

# IncuSafe

Multigas Incubators

49 L



MCO-5M-PE



## Personal-size compact Multigas Incubator

Patient-specific, compact design, triple stackable **IncuSafe** Multigas Incubator with variable CO<sub>2</sub> and O<sub>2</sub> 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

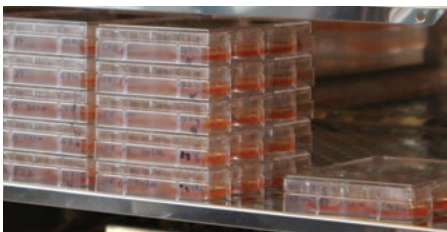
With a unique, solid-state zirconia sensor for precise oxygen control (1-18%; 22-80%), the MCO-5M Multigas Incubator is able to reproduce low oxygen concentrations found in many tissues and organs.

### Stackable Design

The compact design of the MCO-5M Multigas Incubator allows up to three units to be stacked, increasing the interior volume without the need for additional floor space.

### Control & Monitoring

Optimal visibility and control of the interior conditions of the incubator can be achieved through use of its accurate digital display and an easy-to-operate control-panel.



### 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 and hypoxic studies.



### Intuitive Usability

Control and visibility of the internal conditions, such as CO<sub>2</sub>, O<sub>2</sub> levels and temperature, is easy with the MCO-5M multigas incubator.

# IncuSafe Multigas 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.

## Zirconia O<sub>2</sub> Sensor

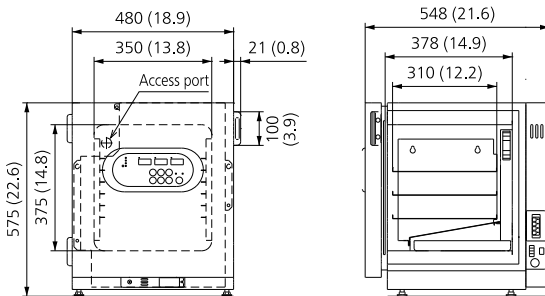
The incubator's unique, solid-state, Zirconia O<sub>2</sub> sensor delivers precise control of physiological oxygen levels to simulate *in vivo* conditions. The sensor maintains long-term high accuracy, while offering a long life-span, and does not require periodic calibration.

## TC CO<sub>2</sub> Sensor

The Incubator's thermal conductivity sensor and P.I.D control system delivers reliable and repeatable CO<sub>2</sub> control. The CO<sub>2</sub> setpoint is adjustable from 0 to 20%.

## 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.



Model Number	MCO-5M-PE	MCO-5MUV-PE
External Dimensions (W x D x H) <sup>11</sup>	mm	480 x 548 x 575
Internal Dimensions (W x D x H)	mm	350 x 378 x 375
Volume	liters	49
Net Weight	kg	50
<b>Performance</b>		
Temperature Control Range & Fluctuation	°C	AT +5 - +50, ±0.1
Temperature Uniformity <sup>21</sup>	°C	±0.25
CO <sub>2</sub> Control Range & Fluctuation <sup>31</sup>	%	0 - 20, ±0.15
O <sub>2</sub> control range & Fluctuation <sup>41</sup>	%	1 - 18 and 22 - 80, ±0.2
Humidity Level & Fluctuation	%RH	95, ±5
<b>Control</b>		
Temperature Sensor		Thermistor
CO <sub>2</sub> Sensor		TC
O <sub>2</sub> Sensor		Stabilized Zirconia Sensor
Display		LED
<b>Construction</b>		
Exterior Material		Painted Steel
Interior Material		Stainless Steel Copper-Enriched Alloy
Insulation Material		Rigid polyurethane foamed-in place
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	3 x Stainless Steel Copper-enriched Alloy
Shelf Dimensions (W x D x H)	mm	310 x 310 x 12
Max. Load per Shelf	kg	4
Max. Shelf Capacity	qty	6
Access Port	qty	1
Access Port Position		Rear upper left
Access Port Diameter	∅ mm	30
<b>Alarms</b> (R = Remote Alarm, V = Visual Alarm, B = Buzzer Alarm)		
Power Failure		N/A
Out of Temperature Setting		V-B-R
High Temperature		V-B-R
Out of CO <sub>2</sub> Setting		V-B-R
Out of O <sub>2</sub> setting		V-B-R
Door open		V
<b>Electrical and Noise Level</b>		
Power Supply	V	230
Frequency	Hz	50
Noise Level <sup>51</sup>	dB	24
<b>Options</b>		
SafeCell UV <sup>®</sup> System	MCO-19UVS-PE	Standard
Multiple Inner Doors		N/A
CO <sub>2</sub> Gas Pressure Regulator		MCO-100L-PW
N <sub>2</sub> Gas Pressure Regulator		MCO-5GC-PW
Automatic CO <sub>2</sub> Cylinder Changeover System		MCO-30ST-PW
InCu-saFe <sup>®</sup> Shelf		N/A
InCu-saFe <sup>®</sup> Half Tray System		Standard
Stacking Kit		MCO-5RB-PW
Roller Base		
<b>Optional communication systems <sup>61</sup></b>		
Ethernet interface (LAN)		N/A
Digital interface (RS232C/RS485)		MTR-480-PW

<sup>11</sup> Exterior dimensions of main cabinet only, excluding handle and other external projections  
<sup>2,3,4</sup> Ambient temperature 25°C, setting 37°C, CO<sub>2</sub> 5%, O<sub>2</sub> 5%, no load

<sup>51</sup> Nominal value  
<sup>61</sup> MCO-5M series can only be fitted with one communications interface.

