Honeywell

250 Series Thermal Switches

Honeywell's TS250 is Qualified to MIL-PRF-24236/29

Honeywell's 250 Series snap-action thermal switches are specifically designed for applications requiring high current capacity in high vibration and shock environment.

The hermetic all-welded construction of the 250 Series allows use in a broad range of temperature and altitude applications. It is available in eight standard configurations and comes with either solder terminals or screw type lugs.

Application Examples

- Aircraft window heat controllers and defrosters
- Space Station pump control for liquids
- Battery and compartment temperature control and overheat
- Power supply overtemperature
- Railroad step defrosters
- Gun mount mechanism de-icing
- Ship gun turrets

Features

- High ampere rating
- Rugged all welded hermetic construction
- Solder terminals, screw lugs, or lead wires are available
- Environmental temperature range from -85°F to +350°F
- Differential range from 5°F to 35°F
- High vibration resistance
- Crisp SPST or TCST contact operation (see schematic diagrams)
- Available in eight standard configurations
- Contacts open or close on rising temperature
- Custom units with special plating, lead wires, or overmolds can be provided (consult factory)
- Wire and overmold available (consult factory)

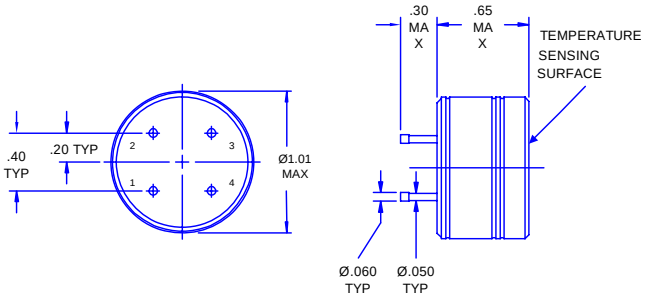
Specifications for 250 Series Thermal Switches

Performance	Contact Arrangement:	SPST TCST (Two Circuit, Single Throw)
	Endurance:	100,000 cycles minimum at rated DC or AC loads
	Insulation Resistance:	1000 megohms minimum at 500 VDC
	Electrical Ratings	10 Amperes Resistive 28VDC 100,000 cycles 15 Amperes 115 VAC 60 Hz 100,000 cycles 3 Amperes Resistive 55 VDC 100,000 cycles .75 Amperes Inductive 75 VDC 1,000,000 cycles 4.5 Amperes Inductive 28 VDC 10,000 cycles
	Dielectric Withstanding Voltage:	1500 VAC RMS - terminals to case, 500 microamperes maximum leakage
Environmental	Vibration:	Method 204, 15.4 grms, 10 to 2000 Hz
(MIL-STD-202)	Shock:	Method 213, 100g/6ms, 750g/0.5ms
	Thermal Shock:	Method 107, Condition B, -85 to +257°F
	Acceleration:	Method 212, Condition A, 20g
	Moisture Resistance:	Method 106, 240 hours, 98% RH and from +77 to +149°F
	Hermetic Seal:	Method 112, Condition B
	Salt Spray:	Method 101, Condition B, 48 hours

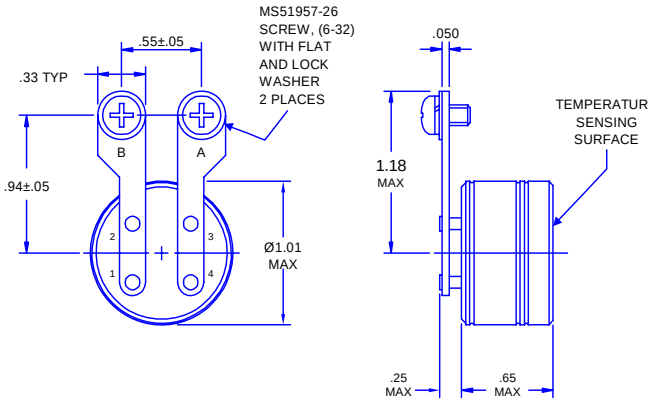
Configuration Drawings (dimensions in inches)

All configurations shown are available with upright terminals

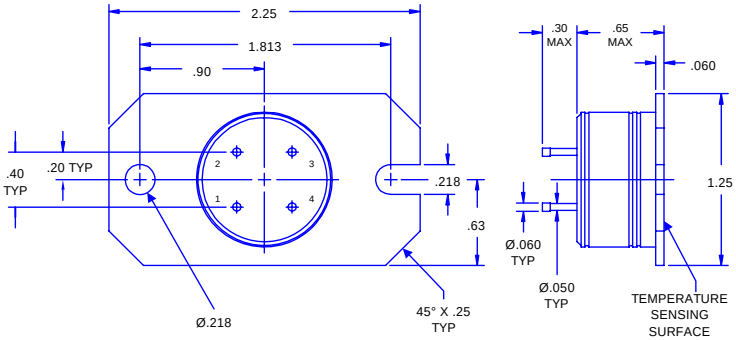
251, Configuration 1



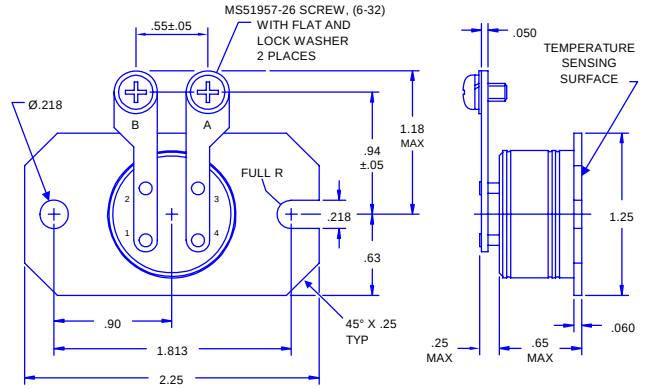
252, Configuration 2



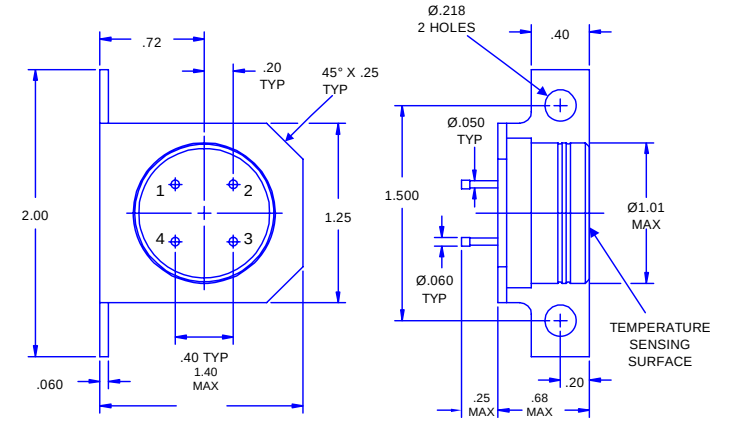
253, Configuration 3



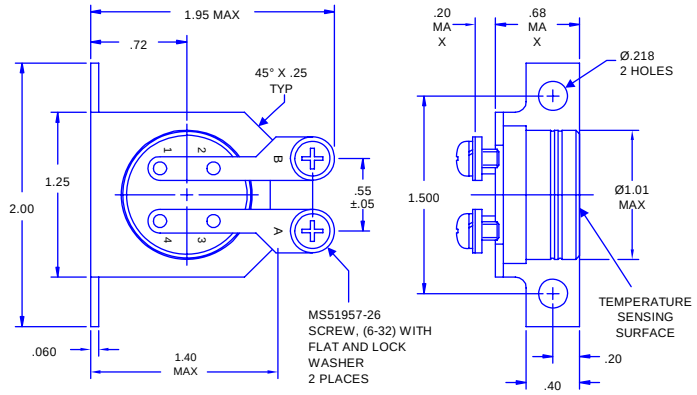
254, Configuration 4



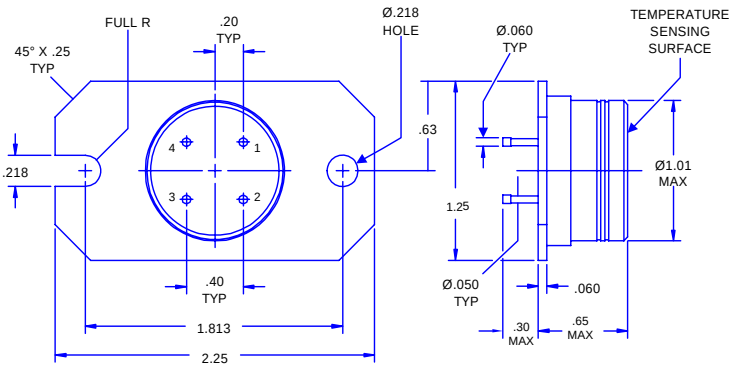
255, Configuration 5



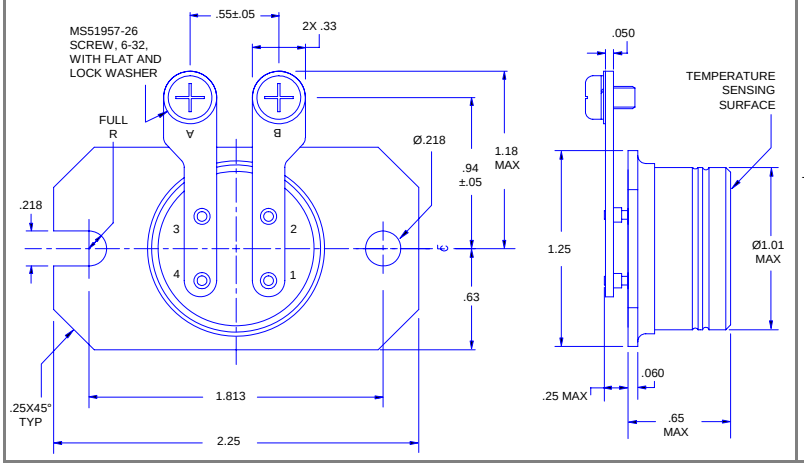
256, Configuration 6



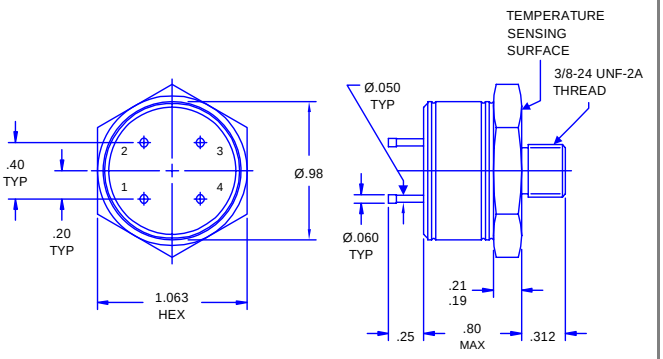
257, Configuration 7



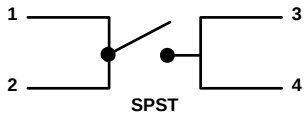
258, Configuration 8



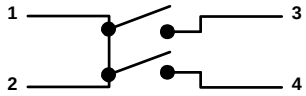
259, Configuration 9



Schematic Diagrams



SPST



TCST
Two Circuit
Single Throw

Tolerance Limits

Specified Temp Setpoint Range °F (°C)	Standard Setpoint Tolerance °F (°C)
-45 to 25 (-43 to -4)	±8 (4.4)
26 to 230 (-3 to 110)	±5 (2.8)
231 to +350 (111 to 177)	±7 (3.9)

Sample Ordering Code

Once written, your ordering code becomes the specific part number, as the following example illustrates:

	UNIT #					
	1	*2*	*3*	*4*	*5*	*6*
	255	**T**	**100**	**A**	**112**	**XX**
Configuration shown in drawing						
T = Tin plate finish*						
Lower temperature setpoint at 100°F ±5°F						
A = Open on temperature rise B = Close on temperature rise						
Upper temperature setpoint at 112°F ±5°F						
Custom features (Consult Factory)						

* Other finishes are available (consult Factory).

Find out more:
www.thermalswitch.com

Defense & Space Redmond

Honeywell International, Inc.
MAIL ADDRESS: P.O. Box 97001
15001 N.E. 36th Street
Redmond, Washington 98073-9701
PHONE: 888 206 1667
FAX: 425 883 2104
www.honeywell.com

ISO-9001 Certification Since 1995

250 12/2006 EXP051

Honeywell