



World Provider Innovative Heating Solutions

SMART SENSE™

an Automatic Variable-Rate Heat Solution

U.S. Patent No. 9,328,937



**Save up
to 35% in
Fuel Costs**

“The biggest advantage of Smart Sense automatic variable rate heat for me was the savings last winter in LP. I have a barn that was built in 2006 that has standard heaters, and that barn used 450 more gallons of LP than the barn built in 2013 with Smart Sense. The capability of Smart Sense heaters being able to stay within 2-3 degrees of set point has to be beneficial. The 2006 barn can have a 8 degree swing in temperature when it's bitter cold and the wind is blowing hard.”

Curt Gentz

Producer
G & K Pork



Now works with these leading
environmental control systems:



Multifan



www.lbwhite.com



Smart Sense™ Technology

A Difference You Can Feel

Smart Sense is a technologically-advanced swine facility heating solution. This innovative heating technology eliminates the inefficiency of standard on/off controls by managing the heat automatically through the house control. Smart Sense operates at maximum efficiency to provide:

- Fuel-cost savings up to 35%
- Consistent room temperature
- Enhanced animal welfare
- Improved air quality

The L.B. White system generates only the amount of heat required to reach, maintain, and hold a desired temperature by modulating Btu output. This is achieved only through our patent-pending technology engineered for L.B. White forced air heaters and radiant heat brooders.



An L.B. White forced air heater and radiant heat brooder with Smart Sense.

Manage Room Temperature Automatically

Don't React to the Room Environment—Control It!

Smart Sense automatically provides heat at only the rate required to reach a set point, and then maintains that temperature. This technology has been field tested with major integrators and growers across the upper Midwest. The results of these tests reflected increases in fuel-cost savings and improved heat management.

“I know L.B. White Smart Sense heaters are saving money in my facility even without calculating the exact difference in fuel usage between Smart Sense and standard heaters. On the coldest days of the year, the Smart Sense heaters never run at 100% output and they still maintain temperature set-point. You can feel the low output when standing next to the heater, which is confirmed by the percent output readings on the control. The Smart Sense heaters run over a prolonged period to create a more even air quality in the room, and this is reflected in the temperature probe readings. The heaters clearly assist in overall air quality by circulating the air in the rooms to achieve uniform air temperature.”



**Save up to
35% in
Fuel Costs**

James A. Kober, DVM, MS
Diplomate ABVP – Swine Health Management
Swine Veterinary Consultant
4 Star Veterinary Service

Guardian with Smart Sense™

Forced Air Heaters



**Operates at firing rates as low as
25% of max Btu/h**

while maintaining acceptable carbon
monoxide levels and ignition characteristics.

*Smart Sense allows the heater to run longer
at lower firing rates and become part of the
circulation system. This results in a much
more consistent room temperature.*

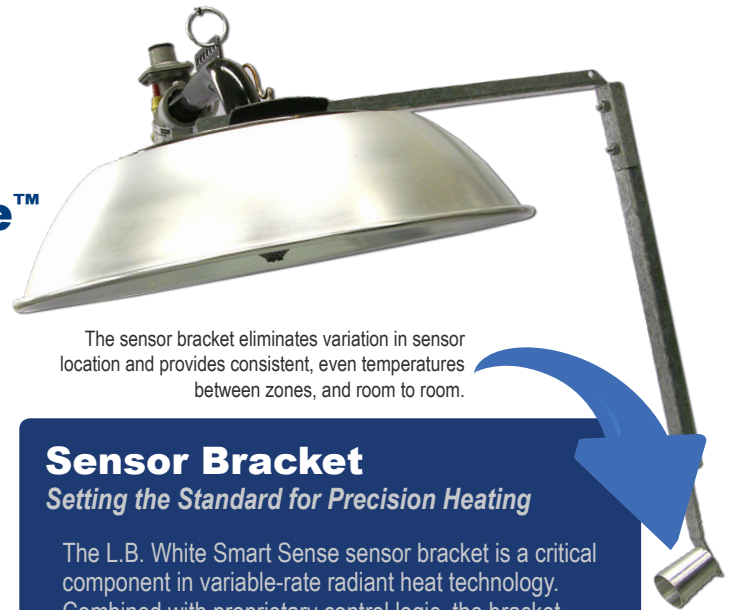
- Available Smart Sense configurations:
 - 60,000 Btu/h
 - 100,000 Btu/h
 - 250,000 Btu/h
- Ignition types:
 - Spark
 - Hot Surface
- CSA certified U.S. and Canadian models

Infraconic with Smart Sense™

Radiant Heat Brooder

*Gain control of the pig-occupied zone with
Smart Sense versus 3-stage or hi-lo control
panels that are not controlled by precision-based
technology.*

- Both standard manual and spark ignition I-17 brooders function with Smart Sense
- Requires sensor mounting kits for existing and new installations
- Operates with an existing 0-10 vdc control or with the SmartBox™ controller



The sensor bracket eliminates variation in sensor
location and provides consistent, even temperatures
between zones, and room to room.

Sensor Bracket

Setting the Standard for Precision Heating

The L.B. White Smart Sense sensor bracket is a critical component in variable-rate radiant heat technology. Combined with proprietary control logic, the bracket keeps the sensor always locked into position to achieve precise results based on suggested protocols and desired pig pattern.



HEAT MANAGEMENT PROTOCOL

Smart Sense maintains an even room temperature through the house control. With this system, growers are not required to setup probes.

Smart Sense™

Automatic Variable-Rate Heat Technology

- Saves up to 35% in fuel costs
- Automatically manages room temperature
- Works with the ventilation system to provide consistent, even heat throughout the room
- Reduces day-to-day management

“With Smart Sense, I don’t have to worry about human error and making constant temperature adjustments. The automated control turns the heaters on at their lowest firing rate and then ramps up to provide the heat needed to reach the set points on my temperature curve. It’s hands off ... **and that saves me time and money.**”

Aaron Russel
Cargill Grower



“Our nursery with Smart Sense heaters is saving 30% in fuel costs compared to our rooms with standard on/off heaters ... and I believe Smart Sense heaters could help us save even more. The uniformity of the heat in a room is very good because the Smart Sense heaters work to circulate air and prevent chilled spots.”

Ted Hendrickson
Head of Nurseries
Maxwell Foods

About L.B. White

For more than 60 years, L.B. White has been setting the standard in swine confinement heating. Today, L.B. White is proud to be the exclusive provider of automatic variable-rate heat for both forced air box heaters and brooders with U.S. Patent No. 9,328,937 Smart Sense™ technology.