

EC 160 CO₂ Incubator





EC 160 CO_2 incubator is designed to be used in studies on cell culture such as bacteria, viruses, stem cells in the faculties of medicine, veterinary, pharmacy and science of universities, as well as in vaccine and drug production facilities.

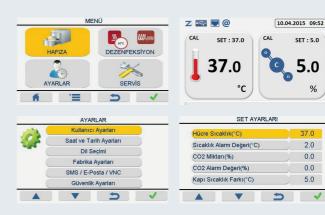
EXCELLENT CULTURAL CONDITIONS

Reliable cell culture depends on three parameters: temperature, CO_2 density and relative humidity.

The EC 160 CO₂ Incubator offers optimal incubation conditions for researchers looking for perfect cell culture conditions.

- N-Smart™ control system with 4.3" color LCD TFT indicator to ensure the most ideal and safe incubation conditions continuously
- Homogeneous temperature distribution within the cell with comparable results
- \bullet PID control system for stable temperature and proportional control system for stabel CO_2 value
- Fast recovery process after door opening and closing thanks to the RaPIDcell™ control system
- Humidity at \cong 95% provided by a large surface heated moisture tray
- Accurate and precise measurement with infrared (IR) ${\rm CO_2}$ sensor, which is not affected by frequent door openings, temperature, and humidity
- Automatic measurement reset Auto-Zero calibration system for precise CO₂ value measurement every 12 minutes









COMPLETE PROTECTION FROM CONTAMINATION

The EC 160 is made of a one-piece chamber with rounded corners against contamination.

In case of any contamination, it is always ready for use for moist disinfection of microorganisms. In addition, smooth cell walls with no connections, parts or sensors and rounded corners can be easily sterilized with the optional UV sterilization system.

- There is no circulation fan that causes cross-contamination.
- Air jacketed heating system
- Easily removable shelf carriers and shelves.
- Seamless stainless steel chamber with rounded corners
- Shelf carriers with rounded surfaces against contamination
- NüveDis™ 90°C moist disinfection system
- Optional NüveRay™ UV light sterilization kit
- 0,22 µm sterile filtration of CO₂, sampled gases and Auto-Zero reference air
- Built-in 2nd stage gas regulator





IDEAL WORKING CONDITIONS

Time is invaluable to researchers and should not be wasted on unnecessary operations.

On EC 160, the user interface simplifies operations, giving users all the necessary information.

- Easy monitoring of operating parameters with high resolution 4.3" color LCD TFT display
- Easy operation with four function keys
- Operation secured by a 4-digit password-protected menu
- Continuous display of set and actual values
- Icons that make operations easier
- Shelf design that simplifies sample placement and reception
- 0,22 µm filter that does not take up space inside the cell
- No sensor to be removed during the disinfection phase
- · Large surface tray for easy cleaning
- Shelf dimensions are designed to place maximum samples
- Easy removable shelf and carriers for sterilization
- Guide the user with clear messages
- Reminder for calibration and service
- Built-in temperature sensor that measures the standard ambient temperature
- Optional cable input port
- Programmable timer for sterilization with optional nUVeRay™ UV





The EC 160 offers many advanced features to ensure that your samples are stored in ideal conditions.

The N-Smart™ control system continuously records and stores data. There's no need to wonder what happened while you were gone. The advanced alarm system and optional features will alert you instantly wherever you are.

- Graphic that facilitates the tracking of running parameters
- NüveTrack™ data tracking system that simplifies tracking by keeping 7 years of data in memory at 60-minute intervals
- · On-demand control of recorded data.
- Alarm and error history kept in memory to facilitate service operations
- Optional NüveCloser™ software to track and store data on the computer
- USB output for recording data to external memory at selected intervals between 1 and 60 minutes
- USB/RS 232 outputs for retrieval of data from memory and computer connection
- Ethernet port for Internet connection
- Access to all data in memory thanks to remote access to the device via the internet with optional NüveCloser™ software
- Computer connection via RS 232 output thanks to optional NüveCloser™ software
- Possibility to send e-mails to 5 different addresses in case of a possible error or malfunction
- Notification bar that turns red in case of any alarm and warns the user
- · Audible and visual alarm system
- Diagnostic system that simplifies servicing
- Help menu explaining the cause of errors that may occur
- For maximum security, the optional AlerText™ GSM alarm module provides the option to send SMS to 5 different phone numbers in case of any malfunction
- Optional NüveWarn[™] remote alarm system
- Standard Wi-Fi connection for the N-Mobile[™] phone app











TECHNICAL SPECIFICATIONS

	EC 160
Chamber Volume, liters	160
Internal Material	Stainless steel Rounded corners - No fittings
Indicator	4.3" Color LCD TFT display
Control System	N-Smart™ Microprocessor Control System
Temperature Range	Ambient Temperature +7°C to 50°C
Temperature Set & Reading Sensitivity	0,1℃
Temperature Variation / Fluctuation (@37°C)*	±0,3°C / ±0,1°C
Programmable Temperature Alarm Range	±0,5°C to 5°C
Temperature Sensor	Pt 100
CO ₂ Range	0% to 20%
CO ₂ Set & Display Sensitivity	0,1%
CO ₂ Variation / Fluctuation	±0,3% / ±0,1%
Programmable CO ₂ Alarm Range	±0,5% to 5,0%
CO ₂ Sensor	Infra-Red (IR)
Calibration	Auto-zero in Every 12 minutes
Contamination Resistance	Infrared sensor, Automatic Zeroing Gas Line and 0.22 μm Filter in the CO $_2$ Gas Inlet Line
Relative Humidity Level	95% RH ± 5%
Recovery Times after 30 sec. Door Opening	To 36,5°C 8 min, to %4,9 CO₂ 3 min
Disinfection	NüveDis™ 90 °C Password Protected Moist Disinfection
Number of Shelves (standard / maximum)	3/8
Shelf Load Area (WxD) mm	465x 400
Shelf Capacity	20x90 mm / 56x55 mm Petri dish and 15x250 ml flask
Casing / Insulation Materials	Epoxy-polyester Powder Coated Steel / Aluminium Foil Coated Glass Wool
Display	4,3" Colourful LCD Display
Data Recall	7 Years Data Record with NüveTrack™
Data Reporting	NüveCloser™ Software and USB Port for External Memory
Alarms	Audible and Visual Messages
Power Rating	1160 W
Power Supply	230 V 50 Hz
Internal Dimensions (WxDxH) mm	500x460x700
External Dimensions (WxDxH) mm	917x725x905
Packing Dimensions (WxDxH) mm	960x780x1200
Net/Packed Weight kg	115 / 138

^{*} At 22°C ambient temperature

FACTORY FITTED OPTIONS

EC 160 H Cable port (25 mm)

OPTIONS AND ACCESSORIES

A 08 191	AlerText™ GSM alarm module
K 13 009	NüveWarn™ remote alarm system with 10 m cable
A 08 143	nUVeRay™ UV light sterilization kit
A 08 237	NüveCloser™ software for PC (operates through internet)
R 01 154	Stainless Steel shelf
A 08 146	Stacking adapter
A 08 147	Support frame
A 08 148	Roller base
F 06 003	0,22 μm biological filter (spare)
R 11 007	Single stage regulator for CO ₂ gas cylinder
A 08 149	Gas changeover unit for two CO ₂ gas cylinders

