

BEEHIVE THERMOSTATIC SYSTEM

The beehive body heating system has been designed to ensure an even temperature inside the beehive space. There are heating mats embedded in the walls of the body with plates to ensure thermal conductivity and uniform heat distribution within the body. The use of four mats allows the body space to be reheated when the outside temperature drops and, if necessary, during frosts. This solution allows heating while preventing overheating of the heating elements and, as a result, the interior of the beehive. The temperature control system is equipped with a controller capable of regulating the temperature inside the body from 5°C to 40°C. The temperature settings can be changed steplessly using the buttons on the control panel. The controller for the presentation was attached to the hive body. During operation in the apiary, the controllers are planned to be installed separately in junction boxes, in sections for several bodies or a set of hives. (As an option, in the future, in view of increased interest, it will be possible to remotely control the settings as well as read data of individual hives or even several hives via mobile devices in a dedicated app or Google Assistant).

As part of the further work, the solution can be developed to include: humidity control and energy self-sufficient beehive (RES) technology

- Rated voltage: 230 V
- Rated power: 4x 63 W
- Rated current: 1.1 A

To start the system, connect the hive to the power supply using the supplied cable with a plug. Then, cover the hive with a canopy and set the settings on the temperature controller. After that, the hive is ready for operation.

The thermostatic system is based on heating cables without metallic parts, with reduced weight, high flexibility and corrosion resistance.