

## SOLID STATE RELAYS IN PACKAGING EQUIPMENT

### Background

Almost any industry today requires some sort of packaging process to properly store, preserve, and transport all kinds of goods. This includes industry segments such as food and beverage, pharmaceutical, cosmetics, chemicals and electronics, among many others.

With the many challenges faced in today's competitive environment, companies are always looking to optimize their packaging processes through the implementation of packaging systems that are fast, reliable, efficient, and cost effective.

Packaging machinery can be manual, semi-automated, or fully automated and there are many types of packaging equipment, depending on the type and size of the product needing to be packaged. Main types of machinery used in packaging systems include conveyor belts, shrink tunnels, stretch wrappers, form-fill-seal machines, carded packaging machines, and case erectors.

*Solid State Relays are ideal solutions for heating and AC or DC motor control, increasing the efficiency and reliability of high performance packaging equipment.*

### Solution

Due to the high level of automation used in packaging lines, there is an intensive use of advanced electronic components, which need to meet very strict requirements specific to each industry.

Whatever products need to be packaged and whichever materials are used, Sensata | Crydom offers an extensive line of Solid State Relays and Contactors, which are ideal solutions for heating and AC or DC motor control, increasing the efficiency and reliability of high performance packaging equipment in operations such as filling & closing, form-fill-sealing, wrapping and palletizing, among others.





SSRs provide many advantages against EMRs, such as higher life expectancy, higher resistance to shock and vibration, faster switching, and better noise immunity.

Solid State Relays are an excellent option in applications where there is a need for precise temperature control, or where there are constant starts and stops. They can be used to control heaters, motors, fans/blowers, and valves, as well as many other types of loads.



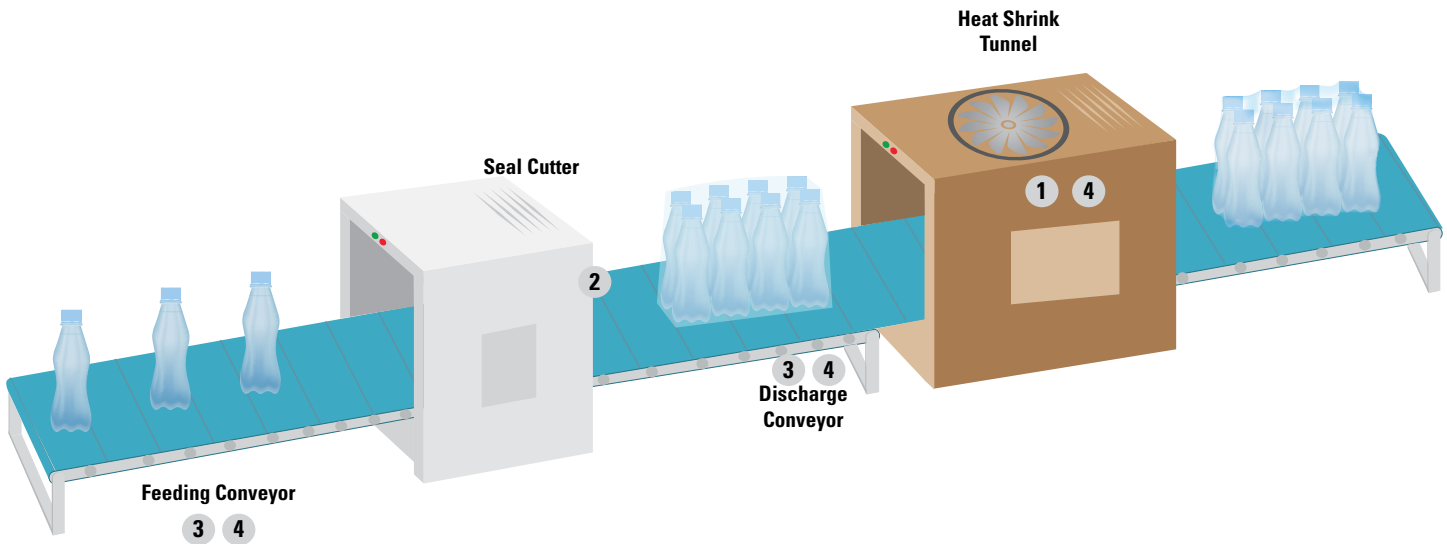


## RECOMMENDED PRODUCTS

Reference on Diagram	Product	Features	Function	Brand
1	 DR22 Series	<ul style="list-style-type: none"> <li>DIN Rail Mount single phase solid state relay</li> <li>20 to 35 Amp ratings</li> <li>Available with back-to-back SCR or cost-effective TRIAC output</li> <li>Built-in overvoltage protection</li> </ul>	Heating Control	Crydom
2	 SeriesOne DR	<ul style="list-style-type: none"> <li>Compact DIN Rail Mount solid state relay</li> <li>3 to 12 Amp ratings</li> <li>Class I Div 2 rated</li> </ul>	Film Sealing and Cutting	Crydom
3	 DP4R Series	<ul style="list-style-type: none"> <li>DC Motor Reversing Contactor</li> <li>20 to 60 Amp ratings</li> <li>Soft Start, Soft Stop &amp; Braking Functions</li> <li>Built-in interlock circuit</li> </ul>	Conveyor Motor Control	Crydom
4	 DRC3P & DRC3R Series	<ul style="list-style-type: none"> <li>Solid State Contactor</li> <li>For 3-phase motors up to 5HP (3.7kW)</li> <li>Available with auxiliary contacts</li> <li>Built-in overvoltage protection</li> </ul>	Conveyor Motor Control Fan On/Off Control	Crydom



## AUTOMATIC SHRINK WRAPPING MACHINE



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