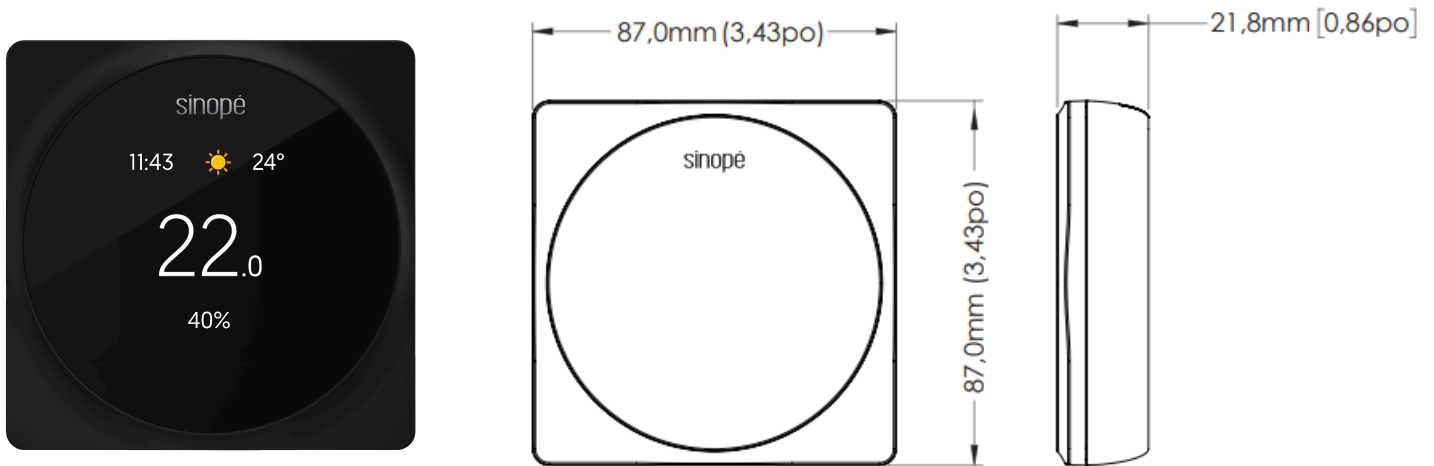


Smart Thermostat Pro for Central HVAC Systems

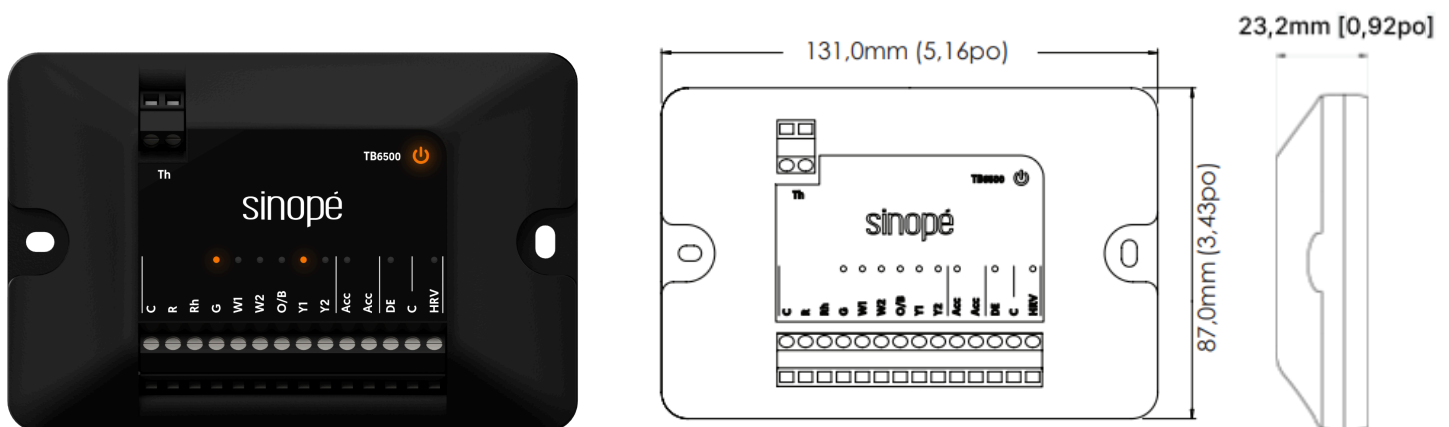
Wi-Fi

TH6500WF REV: 01

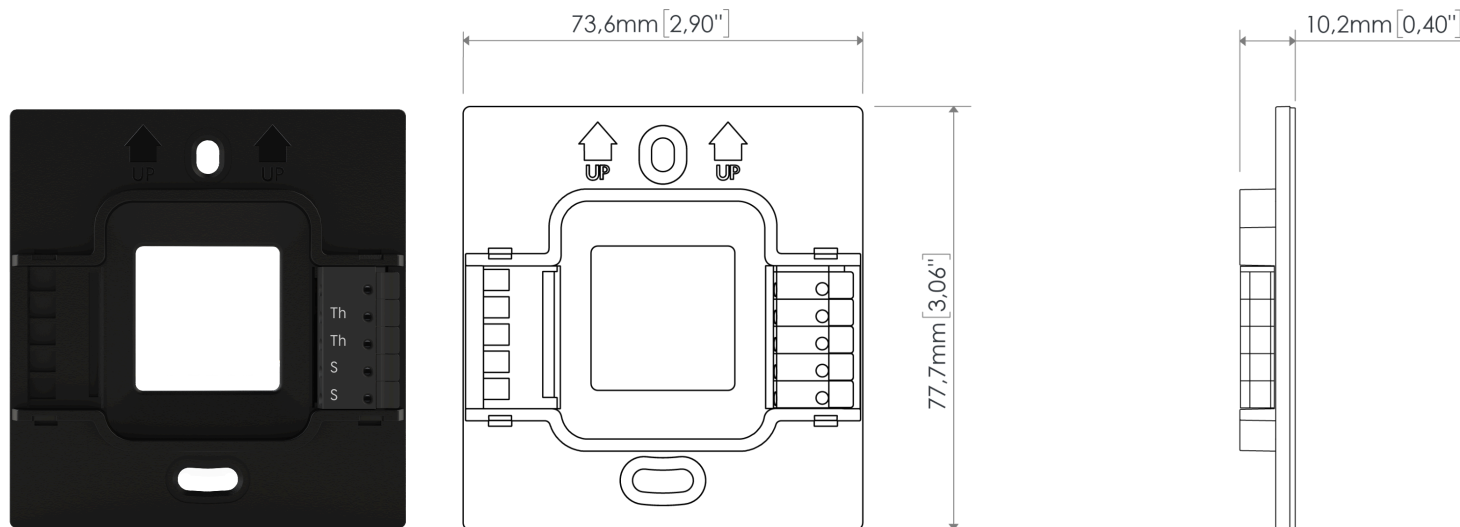
Thermostat



Central System Connection Module (TB6500)



Mounting Plate



Specifications

Type

- Smart thermostat for central HVAC systems and heat pumps
- Central system connection module (TB6500)
- Mounting plate

Communication

- Protocol: Wi-Fi
- Standard: IEEE 802.11 b/g/n
- Frequency: 2.4 GHz
- Security: WPA2

Communication module

- IC: 21098-ESPC6WROOM1
- FCC ID: 2AC7Z-ESPC6WROOM1

Power supply

- Thermostat: 24 Vac
- Connection Module: RC from HVAC system / Heat Pump (24 Vac)

Output current

- Minimum output current (G, Y1, Y2, W1, W2, O/B): **0.0025 A**
- Maximum output current (G, Y1, Y2, W1, W2, O/B): **0.5 A**
- Maximum combined output current (G, Y1, Y2, W1, W2, O/B): **2 A**
- ACC output: 0 to 2 A at 24 Vac
- HRV and DE inputs are designed for dry contacts but tolerate resistance up to 10 kΩ

Connectors

- Mounting plate
 - 4 connectors
 - Solid wire range: 18–22 AWG
 - Stranded wire range: 18–22 AWG
 - Connectors 1 & 2: Thermostat power supply
 - Connectors 3 & 4: Optional temperature sensor*

*These connectors are not yet supported in the current thermostat software version. Support will be added in a future software update.

- Connection module
 - Wire range: 18–24 AWG

LED	Connection	Description
	Th-Th	Communication with the thermostat (non-polarized)
	C	24 Vac common power supply
	R	24 Vac power supply from the heat pump
	Rh	24 Vac power supply from the furnace
X	G	Circulation fan
X	W1	First stage of heating or first stage of auxiliary heating
X	W2	Second stage of heating or auxiliary heating
X	O/B	Reversing valve
X	Y1	First stage of the heat pump or air conditioner
X	Y2	Second stage of the heat pump or air conditioner
X	ACC ACC	Connection for accessories. Used to connect additional accessories or external equipment
X	DE / L	Dual energy signal input / "L" Heat Pump
X	C	24 Vac common power supply
X	HRV	Signal input indicating the air exchanger is running

Setpoint range

- Cooling: 15°C to 36°C (59°F to 97°F)
- Heating: 5°C to 30°C (41°F to 86°F)

Temperature ranges

- Operating: 0°C to 50°C (32°F to 122°F)
- Storage: –20°C to 50°C (–4°F to 122°F)

Display

- 2.4-inch TFT color touchscreen, 240 × 320 px
- Displays weather conditions, time, ambient temperature, and humidity level
- Screen wakes when presence is detected by the proximity sensor (when *On Demand* mode is selected)
- Heating indicator: orange gradient below the humidity reading
- Cooling indicator: blue gradient below the humidity reading

Integrated sensors	• Humidity sensor • Proximity sensor • Ambient light sensor for adaptive display brightness
Installation	• Only two wires are required between the thermostat and the connection module. ◦ Wall plate wire range (solid & stranded): 18–22 AWG ◦ Connection module wire range: 18–24 AWG
Compatible systems	Compatible with most 24 Vac residential HVAC systems (furnaces, air conditioners, boilers, and heat pumps with forced-air or radiant distribution). • Electric • Fossil fuel • Geothermal • Heat pump ◦ Compatible with ultra-high-efficiency heat pumps operating down to –30°C • Dual-energy • Thermal storage • Refer to the Installation and Configuration Guide for additional details
Supported stages	• Heat pump: Up to 4 heating stages and 2 cooling stages • Conventional system: Up to 2 heating stages and 2 cooling stages
Compatible platforms	• Sinopé app • Sinopé Smart Systems • Apple Home • Alexa • Google Home
Features	• Multiple operating modes (heating, cooling, ventilation, etc.) • Compatible with electric utility demand response programs • Automatic system configuration detection • Bilingual interface (English and French) • Control output for an air exchanger or humidifier (depending on system configuration) • System ventilation activation to supplement air exchanger operation (HRV input)

Smart features (Sinopé app & Sinopé Smart Systems)

- Schedules: Create different schedules for each day of the week, with up to 12 periods per day.
- Scenes: Activate personalized settings based on the time of day, occasion, or activity.
- Energy reports: View your energy consumption and savings in real time.
- Geofencing: Trigger actions based on your location.
- Éco Sinopé*: Automatically reduces energy consumption during peak demand events to help lower your electricity bill.
- Alerts: Receive maintenance notifications (e.g., air filter replacement).

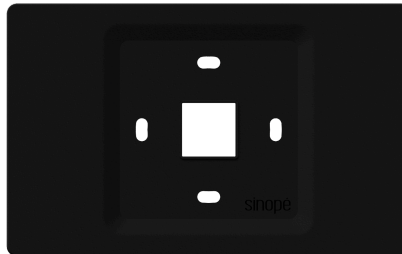
*Feature available only in the Sinopé app.

Warranty

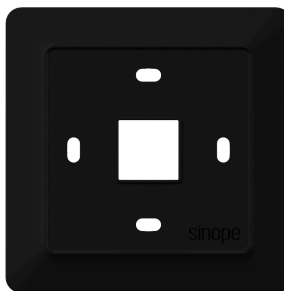
- 6-year limited warranty

Accessories

- Rectangular Decorative Wall Plate
AC6500-03
180.5 × 112.5 × 5 mm (7.11 × 4.43 × 0.20 in)

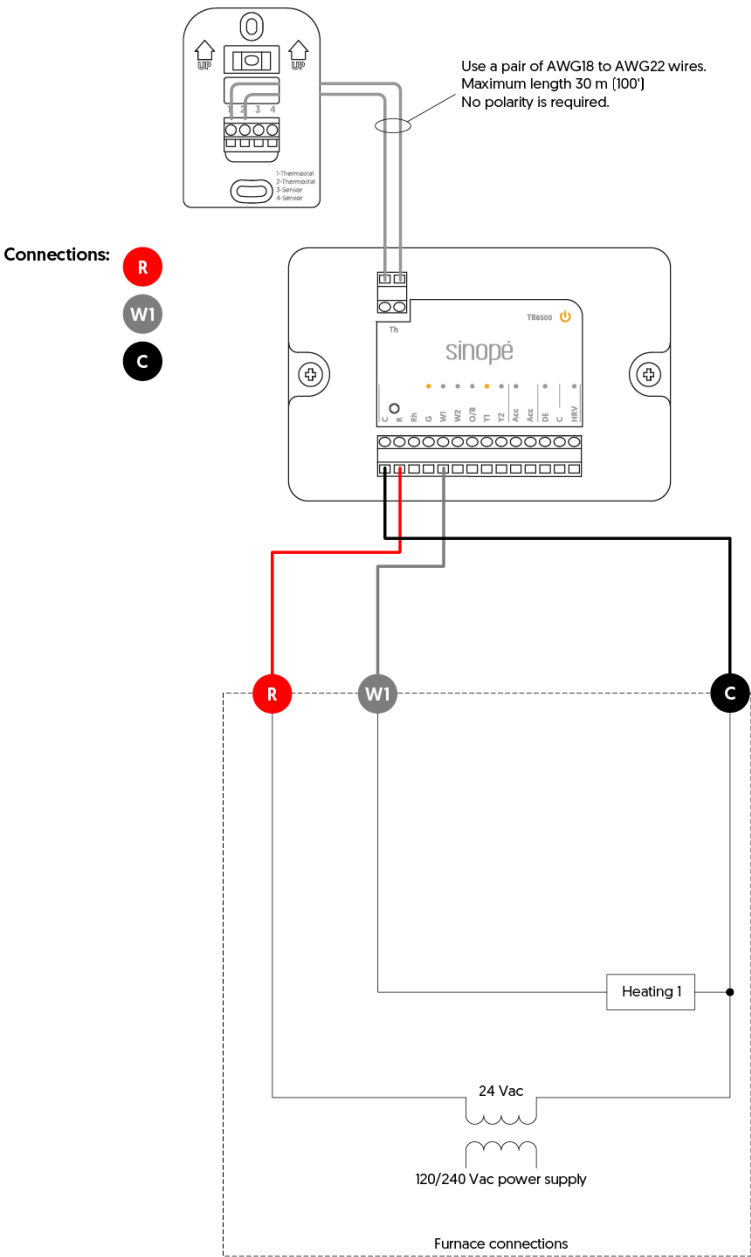


- Square Decorative Wall Plate (Included)
AC6500-04
114.3 × 114.3 × 4.8 mm (4.5 × 4.5 × 0.19 in)



Wiring Diagrams

[See the Installation Guide for all wiring diagrams.](#)



Model

Product No.	Description	Volts	Qty
TH6500WF	Smart Thermostat Pro for Central Systems	24 Vac	
AC6500-03	Rectangular Decorative Wall Plate	N/A	
AC6500-04	Square Decorative Wall Plate (Included)	N/A	

Specifications are subject to change without notice.

The signature below confirms that the installation will conform to the wiring diagram shown above.			
	Designation	Profession	Signature
Project name			
Address			
Developer			
Builder			
Consulting Engineer			
Contractor #1			
Contractor #2			
Contractor #3			
Date			