

# Incubator

**B 9420**



(Ill. similar)

**Outside dimensions:** W = 753 mm  
D = 845 mm  
H = 1360 mm

**Inside dimensions:** W = 610 mm  
D = 600 mm  
H = 1180 mm

**Capacity:** 420 l

**Temperature range:** 5°C (above environ. temp.) to 99,9°C

## Housing

Galvanised steel sheet, epoxy-resin-coated, RAL 7035. With 4 castors.

## Interior space

Made of high-grade **stainless steel**. Cleaning friendly by rounded corners, slippery surface in the interior, meets highest hygiene requirements

## Door

Double-walled insulation door, hinged on the right-hand side. (Left hinged version possible with surcharge)  
Magnetic, all-round sealing strip, resistant to laboratory cleaning agents.

**Optional:** Additionally equipped with an inner glass door.

## FAN

Fan speed adjustable in 10 steps. When heating up, settings lower than 6 will be ignored. The fan stops about 30 seconds after opening the door. The speed of the fan will reduce, or even stopped if operating at a temperature close to the ambient temperature.

## Interior fittings

Standard: 3 pcs. Chrome-nickel steel wire shelves (max. 23 pcs.)

Max. load per shelf: 30 kg in case of constant distribution – total load: 100 kg

Shelf dimension: W = 602 mm, D = 570 mm

**Optional:** perforated stainless steel shelves  
stainless steel shelves

## Control and instrument panel

In the door arranged with all control units, temperature controller with digital display

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Temperature working range: 5°C above ambient temperature up to 99,9°C  
Temperature accuracy: time: +/-0,2°C, spatial: +/- 1,5°C



## Microprocessor controller with OLED display

The temperature and time are entered via a touch button below the display. The keyboard is password-protected to prevent access by unauthorised persons.

## Alarms

The following abnormal operating conditions are indicated optically and acoustically in the temperature controller:

- Over-temperature alarm
- Low temperature alarm
- Sensor error
- Real-time clock setting
- Data error
- power failure

## Alarm output

One potential free contact for external use is available

- The output switches with 1 min delay
- Turns immediately after a power failure
- Immediate return to normal when the alarm condition is no longer present.

## Temperature storage in the temperature controller

For checking the temperature control. Recording starts 30 minutes after the setpoint is reached.

Recording interval every minute. Readout of the temperature (min./max./average) possible at the controller.

## Standby

Preferred way to shut down the chamber. Keeps the real time clock running. Turns off heaters, fan and display.

## Timer

There are two different programs available for timings.

### 1. Standard timer

Adjustable up to 99 hours and 59 min. The timer starts when the setpoint temperature is reached. In case of power failure of more than 5 min. the time period begins again.

### 2. Real-time program

Provides the ability to work with two different temperatures. Start and end time selectable between weeks/ days for the temperature. The real-time clock for approximately 10 minutes after a power failure, battery-supported. Necessary battery replacement is indicated

## safety thermostat

Automatic safety system that operates independently of the microprocessor controller. Switches the heating off, to prevent overheating. Automatically adjusts to the adjusted set values. Generates an alarm message. Once the temperature falls 0.5°C below the temperature limit, the sterilizer automatically switches on again.

## Sterilization

The incubator is equipped with a fixed sterilization cycle of 180°C in 40 minutes, which is started manually. During sterilization, the remaining time is displayed in minutes in the temperature controller.

## USB connection

For firmware updates

## Electrical Data

Power supply	230 V/50 Hz a.A. 60 Hz / 1phasig
Nominal power	1430 W
Heating up time to 37°C	33 min.
Heat transfer	190 W at 70°C
Power cable	1,5 m with Schuko plug

## Packing (palletized)

Dimensions:	approx. 80x90x150 cm
Net weight:	approx. 120 kg
Gross weight:	approx. 140 kg
Customs clearance code:	8419 8998
Country of origin:	European Union

## Special Equipment and Accessories:

Electronic **CO<sub>2</sub> control unit** (infrared measurement).

Operating range from 1 - 10% (20%), control accuracy +/- 0.5%. Temperature: 5°C above ambient temperature up to 55°C. Actual value permanently displayed digitally, setpoint adjustable via push-button and digitally readable



### **Cable port with cover**

Approx. 30 mm or 50 mm Ø. For example, to create access for operator measurement lines, etc.



### **Main socket / damp room design**

Installed inside the cabinet, 230 V, 50 Hz



## Qualifications

### DQ (Design Qualification)

*Definition:* Documented proof that the quality-related, GMP-related requirements has been adequately addressed in the design of equipment, including buildings, premises and auxiliary equipment

The user-requirement profiles (specifications) are documented and confirmed by us. On request, a specification can be created by us.

### IQ (Installation Qualification)

*Definition:* Documented proof that critical equipment and systems have been delivered and installed in accordance with the set requirements and government regulations.

The IQ documentation is worked out by us especially for the delivered machine and is made available to you. The IQ documentation has to be carried out by the customer itself.

### OQ (Operational Qualification)

*Definition:* Documented proof that critical equipment and systems in accordance with the set requirements in the whole operating range are working as intended in accordance with predetermined limits.

The OQ documentation is worked out by us especially for the delivered machine and is made available to you. The OQ documentation has to be carried out by the customer itself.

### CQ (Calibration Qualification)

*Definition:* Documented proof that critical measuring equipment in the intended range in accordance with predetermined tolerances operate reliably under current operating conditions

#### Checking the temperature in the unloaded incubator (after reaching steady state)

**1 temperature on 2 measuring levels with 4 measuring points each and one measuring point in the centre of the unit.** (Measurement with calibrated PT 1000 sensors). Test time 4 hours, then open door for 30 seconds.

During this time, the stated tolerances must not be exceeded.

The temperature measurements are carried out on our premises. The measurement evaluation, including graphical representation, is provided in written form. (Other measuring methods possible on request)

### PQ (Performance-Qualification)

*Definition:* Documented proof that critical equipment and systems in accordance with the set requirements in the whole workspace under current working conditions (with product) provide the requested services

The calibration described above is carried out under real conditions on site. Optionally, the measurement can be carried out in a loaded or unloaded state. The measurement evaluation, including graphical representation, is carried out in written form. During this time, the stated tolerances must not be exceeded. (Other measuring methods possible on request)