

Schambeck SFD GmbH

HPLC-Column-Oven
Type SFD12560/12590

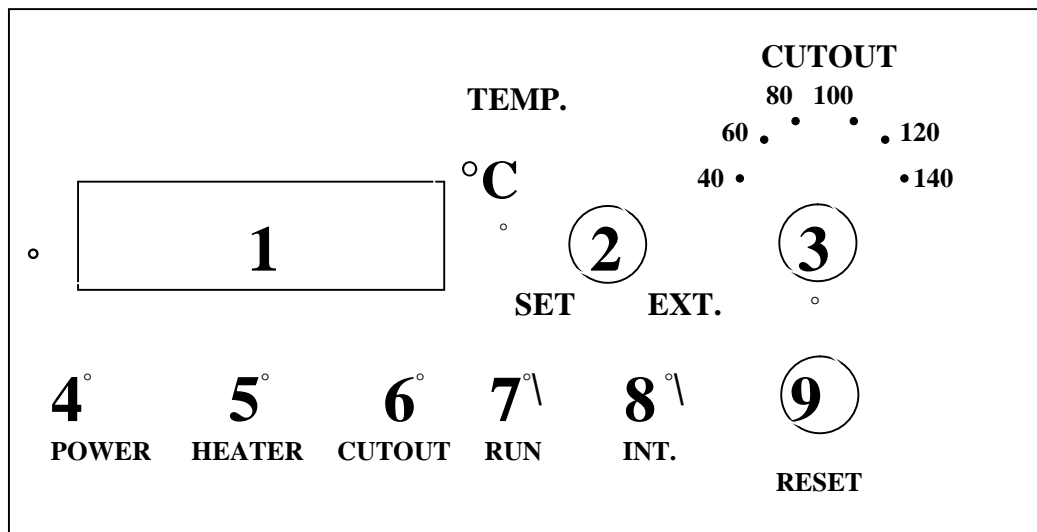
Manual



Content

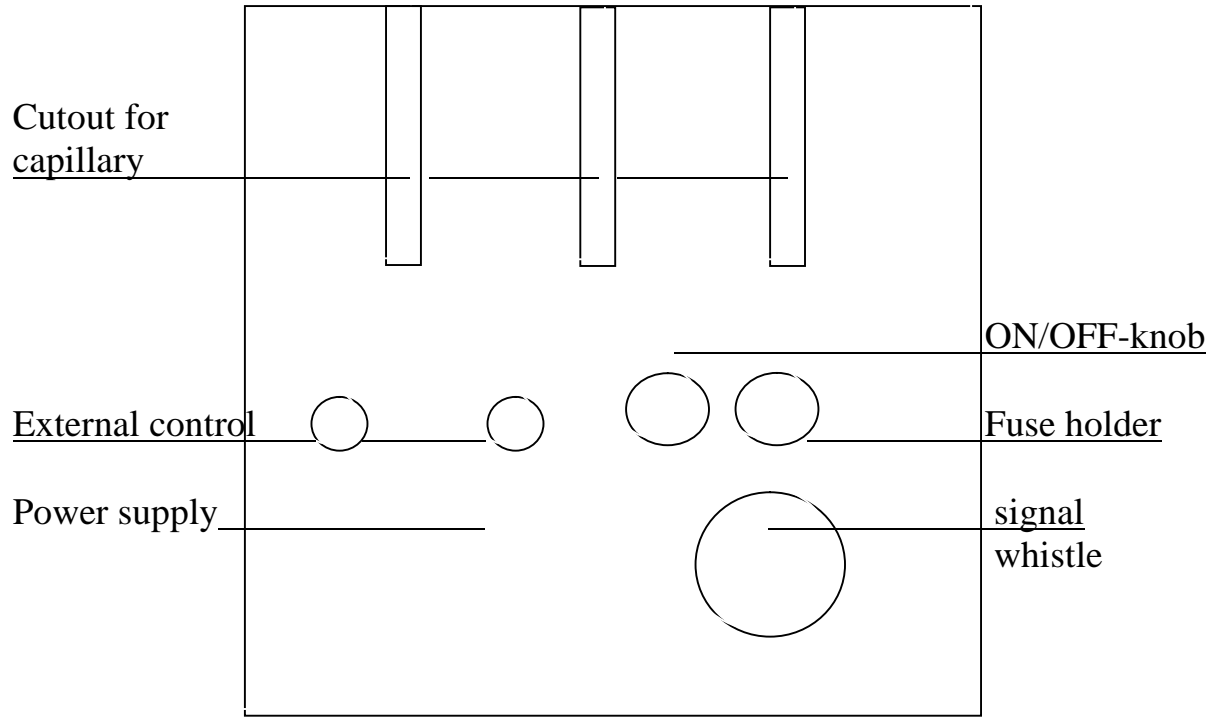
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Frontpanel of column-oven



- Description:**
- 1 Display
 - 2 for temperature set point
 - 3 Adjusting knob for temperature Cutout
 - 4 Power-LED (LED-Netz)
 - 5 Heater-LED (LED-Heizung)
 - 6 Cutout-LED (LED-Übertemperatursicherung)
 - 7 Knob for set point and actual amount
 - 8 Knob for internal and external use
 - 9 Reset-Button

Side view:



Spezification:

1. Temperature Range : Ambient - 125 Grad
2. Temperature-Stability : + 0,1 Grad
3. Temperature-Reproducebility : + 0,2 Grad
4. Temperature stabilization : 0 - 60 Grad in 20 minutes
5. Max. Heater capacity : 700 Watt (220 Volt)
6. Digital Temperature-display : mit 0,1 Grad Auflösung
7. Analog Temperature-set point : mit 0,1 Grad Auflösung
8. AdjustableTemperature-Cutout : 40 - 140 Grad in 20-Grad-steps with optical and acoustic signal and Reset-button
9. External setup : 0-5 Volt (25 Grad/Volt)
10. Column length : up to 30cm
11. Dimensions : L 60cm/W 10,5cm/H 10,5cm
12. Option Rheodyne-valve : A Rheodyne-Valve can be mounted with a valve bracket
13. Option Column length ; Column diameter : The oven can be built for 60cm columns with an outside diameter of 32mm
14. **Important:** **:Please connect the outlet drain with a Teflon tubing to a waste reservoir.**

Principal of temperature regulation

The regulation of the heater capacity is done by a PID-regulator.

The characteristic of the PID regulator is, that there is no. differing from the rule and. that the remaining fault is calculated to zero

There are 3 steps for temperature safety:

1. throughout the regulator
2. through the Cutout
3. through the temperature fuse in the heating block

The measurement of the temperature is done by 2 independent sensors for the PID regulation and temperature cutout.

Internal USE/Setup

1. **CUTOUT** 20 degree above used temperature
2. Switch on oven.
3. Set button No. 8 to **INT**
4. Set button No. 7 to **SET**.
5. Set Pot to the desired temperature. Chosen Temperature is displayed.
6. Set button No. 7 to **RUN**, the actual temperature is shown on the display
7. Wait for temperature stabilization (ca. 20 minutes).

External USE/Setup

1. **CUTOUT** 20 degree above used temperature
2. Switch on oven.
3. Set button No. 8 to **EXT**
4. Set button No. 7 to **SET**.
5. Send a voltage between 0 and 5VDC from the external device to setup the desired temperature, where 1 volt is 25 degree C
6. Set button No. 7 to **RUN**, the actual temperature is shown on the display
7. Wait for temperature stabilization (ca. 20 minutes).

Malfunction: If the internal temperature passes over the set Cutout temperature,
The oven stops heating and sends an acoustic signal.

Clearance: Choose a higher temperature and press the reset button.

DECLARATION OF CONFORMITY

We Schambeck SFD GmbH
Rhöndorfer Str. 51, 53604 Bad Honnef / Germany

declare under our sole responsibility that the product

SFD125/60/90 Column Oven

to which this declaration relates is in conformity with the following standards or other normative documents

EN55011: 1991, Class A

Limits and methods of measurement of radio disturbance characteristics of I, S, M radio frequency equipment and

EN50082-1: 1992

Electromagnetic compatibility. Generic immunity standard

IEC 1000-4-2 (1995-01) Electrostatic Discharge

IEC 1000-4-4 (1995-01) Electrical Fast Transient/Burst

following the provisions of EMC directive 89/336 EEC

Subject products are manufactured and tested according appropriate quality control procedures.

Tests are made by a accredited company for this type of measurements.

Germany, January 1997

Karl-Heinz Schambeck
President