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designed for scientists



INC 125 FCS digital (SP20), Cooling and Shaking Incubator

/// Data Sheet

The INC 125 FCS digital cooling incubator with shaking function combines precise temperature control with uniform orbital shaking, making it ideal for microbiological applications within a temperature range of 5 to 80 °C. It is the first cooling and shaking incubator featuring a patented, tool-free removable shaker platform. Without the platform, the appliance can be used like a conventional cooling incubator. Its high temperature stability and uniform shaking motion, which enhances oxygen transfer into the samples, make the INC 125 FCS digital the perfect solution for cell cultivation and other microbiological processes. The powerful compressor cooling technology uses the natural refrigerant R290, making the INC 125 FCS digital particularly energy-efficient and environmentally friendly. With an internal volume of 125 liters, it offers the largest capacity in its class and allows the simultaneous use of up to six shelves in its spacious

chamber. The CE-marked device is supplied with an EU Declaration of Conformity and has been designed and developed to meet the relevant requirements of DIN EN 12880.

Externally Validated Decontamination Function
The automated decontamination cycle has a total duration of approximately three hours.
It comprises a 2.5 hour hot-air phase at 100 °C, followed by an approximately 30-minute device cool-down phase.
As part of an independent evaluation, it was demonstrated that, under the tested conditions, the 100 °C decontamination cycle can significantly reduce the biological load inside the incubator. The decontamination function supports users in reducing contamination risks inside the chamber and can be conveniently integrated into regular laboratory hygiene routines.

Patented removable shaker platform
• High shaking speed from 10 to 300 rpm
• Shaking stroke: 20 mm (optional: 25 mm) for optimum oxygen input
• The shaker platform can be pulled out halfway and up to the indicator line for comfortable and tilt-proof loading.
• The threaded grid on the platform allows the mounting of fixing clips or STICKMAX adhesive mat for different vessels and sizes
• When the door is opened, the shaking function stops automatically
• Shaking and temperature control function can be used independently of each other

Hygienic Working Conditions
- Decontamination mode (100 °C) for prevention of cross-contamination
- Easy-to-clean interior with rounded corners and flat surfaces made of corrosion-resistant AISI 304 stainless-steel surfaces
- Defrost function with continuous water drainage through the drain opening

Optimal Temperature Control
- Wide temperature range: 5 °C to 80 °C
- Excellent temperature stability and uniformity: ± 0.3 K
- Adjustable internal air circulation via electronically controlled fan speed (40–100%)
- Superior temperature management and optimized energy efficiency thanks to outstanding chamber insulation
- Door with large viewing window and interior lighting for observing samples without temperature loss

Simple and Intuitive Operation
- Large, user-friendly LCD display for clear and easy readability
- Reproducible experimental conditions ensured through counter, timer, temperature-controlled timer, and operating modes A, B, and C

Versatile Accessories
- Up to two IKA incubators can be safely stacked. An INC 125 F (incubator) can be placed on top of the INC 125 FCS

(IO S 2.10 Stacking kit required)
- Door lock (optional accessory)
- Shaking platform available with 20 mm or 25 mm shaking amplitude
- Various shelf options available

Service Options
- Door hinge on the right, can be changed on request
- Installation and Operational Qualification (IQ/OQ) available upon request

Scope of delivery
•INC 125 FCS digital (SP20), Cooling and Shaking Incubator
•IO SP 20 Shaker platform
•IO T 1.00 (2 pcs.)
•Tilt protection / assembly material (2 pcs.)
•USB C-A cable
•Calibration certificate at 37 °C & 5°C
•Hose adapter (for hoses Ø 9-11 mm)

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Technical Data

Cooling agent	R290
Cooling agent quantity [g]	55
Cooling agent pressure max. [bar]	21
Heat output [W]	750
Working temperature [°C]	5 - 80
Adjustment and display resolution [K]	0.1
Temperature stability (37°C @22°C) [K]	±0.3
Temperature homogeneity (37°C @22°C) [K]	±0.3
Temperature heat up time (37°C @22°C) [min]	8
Temperature door recovery (37°C @22°C) [min]	4
Temperature display	yes
Display	LCD
Timer	yes
Timer display	LCD
Time setting max. [d]	100
Number of trays max.	6
Load for one tray max. [kg]	20
Total volume inner chamber [l]	125
Thermal safety devices according DIN 12880	TB class 1
Set-point limiter with safety shutdown	yes
Door with window	yes
Temperature sensor control	PT 100 4 wire
Defrost function	yes
Cleaning thermal decontamination (100°C)	yes
Shaking stroke [mm]	20
Speed range [rpm]	10 - 300
Speed deviation [rpm]	±5
Permissible shaking weight (incl. attachment) [kg]	7.5
Set-up plate dimensions [mm]	340 x 480
Power consumption at 37°C [Wh/h]	79
Drain tube inner diameter [mm]	10
Noise level [dB(A)]	55
Dimensions (W x H x D) [mm]	700 x 1000 x 635
Weight [kg]	95
Permissible ambient temperature [°C]	15 - 32
Permissible relative humidity [%]	70
Protection class according to DIN EN 60529	IP 20
USB interface	USB-C
Voltage [V]	220 - 240
Frequency [Hz]	50/60
Power input [W]	1000
Power input max. [W]	1000
Fuse	2x T6.3A 250V