

Electronic Temperature Controller

ECAP Series

selco
our service makes the difference

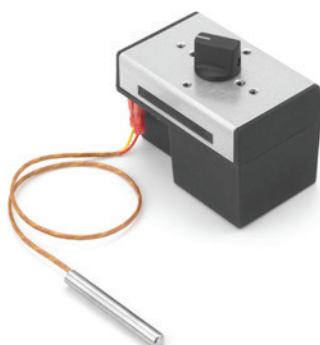


The simplicity of electromechanical thermostats with the power of electronics

Selco's ECAP series electronic temperature controller uses NTC thermistors, J- or K- type thermocouples, and/or RTD sensors to control up to 2 relay outputs. The controller is supplied in an environmentally sealed plastic enclosure and is rated for pollution levels up to Level 3 for harsh environments. Because the ECAP is electronic, it can be programmed to open or close on rise. It can also be made adjustable to your specified temperature range, and is supplied with a potentiometer for user temperature adjustment. Fixed temperature versions that prevent user tampering are also available. Several add-on accessories are coming soon, including PC desktop software, USB key/dongle, optional external digital readout, and the Selco app for smartphones. Contact Selco for updates.



*Product markings subject to change



Everyday Applications

Appliances Freeze Protection Dehumidifiers Heaters Freezers
Dryers Food Equipment Ovens Refrigeration ...and more!

SENSOR TYPE	TEMPERATURE RANGE
NTC Thermistor	-40°F (-40°C) to 400°F (205°C)
Thermocouple J	140°F (60°C) to 1364°F (740°C)
Thermocouple K	140°F (60°C) to 2012°F (1100°C)
RTD Class B	-40°F (-40°C) to 1292°F (700°C)

Key Features

- > Drop-in replacement for bulb and capillary thermostats
- > Heavy duty 30A relay, or up to 2 relays (20A, 12A)
- > Multiple input sensors available (NTC thermistor, RTD, and J or K thermocouple)
- > Wide sensing temperature range from -40°F to 2012°F depending on sensor
- > 1 degree accuracy (1°F for RTDs and 1°C for thermocouples)
- > IoT Ready (coming Fall 2018)
- > Multiple brackets available
- > Variety of control knobs available
- > UL approval pending

RoHS
Compliant

Technical Specifications

Power

- > 12-24VAC/VDC or 85-250VAC

Sensor Inputs

- > Two NTC inputs -OR-
- > One RTD/TC and two NTC inputs -OR-
- > Two RTD/TC inputs

*Contact Selco for more info regarding our value added capabilities for sensor assemblies

Relay Outputs

- > Dual relay 20A and 12A
- > Single relay 20A
- > 12-24VAC/VDC for SSR
- > Single relay 30A

*See Part Number Configurator for more info

Controls

- > Potentiometer for adjustable versions
- > Reprogrammable through on-board comm port

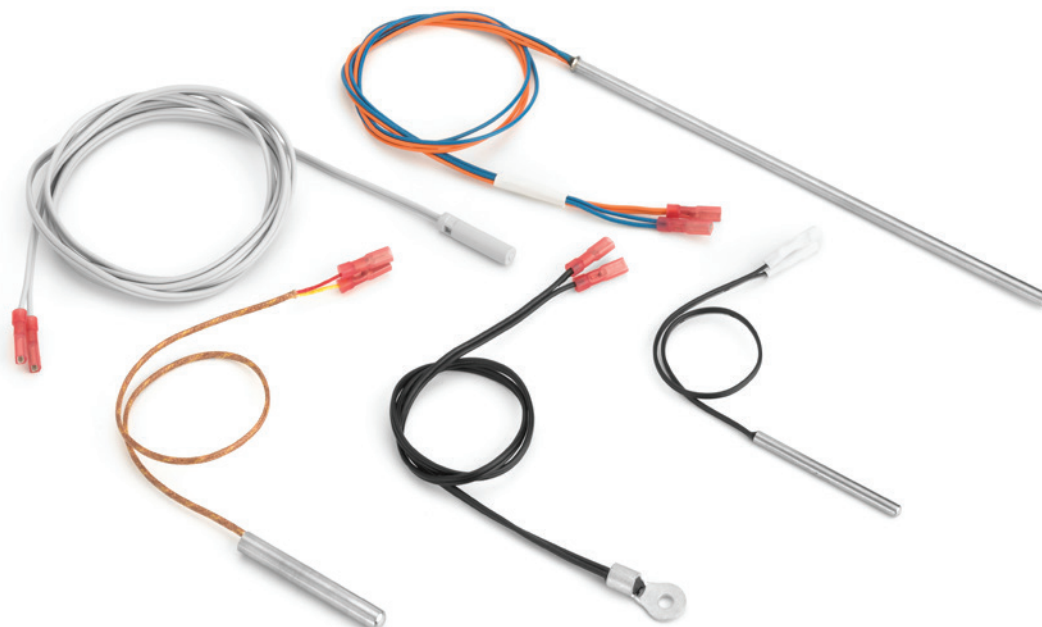
Optional

- > Custom mounting brackets
- > Custom or standard knobs for potentiometer

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

Wide variety of sensor options

Selco offers a wide variety of sensors in multiple sizes and formats (epoxy, enclosed, thermowell, ring lugs etc). Our ECAP + sensors package is ideal for applications where tighter accuracy is key. The sensors offered for use with the ECAP remain stable over time, and are not affected by altitude like traditional liquid-filled bulb and capillary style thermostats. Choose one of Selco's existing sensor designs, or give us your design specifications/drawings. Our ISO 9001:2015 design and manufacturing facility will do the rest.



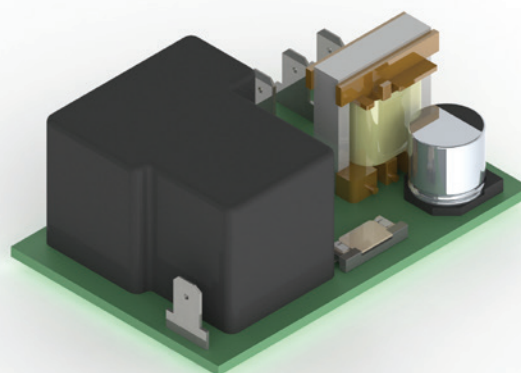
Robust and reliable 30A relay to support heavy-duty loads

The ECAP series has a robust and reliable 30A relay version designed to support heavy duty loads. There are also two additional versions offered: a two relay version (20A and 12A) perfect for cold applications, and an SSR output version designed to drive external relays.

Power Relay - 30A UL class F, CSA approved

Contact Ratings:

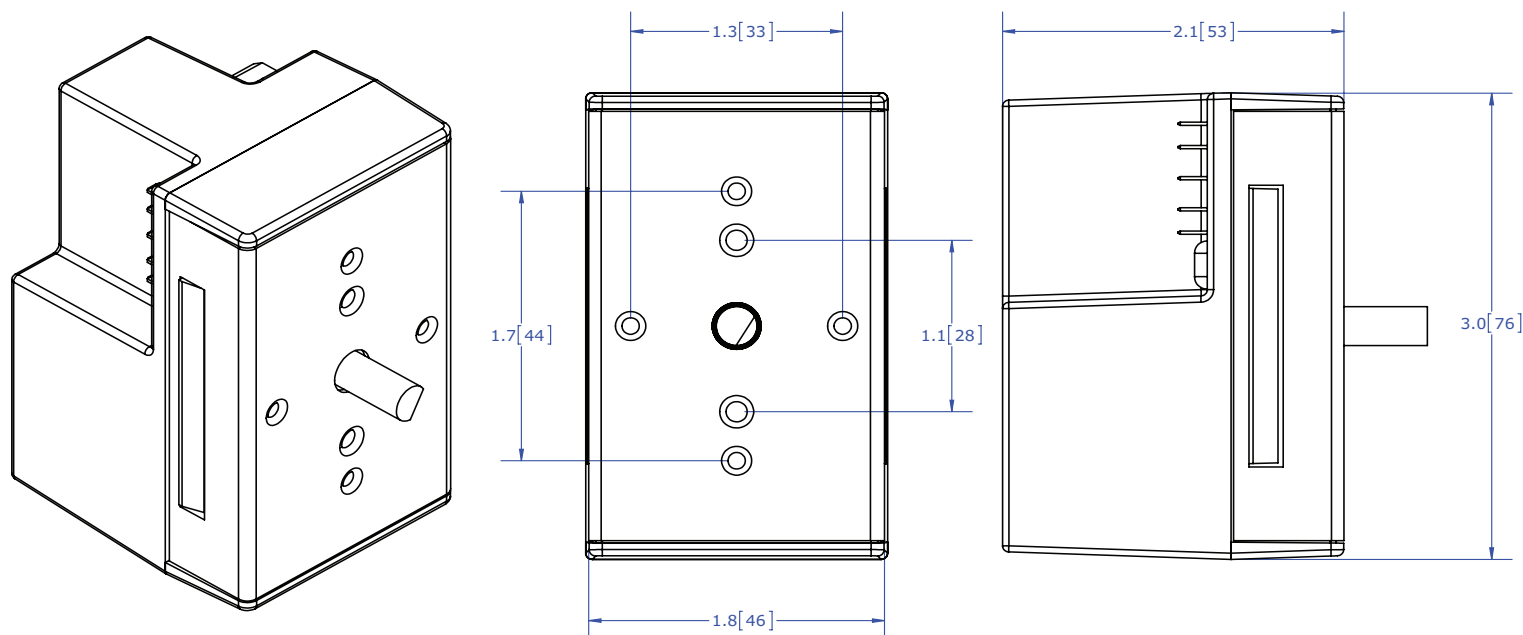
- 100,000 cycles at 30A, 240VAC
- 100,000 cycles at 20A, 28VDC
- 30,000 cycles at 80LRA/30FLA, 240VAC
- 6,000 cycles at 10A, 277VAC, ballast
- 30,000 cycles at 470VA, 120VAC, pilot duty



*For illustrative purposes only

Compatible footprint with traditional bulb & capillary controls

These controls are compact and similar in form, fit, function and price to conventional electromechanical bulb and capillary thermostats. They have been designed to replace mounting brackets from 1.1" to 1.75" (28 to 44 mm) and have multiple shaft options. Custom brackets and digital displays are available upon request. This makes them the perfect drop-in replacement to existing designs.



USB key for easy configuration, fine tuning

The ECAP can be re-programmed to different parameters at any time (e.g., OEM factory or in the field) with the USB Key. It can also be made adjustable to your specified temperature range, and supplied with a potentiometer for user temperature adjustment or set to a fixed temperature.

Ready for the wireless future? Check out our optional IoT module

The ECAP Series is being designed to be IoT ready.

Selco will soon be able to support multiple IoT protocols with the optional wireless module. The new Selco app and smart home protocols including Z-wave module are also estimated to be completed in 2018.*



*Protocols and revisions are subject to change

Part Number Configurators

Line Voltage 85-250VAC (H)

ECAP

-

H

-

Output Options

- | | |
|----|-------------------------------|
| 20 | Dual relay 20A and 12A |
| 21 | Single relay 20A |
| 22 | Single 12VDC for external SSR |
| 30 | Single relay 30A |

Input Type

- | | |
|----|------------------------------|
| NT | Two NTC inputs |
| HS | One RTD/TC and two NTC input |
| HD | Two RTD/TC inputs |

IoT Module (Optional)

- | | |
|----|---------------------|
| BL | Bluetooth low power |
| WF | WiFi |
| ZG | Zigbee/ZWave module |

Low Voltage 12-24VAC/VDC (L)
*For SELV systems (Safety Extra Low Voltage)

ECAP

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L

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Output Options

- | | |
|----|--|
| 21 | Single relay 20A (12VAC/12VDC only) |
| 22 | Single or dual 12-24VAC/VDC for external SSR |
| 30 | Single relay 30A (12VAC/12VDC only) |

Input Type

- | | |
|----|------------------------------|
| NT | Two NTC inputs |
| HS | One RTD/TC and two NTC input |
| HD | Two RTD/TC inputs |

IoT Module (Optional)

- | | |
|----|---------------------|
| BL | Bluetooth low power |
| WF | WiFi |
| ZG | Zigbee/ZWave module |

Samples available upon request!

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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