

Innovating Energy Technology

Ensure the perfect cooking temperature in professional pizza ovens

Food industry Ovens

Mots clés

- Professional pizza ovens
- Temperature control
- Food industry
- Automation
- Optimised production
- Baking temperature
- Electric pizza oven



Pizza is one of the oldest known dishes, still enjoyed by millions of people around the world.

Invented in Italy in the 16th century, its smell of melted cheese and tomato easily attracts people's attention.

This Italian staple has since become a global phenomenon, with each region bringing its own ingredients and cooking methods to the recipe. However, the product has to meet high quality standards to meet the expectations of its consumers, especially since 92% of consumers base their purchase of a pizza on this element.

These criteria include the choice of ingredients, the preparation and the perfect baking of the dough and toppings to obtain the best flavour. Without this balance, the quality of a pizza can be compromised.

Baking a pizza in an oven can be quite tricky!

A pizza oven consists of two essential elements for baking the product: oven bottom and dome.

The oven bottom lines the inside of the oven. When heated, it absorbs and distributes the heat evenly to cook the underside of the pizza.

The dome is the upper part of the oven, it forms a dome and serves to trap the heat to cook the top of the pizza evenly.

As all the ingredients need to cook properly, it is essential to ensure that the temperature of the oven bottom is sufficient for the pizza dough to cook and become crispy. In addition, it is essential that the dome of the oven is not too hot so that the toppings are not overcooked.





Especially since each type of pizza has different cooking times and temperatures. For example, thin crust pizzas will require a lower temperature and cooking time, while thicker crust pizzas will need to be cooked at a higher temperature and for a longer period. The time and temperature of the pizza will also depend on the toppings: meat, vegetables, fish, cheese; each of these ingredients has different times and temperatures.

To achieve this and prepare a delicious pizza, a delicate balance must be found and maintained between the temperature of the floor and the temperature of the vault.

Accordingly, pizza oven manufacturers must provide professional ovens that allow pizzaiolos to :

- > Garantee a precise temperature when baking the pizza
- > Program temperature recipes for different pizzas
- > Set timer with alarms at the end of pizza baking
- > Schedule automatic delayed starts
- > Automatically set and control the oven bottom and the dome temperatures separately
- > Make energy saving

In order to meet their customers' expectations, professional pizza oven manufacturers must equip themselves with high-performance measurement and control equipment capable of offering all these functions.

Fuji Electric's solution

Control the temperature of your pizza oven with Fuji Electric's temperature controllers.

Fuji Electric offers pizza oven manufacturers precise, high-performance temperature controllers and ergonomic human-machine interfaces that guarantee pizza makers a high yield of pizzas, while maintaining optimal quality and authentic taste.

The Fuji Electric temperature control solution has a user-friendly, intuitive and 100% touchsensitive human-machine interface, which allows a quick and easy understanding of the temperature and remaining cooking time.

This touch-screen interface allows the pizza chef to save time. He can :

- > Set alarms for the end of cooking,
- > Schedule delayed starts,
- > Program recipes with customized temperatures and cooking times.







The multi-loop controllers - PUM series also allow the control and regulation of several zones at the same time. The user will therefore be able to control the floor and the vault temperatures of their pizza oven separately, accurately and efficiently. The modular design of the controllers offers a flexible solution for temperature control regardless of the size of the pizza oven.



This means that the controller will automatically switch the electric heating elements in the oven on or off to maintain the desired temperature and ensure even heat distribution.

The pizzas are cooked to perfection and the quality is consistent throughout the service.

To increase the accuracy, response time and reliability of the oven, solid state relays for controlling the electric heating elements can also be integrated into the control system.

Pid controllers in combination with solid state relays also help to reduce the energy consumption of the oven and lower the energy bill.

By equipping their pizza ovens with this equipment, manufacturers have professional, economical and efficient equipment that perfectly meets the needs of their customers.

Pizza oven manufacturers can rely on the expertise of Fuji Electric's engineers and measurement and control instruments.





Your advantages



- + Ensure quality pizza production with precise temperature control.
- + Reduce operating costs by increasing reliability and decreasing energy consumption of ovens.



+ Increase production with the intuitive 100% touchscreen human-machine interface.

Temperature control solution for ovens

- Simple and user-friendly ergonomics Intuitive and flexible touch screen human-machine interface
- Improved quality of finished products for your customers High-precision control thanks to solid-state relays
- Fast operation and consistent production quality Customised recipe function
- Optimisation of the energy used Automatic and fast adaptation of the power supply
- Optimisation of production time
 Automated delayed start



Human Machine Interface - HMI TECHNOSHOT TS1070Si



Solid State Relay



Multi-loop controllers - PUM series



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