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.

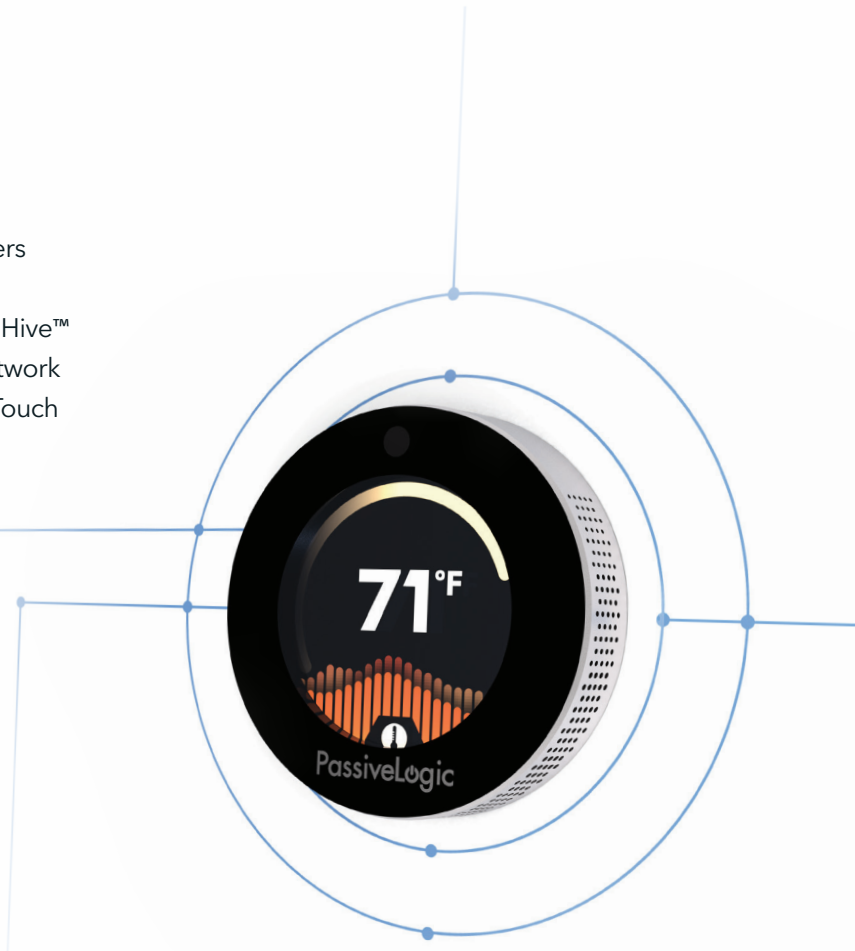Ten environmental parameters are measured in this tiny, powerful, lightweight package:

- Air temperature
- Radiant temperature
- Humidity
- Indoor air quality, TVOC
- CO_2
- PM2.5
- Atmospheric pressure
- Light intensity
- Occupancy
- Sound pressure

Human Centered. Optimized Buildings.

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

The PassiveLogic Hive™ controller 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.

Use the Sense Touch interactive display to view current air temperature, atmospheric pressure, indoor air quality, humidity, sound pressure, radiant heat map, and comfort level.

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.

Sense Touch Specifications

Sensor Specifications

Display (diameter, resolution)	1.36" diameter capacitive touch display, 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	32 to 149°F (0 to 65°C), ±1.8°F (±1°C)
Radiant temperature	32 to 149°F (0 to 65°C), ±1.8°F (±1°C) 1024px
Humidity	0 to 100% RH, ±3% RH (from 10 to 90% RH)
Indoor air quality	0 to 500 Index of Air Quality (IAQ), ±3 IA measured directly from total volatile organic compounds (TVOCs)
CO_2	0 to 5000 ppm
PM2.5	0 to 1,000 μg/m³
Atmospheric pressure	300 to 1100 hPa, ±0.6 hPa
Light level	0 to 10,000 lux (±10%)
Occupancy detection	IR camera, sound pressure
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 sensors and PassiveLogic Hive devices

Power Options

Power	24VAC or 12–40VDC
Wired communication (optional)	5V 1-Wire slave, standard speed • 300 m maximum wire length • Provides additional connectivity to PassiveLogic Sense sensors and PassiveLogic Hive devices
Wire gauge	18–22 AWG

Patents: passivelogic.com/patents

The Perfect Data Devices. For Healthy Buildings.
PassiveLogic Sense Family

The PassiveLogic Ecosystem

The PassiveLogic® Sense Touch and Sense Nano™ devices capture full environmental and occupant data. The PassiveLogic Hive™ controller and our built-in software, PassiveLogic Autonomy Studio™, use 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 Quantum Lens™ iOS mobile app, and configured automatically to 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 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 in Autonomy Studio via a PassiveLogic Hive controller, from a browser, or with our mobile app.

(Actual size)

0.44 in (11.20 mm)

2.16 in (54.86 mm)

GND
1W
PWR