

## Temperature, Power and Safety Limit Controller in One Package

The EHG SL10 is a key component in a powerful system that integrates a heater, an adjustable set point temperature controller, high/low temperature alert, power switching device and a safety high temperature limit. This agency recognized controller/safety limit meets UL® 1998 and CE 60730 requirements. The optional display/communications module can be easily upgraded and added in the field to provide digital display indication, adjustment of set point, RS485 Modbus™ communications and other Human Machine Interface (HMI) features. This system allows you to purchase only what is needed for your application.

The easy to install, compact design, inherent reliability and integrated limit functions make this controller a tremendous value. The controller is designed for easy integration with Watlow heaters simplifying engineering, reducing component count on new equipment and decreasing cost of ownership. For original equipment manufacturers (OEMs), CE, Semi-S2 compliance and UL® recognition will reduce time and costs necessary for global agency testing and validation.

### Applications

#### Foodservice equipment

- Warming and serving equipment
- Food holding cabinets

#### Life sciences

- Laboratory equipment
- Medical equipment

#### Packaging

- Heat sealing bars
- Hot glue application equipment

#### Semiconductor processing

- Gas delivery lines



### Features and Benefits

#### Process controller and safety limit in one package

- Meets UL® 1998 and CE 60730 requirements
- Eliminates the need for a thermal fuse on a heater
- Eliminates replacement of heater when fuse fails

#### Optional display/communications module

- Allows easy upgrade on to base device
- Offers low cost field upgrade
- Provides easy, snap-on installation

#### Accurate and flexible temperature process controller

- Replaces problematic bi-metal thermostats with accurate electronic temperature process controller
- Allows easy change of process parameters

#### Ambient operating temperature range 0 to 70°C (32 to 158°F)

- Increases reliability when mounting in harsh temperature environments or in close proximity to heaters

#### Integrated high/low temperature alert signal relay

- Provides dry contact output to activate external alarm or process function
- Signals control status with three integrated LEDs
- Allows a signal of up to two amp 30V≈(ac/dc), Form A to alert if process temperature is out of range limits

#### Health check diagnostics

- Monitors maximum heater process temperature, maximum ambient temperature and thermocouple operation
- Provides health check signal to inform operator that the process is working correctly

Patent Pending

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## Features and Benefits (con't)

### Universal power supply

- Allows an input of 85 to 264V~(ac), 50/60Hz
- Provides safe control of up to 2400 watts with 10 amp switching in both controller and safety limit

### Can be switched from on-off and PID algorithm

- Increases product life (on-off control is default)
- Offers selectable PID control algorithm for tighter temperature uniformity

### Universal 1/8 turn mounting bracket

- Allows mounting to most surfaces
- Provides flexible mounting—either horizontally or vertically

## Specifications

### Operational

- Two, Type K thermocouple inputs - process temperature control and safety limit
- Process temperature output - 10 amp “no-arc” relay
- Safety limit alarm - 10 amp relay
- High/low temperature alert - 2 amp 30V~(ac/dc), Form A (single pole, normally open contact)
- On-off temperature controller algorithm, upgraded via communications to PID algorithm (minimum cycle time 30 seconds)

### Standard Molex connectors

- Controllers are integral to the heater and are supplied by Watlow

### Power

- Isolated universal power supply 85 to 264V~(ac), 50/60Hz
- Up to 2400 watts with 10 amp switching capability



Display and communication module shown with flexible heater.

### “No-arc” Relay

- 10 amp switching
- 4.5 million cycles

### Environmental

- Ambient operating temperature range 0 to 70°C (32 to 158°F)

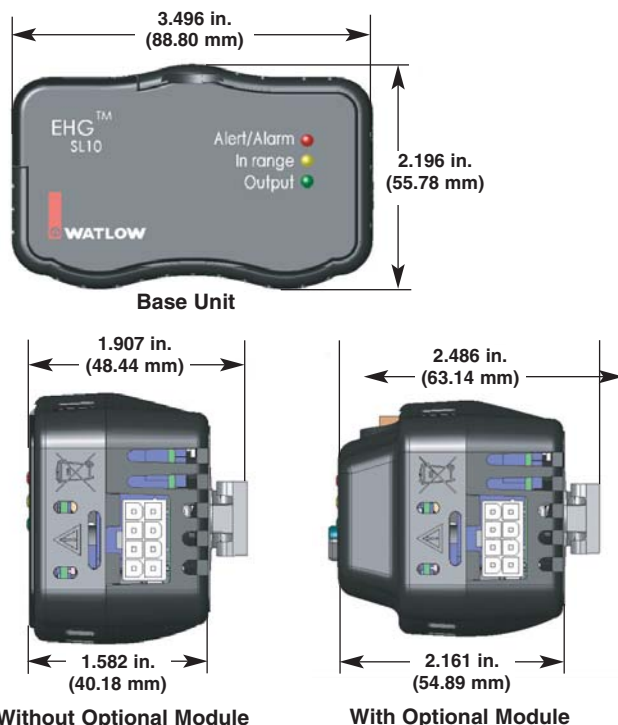
### Agency Approvals

- UL® 1998/ C-UL®
- CE 60730
- Semi-S2

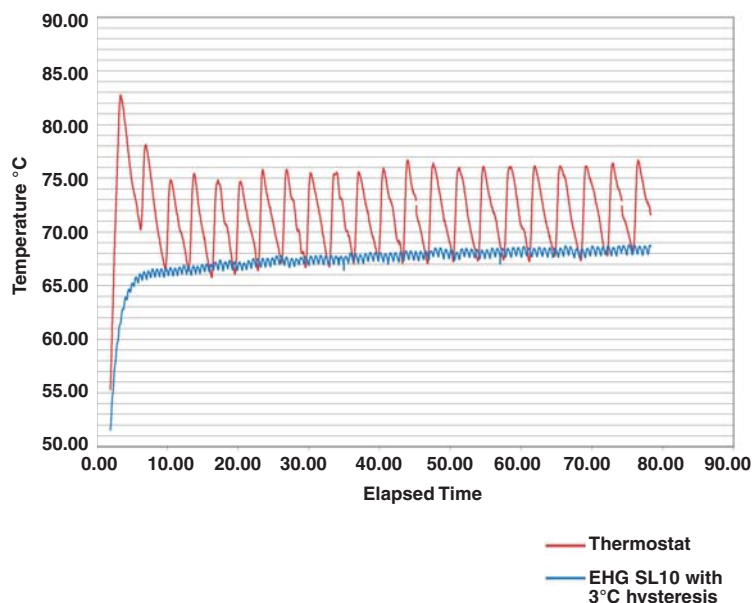
## Switching Device Comparison Chart

	T-Stat	Solid State Relay	Watlow “No-arc” Relay
Amperage at 25°C (77°F)	10 amps	10 amps	10 amps
Amperage at 70°C (158°F)	10 amps	De-rate significantly and add heat sink and air cooling	10 amps
Output device life at 10 amps	Rated 100,000 at 70°C (158°F)	Greater than 10 million cycles at 25°C (77°F)	Greater than 4.5 million cycles at 70°C (158°F)

## Dimensions



## EHG SL10 Versus Thermostat (Typical Application)

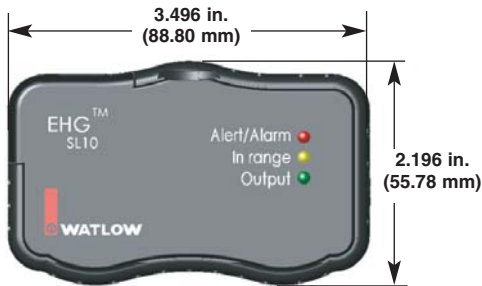


— Thermostat  
— EHG SL10 with 3°C hysteresis





Modules can be upgraded and are easily replaceable.



Base Unit



Communications Only Module



Display Only Module



Display and Communications Module

## Ordering Information

Basic controller is purchased only as part of a heater assembly.

To order, complete the model number on the right with the information below.

EHG 2 - [ ] - [ ]

Controller

CNTL = Base unit (EHG2 - CNTL - 0000)

MODU = Module

Module

DISP = With display module

COMS = With communications module

DCSM = With display and communications module

Additional cables for wiring parallel heater circuits (daisy-chaining) in gas line and other assemblies

4800-0012 - Long cable

4800-0022 - Long terminating cable

4800-0011 - Short cable

4800-0021 - Short terminating cable

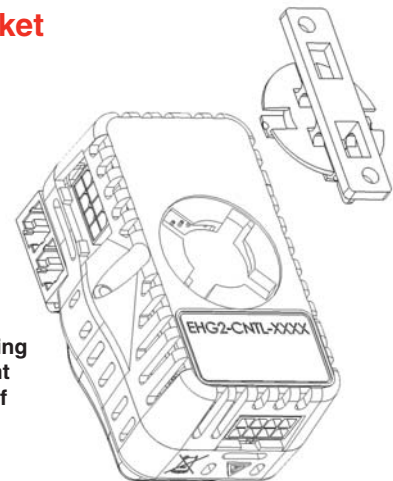
## Availability

The EHG SL10 is now available for shipment; please contact a Watlow heater facility for more information.



The EHG SL10 can be "daisy-chained" for gas line and other assemblies.

## Mounting Bracket



The EHG SL10 mounting bracket lets you mount the controller in any of four angles.

To be automatically connected to the nearest North American Technical and Sales Office call:

# 1-800-WATLOW2

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