

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 high temperature safety 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

Patent Pending

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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



Better Thermal Solutions...Faster

COL-EHGSL-0808

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 W with 10A 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

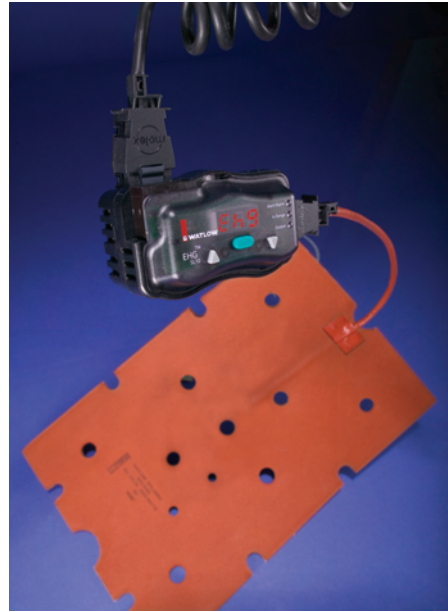
- Two, Type K thermocouple inputs - process temperature control and safety limit
- Process temperature output - 10A NO-ARC relay
- Safety limit alarm - 10A relay
- High/low temperature alert - 2A 30V~(ac/dc), Form A (single pole, normally open contact)
- On-off temperature controller algorithm, upgraded via communications to PID algorithm (min. 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 W with 10A switching capability



Display and communication module shown with flexible heater.

NO-ARC Relay

- 10A switching
- 4.5 million cycles

Environmental

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

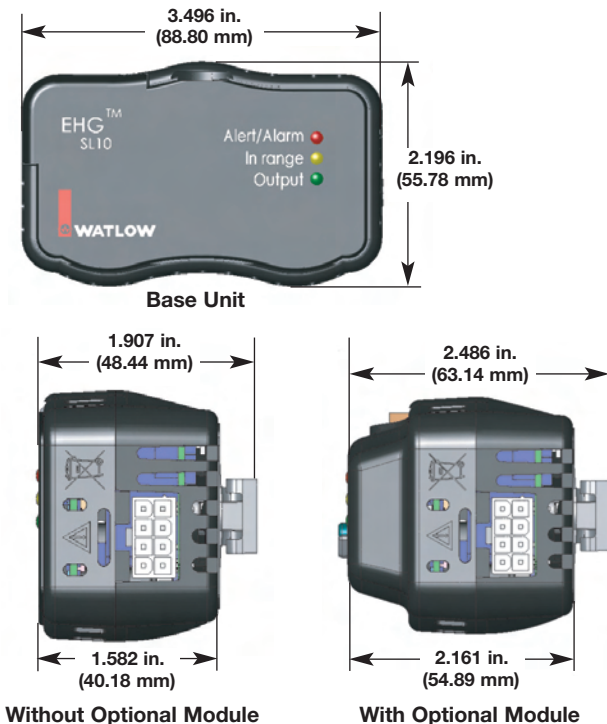
Agency Approvals

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

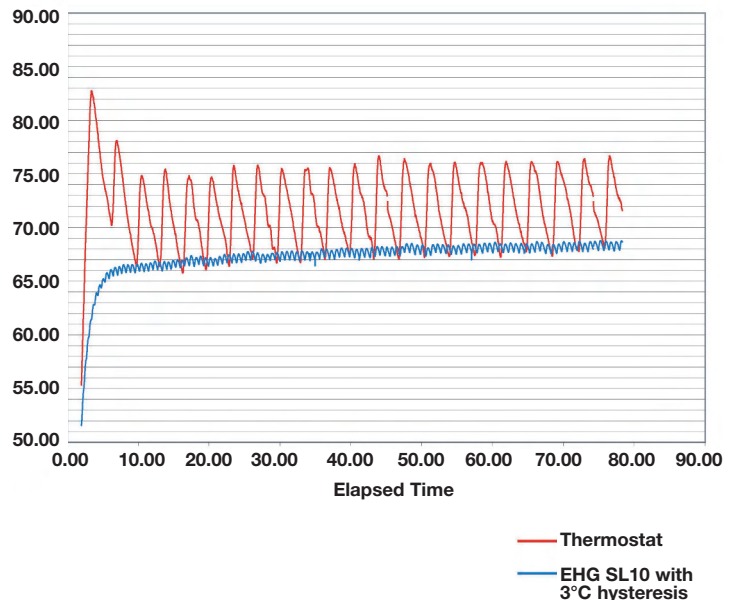
Switching Device Comparison Chart

	T-Stat	Solid State Relay	Watlow NO-ARC Relay
Amperage at 25°C (77°F)	10A	10A	10A
Amperage at 70°C (158°F)	10A	De-rate significantly and add heat sink and air cooling	10A
Output device life at 10A	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



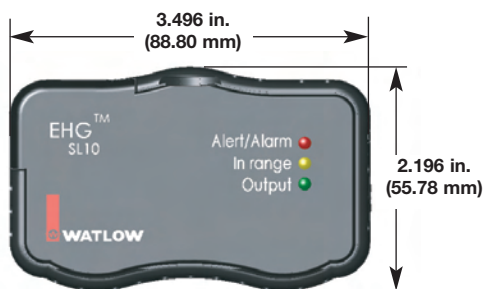
EHG SL10 Versus Thermostat (Typical Application)



— Thermostat
— EHG SL10 with 3°C hysteresis



Modules can be upgraded and are easily replaceable.



Base Unit



Communications Only Module



Display Only Module

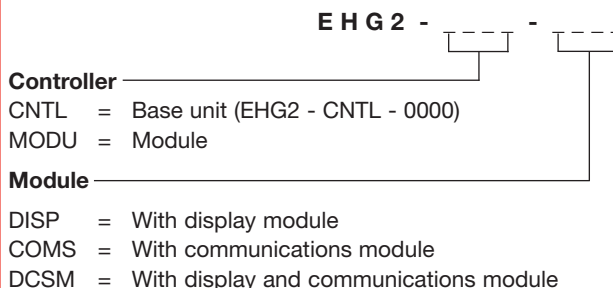


Display and Communications Module

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.



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

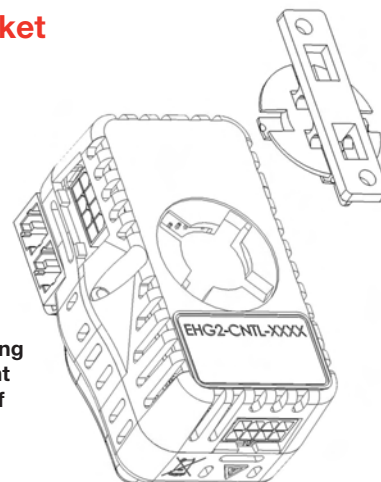
Availability

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 Sales Office:

1-800-WATLOW2 • www.watlow.com • info@watlow.com

International Technical Sales Offices: Australia, +61-3-9335-6449 • China, +86-21-6106-1425 • France, +33 1 3073-2425 • Germany, +49 (0) 7253-9400-0 • Italy, +39 (0) 2 458-8841 • Japan, +81-3-3518-6630 • Korea, +82-2-2628-5770 • Malaysia, +60-3-8074-8741 • Mexico, +52 (442) 217-6235 • Shanghai, +86-21-6106-1425 • Singapore, +65-6773-9488 • Spain, +34 91 675 1292 • Sweden, +46 35-27-1166 • Taiwan, +886-7-288-5168 • United Kingdom, +44 (0) 115-964-0777