Laboratory INCUBATORS

JSR

(주) 제이에스리서치

JS Research Inc.

Laboratroy INCUBATOR

SELECTION GUIDE

JSGI-Series General Heated Incubator

- amb. +5 °C ~ 70 °C
- Constant Temperature
- Timer On / Off
- RS-232C or 485 [OPTION]
- Program Controller
  5 PTN 80 SEG [OPTION]

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSGI-050T	48 L	amb. + 5 °C ~ 70 °C	± 0.2 °C
JSGI-100T	96 L		± 0.2 °C
JSGI-150T	150 L		± 0.2 °C
JSGI-250T	250 L		± 0.3 °C
JSGI-250DT	2 x 250 L		± 0.3 °C

JSGI-Series Compact Incubator

- amb. +5 °C ~ 50 °C
- Constant Temperature
- Timer On / Off

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSGI-10T	9.3 L	amb. + 5 °C ~ 50 °C	± 0.2 °C
JSGI-30T	31.5 L		± 0.2 °C

JSBI-C Series Cooled BOD Incubator

- +0 °C ~ 70 °C
- Constant Temperature
- Timer On / Off
- RS-232C or 485 [OPTION]

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSBI-050C	50 L	+ 0 °C ~ 70 °C	± 0.2 °C
JSBI-100C	100 L		
JSBI-150C	150 L		
JSBI-250C	250 L		
JSBI-420C	420 L		
JSBI-840C	840 L		

JSBI-CP Series Programmable Cooled Incubator

- +0 °C ~ 70 °C
- Program Controller
  5 PTN 80 SEG
- RS-232C or 485 [OPTION]

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSBI-150CP	150 L	+ 0 °C ~ 70 °C	± 0.2 °C
JSBI-250CP	250 L		
JSBI-420CP	420 L		

JSBI-DCP Series
Dual Chamber Cooled Incubator

- Dual Chamber
- +0 °C ~ 70 °C
- Constant Temperature or Program Controller 5 PTN 80 SEG
- Timer On / Off
- RS-232C or 485 [OPTION]

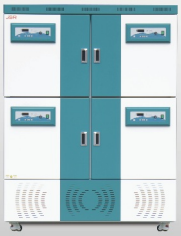
MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSBI-250DC	2 x 250 L	+ 0 °C ~ 70 °C	± 0.2 °C
JSBI-250DCP			

JSMI-02 Series
2 Chamber Incubator

- Dual Chamber
- +0 °C ~ 70 °C
- Constant Temperature or Program Controller 5 PTN 80 SEG
- Timer On / Off
- Photoperiodic Light Control
- RS-232C or 485 [OPTION]

MODEL	CAPACITY	TEMPERATURE	FEATURE
JSMI-02C	2 x 125 L	+ 0 °C ~ 70 °C	Constant
JSMI-02CP			Program
JSMI-02CPL			Light

JSMI-04 Series
Multi-Room Incubator



- Four Chamber
- +0 °C ~ 70 °C
- Constant Temperature or Program Controller 5 PTN 80 SEG
- Timer On / Off
- Photoperiodic Light Control
- RS-232C or 485 [OPTION]

MODEL	CAPACITY	TEMPERATURE	FEATURE
JSMI-04T	4 x 125 L	amb.+ 5°C~70°C	Heated
JSMI-04C		0 °C ~70 °C	Cooled
JSMI-04CP			Program
JSMI-04CPL			Light
JSMI-05C(L)	5 x 44 L	+5 °C ~70 °C	Cooled
JSMI-08CP(L)	8 x 26 L	+5 °C ~70 °C	Cooled

JSSC-Series
Cold Lab Storage Chamber

- 4 °C Refrigerator
- On/Off Control
- RS-232C or 485 [OPTION]

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSSC-700C	686 L	+ 0 °C ~ 10 °C	± 2.0 °C
JSSC-1200C	1176 L		

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Controller Guide

	JSC-0D Basic Controller	JSC-1D Digital PID Controller	JSC-3D Programmable Controller	JSC-5D Programmable Controller
Type	Digital PID		16-bit Microprocessor	
Display	LED		2-Line Back light LCD	
Operation	Constant Temperature		Constant Temp. Mode Program Mode	
Accuracy	± 0.1 ℃		± 0.1 ℃	
Timer	Auto START/STOP		Auto STOP	
Timer Scale	Max. 99min 59sec / 99hr 59min / 99 day 23hr selectable		Max. 99min 59sec / 99hr 59min selectable	
Pattern Memory	n/a	n/a	1 Pattern	5 Patterns
Max. Segment			11 Segments	80 Segments
Max. Repeats			999 or unlimited	999 or unlimited
			Segment Skip	Segment Skip Pattern Link
Light Control			On/Off control integrated with programming	
RS-232C or RS-485	n/a	Yes [OPTION]	Yes [OPTION]	Yes [OPTION]
PC Software	n/a	Yes [OPTION]	Yes [OPTION]	n/a
Calibration	Yes	Yes	Yes	Yes
Auto-tuning	Yes	Yes	Yes	Yes

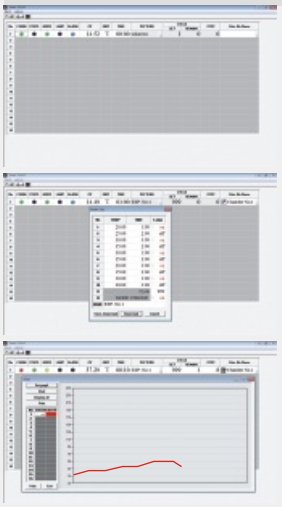
JSC-0D

JSC-1D

JSC-3D

JSC-5D

PC Software [OPTION]



- RS-232C Serial Port Communication
- Turn On and Off control
- Temperature and Timer Setting
- Pattern Programming and uploading
- Current temperature Graph Rendering
- Temperature Data Logging
- Alarm Signal
- RS-232C 시리얼 포트 통신
- 작동, 정지 제어
- 온도설정, 타이머 설정 기능
- 패턴 프로그래밍 기능
- 작동 중 온도 그래프 표시 기능
- 온도 데이터 수집 및 저장 기능
- 알람 현황 표시

ASCII Data Collection

Date	Time	Temp	Step	Seg	Cycle
2014:01:08	09:00:00	37.00	00:05	03	001/999
2014:01:08	09:00:10	37.01	00:05	03	001/999
2014:01:08	09:00:20	37.01	00:05	03	001/999
2014:01:08	09:00:30	37.00	00:05	03	001/999

Performance & Convenience

Construction

- Durable epoxy powder coated metallic casing
- 내구성이 뛰어난 에폭시 분체 도장

Chamber

- Corrosion resistant Stainless Steel 304 chamber with seamless round cornered edge allows easy cleaning and prevents leakage
- 내부식성이 뛰어난 Stainless Steel 304 재질의 챔버 코너는 이음새없이 라운드 처리 되어 있어 세척이 간편

Inner Glass Door

- High density silicone packing with air-tight door lock
- Removable and height adjustable shelf by 25mm spacing
- 내부 유리 도어와 고밀도 실리콘 패킹, 밀착식 도어락
- 25mm 간격으로 높이 조절 가능한 선반

Light Control

- Programmable Photoperiodic lighting control system
- 일광조절이 가능한 조도 ON/OFF 프로그램기능

Safety

- **DUAL OVER TEMP. CUT-OFF**
  1) Digital system cut-off heater and AUDIO VISUAL ALARM in case +2°C above set temperature
  2) Analog system cut-off heater 10% above set temp.
- **MAX TEMP CUT-OFF** heater and AUDIO VISUAL ALARM when +1°C above maximum limit
- **GLASS DOOR SWITCH**
- **SENSOR DISCONNECTION ALARM**
- **OVER CURRENT CUT-OFF :** Electrical Leakage Breaker

- **이중과열방지장치**
  1) 설정 온도 +2 °C 초과 시 히터 차단 및 시청각 알람
  2) 콘트롤러 오류로 지정 온도 10% 초과 시 히터차단
- **최고온도알람기능 :** 작동한계 온도+1°C 초과시 히터 차단
- **도어스위치**
- **센서단락알람**
- **누전차단기 :** 전기누설 시 주전원 차단

Maintenance

- Easy to maintain refrigeration system with dust filter
- 편리한 유지보수 먼지 필터 장착

Cooled INCUBATOR

COMPACT TABLE TOP Refrigerated Incubator

Table Top Refrigerated Incubator

Table Top Refrigerated Incubator gives excellent incubation conditions below ambient temperature within a compact size for bacterial, fungal, cell and tissue culture incubation temperature range from +0 °C to 70 °C.

Specifications

Heating	Forced Air Convection
Cooling	CFC Free air cooled compressor
Temp. Range	+ 0 °C ~ 70 °C
Accuracy	± 0.2 °C at 20.0°C
Uniformity	± 0.5 °C at 20.0°C
Control	Microprocessor PID Control
	Auto START / STOP Timer
Sensor	Class A Pt-100 Ω Sensor
Safety	Over-Temperature Cut-Off
	Over Current Cut-Off
Material	Body : Epoxy Powder Coated Steel
	Chamber : Stainless Steel 304
	Inner Glass Door : Tempered Safety
	Including PVC Coated Wire Shelf
	Built-in Caster for easy transport
Electric	220 ± 10% VAC 50/60Hz 1-Phase
Plug config.	CEE 7/7 Schuko or BS 1363

Control Accuracy

- ±0.1 °C Digital PID Controller with automatic START/STOP timer max. 99min 59sec / 99hr 59min / 99 day 23hr
- Temperature calibration, auto-tuning function
- Class A Pt-100 Ω sensor

- 정밀한 PID 콘트롤러는 온도를 ±0.1 °C 단위로 제어
- 예약 / 정지 타이머 내장 99분59초 / 99시간59분 / 99일23시간
- 온도보정, 오토튜닝 기능 내장
- Class A Pt-100 Ω 온도 센서

- Cooled +0 °C to 70 °C
- Constant Temperature Controller
- Timer *On* / *Off*

- [OPTION] RS-232C Serial Computer Interface

Performance

- Durable epoxy powder coated metallic casing
- Corrosion resistant Stainless Steel 304 chamber
- Durable Stainless Steel 304 Sheath Heater and copper-aluminum finned evaporator
- Forced circulation for excellent thermal uniformity
- Separate heating and cooling compartment prevents contamination and maintenance free
- Cooling system with hermetically sealed compressor

- 내구성이 뛰어난 에폭시 분체 도장 본체
- 내부식성이 뛰어난 Stainless Steel 304 재질의 챔버
- 내구성과 내부식성이 뛰어난 Stainless Steel 304 재질의 히터와 냉각 효율이 뛰어난 냉각기
- 부드러운 공기 순환식 설계로 균일한 온도 분포
- 가열챔버가 후면에 위치하여 액체 흘림으로인한 고장이적음
- 내구성이 강한 냉각 시스템

Convenience

- Outer door with self adhesive magnetic packing
- Inner glass door with high density silicone packing and air-tight door lock
- Stainless Steel 304 Chamber with seamless round cornered edge allows easy cleaning and prevents contamination
- Removable and height adjustable shelf by 25mm spacing
- Auto-defrost system, user settable interval and time

- 자석 접착방식의 외부 도어 패킹
- 내부 유리 도어와 고밀도 실리콘 패킹, 밀착식 도어락은 챔버의 기밀성이 뛰어남
- 챔버의 코너는 이음새 없이 라운드 처리 되어 있어 세척이 간편하고 오염 방지
- 25mm 간격으로 높이 조절 가능한 선반
- 제상 간격 및 시간을 조절할 수 있는 자동 제상 시스템

Safety

- DUAL OVER TEMP. CUT-OFF
- MAX TEMP CUT-OFF
- AUDIBLE VISUAL ALARMS
- SENSOR DISCONNECTION ALARM
- OVER CURRENT CUT-OFF : Electric Leakage Breaker

Options

Art No.	Descriptions
OEC-001	JSC-1D Digital PID Controller /w RS-232C Interface, PC Software

Accessories

Art No.	Descriptions	
	Perforated Shelf, Stainless Steel 304	
PHS-A23	for JSBI-050C	W370 x D340 mm
PHS-A24	for JSBI-100C	W420 x D430 mm
	PVC Coated Wire Shelf	
PHS-C09	for JSBI-050C	W370 x D340 mm
PHS-C10	for JSBI-100C	W420 x D430 mm
PHS-A99	Shelf Support, Set of 4	

Ordering Information

		JSBI-050C		JSBI-100C
Chamber Volume (Capacity)		50 L		100 L
Dimensions	Inner	400 x 350 x 360		450 x 450 x 500
W x D x H mm	Outer	580 x 600 x 770		630 x 700 x 910
Temperature	Range		+0 °C to 70 °C	
	Accuracy at 20.0°C		± 0.2 °C	
	Uniformity at 20.0°C		± 0.5 °C	
Number of shelves / Maximum No.		2 / 20		2 / 16
Heater Capacity		500 Watt		700 Watt
Refrigeration System			CFC-Free Air Cooled Compressor	
Power Rating		5.5 Amp		6.0 Amp
Power Plug			CEE 7/7 Schuko	