Basic probe

674 58

Description

The device can control the room temperature according to the daily rates, both during winter and summer. There are two LEDs at the front: a green one and a yellow one. The green LED indicates that the device is functioning properly. The yellow LED indicates the state of the actuators as well as their possible anomalies. Apart from the LEDs, there are no adjustment controls at the front. This feature is ideal for installations in rooms containing people so as to avoid improper interventions.

The probe can also work in collaboration with other probes of the same type in "slave" 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 sensor works with the last settings received, thus continuously maintaining the last temperature determined with summer or winter setting. The OFF mode has priority even if the central unit is faulty, thus the zone controlled by the sensor will remain OFF. The probe can central a zone with a maximum of 9 actuators and 8 "slave" probes of the same type.

Related articles

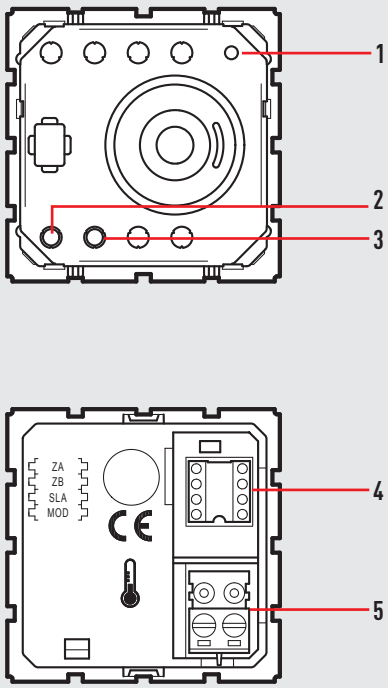
682 48 (Cover White)
685 48 (Cover Titanium)

Technical data

Power supply from SCS BUS: 18 – 27 Vdc
Maximum absorption: 6 mA
Operating temperature: 0 – 40 °C
Installation height: 150 cm from ground

Dimensional data

Size: 2 modules



Legend

1. Pushbutton for enabling virtual configuration
2. Green LED: when it shines steadily it indicates that the device is active
3. Yellow LED: when it shines steadily or it is OFF it signals the state of the actuators in the corresponding zone, when it flashes it signals a fault
4. Configurator housing
5. BUS connector

Configuration

Mode

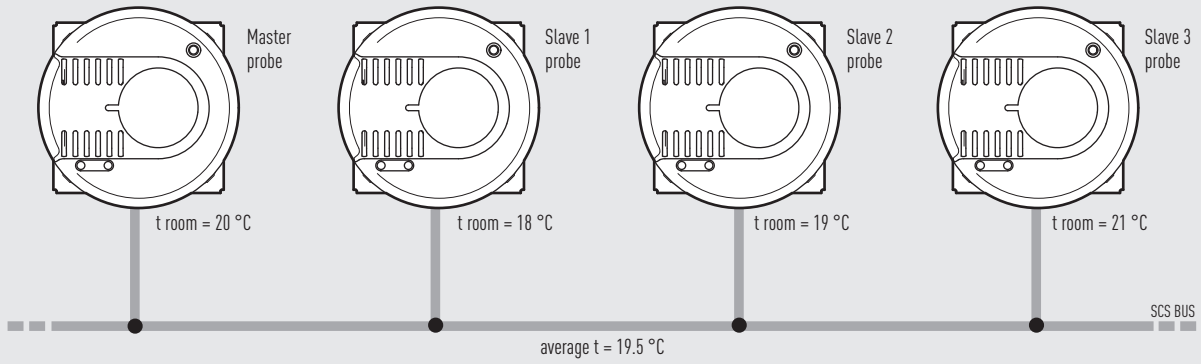
The probe can be remotely configured "virtual configuration". If physical configurators are not connected, a PC with a Virtual Configurator software will be required.
In practice one defines whether the zone manages a heating, cooling or combined system by "Configure zones" in the "Maintenance" menu. This also selects the type of load to be controlled by choosing from: ON/OFF, OPEN/CLOSE, FAN-COIL 3V.
To program the central unit refer to the installation manual supplied with the control unit itself.

Master and Slave probe

A probe can work in collaboration with other probes to allow, inside the same zone, the average calculation of the temperatures at several measurement points.
This function is useful for managing very large rooms, inside which the temperature can vary appreciably.To actuate the function one sensor must be configured as "Master" and one or more probes as "Slave" (max. 8). The Master probe calculates the average between its temperature and the temperature measured by the Slave sensor and then carries out the correct actuations. To tell the Temperature control function that the probe is Master insert a numeric configurator which indicates the number of Slave probes in the zone, up to eight, in the **[SLA]** housing. To configure a Slave housing insert the configurator marked SLA in the **[MOD]** housing.
Using the **[SLA]** housing number all the zone Slave probes progressively. For the numbering start from configurator 1 and respect the sequence without skipping numbers.

Example of configuration of a zone (address 47) with one master probe and three slave

To assign the probes to zone 47, insert configurators 4 and 7 in the ZA and ZB housings of the four devices. Insert the 0 configurator in the MOD housing of the MASTER probe. Insert the SLAVE configurator in the MOD housing of the three SLAVE probes (definition of slave probes). Insert configurator 3 in the SLAVE housing of the MASTER probe (there are three SLAVE probes in this zone); insert configurators 1, 2 and 3 (progressive number of the probe in the zone) in the SLA housing of the three SLAVE probes, respectively.



Master probe - 674 58		Slave 1 probe - 674 58		Slave 2 probe - 674 58		Slave 3 probe - 674 58	
Housing	Configurators	Housing	Configurators	Housing	Configurators	Housing	Configurators
[ZA]	4	[ZA]	4	[ZA]	4	[ZA]	4
[ZB]	7	[ZB]	7	[ZB]	7	[ZB]	7
[MOD]	0	[MOD]	SLA	[MOD]	SLA	[MOD]	SLA
[SLA]	3	[SLA]	1	[SLA]	2	[SLA]	3

Circulation pump

By selecting "Pumps" in the "Maintenance" menu, it is possible to select the zones which need to be slaved by means of a circulation pump. Basically, when programming, a logical bond is performed between the zones and the pump which supplies them hydraulically.
In order to complete the programming phase, it is also necessary to select the management mode of the pump, thus determining if the pump is supplying a heating system, cooling system or a combined heating and cooling system. Depending on requirements a hydraulic system can have a "single circulation pump" or "several circulation pumps" to serve one or several groups of zones. If necessary the "switching ON the pump delay" with respect to the opening of the zone valves can also be controlled.

The pump does not need to be controlled in the following cases:
- with systems in which the pump is always in operation (due to water recirculation hydraulic systems or three-way valves);
- with systems in which the pump is controlled automatically (in other words, it starts automatically when water is needed and stops automatically when all the valves are closed);
- with systems in which the pump is simply inexistent (for example, for controlling electric heating or air-conditioners).

Pump startup delay

If necessary, it is possible to activate the circulation pump with a certain delay relative to the opening of the zone valve. This choice depends on the type of valve installed and makes it possible to turn on the pump only when the valve is completely open.
If a time equal to 4 minutes is set, after closing the relay which controls the opening of the zone valve, the sensor will wait 4 minutes before starting up the pump. The delay can be nine minutes at the most and depends on the time needed for the valve to open.
In order to know the opening time, refer to the specifications indicated by the manufacturer of the solenoid valve.

NOTE: For details concerning the programming operations from the Unit, please refer to the installation manual supplied with the unit thereof.

Configurator summary table

The following table includes the housings and the configurators used with the sensor 674 58.

Housing	Function	Configurators	
[ZA]	zone address	0 – 9	
[ZB]	zone address	0 – 9	
[MOD]	Master/Slave mode	0	SLA
[SLA]	Master/Slave mode	0 – 8	