# HPLC Column Ovens and Temperature Controllers

#### Improve your separation performance today!



Accurate temperature control of your HPLC columns will **improve the reproducibility of your results**. Operating at increased temperatures provides **better separation performance and reduced analysis time** in most cases. Alternatively, you may need to **chill your columns** when using thermally sensitive compounds. Whatever your requirements, we can supply an HPLC column oven to improve your results!

# Stability HPLC Column Ovens

### A choice of quality column ovens offering

### exceptional value!

The Stability HPLC column ovens are designed for applications requiring increased temperatures. In most cases, with higher temperature you will get:

- Better reproducibility
- Higher separation performance
- Reduced analysis time

#### **Easy to Use:**

The heated part of the oven is separate from the control unit, which allows you to easily install it into your chromatography configuration. It it also light enough to hang it directly on to a column!

#### A Range of Sizes Available:

The Stability ovens are available in three configurations:

- Stability Short for one 15cm column;
- Stability Single for one 25cm column;
- Stability Double for two 25cm columns

#### **Simple Temperature Control:**

To set the required temperature, simply adjust with the arrow buttons on the control unit and store. The Stability column ovens remember the set temperature even when switched off — there is no need to keep setting the same temperature time after time.

#### Safe:

An independent safety circuit turns the heater off and sounds an alarm signal if the set temperature is exceeded by 10°C.

Specifications		
Capacity:	One 15cm column (Stability Short) One 25cm column (Stability Single) Two 25cm columns (Stability Double)	
Operating Temperature Range:	Ambient to 99°C	

Temperature Stability:  $\pm 0.2$ °C

Temperature Setting: Steps of 0.1°C

Accuracy of Setting:  $\pm 0.5$ °C

Heating Rate: 5°C/min

#### **Physical Characteristics**

Internal Oven Dimensions (W x H x D): 21 x 23 x 205mm (Stability Short)

21 x 23 x 310mm (Stability Single) 34 x 27 x 310mm (Stability Double)

Control Unit Dimensions (W x H x D): 100 x 155 x 190mm

Mass: 2.5kg (control unit)

Power: 100/115/230V AC (±10%), 50/60Hz. 50VA

Description	Part No	Qty	Price
Stability Short HPLC Column Oven	LH64000001	Each	
Stability Single HPLC Column Oven	LH64000000	Each	
Stability Double HPLC Column Oven	LH64000002	Each	

# Stability Plus HPLC Column Oven

# Increase the temperature and increase separation performance!



The Stability Plus HPLC column oven is designed for applications requiring increased temperatures. In most cases, with higher temperature you will get:

- · Better reproducibility
- Higher separation performance
- Reduced analysis time

#### **Accurate Temperature Control:**

The oven is heated by an internal electrical heating element whilst a platinum (Pt) temperature sensor ensures a high precision temperature control. The integrated LCD continuously displays the current block temperature.

#### **Protects your Columns:**

A reversible thermal cut-out system is included to protect your columns from potentially damaging

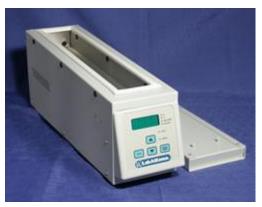
temperatures. Should the temperature exceed that set by more than 10°C, the heater will automatically switch off and an audible alarm will sound.

Specifications				
Capacity:		One 25cm column, plus guard col	umn	
Operating Temperature Ran	ge:	Ambient to 99°C		
Temperature Stability:		±0.2°C		
Temperature Setting:		Steps of 1°C		
Accuracy of Setting:		±1°C		
Heating Rate:		2.5°C/min		
Physical Characteristics				
Dimensions (W x H x D):		490 x 100 x 180mm (external) 455 x 30 x 33mm (internal)		
Mass:		7.1kg		
Power:		230V AC (±10%), 50Hz. 110VA		
	Description	Part No	Qty	Price

# **Ambient Plus HPLC Column Oven**

### Precise...Reliable...Affordable

Stability Plus HPLC Column Oven



Increase the accuracy and consistency of your chromatography with the Ambient Plus HPLC Column Oven. Temperature changes through the day and even draughts in your laboratory can affect your results. Get precise, repeatable results with uniform, controlled temperature.

LH57000000

Each

#### **Uniform Temperature:**

- All major elements columns, injector, precolumns are enclosed in the oven chamber.
- Constant temperature is maintained along entire length of fluid path.
- Mobile phase is used as the transfer medium so temperature is unaffected by flow rate.

#### **Precise:**

• Temperature is maintained within  $\pm 0.2$ °C; repeatable to  $\pm 0.1$ °C.

#### **Large Capacity:**

- Holds up to six analytical or GPC columns.
- No need for special blocks or inserts.

### Specifications

Operating Temperature Range:

10°C above ambient to 100°C

Temperature Stability:

±0.2°C

Temperature Reproducibility:

±1°C

Accuracy:

±2°C over entire range. The setpoint changes slightly depending on composition and

mobile phase flow rate.

Temperature Cutout:

118°C, self-resetting

Temperature Stabilisation:

30mins to 100°C for "ready" at 2ml/min. For analyses requiring high precision, wait

30 minutes after the READY light illuminates before beginning an analysis.

Recommended Flow Range:

Up to 8ml/min

Average Cooling

Time:

30mins to 10°C above ambient at 2ml/min from 100°C (with cover off).

Column Capacity:

Up to three 3/8" x 30cm columns or four 1/4" x 30cm columns

Column Chamber Material: Anodised, solvent resistant aluminum

#### **Communications**

Remote Inputs: RS-232. 0-10V DC setpoint temperature voltage control.

Remote Outputs: RS-232. Relay contact closure when oven is ready. The contact is rated at 0.25A

maximum, 100V DC maximum, and  $0.2\Omega$ 

#### **Physical Characteristics**

External

127 x 223 x 495mm

Dimensions (W x

H x D):

Mass: 9.5kg

Power: 100-120V (single fused) or 220-240V (double fused) AC, 50/60Hz. 120W

Description	Part No	Qty	Price
Ambient Plus HPLC Column Oven, 120V	LH200584	Each	
Ambient Plus HPLC Column Oven, 230V	LH200585	Each	

Description	Part No	Qty	Price
Advance Compact HPLC Column Oven	LH3080	Each	

# Advance Professional HPLC Column Oven

# **High Capacity Peltier Column Heater/Chiller**



#### **Key Features:**

- Large temperature range (5-85°C)
- Extremely high stability (±0.02°C)
- High reproducibility (±0.1°C)
- Accommodates 4 columns, with lengths up to 40cm
- Ample space for valves and injectors
- Automatic calibration
- RS232 interface
- Small footprint

### **Advanced Heating/Cooling System:**

The Advance Professional oven uses Peltier thermo-electric elements that provide both heating and cooling. Two-way forced air circulation guarantees perfectly even temperature distribution throughout the

column compartment.

The temperature is controlled by 'Double-Sensor-Reference' technology. This consists of two independent temperature sensors (one a Pt, the other laser trimmed) that are continually compared to a precision reference value.

#### Simple to Use:

Quickly set the temperature — in Celsius or Fahrenheit — using the handheld alphanumeric keypad. The LCD display shows both the set and actual temperatures. For more advanced control you can program the temperature over a period of time, either as a linear ramp function or in a series of steps. This can be done from either the keypad or from a computer via the RS232 interface.

#### **Auto-calibration:**

The oven performs a quick self-check and calibration procedure each time it is powered up. Temperatures can be manually corrected via the keypad but in addition to this, a full auto-calibration feature is included. Following the input of a special keypad combination, the oven will perform an 8-hour self-calibration and control routine. This will greatly assist you with your quality control procedures!

#### **Safety and Security:**

Integrated leak detection with adjustable sensitivity, audible warning signal and auto-switch-off are included as standard. To prevent damage to temperature sensitive columns you can also specify a maximum allowable temperature, monitored by two independent sensors.

#### Specifications

Capacity: 4 columns, with lengths up to 40cm

Ample space for valves and injectors

Operating Temperature Range: 5-85°C

Temperature Stability: ±0.02°C

Temperature Reproducibility: ±0.1°C

#### **Physical Characteristics**

External Dimensions (W x H x D):  $135 \times 450 \times 310$ mm

Mass: 11kg

Power: 100-245V AC, 50/60Hz. 100W

Description	Part No	Qty	Price
Advance Professional HPLC Column Oven	LH5480	Each	

## Model 7990 HPLC Column Heater

# **Ultra Compact HPLC Column Heater — now with serial RS-232 control**

- Accurately controls temperature from 30-75°C
- Column oven compartment suspends from stainless steel HPLC tubing
- Compact controller can control one or two ovens
- Large easy to read display
- Requires virtually no bench space
- Choice of oven units available

#### **Accurate and Economical:**

Developed with the cost conscious laboratory in mind, the Model 7990 compact HPLC column heater

Developed with the cost conscious for

provides a **cost effective way to control your column temperatures**. Accurate control of HPLC column temperatures is becoming increasingly important in today's regulatory climate.

#### **Unique Suspended Design to Save Bench Space:**

The column heater unit is designed to hang from your existing stainless steel HPLC tubing. The **separate control unit** can be placed on top of existing instrumentation. Coupled with the fact it can **control up to two independent heater units**, this lets you **save valuable bench space**.

Specifications		
Operating Temperature Range:	30 - 75°C	
Temperature Stability:	±0.2°C	
Temperature Reproducibility:	0.5°C	
Accuracy:	±0.5°C	
Temperature Cutout:	90°C	
Physical Characteristics		
Controller Dimensions (W x H x D):	118 x 195 x 185mm	
Column Oven (W x H x D):	365 x 37 x 40mm (short) 415 x 37 x 40mm (long)	
Mass (controller):	2.3kg (single channel) 2.8kg (dual channel)	
Mass (oven):	0.51kg (short) 0.61kg (long)	
Power:	110/220V AC, 50/60Hz. 100W	

Description	Part No	Qty	Price
Model 7990 HPLC column heater, single output controller with short column unit	7990R-1-S	Each	
Model 7990 HPLC column heater, single output controller with long column unit	7990R-1-L	Each	
Model 7990 HPLC column heater, dual output controller with 2 short column units	7990R-2-SS	Each	
Model 7990 HPLC column heater, dual output controller with long and short column units	7990R-2-SL	Each	
Model 7990 HPLC column heater, dual output controller with 2 long columns	7990R-2-LL	Each	

# Model 7995 HPLC Column Heater/Chiller

## Mini HPLC column heater/chiller



- Accurately controls temperature from 10-50°C
- Column oven compartment suspends from stainless steel HPLC tubing
- Serial control option via data system or PC
- Requires virtually no bench space
- Very **cost-effective**
- Choice of oven units available

### **Unique Suspended Design to Save Bench Space:**

The Model 7995 heater/chiller is based on the popular <u>Model 7990 column heater</u>, but adds **sub-ambient temperature control**. As with the 7990, the column heater unit is suspended from your existing stainless steel HPLC tubing. The **separate control unit** can be placed on top of existing instrumentation, **saving valuable bench space**.

#### **Full RS-232 Control:**

The unit includes **serial computer control** that gives you the option of **full system integration**. The command set includes remote temperature setting, monitoring, step transition and ramping. These can often be **handled by your existing data system**. Additionally, Windows-based software is available to provide remote control and data logging functions.

Specifications			
Operating Temperature Range:	10 - 50°C		
Temperature Stability:	±0.2°C		
Temperature Reproducibility:	0.5°C		
Accuracy:	±0.5°C		
Temperature Cutout:	75°C		
Physical Characteristics			
Controller Dimensions (W x H x D):	118 x 195 x 185mm		
Column Oven (W x H x D):	265 x 90 x 40mm (short) 415 x 90 x 40mm (long)		
Mass (controller):	3.0kg		
Mass (oven):	0.8kg (short) 1.2kg (long)		
Power:	110/220V AC, 50/60Hz. 100W		

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