

## Thermo Scientific Lindberg/Blue M LGO Box Furnaces

**Latest technical advances in heating elements, insulation and temperature control, all integrated into a self-contained cabinet**



- Feature exclusive LGO™ (light gauge overbend) heating elements and Moldatherm insulation for efficient and economical transfer of heat to chamber, with low exterior temperatures
- Variable heat-up rate eliminates thermal shock to materials with quick heat-up and cool-down rates
- Choice of side hinge or vertical lift door
- Air vent (1in. dia., top) and air inlet (0.375in. dia., rear) for inert atmosphere exchange (note: door is not gas-tight)
- Self-tuning, digital instrumentation for precise temperature setpoint and display
- Platinel II thermocouple for long-term stability
- 0.6 cu. ft. models feature vertical lift door; 2 cu. ft. models feature horizontal side swing door, hot side facing away from operator for protection

### Microprocessor Control

- Microprocessor-based self-tuning PID control (proportional, integral, derivative) provides optimum thermal process, prevents overshoot
- Control panel designed for easy access and maintenance
- Main power ON/OFF switch on control panel
- Adjustable high-limit over-temperature protection
- Simultaneous LED display of actual temperature vs. setpoint in °C or °F
- Safety door switch interrupts power to heating element when door is opened; protects heating elements and minimizes exposure to end-user
- Removable shelves for versatility
- Moldatherm hearthplate supports load and prevents damage due to spillage

### Digital, Single-Setpoint Controller (A)

- Single segment, single setpoint, one ramp to setpoint

### Digital Single-Program, Multiple-Segment Programmable Controller (B)

- Single program with multiple segments for ramp (up and down) and dwell (timed hold) temperature control

### Digital Multiple-Program, Multiple-Segment Programmable Controller (C)

- Available on models with P designation
- Multiple programs, 4 programs with up to 300 steps, and segments for ramp (up and down) and dwell (timed hold) temperature control

### Over-temperature Control (OTC)

- Adjustable digital over-temperature control, available on selected models with B suffix designation
- Protects furnace and load in the event of primary control circuit failure
- Overrides main controller and shuts off power to furnace if high limit is reached
- Manual reset required for safety
- Operates via magnetic contacts through signal from independent thermocouple

### Flowmeter Option (FM) (Inert Atmosphere Only)

- Available on selected models with FM designation
- Gas flowmeter, adjustable, located on front control panel
- Adjustable flowrate, range 1.0 to 10.0 cu. ft./hr. standard
- Suitable for inert gas or airflow to chamber
- Allows fresh air exchange for ashing applications
- Not suitable for combustible or volatile gases

**Ordering Information:** Required power cord and hardwiring not included. Factory-installed Optional RS485 Digital Communications Port allows controller to be connected to a PC for remote monitoring and control of the furnace. Up to 30 units can be connected to one PC. Requires Communication Cable # 7043 for First unit and Communication Cable # 7044 for Second and additional units

**Includes:** One two-part shelf (0.6 cu. ft. models have one shelf position at center position; 2.0 cu. ft. models have three shelf positions)

**Warranty:** 1 year (parts and labor)

**NOT AVAILABLE IN EUROPE**

Cat. No.	Capacity	Temp. Range	Interior Dimensions (D x W x H)	Exterior Dimensions (L x W x H)	Control	Electrical	Shipping Weight
<b>BF51731C-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	A	208/240V 50/60Hz 4500w	75kg
<b>BF51731BC-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	A/OTC	208/240V 50/60Hz 4500w	75kg
<b>BF51732C-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	B	208/240V 50/60Hz 4500w	75kg
<b>BF51732BC-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	B/OTC	208/240V 50/60Hz 4500w	75kg
<b>BF51732PC-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	C	208/240V 50/60Hz 4500w	75kg
<b>BF51732PBC-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	C/OTC	208/240V 50/60Hz 4500w	75kg
<b>BF51732PFMC-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	C/FM	208/240V 50/60Hz 4500w	75kg
<b>BF51732PBFMC-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	C/OTC/FM	208/240V 50/60Hz 4500w	75kg
<b>BF51841C-1</b>	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 x 38.1 x 38.1cm (15 x 15 x 15in.)	71.1 x 73.7 x 83.8cm (28 x 29 x 33in.)	A	208/240V 50/60Hz 5800w	127kg
<b>BF51841BC-1</b>	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 x 38.1 x 38.1cm (15 x 15 x 15in.)	71.1 x 73.7 x 83.8cm (28 x 29 x 33in.)	A/OTC	208/240V 50/60Hz 5800w	127kg
<b>BF51842C-1</b>	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 x 38.1 x 38.1cm (15 x 15 x 15in.)	71.1 x 73.7 x 83.8cm (28 x 29 x 33in.)	B	208/240V 50/60Hz 5800w	127kg
<b>BF51842BC-1</b>	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 x 38.1 x 38.1cm (15 x 15 x 15in.)	71.1 x 73.7 x 83.8cm (28 x 29 x 33in.)	B/OTC	208/240V 50/60Hz 5800w	127kg
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<b>BF51842PBFMC-1</b>	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 x 38.1 x 38.1cm (15 x 15 x 15in.)	71.1 x 73.7 x 83.8cm (28 x 29 x 33in.)	C/OTC/FM	5800w	127kg

A, B, C: see details of control options, previous page

OTC: Over-temperature Control

FM: Flowmeter option

To add RS-485 Digital Communications Port to Furnace model, add "COM" to model number before last letter in cat.no. - e.g., BF51731COMC-1