Nuaire In-VitroCell ES NU-5700 (160L) Direct Heat CO2 Incubator

Comes standard with a dual wave infrared sensor to control CO2 gas levels for optimal growth conditions at or near body temperature. Quality and reliability have been carefully designed and built into the NuAire ES NU-5700, offering the ideal in-vitro environment where optimized tissue cell growth is of the utmost importance.

Rating: Not Rated Yet
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ManufacturerNuaire

Description

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- Specifications

Description

In-VitroCell™ ES NU-5700 Direct Heat CO2 Incubator uses direct heating elements that surround the growth chamber to maintain set point temperature. Model NU-5700 comes standard with a dual wave infrared (IR) sensor to control CO2 gas levels creating optimal growth conditions at or near body temperature.

Quality and reliability have been carefully designed and built into the NuAire ES NU-5700, offering the ideal in-vitro environment where optimized tissue cell growth is of the utmost importance. Incredibly reliable and advanced computer technology provides the ability to precisely manage the CO_2 gas control system and temperature to achieve the precise requirements for sensitive cell cultures.

Constant Contamination Control

Closed Loop HEPA Filtration

Using the rigorous standards of an ISO Class 5 Clean Room's environment, the In-VitroCell™ CO_2 incubators have been engineered to keep contamination to a minimum. All gas and air are passed through 99.99% HEPA filters before entering the growth chamber, ensuring a sterile environment. To help prevent cell desiccation, chamber air cycles through one air change at 30-minute intervals. An extremely sensitive sensor bay constantly monitors the chamber environment, making necessary adjustments to maintain consistency.

Coved Interior Corners

Contaminants are quickly eliminated from the interior growth chamber, thanks to the rounded corners and smooth surface.

Technology

NuTouch (Touchscreen) Electronic Control System (ECS)

Four different languages (English, French, Spanish and German) and a 5x7 inch (127x178 mm), standard on each In-VitroCell incubator allow users to easily view and control the system with the touch of a finger. Quickly access system parameters such as set points and monitor temperature history and carbon dioxide graphs right on the screen (USB download capable). Readily update the chamber environment with preset service settings. Continuously monitor system status on the color screen while the incubator is in standby mode, making chamber adjustments or sampling air.

Sensitivity and Accuracy of Gas Control

A highly selective single source dual wave infrared (IR) sensor allows for incredibly sensitive and accurate CO_2 control (within ±0.1%). Located in the sensor bay, this microprocessor-based IR sensor's wavelengths are specifically absorbed by CO_2, making it impervious to input from other elements such as water vapor, allowing for a highly stable output and minimizing the need for frequent calibrations.

Performance

Temperature Uniformity

Optimum uniformity is achieved through the use of R5 insulation-wrapped foil heating elements surrounding a 5.7 cubic foot growth chamber. Specially designed dual temperature sensor probes continuously monitor and send information to the NuTouch ECS, making any needed adjustments. Temperature uniformity is maintained throughout the chamber with accuracy to within ±0.3°C.

Heat Recovery

Quick heat recovery at 0.12°C per minute allows a rapid return to set point temperature.

Humidity Control

Through the use of a stainless steel pan filled with distilled water (must not be purer than 1 mega-ohm) and placed on the chamber bottom, a relative humidity of up to 90% can be achieved and maintained.

Specifications

InVitroCell™ ES (Energy Saver) Model NU-5700 CO2 Incubator Specifications	
Electrical Requirements	
Models	NU-5700: 115V, 50/60Hz NU-5700E: 230V, 50/60Hz
Quality Assurance	UL, UL-C, CE
Dimensions	
Exterior Dimensions (W x D x H)	25.5 x 27.5 x 36.188 in 648 x 699 x 894 mm
Foot Print (W x D)	22.625 x 20.825 in 575 x 530 mm
Interior Dimensions (W x D x H)	20.25 x 20.678 x 24 in 514 x 525 x 610 mm
Chamber Volume	5.65 ft3 160 Liter
Shelf Dimensions (W x D)	18 x 18.75 in 457 x 476 mm
Shelves Supplied (Standard)	Quantity 4
Maximum Shelf Capacity	16
Maximum Weight Capacity	25 lbs (11.34 kg) per shelf 125 lbs (56.7 kg) per incubator
Water Pan Dimensions (W x D x H)	10 x 1.5 x 12 in 254 x 38 x 305 mm
Water Pan Capacity	2 Liters (Maximum) 1.5 Liters (Recommended Fill)
Volume	5.65 ft3 160 L
Net Weight (Including Water and Shelving)	225 lbs 103 kg
Temperature Control	
Control Range:	5°C to 55°C (37°C default) (5°C above ambient to 30°C maximum ambient)
Set-Point Range:	5°C to 55°C (37.0 Default)
Uniformity:	±0.3°C @ 37°C
Accuracy:	± 0.1°C
Recovery:	0.12°C/min. on Average
Display Resolution:	0.1°C
Door and Perimeter Heater Control Logic:	Proportional base duty cycle based on Temperature set point and -20 to +20% manually adjustable to adapt to ambient conditions.
Temperature Sensor Type:	Precision Integrated Circuit
CO2 Control Standard	
Range:	0.1 to 20% (default 5%), (0.0 set point idles system)
Accuracy:	±0.1%
CO2 Recovery:	Up to 5% ±0.2% / -0.5 in 5 minutes Average
CO2 Display Resolution:	0.1%
CO2 Control Logic:	Fixed Algorithm/Manual, Environmental Adaptable
CO2 Sensor Type:	Infrared single source dual wave length

Reviews

There are yet no reviews for this product.