



Messana Controls, a new era of HVAC Controls

Messana Controls offer a unique control technology that modulates an HVAC system to deliver perfect comfort and optimal indoor air quality.

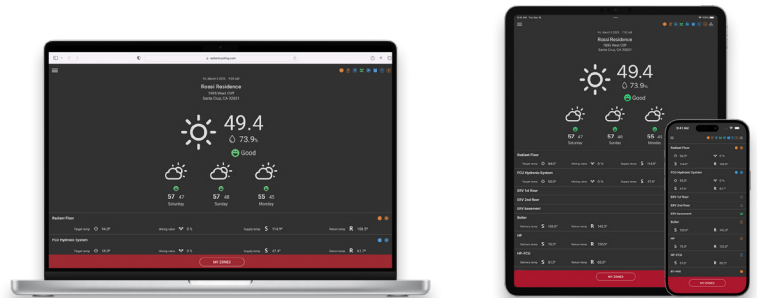


Messana Controls were designed to manage the most complex hydronic systems, with a focus on radiant cooling and heating applications. Furthermore, Messana Controls integrates with domestic hot water (DHW) production, Air Treatment Units (ATUs), and some third-party VRF/VRV systems.

Complete Control, at you finger tips:

Each hydronic system can be accessed via the Messana mobile and web apps.

Users can monitor their entire hydronic system, make changes to set points or schedules, and request system support if needed.



mBox5 and mBox10, one-box solutions for easy system setup and programming



mBox5



mBox10

While the mBox utilizes mZones modules to manage systems with greater than 10 zones, the new mBox5 and mBox10 provide a straightforward, standalone solution for up to 5 or 10 zones.



mSense, experience true comfort.

mSense is a groundbreaking innovation in room comfort sensors designed to revolutionize the way we perceive and manage indoor environmental conditions. Unlike traditional room thermostats that rely solely on air temperature, mSense takes a holistic approach to comfort and energy efficiency. mSense is engineered to measure three critical indoor environmental parameters that significantly impact the well-being and thermal comfort of occupants:

Operative Temperature: mSense calculates the operative temperature by considering the combined influence of air temperature and mean radiant temperature, akin to how the thermal receptors in the human body's skin function. This integration of thermal radiation data into the control system ensures more precise results compared to relying solely on air temperature.

Relative Humidity (Dew-Point): Maintaining optimal humidity levels in buildings is crucial for both comfort and health, especially in the context of radiant cooling systems. mSense comes equipped with a stable and accurate sensor to measure humidity and dry bulb temperature, allowing for precise evaluation of the dew-point temperature.

Air Quality: As an additional feature, mSense can be outfitted with an advanced gas sensor that goes beyond carbon dioxide (CO2) measurement. It analyzes substances directly impacting health and facilitates improved indoor air quality and energy conservation. The Indoor Air Quality (IAQ) sensor monitors equivalent CO2 levels and Total Volatile Organic Compounds (TVOCs).

By incorporating mSense into your indoor environment, you can optimize comfort, well-being, and energy efficiency while gaining access to valuable insights about your environment. Messana mSense is the future of room comfort sensing.



mSense, the key to radiant cooling:



When providing radiant cooling, condensation is not a concern when using our advanced control system, which uses mSense room comfort sensors to continually monitor the air quality, operative temperature, and dew point temperature of each zone.

By monitoring the dew point temperature throughout the home, Messana Controls can adjust the supply water temperature to the panels so that the surface of the panels stays above the dew point. Condensation will only form on a surface if the surface's temperature is below that of the dew point.

If a dehumidification unit is incorporated, Messana Controls will also remove moisture from the home to lower the dew point temperature. Depending on the climate, this allows the radiant system to use cooler water for more optimal cooling.





Messana Controls

One system to manage it all.

Energy Sources



Air to Water Heat Pump



Natural Gas Heat Pump



Water to Water Heat Pump
(Geothermal)



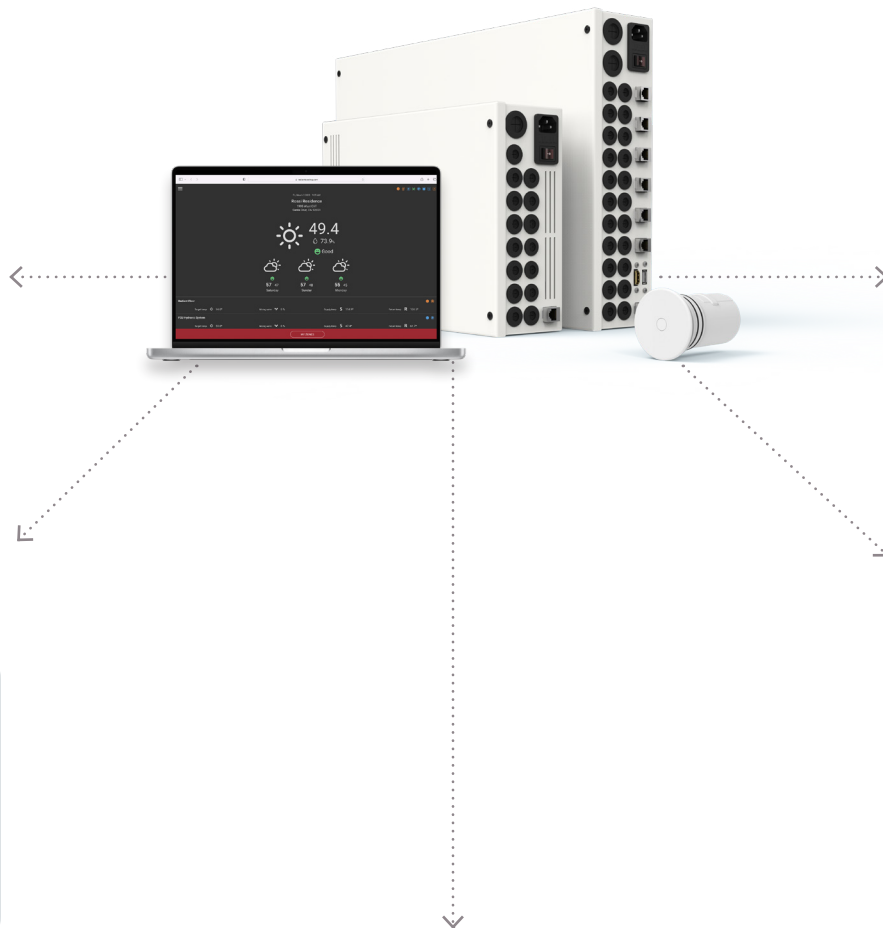
Boilers

Buffer Tanks / DHW

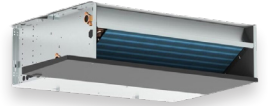


Messana Controls combines high-performance technology with user-friendly interfaces, designed for ease of use and tailored to your preferences. From intuitive mobile and web apps to intelligent zoning and scheduling, Messana mControls keeps you in control.

Experience the pinnacle of home climate control, optimizing your hydronic HVAC system to provide unmatched efficiency and comfort.



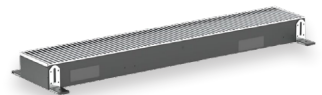
Fan Coil Units



Hydronic Ducted Fan Coil



Hydronic Air Handler



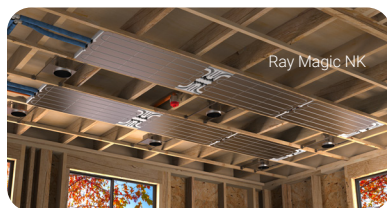
Ductless / Trench

Air Treatment Units



Dehumidification
Humidification
HRV or ERV
IAQ

Radiant Systems



Radiant Ceiling



Radiant Floor