

CO₂ incubator

CB 160 series



► STANDARD EQUIPMENT

- VENTAIR™ Jacket System
- Temperature range from 7 °C (13 °F) above ambient temperature to 60 °C (140 °F)
- MCS controller for temperature and CO₂ concentration
 - User-friendly LCD screen
 - Easy-to-read menu guide
 - Integrated electronic chart recorder
 - Variety of options for the graphic display of process parameters
 - Real time clock
- Hot air sterilization at 180 °C (356 °F) (DIN 58947)
- Drift-free NDIR CO₂ measurement system, sterilizable at 180 °C
- Patented Gas mixing nozzle
- ANTI.PLENUM Design
- Permadyr System - condensation-free double-pan humidification system, maintains dry interior walls
- Seamless deep-drawn inner chamber made of stainless steel with integrated shelf support system (flanges)
- Electronic self-diagnostic system for errors with visual and audible alarms, as well as relay potential changeover contact for central monitoring
- Independent temperature safety device class 3.1 (DIN 12880) with optical and audible temperature alarm
- Tightly-fitted inner glass door
- Ethernet interface for communication software APT-COM™ DataControlSystem
- 3 perforated, stainless steel shelves
- Units are stackable with stacking adapter
- Door lock
- BINDER test confirmation

Technical data

CB 160 series

CB 160

Exterior dimensions	
Width (mm/inch)	680 / 26.77
Height (including feet) (mm/inch)	920 / 36.22
Depth (mm/inch) (plus 75 mm (2.1 inch) for door handle and connection) (mm/inch)	715 / 28.15
Depth plus instrument triangle, door handle (mm/inch)	75 / 2.95
Wall clearance side (mm/inch)	50 / 1.97
Wall clearance rear (mm/inch)	100 / 3.94
Number of door	1
Inner glass door	1
Interior dimensions	
Width (mm/inch)	500 / 19.69
Height (mm/inch)	600 / 23.62
Depth (mm/inch)	500 / 19.69
Perforated shelves (no. standard/max.)	3 / 6
Load per shelf (kg/lbs.)	10 / 22
Permitted total load of the unit (kg/lbs.)	30 / 66
Weight (empty) (kg/lbs.)	107 / 236
Temperature data	
Temperature range from 7 °C (13 °F) above ambient temperature to (°C/°F)	60 / 140
Temperature uniformity at 37 °C / 98.6 °F (±K)	0.3
Temperature fluctuation at 37 °C / 98.6 °F (±K)	0.1
Recovery time after door was opened for 30 sec ¹⁾ at 37 °C / 98.6 °F (min) ¹⁾	3
Humidity data	
Humidity (% r. h.)	95 ±2
CO ₂ data	
CO ₂ range (Vol.-% CO ₂)	0 – 20
Setting accuracy (Vol.-% CO ₂)	0.1
Recovery time after door was opened for 30 sec at 5 vol. % (min) ¹⁾	7
CO ₂ measurement	NDIR
Connection hose nozzle for CO ₂ DN 6 for hose with internal diameter (mm/inch)	6 / 0.24
O ₂ data	
O ₂ range (vol.-% O ₂)	0.2 – 95
Setting accuracy (vol.-% O ₂)	0.1
Recovery time after door was opened for 30 sec ¹⁾	
at 1.0 vol-% O ₂ (min)	33
at 5.0 vol-% O ₂ (min)	10
O ₂ measurement	ZrO ₂
Gas connection hose nozzle for O ₂ / N ₂ DN 6 for hose with internal diameter (mm/inch)	6 / 0.24
Electrical data	
Voltage (± 10%) 50/60 Hz (V)	230
Nominal power (kW)	1.3
Energy consumption at 37 °C (98.6 °F) (W) ¹⁾	120

¹⁾ to 98 % of the set value.

All technical data are specified for units with standard equipment at an ambient temperature of 25 °C (77 °F) and a line voltage fluctuation of ±10%. The temperature data is determined in accordance to factory standard following DIN 12880, respecting the recommended wall clearances of 10% of the height, width and depth of the inner chamber. All figures are typical average values for series devices. We reserve the right to alter technical specifications at any time.

Options

CB 160 series

-
- Silicone access port with two silicone plugs, 30 mm (1.2 inch), left side

 - Silicone access port with two silicone plugs, 30 mm (1.2 inch), right side

 - Silicone access port with two silicone plugs, 30 mm (1.2 inch), back

 - Keyboard Lock

 - Gas tank connection set for CO₂ consisting of a gas tank pressure regulator (max. pressure 10 bar) with connection parts and 5 m (16.4 ft.) hose

 - Gas tank connection set for O₂ consisting of a gas tank pressure regulator (max. pressure 10 bar) with connection parts and 5 m (16.4 ft.) hose

 - Gas tank connection set for N₂ consisting of a gas tank pressure regulator max. pressure 10 bar) with connection parts and 5 m (16.4 ft.) hose

 - BINDER Gas Supply Service external gas tank replacement for connecting 2 gas tanks, either CO₂ or N₂, with audible and visual alarms, as well as potential-free alarm output

 - RS 422 interface

 - 4 - 20 mA analog outputs for temperature and CO₂ measurements (e.g. chart recorder connection) with 6-pin DIN socket (output not adjustable).

 - Switched LEMO inner chamber socket (coverable) and LEMO connector (max. current carrying capacity **115 V AC** - 6 A) (protection class IP 65)

 - Independent Intelligent Fail Safe monitoring function. Unique safety function used to prevent unnoticed deviations of the CO₂ concentration from the set value. Note: Not possible in conjunction with access ports or divided inner glass door

 - Calibration certificate for temperature and CO₂ (temperature measurement in center / CO₂ measurement performed using analyzed test gas at 37 °C (98.6 °F) and 5% CO₂)

 - Calibration certificate for optional O₂ control, O₂ measurement with analyzed test gas 1% O₂

 - Temperature measurement acc. to DIN 12880 (27 measuring points) at 37 °C (98.6 °F) or at specified temperature with measuring protocol and certificate

 - Manual for Primary Human Cell Culture, in English

 - Current feedthrough (8-pin) for low voltage with LEMO socket (plugable) and LEMO plug

 - Internal O₂ and N₂ tank changer for connecting 2 gas tanks each

 - Perforated shelf, stainless steel

 - Divided shelf (1 shelf level) for gas-tight divided inner glass door, stainless steel

 - Base on casters for CB 160

 - Stable vibration-free stacking frame on casters with stop brake for direct and safe stacking of two units of the CB 160 series

 - Stacking adapter for direct thermal decoupled stacking of two CB 160 CO₂ incubators

 - CELLROLL Set, modular and expandable roller bottle system for cell cultivation, 4 roller bottles
