

Probe Style Thermal Switches

CPO/CPC Series



Bi-Metal Thermal Switches

Selco Probe CPO/CPC series thermostats are thermally sensitive bi-metallic switches which, when reaching a set point, will either open or close to make or break an electrical circuit.

Our probe designs are a one piece construction made from brass, nickel plated brass or 300 series stainless steel that can be immersed safely in liquids or air. Selco offers a wide range of thermostats that can either be snap-action bi-metal discs or creep-action bi-metals, with many available set points.

Certified as an ISO 9001:2008 manufacturer, all of our probes are UL approved, including c-UL and RoHS compliance.

Selco probe thermostats are carefully designed using specific thermally conductive epoxies and electrical potting compounds to accommodate a customer's application. We inventory over 50 standard housings and a range of wire insulations that are rated from 90-400°C. If required, the assembly can be designed for low current, low voltage, high temperature or high pressure environments.

CPO/CPC Series Key Features

- > Precalibrated 32-500°F (0-260°C)
- > Snap Action or Creep Action Switching
- > Over 50 Standard Probe Housings
- > Single Piece Construction
- > ISO 9001:2008 Certified Manufacturer
- > UL, C-UL, ROHS Certifications



Everyday Applications

Common applications include sensing oil temperatures and water levels, but also a wide variety of other applications including:

Generators	Parts Washers	Refrigeration Compressors	Commercial Food Equipment	Internal Combustion Engines
Plastics Processing	Pressure Washers	Air/Gas Compressors	Hydraulic Systems	Pool/Spa

Example Thermal Switch Assemblies:



Off-Road Vehicles



AC/DC Power Converters



Irrigation



Automotive

For more information on Selco Products please visit us at: www.selcoproducts.com

Probe Style Thermal Switch

CPO/CPC Series Technical Specifications

Snap Action[†]

Average Temperature Differential

Temperature Ratings

Range	Tolerance-Open	Tolerance-Closed	Differential
32-122°F (0-50°C)	±7.2°F (4°C)	±9°F (5°C)	Specify
123-212°F (51-100°C)	±7.2°F (4°C)	±10.8°F (6°C)	Specify
213-302°F (101-150°C)	±9°F (5°C)	±12.6°F (7°C)	Specify
303-500°F (150C-260°C)	±14°F (8°C)	±18°F (10°C)	Specify

Electrical Ratings

125VAC	15A	Resistive	100,000
250VAC	8A	Resistive	100,000
120VAC	5.8FLA	34.8LRA	6,000
240VAC	2.9FLA	17.4LRA	6,000

Insulation Resistance

≥100mΩ (with a 500VDC Megger)

Contact Resistance

≤50mΩ (initial value)

Dielectric Strength

1,500VAC/1-min or 1,800VAC/1-sec

Certifications

UL (E145478,XAPX2), c-UL E145478(XAPX8)

Snap Action^{**}

Larger Temperature Differential

Temperature Ratings

Range	Tolerance	Differential
86-356°F (30-180°C)	9°F (5°C)	Specify

Electrical Ratings

16VDC	20A	10,000
125VAC	20A	10,000
250VAC	8A	10,000
24VDC	10A	10,000

Insulation Resistance

≥100mΩ (with a 500VDC Megger)

Contact Resistance

≤50mΩ

Dielectric Strength

1,500VAC/1-min or 1,800VAC/1-sec

Certifications

UL (E145478,XAPX2), c-UL E145478(XAPX8)

Creep Action^{***}

No Temperature Differential; Slow Make & Break

Temperature Ratings

Range	Tolerance	Differential
41F-392°F (5-200°C)	5°F (3°C)	—

Electrical Ratings

120 VAC	6A	Resistive	100,000
240 VAC	4A	Resistive	100,000
12 VDC	8A	Resistive	5,000
24 VDC	4A	Resistive	5,000

Insulation Resistance

≥5mΩ

Contact Resistance

≤50mΩ

Dielectric Strength

1,500VAC/1-min

Certifications

UL (E145478,XAPX2), c-UL E145478(XAPX8)

*Used best with 1/2" NPT

[†] Temperature rate of change at 1°F (.5°C) per minute. Tighter tolerance available upon request.

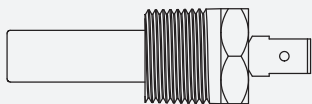
**Used best with 3/8" & 1/2" NPT

***Used best with 1/4" NPT

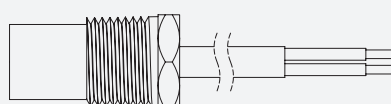
CPO/CPC Series Technical Drawings

The drawings below are three example part configurations. For additional configurations, please see our **"Probe Part Number Map"**.

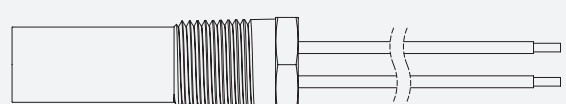
Quick Connect



SJO Cable



2 Leads



NOTE: It is the customer's sole responsibility to specify and determine the suitability of a particular control or component based on their unique individual applications and requirements, with respect to temperature settings, cycle life, electrical load and environmental conditions.

For more information on Selco Products please visit us at: www.selcoproducts.com



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