

Model CB 260 \mid CO $_{2}$ incubators with hot air sterilization and heat sterilizable CO $_{3}$ sensor

The powerful and versatile CB CO₂ incubator is suitable for cell-based assays in drug and medical research. This BINDER incubator is even suitable for complex cultivation experiments or individual environments with hypoxic conditions thanks to its comprehensive assortment of options and accessories.

BENEFITS

- Safe cell cultures receive maximum protection against contamination
- Reliable constant well-being conditions for the cells
- Smart simple routine cleaning and convenient operation
- Economical efficient operation without consumables



Model

MAIN FEATURES

- Optimized double-pan humidification system with condensation protection
- Tried-and-tested anti-contamination concept with 180 °C hot air sterilization
- Hot-air sterilizable CO₂ sensor with single-beam infrared technology
- Seamless inner chamber made of stainless steel with flanges as shelf support system
- Fanless interior with Venturi CO2 gas mixing nozzle
- Intuitive touchscreen controller
- Internal data recording, can be read out in open format via USB interface
- $\bullet\;$ Fault diagnosis system with visual and acoustic alarm
- Interfaces: Ethernet, USB, zero-voltage alarm contact
- Fail-safe CO2 system for protecting the pH of cell cultures



Model

OPTIONAL EQUIPMENT

- O_2 control with O_2 control ranges: 0.2 to 20 vol.% O_2 or 10 to 95 vol.% O_2
- Multi-sectional glass doors with special shelves for dividing up the space to accommodate different experiments
- · Stacking adapter for secure, space-saving installation
- Gas tank changer for connecting two gas tanks to one or two incubators

ORDERING INFORMATION

| Interior volume [cu.ft.] | Voltage | Option model | Version | ArtNo. |
|--------------------------|----------------------|-------------------------------------|-------------------------------------|----------------|
| 9.4 | 200230 V 1~ 50/60 Hz | Standard | CB260-230V | 9640-0013 |
| | | with O ₂ control 0.2–20% | CB260-230V-0 | 9640-0014 |
| | | Standard | CB260UL-120V | 9640-0015 |
| | 10 | 100120 V 1~ 50/60 Hz | with O ₂ control 0.2–20% | CB260UL-120V-O |



TECHNICAL DATA

| Description | CB260-230V1 | CB260-230V-01 | CB260UL-120V1 | CB260UL-120V-01 |
|---|---------------|---------------|---------------|-----------------|
| article Number | 9640-0013 | 9640-0014 | 9640-0015 | 9640-0016 |
| Performance Data Temperature | | | | |
| emperature range +5 °C above ambient temperature to [°C] | 60 | | 60 | |
| Femperature range +6 °C above ambient temperature to | | 60 °C | | 60 |
| Temperature variation at 37 °C | 0,4 ± K | 0,4 ± K | 0,4 ± K | 0,4 ± K |
| Temperature fluctuation at 37 °C [± K] | 0.1 | 0.1 | 0.1 | 0.1 |
| Recovery time after 30 seconds door open at 37 °C [min] | 6 | 6 | 6 | 6 |
| Performance Data Climate | | | | |
| Humidity range | 9095 | 9095 | 9095 | 9095 |
| CO ₂ -Data | | | | |
| CO ₂ range [Vol% CO ₂] | 020 | 020 | 020 | 020 |
| CO ₂ measurement | IR | IR | IR | IR |
| CO ₂ Recovery time after 30 seconds door open at 5 Vol% CO ₂ [min] | 5 | 5 | 5 | 5 |
| D₂-Data | | | | |
| Standard O ₂ control ranges: O ₂ range [Vol% O ₂] | | 0.220 | | 0.220 |
| O_2 control ranges with option: O_2 range Vol (O_2) | | 1095 | | 1095 |
| O_2 Recovery time after 30 seconds door open at 5 Vol% O_2 [min] | | 15 | | 15 |
| Electrical data | | | | |
| ated Voltage [V] | 200230 | 200230 | 100120 | 100120 |
| ower frequency [Hz] | 50/60 | 50/60 | 50/60 | 50/60 |
| Iominal power [kW] | 1.5 | 1.5 | 1.5 | 1.5 |
| Jnit fuse [A] | 10 | 10 | 16 | 16 |
| Phase (Nominal voltage) | 1~ | 1~ | 1~ | 1~ |
| Measures | | | | |
| nterior volume [cu.ft.] | 9-4 | 9.4 | 9.4 | 9.4 |
| Net weight of the unit (empty) [lbs] | 276 | 276 | 276 | 276 |
| Permitted load [lbs] | 88 | 88 | 88 | 88 |
| oad per rack [lbs] | 22 | 22 | 22 | 22 |
| /all clearance back [in] | 3.94 | 3.94 | 3.94 | 3.94 |
| Vall clearance sidewise [in] | 1.97 | 1.97 | 1.97 | 1.97 |
| nternal Dimensions | | | | |
| /idth [in] | 24.43 | 24.43 | 24.43 | 24.43 |
| leight [in] | 29.55 | 29.55 | 29.55 | 29.55 |
| epth [in] | 22.65 | 22.65 | 22.65 | 22.65 |
|)oors | | | | |
| nner doors | 1 | 1 | 1 | 1 |
| Jnit doors | 1 | 1 | 1 | 1 |
| Housing dimensions not incl. fittings and | d connections | | | |
| Width net [in] | 29.16 | 29.16 | 29.16 | 29.16 |
| Height net [in] | 40.2 | 40.2 | 40.2 | 40.2 |
| Depth net [in] | 30.93 | 30.93 | 30.93 | 30.93 |
| | | | | |

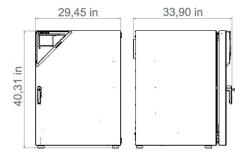
¹ All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10%. The temperature data is determined to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.



| Description | CB260-230V1 | CB260-230V-01 | CB260UL-120V1 | CB260UL-120V-01 | | |
|------------------------------------|-------------|---------------|---------------|-----------------|--|--|
| Article Number | 9640-0013 | 9640-0014 | 9640-0015 | 9640-0016 | | |
| Environment-specific data | | | | | | |
| Energy consumption at 37 °C [Wh/h] | 65 | 65 | 65 | 65 | | |
| Sound-pressure level [dB(A)] | 41 | 41 | 41 | 41 | | |
| Fixtures | | | | | | |
| Number of shelves (std./max.) | 3/8 | 3/8 | 3/8 | 3/8 | | |

¹ All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10%. The temperature data is determined to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

DIMENSIONS INCL. FITTINGS AND CONNECTIONS [MM]



OPTIONS

| Designation | Description | * | ArtNo. |
|---|---|----|-----------|
| Access port with silicone plug | back | | |
| | 30 mm | 01 | 8612-002 |
| | left | | |
| | 30 mm | 01 | 8612-0026 |
| | right | | |
| | 30 mm | 01 | 8612-0027 |
| Analog output 4-20 mA | for temperature and CO ₂ values (outputs not adjustable) | 02 | 8612-002 |
| Calibration certificate O ₂ | for versions with O ₂ control; a measuring point in center of chamber at a specified O ₂ percentage value | - | 8012-022 |
| | for temperature, measurement in center of chamber at specified temperature | - | 8012-1132 |
| Calibration certificate, | temperature measurement incl. certificate and 27 measuring points at specified temperature | - | 8012-1592 |
| temperature | temperature measurement incl. certificate, 15-18 measuring points at specified temperature | - | 8012-1571 |
| | temperature measurement incl. certificate, 9 measuring points at specified temperature | - | 8012-1550 |
| Calibration certificate, temperature and CO ₂ | for temperature and CO_2 , temperature measurement in center of chamber, CO_2 measurement performed using test gas at 37 °C and 5 % CO_2 | - | 8012-1235 |
| CELLROLL Set | modular, expandable roller bottle system for cell cultivation, 6 roller bottles | - | 8612-002 |
| Door hinged on the left | Unit door and standard glass inner door with door hinged on the left | - | 8612-003 |
| Electric access port | 8-pin, for low voltage with LEMO socket (coverable) and LEMO plug (max. 24 V – 2 A) | - | 8612-003 |
| Inner door, divided | Cell therapy compartmentalization, consisting of 8 inner doors and two shelf levels with four partition wall each | - | 8612-003 |
| O ₂ control range | alternative to the standard range, for controlling O_2 concentrations between 10 and 95 vol. %, only in conjunction with option models with O_2 control | - | 8612-002 |
| Quick sample access | vewing window (13 x 25 cm) in the inner door for quick access | - | 8612-003 |
| | | | |

^{*} Notes > See last page



ACCESSORIES

| Designation | Description | * | ArtNo. |
|--------------------------------|--|---|-----------|
| Base | the base equipped with casters is used for the secure positioning and leveling of a BINDER CO2 incubator | - | 9051-0044 |
| | for CO ₂ , consisting of a gas tank pressure regulator with connection parts and 5-meter hose | - | 8012-0014 |
| Gas cylinder connection Set | for N ₂ , consisting of a gas tank pressure regulator with connection parts and 5-meter hose | - | 8012-0016 |
| 361 | for O ₂ , consisting of a gas tank pressure regulator with connection parts and 5-meter hose | - | 8012-0015 |
| Gas tank changer | external, BINDER Gas Supply Service, for connecting 2 gas tanks $(CO_2, N_2 \text{ or } O_2)$, with audible and visual alarms, as well as zero-voltage alarm output | - | 8012-0408 |
| | Multi Management Software APT-COM™ | | |
| Multi Management | version 4, BASIC edition | - | 9053-0039 |
| oftware | version 4, GLP edition | - | 9053-0042 |
| | version 4, PROFESSIONAL edition | - | 9053-0040 |
| H-neutral detergent | concentrated, for gentle remove of residual contaminants; 1 kg | - | 1002-0016 |
| | IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, CO_2 , O_2 , pressure, depending on unit | | |
| | Digital in PDF format | - | 7057-0001 |
| !:C4:4 | Hard copy inside folder | - | 7007-000 |
| Qualification documents | $IQ/OQ/PQ$ documents – supporting documents for validation performed by customers, according to customer requirements, PQ section added to qualification folder IQ/OQ ; parameters: temperature, CO_2 , O_2 – or pressure, depending on unit | | |
| | Digital in PDF format | - | 7057-000 |
| | Hard copy inside folder | - | 7007-000 |
| Rubber pads | set anti-slip feet | - | 8012-0702 |
| Shaker "Professional" | Shaker and controller equipped with LEMO connectors, exclusively for CB with electric access port, 100 – 240 V, 50/60 Hz | _ | 8012-1772 |
| Shaker "Universal" | Shaker and controller connected via ribbon cable, universally applicable, 100 – 240 V, 50/60 Hz | - | 8012-1771 |
| | Stainless steel | - | 6004-0197 |
| Shelf, perforated | for divided inner door | | |
| | Stainless steel, divided | - | 8012-1996 |
| Stacking adapter | for the thermally isolated stacking of two BINDER CO₂ incubators | - | 9051-0039 |
| Stacking frame | stable, vibration-free stacking frame on casters with stop brake for safe stacking of two CB series units | - | 9051-0041 |
| WLAN kit | The kit contains a client bridge that establishes a wireless connection between BINDER units and APT-COM4, LIMS, or customer-specific software via an Ethernet interface. It provides an alternative solution in situations where units need to be positioned in locations without an on-site Ethernet connection. In secured networks, installation and configuration must be performed by the customer's IT service. | - | 8500-016 |
| * Notes > See last page | | | |

^{*} Notes > See last page

SERVICES

| Designation | Description | * | ArtNo. |
|------------------------------------|---|----|-----------|
| Installation services | | | |
| Unit installation | Connect the unit to the customer-side connections (electricity, water, wastewater, gas), basic functions check, brief operating instructions. (excl.: unpacking, setup, controller instructions, programming, installation work) | 05 | DL10-0100 |
| Unit instructions | Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming | 05 | DL10-0500 |
| Maintenance services | | | |
| BRONZE 3-year maintenance contract | Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts | 05 | DL20-0710 |
| GOLD 3-year maintenance contract | Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, replacement of wear parts, calibration of one temperature and ${\rm CO_2}$ value, including certificate | 05 | DL20-0940 |
| Maintenance | One-off maintenance service in accordance with maintenance schedule. Visual inspection of mechanical and electrical components, testing of all key functions. Calibration of a test temperature specified by the user in center of usable space without certificate | 05 | DL20-0400 |

^{*} Notes > See last page



| Description | * | ArtNo. |
|--|---|--|
| Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, calibration of one test temperature specified by the user in the center of the usable space, without certificate | 05 | DL20-0820 |
| | | |
| ${ m CO_2}$ calibration at a specified value, measurements are taken with analyzed test gas at 5%, including certificate | 03, 04, 05 | DL30-0401 |
| O_2 calibration with 1 measuring point in center of chamber at a specified O_2 percentage value, including certificate | 03, 04, 05 | DL30-0402 |
| Calibration of one (1) test temperature specified by the user in center of chamber, including certificate | 03, 04, 05 | DL30-0101 |
| Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate | 03, 04, 05 | DL30-0102 |
| Temperature measurement with 18 measuring points with a set value specified by the user, including certificate | 03, 04, 05 | DL30-0118 |
| Temperature measurement with 27 measuring points with a set value specified by the user, including certificate | 03, 04, 05 | DL30-0127 |
| Temperature measurement with 9 measuring points with a set value specified by the user, including certificate | 03, 04, 05 | DL30-0109 |
| | | |
| Execution of IQ/OQ in accordance with qualification folder | 05 | DL41-0200 |
| Execution of IQ/OQ/PQ in accordance with qualification folder | 05 | DL44-050 |
| | | |
| The warranty is extended by 1 year from the delivery date, wear parts are excluded | _ | DL50-002 |
| | Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, calibration of one test temperature specified by the user in the center of the usable space, without certificate CO ₂ calibration at a specified value, measurements are taken with analyzed test gas at 5%, including certificate O ₂ calibration with 1 measuring point in center of chamber at a specified O ₂ percentage value, including certificate Calibration of one (1) test temperature specified by the user in center of chamber, including certificate Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate Temperature measurement with 18 measuring points with a set value specified by the user, including certificate Temperature measurement with 27 measuring points with a set value specified by the user, including certificate Temperature measurement with 9 measuring points with a set value specified by the user, including certificate Execution of IQ/OQ in accordance with qualification folder Execution of IQ/OQ/PQ in accordance with qualification folder | Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, calibration of one test temperature specified by the user in the center of the usable space, without certificate CO ₂ calibration at a specified value, measurements are taken with analyzed test gas at 5%, including certificate O ₃ calibration with 1 measuring point in center of chamber at a specified O ₂ percentage value, including certificate Calibration of one (1) test temperature specified by the user in center of chamber, including certificate Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate Temperature measurement with 18 measuring points with a set value specified by the user, including certificate Temperature measurement with 27 measuring points with a set value specified by the user, including certificate Temperature measurement with 9 measuring points with a set value specified by the user, including certificate Temperature measurement with 9 measuring points with a set value specified by the user, including certificate Execution of IQ/OQ in accordance with qualification folder Execution of IQ/OQ/PQ in accordance with qualification folder Execution of IQ/OQ/PQ in accordance with qualification folder Execution of IQ/OQ/PQ in accordance with qualification folder |

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NOTES

- Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge. UL mark is not granted when this option is used. 01
- 02
- Sensor calibration is performed in an accredited calibration laboratory. 03
- Calibration is performed according to the BINDER factory standard. 04
- Quoted prices do not include travel costs. Please refer to the chapter on BINDER Service for travel costs for your region. Quoted prices for services performed in Switzerland do not include a country-specific added fee (available on request).

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