PHCbi

MCO-50M-PE

Incu*Safe*

Multigas Incubators   50 L

MDD medical device directive | **zirconia O₂ control** | **inCu saFe** | **IR dual sensor** | **SafeCell UV** * | **H₂O₂ decontamination** *

Personal-size compact Multigas Incubator

Patient-specific, compact design, triple stackable Incu*Safe* Multigas Incubator with variable CO_2 and O_2 control to simulate *in vivo* conditions. During cell culturing, the inCu-saFe germicidal interior and SafeCell UV lamp work continuously to prevent contamination.
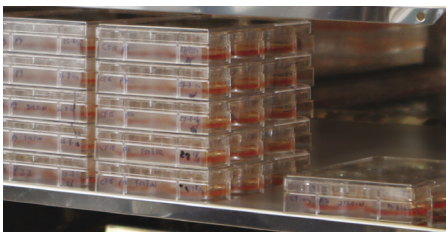
Reproduction of *in vivo* conditions

With a unique, solid-state zirconia sensor for precise oxygen control (1-18%; 22-80%), the MCO-50M Multigas Incubator is able to reproduce low oxygen concentrations found in many tissues and organs.

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.

Sensitive Cell Culturing
Culturing cells at physiological oxygen levels allows them to grow faster and live longer, and reduces the frequency of mutations.

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.

Incu*Safe* Multigas Incubators

Zirconia O₂ Sensor

The incubator's unique, solid-state, Zirconia O_2 sensor delivers precise control of physiological oxygen levels to simulate *in vivo* conditions.
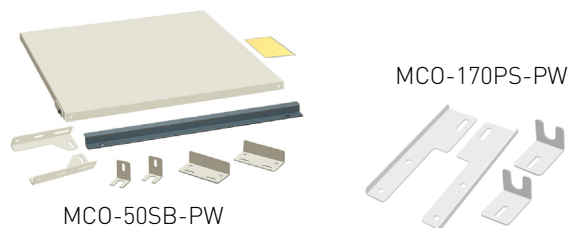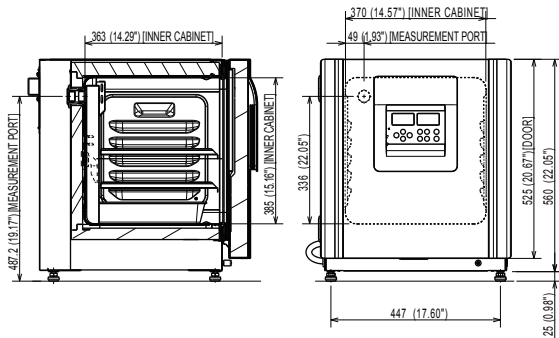
Dual IR CO₂ Sensor

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.

MCO-170PS-PW

MCO-50SB-PW

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PHC Europe B.V.

Model Number		MCO-50M-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	°C	AT +5 ~ +50, ±0.1
Temperature Uniformity[2]	°C	±0.25
CO_2 Control Range & Fluctuation[3]	%	0 ~ 20, ±0.15
O_2 control range & Fluctuation[4]	%	1 -18 and 22 - 80, ±0.2
Humidity Level & Fluctuation	%RH	95, ±5
Control		
Temperature Sensor		Thermistor
CO_2 Sensor		Dual IR
O_2 Sensor		Stabilized Zirconia Sensor
Display		Digital (White graphic OLED) readable to 0.1 increments
Construction		
Exterior Material		Painted Steel
Interior Material		Stainless Steel Copper-Enriched Alloy
Insulation Material		Styrene AcryloNitrile copolymer
Heating Method		Direct Heat & Air Jacket System
Outer Door	qty	1
Outer Door Lock		N/A
Field Reversible Door		Included
Inner Door	qty	1
Shelves	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
Max. Shelf Capacity	qty	6
Access Port	qty	1
Access Port Position		Rear upper left
Access Port Diameter	Ø mm	30
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
Out of O_2 setting		V-B-R
Door open		V-B
Electrical and Noise Level		
Power Supply	V	220-240
Frequency	Hz	50
Noise Level[5]	dB	29
Options		
SafeCell UV® System		MCO-170UVS-PE
H_2O_2 Decontamination Board		MCO-50HB-PW
Electric door lock with password		MCO-170EL-PW
H_2O_2 Vapor Generator		MCO-50HP-PW
H_2O_2 Reagent, pack of 6 bottles		MCO-5H202-PE
CO_2 Gas Pressure Regulator		MCO-010R-PW
N_2 Gas Pressure Regulator		
Automatic CO_2 Cylinder Changeover System		MCO-5GC-PW
InCu-saFe® Shelf		MCO-50ST-PW
Double stacking bracket		MCO-170PS-PW
Stacking plate		MCO-50SB-PW
Roller Base		MCO-50RB-PW

Appearance and specifications are subject to change without notice.

[1] Exterior dimensions of main cabinet only, excluding handle and other external projections
[2,3 & 4] Ambient temperature 25°C, setting 37°C, CO_2 5%, O_2 5%, no load
[5] Nominal value

* MCO-50M-PE requires MCO-50HB-PE, MCO-170EL-PW, MCO-50HP-PW and SafeCell UV option for H_2O_2 decontamination

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Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct.
If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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