

## Radio outdoor temperature probe

3455

### Description

The outside temperature can be measured by means of this radio probe. The data is then sent through radio waves to the receiving interface, and to the temperature control system. 99-zone or 4-zone central units can simply display this data. The automations are reserved just to the 99-zone central unit and can activate controls on the basis of exceeding particular temperature thresholds set by means of the TiThermo software.

These automations also allow the management of enhanced systems with combination boiler. Up to nine temperature probes can be installed in a system.

The radio probe is practically maintenance-free and is supplied by a small solar cell installed on the device. Special care should be taken to install the solar cell in positions which can guarantee sufficient irradiation.

On the probe printed circuit there is a small key to be used during programming and when the receiving interface is acquiring the radio probe details.

### Legend

1. Temperature sensor: to measure the temperature
2. Transmission key: allows the association between radio probe and receiving interface
3. Solar cell: supplies the entire device
4. IP65 enclosure

### Technical data

- Power supply: solar cell
- Operating temperature: (-25) – (+40) °C
- Measurement field: (-20) – (+60) °C
- Radio frequency: 868 MHz
- Transmission power: < 10 mW
- Range: 70 m in free field (metal and reinforced concrete walls reduce the range);
- Protection index: IP65

### CE CONFORMITY

89/336/EWG – Electromagnetic compatibility

R&TTE 1999/5/EC – Directive on radio and telecommunication devices

### CONFORMITY TO REGULATIONS

ETSI EN 301 489-3

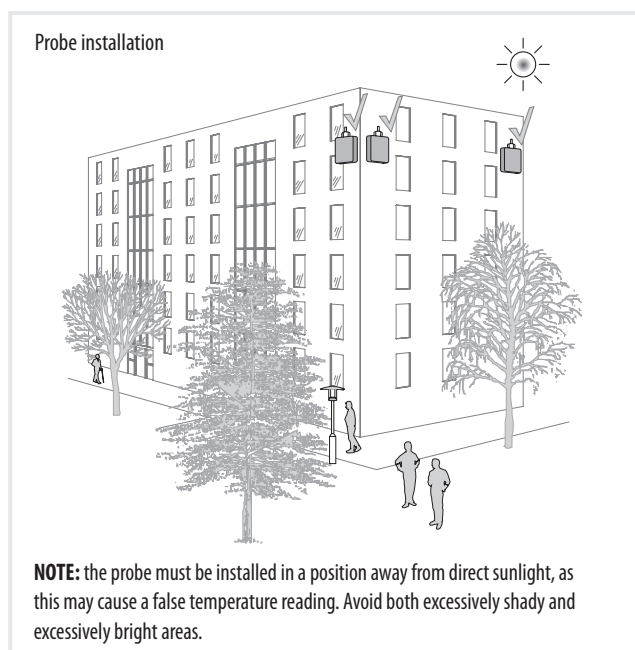
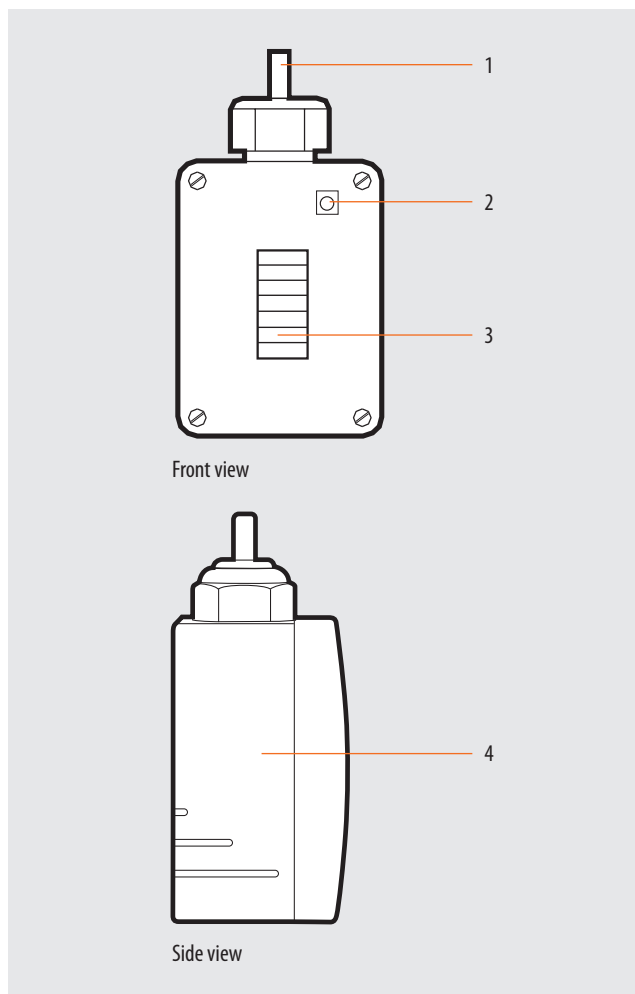
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EN 60669-2-1

EN 60950

EN 60065

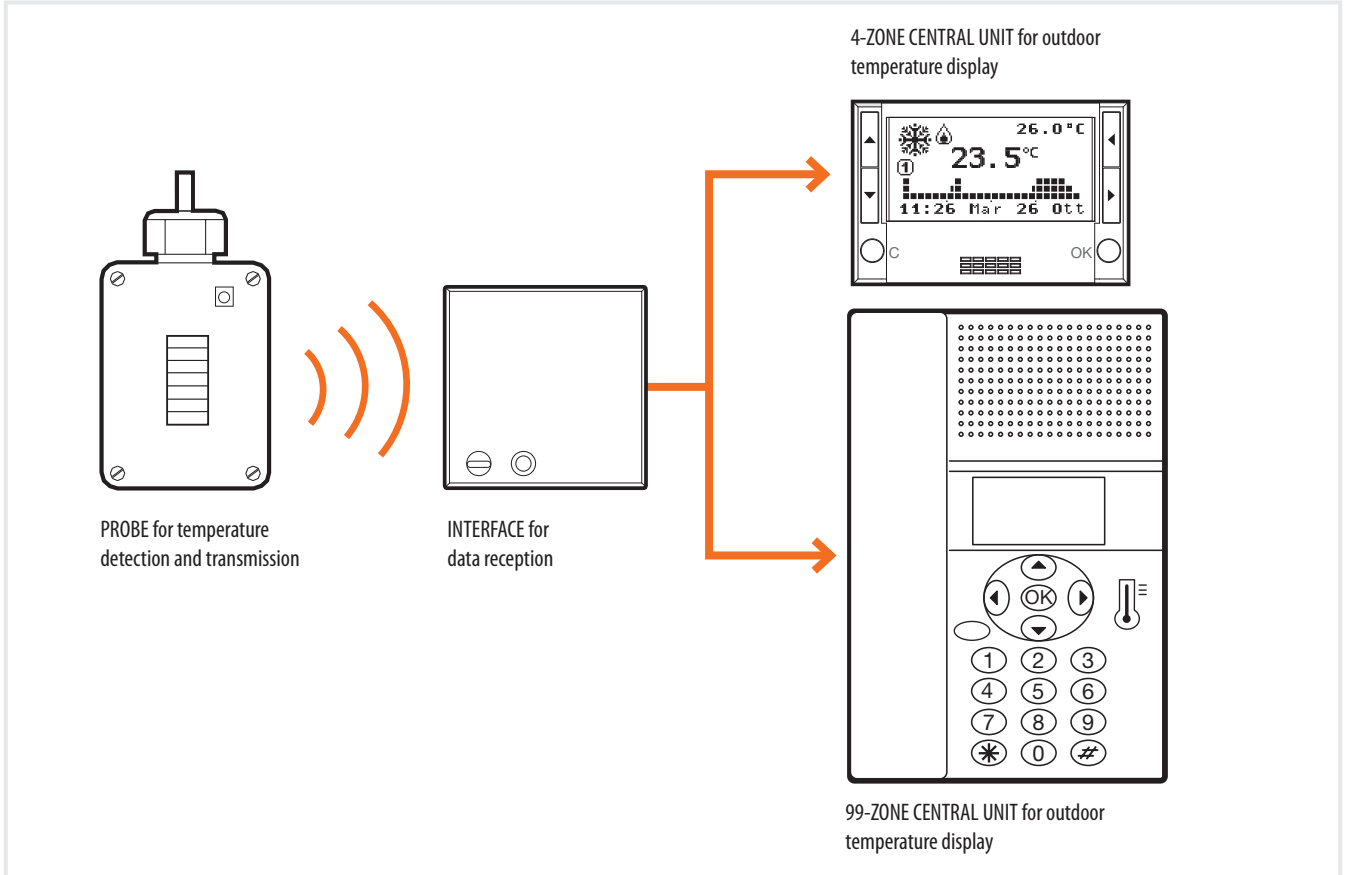
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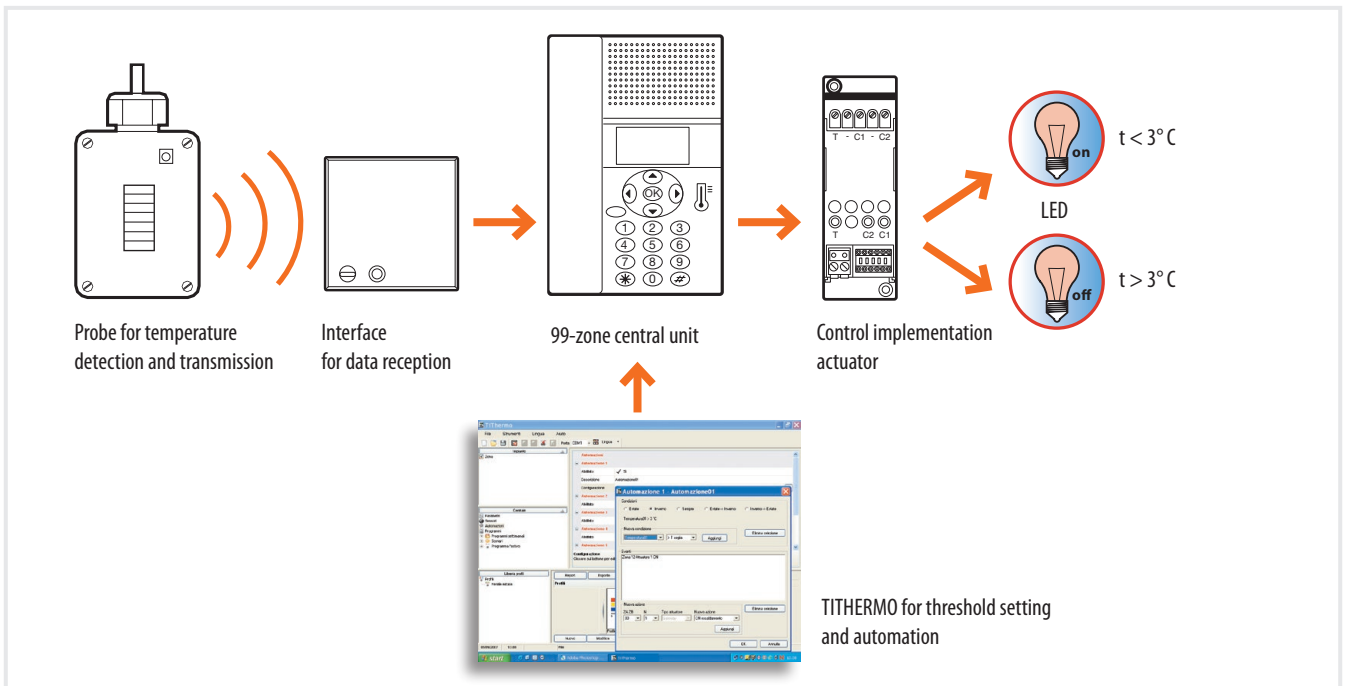
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## Temperature display



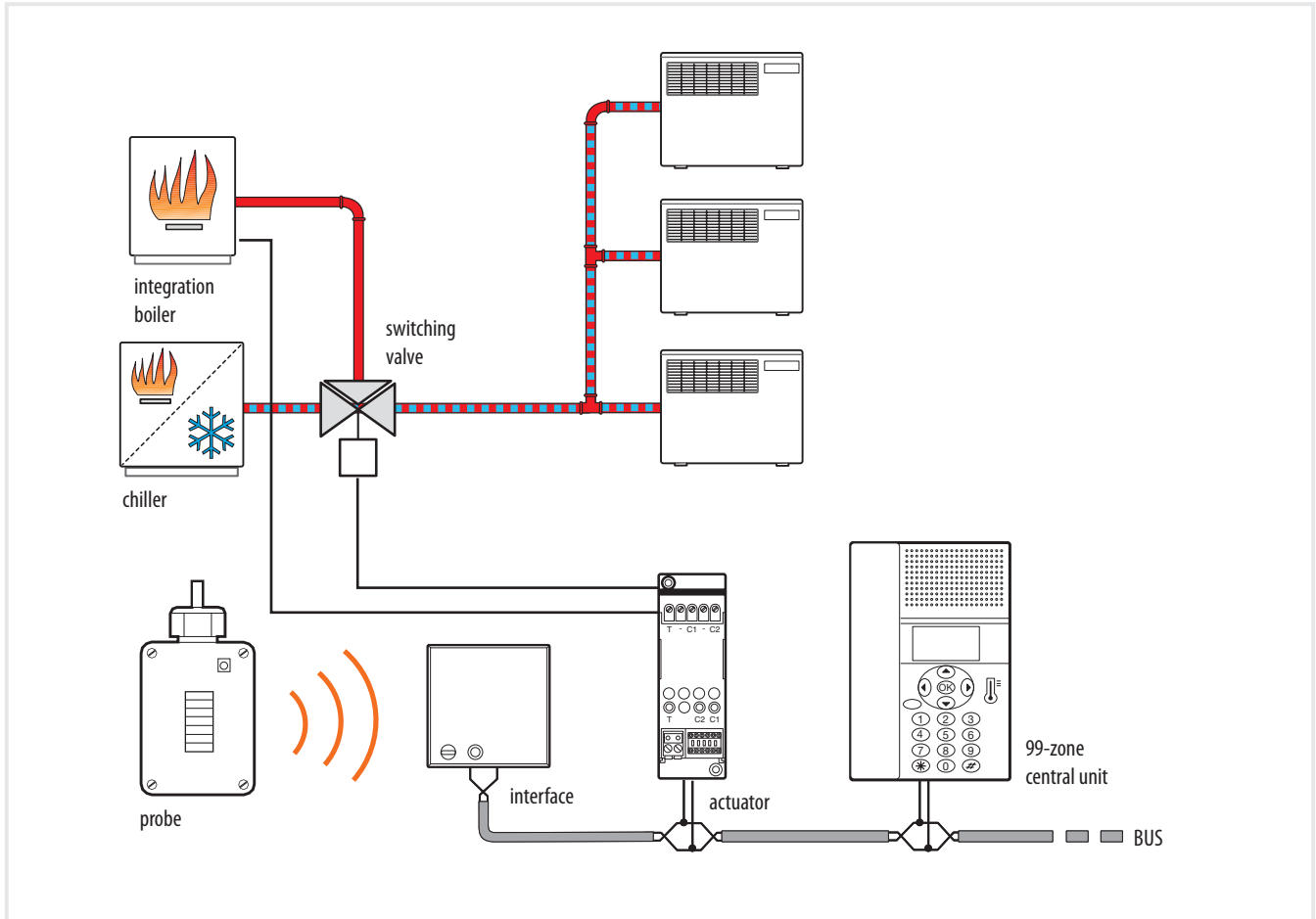
## Automation - threshold exceeded LED



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### Automations - system with integration boiler



#### Operating information

Under normal conditions, the probe sends the information about the detected temperature each 1000 seconds (+/- 10%).

With quick temperature variations more than 0.8 °C, the sending is anticipated to 100 seconds (+/- 10%).

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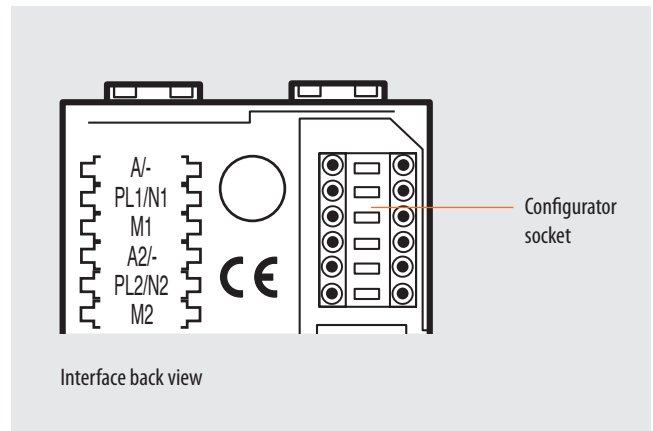
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### HC/HS 4577 and L/N/NT4577 receiving interface configuration

In order to use a receiving interface and radio probe, configuration must first be performed, followed by the programming procedure. Only the interface needs configuring. Up to 2 probes may be combined with each interface, therefore providing the system with two detection points for each interface. Up to a maximum of 9 temperature probes may be installed in one system.

The configuration sockets on the interface identify the radio probes addresses. They are: A1/-, PL1/N1, M1 for the first address, and A2/-, PL2/N2, M2 for the second address. The two addresses must always be different from each other,  $PL1/N1 \neq PL2/N2$ . Only one radio probe may be associated to each address. Only used addresses must be configured.

**The interface must be configured in temperature control mode by connecting configurator 1 to M1 and M2. With this mode the A1/- and A2/- sockets are not used, therefore no configurator needs to be connected.**



### Programming of devices:

After performing the configuration, it will be necessary to associate the radio probe to the interface following the programming procedure:

- 1) Press the pin pushbutton of the interface for 5 seconds. The red LED turns on. Release the pushbutton. The interface LED will flash every two seconds to confirm that programming mode is active on the first address (group of configurators **PL1/N1, M1**). If the second address of the interface is not configured (no configurator is connected to the **PL2/N2, M2** positions), go to step 2 of the procedure. However, if also the second address must be configured (group of configurators **PL2/N2, M2**), simply press the pin pushbutton of the interface again. The LED will flash twice in succession every two seconds. Every time the pin pushbutton is pressed, the system will switch from the first to the second address and vice versa.
- 2) After choosing the address, The radio probe should be associated to, within 20 seconds press the transmission key of the probe itself. Pressing the transmission key will send the probe serial code. After receiving the code through the radio signal, the red LED of the interface will quickly flash for 2 seconds, confirming that programming is complete, and the procedure has been terminated.

If necessary repeat the operation to save the code of another probe. If on the other hand an address has already been associated and the procedure is repeated with another probe, the interface performs an overwriting action, only keeping the last probe in memory. During normal operation, the sending of information from the probe is confirmed by the flashing of the red LED of the interface. A single flashing indicates that the radio message has been received, and the "temperature" data has been sent through the BUS by a probe associated to the **PL1/N1, M1** address. A double flashing indicates that the radio message has been received, and the "temperature" data has been sent through the BUS by a probe associated to the **PL2/N2, M2** address. To delete all codes from the interface press the pin pushbutton for 12 seconds. After 5 seconds from pressing the key, the LED will turn on steadily, and after a further 7 seconds, it will start flashing quickly, confirming that all programs have been deleted.

### NOTES:

- If the interface configuration is wrong, the red LED will flash. Correct the configuration.
- If the second interface address has not been configured (no configurator connected to the **PL2/N2, M2** sockets), during the programming procedure it will not be possible to switch to this address, which therefore cannot be programmed.