

Small Hardware. Sensing Big Things.

Sense Touch

The PassiveLogic® Sense Touch™ multi-sensor delivers ten parameters of detailed building and occupant data that users can view on the elegant touch display. This environmental monitoring device connects effortlessly to the PassiveLogic Hive™ controller and other sensors and joins a self-assembling network via wired (1-Wire) or wireless data connections. The Sense Touch sensor also provides superior occupant detection using multiple data-gathering methods.

Environmental Data. Captured & Applied.

Ten environmental parameters are measured in this tiny, powerful, lightweight package:

- Air temperature
- Radiant temperature
- Humidity
- Indoor air quality, TVOC
- CO₂
- PM2.5
- Atmospheric pressure
- Light intensity
- Occupancy
- Sound pressure

Human Centered. Optimized Buildings.

The Sense Touch achieves high-quality occupancy sensing by combining thermal imaging and a sound pressure level sensor to accurately predict your building use patterns.

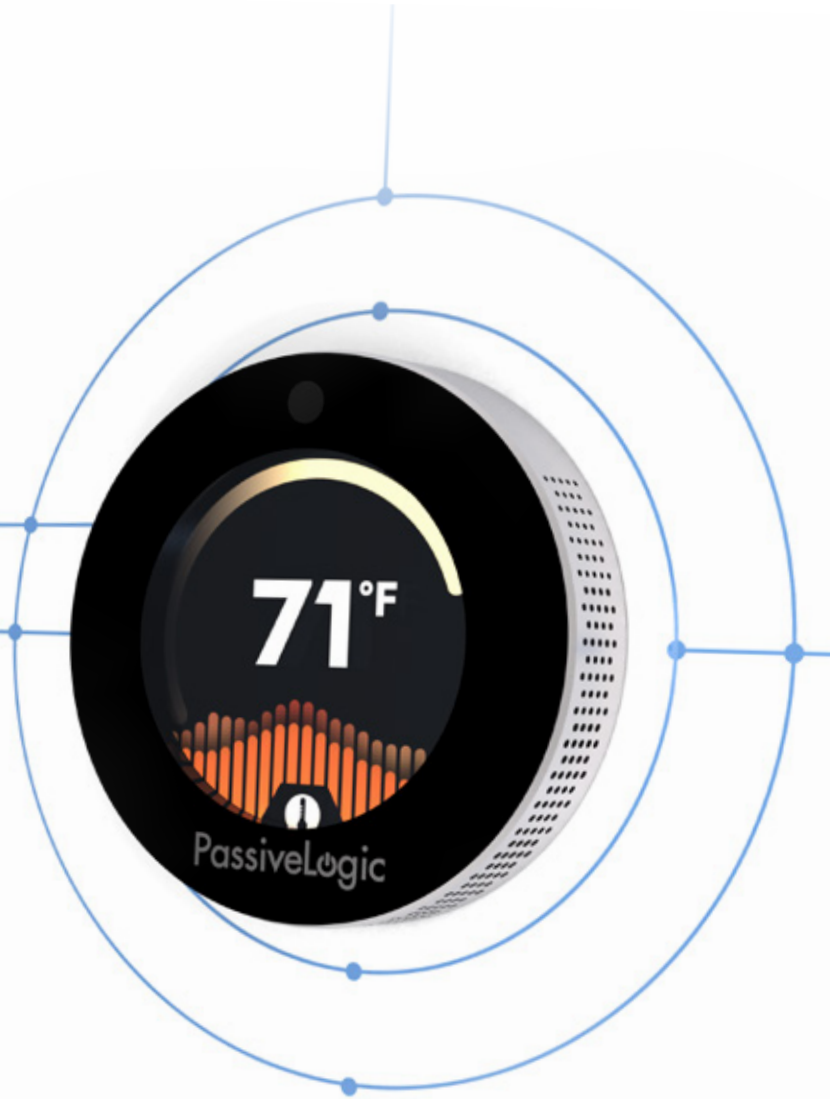
The PassiveLogic Hive™ platform then aggregates the data from your network in real time from every zone, occupant, and sensor to create a comfort-based control path for your building.

Building owners and managers can fully customize the Sense Touch interactive display to let occupants make comfort adjustments or control amenities like lighting or shutters. Occupants can swipe the sleek Sense Touch LED screen for views of current measurements that you choose to reveal.

Effortless Networking. Automatic Commissioning.

The Sense Touch is automatically commissioned to the network and connects to the PassiveLogic Hive and PassiveLogic Hive Mini™ controllers and other sensors.

Our enhanced mesh network is secure and self-federating. The Sense Touch also acts as a gateway to improve the reliability, redundancy, and range of the mesh network.



PassiveLogic Sense Family

Sense Touch Specifications

Sensor Specifications

Display (diameter, resolution)	1.36" (34.5 mm) diameter capacitive touch, 400 x 400px
Weight	1 oz (30 g)
Diameter Height	2.16 in (54.86 mm) 0.44 in (11.20 mm)
Surface mounting	Bracket with adhesive included
Temperature	Accuracy: $\pm 0.5^{\circ}\text{F}$ at 77°F ($\pm 0.27^{\circ}\text{C}$ at 25°C)
Radiant temperature	Accuracy: $\pm 3.6^{\circ}\text{F}$ at 77°F ($\pm 2^{\circ}\text{C}$ at 25°C), 1024px
Humidity	0 to 100% RH, $\pm 3\%$ RH (from 10 to 90% RH)
Indoor air quality	0 to 500 Index of Air Quality (IAQ), ± 3 IAQ measured directly from total volatile organic compounds (TVOCs)
CO ₂	400 to 2000 ppm, $\pm(50 \text{ ppm} + 3\% \text{ of reading})$
PM2.5	0 to 1,000 $\mu\text{g}/\text{m}^3$
Atmospheric pressure	300 to 1100 hPa, $\pm 0.6 \text{ hPa}$
Light level	10 to 10,000 lux ($\pm 10\%$)
Occupancy detection	IR camera, sound pressure, wireless mesh trilateration
Sound pressure	0–140 dB

Environmental Operating Conditions

Operating temperature	14 to 140°F (-10 to 60°C)
Compensated temperature	32 to 140°F (0 to 60°C)
Storage temperature	-4 to 140°F (-20 to 60°C)
Humidity: Operating Storage	10 to 90% RH 0 to 99% RH (non-condensing)

Networking

Enhanced mesh router	100 ft (30 m) maximum mesh hop Retransmits packets from other PassiveLogic Sense and PassiveLogic Hive devices
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Power Options

Power	24VAC or 12V–24VDC
Wired communication (optional)	5V 1-Wire, standard speed, with Multi™ Cell® master <ul style="list-style-type: none"> 984 ft (300 m) maximum wire length Provides additional connectivity to PassiveLogic Sense and PassiveLogic Hive devices
Wire gauge	18–22 AWG

The PassiveLogic Ecosystem

The PassiveLogic® Sense Touch™ and Sense Nano devices capture full environmental and occupant data. The PassiveLogic Hive™ platform uses this data to compute the perfect comfort path for each space.

Installation

PassiveLogic Sense devices are incredibly easy to install and configure. They are quickly and simply commissioned using our Lens™ iOS mobile app and automatically incorporated into the PassiveLogic network with minimal expertise required.

Network

All Sense devices automatically connect with each other and the PassiveLogic Hive and PassiveLogic Hive Mini™ controllers on the same network. Our enhanced, mesh network is secure and provides for built-in redundancy via mesh hopping. Wired Sense devices provide for longer range coverage and low-light placement, plus they boost the strength and reliability of the network.

Comfort

The PassiveLogic autonomous building platform is human comfort driven. Building managers can customize and enable controls for personalized comfort. Users can view local environmental conditions on the Sense Touch display. They can also access detailed settings and sensor history via Live™ on the Hive touch screen, a browser, or the Lens™ mobile app.

