

# INCUCELL, INCUCELL V FRIOCELL, CLIMACELL CO2CELL



MMM Group

Laboratory incubators



...Blue Line

**innovative heat technology**



**protecting human health**

# Laboratory incubators



## Incubators – as specific as your application

Approval acc. to 2006/95/EC, 2004/08/EC

### The versatile standard line with microprocessor control unit

- 3 adjustable programs
- RS 232 – interface for printer or PC-communication
- delayed heating start and stop function
- acoustic and visual alarm in error state
- time range 99 hours 59 minutes
- digital safety thermostat
- manual control of the air exhaust flap (the suction and air exhaust only INCUCCELL V, the air exhaust only INCUCCELL)
- adjustable ventilation rate 50–100% (only INCUCCELL V)



### The high-tech comfort line with multi-functional microprocessor control unit

- 6 adjustable programs
- chip card system for individual program storage
- RS 232 – interface for printer or PC-communication
- delayed heating start and stop function
- acoustic and visual alarm in error state
- time range 0–40 years with 1 min-intervals
- digital safety thermostat
- real time
- selectable rate of temperature increase or decrease – “RAMPS”
- programming of program time segments – “SEGMENTS”
- programme cycles
- adjustable ventilation rate 10 to 100 % (INCUCCELL V, FRIOCELL, FRIOCELL 22 only 100 %, CLIMACELL)
- manual control of the air exhaust flap (the suction and air exhaust only INCUCCELL V, the air exhaust only INCUCCELL)
- keyboard blocking
- door opening control (included in FRIOCELL, CLIMACELL, CO2CELL)



### Incubators with natural / forced air convection

#### INCUCELL/ INCUCELL V

#### Application

Suitable for safe treatment of microbiological cultures. The INCUCELL line produces no noise and provides a very soft air convection within the chamber, the variant INCUCELL V (with a fan) has an advantage of more precise temperature distribution with small deviations. These devices can be used especially in biological and microbiological laboratories, quality tests in pharmacy, cosmetics and testing in veterinary medicine and food processing industry.

#### Technical data

**Volume:** 22, 55, 111, 222, 404, 707 litres  
**Working temperature:**  
**INCUCELL:** 5 °C above ambient temperature up to 99.9 °C  
**INCUCELL V:** 10 °C above ambient temperature up to 99.9 °C  
**Inner glass door**  
**Interior:** stainless steel, mat. No. 1.4301 (AISI 304)

### Cooling incubators

#### FRIOCELL

The high technical standard of our FRIOCELL-incubators allows exact incubation processes both for variation and deviation. The units have very short recovery times and show an excellent manner in keeping the precise regulation. A unique cooling system ensures, that the samples are not dried while cooling. A high performance system of lighting ensures outstanding homogenous parameters for tests and growth conditions. These devices are designed for use in biotechnology, botany, food processing industry, cosmetics, chemical industry etc.

**Volume:** 22, 55, 111, 222, 404, 707 litres  
**Working temperature:** 0.0 °C up to 99.9 °C, FC 22: + 5 °C up to 70 °C (option –9.9 °C)  
**Refrigerant:** R 134a without CFC (excluded volumen 22)  
**Peltier effect – FC 22**  
**Inner glass door**  
**Interior:** stainless steel, mat. No. 1.4301 (AISI 304)

### Climatic chambers

#### CLIMACELL

The CLIMACELL series was specially developed for applications, in which as far as possible exact and reproducible simulation of various environmental conditions is important, e.g. stability testing of components, packaging materials, food or chemicals, germination studies, plant cell or tissue cultures, insect cultures.

**Volume:** 111, 222, 404, 707 litres  
**Working temperature:** without humidity 0.0 °C up to 99.9 °C, with humidity: 10 °C up to 90.0 °C  
**Refrigerant:** R 134a without CFC  
**Cooling medium for generating the humidity:** distilled water, drinking water (max. 50 mg Ca/l)  
**Controlled humidity:** 10 % - 90 % RH  
**Microprocessor controlled humidifying / / dehumidifying system**  
**Inner glass door**  
**Interior:** stainless steel, mat. No. 1.4301 (AISI 304)

### CO<sub>2</sub> – atmosphere CO2CELL

#### Application

CO<sub>2</sub>-incubators meet requirements on absolute constant and reproducible environment for growth of cell, tissue and other cultivating cultures. Trial circuit heating management system eliminates the need of fan and consequently the risk of vibrations and contamination enormously and guarantees the maximum relative humidity with absolutely dry inner walls. Due to the air jacket system these device can be installed easily and the same holds for their maintenance.

CO<sub>2</sub> series have an innovative new door design, the chamber door seal securely seals against the heated stainless steel lining of the outer door, which eliminates the requirement for a glass inner door for most applications. Technology of CO<sub>2</sub> measurement – infrared sensor secures continuous, precise and reliable data on the CO<sub>2</sub> concentration in the chamber.



CO2CELL 48

#### Technical data

**Volume:** 48, 170 litres  
**Working temperature:** 1 °C above ambient temperature up to 50 °C  
**Non-controlled relative humidity:** up to 95 % RH at 37 °C  
**CO<sub>2</sub> concentration:** 0,2 up to 20 %  
**CO<sub>2</sub> measurement via infrared sensor with an automatic calibration cycle**  
**Interior:** stainless steel, mat. No. 1.4301 (AISI 304)

#### Options

- access ports Ø 25, 50, 100 mm (Ø 100 mm is not available for 22 liters volume) • door lock • left door versions (excluded volume 22 and 707 litres)
- separate PT 100 sensor • special software WarmComm • HEPA filter for installation in an air inlet (INCUCCELL V only) • expansion of working temperature range up to 99.9 °C • arrangement against drying-up of culture mediums and tissue cultures (INCUCCELL V only) • stainless steel casing of the devices

#### Options

- access ports Ø 25, 50, 100 mm (Ø 100 mm is not available for 22-liters volume) • door lock • left door versions (excluded volume 22 and 707 litres)
- separate PT 100 sensor • HEPA-filter for installation in air inlet (INCUCCELL V only) • special software WarmComm • timer programmable water protected inner socket (only INCUCCELL V) • BMS relay alarm contact • separate PT 100 sensor • expansion of working temperature range up to 99.9 °C
- arrangement against drying-up of culture mediums and tissue cultures • high temperature decontamination (excluded volume 404 and 707 litres)
- stainless steel casing of the devices

- –9.9 °C with cooled incubators • interior lighting – a wide offer of various luminary sources (excluded volumen 22 and 55 l) • access ports Ø 25, 50, 100 mm (Ø 100 mm is not available for 22-liters volume)
- door lock • left door versions (excluded volume 22, 404 and 707 liters) • timer programmable water protected inner socket • exposure lighting with digitally adjustable light 10–100 % • exposure illumination in shelves, especially for photo-stability tests (according to ICH Guidline Q1B) • illumination measuring
- BMS relay alarm contact • separate PT 100 sensor • special software WarmComm • check of the door opening (microswitch) during the program with the possibility of the record by means of a printer or software • stainless steel casing of the device

- –9.9 °C with cooled incubators • interior lighting – a wide offer of various luminary sources • access ports Ø 25, 50, 100 mm • keyboard lock (prevents the access of unauthorised persons) • automatic door lock • left door versions (excluded volume 404 and 707 liters) • timer programmable water protected inner socket • exposure lighting with digitally adjustable light 10–100 % • exposure illumination in shelves, especially for photo-stability tests (according to ICH Guidline Q1A, Q1B) • illumination measuring • BMS relay alarm contact • separate PT 100 sensor • special software WarmComm • check of the door opening (microswitch) during the program with the possibility of the record by means of a printer or software • stainless steel casing of the device

#### Device characteristic

- contamination risk avoided by using no fan
- 2x3 LED display • continuous indication of actual temperature value and CO<sub>2</sub> concentration
- acoustic and visual alarm in error state
- infrared CO<sub>2</sub> sensor with exact output with no influence of chamber humidity • independent safety thermostat • CO<sub>2</sub> HEPA filter • seamless inner chamber with fully rounded corners • trial heating system for quick recovery after door opening • semi-automatic CO<sub>2</sub> zeroing system • high temp decontamination (exl. 48 l model)

#### Device characteristic

- contamination risk avoided by using no fan
- large graphical LCD display • indication of set and actual temperature value, CO<sub>2</sub> concentration, time and alarm reports • acoustic and visual alarm in error state • infrared CO<sub>2</sub> sensor with exact output with no influence of chamber humidity
- CO<sub>2</sub> HEPA filter • seamless inner chamber with fully rounded corners • trial heating system for quick recovery after door opening
- fully automatic CO<sub>2</sub> zeroing system
- data-logging facility • on-screen HELP facility
- 80% efficiency of usable volume • completely dry wall chamber • mechanically polished inner chamber • high temp decontamination

#### Options

- access port Ø 25 mm • right door versions • copper interior (only 170 l volume)
- lockable door • RS 232 interface for printer or PC communication • recording software for PC • BMS relay alarm contact • automatic CO<sub>2</sub> change over unit • two stage CO<sub>2</sub> reduction valve • two stage N<sub>2</sub> reduction valve • two stage O<sub>2</sub> reduction valve • single inner glass door • sstacking stand and kit

#### Options

- access port Ø 25 mm • right door versions • copper interior (only 170 l volume)
- uncontrolled relative humidity of 97% at 37°C • O<sub>2</sub> concentration control • cooling system • RS 232 interface for printer or PC communication • recording software for PC • key pad control • mechanical door lock with key • BMS relay alarm contact • automatic CO<sub>2</sub> change over unit • two stage CO<sub>2</sub> reduction valve • two stage N<sub>2</sub> reduction valve • humidity measurement and display
- internal IP66 sealed 240V socket • 2-split inner glaas door (volume 48 l) • 4-split and 8-split inner glass door (volume 170)

standard line

comfort line

Application	Device type	Type of the laboratory cabinet	Standard line Comfort line	Natural convection	Forced convection	Working temperature (°C)	Volume 22 (l)	Volume 48 (l)	Volume 55 (l)	Volume 111 (l)	Volume 170 (l)	Volume 222 (l)	Volume 404 (l)	Volume 707 (l)
drying, tempering, sterilization	<b>ECOCELL</b>	Drying oven	●/●	●		5*-250/300	●/●		●/●	●/●		●/●	●/●	●/●
	<b>DUROCELL</b>	Drying oven with inner resistant EPOLON- coating	●/●	●		5*-125	●/●		●/●	●/●		●/●		
	<b>VENTICELL</b>	Drying oven	●/●		●	10*-250/300	●/●		●/●	●/●		●/●	●/●	●/●
	<b>STERICELL***</b>	Drying oven / hot-air sterilizer	●		●	10*-250	●		●	●		●	●	
	<b>VACUCELL</b>	Vacuum drying oven	●/●			5*-200	●/●		●/●	●/●				
incubation	<b>INCUCELL</b>	Incubator	●/●	●		5*-99.9	●/●		●/●	●/●		●/●	●/●	●/●
	<b>INCUCELL V</b>	Incubator	●/●		●	10*-99.9	●/●		●/●	●/●		●/●	●/●	●/●
	<b>FRIOCELL</b>	Incubator with cooling	●/●		●	-9.9/0-99.9	●/●		●/●	●/●		●/●	●/●	●/●
	<b>CLIMACELL</b>	Incubator with cooling and controlled humidity	●/●		●	-9.9/0-99.9				●/●		●/●	●/●	●/●
	<b>CO2CELL**</b>	Incubator with CO <sub>2</sub> -atmosphere	●/●	●		1*-50/120		●/●			●/●			

All technical data relate to and are valid for the ambient temperature of 22 °C and the voltage fluctuation of ± 10 %.

\* above ambient temperature

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The STERICELL product line complies also with requirements of Medical Device Directive 93/42/EEC.

**No matter where you are – our representatives are always close to you all over the world**



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