

CO₂ INCUBATORS



➤ Labnics series of CO₂ incubators brings a perfect & Reliable Technological Solution for Major Applications:

- ✦ Different working capacity.
- ✦ Air jacketed, Water jacketed & Direct Heat options are available.
- ✦ HEPA Filter for CO₂ inlet.
- ✦ Reliable CO₂ Detection and control by IR (infrared) and TCD (Thermal Conductivity Detector).
- ✦ Highly precise UV and Moist Heat Disinfection Facilities.
- ✦ Reliable Systems For Cell Culture Applications.



Quick Guide to Labnics CO₂ Incubators

Model No.	Description	Temp. (°C)	Capacity (l)	Catalog No.
Direct Heat CO₂ Incubator				
LCI 100 A	Air Jacketed Direct Heat CO ₂ Incubator with UV Disinfection Facilities (212nm)	+ 5 to 50	212	03180101
LCI 100 B	Air Jacketed Direct Heat CO ₂ Incubator with UV Disinfection Facilities (151nm)	+ 5 to 50	151	03180102
LCI 200 A	Air Jacketed CO ₂ Incubator with Moist Heat Disinfection Facilities	+ 5 to 50	151	03180201
LCI 200 B	Air Jacketed CO ₂ Incubator with Moist Heat Disinfection Facilities with 3 and 6 Shelves	+ 5 to 50	240	03180202
LCI 300 A	Air Jacketed Direct Heat CO ₂ Incubator with Digital PID Temp. Control	+ 5 to 60	142	03160101
LCI 300 B	Air Jacketed CO ₂ Incubator with Peltier Temp. Control	- 5 to 60	142	03160102
Air Jacketed CO₂ Incubator				
LCI 400 A	Air Jacketed CO ₂ Incubator	+ 4 to 50	155	03170101
LCI 400 B	Air Jacketed CO ₂ Incubator	+ 4 to 50	200	03170102
LCI 400 C	Air Jacketed CO ₂ Incubator	+ 4 to 50	400	03170103
LCI 500 A	Air Jacketed CO ₂ Incubator	- 6 to 50	155	03170201
LCI 500 B	Air Jacketed CO ₂ Incubator	- 6 to 50	200	03170202
LCI 500 C	Air Jacketed CO ₂ Incubator	- 6 to 50	400	03170203
LCI 600 A	Air Jacketed CO ₂ Incubator	+15 to 50	150	03170301
LCI 600 B	Air Jacketed CO ₂ Incubator	+15 to 50	200	03170302
LCI 600 C	Air Jacketed CO ₂ Incubator	+15 to 50	400	03170303
Water Jacketed CO₂ Incubator				
LCI 700 A	Water Jacketed CO ₂ Incubator	+ 5 to 55	184	03180301
LCI 700 B	Water Jacketed CO ₂ Incubator	+ 5 to 40	28	03110101
LCI 800	Water Jacketed CO ₂ Incubator	+ 5 to 60	130	03110201

➤ Air Jacketed Direct Heating CO₂ Incubator: LCI 100 Series (UV Disinfection Facilities)



LCI 100A



LCI 100 B

Features:

- ✦ UV light disinfection.
- ✦ HEPA Filter for CO₂ inlet.
- ✦ Pt 100 temperature sensor.
- ✦ Efficient heating system, quick heating and rapid heating recovery.
- ✦ Long life highly reliable thermal conductivity CO₂ sensor.
- ✦ 'Auto-start' function can reset the CO₂ sensor baseline without manual adjustments.
- ✦ A new type of water reservoir replaces the standard water tray.
- ✦ Independent over-temperature cutout.
- ✦ Multiple alarms indicate incorrect chamber conditions, inner and outer door closure faults, power failure, etc.
- ✦ Easy operation with soft-touch control panel.

Specification:

Model No.	LCI 100 A	LCI 100 B
Inner Volume(L)	212	151
Shelves (D x W) mm	510 × 590	445 × 423
Relative Humidity (%)		≥ 95
Number of Shelves (Standard / Max)		3 / 10
Temperature Control	Range (°C)	+5~50
	Accuracy (°C)	±0.1
CO ₂ Control	Range (%)	0~20
	Deviation (%)	±0.1
	Humidity (%)	≥ 95
	Sensor TCD (Thermal Conductivity)	
Outer Dimension (D x W x H) mm	763 × 910 × 795	680 × 615 × 865
Inner Dimension (D x W x H) mm	588 × 600 × 600	530 × 470 × 607
Water Reservoir Volume (L)	6	4
Net Weight (kg)	95	75
Catalog No.	03180101	03180102

Optional Accessories:

Model No.	LCI 100 A	Model No.	LCI 100 B
Floor stand for 2 stacked incubators	03180111	Floor stand for 2 stacked incubators	03180114
Floor stand for 1 incubator	03180112	Floor stand for 1 incubator	03180115
Shelf(set), including:shelf x1 + shelf support x2	03180113	Shelf(set), including:shelf x1 + shelf support x2	03180116

➤ Air Jacketed CO₂ Incubator: LCI 200 Series (Moist Heat Disinfection Facilities)



Features:

- ✦ 90°C moist heat disinfection and quick clean shelves.
- ✦ HEPA Filter for CO₂ Inlet.
- ✦ Long life highly reliable TCD thermal conductivity CO₂ thickness sensor.
- ✦ 'Auto-start' function can reset the CO₂ sensor baseline without manual adjustments.
- ✦ Efficient heating system, quick heating and rapid heating recovery.
- ✦ Pt 100 temperature sensor and separate inner small glass door (optional).
- ✦ Independent over-temperature cutout.
- ✦ Unique surrounding temperature monitoring system.
- ✦ Multiple alarms indicate incorrect chamber conditions, inner and outer door closure faults, power failure, etc.

Specification:

Model No.	LCI 200 A	LCI 200 B
Inner Volume (L)	151	240
Shelves (D X W) mm	445 x 423	503 x 554
Number of Shelves (standard/max)	3/10	3/12
Temperature Control	Range (°C)	+5~50
	Accuracy (°C)	±0.1
Disinfection Time (h) At 90 (°C)	9	
Disinfection Duration (h)	25	
CO ₂ Control	Range (%)	0~20
	Deviation (%)	±0.1
	Humidity (%)	≥95
	Detection	TCD
Water Reservoir Volume (L)	3	
Outer Dimensions (D x W x H) mm	762 x 637 x 909	820 x 780 x 944
Inner Dimensions (D x W x H) mm	530 x 470 x 607	583 x 607 x 670
Net Weight (kg)	80	98
Catalog No.	03180201	03180202

Optional Accessories:

Model No.	LCI 200 A	Model No.	LCI 200 B
Floor stand for 1 incubator	03180221	Floor stand for 2 stacked incubators	03180224
Floor stand for 2 stacked incubators	03180222	Floor stand for 1 incubator	03180225
Shelf(set), including:shelf x1 + shelf support x2	03180223	Shelf(set), including:shelf x1 + shelf support x2	03180226

➤ Air Jacketed Direct Heating CO₂ Incubator: LCI 300 Series



Features:

- Air circulated slowly from the underside to upside.
- Microprocessor provides precise and accurate control for CO₂ and temperature.
- Balanced heating system for 6 sides for which accuracy is only $\pm 0.1^{\circ}\text{C}$.
- Temperature adjustable heated door keeps inner glass door free of condensation for improved viewing of culture.
- Gas uniformity without stratification.

Specification:

Model No.		LCI 300 A	LCI 300 B
Capacity (L)		142	
Temperature	Range ($^{\circ}\text{C}$)	Ambient +5 to 60	-5 to 60
	Accuracy	$\pm 0.1^{\circ}\text{C}$ at 37°C	
	Increment ($^{\circ}\text{C}$)	0.1	
	Control	Microprocessor digital PID control	Peltier Based
CO ₂ Gas	Range (%)	0 to 20	
	Accuracy	$\pm 0.1\%$ at 5% at 37°C	
	Increment (%)	0.1	
	Inlet Pressure (Bar)	0.1MPA	
	Sensor	IR CO ₂ sensor	
Door	External	Silicon packing magnet door	
	Inner	Tempered safety glass door	
Operating Panel		Individual 2 channel touch button	
Display		5 digit LED x 2	
Jacket Type		Dry wall type (6 sides heat)	
Chamber Material		Stainless steel (304)	
Number of Shelves		3ea (Max shelves 11ea)	
Weight (kg)		82	
Dimension (W x D x H) mm	Chamber	480 x 430 x 690	
	Overall	545 x 530 x 865	
Catalog No.		03160101	03160102

➤ Air Jacketed CO₂ Incubators: LCI 400 Series (+4 to 50°C)



Features:

- ✦ Anticipative logic system controlling both temperature and CO₂ levels.
- ✦ Alarm display system with LED display monitor.
- ✦ A fan-driven system circulates air over a stainless steel sheathed tubular heater.
- ✦ Corrosion resistance exterior and interior chambers.
- ✦ In-Built air circulation system with easy-flow fan scroll resulting in low kinetic energy output.
- ✦ All parameters can be controlled and monitored through PC (optional feature).

Specification:

Model No.	LCI 400 A	LCI 400 B	LCI 400 C
Effective Capacity (L)	155	200	400
Shelves:			
Stainless Steel Perforated	3	3	6
Temperature	Range (°C)	Ambient + 4 to 50	
	Accuracy	Accuracy ± 0.1°C tested empty at 37°C ambient	
Humidity		Natural Vaporization with Humidity Pan, More than 80% RH at 37°C	
CO ₂	Control	Microprocessor Control, Accuracy at 37°C, 5% CO ₂ ± 0.15%	
		Dedicated LED Display	
	Range (%)	0.3-19.9	
Inlet CO ₂ Supply Pressure (kg/cm ²)		0.3	
Alarm System Output		Audio-Visual Alarm Temperature, CO ₂ , Door Ajar, Independent over temperature Protection, Connection for External Alarm Activation	
Net Weight (kg)	85	98	115
Packed Weight (kg)	91	112	132
Exterior Dimensions (W x H x D) mm	630 x 920 x 680	790 x 960 x 730	790 x 1560 x 730
Interior Dimensions (W x H x D) mm	470 x 640 x 480	630 x 665 x 510	630 x 1240 x 510
Options (Full list available)	HEPA Filter- option HF, CO ₂ cylinder Auto changeover		
Catalog No.	03170101	03170102	03170103

➤ Air Jacketed CO₂ Incubator for Cell Culture: LCI 500 Series (-6 to 50°C)



Features:

- ✦ Plate & sample drying problems are greatly reduced with high humidity levels.
- ✦ An anticipative logic system controlling both temperature and CO₂ levels.
- ✦ Dedicated LED displays.
- ✦ All parameters can be controlled and monitored through PC (optional feature).

Specification:

Model No.	LCI 500 A		LCI 500 B		LCI 500 C		
Effective Capacity (L)	155		200		400		
Shelves:							
Stainless Steel Perforated	3		3		6		
Temperature	Range (°C)	-6 to 50					
	Accuracy	± 0.2°C Tested Empty at: 37°C ambient					
Humidity Method	Natural Vaporization with Humidity Pan, More than 70 % RH at 37°C						
CO ₂	Control	Microprocessor Control, Accuracy at 37°C, 5% CO ₂ +0.15%. Dedicated LED Display					
	Range (%)	0.3 - 19.9					
Inlet CO ₂ Supply Pressure (kg/cm ²)	0.3						
Alarm CO ₂ Supply Output	Audio-Visual Alarm Temperature, Independent Over temperature Protection, Connection for External Alarm Activation (Option)						
Weight (kg)	90		103		120		
Packed Weight (kg)	96		117		137		
Exterior Dimension (W x H x D) mm	630 x 920 x 780		790 x 960 x 830		790 x 1560 x 830		
Interior Dimension (W x H x D) mm	470 x 640 x 480		630 x 665 x 510		630 x 1240 x 510		
Options (Full list available)	HEPA Filter Option HF; CO ₂ cylinder Auto change over						
Catalog No.	03170201		03170202		03170203		

➤ Air jacketed CO₂ Incubator for Cell Culture: LCI 600 Series (+15 to 50°C)



Features:

- ✦ Sealed air jacket with tubular heater.
- ✦ Attractive, corrosion-resistant finish on a steel exterior.
- ✦ With low power consumption.
- ✦ An anticipative logic system controlling both temperature and CO₂ levels.
- ✦ Dedicated LED displays monitor.
- ✦ Infra-Red CO₂ sensor is a modulated with pyro-electric system developed for use of humidified incubator environment.
- ✦ Adjustable non-tilt shelves.
- ✦ Easily removable interior fixture for cleaning and sterilization.
- ✦ Adjustable non-tilt shelves are easily removed for cleaning and sterilization.
- ✦ All parameters can be controlled and monitored through PC (optional feature).

Specification:

Model No.	LCI 600 A	LCI 600 B	LCI 600 C
Effective Capacity (L)	150	200	400
Shelves:			
Stainless Steel Perforated	3	3	6
Temperature	Range(°C)	15 to 50	
	Accuracy	± 0.2°C Tested Empty at: 37°C ambient	
Humidity Method	Natural vaporization with humidity pan, more than 70% RH at 37°C		
CO ₂	Control	Microprocessor control, Accuracy at 37°C, 5% CO ₂ ± 0.5% dedicated LED display	
	Range (%)	0.3-19.9	
Inlet CO ₂ Supply Pressure (kg/cm ²)	0.3		
Alarm System Output	Audio-visual alarm temperature, CO ₂ , door ajar, independent over temperature protection		
Weight (kg)	100	113	130
Packed Weight (kg)	106	127	147
Exterior Dimension (W x H x D) mm	630 x 920 x 860	790 x 960 x 910	790 x 1560 x 910
Interior Dimension (W x H x D) mm	470 x 640 x 465	630 x 665 x 495	630 x 1240 x 495
Options	HEPA Filter option HF; CO ₂ cylinder auto changeover		
Catalog No.	03170301	03170302	03170303

Water Jacketed CO₂ Incubator: LCI 700 Series



LCI700A



LCI700B

Features:

- ✦ Compact Designing.
- ✦ Protect from contamination radically by built-in Clean Bench.
- ✦ Reliable Infrared CO₂ sensor.
- ✦ HEPA Filter for CO₂ inlet.
- ✦ Temperature can be kept for a long time after power off.
- ✦ LCD shows working condition including temperature, CO₂ and RH message.
- ✦ Multiple alarms indicate incorrect chamber conditions, inner and outer door closure faults, power failure, etc.
- ✦ PT100 temperature sensor.
- ✦ Shorten the Setting time by compact design of desk-top style.
- ✦ Control the gas amount by using the Microprocessor controller.

Specification:

Model No.		LCI 700 A	LCI 700 B
Capacity (L)		184	28
Main Control		Microprocessor Control	
Temperature	Range (°C)	5 to 55	+5 to 40
	Accuracy (°C)	± 0.1	± 0.1 at 25°C
CO ₂	Range (%)	0~20	0~10
	Accuracy	±0.1% at 5%	
	Sensor	Infrared or Thermal Conductivity Detector	Infrared sensor
Humidity		≥95% at Room temperature	96%RH at 37°C
Outer Dimensions (D x W x H) mm		626 × 656 × 1030	450 x 500 x 400
Inner Dimensions (D x W x H) mm		502 × 554 × 681	350 x 270 x 300
Display		LCD digital display	
Shelves (D x W) mm		440 x 466	3ea
Catalog No.		03180301	03110101

Water Jacketed CO₂ Incubator: LCI 800

Features:

- ✦ Microprocessor-based with Control Panel
Simple entry of parameters. Easy monitoring through a LCD. Accurate control during operation.
- ✦ 10 Step Programming
Allow up to 10 programs within one run. Indispensable in laboratories requiring different and complicated tasks.
- ✦ VFD Panel displays Current and Set Temperatures clearly.
- ✦ Water Jacket Covering prevents heat-loss in the chamber.
- ✦ Soft Touch Key Pad
High quality key pad ensures easy setting. Each input is confirmed by a beep.
- ✦ Memory Back-up Device
In the event of a power failure, all settings remain in memory, and CO₂ gas supply is stopped automatically.
- ✦ Safety device
Independent safety thermostats prevent temperature over-shoot.



Specification:

Model No.	LCI 800	
Capacity (L)	130	
O ₂	Range (%)	2 to 20, ±0.1% at 5%
	Controller	Digital PID Controller
	Detection	Infra-red sensor
Main Control	VFD Displayed Microprocessor Controller	
Temperature	Range (°C)	Ambient + 5 to 60
	Controller	VFD Digital P.I.D. controller
CO ₂	Range (%)	0 to 20, ±0.1% at 5%
	Controller	Digital PID Controller, IR Sensor
	Detection	Infra-red sensor
Humidification	Up to 96% RH	
Programmability	10 step / 10 Memory	
Display	VFD digital, 80 character display	
Dimension	Inner (mm)	445 x 470 x 620
	Outer (mm)	582 x 580 x 1015
Material	Inner	Stainless steel, SUS304
	Outer	Steel plate with powder coating
Water Jacket Volume (L)	65	
Door	Double magnetic packing door	
Inner Door	Safety glass door with U-groove packing	
Door Heater	Silicon heater, Independent control	
Shelves	Stainless steel plate, adjustable type	
Safety Device	Over/Under temp. protector, Gas high/low monitor, Water level monitor, Power breaker,	
Utility	Sample port, access hole, below drain port	
Catalog No.	03110201	



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