CH180RFRWIFI
WIRELESS THERMOREGULATION KIT WITH WIFI CONNECTION AND REMOTE ACTUATOR

- Preset and ready-to-use kit to control the heating/cooling systems through its remote control relay

- Remote control through APP Intelliclima+ for Smartphone and Tablet

- Possibility to expand the relay (on board) for controlling the dehumidification separately

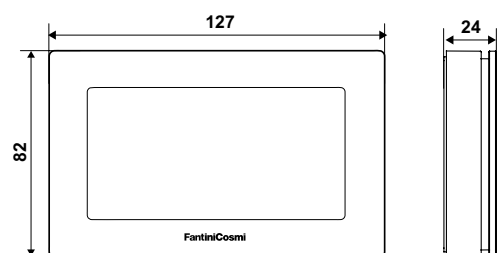- Possibility to expand up to 8 temperature zones

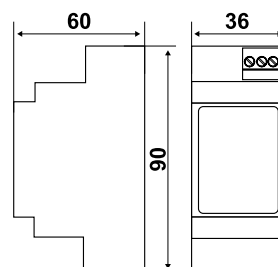| Kit composition	1 CH180RFWIFI	weekly wireless programmable thermostat with WiFi connection
	1 CH175	remote wireless actuator

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
    - Mounting on DIN bar 2 modules (1 module = 17.5mm).
    - Installation inside electrical cabinets.

DIMENSIONS mm

- PROGRAMMABLE THERMOSTAT

- ACTUATOR

HOMOLOGATIONS AND STANDARDS

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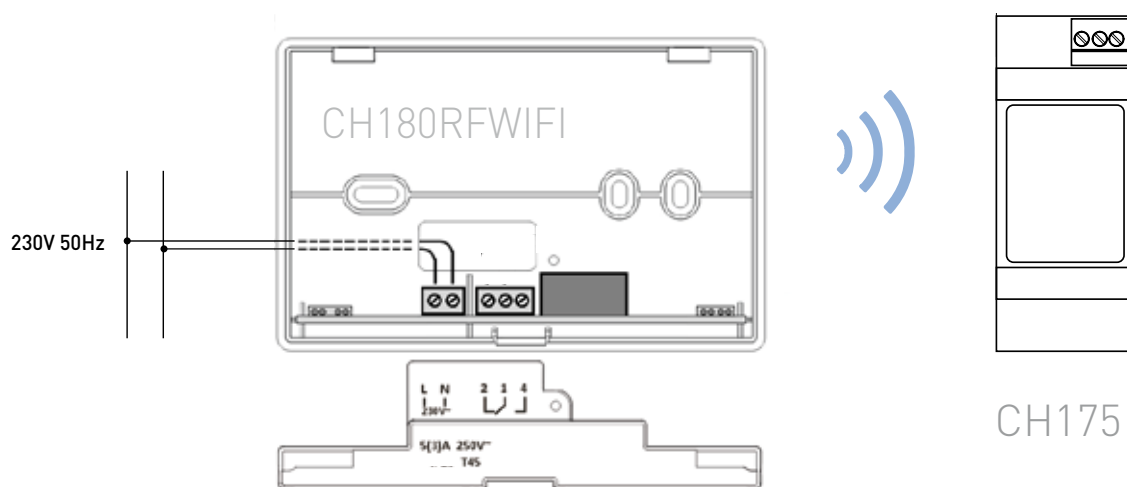- ErP Classification (Reg. EU 811/2013 - 813/2013):
  - ◊ Class IV; 2%

CE EHL

CH180RFWIFI ELECTRIC FEATURES

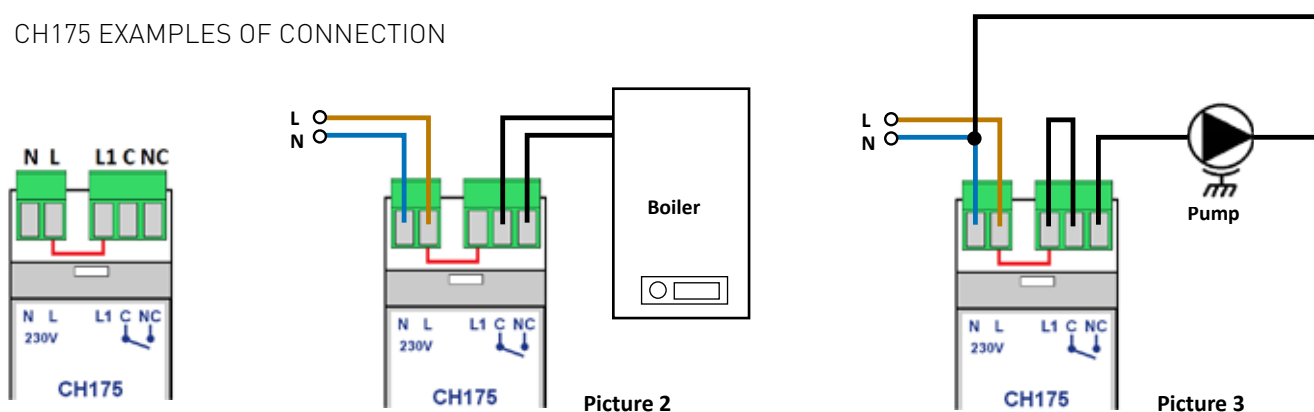|	
Power supply	230V-50Hz
Maximum absorbed power	5 W
Contact rating	5(3)A 250 Vca
Type of action	1 B.U. (Micro-disconnection)
Output type	■ 1 relay for heating/cooling or dehumidification (3 screw clamps, closed + open)
Software	A class
Electric insulation	Double insulation
Pulse voltage	4000V

CH175 ELECTRIC FEATURES

Power supply	230Vca ±10% - 50Hz
Power consumption	20VA max (load excluded)
Transceiver frequency	868Mhz
Maximum radio frequency power transmitted	< 10mW
Contact rating	16(4)A – 250Vca
Maximum cable section	2,5 mm²

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■ ELECTRICAL CONNECTIONS

230V 50Hz

CH180RFWIFI

L N 2 1 4
230V

5(1)A 250V~
T45

CH175

■ CH175 EXAMPLES OF CONNECTION

N L   L1 C NC

N L
230V

L1 C NC

CH175

L
N

Boiler

N L
230V

L1 C NC

CH175

Picture 2

L
N

Pump

N L
230V

L1 C NC

CH175

Picture 3

- Internal wiring: "L1" output terminal block is connected to the "L" power supply terminal block on the PCB.
- To control devices with "free voltage contact", follow the connection example in the Picture 2
- To control devices with "powered contact", follow the connection example in the Picture 3

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CH180RFWIFI GENERAL FEATURES

Temperature regulation range	2 ÷ 40 °C, 0.1°C increase
Room temperature measured/displayed range	30 ÷ 70%, 1% increase
Room temperature measured/displayed range	- 50 ÷ + 50 °C
RH% measured/displayed 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	■ General heating, cooling and humidity control ■ Zone heating, cooling and humidity control ■ Maximum 8 control zone ■ Maximum management of 15 devices directly connected to the CH180RFWIFI ■ Maximum management of 114 devices directly connected to network ■ Alarm management to exceed minimum and maximum temperature ■ System lock management to overcome the minimum and maximum temperature threshold ■ Cooling management by activating the dehumidifier through dew point control or via a predetermined UR% threshold ■ Summer time / Standard time ■ Remote change over (only with APP) ■ Summer / Winter ■ Auxiliary ON / OFF control for electric users (only with CH175)
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	With password and for display cleaning

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CH175 GENERAL FEATURES

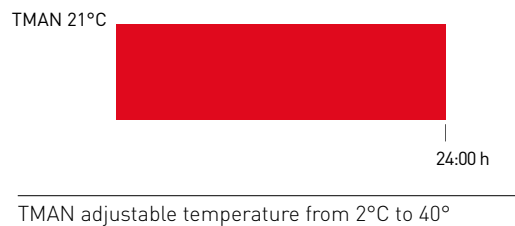|	
Actuator 1 relay for control:	General and/or area heating
	General and/or area cooling
	General and/or area dehumidification
	Contact voltage
Wireless repeater:	ABS (white)
Operating temperature:	0 ÷ 50°C
Storage temperature:	-20 ÷ +70°C
Shape type:	ABS (grey)
Protection degree:	IP20
Dimensions:	36x58x90 mm. - DIN-rail (2 modules)
Weight:	100G

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CH180RFRWIFI OPERATION

■ CH180RFWIFI pre-set programmable thermostat performs the supervisor functions, controls the heating/cooling system through the CH175 remote control.

■ The already preset components are shared as follows:
  ◊ zone 1 = 1 CH180RFWIFI + 1 CH175

■ 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	Measured temperature 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 adjusts the room temperature using the temperature set in 24 hours.

TMAN 21°C

24:00 h

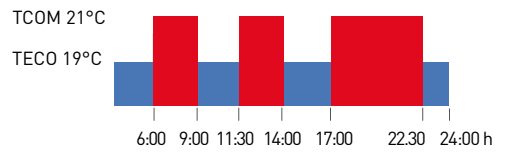TMAN adjustable temperature from 2°C to 40°

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[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).
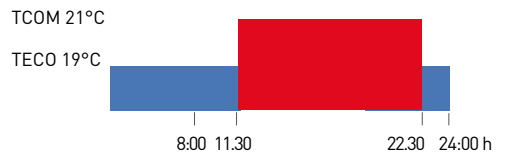
TCOM 21°C
TECO 19°C

6:00 9:00 11:30 14:00 17:00 22.30 24:00 h

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 profi le ("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).
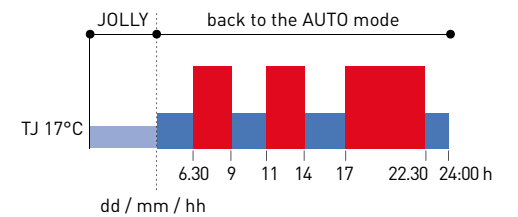
TCOM 21°C
TECO 19°C

8:00 11.30 22.30 24:00 h

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.

JOLLY   back to the AUTO mode

TJ 17°C

6.30 9 11 14 17 22.30 24:00 h

dd / mm / hh

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 5°C

24:00 h

TA antifreeze adjustable temp from 2 to 7 °C

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■ CH180RFRWIFI 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 CONTROLL 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 INFORMATION FROM
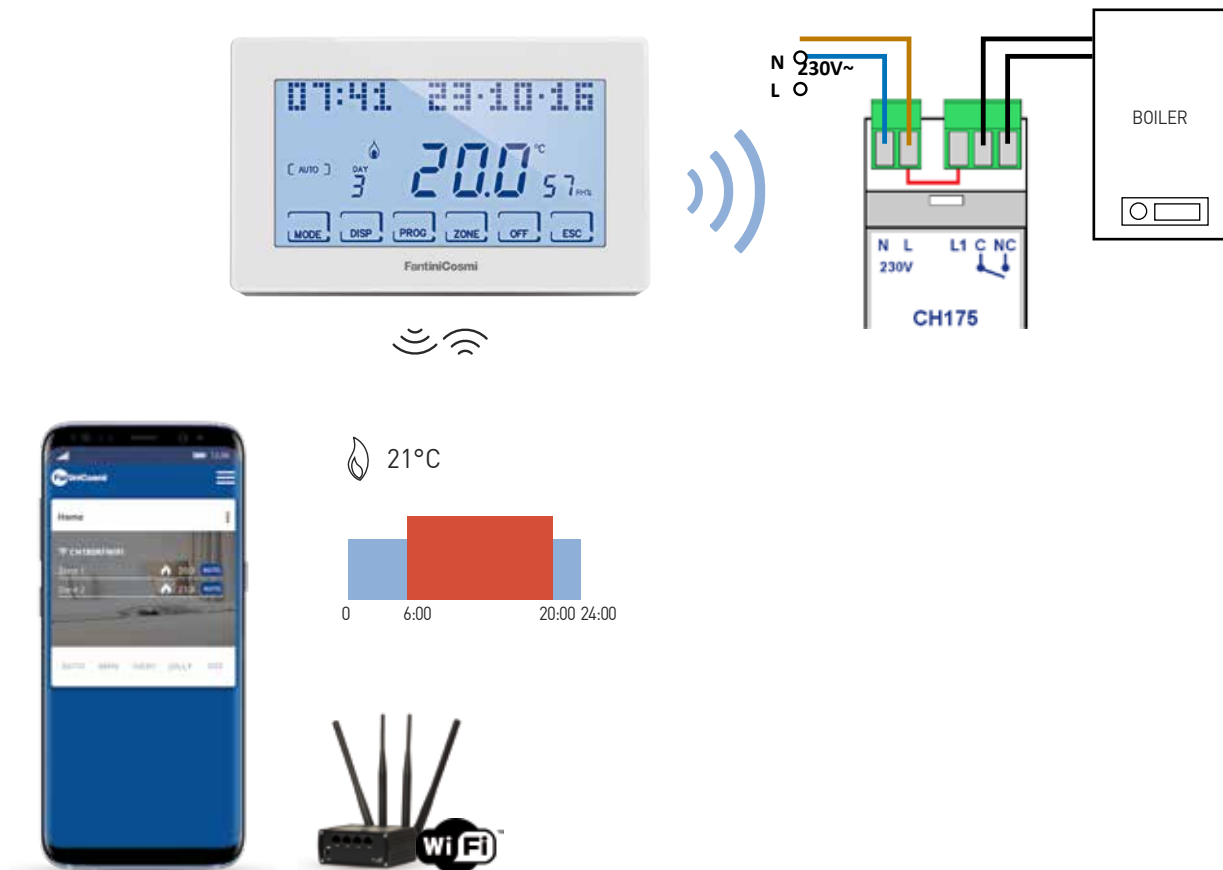 THE MULTI-ZONE HEATING SYSTEM

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

CH180RFRWIFI KIT SYSTEM EXAMPLE

SYSTEM WITH RADIATORS

■ CH180RFWIFI programmable thermostat directly controls the boiler, when this is not directly accessible from the thermostat, through the CH175 remote control.

ACCESSORIES

CH180RFRWIFI kit is preset and ready-to-use and it can be also 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 TEMPERARURE PROBE

1590880
CONFIGURATOR

1598089
STAND-ALONE POWER SUPPLY KIT

1598090
POWER SUPPLY KIT FOR CH120 -CH180 SERIES

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