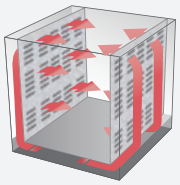
Natural Convection Oven,
Advanced type

ON4-10V

ON4-10VW

21 CFR Part 11 FDA Compliance

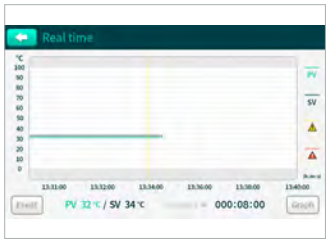


Airflow

Intuitive Touch Controller

- Intuitive interface with 5-inch display
- Events and alerts in a single view with real-time graph
- Three frequent temperatures automatically suggested
- 'Wait on / Wait off' timer function

Large intuitive display

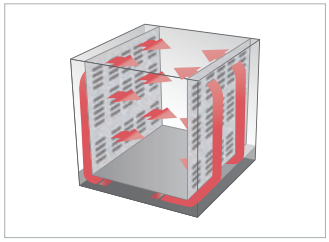


Graphs for real-time process monitoring

Convenient Structural Functions

- Designed with a depth of less than 750 mm, making it easy and stable on a lab table
- Uniform and stable temperature distribution with multi-path airflow improves reliability of experiment data

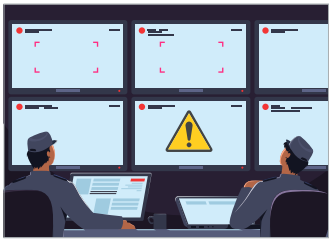
Depth of less than 750 mm allows stable positioning on lab table



Uniform temperature control with multi-path airflow

Supervise Equipment with Real-time Monitoring

- Monitor the temperature on BMS (Building Management System) for quick responses to abnormalities. (option)
- Monitor via mobile app anytime, anywhere with LC Connected. (Requires LC GreenBox, option)



Timely responses via BMS-connected monitoring (BMS port: option)

Real-time monitoring via mobile devices (LC GreenBox: option)

Convenient Experiment and Data Checking

- Support RS-232/USB port and software making easy operation and data management from PC
- Test data are automatically stored and easily exported via USB; easy to edit data (in CSV format)
- Logs 36 recent events, including errors, opened door, etc
- Integrated with 21 CFR Part 11 compliant LC DataKeeper, suitable for GMP audits (option)

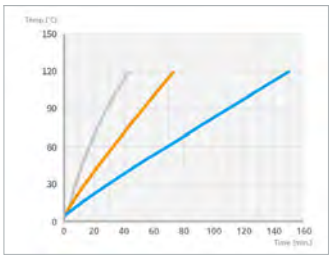
Data storage using USB ports

Store recent 36 events

Reliable Temperature Control Performance

- Wide temperature range of up to 250°C
- Temperature accuracy for wide range by 3-point calibration
- 「Ramp Control™」, function that controls the rate of temperature rise by setting ramping rate(°C/min) per experiment
- Uniform temperature distribution through airflow optimized for uniform heat transfer (within ±3.6 °C at 100°C)

Accurate temperature control with 3-point calibration



Ramp Control™ per experiment condition

Specification

Model	Solid door (without window)	ON4-03V	ON4-05V	ON4-10V	ON4-15V
	Window door	ON4-03VW	ON4-05VW	ON4-10VW	ON4-15VW
Chamber volume (L / cu ft)		26 / 0.92	58 / 2.05	110 / 3.88	147 / 5.19
Temperature	Range (°C / °F)	Amb.+15 ~ 250°C / Amb.+27 ~ 482°F			
	Fluctuation at 100°C (°C / °F)	±0.4 / ±0.72	±0.5 / ±0.9	±0.5 / ±0.9	±0.5 / ±0.9
	Variation at 100°C(°C / °F)	±2.8 / ±5.04	±2.6 / ±4.68	±3.6 / ±6.48	±3.5 / ±6.3
	Heating time to 100°C (min.)[1]	25	39	22	21
	Recovery time at 100°C (min.)	17	19	10	9
Control panel		5 inch TFT Color LCD			
Communication interface		USB-B, RS-232			
Function	Recently event record	36 ea			
	Recommended temperature	Suggest three frequently used temperature			
	Graph	Available viewing stored and real-time graphs			
	Data storage	Save your experiment data (in CSV format)			
	Temp. ramping rate (°C/min. | °F/min)	0 to 2.2 | 0 to 3.96	0 to 2 | 0 to 3.6	0 to 4.4 | 0 to 7.92	0 to 2.6 | 0 to 4.68
Dimensions	Interior (W x D x H, mm / inch)	273 x 270 x 350 / 10.75 x 10.63 x 13.78	340 x 390 x 422 / 13.4 x 15.35 x 16.61	441 x 420 x 597 / 17.36 x 16.54 x 23.5	500 x 446 x 659 / 19.69 x 17.56 x 25.95
	Exterior (W x D x H, mm / inch)	478 x 527 x 604 / 18.8 x 20.75 x 23.78	558 x 648 x 684 / 21.97 x 25.5 x 26.93	663 x 677 x 859 / 26.1 x 26.65 x 33.82	728 x 704 x 914 / 28.66 x 27.7 x 36.0
	Net weight (kg / lbs)	33 / 72.8	53 / 116.8	63 / 138.9	73 / 160.9
Shelves	Quantity of shelves (standard/max.)	2 / 4	2 / 5	2 / 8	2 / 9
	Max. Load per shelf (kg / lbs)	20 / 44.09			
Number of air change per hour at 100°C		16			
Electrical requirements	230V, 50/60Hz, A	3.2	3.5	5.7	7.4
Cat. No.	Solid door (without window)	AAH111105K	AAH111115K	AAH111125K	AAH111135K
	Window door	AAH112105K	AAH112115K	AAH112125K	AAH112135K
Electrical requirements	120V, 60Hz, A	6	6.7	10.9	14.2
Cat. No.	Solid door (without window)	AAH111106U	AAH111116U	AAH111126U	AAH111136U
	Window door	AAH112106U	AAH112116U	AAH112126U	AAH112136U

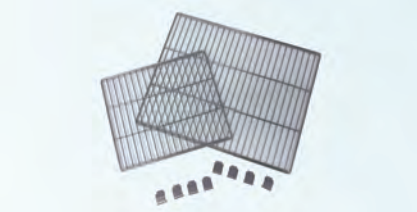
1) Heating time is defined as the time taken to reach 98% of the set temperature.
※ Technical data according to DIN 12880

Accessories Page 84

Wire Shelf, Perforated Shelf, Stacking set, BMS Port, LC GreenBox, LC DataKeeper

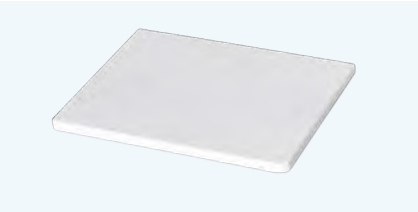
Accessories for Oven & Furnace

Shelves



Wire Shelf (Oven)
- Excellent corrosion resistance as made of stainless steel.
- Excellent air permeability and uniform temperature uniformity.

Perforated Shelf (Oven)
- Porous structure made of stainless steel.
- Solid structure makes it suitable for high load samples.



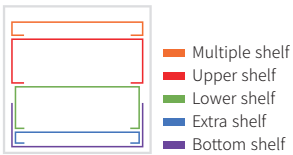
Ceramic Shelf (Furnace)
- Plate for placing a crucible.
- Made of Mullite for thermal resistance.

Shelves for Forced/Natural Convection Oven

Model	Wire shelves		Perforated shelves	
	Cat. No.	Quantity (standard/max.)	Cat. No.	Quantity (max.)
OF4-03P/V/S, OF4-03PW/VW/SW	**00FDA0009739**	2 / 4	**AAA125341**	4
OF4-05P/V/S, OF4-05PW/VW/SW	**00FDA0009738**	2 / 5	**AAA125342**	5
OF4-10P/V/S, OF4-10PW/VW/SW	**00FDA0009737**	2 / 8	**AAA125343**	8
OF4-15P/V/S, OF4-15PW/VW/SW	**00FDA0009736**	2 / 9	**AAA125344**	9
OF3-30/30W/30P/30PW	**00RTD0001196**	2 / 5	**AAA18501**	5
OF3-30H/30HW/30HP/30HPW	**00RTD0001196**	2 / 5	**AAA18501**	5
OF3-45/45W/45P/45PW	**00RTD0001196**	3 / 11	**AAA18501**	8
OF3-45H/45HW/45HP/45HPW	**00RTD0001196**	3 / 11	**AAA18501**	8
OF3-75/75W/75P/75PW	**00RTD0001197**	3 / 11	**AAA18502**	11
OF3-75H/75HW/75HP/75HPW	**00RTD0001197**	3 / 11	**AAA18502**	11
OF-02G-4C	**00EDA0008136**	8 / 16	**AAA12531**	16
ON4-03V/S, ON4-03VW/SW	**00FDA0009739**	2 / 4	**AAA125341**	4
ON4-05V/S, ON4-05VW/SW	**00FDA0009949**	2 / 5	**AAA125362**	5
ON4-10V/S, ON4-10VW/SW	**00FDA0009950**	2 / 8	**AAA125363**	8
ON4-15V/S, ON4-15VW/SW	**00FDA0009951**	2 / 9	**AAA125364**	9

※ Brackets for each shelf are included.

Shelves for Vacuum Oven

Description	Position	Material	Cat. No.	
			OV4-30/30S	OV4-65/65S
Bottom shelf, Basic[2]		Aluminum	**AAA13519**	**AAA13520**
		Stainless Steel	**AAA13529**	**AAA13530**
Extra shelf, Optional[1), 4)]		Aluminum	**AAA13511**	**AAA13513**
		Stainless Steel	**AAA13521**	**AAA13523**
Lower shelf, Basic[2)]		Aluminum	**AAA13517**	**AAA13518**
		Stainless Steel	**AAA13527**	**AAA13528**
Upper shelf, Basic[2), 3)]		Aluminum	**AAA13512**	**AAA13514**
		Stainless Steel	**AAA13522**	**AAA13524**
Multiple shelf, Optional[1), 4)]		Aluminum	**AAA13531**	**AAA13533**
		Stainless Steel	**AAA13532**	**AAA13534**
Shelf spacer, Basic[2)]	Insert where the gap occurs	Aluminum	**AAA13515**	**AAA13516**
		Stainless Steel	**AAA13525**	**AAA13526**

1) You can add an extra shelf or multiple shelf that can be placed at the bottom to experiment with more samples same time, and the value of Variation and Fluctuation may increase slightly.
2) The shelf and shelf spacer are included as bundled accessories, and you can purchase when need to replace them.
3) For OV4-65 models, 2 upper shelves are basic provided.
4) Maximum number of shelf for OV4-30 model : 4 extra shelves / 5 multiple shelves and for OV4-65 model : 4 extra shelves / 8 multiple shelves.

Shelves for Furnace

Model	Dimension (W x D x H, mm)	Ceramic Shelf
MF2-12 series	120 x 230 x 12t	**00FDA0009706**
MF2-22 series	140 x 280 x 12t	**00FDA0009707**
MF2-32 series	260 x 260 x 12t	**00FDA0009708**

Recorders & Brackets

Recorder (Dot)
- 6-channel graph-type temperature recorder.
- Adjustable recording range, speed, etc.

Recorder (Thermal Line)
- Graph/Digital mode.
- Thermal-type temperature recorder.

Stacking Set (-05 / -15 models only)
- Double stackable
- Firm stacking allows efficient utilization of space (※ When double stacking, the minimum control temperature of the upper chamber may be limited.)

Model	Description	Cat. No.
OF3-30/45/75/30H/45H/75H Series	Recorder (Dot)	AAA8T500
	Recorder (Thermal line)	AAAE1503
MF2 series	Recorder (Thermal line)	AAAE1503
OF4/ON4-05	Stacking set	AAA125547
OF4/ON4-15	Stacking set	AAA125549

Door Gaskets for Vacuum Oven

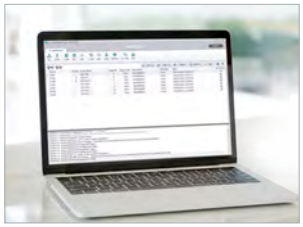
Description		Cat. No.	
		OV4-30/30S	OV4-65/65S
Silicone Gasket	Included as standard. Silicon gasket for sealing the door.	00FDA0009912	00FDA0009913
Viton Gasket	High chemical resistance	00FDA0009914	00FDA0009915

Communication

BMS Port
- Real-time monitoring at a central monitoring facility.
- Easier to ensure safety, especially in labs where multiple units are operated.

Communication Port
- Control PC connection and data by dedicated software.
- Included as default in OF4-P/V and optional for OF4-S.

LC GreenBox
(Mobile Monitoring System)
- Remote monitoring and control via mobile application.
- One LC GreenBox can connect up to 4 devices.
- Connect using RS-232 port on the communication port.



LC DataKeeper
- High-integrity software compliant with FDA 21 CFR Part 11
- Integrated with Jeio Tech equipment to undergo GMP audits

Ports	OF4-P/V, ON4-P/V	OF4-S, ON4-S	OV4
BMS Port	AAA125534		AAA125558
Communication Port[1]	Standard	AAA125533	-
LC GreenBox	AAHQ1011K		
LC DataKeeper Basic[2]	SSA11001		
LC DataKeeper Pro[2]	SSA11002		

1) Communication port is provided as a standard in advanced (-V) model and is an optional add-on for the basic (-S) model for connecting LC DataKeeper, LC GreenBox, BMS, and PC.
2) Trial version is available for 30 days, offering the same features as the Basic version, and can be requested through the website.