



# CH180K2

## WIRELESS 2-ZONE THERMOREGULATION KIT WITH WIFI CONNECTION

- Preset and ready to use kit, for 2 radiators control
- 2-zone temperature control
- To control the heating systems
- Remote control through APP Intelliclima+ for Smartphone and Tablet
- Expansion possibility for the cooling and dehumidification control system
- Expansion possibility up to 8 temperature zones



### Kit composition

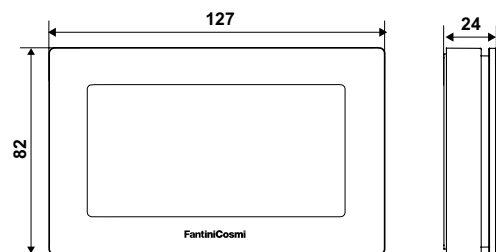
1 CH180RFWIFI	weekly wireless programmable thermostat with WiFi connection
2 O60RF	wireless radiator actuators

## INSTALLATION

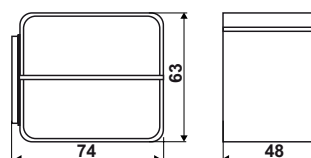
- PROGRAMMABLE THERMOSTAT
  - CH180RFWIFI has to be installed on the wall or in a 3 modules or round flush mounting box, at about 1.5 meters above the floor.
- ACTUATOR
  - The wireless actuator can be quickly and easily mounted on all common valves with 30x1.5 thread.
  - Scope of delivery: 1 O60RF actuator; 1 coupling ring; 1 adapters set with four parts (additional adapters on page 4); 1 screw and nut; 1 removing tool and this installation manual.

## DIMENSIONS mm

- PROGRAMMABLE THERMOSTAT



- ACTUATOR



### HOMOLOGATION AND STANDARD

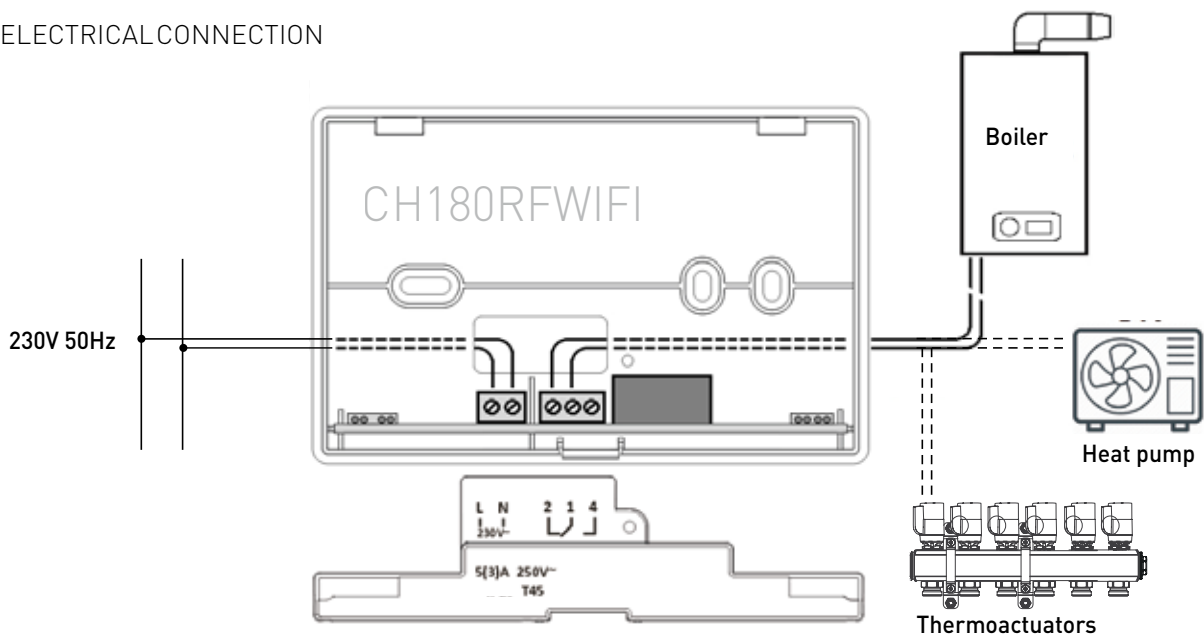
- Complies with EN 60730-1 standards;
- Responding to Directive 2014/53 / EU (RED).
- ErP Classification (Reg. EU 811/2013 - 813/2013):
  - ◇ Class IV; 2%



### CH180RFWIFI ELECTRIC FEATURES

Power supply	230V-50Hz
Maximum absorbed power	5 W
Contacts rating	5(3)A 250 Vca
Type of action	1 B.U. (connection micro-switch)
Output type	■ 1 relay for heating/cooling or humidity systems (3 screw clamps (closed + open))
Software	A class
Electric insulation	Double insulation
Pulse voltage	4000V

■ ELECTRICAL CONNECTION



### 060RF ELECTRIC FEATURES

Power supply	2 alkaline batteries (1.5V AA)
Battery life	up to 2 years under standard conditions of use

**CH180RFWIFI GENERAL FEATURES**

Temperature regulation range	2 ÷ 40 °C, increment 0.1°C
Measurement scale/room T display	30 ÷ 70%, increment 1%
Measurement scale/room T display	- 50 ÷ + 50 °C
Relative humidity adjustment range	0 ÷ 100%
Differential	0.3 ÷ 5 K
Thermal gradient	4 K/h
Maximum room temperature	45°C
WiFi connection	2.4 GHz (802.11 b/g/n)
Radio frequency	868 Mhz
Maximum radio frequency power transmitted	< 10mW
Managements	<ul style="list-style-type: none"> <li>■ General heating, cooling and humidity control</li> <li>■ Zone heating, cooling and humidity control</li> <li>■ Maximum 8 control zone</li> <li>■ Maximum management of 15 devices directly connected to the CH180RFWIFI</li> <li>■ Maximum management of 114 devices directly connected to network</li> <li>■ Alarm management to exceed minimum and maximum temperature</li> <li>■ System lock management to overcome the minimum and maximum temperature threshold</li> <li>■ Cooling management by activating the dehumidifier through dew point control or via a predetermined UR% threshold</li> <li>■ Summer time / Standard time</li> <li>■ Remote change over (only with APP)</li> <li>■ Summer / Winter</li> <li>■ Auxiliary ON / OFF control for electric users (only with CH175)</li> </ul>
Viewing of energy consumption	
Display showing system fault anomalies	
Correction of the offset of the temperature read	
Possibility to associate the names to all the zones	
Storage temperature	-10°C ÷ +60°C
Protection degree	IP40
Pollution degree	2
Display	Italian, English, French, Spanish, German, Russian
Screen lock of CH180RFWIFI and the connected CH120RF	With password and for display cleaning

## O60RF GENERAL FEATURES

Radio frequency	868Mhz
Maximum radio frequency power transmitted	<10mW
Operating temperature	0 ÷ 50°C
Storage temperature	20 ÷ 70°C
Shape type	white ABS
Temperature sensor	internal
Standard connectio	M30x1.5
Protection degree	IP30

O60RF is compatible with the following thermostatic radiator valves brands:

BRAND	ADAPTER CODE
Luxor	unnecessary
Honeywell	unnecessary
Oventrop	unnecessary
Caleffi (338, 339, 401, 402, 421, 425, 426, 4001, 4003, 4004, 3380, 455)	309703
Caleffi	309706
Danfoss (RA)	included
Danfoss (RAV)	included
Danfoss (RAVL)	included
Watts /Cazzaniga	unnecessary
FAR	309706
R.B.M.	309706
Giacomini	309704
Itap	unnecessary
Herz	309705
Siemens	309706



- Code 309703: adapter for Caleffi valve



- Code 309704: adapter for Giacomini valve



- Code 309705: adapter for Herz valve



- Code 309706: adapter for M30x1.5 valve (10 pcs)

## CH180K2 OPERATION

- CH180RFWIFI pre-set programmable thermostat performs the supervisor functions, managing 2 zones and communicating with the O60RF wireless actuators for radiators.
- The already preset components are shared as follows:
  - ◇ zone 1 = 1 CH180RFWIFI + 1 O60RF
  - ◇ zone 2 = 1 O60RF
- CH180RFWIFI uses a program that allows you to set the temperature and time profiles for each zone.
- It is also possible to correct the offset of the read temperature from each zone (i.e if the zone is controlled by O60RF head placed in the wrong position).
- On the white positive backlight, LCD touch screen is possible view, through an intuitive graph, the energy consumption of the entire system. CH180RFWIFI has 6 touch-keys, which function depends on the situation and is described by the symbol that appears on the display.
- CH180RFWIFI programmable thermostat allows different modes of use, called programs:
  - MAN Manual program
  - AUTO Weekly program
  - HOLIDAY Daily program
  - JOLLY Temporary program
  - OFF Switched off system or antifreeze program



1	Activation status: heating, cooling or dehumidification
2	Temperatura misurata Celsius / Fahrenheit
3	Antenna
4	Measured humidity
5	Multifunctional touch icons
6	Zone
7	Day
8	Operating mode
9	Graphic portion: messages / temperature timing

### [ MAN ]

#### ■ MANUAL PROGRAM

The programmable thermostat adjust the room temperature using the temperature set in 24 hours.

TMAN 21°C



24:00 h

TMAN adjustable temperature from 2°C to 40°

**[AUTO]**

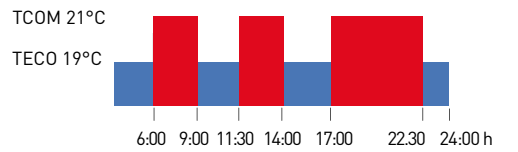
■ **AUTO - WEEKLY PROGRAM**

CH180RFWIFI programmable thermostat manages the set temperatures according to the time programs on the weekly profile.

You can set a different weekly profile for each zone.

It is provided with preset winter programs and preset summer programs.

In the AUTO mode it is possible to set 2 temperature levels TCOM e TECO (comfort temperature and economy temperature).



TCOM adjustable temp. from 2 to 40 °C

TECO adjustable temp. from 2 to 40 °C

Note: TCOM > TECO (winter)

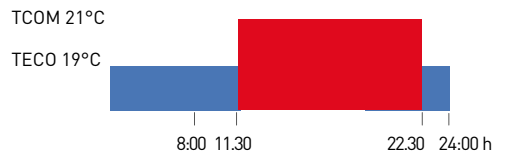
TECO > TCOM (summer)

**[HOLIDAY]**

■ **HOLIDAY - SPECIAL DAILY PROGRAM**

If you stay at home on a public holiday, you can set an extra daily profile ("H") different for each zone.

This mode stops when it is selected another operating mode. In the HOLIDAY mode it is possible to set 2 temperature levels TCOM e TECO (comfort temperature and economy temperature).



TCOM adjustable temp. from 2 to 40 °C

TECO adjustable temp. from 2 to 40 °C

Note: TCOM > TECO (winter)

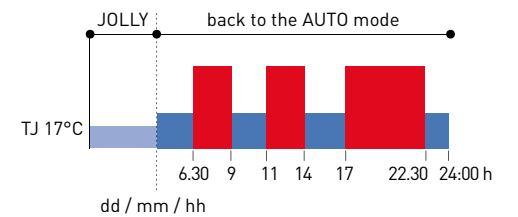
TECO > TCOM (summer)

**[JOLLY]**

■ **JOLLY - TEMPORARY PROGRAM**

The weekly programmable thermostat manages the system using 1 set temperature over a variable period of time (sets the time and day to which the set temperature is to be kept\*). At the end of the set time, the programmable thermostat returns to the previously used operation mode.

This function can be excluded at any time by setting a different operation mode.



TJ adjustable temp. from 2°C to 40°C

\* 90 days maximum and 30 minutes resolution

■ **OFF - SWITCHED OFF SYSTEM OR ANTIFREEZE PROGRAM**

The selected system is switched off. During WINTER mode keeps the temperature antifreeze.



TA antifreeze adjustable temp from 2 to 7 °C

- CH180K2 kit can be extended for the cooling and humidification functioning managing up to 8 temperature zones through the Fantini Cosmi configurator ref. 1590880, the Fantini Cosmi thermostats ref. CH120RF, the boiler actuators or zone valve ref. CH175 and the actuators ref. O60RF to control more radiators.

## REMOTE CONTROL THROUGH APP Intelliclima+

The Intelliclima+ APP can be free downloaded from a smartphone or tablet. With Intelliclima+ you can:

- Switch the heating / cooling system ON or OFF;
- Check the temperature and humidity set in each zone;
- Check the state of your system in real time;
- Choose ideal temperature at any time and until when it set;
- Create the weekly or daily program or choose from those preset for each zone;
- Optimise comfort and save energy;
- Receive push notifications of generic alarms and anomalies system;
- Manages ON / OFF an auxiliary electrical utility through the temperature timing;
- Monitoring the energy consumption of the system;
- Share the programmable thermostat with multiple users.

### EXAMPLE OF INFORMATIONS FOR MULTI-ZONE HEATING SYSTEM



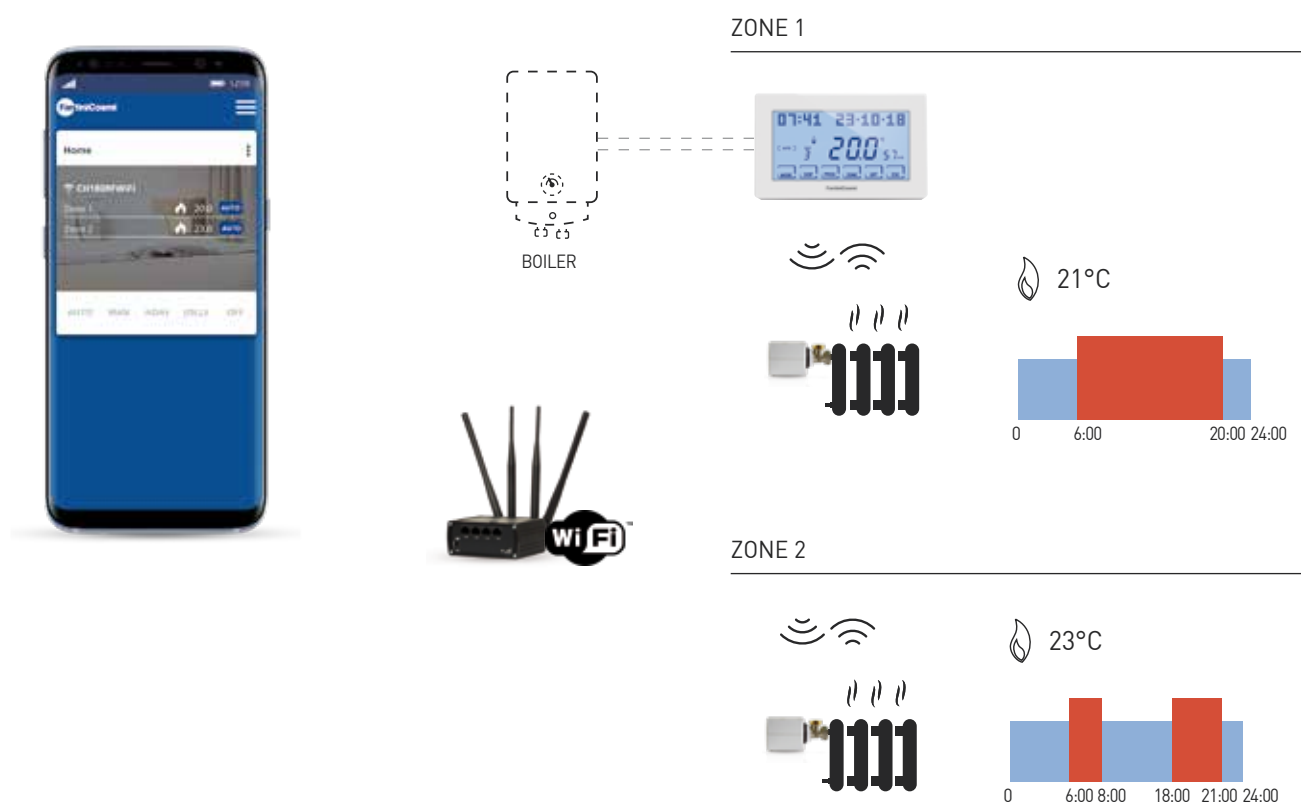
The **Intelliclima+** APP is available for free on:



## CH180K2 KIT SYSTEM EXAMPLE

### SYSTEM WITH RADIATORS

- CH180RFWIFI “MASTER” programmable thermostat directly controls the O60RF radiator actuators.
- These actuators receive the current set-point from the programmable thermostat and adjust the temperature in 2 different ways:
  - ◇ O60RF actuator coupled with the CH180RFWIFI (zone 1) execute the regulation according to the temperature detected by the programmable thermostat;
  - ◇ O60RF actuator coupled to a zone without thermostat (zone 2) execute the regulation according to the temperature detected by its internal sensor.





## ACCESSORIES

CH180K2 kit is preset and ready to use; however it can be expanded with the following accessories



**CH120RF**  
WIRELESS TOUCHSCREEN ROOM THERMOSTAT



**O60RF**  
WIRELESS RADIATOR ACTUATOR



**CH175**  
1 RELAY WIRELESS ACTUATOR



**EVWC8R**  
WIRING CENTER SUITABLE FOR 8 CHANNELS



**EC19**  
FLOOR TEMPERATURE PROBE



**1590880**  
CONFIGURATOR



**1598089**  
STAND-ALONE POWER SUPPLY KIT

**1598090**  
POWER SUPPLY KIT FOR CH120 -CH180 SERIES