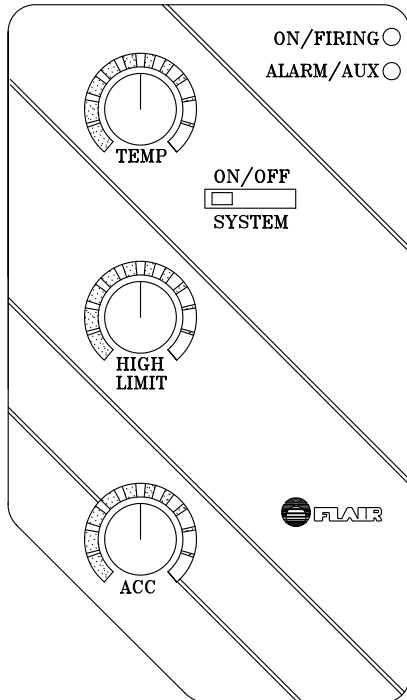


## ELECTRONIC PROPORTIONAL CONTROLSTAT *series CSEP*

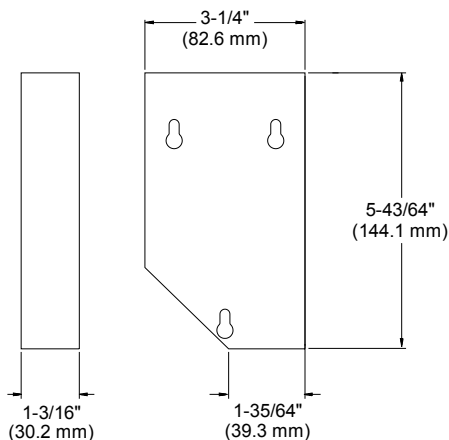
For control of multi-stage and proportional oil and gas fired and electric boilers, furnaces, water heaters and aquaboosters.

### BENEFITS & SPECIAL FEATURES

- Proportional output provides fast and accurate positioning for zone actuators and valves.
- Proportional integral control eliminates overshoot and droop.
- Adjustable dead band prevents overlapping between heating and cooling modes.
- Adjustable differential band.
- Accurately control system water (boilers, water heaters and aquaboosters) or air (furnace) temperatures.
- Set minimum required temperature for fan (furnaces) or pump (boilers and aquaboosters) to run.
- High limit control.
- Monitors supply or return temperature.
- Multiple sensors may be selected or averaged.
- System status indicators.
- Manual on/off override.
- Electronic locking and limiting.
- Low limit monitor triggers alarm function.
- Auxiliary input can be attached to accessory equipment such as filter monitor, fuel sensor, or Flair flame quality indicator, and trigger alarm or indicator.
- Alarm can be connected to external signalling device or dialer.



### DIMENSIONS

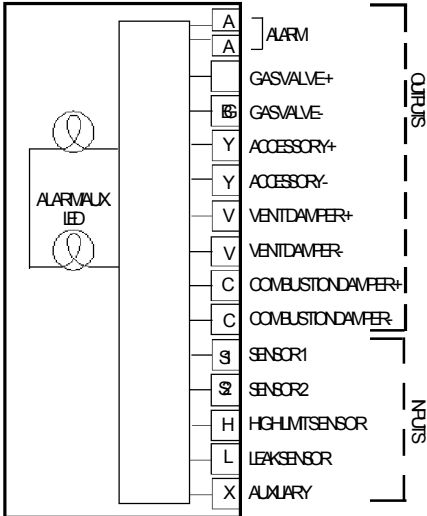


Controlstat

### SPECIFICATIONS

Operating Voltage:	24, 115 and 230 vac, 50-60 Hz
Temperature Differential:	
Accuracy:	approx. $\pm 0.8^{\circ}\text{F}$ ( $.4^{\circ}\text{C}$ )
Sensor System:	
Type:	Negative Temperature Coefficient (NTC)
Enclosure:	Well, surface and duct mount sensors are available
Switches:	
Slide:	SYSTEM: ON/OFF
Rotating:	set TEMPERATURE
	set HIGH LIMIT temperature
	set ACCESSORY temperature
Indicator LED's:	system: ON (Steady Green) / FIRING (Flashing Green)
	ALARM (Flashing Red) / AUXILIARY (Steady Red)
Alarm function:	Triggered if either minimum temperature, high limit (safety) is exceeded, leak or auxiliary input signal is detected.
Security:	Program and temperatures can be electronically locked and limited.
Dimensions:	5.6 x 2.9 x 1.18 Inches (143.4 x 74.2 x 30.2 mm)

# MODEL NUMBERS AND DESCRIPTIONS FOR VARIOUS APPLICATIONS



Model Number:  
 CSEPGB02 Gas Boilers  
 CSEPGF02 Gas Furnaces

Description: For gas-fired boilers and furnaces

Temperature Range:  
 Operating range: 100 °F - 220 °F  
 High limit: 180 °F - 220 °F  
 Accessory: 100 °F - 180 °F

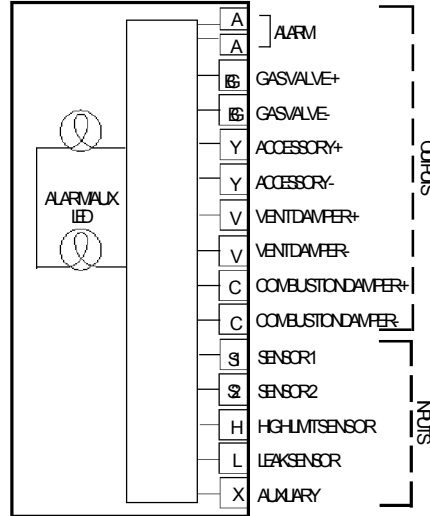
CSESGW02 Residential Gas Water Heaters

Temperature Range:  
 Operating range: 100 °F - 160 °F  
 High limit: 200 °F  
 Accessory: 100 °F - 140 °F

CSESGW02 Commercial Gas Water Heaters

Temperature Range:  
 Operating range: 100 °F - 180 °F  
 High limit: 200 °F  
 Accessory: 100 °F - 160 °F

Switching Current at 24 VAC:  
 Gas valve: 1 A  
 Pump/Fan: 10 A  
 Vent damper: 1 A  
 Combustion damper: 1 A  
 Weight: .4 lbs. (880 g)



Model Number:  
 CSEPOB04 Oil Boilers  
 CSEPOF04 Oil Furnaces

Description: For oil-fired boilers and furnaces

Temperature Range:  
 Operating range: 100 °F - 220 °F  
 High limit: 180 °F - 220 °F  
 Accessory: 100 °F - 180 °F

CSESGW04 Residential Oil Water Heaters

Temperature Range:  
 Operating range: 100 °F - 160 °F  
 High limit: 200 °F  
 Accessory: 100 °F - 140 °F

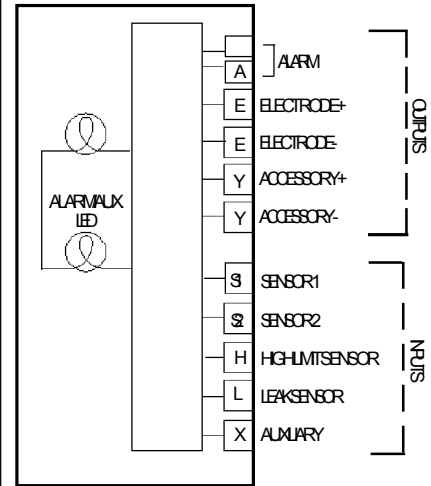
CSESGW04 Commercial Oil Water Heaters

Temperature Range:  
 Operating range: 100 °F - 180 °F  
 High limit: 200 °F  
 Accessory: 100 °F - 160 °F

Switching Current at 120 VAC:  
 Burner: 10 A  
 Pump/Fan: 10 A  
 Vent damper: 1 A  
 Combustion damper: 1 A  
 Weight: .4 lbs. (880 g)

## ACCESSORIES

Temperature Sensor	
Immersion (well)	XXXXXXXX
Surface mount	XXXXXXXX
Duct mount	XXXXXXXX
Auxiliary Relay	XXXXXXXX
Leak Sensor	XXXXXXXX
Transformers:	
40 VA	TR140100
20 VA	TR120100



Model Number:  
 CSEPEB04 Electric Boilers  
 CSEPEB07 Electric Boilers  
 CSEPEF04 Electric Furnaces  
 CSEPEF07 Electric Furnaces

Description: For electric boilers and furnaces

Temperature Range:  
 Operating range: 100 °F - 220 °F  
 High limit: 180 °F - 220 °F  
 Accessory: 100 °F - 180 °F

CSEPEW04 Electric Water Heaters  
 CSEPEW07 Electric Water Heaters

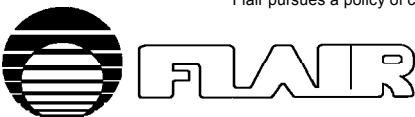
Temperature Range:  
 Operating range: 100 °F - 220 °F  
 High limit: 180 °F - 220 °F  
 Accessory: 100 °F - 180 °F

Switching Current at 120 VAC:  
 Burner: 10 A  
 Accessory: 10 A  
 Weight: .4 lbs. (880 g)

## REFERENCES

For More Information On:	See:
Other controllers for single- and two-stage systems	This section
Zone Actuators	Star Actuator section
Zone Valves	Star Valve section
Wiring Panels	Control Panels section
Weather Compensation Controls	Weather Compensation Controls section
Warranty & pricing	Pricing and terms section

Flair pursues a policy of constant improvement. For this reason, all specifications are subject to change without notice.



FLAIR INTERNATIONAL CORPORATION

600 Old Willets Path • Hauppauge, New York 11788 • Tel: (516) 234-3600 • Fax: (516) 234-3610

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