IncuSafe

CO_2 Incubators

50 L

MCO-50AIC-PE

IR dual sensor | inCu saFe | MDD medical device directive | SafeCell UV * | H_2O_2 decontamination *

Optimising cell culture outcomes and reproducibility

PHCbi CO_2 Incubators provide precise control of CO_2 concentration and accurate, uniform, and highly responsive temperature control within the chamber. During cell culturing, contamination is prevented by germicidal interior and optional UV lamp. During cell culturing the inCu-saFe germicidal interior and SafeCell UV lamp work continuously to prevent contamination.

Precise & Regulated Environment

InCu-saFe and SafeCell UV both function to prevent contamination. The Direct Heat and Air Jacket System regulates the temperature whilst the Dual IR sensor controls the CO_2 level.

Time-Saving Decontamination

The high-speed decontamination system uses vaporised hydrogen peroxide and UV light. It cleans the chamber of the incubator safely in less than three hours, achieving a minimal 6 log reduction of major contaminants.

Precise Control & Intelligent Monitoring

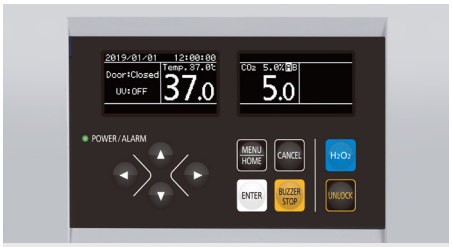
An OLED alphanumeric keypad allows convenient but secure user control. It can display internal conditions, such as CO_2 level and temperature. Transfer of data is easy via a USB port.

Optimum Cell Growth

Outstanding quality and performance for successful cell growth, optimal results and reproducibility. Perfect fit for the strictest and most sensitive protocols.

Individual Cell Culturing

Compact and stackable these incubators are ideal for individual cell cultures from patient samples or small scale research projects.



Easy to Use

Adjustable audible and visual alarms are standard, along with integrated system diagnostics and predictive performance supervision. The password-protected control panel provides security and minimizes risk of accidental changes in setpoint.

IncuSafe CO_2 Incubators

Direct Heat and Air Jacket System

Achieves accurate, uniform, and highly responsive temperature control within the chamber, providing exceptional uniformity and rapid recovery after door-openings.

Dual IR CO_2 Sensor

The incubator's Dual IR sensor and P.I.D control enables ultra-fast CO_2 recovery without overshoot, even following multiple door-openings.

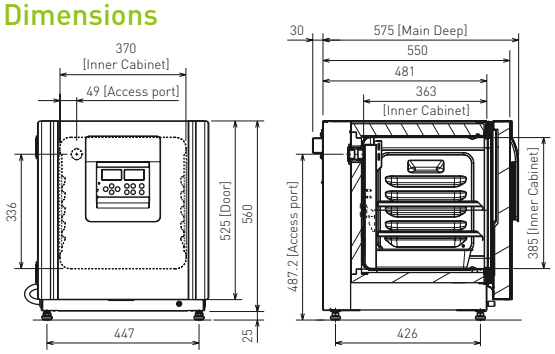
Active Background Decontamination

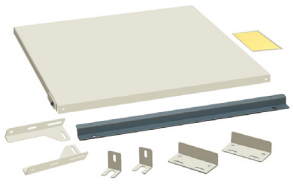
The exclusive inCu-saFe copper-enriched stainless steel alloy interior offers the germicidal properties of copper and the durability of stainless steel. The optional, isolated, SafeCell UV lamp decontaminates circulating air and water in the humidifying pan, without harming cultured cells.

Condensation Management

The 'dew stick'—controlled by Peltier technology—condenses water on its surface, which then drips into the humidifying pan, preventing unwanted condensation in the chamber and possible contamination.

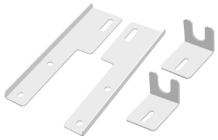
Dimensions





MCO-50SB-PW

MCO-170PS-PW



EEA, Switzerland and Turkey only

CE

Medical device
The MCO-50AIC-PE is in conformity as a Class I Medical Device. Applicable countries: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Ireland, Italy, Liechtenstein, Luxembourg, Malta, the Netherlands, Spain, Switzerland and the United Kingdom only

Research device
Applicable countries: EEA countries, Switzerland and Turkey

Model Number		MCO-50AIC-PE
External Dimensions (W x D x H)[1]	mm	480 x 550 x 585
Internal Dimensions (W x D x H)	mm	370 x 363 x 385
Volume	liters	50
Net Weight	kg	46
Performance		
Temperature Control Range & Fluctuation[2]	°C	AT +5 ~ +50, ±0.1
Temperature Uniformity[3]	°C	±0.25
CO_2 Control Range & Fluctuation	%	0 to 20, ±0.15
Humidity Level & Fluctuation	%RH	95, ±5
Control		
Temperature Sensor		Thermistor
CO_2 Sensor		Dual IR
Display		Digital (white graphic OLED)
Construction		
Exterior Material		Painted steel (rear cover not painted)
Interior Material		Stainless steel copper-enriched alloy
Insulation Material		Styrene AcryloNitrile copolymer
Heating Method		Direct Heat & Air Jacket System
Outer Door	qty	1 (Field reversible door)
Inner Door	qty	1 (tempered glass)
Trays	qty	2 x stainless steel copper-enriched alloy
Shelf Dimensions (W x D x H)	mm	353 x 308 x 12
Max. Load per Shelf	kg	7
Access Port	qty	1 (on the back side / Ø 30 mm)
Alarms		(R = Remote Alarm, V = Visual Alarm, B = Buzzer Alarm)
Power Failure		R
Out of Temperature Setting		V-B-R
High Temperature		V-B-R
Out of CO_2 Setting		V-B-R
Door open		V-B
Electrical and Noise Level		
Power Supply	V	220-240
Frequency	Hz	50
Noise Level[4]	dB	29
Options		
SafeCell UV® System		MCO-170UVS-PE
H_2O_2 Decontamination Board		MCO-50HB-PW
H_2O_2 Vapor Generator		MCO-50HP-PW
H_2O_2 Reagent, pack of 6 bottles		MCO-5H202-PE
Electric door lock with password		MCO-170EL-PW
CO_2/N_2 gas pressure regulator		MCO-010R-PW
Automatic CO_2 cylinder changeover system		MCO-50GC-PW
Tray		MCO-50ST-PW
Double stacking bracket		MCO-170PS-PW
Stacking plate		MCO-50SB-PW
Roller base		MCO-50RB-PW
Optional Communication Systems		
Analogue interface (4–20 mA)		MCO-420MA-PW

Appearance and specifications are subject to change without notice.

1) External dimensions of main cabinet only, excluding handle and other external projections.
2) When set temperature is 37°C, ambient temperature must be 32°C or less.
Regardless of ambient temperature, the maximum of temperature control range is always 50°C.
3) The measurement condition complies with PHCbi specified measuring method.
4) Nominal value.

- The optimum performance may not be obtained if the ambient temperature is not above 15°C.
* Ambient temperature: 23°C, setting: 37°C, CO2: 5 %, no load
* MCO-50AIC-PE + UV requires MCO-170UVS-PE UV system set
* MCO-50AIC-PE requires MCO-50HB-PE, MCO-170EL-PW, MCO-50HP-PW and SafeCell UV option for H_2O_2 decontamination

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