VISION+ CHRONOTHERMOSTAT (cod. TGCL74)

DESCRIPTION AND FIELD OF USE



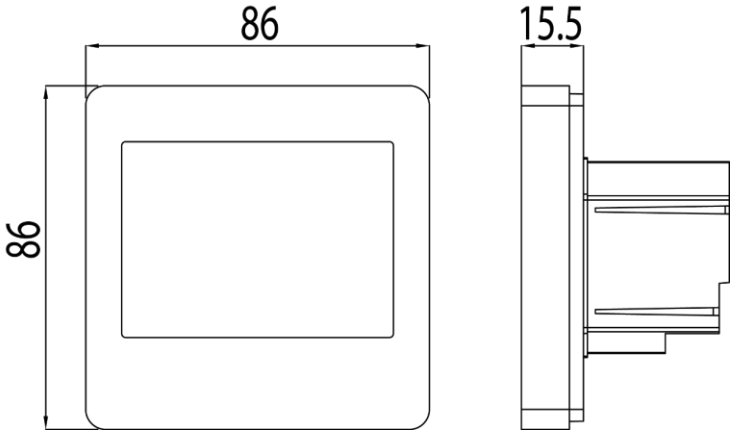
Vision+ allows you to program the room temperature with 4 temperature changes for each day of the week, in both hot and cold.
It manages the speed of fans with three dry-contact, in-phase relays or, alternatively, with 0-10V signal. It controls an actuator with a 230V in-phase output.
The chronothermostat, powered at 230V, can work with all terminals (e.g., hydrosplit, Comfosplit) that accept 3 dry contacts, in-phase contact input or 0-10V voltage.
The 3 A inductive relays allow multiple terminals to be operated with one control (the maximum number is limited by the characteristics of the individual terminal).
This device performs type 1B actions (EN 60730-1) and is intended for installation in domestic environments (pollution degree 2) and overvoltage category III.
In the presence of adequate range, the chronothermostat can be operated with Wi Fi

INFORMATION FOR ENVIRONMENTAL PROTECTION

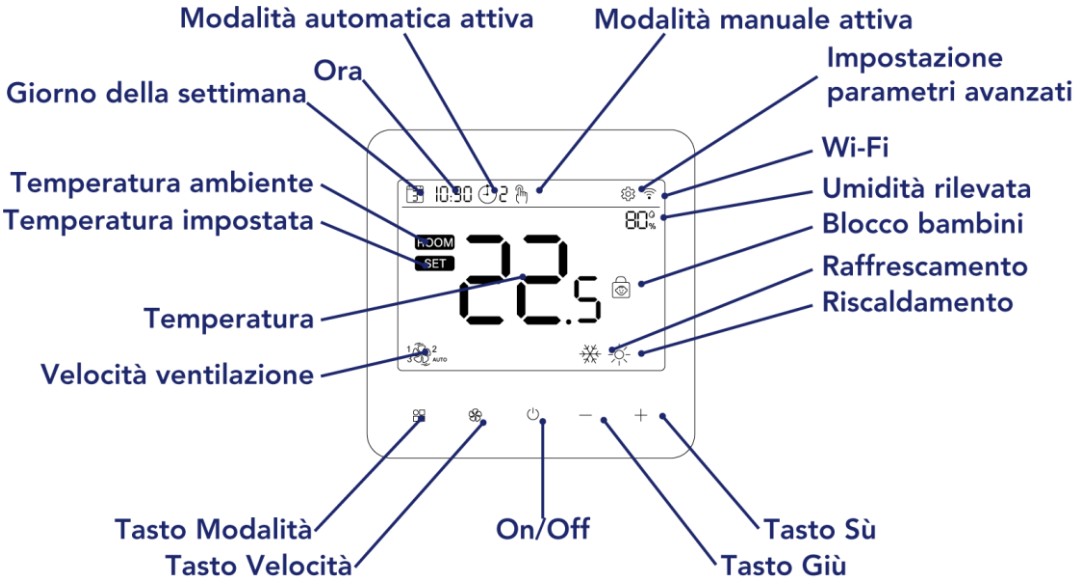
2002/96/EU states, *"Electrical and electronic devices should not be considered household waste. I consumers are obliged to return electrical and electronic devices, at the end of their useful life, to the points Collective collection points set up for this purpose."*

TECHNICAL DATA.

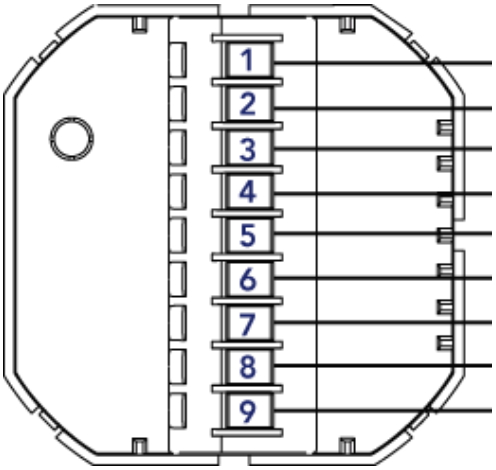
	MU.	VISION+ Chronothermostat - TGCL74
Power	-	230V 50Hz single phase
Current	W	<1,5
Rated current	A	0,007
Relay rated capacity	A	3 inductive load
Speed	n°	Auto-Min-Med-Max
Minimum settable time	min	1
Settable temperature changes	n°	4 day changes - 7 days programmable
Power reserve		Yes
Operating temperature	°C	0°C + 50°C
Setpoint Adjustable	°C	min 5°C - max 35°C
IP protection		IP20
Display		Backlit LCD
Installation		Built-in (in dedicated box or 503)
Material		ABS fireproof UL94-5
Weight	Kg	0.15



DISPLAY



ELECTRICAL CONNECTIONS



1 = neutral supply 230Vac
2 = phase power supply 230Vac
7 = control in valve opening phase
4 = common to the three speed contacts
6 = maximum fan speed
5 = average fan speed
3 = minimum fan speed
8 = GND for 0-10V modulation
9 = 0-10V signal for modulation

BEFORE WIRING AND INSTALLATION

1. Read these instructions carefully. Failure to do so could damage the product or cause a dangerous condition.
2. Check what is stated in the instructions and on the product to be made. Make sure the product is suitable for your application.
3. The installer must be a qualified and experienced technician.
4. After installation is completed, check the operation of the product.

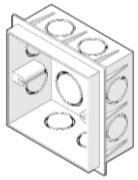
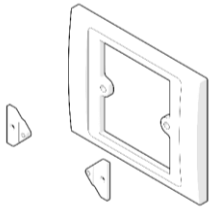


WARNING
Disconnect the power supply before installation
Risk of electric shock or damage to equipment

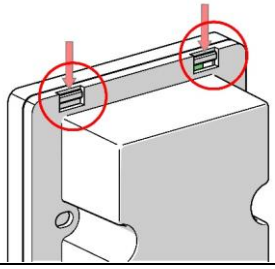
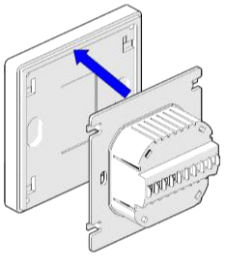
INSTALLATION

The device can be installed in dedicated flush-mounted box, or in common masonry 503 electrical boxes,

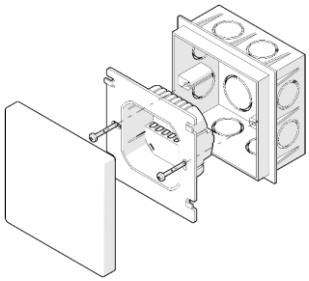
The following components are provided for both possible solutions:

For installation in dedicated box	For installation in 503 box
	
1 x Dedicated box for wall installation 2 x screws	2 x supports for box 503 1 x finishing plate + 4 x screws

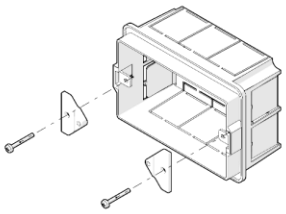
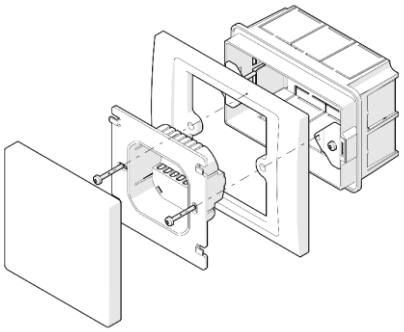
OPENING THE THERMOSTAT

	
Open the programmer (with slotted screwdriver on the tabs).	Disengage by gently pulling the front panel.

DEDICATED BOX INSTALLATION


Tighten the screws on the dedicated box then gently close the chronothermostat again

INSTALLATION IN BOX 503

	
Screw the supports onto the tabs of the 503 box.	Screw the back wall of the Chronothermostat onto the supports, through the holes in the finish plate. Gently reclose the Chronothermostat.

BUTTONS

Symbol	Meaning

	Change the operation mode: Manual / Chrono. Pressed 5 seconds enters programming.
	Change of fan speed from minimum / medium / maximum / auto. Confirmation/deletion of programs
	Turning on and off the chronothermostat
	Down/Decrease
	Up / Increase

IGNITION:

Verified that there is power supply, the display lights up fully for about 3 seconds, then lowers the brightness. Press the button to turn on the thermostat: the display lights up.

KEY LOCK:

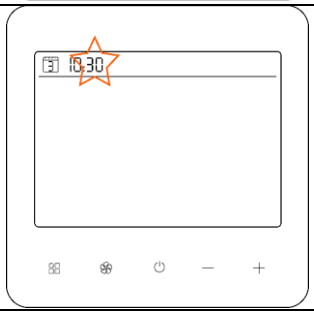
You can turn off the Key Lock ( ) by holding down the keys simultaneously for 5 seconds + And − .

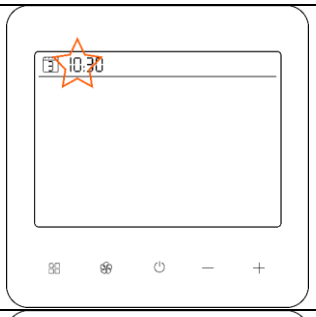
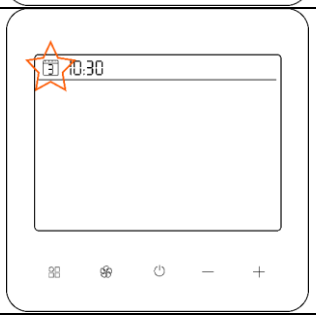
PROGRAMMING:

Notes:

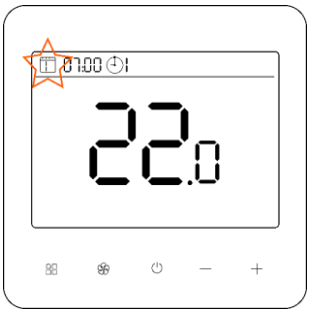
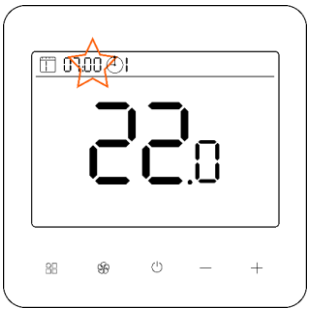
- You can set a program for each of the 7 days of the week 4 temperature changes in sequence at set times.
- The programmer operates from the moment the time shown below coincides with one of the programmed times.
- **If programming is interrupted (no button is pressed) for more than 10 sec. the instrument records the data and returns to the initial screen. Programming ve resumed from the beginning even without rewriting the numbers already entered.**

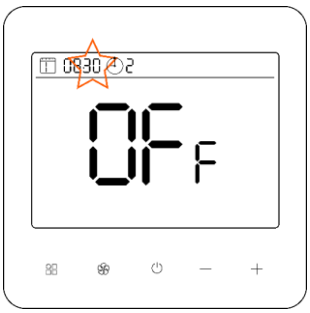
Current time entry

1	With the programmer on, press and hold for about 3 seconds.	
2	Only the date and time in the upper left corner with the minutes flashing will remain on the display. With the keys + And − Please enter the correct minutes. Press to move to the next setting.	

3	The display will show the flashing hours. With the keys + And — Please enter the correct time. Press ☐☐ to move to the next setting.	
4	The display will show the day of the week flashing. With the keys + And — enter the current day. Press ☐☐ to move to the next setting relating to setting the time slots.	

Programming weekday time slots

5	Once the correct time has been set, the chronothermostat goes directly to the time slot setting for day 1. The display will appear as in the picture opposite with the day of the week flashing. With the keys + And — Set the day of the week for which you want to change the setting. Press ☐☐ to move to the next setting.	
6	The display will show the flashing minutes. With the keys + And — Enter the start minutes of time slot 1 for the selected day. Press ☐☐ to move to the next setting.	
7	The display will show the flashing hours. With the keys + And — Enter the start time of time slot 1 for the selected day. Press ☐☐ to move to the next setting.	

8	The display will show the flashing temperature. With the keys + And − Enter the desired temperature starting from the time just entered for time slot 1 which will be the same for days from Monday to Friday. Press ☐☐ to move to the next setting.	
9	At this point, the setting for Band 1 has been completed, so we will now move on to programming Band 2. The display will appear as in the image opposite with the minutes flashing. Set the starting minutes of time slot 2 for the selected day. Repeat steps 6, 7 and 8 until the 4 time bands are completed for all 7 days of the week. When you have completed the programming of time slot 4 for day 7, you will return to time slot 1 for day 1. Wait 30 seconds for the thermostat to return to the main screen.	

Program cancellation:
Note: At any time it is possible to disable programming by switching to simple manual operation.

MANUAL THERMOSTAT OPERATION OR CRONUS

With the display on, press the button ☐☐.

Each time you press the Mode button ☐☐ it will go by the book automatic.

Fan control:

- With the display on, press : each press corresponds to a cyclical change in speed: from minimum 1, on average 2, at maximum 3 automatic AUTO; with "automatic" selection, the speed varies between the three available ones based on the difference between the set temperature and the one measured in the room.
- The selected speed is changed only by a subsequent manual command.
- Automatic speed is recommended.

Temperature setpoint:

- Press the keys + And − to select the desired value (this function is available only in manual operation).

Hot/cold/ventilation function change:

- Hold down the button ☐☐ to choose the desired operating mode between ventilation, Freddo, heat.

ADVANCED PARAMETERS

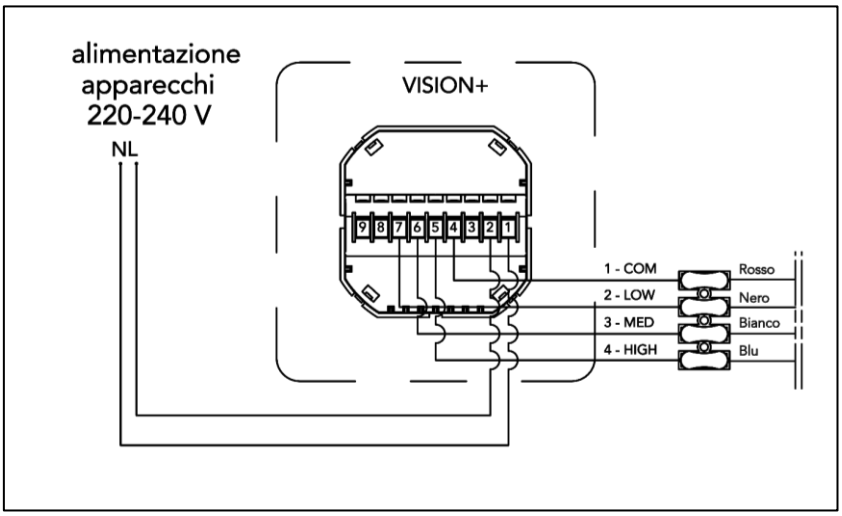
RESERVED FOR SPECIALIZED TECHNICIAN
DO NOT MODIFY

Turn off the display
Press the keys simultaneously And for 5 seconds to enter advanced settings.
Parameter 01 will appear (top left) and the default setting in the center of the display.
Change the parameter setting using the arrows and .
Move to the next parameter by pressing .
Change the parameter using the keys or .
After 30 seconds of inactivity, the chronothermostat will return to the off display, storing the changes made.

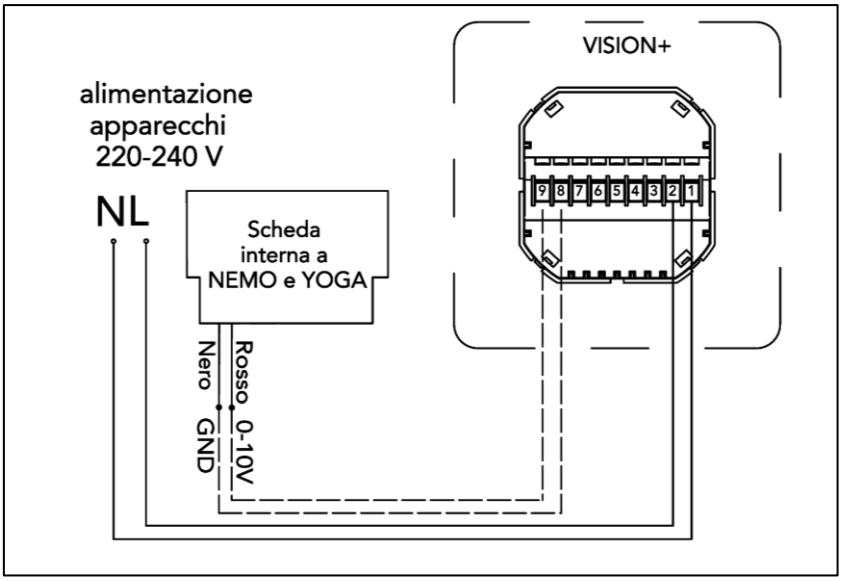
Acronym	Description	Default setting	Possible settings
1	Measured temperature correction	35°C	-8°C / +8°C
3	Custom mode selection		
4	Maximum settable temperature value	35°C	5°C to 35°C
5	Minimum settable temperature value	5	5°c to 35°C
7	Choice of operation logic	PI	P / PI
8	Value of P	10	2 / 4 / 6 / 8 / 10
9	Value of I	30	3 sec - 60 sec
11	Differential range	35°C	0°C - 3°C with minimum changes of 0.1°C
15	Intermittent ventilation	1	01: When not needed, ventilation stays on at the minimum speed 00: Ventilation is managed by the thermostat
16	Child lock	Unlocked	0: Unlocked 1: Locked
18	Reset to factory settings	Set to 1	A 10-second press of the ON/OFF button resets the thermostat to factory settings
68 16	Reserved value		
01 14	Reserved value		
50	Minimum speed activation value	3	1-3V
51	Average speed activation value	6	4-6V
52	Maximum speed activation value	10	7-10V
53	0-10V signal activation and speed according to season	0	0: Active in both heating and cooling mode 1: Active in heating only 2: Active in cooling only
54	Season-dependent valve output activation	0	0: Active in both heating and cooling 1: Active only in heating 2: Active in cooling only

ELECTRICAL CONNECTION DIAGRAMS

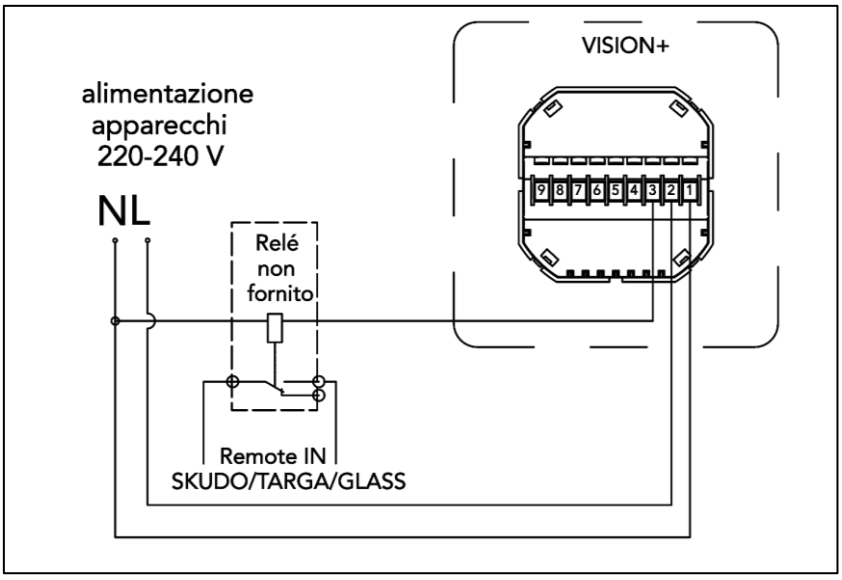
TGCL74 Link - IKARO



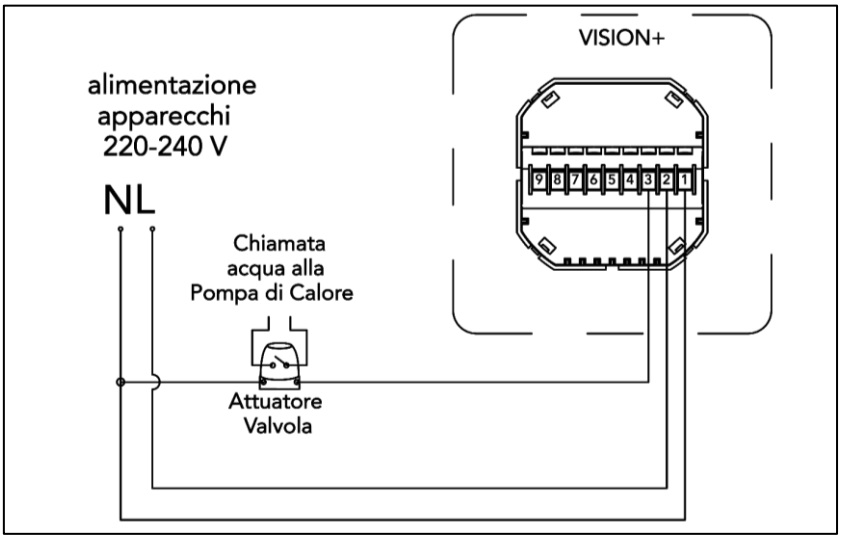
Connection TGCL74 - NEMO and YOGA



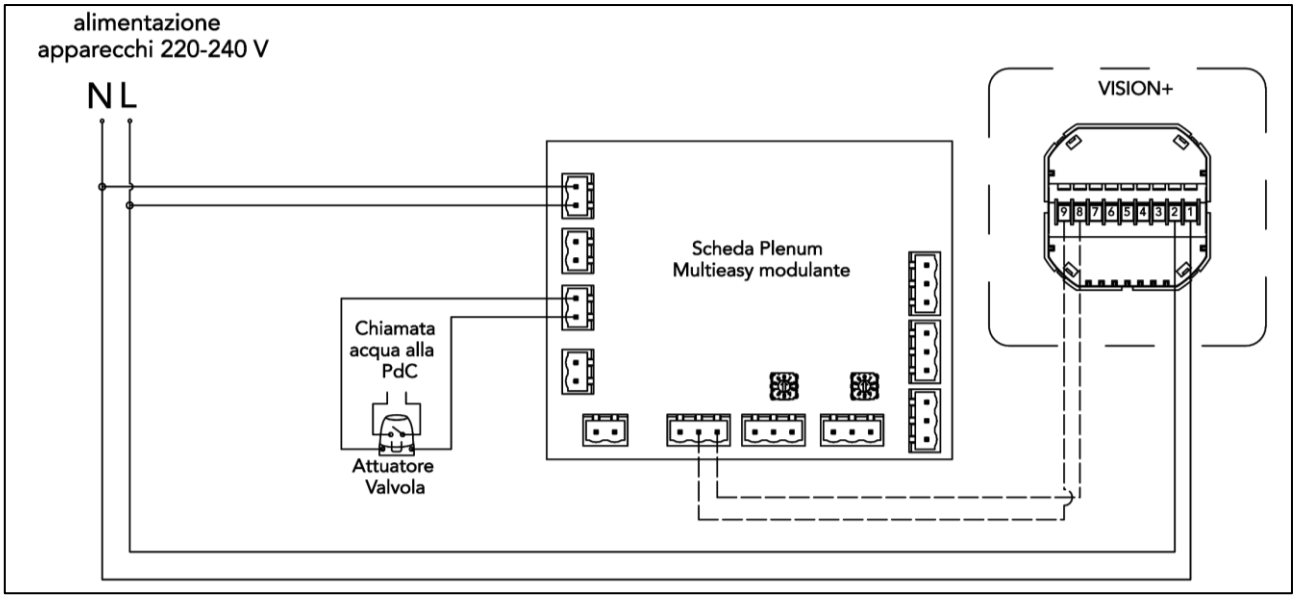
TGCL74 Link - SKUDO/TARGA/GLASS



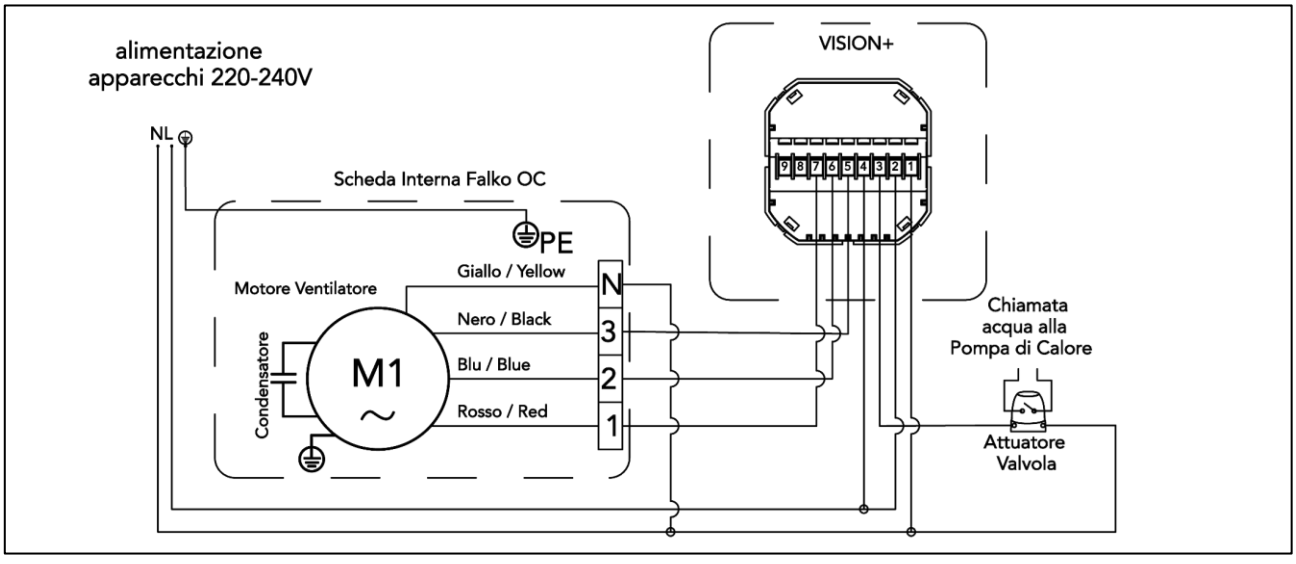
TGCL74 Link - RADIANT



TGCL74 Link - MULTIEASY MODULATING



TGCL74 Link - FALKO OC



NOTE:
The Vision thermostat can be used to control multiple systems as long as the systems use different outputs. For example, it is possible to control a terminal using 3 speeds or the 0-10V output and a radiant system using the valve output

WIFI CONNECTION (COMPATIBLE WITH 2.4 GHZ NETWORKS ONLY)

What is needed

- Wi-Fi network with Standard 2.4 GHz connection
  - In case the router is Dual band, make sure that both networks have different network names (SSIDs). The router/internet service provider will be able to provide router-specific directions
- Smartphone or Tablet with iOS or Android operating system
- Name of the Wi-Fi network and its access password

Before using the Wi-Fi connection for the first time you need to configure the WI-FI signal and settings via your smartphone or Tablet, this will enable communication between the connected devices.

On the Smartphone or Tablet:

- Turn off the data connection.
- Turn on Wi-Fi and verify that the connection was made on the 2.4 GHz network.
- Activate Bluetooth

Downloading the Smart Life App

You must have the Smart Life App for the Wi-Fi connection to work properly.
If you do not already have this App installed on your mobile device (Smartphone or Tablet), search for and install the "Smart Life" App in the Apple Store or Google Play (you can easily locate it by framing the QR-Code on the side) and complete the Account registration.

Pairing

Enable WiFi on the terminal:

- with the terminal electrically connected and turned on, press and hold the On/Off button for 3 seconds (until you see the icon appear . Then press the "+" key to activate the Wi-Fi network search.

Pairing with Quick Connection

- Make sure the smartphone is connected to the same Wi-Fi network on which you want to activate the terminal, you will need the Wi-Fi network password;
- Open the previously downloaded "Smart Life" App and select "+," then "Add Device."
- If the terminal is properly set in Quick Connection Mode, the application will automatically show the terminal to add "Vision+";
- Click on Add;
- You will be prompted to confirm the Wi-Fi network to be used and its password, fill in the fields and press Next;
- Wait for the pairing to be completed, then press Finish.

Once pairing is completed, you will be able to manage the device's functions remotely as long as you are connected to the Internet.
Connecting the device with the Smart life App also makes connection with Google Home and Alexa available if desired.
Through this association, it is then also possible to manage the device through voice commands.
We recommend assigning a unique name to each device connected to the Smart Life application to simplify its remote management.

Alexa voice commands

Through the virtual assistant Alexa, it is possible to manage some of the device's functions with Voice Commands (see table below for available commands):

Hey Alexa, turn on "device name"

Oka

Hey Alexa, set "device name" to 25 degrees

Oka

Command type	Available commands ALEXA
Turning ON	Hey Alexa turn on "device name"
Shutdown	Hey Alexa turn off "device name"
Type of operation	Hey Alexa sets "device name" heating mode
	Hey Alexa set "device name" cooling mode
Temperature inquiry	Hey Alexa how many degrees are there in "device name"?
Speed	Hey Alexa set "device name" auto mode
Temperature setting	Hey Alexa sets "device name" 27°C

Google Home voice commands

Through the Google Assistant, it is possible to manage much of the device's functions directly with Voice Commands (see table below for available commands):

Ok Google, turn on "device name"

All right, I turn on "device name"

Ok Google, set "device name" to 22 degrees

All right, I set "device name" to 22 degrees

Command type	Available commands GOOGLE HOME
Turning ON	Ok Google turn on "device name"
Shutdown	Ok Google turn off "device name"
Type of operation	Ok Google set "device name" heating mode
	Ok Google set "device name" cooling mode
Temperature inquiry	Ok Google set "device name" dehumidification mode
Speed	Ok Google set "device name" ventilation only mode
Temperature inquiry	Ok Google how many degrees are there in "device name"?
Speed	Ok Google set "device name" automatic mode
	Ok Google set "device name" mode HIGH
	Ok Google set "device name" mode MEDIUM
	Ok Google sets "device name" mode LOW
Temperature setting	Ok Google set "device name" to 27°C

Ideal Clima srl
Via Magnolini, 8 - 25124 - Brescia Italy
Tel. +39.030.35.45.319 - Fax +39 030.51.09.329
info@idealclima.eu - www.idealclima.eu

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In a process of constant improvement, the company reserves the right to make changes to the product at any time, even without notice.