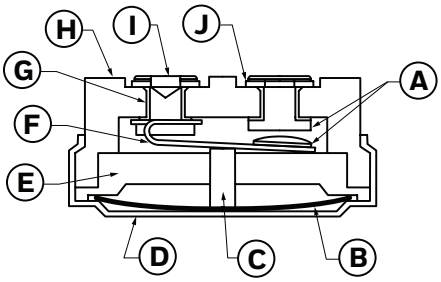
PRECISION AND HIGH RELIABILITY THERMOSTATS



A Contacts
B Bimetal disc
C Ceramic transfer pin
D Metal closure
E Phenolic insulator
F Contact arm
G Metal sleeve (3004 only)
H Phenolic base
I Rivet (3004 only)
J Terminal

3001: Not UL/CSA approved
3001U Vac only: UL/CSA approved
3004 Vac and hp only: UL/CSA approved

POTENTIAL APPLICATIONS

- Computers
- Office equipment
- Blood analyzers

3001/3004 SERIES NON-HERMETIC THERMOSTATS

The 3001/3004 Series is a factory pre-set, single-pole, single-throw thermal switch available to open and close on temperature rise. The 3001 has a low-profile that allows it to be used in most applications where a non-hermetic precision thermostat is required for tight tolerances and the 3004 has a metal sleeve rivet construction. A metal closure makes the phenolic base dustproof and also provides thermal and electrical isolation for the silver contacts.

TABLE 1. 3001/3004 SERIES STANDARD OPERATING TEMPERATURE CHARACTERISTICS*

Operating Temperature Range	Tolerance		Standard Mean Differential °C [°F]	Optional Max. Differential °C [°F]
	Open °C [°F]	Close °C [°F]		
-17.8°C to 0°C [0°F to 31°F]	±3,9 [±7]	±5,0 [±9]	16,7 to 33,3 [30 to 60]	–
	±3,3 [±6]	±3,9 [±7]	8,3 to 16,1 [15 to 29]	–
0°C to 26.1°C [32°F to 79°F]	±3,3 [±6]	±4,4 [±8]	16,7 to 33,3 [30 to 60]	–
	±2,8 [±5]	±3,9 [±7]	8,3 to 16,1 [15 to 29]	–
	±2,8 [±5]	±2,8 [±5]	5,6 to 7,8 [10 to 14]	–
26.7°C to 93.3°C [80°F to 200°F]	±2,8 [±5]	±3,9 [±7]	16,7 to 33,3 [30 to 60]	–
	±2,8 [±5]	±3,3 [±6]	8,3 to 16,1 [15 to 29]	–
	±2,8 [±5]	±2,8 [±5]	5,6 to 7,8 [10 to 14]	–
	±2,8 [±5]	–	–	5,6 [10]
	–	±2,8 [±5]	–	5,6 [10]
	±2,2 [±4]	–	–	4,4 [8]
	-	±2,2 [±4]	–	4,4 [8]
93.9°C to 148.9°C [201°F to 300°F]	±3,9 [±7]	±4,4 [±8]	16,7 to 44,4 [30 to 80]	–
	±3,9 [±7]	±3,9 [±7]	13,9 to 16,1 [25 to 29]	–
	±3,3 [±6]	±3,9 [±7]	11,1 to 13,3 [20 to 24]	–
	±3,9 [±7]	–	–	8,3 [15]
	–	±3,9 [±7]	–	8,3 [15]
	±3,3 [±6]	–	–	6,7 [12]
	–	±3,3 [±6]	–	6,7 [12]
149.4°C to 168.3°C [301°F to 335°F]	±5,6 [±10]	±6,7 [±12]	22,2 to 44,5 [40 to 80]	–
	±5,6 [±10]	±5,6 [±10]	19,5 to 21,7 [35 to 39]	–
	±4,4 [±8]	±5,6 [±10]	13,9 to 16,1 [30 to 34]	–
	±5,6 [±10]	–	–	11,1 [20]
	–	±5,6 [±10]	–	11,1 [20]
	±4,4 [±8]	–	–	10,0 [18]
	–	±4,4 [±8]	–	10,0 [18]

**Operating temperatures are available in 5°C [8°F] increments between 40°C to 120°C [104°F to 248°F].*

TABLE 35. 3MS1 QPL SERIES SPECIFICATIONS

Characteristic	Parameter
Switch type	SPST
Reset type	automatic
Amperage	5 A resistive (see Table 36)
Voltage	28 Vac/dc (see Table 36)
Operating temperature range	-46°C to 190°C [-50°F to 375°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, 100 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
Approvals	QPL MIL-PRF-24236/1
Weight	7,5 g [0.26 oz]

TABLE 36. 3MS1 QPL 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