



MCO-170M-PE

## IncuSafe

Multigas Incubators

161 L



So comfortable, your cells will feel *in vivo* IncuSafe

Multigas Incubators optimise mammalian cell cultures through variable CO<sub>2</sub> & O<sub>2</sub> control to simulate *in vivo* conditions. The MCO-170M helps to achieve more accurate results and higher reproducibility when culturing cells at controlled physiological oxygen levels.

### Reproduction of *in vivo* conditions

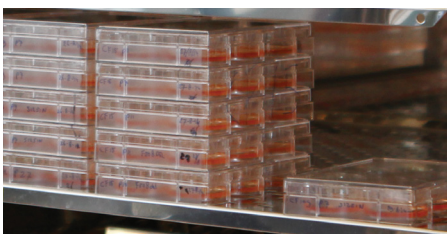
With a unique, solid-state, zirconia sensor for precise oxygen control (1-18%; 22-80%) the MCO-170M Multigas Incubator is able to reproduce the low oxygen concentrations found in many tissues and organs.

### Time-Saving Decontamination

The high-speed decontamination system uses vaporized hydrogen peroxide and UV light to safely clean the chamber in less than 3 hours, with at least a 6 log reduction of major contaminants.

### Ease of Use & Maintenance

A full colour, LCD, touch-screen panel allows full control, even with gloved hands. Transfer of data is easy via a USB port. The easy-to-clean interior features fully rounded corners and integrated shelf supports.



### Sensitive Cell Culturing

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



### Efficient Workflows

Complete laboratory procedures and experiments more efficiently with less incubator downtime. Ideal for commercial applications.



### 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-170M 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.

## Dual IR CO<sub>2</sub> Sensor

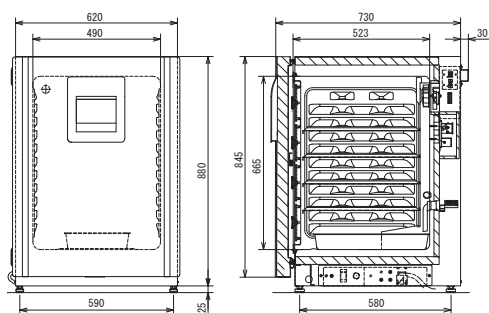
The incubator's Dual IR sensor and P.I.D control enables ultra-fast CO<sub>2</sub> recovery without overshoot, even following multiple door-openings.

## 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

With a unique antibacterial coating, 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.



EEA, Switzerland and Turkey only



### For medical use

The MCO-170M series are certified as a Class IIa Medical Device (93/42/EEC and 2007/47/EC). Applicable countries: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Ireland, Italy, Liechtenstein, Luxembourg, Malta, the Netherlands, Spain, Switzerland and the United Kingdom only



### For laboratory use

Applicable countries: EEA countries, Switzerland and Turkey



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Model Number	MCO-170M-PE	MCO-170MUV-PE**	MCO-170MUVH-PE**	
External Dimensions (W x D x H) <sup>1)</sup>	mm	620 x 710 x 905		
Internal Dimensions (W x D x H)	mm	490 x 523 x 665		
Volume	liters	161		
Net Weight	kg	79		
<b>Performance</b>				
Temperature Control Range & Fluctuation	°C	AT +5 - +50, ±0.1		
Temperature Uniformity <sup>2)</sup>	°C	±0.25		
CO <sub>2</sub> Control Range & Fluctuation <sup>3)</sup>	%	0 - 20, ±0.15		
O <sub>2</sub> control range & Fluctuation <sup>4)</sup>	%	1 - 18 and 22 - 80, ±0.2		
Humidity Level & Fluctuation	%RH	95, ±5		
Sterilisation Method		H <sub>2</sub> O <sub>2</sub> Decontamination		
<b>Control</b>				
Temperature Sensor		Thermistor		
CO <sub>2</sub> Sensor		Dual IR		
O <sub>2</sub> Sensor		Stabilized Zirconia Sensor		
Display		LCD Touch Screen		
<b>Construction</b>				
Exterior Material		Painted Steel (rear cover not painted)		
Interior Material		Stainless Steel Copper-Enriched Alloy		
Insulation Material		Expandable Polystyrene Beads		
Heating Method		Direct Heat & Air Jacket System		
Outer Door	qty	1		
Outer Door Lock		Optional	Optional	Standard
Field Reversible Door		Included		
Inner Doors	qty	4 gastight - made of tempered glass		
Shelves	qty	3 x Stainless Steel Copper-enriched Alloy		
Shelf Dimensions (W x D x H)	mm	470 x 450 x 12		
Max. Load per Shelf	kg	7		
Max. Shelf Capacity	qty	10		
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		R		
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		
<b>Electrical and Noise Level</b>				
Power Supply	V	230		
Frequency	Hz	50		
Noise Level <sup>5)</sup>	dB	25		
<b>Options</b>				
SafeCell UV® System		MCO-170UVS-PE <sup>6)</sup>	Standard	
H <sub>2</sub> O <sub>2</sub> Decontamination Board		MCO-170HB-PE <sup>6)</sup>	Standard	
Electric Door Lock with Password		MCO-170EL-PW <sup>6)</sup>	Standard	
H <sub>2</sub> O <sub>2</sub> Vapor Generator		MCO-HP-PW <sup>6)</sup>		
H <sub>2</sub> O <sub>2</sub> Reagent, pack of 6 bottles		MCO-H202-PE		
Multiple Inner Doors		Standard		
CO <sub>2</sub> Gas Pressure Regulator		MCO-010R-PW		
N <sub>2</sub> Gas Pressure Regulator		MCO-010R-PW		
Automatic CO <sub>2</sub> Cylinder Changeover System		MCO-21GC-PW		
Semi-automatic one point Gas Calibration Kit		MCO-SG-PW		
InCu-saFe® Shelf		MCO-170ST-PW		
InCu-saFe® Half Tray System		MCO-25ST-PW		
Double Stacking Bracket*		MCO-170PS-PW		
Stacking Plate*		MCO-170SB-PW		
Roller Base		MCO-170RB-PW		
<b>Optional communication systems<sup>7)</sup></b>				
Analogue interface (4-20mA)		MCO-420MA-PW		

Appearance and specifications are subject to change without notice.

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

<sup>2)</sup> Ambient temperature 23°C, setting 37°C, CO<sub>2</sub> 5%, O<sub>2</sub> 5%, no load

<sup>3)</sup> Nominal value

<sup>4)</sup> MCO-170M series requires MCO-170HB-PE, MCO-170EL-PW, MCO-HP-PW and SafeCell UV option for H<sub>2</sub>O<sub>2</sub> decontamination

<sup>5)</sup> MCO-170M series can only be fitted with one communications interface.

<sup>6)</sup> If stacking two incubators, make sure the double-stacking dedicated securing hardware and spacer are used.

\*\* These models are supplied as MCO-170M-PE with required options installed.