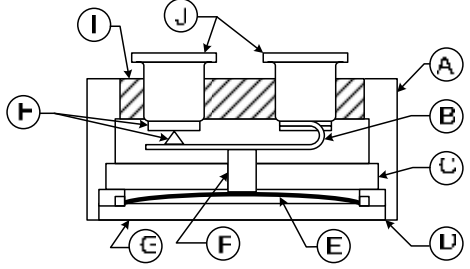
			
	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> A Housing B Contact arm C Ceramic insulator D Laser weld E Bimetal disc </td> <td style="width: 50%; border: none;"> F Ceramic transfer pin G Cap H Gold alloy contacts I Glass header J Terminals </td> </tr> </table>	A Housing B Contact arm C Ceramic insulator D Laser weld E Bimetal disc	F Ceramic transfer pin G Cap H Gold alloy contacts I Glass header J Terminals
A Housing B Contact arm C Ceramic insulator D Laser weld E Bimetal disc	F Ceramic transfer pin G Cap H Gold alloy contacts I Glass header J Terminals		
<p>The 3106 Series is a single-pole, single-throw switch activated by a snap-action bimetal disc. The case is laser welded to form a hermetically-sealed steel housing, with a glass-to-metal seal at the terminal junction. WE-1 gold alloy cross point contacts allow use in potential low voltage applications. 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. A variety of mounting brackets and terminals is available.</p>	<p>3106: Not UL/CSA approved. 3106U: UL/CSA approved.</p> <p>Potential applications:</p> <ul style="list-style-type: none"> • Logic level • Dry circuit applications 		

Table 22. 3106 Series Standard Temperature Characteristics

Operating Temperature Range	Tolerance		Standard Mean Differential °C [°F]	Optional Max. Differential °C [°F]
	Open °C [°F]	Close °C [°F]		
-28,89 °C to -12,2 °C [-20 °F to 10 °F]	±5,6 [±10]	±4,4 [±8]	16,7 to 22, 2 [30 to 40]	-
	±4,4 [±8]	±4,4 [±8]	11,1 to 16,1 [20 to 29]	-
	±3,9 [±7]	±3,9 [±7]	7,8 to 10,6 [14 to 19]	-
	±3,3 [±6]	-	-	4,4 [8]
	-	±3,3 [±6]	-	4,4 [8]
-11,7 °C to 93,3 °C [11 °F to 200 °F]	±2,8 [±5]	±2,8 [±5]	11,1 to 44,4 [20 to 80]	-
	±2,8 [±5]	±2,8 [±5]	8,3 to 10,6 [15 to 19]	-
	±2,8 [±5]	±2,8 [±5]	5,6 to 7,8 [10 to 14]	-
	±2,2 [±4]	-	-	4,4 [8]
	-	±2,2 [±4]	-	4,4 [8]
	±1,7 [±3]	-	-	3,3 [6]
93,9 °C to 148,9 °C [201 °F to 300 °F]	-	±1,7 [±3]	-	3,3 [6]
	±4,4 [±8]	±3,3 [±6]	13,9 to 44,4 [25 to 80]	-
	±3,9 [±7]	±3,3 [±6]	8,3 to 13,3 [15 to 24]	-
	±3,3 [±6]	±3,3 [±6]	6,7 to 7,8 [12 to 14]	-
	±2,8 [±5]	±2,8 [±5]	5,6 to 7,8 [10 to 14]	-
	±2,2 [±4]	-	-	4,4 [8]
149,4 °C to 176,7 °C [301 °F to 350 °F]	-	±2,2 [±4]	-	4,4 [8]
	±6,7 [±12]	±5,6 [±10]	19,4 to 44,4 [35 to 80]	-
	±5,6 [±10]	±5,6 [±10]	13,9 to 18,9 [25 to 34]	-
	±4,4 [±8]	±4,4 [±8]	8,9 to 13,3 [16 to 24]	-
	±3,9 [±7]	±3,9 [±7]	7,8 to 10,0 [14 to 18]	-
	±2,8 [±5]	-	-	5,6 [10]
177,2 °C to 204,4 °C [351 °F to 400 °F]	-	±2,8 [±5]	-	5,6 [10]
	±8,3 [±15]	±8,3 [±15]	22,2 to 55,6 [40 to 100]	-
	±8,3 [±15]	±6,7 [±12]	16,7 to 21,7 [30 to 39]	-
	±5,6 [±10]	±5,6 [±10]	11,1 to 16,1 [20 to 29]	-
	±4,4 [±8]	±4,4 [±8]	8,9 to 10,6 [16 to 19]	-
	±3,3 [±6]	-	-	8,3 [15]
	-	±3,3 [±6]	-	8,3 [15]

Table 23. 3106 Series Specifications

Characteristic	Parameter
Switch type	SPST
Reset type	automatic
Amperage	500 mA
Voltage	50 Vdc
Operating temperature range	-29 °C to 204,4 °C [-20 °F to 400 °F]
Environmental exposure range	-62 °C to 260 °C [80 °F to 500 °F]
Dielectric strength	MIL-STD-202 Method 301 – 1250 Vac 60 Hz, terminal to case
Insulation resistance	MIL-STD-202 Method 302 Cond. B – 50 MOhm, 500 Vdc applied
Contact resistance	MIL-STD-202, Method 307 – 25 mOhm
Hermetic seal	MIL-STD-202, Method 112 Cond. 1x10 ⁵ Atm cc/sec
Moisture resistance	MIL-STD-202, Method 106
Housing material:	
Base	cold rolled plated steel
Contacts	WE-1 gold alloy cross point
Terminals	nickel/iron alloy
Closure	hermetically sealed
Brackets	cold rolled plated steel
Plating	copper/nickel QQ-N-290
Marking	MIL-STD 1285
Approvals	UL File E36103, CSA File LR21048
Weight	5,5 g [0.19 oz] (brackets and wire leads not included)

Table 24. 3106 Series Contact Ratings

Life Cycles	24 Vdc	50 Vdc	120 Vac
100,000	500 mA	500 mA	100 mA