

99-zone central unit

5739 18 (White) 067456
5739 19 (Magnesium) 3550

Description

This central unit can manage temperature control systems up to 99 zones, set the system and modify the system operating mode. It is more complete than the 4-zone flush mounted version; in fact just with this central unit it can manage the magnetic contacts installed on the window frames to activate the energy-saving function (switching OFF the zones affected by any changes of air).

Equipped with management software with guided menus shown on the display, it allows the user to choose the operating mode, display the temperatures of the various zones and display and modify the daily temperature profiles and the weekly programs, while the maintenance menu, reserved for the installer (password protected), allows access to the system settings (zone configuration, system test, total reset, etc.).

The Central unit can provide both heating and cooling and can manage up to 99 different zones (with one Master probe for each zone plus possible Slave sensors) and up to 9 circulation pumps.

A contact can be connected in input for remote control by means of a telephone actuator to switch from the anti-freeze mode to the automatic mode and vice versa.

By using the serial connector and the TiThermo software, it is possible to program the unit from a PC.

Related articles:

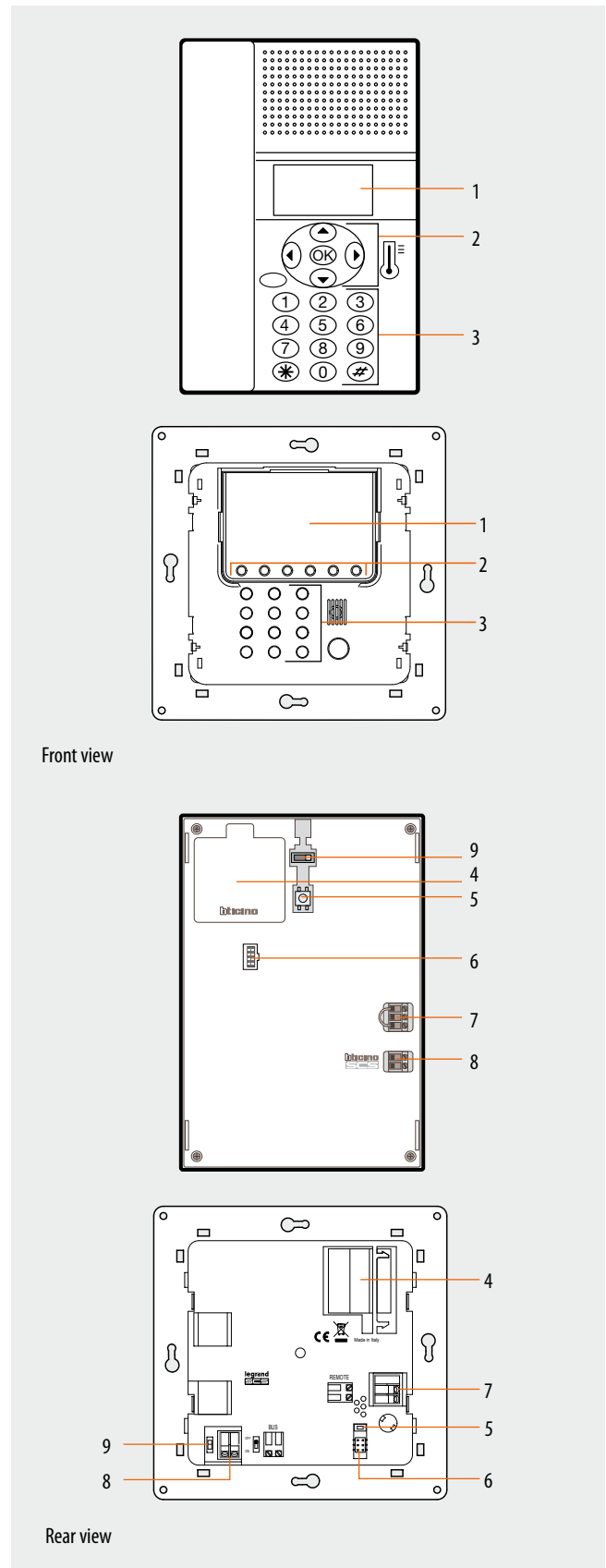
- 801 24 (Flush mounting box)
- 682 44 (Cover White)
- 685 44 (Cover Titanium)

Legend

1. Graphic display: shows the messages which guide the programming operations and the system state.
2. Navigation keypad: allows navigation within the menus and confirms or deletes programming operations.
3. Alphanumeric keypad: allows manual entry of all those programming operations which require the use of numbers and/or symbols.
4. Battery compartment: housing for battery item 3507/6.
5. Reset pushbutton: pushbutton to reset the hardware.
6. Serial connector: connects to a PC via cable item 335919 (for RS232) or item 3559 and 049234 (for USB).
7. Remote control: connection clamp.
8. BUS: BUS connection clamp.
9. Switch ON/OFF

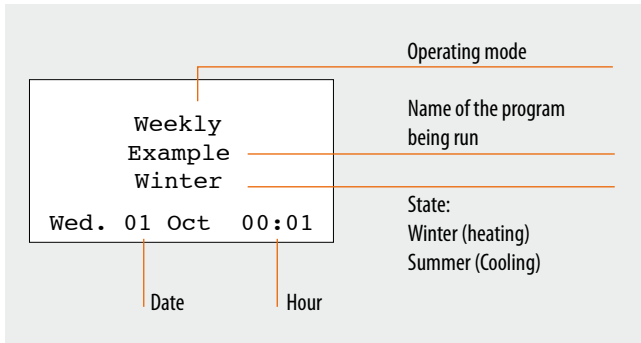
Technical data

- Power supply from SCS BUS: 27 Vdc
- Operating power supply with SCS BUS: 18 – 27 Vdc
- Max. absorption: 75 mA
- Operating temperature: 0 – 40 °C
- Temperature adjustment range: 3 - 40 °C +/- 0.5 °C
- Size: L=140 mm, H=210 mm, D=35 mm



Graphic display

In normal working conditions the Central unit display shows the following information on the initial page:



Programming

To complete the learning procedure of all zones within the system, use the item "Configure Zone" of the "Maintenance" menu. It will be necessary to define if the zone should manage a heating system, a cooling system, or a combined one. Using the same menu item, also select the type of load to control, choosing between: ON/OFF, OPEN/CLOSE, 3SP FAN-COIL, and GATEWAY, and indicate which pumps the zone must control, and the delay. When performing programming operations from the central unit, refer to the installation manual supplied with the central unit itself.

Circulation pump

In addition to controlling the zone valves, for some types of systems it will also be necessary to control one or more water circulation pumps.

When programming the operating mode of the circulation pumps is not necessary to connect any special configurators: it will be sufficient to use the central unit through the "Pump" item; inside the "Maintenance" menu, select the zones that must be served by a circulation pump.

Using the programming procedure, set a logic link between the zones, and the pump that hydraulically supply them.

To complete the programming procedure, the pump management mode must also be selected, thus defining if the pump supplies a heating, a cooling, or a combined system. Depending on the needs of the hydraulic system, one "circulation pump" or "several circulation pumps" may be installed, to supply one or more zone groups.

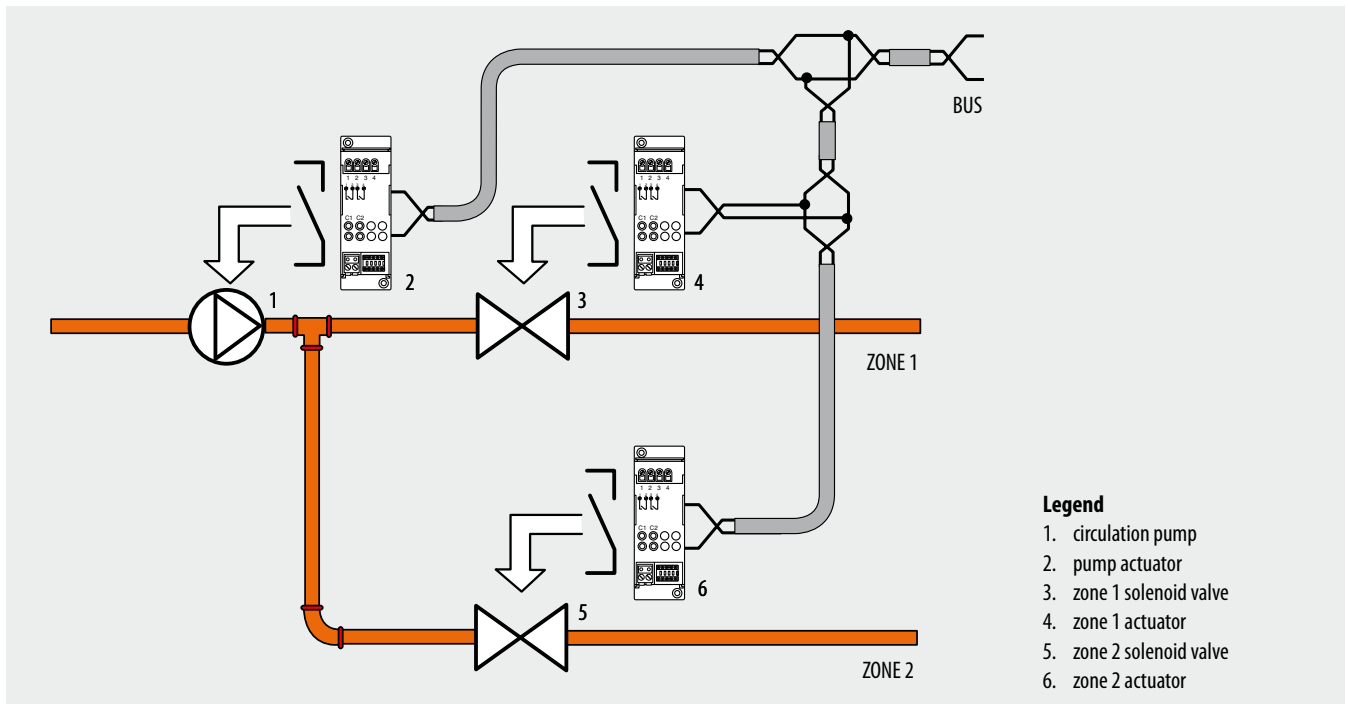
If necessary, it is also possible to set a "pump switch-on delay", in relation to the opening of the zone valves. In the following cases, pump control is not necessary, or needed:

- in systems where the pump is always in operation (thanks to water recirculation hydraulic systems, or the presence of three-way valves);
- in systems where the pump is managed automatically (it comes on by itself when water is required, and turns off again when all valves are closed);
- in system where the pump has simply not been installed (for example for air conditioning units or electric heating control).

NOTE: for details of the programming operations to be performed from the central unit refer to the installation manual supplied with the central unit itself.

System with one circulation pump

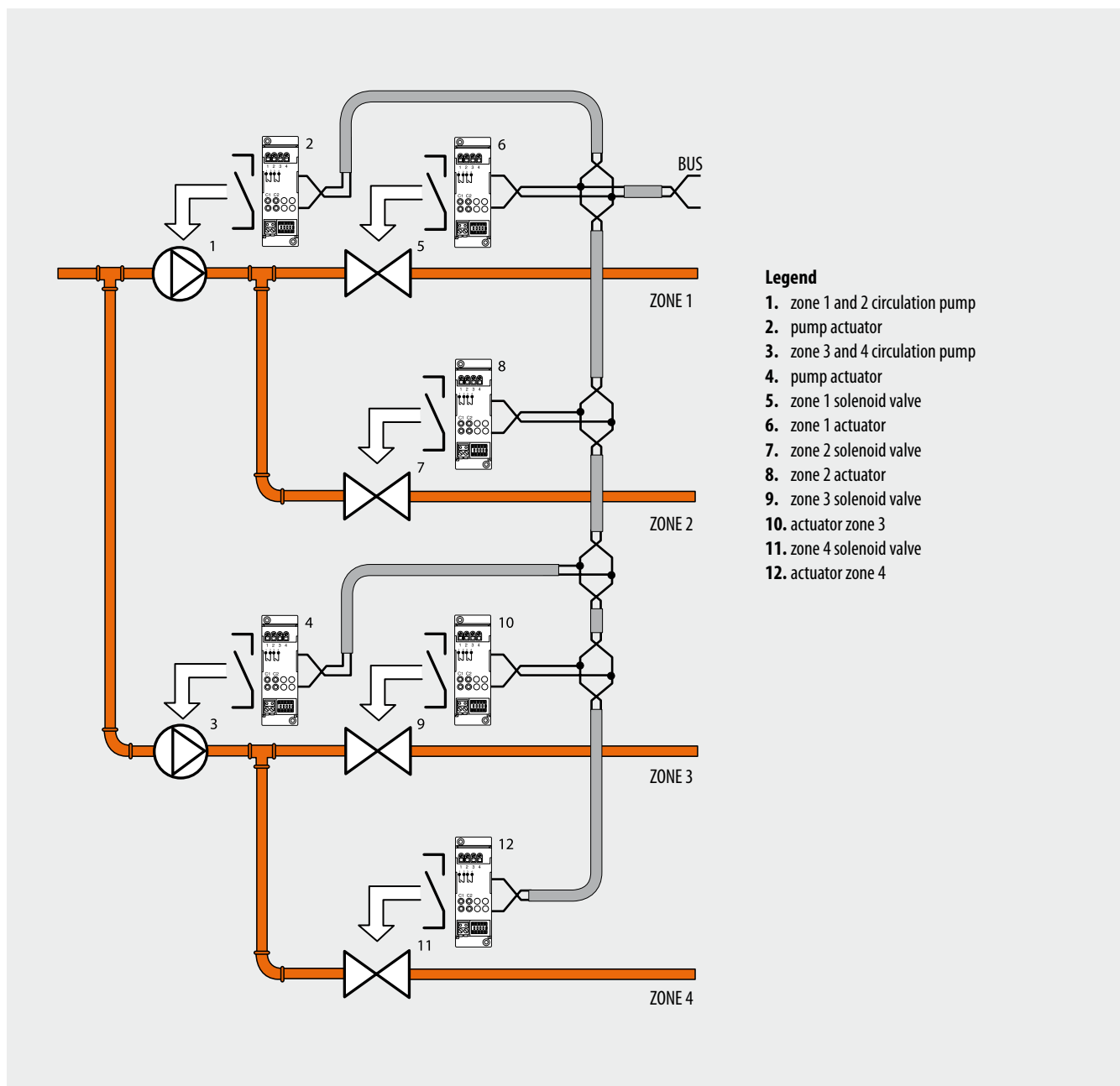
The system shown only has one circulation pump, that only supplies two zones, controlled by two solenoid valves. The pump is managed by a dedicated actuator configured in zone 00. In the same way as the pump, also the two valves are controlled by two different actuators. The circulation pump will remain active until at least one of the two valves remains open and will stop when both valves are closed.



System with two circulation pumps

The system shown requires two circulation pumps that serve two different zone groups controlled by their own solenoid valves. The first group pump is managed by a dedicated actuator configured in zone 00 with progressive number equal to 1 (N=1). Also the two valves that control ZONE1 and ZONE2 are managed by their own actuators.

The circulation pump will remain active until at least one of the two valves remains open and will stop when both valves are closed. The second group is similar to the first one, but the actuator controlling the pump of zones 3 and 4 is configured in zone 00 with progressive number equal to 2 (N=2). Although belonging to the same system, the two pump/solenoid valve groups are totally independent from each other (see also actuator configuration).



- Legend**
- 1. zone 1 and 2 circulation pump
 - 2. pump actuator
 - 3. zone 3 and 4 circulation pump
 - 4. pump actuator
 - 5. zone 1 solenoid valve
 - 6. zone 1 actuator
 - 7. zone 2 solenoid valve
 - 8. zone 2 actuator
 - 9. zone 3 solenoid valve
 - 10. actuator zone 3
 - 11. zone 4 solenoid valve
 - 12. actuator zone 4

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TiThermo software

TiThermo is the tool used for creating or changing, through a simple and logic graphic interface, the configuration to be sent to the temperature control system central unit, defining and customising the parameters of the temperature control system and the profiles of the various operating programs.

Thanks to a dedicated function, the software may also be used to update the central unit firmware.

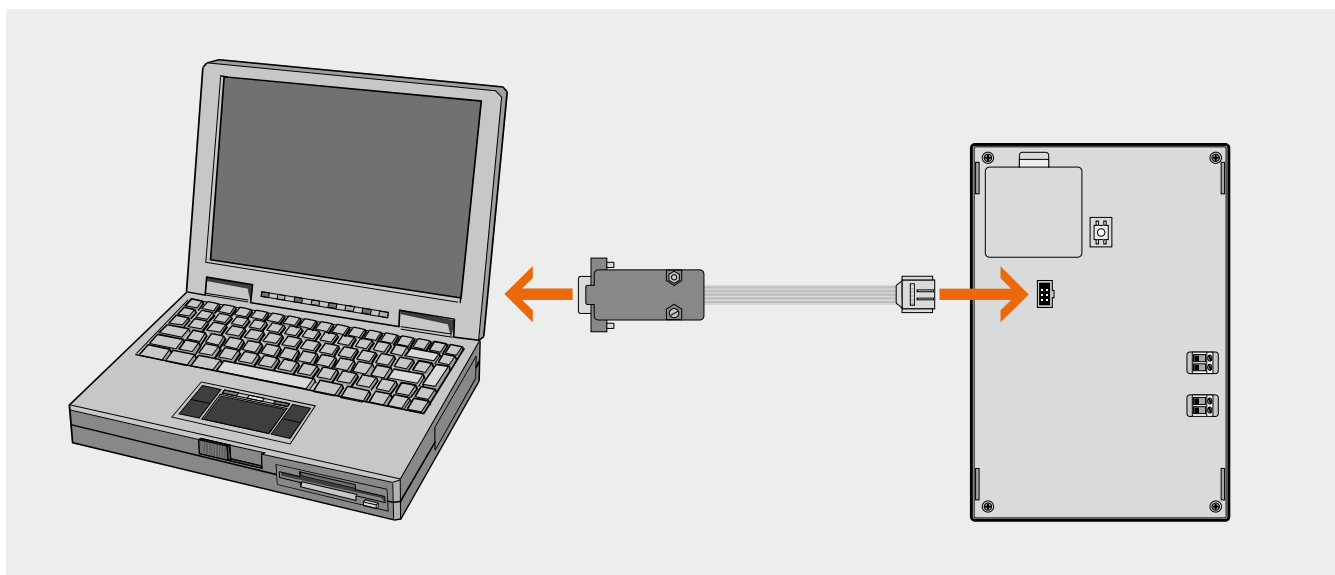
The software can be used to:

- customize the zones
- manage the actuators, selecting the type of function to be assigned (heating, cooling, heating+cooling, no function) and the type of load for the selected function (ON/OFF, Open/ Close, Fan-Coil, Gateway)
- manage the circulation pumps, selecting the type of function to be assigned (heating, cooling, heating+cooling, no function) and the tripping delays

- customise the configuration parameters and the operating programs of the central unit (e.g. weekly programs, holiday programs)
- create up to 16 scenarios for each operating mode of the system (Heating and Cooling). In each scenario also set different temperatures for each area
- export and/or import profiles and collections (as XML files).

NOTE: for more information on the operation of the application see the manual supplied with the products.

The central unit is connected to the PC using cable item 335919 or with item 3559 or 049234 (see figure). This accessory is not included with the central unit, and must therefore be purchased separately.



TiThermo screenshots

