

Temperature, Power and Safety Limit Controller in One Package

The SERIES EHG[®] SL10 integrated, multi-function controller from Watlow[®] is a key component to a powerful system that includes a heater, an adjustable set point temperature controller, a high/low temperature alert, a power switching device and a high temperature safety limit. Its agency recognized controller/safety limit meets UL[®] 1998 and CE 60730 requirements.

An optional display/communications module can be easily added in the field to provide a digital display indication, an adjustment of set point, RS485 Modbus[®] communications and other Human Machine Interface (HMI) features. As a scalable system, only what is needed can be purchased.

The EHG SL10 controllers' easy to install, compact design, inherent reliability and integrated limit functions offer unmatched value. It is designed for easy integration with Watlow heaters to simplify engineering, reduce component count for new equipment and decrease ownership cost. For original equipment manufacturers (OEMs), the EHG SL10 controller's CE, Semi-S2 compliance and UL[®] recognition reduces time and costs associated with global agency testing and validation. U.S. Patent Number 8,044,329

Typical Applications

Semiconductor processing

- Gas delivery lines
- Exhaust lines

Life sciences

- Laboratory equipment
- Medical equipment

Foodservice equipment

- Warming and serving equipment
- Food holding cabinets

Packaging

- Heat sealing bars
- Hot glue application equipment



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 32 to 158°F (0 to 70°C)

- 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 30VAC/VDC, 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

Features and Benefits (con't)

Universal power supply

- Allows an input of 85 to 264VAC, 50/60Hz
- Provides safe control of up to 2400 watts with 10 amperes 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 30VAC/VDC, 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



Display and communication module shown with flexible heater.

Power

- Isolated universal power supply 85 to 264VAC, 50/60Hz
- Up to 2400 W with 10A switching capability

NO-ARC Relay

- 10A switching
- 4.5 million cycles

Environmental

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

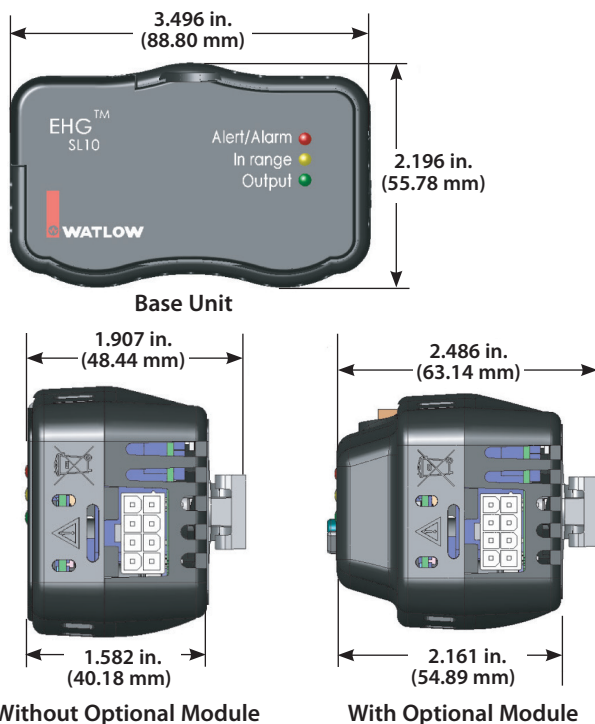
Agency Approvals

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

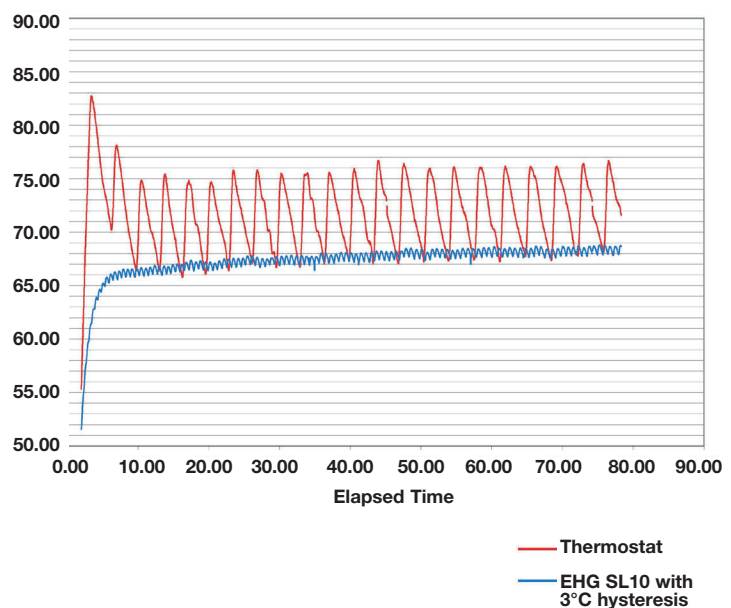
Switching Device Comparison Chart

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

Dimensions



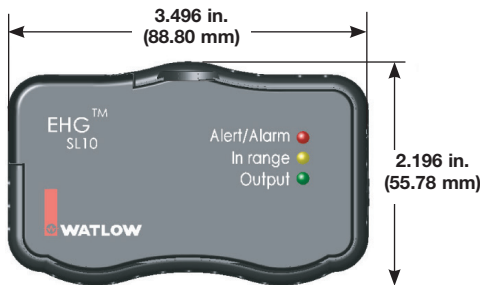
EHG SL10 Versus Thermostat (Typical Application)



— 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

Part Number

1	2	3	4	5	6	7	8	9
265 EG2						Base/ Module		

7	8	9	Base/Module
001			Base unit
007			Display module
008			Communications module
002			Display with communications module
023			Base unit (extended temperature range)
020			Display module (extended temperature range)
022			Communications module (extended temperature range)
021			Display with communications module (extended temperature range)

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

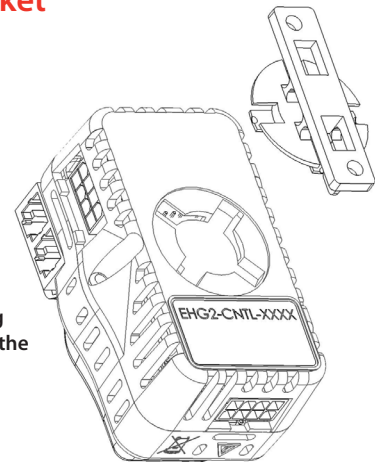
Availability

The EHG SL10 is available for shipment; please contact your Watlow representative 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.

Powered by Possibility

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

1-800-WATLOW2 • www.watlow.com
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