

# Logic Climate Control

## LCC 2 Klimacomputer

### *Logic and intuitive operation:*

In the development of LCC 2 great importance is attached to achieving a simple user interface without compromising the setting options. We have collaborated with the nurseries in developing the LCC 2 and this is clearly expressed by the user friendliness of the computer. LCC 2 features a line and F-key based interface securing easy and trouble less handling.

The LCC climate computer can control all climate functions in 1 compartment. The LCC 2 is based on modern technology and an advanced operating system and is therefore easy to update and expand with more functions and capacity.

The LCC 2 communicates via Ethernet with the installed expansion and this ensures a great degree of flexibility in connection with future updates and service.

The flexible composition of the hardware in the LCC 2 makes it possible to choose the sensor which is exactly optimal for a particular production, and it is also possible to use more than one of each sensor in each room. This flexibility provides a high degree of accuracy and safety.



- 1 compartment
- Industrial PLC-technology and Modular hardware/software
- 6 time zones with separate settings of temperature, humidity, light addition and CO<sub>2</sub>
- Advanced control by use of multi sensors

### ***Energy saving climate control***

LCC 2 climate computer can divide the 24 hour into 6 time zones with optional automatic correction depending on sun set and sun rise.

Furthermore control of the screen can be done depending of the sun radiation, heat loss and the artificial light. In this way the screens are maintaining the heat.

For the LCC 2 Senmatic A/S DGT has developed a new Energy Balance Model. The model calculates the energy demand based on the K-factor of the greenhouse and the screens, the change of air and the energy added by artificial lighting.

The model "recognizes" the greenhouse and the energy demand which ensures a better and more stable regulation also known as "feed forward regulation".

### ***Common and individual control***

With the LCC 2 we continue ventilating control with cascade vent control. This means opening the lee side and the wind side at the same time. The wind side is opened to a small crack while the lee side is opened as much as needed. This cascade control of vent gives an effective ventilation in the greenhouse even at small vent opening percentages.



<b>Technical data:</b>	
Supply voltage:	100 - 240 V AC 50/60Hz
Power consumption:	65 VA
Communication:	Ethernet
<b>Physical data:</b>	
Temperature, operation	0 - 40 °C No direct sunlight
Humidity:	0-95% Rh. Without condensation
Density:	IP 65
Dimensions LxWxH	350 x 250 x 130mm (14x10x5")
Weight:	6,5 kg (14 lbs9)

### Logic operation by means of line based interface:

The LCC climate computer is easy to operate with clear menus on a line based display and by use of F-keys.

### Optional central control:

LCC 2 is a network model which communicates with SuperLink via Ethernet.

### LCC 2 essential functions.

- Heating valves: 2
- Vents: 2
- Screens: 2
- CO2 control
- Artificial light: 1
- Time zones 6
- Triple tariff
- Heating step: 2
- Vent step: 2
- HAF
- Negative diff.
- Max. Humidity
- Botrytis reduction

### Expansion software

- Middle temperature control
- Misting
- Irrigation program for 1 valve

### I/O:

- Digital inputs 2
- Digital outputs 18
- Analog inputs 8
- Analog outputs 2

### Distributor:

### Head office:

#### Senmatic A/S

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