

SOLID STATE RELAYS IN PROFESSIONAL FOOD EQUIPMENT

Background

Efficient, safe and precise cooking and food preparation equipment is critical for commercial, industrial and residential kitchens.

Today's successful restaurants and cafes rely upon the latest machinery for cooking, warming and beverage preparation. This includes mixers, convection ovens, combi steamers, deep fat fryers, dough divider rounders, food warming cabinets, coffee machines, etc.

This demand has increased the use of highly accurate digital control technology that ensures compliance with related standards, such as low EMC directives for commercial and household use.

Solution

Sensata offers a broad range of solid state relays and contactors that are perfectly suited for use in the food equipment industry.

In the past, electromechanical relays (EMRs) were used extensively in these systems due to their lower cost, but they have been replaced with solid state relays in recent years because of the rising use of digital control equipment. Solid State Relays (SSRs) are well suited for use with digital control signals because of their low input current and higher switching speed, which is required in most of these applications to maintain proper temperature control. EMRs cannot keep up in these types of applications.

SSRs have a much higher life expectancy than EMRs, and even though their initial cost is higher, their total cost of ownership is lower when you take into consideration the cost of replacing worn out EMRs.

Additionally, solid state relays have no acoustic noise due to their lack of moving parts and they produce less EMI noise. Sensata SSRs utilize a patented trigger circuit that can reduce the switching noise generated by the SSR to comply with levels specified by standard IEC60947-4-3 Environment B for low voltage domestic, commercial and light industrial locations/installations.

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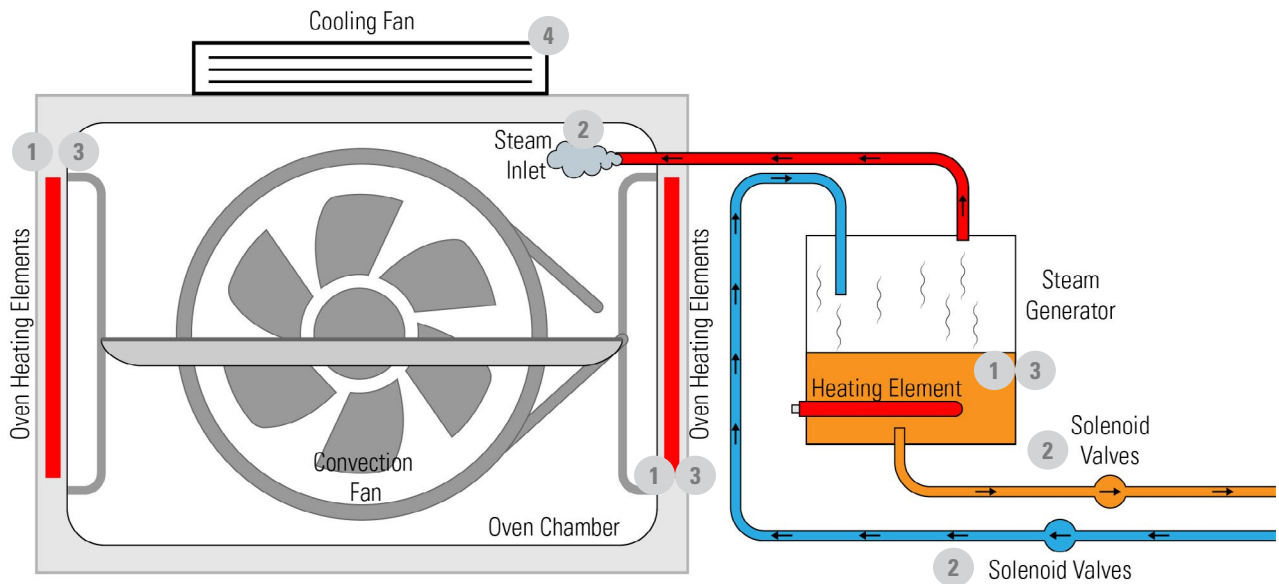


RECOMMENDED PRODUCTS

Reference on Diagram	Product	Function	Features	Brand
1	LN Series	Heating Control (with Low EMI Noise)	<ul style="list-style-type: none"> Panel Mount solid state relay with patented Low Noise circuit 25 to 75 Amp ratings Built-in overvoltage protection Available in 3 configurations: IP00, IP20, and with standoffs (for PC Board mounting) 	Crydom
2	SeriesOne DR	Solenoid Valves On/Off Control	<ul style="list-style-type: none"> Compact DIN Rail Mount solid state relay 3 to 12 Amp ratings Class I Div 2 rated 	Crydom
3	PMP Series	Heating Control	<ul style="list-style-type: none"> Single phase proportional control SSR 25 to 90 Amp ratings Multi-function Selectable control input 	Crydom
4	DRC Series	Fan On/Off Control	<ul style="list-style-type: none"> Solid State Contactor For 3-phase motors up to 5HP (3.7kW) Available with auxiliary contacts Built-in overvoltage protection 	Crydom



COMMERCIAL COMBI STEAMER



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