

Dry SFC Tempering Baths
Complete SFC Automation
FatLab Automation



Sales, Service & Support for
Canada, Mexico, and USA:

The logo for Alegre science, with 'Alegre' in large blue letters and 'science' in smaller orange letters below it, separated by a curved line.



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LAIX Dry SFC Tempering Blocks PDB

Accurate and precise tempering for SFC measurements



Large, clear status display



Condensation free design



Low power Peltier technology



Intuitive operation

Advantages

- Accurate and precise temperature regulation ---
Conforms to AOCS Cd 16b-93
- More compact, energy efficient and quieter
than water baths
- Simple to use 3.5" touchscreen
- Easy to maintain without the need for factory service



Specifications

Model	PDB1.36	PDB4	PDB5.36	PDB6
Footprint (mm)	250 x 300	150 x 530	150 x 760	150 x 760
Weight (kg)	5	20	25	25
Voltage	80-250V, 50-60 Hz			
Power Consumption (W)	100	300	600	480
Average Power (W)	40	150	300	250
Temperature Range*	0.0 to 100.0± 0.1°C			
Zones	1	4	5	6
# Positions	36	18	36	18
Bore dimensions	10.35 x 80 mm (dia. x depth)			
Display	2 color	Multicolor display		
Operation	4 keys	Touch Display		

* Lower temperature ranges (down to -30 °C) are accessible
by adding the liquid cooling option (LC) and requires an optional circulating chiller

More Features

- Customized temperature controller maximizes Peltier device lifetime and performance
- Innovative heat dissipation for low noise operation
- User swappable temperature blocks for easy service
- Modular tempering units easily integrate into robotic cabinet for automation

PDB Options

1 — SFC App v2.1 2 — 3 —

Software guided manual operation makes the tempering process less prone to error and simplifies operator training while automating record keeping of critical data.



Exact thermal monitoring

The temperature of the sample is monitored not the temperature of the block. There is less drift in actual sample temperature due to changes in the laboratory temperature from season to season.



Purge flow control

The purging gas (dry air or nitrogen) is user adjustable for changes in ambient humidity conditions.



Purge flow monitoring

Purge gas flow is monitored with audible and visual alerts below the specified flow rate.



PDB6.18 with optional purge flow option

LAIX Cooling Dry Baths (CDB)

Rapid cooling for large quantity of samples using FPSC-Cooler



Rapid cooling to -40°C in minutes



80W Power consumption



Small Footprint (CDB1-36)
measures 250 x 300 x 430 mm (w x d x h)



Long life - low maintenance



Electronic Cooler uses no fluids



The parallel-direct SFC method requires preparing multiple samples for each oil blend to be measured. When cooling the 60 °C samples to 0 °C, the CDB block is useful for cooling large numbers of samples instead of allocating one or two of the PDB blocks to the 0 °C tempering step, allowing for more measurement temps using the PDB blocks.

For example, if there are 6 measurement temperatures, the CDB block will accommodate 6, 12, or 15 sets of samples simultaneously.

More Features



Minimal ambient heating



Inert gas blanketing



4 key operation



36, 72, or 100 sample ports



Automation ready



Frost protection

SFC Automation

*Field proven for full automation of SFC measurements and
complies with IUPAC and AOCS standards*

LAIX Technologies recognizes the importance of accurate and precise SFC measurements, because both suppliers and customers must have confidence in the SFC results. The LAIX SFC automation guarantees replication of SFC results across multiple laboratories. The benefit of automation means more efficiency, increased testing and reduced error. This improvement in quality translates to a rapid return on investment.

LAIX has 15 years of automation engineering experience. Our products are customer inspired with our uncompromising standards for rugged design and long-lasting performance.



Saves precious human resources



Compact design



Accurate and precise



Easy to train and integrate



Reliable results



Frees operator resources



100% safe

The compact modular design saves lab space and improves sample throughput. Flexibility in the design means customer inspired changes can be incorporated to meet specific needs. Contact us with your ideas. We welcome customer driven innovation!

Fault-free positioning means absolute positioning without the need for end switches or homing runs. Intelligent xyz positioning always knows its position, even in the event of power failure.

The framework has high torsional stiffness for ruggedness and the accessible layout is service friendly.

Automation Modules



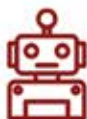
TD-NMR Analyzer

The minispec TD-NMR analyzer is easily integrated. A minispec software extension PNMR server is required. Daily check and parameter modifications are enabled with this software. The SpecFit analyzer is an optional TD-NMR instrument for budget-minded customers.



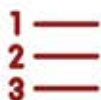
LAIX PDB Tempering Blocks

All PDB models can be integrated into the automation and combined. The PDB6 is recommended, meeting most requirements. Each PDB is connected via USB for supervision and control by the SFC software.



Robotic Sample Automation

The autosampler is a lightning fast XYZ robot with linearly encoded motion control with speeds up to 700 mm/sec translation and a fast electrical gripper. Standard cabinet size is 140 x 80 x 100 mm (w x d x h) and adaptable to customer needs. The chassis is rugged and durable for a production laboratory with shatterproof safety doors, light curtains and LED lighting. A safe motion algorithm prevents tube breakage and minimizes downtime. Up to 36 tempering blocks can be integrated into the design.



SFC App v2.1

Our SFC App supervises all the sample movement and NMR measurements using the analyzer software. An optional LIMS module will communicate detailed results such as all sample data in standard and customized formats with interface to SAP. The SFC App runs under Windows XP/Vista/10 and is a proven app. The user-friendly interface allows mix-methods to run simultaneously (for stabilizing and non-stabilizing fats). Available in both English and Deutsch languages and extendable to other languages. Samples can be run with standard and improvised time management methods with color coding traceability to track visually. A sample archive provides searchable product info for reporting purposes. A sample barcode function is also available.

SFC Automation Options

Integrated Water Baths

Water baths may be integrated into the automation framework. Sample tubes are dried using compressed air prior to tempering changes and the NMR measurement.

Automated Temperature Calibration

This Premium feature is an option for Basic and Comfort packages. Automated temperature calibration guarantees all samples are tempered to exact temperatures using certified thermometers with report tracking and audit trails.

Heated Input Block

This Premium feature is an option for Basic and Comfort packages. Samples are automatically placed in a heated input block which replaces a block set to completely melt the sample.

Sample Filling Station

This option automatically fills the analysis tubes with oil from a sample jar. Opening and closing of the sample jar is robotically handled.

Barcode Scanner

Barcoded sample containers are scanned prior to filling and recorded with the results.



Standard configurations SFC-Automation

Feature	Basic	Comfort	Premium
# of Temperature Blocks	12	12std/ 24 optional	12std/ 24 optional
# of Sample Tubes	1500	Content	2000
Dimensions (cm)	120 x 80 x100	140 x 80 x100	140 x 80 x100
Shatter proof housing	✓	✓	✓
EZ-access input block	36 position	72 position	72 position w/ thermal control
Condensation Protection	✓	✓	✓
SFC App v2	✓	✓	✓
Housing Auto-Lock		✓	✓
LIMS-Interface		✓	✓
Condensation Monitor			✓
Temperature Calibration			✓

FatLab Total Automation of Fat Laboratory Measurements

FatLab integrates most measurements including titration, GC, NIR, refraction, color index, saponification number, iodine value and more



Transport/handling of containers



Dispensing of oils, reagents and solvents



Opening and sealing containers



Triggering measurements in 3rd party instruments



LIMS/User-friendly App



The core of FatLab automation is the handling of vessels and liquids. FatLab transports vessels of various shapes and sizes, opens and closes the lids, manages dispensing of viscous materials and solvents using disposable pipette tips and communicates with many instruments to carry out a number of measurements.

With an automatic gripper changer, Varilab temperature baths and flexible software, FatLab can be adapted or expanded to meet the customer's specific requirements.

**Scan
Container
Barcode**



**Place
Container in
Rack**



**Complete
Measurement
Sequence**

For information, please call

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