

Low Temperature Incubator Constant & Programmable, two-chamber type

INC820

Operating temp. range	Temp. distribution accuracy	Internal capacity
Room temp.+5 to 80 deg.C (upper chamber) 4 to 50 deg.C (lower chamber)	+/-1 deg.C (at 37deg.C) (upper/lower chambers)	150L (upper chamber) 143L (lower chamber)

Two-chamber incubator that enables incubation and storage at a lower temperature at the same time



- The upper chamber is a fixed operation type incubator with a timer operation function and an overheat preventive device while the lower chamber is a low temperature incubator that allows registering six programs from 30 steps to 10 steps.
- The cycle defrost function and the manual defrost function on the lower chamber allows easy defrosting.
- The product facilitates extensive safety functions including: self diagnostic function, key lock function, over current electric leakage breaker, and over heat preventive device.
- Both upper and lower chambers have a door key.

■ Specifications

Product code	211210	
Model	INC820	
	Lower chamber	Upper chamber
Basic configuration	Low temperature incubator	Incubator
System	Forced convection	Natural convection air jacket system
Performance^{*1}		
Operating temp. range	4 deg.C to 50 deg.C	Room temp.+5 deg.C to 80 deg.C
Temp. adjustment accuracy	+/-0.3 deg.C	+/-0.5 deg.C
Temp. distribution accuracy	+/-1 deg.C (when set at 37 deg.C)	
Configuration		
Interior material	Stainless steel plate	
Heater & heat insulator	Iron chrome heater, Styrofoam (non-Freon)	Iron chrome heater, glass wool
Heater & heat insulator	550W	400W
Fan	Axial flow fan	-
Refrigerator/refrigerant	Air cooled 250W R404A	-
Defrosting mechanism	Manual and cyclic	-
Cable port	I.D. 50 mm, right side of the main body	I.D.30 mm, right side of the main body
Exhaust port	-	30mm (with damper) at two points on the ceiling
Controller	VS4 program operation type temp. controller	VS3 fixed operation type temp. controller
Heater control	SSR control	
Sensor	Pt100 ohm	
Optional	RS485 terminal, logger connection terminal, alarm terminal	
Function		
Operation functions	Program operation (30 steps x 1, 15 steps x 2, 10 steps x 3), fixed operation, quick auto stop operation, auto stop operation, auto start operation	Fixed operation, quick auto stop operation, auto stop operation, auto start operation
Safety functions	Self diagnostic function (Temperature sensor error, heater disconnection, SSR short circuit, automatic overheat, etc.) key lock, overheat preventive device in the chamber, over current electric leakage breaker	
Standards		
Power source (50/60 Hz)	AC100V 14A	
External dimensions ^{*2}	710 x 656 x 1,792 mm (W x D x H)	
Internal dimensions	600 x 477 x 500 Internal capacity: 143L	600 x 530 x 500 Internal capacity: 150L
Number of shelves	2, shelf peg pitch: 14 steps, 35mm	2, shelf peg pitch: 13 steps, 30 mm
Shelf loading	Approx. 15 kg/each	
Weight	Approx. 160 kg	

*1 Condition: Temperature and humidity 23 deg.C+/-5 deg.C; 65%RH+/-20 % (no-load).

*2 External dimensions do not include protrusions.

■ Control panel

Lower: 4 deg.C to 50 deg.C

Upper: RT +5 deg.C to 80 deg.C



Lower chamber control panel

Upper chamber control panel

■ Internal chamber



■ Cable port

Upper chamber:
I.D. 30 mm, SUS



Lower chamber:
50 dia., resin



■ Shelf

Upper chamber



Lower chamber



Note: Shelves and shelf pegs differ in sizes for the upper and lower chambers.

■ Optional items

Description	Model No.	Product Code
RS485 External communication terminal (Specification of installation necessary on ordering)	INC820	281125
RS485-232C conversion adapter	INC820	281126
Temperature output terminal 4 to 20mA (Installation necessary on ordering) ODK12	INC820	281123
Application software FORWARD	INC820	281501
Punching shelf set for upper chamber ODK22	INC820	212266
Punching shelf set for lower chamber	INC820	211221
RM type hybrid recorder	INC820	281017
PHR video chart recorder	INC820	281019
T-thermocouple sensor for recorder: 2m	INC820	281554
T-thermocouple sensor for recorder: 2m (with a calibration certificate)	INC820	281555

■ Dimensional drawing (mm)

