Probe with selector

5739 22 (White) 067457 HC4692 L4692 NT4692
5739 23 (Magnesium) HD4692 HS4692 N4692 AM5872

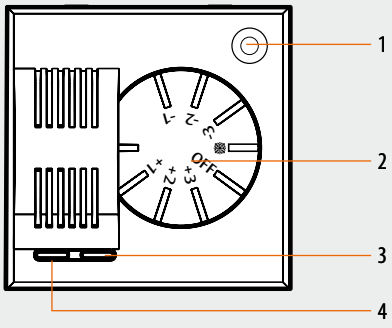
Description

The device can adjust the room temperature in both winter and summer, varying the settings locally with respect to those received from the central unit.
The item has a knob for the local temperature selection (limited to ± 3°C with respect to the value set by the central unit), the antifrost mode and the OFF mode. There are two LED, one green and one yellow, on the front of the item. The green LED indicates that the device is working correctly and the activation of the antifrost mode and OFF of the corresponding area. The yellow LED indicates the actuator state and any faults.

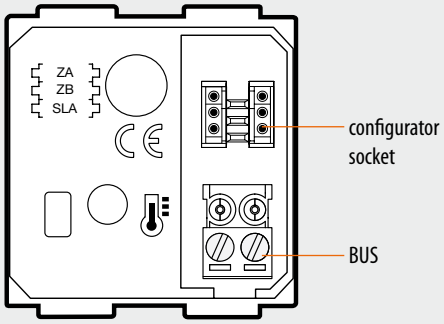
OFF mode
This mode has the maximum priority, whether selected by the probe or set by the central unit; to quit the OFF mode use the device which set it.

Antifrost/thermal protection mode
In this position if the Temperature control system is set as heating the probe works in antifrost mode; if it is set as cooling it works as thermal protection. The probe can also work in collaboration with other probes in "master" configuration to allow the Central unit to calculate an average of the temperature over several measuring points. This function is useful for managing very large rooms, inside which the temperature can vary appreciably.
If there is a fault on the central unit, the probe works with the last settings received, thus continuously maintaining the last temperature determined with summer or winter setting.
If the probe selects the OFF mode this has priority even if the central unit is faulty, thus the zone controlled by the probe will remain OFF.
The probe can be used to control a zone with up to 9 actuators of the same type, and 8 slave probes (4693, 573921, 573920 and 067458).

Related articles:
682 46 (Cover White)
685 46 (Cover Titanium)



Front view



Rear view

NOTE: compared with the previous version, the P, MOD and DEL configurator sockets have been removed.

Legend

1. Key in the low position to enable virtual configuration
2. Knob: for manual temperature setting (± 3°C), to select the antifrost/thermal protection (❄) mode and the OFF state (forced zone off).
3. Yellow LED: when it shines steadily or it is OFF it signals the state of the devices in the corresponding zone, when it flashes it signals a fault.
4. Green LED: when it shines steadily it indicates that the device is active, when it flashes it indicates that the OFF or antifrost modes are set locally.

Technical data

- Power supply from SCS BUS: 27 Vdc
- Operating power supply with SCS BUS cable: 18–27 Vdc
- Absorption: 6 mA
- Operating temperature: 0 – 40°C
- Size: 2 modules
- Installation height: 1500 m from the floor

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Configuration

The probe must always be configured by connecting two configurators to the ZA and ZB sockets, which identify the device address, and the number of the zone controlled by the probe itself. The actuators controlled by the probes must be configured with the same zone address**.**

Socket	Function	Configurators
ZA	zone address	0 – 9
ZB	zone address	0 – 9
SLA	Master/Slave mode	0 – 8

The probe can be configured remotely with "Virtual Configuration". When no physical configurators are available, a PC with Virtual Configurator software version 2.1 must be used.

Programming

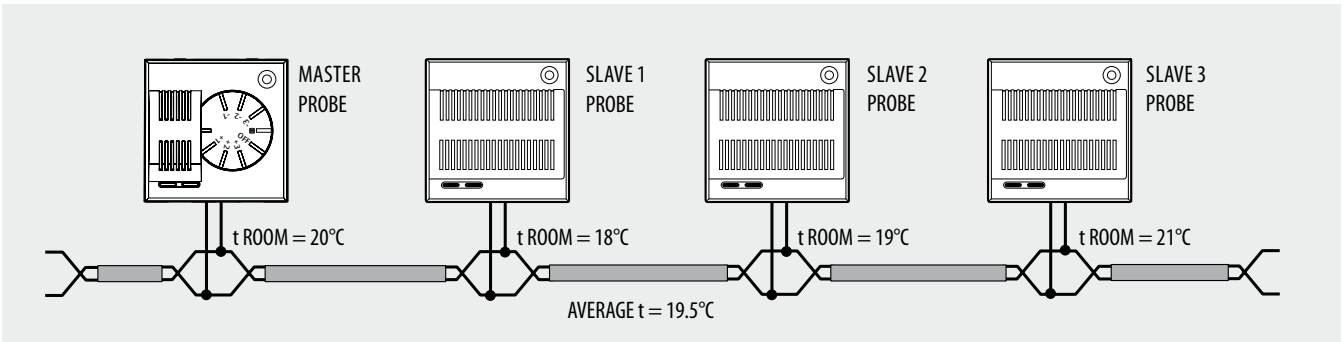
Using the "Configure zones" item of the "Maintenance" menu of the temperature control system central unit, it will be possible to define if the zone should manage a heating system, a cooling system, or a combined one.Using the same menu item, also select the type of load to control, among the following: ON/OFF, OPEN/CLOSE, 3SP FAN-COIL. When performing programming operations from the central unit, refer to the installation manual supplied with the central unit itself.

Master and Slave probe

A probe can operate in conjunction with other probes so that an average temperature calculation can be performed, based on measurements taken from several points within the same zone. This function is useful for the management of very large areas, throughout which the temperature may change consistently. To activate this function, one probe must be configured as "Master", and one or more probes must be configured as "Slave" (max 8). The Master probe calculates the average between its own temperature, and the temperatures measured by the Slave probes, and then performs the appropriate operations. Configure the Master probe by connecting to the SLA socket a numeric configurator indicating the number of Slave probes within the zone (8 max). To configure a Slave probe, connect the configurator marked as SLA to the MOD socket. Use the SLA socket to progressively assign a number to all Slave probes of the zone. During this numbering procedure, it is essential to start from no. 1, and that the sequence is respected, without missing any numbers. **The HC/HS/L/N/NT4692 and AM5872 probe can only operate as "MASTER" probes. Therefore only the probe without knob, item 4693, may be used as a "SLAVE" probe.**

Example of configuration of a zone (address 47), with one Master, and three Slave probes.

To define the probes as belonging to ZONE 47, connect configurators 4 and 7 to the ZA and ZB sockets of the 4 devices. The SLA configurator must be connected to the MOD sockets of the three Slave probes (definition of Slave probes). Connect configurator no. 3 to the SLA socket of the Master probe (there are three Slave probes inside the zone); Connect configurators no. 1, 2, and 3 to the SLA sockets of the three Slave probes respectively (progressive number of the probe within the zone).



Master probe (HC/HS/L/N/NT4692, AM5872, 573923, 573922 and 067457)		**Slave 1 probe (HC/HS/L/N/NT4693, 573921, 573920 and 067458)**		**Slave 2 probe (HC/HS/L/N/NT4693, 573921, 573920 and 067458)**		**Slave 3 probe (HC/HS/L/N/NT4693, 573921, 573920 and 067458)**	
Socket	Configurators	Socket	Configurators	Socket	Configurators	Socket	Configurators
ZA	4	**ZA**	4	**ZA**	4	**ZA**	4
ZB	7	**ZB**	7	**ZB**	7	**ZB**	7
SLA	3	**SLA**	1	**SLA**	2	**SLA**	3
		MOD	SLA	**MOD**	SLA	**MOD**	SLA

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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 supplies 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:

- 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 systems where the pump has simply not been installed (for example for air conditioning units or electric heating control).

Pump switch-on delay

If necessary, it is also possible to set the circulation pump to activate after a certain time delay, in relation to the opening of the zone valves. This selection depends on the type of valve installed, and enables the pump to only activate once the valve is fully open. If a time delay of 4 minutes is set, after closing the relay controlling the opening of the zone valve, the probe will wait 4 minutes before switching the pump on. A maximum delay of 9 minutes can be set, depending on the time needed for the valve to open. For the opening times refer to the official technical specifications issued by the solenoid valve manufacturer.

Probe calibration

Probes don't normally require calibration; however, in particular installation situations (perimeter walls, north or south facing walls, when close to heat sources, etc.), the temperature value measured may be corrected using the appropriate calibration function, which can be found in the central unit menu.
Before performing the calibration operation, ensure the following:

- leave the probes connected and powered with the hydraulic system off for at least 2 hours. During this time, avoid any changes in the room temperature (e.g. by opening or closing windows, doors, etc.), and avoid standing near them;
- for the calibration use a calibrated sample thermometer, correctly positioned inside the room.

Note: For more details on the calibration procedure and the programming operations using the central unit, refer to the installation manual of the central unit.