Consistent High Heat
Temperature Control

The Thermolator® heaTrac oil temperature controller circulates heat transfer oil, adding or removing heat as needed to maintain a precise process temperature.

Certain materials and processes require the use of oil as a heat transfer fluid for precise temperature control.

Unlike water or glycol mixtures, oil can be safely operated at temperatures ranging from 70° to 500°F {21.1° to 260°C}.

Model HTR1-500

Designed for Applications over 250°F

Use the heaTrac oil temperature controller when your application requires process temperatures above 250°F {121.1°C}.

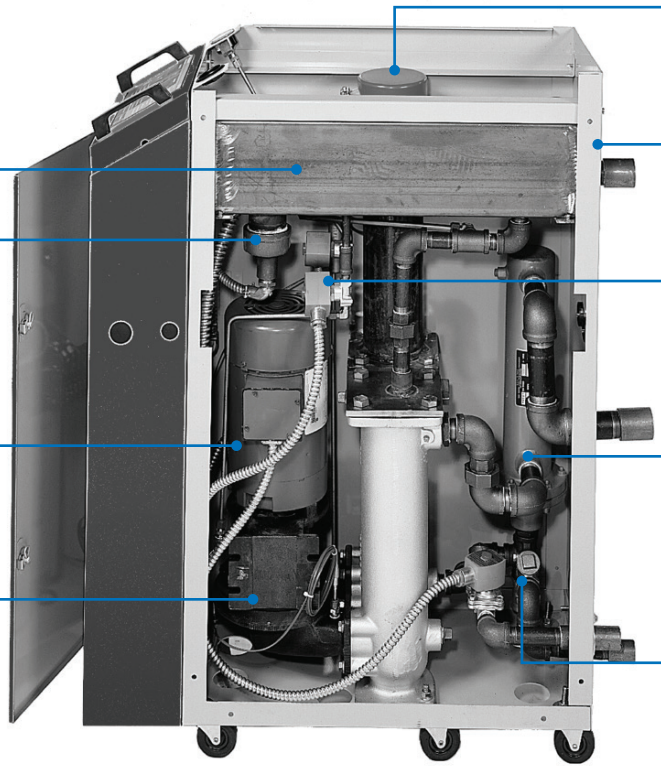
Typical applications include thermoplastic resins, reactor vessels, roll stands or platen presses.

Specify single zone if you need one temperature throughout your mold, or dual zone if two different setpoints are required.

The optional heat exchanger cooling circuit is recommended for process cooling or end-of-cycle cooling.

- **Low-watt density heater**
  Does not allow your oil to heat up to the point of degradation giving longer life to your oil.
- **Air-cooled pump seals**
  No need to supply water to the unit to cool the seals. Air-cooled seals extend the life of the seal and eliminate the need for an additional water connection.
- **Lift-off access panels**
  Convenient, tool-free access to internal components. The cabinet lifts away for easy maintenance and servicing.
- **State-of-the-art controls**
  Easy-to-use microprocessor controls provide accurate temperature control. Auto-tuning of the PID control parameter provides uniform temperature control regardless of light or heavy external loading.
- **Compact, sturdy design**
  Small footprint. Designed for efficient use of your valuable floor space.

Features



Low-watt density electric immersion heater

Sight glass
for visual inspection of oil level.

Venting solenoid
valve prevents trapped air in system.

Shell and tube heat exchanger cooling circuit
(optional) cools the unit before powering it down.

Cooling check valve
prevents coolant back flow into the exchanger.

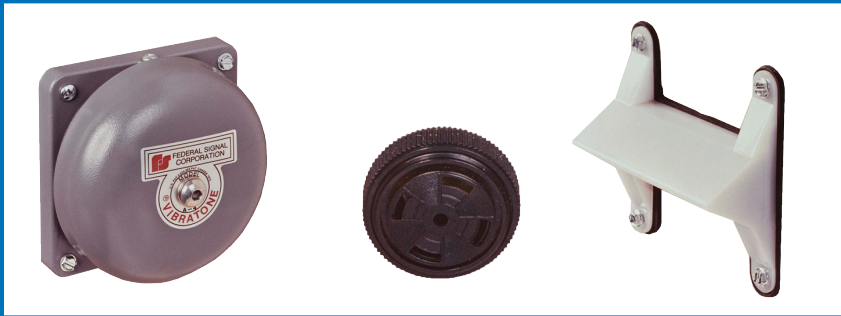
Expansion / fluid reservoir tank

Low level pump shutoff safety

TEFC Pump
Totally enclosed fan cooled pump motor.

Air-cooled seal cavity
no cooling water required.

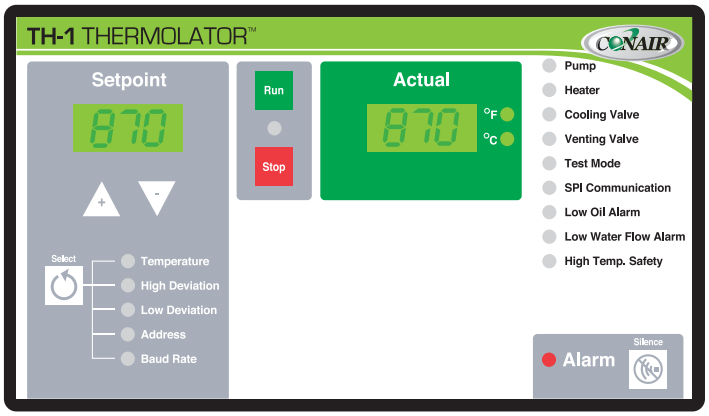
Options



Alarm Packages
Call attention to alarm condition with a bell, strobe or piezo horn.

TH-1 and TH-2 Controls

Digital microprocessor controls provide simultaneous display of the process and setpoint temperatures. These waterproof, durable controls come with unparalleled standard features.



heaTrac Control (TH-1)

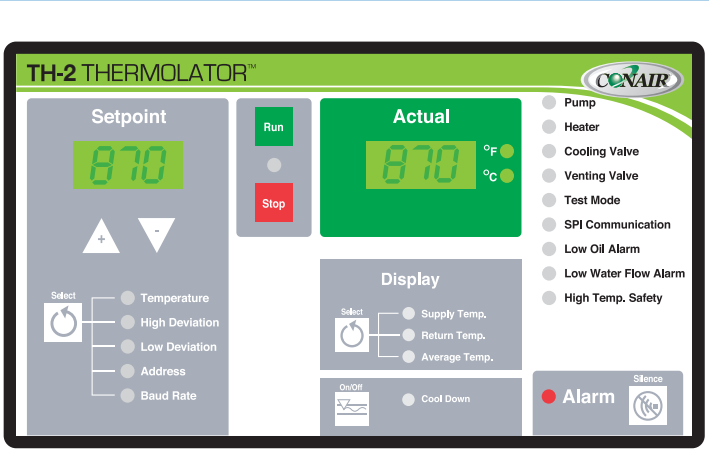
Our waterproof, durable control is operator friendly and smart. Standard features:

- Automatic fine-tuning of PID control parameters provides uniform temperature control regardless of external loading.
- Adjustable high/low deviation warnings track with your setpoint temperature. Pre-programmed acceleration feature speeds up setting parameters.
- 18 operating and fault indicator lights, including 7 bi-color LEDs, tell you the status of critical components and parameters.
- Password entry prevents unauthorized or acci dental changes to operating parameters.

Options

RS485 communication using SPI protocol. Baud rates and addresses are programmable on the operator panel.

Note: The purge option is not available on the heaTrac or positive/negative pressure water temperature controllers.

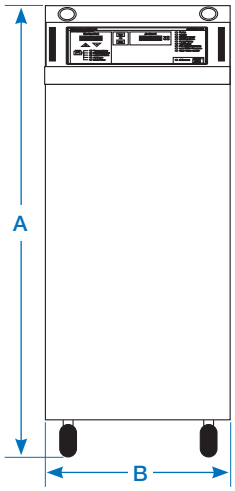


heaTrac Control (TH-2)

Includes all of the features of the standard heaTrac control, PLUS:

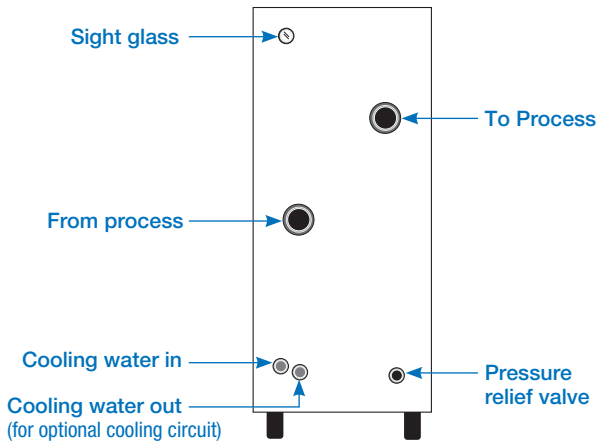
- Autostart capability for convenient preheating of molds. Works with external timers or switches.
- Choice of temperature control points allows you to monitor and control from the process supply or process return temperature, or from an average of the two.
- Phase detection circuit indicates incorrect pump rotation or an open electrical leg.
- Remote control up to 50 feet. Magnetic panel back allows you to place the controls where you need them. Comes with 15-foot cable. Lengths of 30 or 50 feet optional.

Specifications



HTR1-500 (single zone)

HTR1-500 rear view and connections



Models	HTR1-500			
Performance characteristics				
Minimum setpoint temperature °F {°C}	70 {21}			
Maximum setpoint temperature °F {°C}	500 {260}			
Pump performance				
Pump Hp {kW}	1 {0.75}	1.5 {1.12}	2 {1.49}	3 {2.24}
Nominal flow gpm {l/min}	35 {132}	40 {151}	45 {170}	55 {208}
Pressure @ nominal flow psi {bar}	15 {1.0}	18 {1.3}	23 {1.6}	28 {1.9}
Dimensions inches {mm}				
A - Height	43 {1090}			
B - Width	14 {355}			
Depth	31.5 {800}			
Weight lb {kg}				
Operating	300 {136}	305 {138}	310 {141}	320 {145}
Shipping	470 {213}	475 {216}	480 {218}	490 {222}
Water connections NPT (female) inches				
To / from Process	1.25			
Cooling water inlet / outlet *	0.75			

Total Full Load Amps per zone † ‡	HTR1-500											
Heater	6 kW				12 kW				18 kW			
Voltage	208V	230V	460V	575V	208V	230V	460V	575V	208V	230V	460V	575V
Pump size												
1 Hp {0.75 kW}	21.2	19.2	9.6	7.7	37.8	34.2	17.1	21.4	54.4	49.2	24.6	19.7
1.5 Hp {1.12 kW}	21.9	19.8	9.9	7.9	38.5	34.8	17.4	13.9	55.0	49.8	24.9	19.9
2 Hp {1.49 kW}	23.6	21.4	10.7	8.6	40.2	36.4	18.2	14.6	56.8	51.4	25.7	20.6
3 Hp {2.24 kW}	26.5	24.0	12	9.6	43.1	39.0	19.5	15.6	59.7	54.0	27.0	21.6

Specification Notes

* For units equipped with optional heat exchange cooling circuit.

† All voltages are 3 phase, 60 Hz.

‡ FLA data for reference purposes only. Does not include any options or accessories on equipment. For full FLA detail for power circuit design of specific machines and systems, refer to the electrical diagrams of the equipment order and the nameplate applied to the machine.

Specifications may change without notice. Consult with a Conair representative for the most current information.