# HPLC COLUMN THERMOSTAT

COOLING AND HEATING BY PELTIER EFFECT

# IGLOO-CIL®



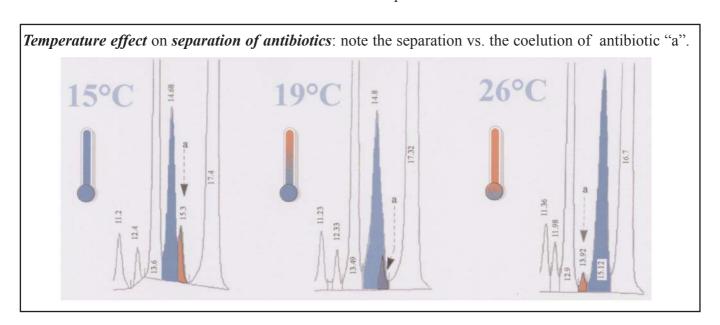


SET 20°C OVEN 20.0°C

# **Advantages:**

- **■** Temperature range: 5°C\* to 99°C including true ambient
- Up to 5 analytical columns or 3 semi-prep columns with minimum dead volume
- CIL® new concept :Calibration Intelligence Linearisation
- Completely thermoactive (CIL patent), no inactive door as a heat sink
- **■** Multi-positional = reduces congestion
- Evacuation of potential leaks

\*5°C measured with an ambient temperature of 20°C  $\Box$  = 20°C



### HPLC COLUMN THERMOSTAT

### HEATING AND COOLING BY PELTIER EFFECT

## IGLOO-CIL®

#### What is the **Peltier effect**?

Peltier effect is due to a Peltier cell composed of 2 types of semi-conductors, some with an excess of electrons some with a lack, the whole thing sandwiched between 2 ceramic plates. When connected to a DC power source, current causes heat to move from one side to the other. Naturally, this creates a hot side and a cold side.

In a large number of applications elevated and reduced column temperatures lead to increase reproducibility and separation efficiency as well as decrease analysis time.

The *IGLOO-CIL*\* by PELTIER effect is designed to ensure maximum temperature stability and reproducibility at elevated and reduced temperatures, as well as, at the same time, flexibility and ease of operation in the lab. The oven's door is thermoactive.

#### VALIDATION:

Do you want to validate the temperature of your HPLC column thermostat yourself? Introducing a new concept for auditing your *IGLOO-CIL*\*: Calibration Intelligence Linearisation (CIL).

The electronic regulator incorporates a LCD unit which displays both pre-set temperature chosen by the user (increment of 1°C) and actual temperature measured inside the oven (increment of 0.1°C).

*IGLOO-CIL*\* column themostat includes the automatic temperature linearisation program which enables you to eliminate by yourself a possible discrepancy between the captor temperature displayed by 1/10°C, and the temperature measured in the oven by an independent calibrated thermometer.

#### **IGLOO-CIL® SPECIFICATIONS:**

Temperature range\* : 5°C to 99°C
Temperature stability : +/- 0.5°C
Accuracy : +/- 0.8°C
Temperature repeatability : +/- 0.5°C

Time to stability : about 30 minutes for the packing material

Double temperature cut out: 1/ tested every 2 seconds

2/ 115°C fixed / resettable

Line voltage : 90 - 230 V Consumption : 132 VA

Communications : Manual, Remote (contact closure), RS 232

Physical dimensions : controller 100 x 155 x 165 mm

Oven 41 x 16 x 11 cm (internal dim. : 37(L) x 6(l) cm)

Net weight : 9.640 kg (Net) / 10.500 kg (Gross)

\* the specifications are not guaranteed at the extremes of the range

# 99SOFT

# OPTIONAL SOFWARE OF TRACEABILITY OF THE TEMPERATURE

FOR COLUMN HEATERS
CIL Cluzeau Info Labo

Temperature recording : 40°C Starting time : 11/12/2003 10:14:16

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11/12/2003 10:14:46 ; 40 ; 40.0 11/12/2003 10:15:16 ; 40 ; 40.0 11/12/2003 10:15:46 ; 40 ; 40.0 11/12/2003 10:16:16 ; 40 ; 40.0

11/12/2003 10:16:46 ; 40 ; 40.0 11/12/2003 10:17:16 ; 40 ; 40.0

Ending time: 11/12/2003 10:17:25

#### **ORDERING INFORMATION:**

99PEL : IGLOO-CIL® column thermostat, 5°C to 99°C

99SOFT: Sofware of traceability of the temperature for CIL Cluzeau Info

Labo column heaters

## The CIL family of HPLC column heaters :

560-CIL® - CROCO-CIL® - GECKO-2000® - IGLOO-CIL® we have what you're looking for.

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