



## Mod. Chione

Control unit for plant freezing alert

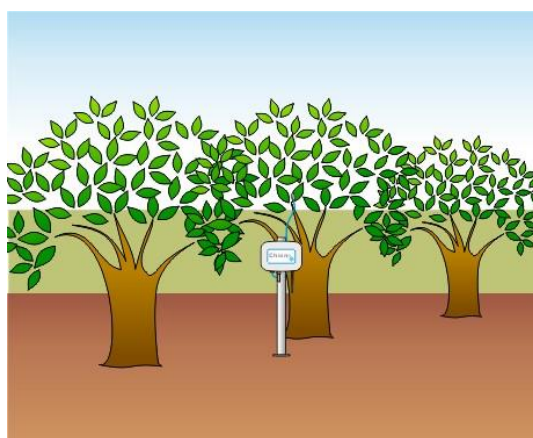
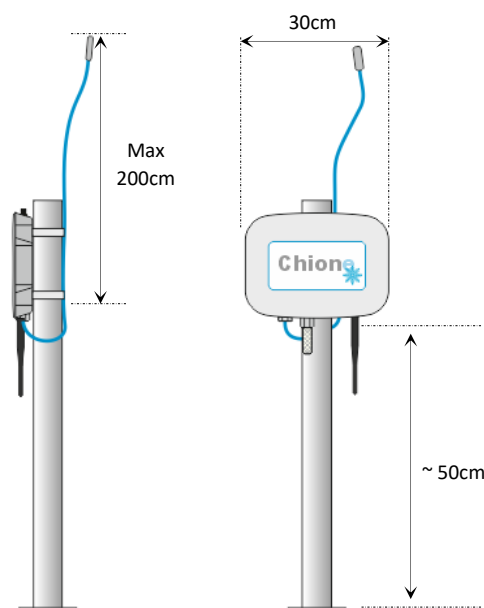
## Highlighted specs

- Compact device, ready to use
- Latest generation narrow-band technology
- Battery powered and long autonomy
- Simple to install and no requires specific maintenance
- Historical Database always available
- Four different ways of data transmission
- IP65 enclosure
- According to **CE** norms

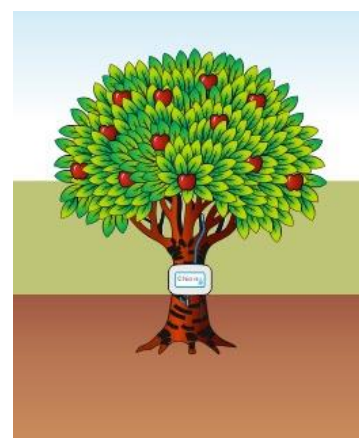
Control unit for **detecting the micro-climatic conditions** that can give rise to **late frosts in crops**. These can occur **by radiation** (the loss of heat from the ground which causes a strong thermal inversion) and **by advection** (caused by the movement of huge masses of cold air which cause a sudden drop in temperatures). In both cases, the main damage occurs in the lower part of the crop foliage, where the air is colder. The most important parameters to be controlled are the **wet bulb temperature**, i.e. the air temperature resulting from cooling by evaporation under the foliage and into it. **The data is available on the cloud via the web interface or via the APP.**

Measure	Dry Bulb Temperature 1	Dry Bulb Temperature 2	Humidity 1	Wet Bulb Temperature 1	Wet Bulb Temperature 2
Range	-40°C ÷ +60°C	-40°C ÷ +60°C	0 to 100 %RH	-20°C ÷ +50°C	-20°C ÷ +50°C
Accuracy	±0.3°C	±0.3°C	±2%	±0.3°C	±0.3°C
Resolution	0.05 °C	0.05 °C	0.2%	0.05 °C	0.05 °C
Transmission frequency (Hz)	860 ÷ 920MHz– programmable or quad band (GSM/GPRS) for different countries				
Radio Coverage	SigFox up to 15Km, Lora/NESA up to 8Km, GSM/GPRS based on availability of operator in area				
Transmission protocols	SigFox, LoRa/Lora-Wan, property, Socket TCP-Ip, MQTT				
Data transmission rate	Standard 15', with temperature below 5°C, the rate change at 5'				
Working temperature	-40 ÷ +60°C				
Power and consumption	1 x non-rechargeable 3.3V 8000mA type C2 lithium battery; Rechargeable battery from power bank, network or mini external solar panel (2000mA)				
Size	~455 x 300mm (excluding pole)				
Enclosure	Die-cast aluminium for outdoor IP65				
Weight	<2Kg				

## Size and connections




Installation along a row with pole:  
sensors at 50-80cm from the  
ground and in the foliage



Installation on a fruit tree  
under foliage

## Order Code

Radio module	CHIONE.SigFox: with SigFox protocol CHIONE.LoRa: with Lora/LoraWan protocol CHIONE.NESA: with NESA protocol CHIONE.SMS: with TCP protocol	CHIONE.SigFox CHIONE.LoRa CHIONE.NESA CHIONE.SMS	 -P version
Power Supply	Batteria Litio 8000mA tipo C2 Batteria ricaricabile 2000mA Pannello 5W		
example of order code		CHIONE.SMS	P