IN-VITROCELL ES

WATER JACKET CO_2 INCUBATOR

NU-8600 Stacked

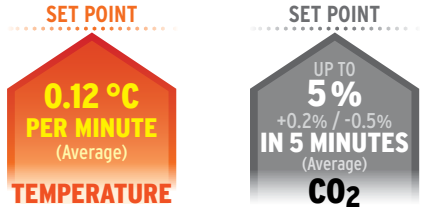
NU-8631

The In-VitroCell ES (Energy Saver) NU-8600 series is a CO2 Incubator designed to deliver a reliable controlled In-vitro environment for optimum tissue cell culture growth by offering uniform temperature control by heating water surrounding the growth chamber, providing precise CO2 gas control, and minimizing potential contamination through HEPA filtration.

Temperature Uniformity the growth chamber is surrounded by heated water and monitored using dual temperature sensor probes. Model NU-8600 offers temperature uniformity within 0.20°C at 37°C.

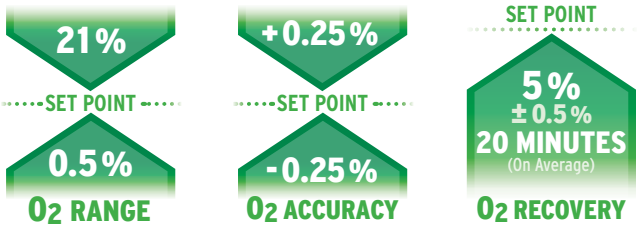
CO_2 Gas Accuracy - using a dual wave infrared (IR) sensor that is insensitive to other components, such as water vapor, the chamber maintains CO_2 levels accurate within 0.1%.

Growth Condition Recovery – Quicker and more stable, In-VitroCell CO_2 Incubators recover gas and temperature back to set point faster than other CO_2 Incubators.



NuTouch Electronic Control System (ECS) – easily control system parameters with the touch of a finger. The NuTouch ECS is a user-friendly touchscreen LCD that allows for the control of parameters and offers status indicators, on screen instructions, and notifications to assist with proper use.

Hypoxic Conditions – models NU-8631 provides the ability to suppress oxygen in the growth chamber by injecting N_2 gas to meet set point by monitoring and controlling oxygen using a sensor.



Features

Constant Contamination Control

Closed Loop HEPA Filtration – Maintained at positive pressure, gas and air entering the growth chamber continuously pass through 99.99% @ 0.3 microns efficient HEPA filters producing an environment similar to an ISO Class 5 clean room slowing airflow to one chamber volume air change per 30 minutes to minimize cell dessication.

Construction – The growth chamber is constructed of 16 gauge, type 304L polished stainless steel using a crevice-free design. The growth chamber walls are completely smooth with rounded corners which allow more complete contact between the chamber surface and cleaning solutions than a typical 90-degree corner. Shelving, supports and guide rails are easily removable and can be autoclaved.

Copper Shelving and/or water pan (Optional) – add copper shelving and/or a water pan as an added defense against contamination.

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External HEPA Filtration

The NuTouch ECS offers on screen maintenance reminders such as filter replacement. Filters are easily accessible from the front of the CO_2 Incubator

Specifications

Model	Chamber Volume	Electrical Configuration	Exterior Dimensions (W x D x H)	Chamber Dimensions (W x D x H)	Net Weight (with water and shelving)
NU-86XX	5.65 ft^3 (160 L)	115V, 50/60Hz E: 230V, 50/60Hz	25 5/8 x 27 x 37 3/4 in (650 x 685 x 958 mm)	20 3/8 x 20 5/8 x 24 in (518 x 524 x 611 mm)	403 lbs. (183 kg.)

* Specify models with appropriate letter suffix for electrical specifications. "NU-5700E" for 230 VAC 50/60 Hz

Models	Temperature Control	CO_2 Sensor	RH (Humidity) Control	O_2 Control
NU-8600	Water Jacket	Dual Wave IR	Water Pan, Convection	–
NU-8631	Water Jacket	Dual Wave IR	Water Pan, Convection	Sensor (0.5 - 21%)

Shelving

Size: 18" x 18 ¾" (457 mm x 476 mm)
Supplied: 4 Shelves
Max. Capacity: 16 Shelves
Max. Weight Capacity: 25 lbs. (11.34 kg) per Shelf / 125 lbs. (56.69 kg) per Incubator

Features

Standard Features

- NuTouch Electronic Control System
- Closed Loop HEPA Filtration System
- 100% Stainless Steel Coved Interior Chamber
- Dual Temperature Sensor Probes
- Infrared (IR) CO_2 Sensor
- O_2 Control System (NU-8631)
- Four (4) Stainless Steel Shelves
- Eight (8) Stainless Steel Shelf Guides
- Four (4) Wall Brackets
- Heated External Right Hinged Door Swing (Field Reserveable)
- Inner Right Hinged Door Swing (Field Reserveable)
- Remote Alarm Output Contacts
  RJ-45 4 to 20 mA Analog Output
  RJ-11 Communication
  RS-485 Communication
- USB Port
- CO_2 Sample Port
- Water Fill Port
- Water Drain Valve
- Adjustable Leg Levelers
- Access Port
- One (1) Stainless Steel Water Pan
- One (1) 8 ft. / 2.5 m Electrical Cord

Optional Features

- Incubator Stacking System
- RH Monitor
- Coiling Coils
- Additional Stainless Steel Shelves with Guide Brackets
- Copper Shelving and Guide Brackets
- Copper Water Pan
- Automatic CO_2 Tank Switch (External)
- Left Hinged Door Swing
- Gas Tight Sectioned Inner Door
- Platform with Castors
- Moisture Proof Duplex
- CO_2 Regulator (2 Stage)
- N_2 Regulator (2 Stage)
- CO_2 Analyzer Fyrite Kit (Dry) 0-20%
- Replacement Fluid for CO_2 Analyzer

Temperature Control System

Temperature Sensor Type: Precision Integrated Circuit

Default Set Point: 37°C

Chamber Temperature Range: 5°C to 55°C (5°C Above Ambient to 30°C Max. Ambient)

Chamber Temperature Uniformity: ± 0.20°C @ 37°C

Temperature Accuracy: ± 0.1°C

Temperature Recovery: 0.12°C/Minute Average

Temperature Display Resolution: 0.1°C

Electrical Requirements

Startup Power: 625 watts

Running Power: 250 watts, 60 Hz

Heat Rejected: 14 BTU / min.

Utility Connections

Gas Connections: 0.25 in. (6.3 mm) Tubing Connections

Gas Input Pressure: 20 PSIG (1.4 BAR) Input Pressures Maximum. Two-Stage Gas Regulators Required.

CO_2 Control Systems

CO_2 Sensor Type: Infrared Single Source Dual Wave Length

CO_2 Control Logic: Fixed Algorithm / Manual Environmental Adaptable.

Default Set Point: 5%

CO_2 Range: 0.1 to 20%. (0.0 Set Point Idles System)

CO_2 Accuracy: ± 0.1%

CO_2 Recovery: Up to 5% -0.50% / +0.20% in 5 Minutes Average.

CO_2 Display Resolution: 0.1%

O_2 (NU-8631)

Zirconia Ceramic Sensor

Default Set-Point: 21%

O_2 Range: 0.5 to 21%

O_2 Accuracy: ± 0.25%

Display Resolution: 0.1%

O_2 Recovery: 5% ± 0.5% / 20 min.

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