

MCO-5M-PA

# Multigas Incubator

(CO<sub>2</sub>/O<sub>2</sub>) Incubator

1.7 cu.ft. | 49 L



MCO-5M-PA



Achieve a precise CO<sub>2</sub> and O<sub>2</sub> environment that simulates accurate in vivo conditions. The compact, stackable design maximizes lab space and is ideal for individual cell culturing and IVF applications.

## Precise and Repeatable Environment

The patented Direct Heat and Air Jacket conditioning system provides for stable chamber temperature. High density insulation surrounds the incubator chamber to maintain precise temperature and protect against ambient temperature fluctuations.

## Contamination Control

Incubator interior, shelves and shelf rack system incorporate inCu-saFe<sup>®</sup> copper enriched, stainless steel alloy which offers germicidal properties of elemental copper. InCu-saFe prevents corrosion and discoloration of the incubator interior.

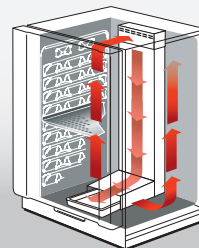
## Control and Monitoring

The incubator utilizes a microprocessor controller and provides accurate digital display of chamber conditions along with an easy to operate control panel with independent LED displays for temperature and CO<sub>2</sub>.



## Superior Growth Environment

The MCO-5M-PA Multigas (CO<sub>2</sub>/O<sub>2</sub>) incubator provides an ideal culturing environment. The thermal conductivity (TC) sensor provides precise control of CO<sub>2</sub> with fast recovery. A reliable zirconia sensor maintains O<sub>2</sub> levels in the incubator chamber.



## Optional UV Protection

Our patented SafeCell™ UV technology uses a programmable UV lamp that decontaminates the air and humidity pan without affecting the cell cultures.



## User Convenience

The softkey seven button menu for intuitive programming. Alarm notifications warn when functions deviate from setpoints. Remote alarm contacts are provided standard.

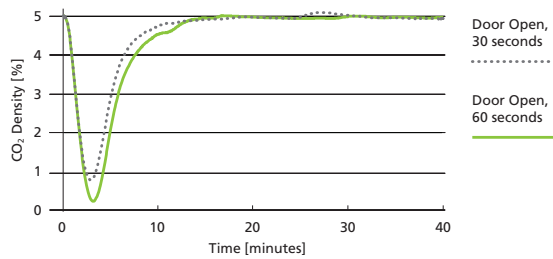


Model MCO-5M-PA

## Shelf Channel System

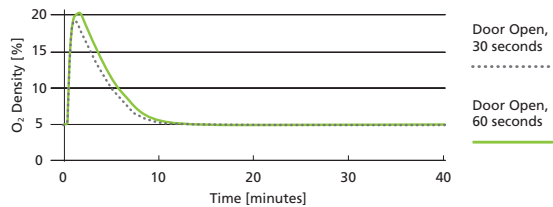
The incubator offers a removable shelf channel system, no tools required, for easy cleaning. Supplied with three shelves standard, the incubator holds a maximum six shelves on 1.1" (29 mm) centers.

## Rapid CO<sub>2</sub> Density Recovery



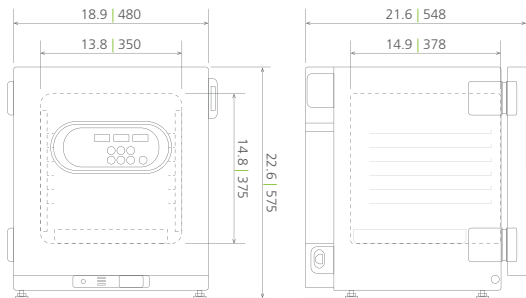
The automatic CO<sub>2</sub> control system delivers precise, reliable and repeatable CO<sub>2</sub> control. The CO<sub>2</sub> setpoint is adjustable from 0% to 20%. CO<sub>2</sub> sample port is integrated into the inner glass door.

## Rapid O<sub>2</sub> Density Recovery



## Dimensions

Unit : inch | mm



Model Number	MCO-5M-PA		With Optional UV Decontamination
External Dimensions (W x D x H) <sup>1)</sup>	inches   mm	18.9 x 21.6 x 22.6   480 x 548 x 575	
Internal Dimensions (W x D x H)	inches   mm	13.8 x 14.9 x 14.8   350 x 378 x 375	
Volume	cu.ft.   liters	1.7   49	
Net Weight	lbs   kg	108   49	
<b>Performance</b>			
Warranty <sup>2)</sup>		3 years parts and labor	
Temperature Control Range and Fluctuation <sup>3)</sup>	°C	+5 above ambient to +50, ± 0.1	
Temperature Uniformity <sup>3)</sup>	°C	± 0.25	
CO <sub>2</sub> Control Range and Fluctuation <sup>3)</sup>	%	0 to 20, ± 0.15	
O <sub>2</sub> Control Range and Fluctuation <sup>3)</sup>	%	1 to 18 and 22 to 80, ± 0.2	
Humidity Level & Fluctuation	% RH	95 at 37°C, ± 5	
<b>Control</b>			
Controller		Microprocessor – softkey 7 button menu	
Temperature Sensor		Thermistor	
Display	qty	3; LED (temperature, CO <sub>2</sub> and O <sub>2</sub> ) readable to 0.1 increments	
Sensor	CO <sub>2</sub>   O <sub>2</sub>	Thermal conductivity (TC)   Stabilized zirconia	
<b>Construction</b>			
Exterior Material		Painted steel (rear cover coated steel)	
Interior Material		Stainless steel copper enriched alloy	
Outer Door	qty	1	
Inner Door	qty	1 (sealing tempered glass with positive latch)	
Humidity Pan	qty	1 (stainless steel)	
Shelves	qty	3 (stainless steel copper enriched alloy)	
Shelf Dimension (W x D x H)	inches   mm	12.2 x 12.2 x 0.5   310 x 310 x 12	
Max. Load per Shelf	lbs   kg	8.8   4	
Max. Total Load	lbs   kg	26.5   12	
Max. Shelf Capacity	qty	6	
Access Port / Position	qty	1; rear upper left	
Access Port Diameter	inches   mm	1.2   30 (with silicone (non-VOC) stopper)	
Leveling Feet	qty	4	
<b>Decontamination Control</b>			
InCu-safe Chamber, Air Plenum and Shelves	passive	Included (stainless steel copper enriched alloy)	
SafeCell UV Light System	passive/active	Optional	Included
<b>Alarms</b> (V=Visual Alarm, Buzzer Alarm, R=Remote Alarm)			
Power Failure		R	
Temperature Deviation	high	V-B-R	
Gas Deviation	CO <sub>2</sub>   N <sub>2</sub> /O <sub>2</sub>	V-B-R   V-B-R	
Supply Empty	CO <sub>2</sub>   N <sub>2</sub> /O <sub>2</sub>	V-B-R   V-B-R	
Door Open		V-B	
<b>Electrical and Noise Level</b>			
Power Supply		115V, 1Ø, 60Hz, NEMA 5-15P requires NEMA 5-15R receptacle	
Noise Level <sup>4)</sup>	dB(A)	24	
<b>Stacking Bracket</b>			
Double Stacking Bracket <sup>5)</sup>	MCO-5 series	Included (allows for stacking two MCO-5 series incubators)	
<b>Options</b>			
SafeCell UV Light System	passive/active	MCO-19UVS-PA	
CO <sub>2</sub> Gas Pressure Regulator	psi	0 – 15; MCO-100L	
Automatic CO <sub>2</sub> Cylinder Changeover System		MCO-5GC-PW	
InCu-safe Shelf		MCO-30ST-PW	
Roller Base		MCO-5RB-PW	
4-20mA Analog Output		MCO-420MA-PW	

<sup>1)</sup> Exterior dimensions of main cabinet only, excluding handle and other external projections

<sup>2)</sup> Current warranty offered at time of printing and may be subject to change; US and Canada only

<sup>3)</sup> Ambient temperature 23°C, setting 37°C, CO<sub>2</sub> 5%, no load, air temperature measured at incubator center

<sup>4)</sup> Nominal value – Background noise 20dB(A)

<sup>5)</sup> If stacking two incubators, make sure the double stacking dedicated secure hardware and spacer are used  
Note: Additional options available.

Specifications are subject to change without notice.

For latest specification information contact PHC Corporation of North America at info@us.phcd.com. Performance data herein is based on independent testing at time of publication.

