

MICROTEMP® Thermal Fuses

Product Information and
Application Notes



Upper Limit Temperature Protection

MICROTEMP®, the original thermal fuse from Therm-O-Disc, offers the broadest combination of globally certified temperatures and electrical loads, as well as the broadest range of packages, mountings and design configurations on the market today.

MICROTEMP Features:

- Globally certified temperatures and electrical loads
- One-shot operation cuts off electrical power
- Current interruption capacity up to 25 amps @ 250VAC
- Low resistance
- Compact size
- RoHS compliant

Operating Principle

The active trigger mechanism of the thermal fuse is an exclusively formulated, electrically nonconductive pellet. Under normal operating temperatures, the solid pellet holds spring loaded contacts closed. When a predetermined temperature is reached, the pellet melts, allowing the compression spring to relax. The trip spring then slides the contact away from the lead and the circuit is opened.

After the thermal fuse opens a circuit, the fuse needs to be replaced. This replacement procedure must include correction of the fault condition before the product is operated again.

	G4	G5	Z6	G6	G7	G8	S9
Typical Resistive Rating at 250VAC	10A	20A	16A Higher Tm Than G6	16A More Temperature Ratings Than Z6	5A	25A	15A
Details found on page	3	5	7	See pages 14-15			

Application Notes - Page 16
Mountings & Configurations - Page 9

NOTE: The terms *thermal fuse*, *thermal cutoff*, *thermal link*, and *TCO* are synonymous and may be used interchangeably throughout the catalog.

G4 MICROTEMP Thermal Fuses



G4 MICROTEMP - the Original Thermal Fuse

Providing reliable back-up protection for temperature controlling thermostats and other over-temperature conditions, the G4 series MICROTEMP thermal fuse is the industry standard for over-temperature protection. The G4 is rated for continuous operating currents up to 10 amps @ 250VAC.

Benefits

- The industry standard for over-temperature protection
- Available in a wide range of temperatures to offer design flexibility in your application
- Available in mounted and packaged designs

Features

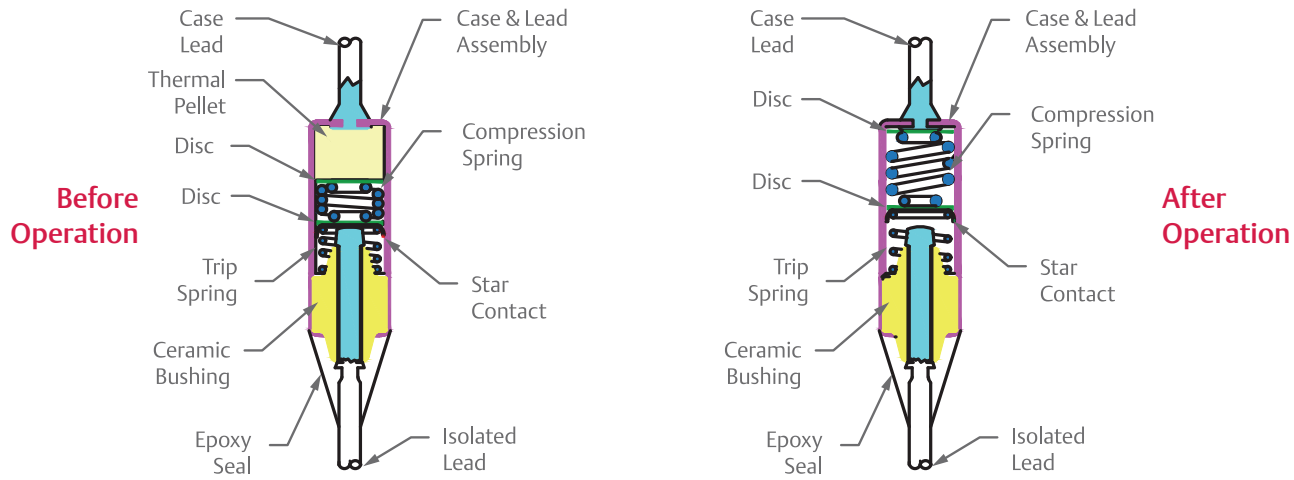
- One shot operation cuts off electrical power
- 10A/250VAC, 15A/120VAC, 5A/24VDC
- Low Resistance
- Compact size

Applications

- Portable Appliance
- Major Appliance
- HVAC
- Power Supplies
- Water Heater
- Other



G4 MICROTEMP Product Information



Standard Dimensions

	Standard Leads
Overall Length $\pm .12"$ ($\pm 3.0\text{mm}$)*	2.51" (63.8mm)
Case Lead Length $\pm .06"$ ($\pm 1.5\text{mm}$)	1.38" (34.9mm)
Case Lead Diameter	0.040" (1.0mm)
Case Lead Material	Tin Plated Copper
Isolated Lead Diameter	0.040" (1.0mm)
Isolated Lead Material	Silver Plated Copper
Case Dimensions, Including Epoxy	.58" L x .158" D (14.7mm x 4.0mm)

* Longer leads available up to 5.83" (148mm)

Electrical Ratings

Agency	Resistive	Inductive
UL/CSA	10A/250VAC 15A/120VAC 5A/24VDC	8A/250VAC 14A/120VAC
VDE	10A/250VAC	8A/250VAC
CCC	10A/250VAC	8A/250VAC
PSE JET*	10A/250VAC	
S JET*	30A/16VDC**	
Korea	10A/250VAC	

*For PSE JET and S JET ratings for Japan replace 'G' with 'S' as first letter of nomenclature

**Load agency approved for 172C and 240C temperatures only

Operating Temperature Summary

Tf°C	Th°C	Tm°C
072	57	100
073	58	100
077	62	300
084	69	220
091	76	300
093	78	300
098	83	300
104	89	200
110	95	240
117	102	240
121	106	300
128	113	205
134	119	205
141	126	205
144	129	300
152	137	205
158	143	240
167	152	210
172	157	310
184	169	240
190	175	350
192	177	210
205	190	310
216	200	450
229	200	450
240	200	450
257	220	470

Tf = Functioning open temperature $+0/-5^{\circ}\text{C}$

Th = Maximum temperature of the thermal fuse, measured at the case end, at which the thermal fuse can be maintained for a period of at least 168 hours without opening

Tm = Maximum overshoot temperature. Temperature up to which the open thermal fuse will not change state