

Safety I/Os replace external safety relays

Motion and safety control on one platform

Company:
Mespac, Spain

Application:
Form-fill-seal + Sysmac Safety

A Mespac is the world leader in horizontal form-fill-seal packaging machines and exports to thousands of customers across the globe. The company is proud that it is continuously expanding its machine range to the point that there is hardly any product which cannot be packed into a pouch made of flexible film. So not surprisingly, when Omron introduced Sysmac a couple of years ago, it immediately seized the opportunity to use the motion control platform to also control its machine's safety features.

Mespac started production of its Sysmac Safety upgraded machines in 2014. It includes emergency stop buttons and many guards using the safety sensor F3S-TGR-N, and a safety stop of axis motion with servo.

PLr = d easily achieved

"We need a PLr = d based safety system for our H360 machine," says Joan Subirats, Technical Manager at Mespac. "And I'm happy to say that we easily achieved that, thanks to the fast and easy integration of the Omron safety sensors and actuators in the Sysmac Safety PLC solution."

The machines use electric and pneumatic power, and both are stopped and monitored when any safety function is activated. The servos are in charge of the film movement, which are stopped immediately when the machine user activates any safety function. "Importantly, we don't need to use external safety relays anymore, so we save costs on wiring and installation time, and we increase the diagnostic capabilities," says Joan.

In addition, alarm indicators in the touch panel inform about which emergency stop push button was pushed, or which protection guard was opened, and enable the resetting of some zones. The tower light signals also provide machine information.

30% fewer unnecessary stoppages

"We've been installing Sysmac Safety in our machines now for more than a year," says Joan. "And the actual feedback indicates that all the safety information now available to the operator means that unnecessary stoppages have been reduced by up to 30%. So Ethernet communications is not only great for us, but for our customers as well."

Remote maintenance

"Also thanks to Ethernet, our customer's maintenance engineers can see what's going on in a machine from their own office, remotely," says Joan. "So if an issue arises, they can diagnose the problem and gather any spare parts and tools before walking to the machine. This, obviously saves a lot of time and effort."



Benefits at-a-glance

- Safer stops of servos – no external relays necessary
- Safety variables working together with the standard PLC program
- Less wiring and installation time – fewer costs
- 30% fewer unnecessary stoppages – more customer satisfaction
- Everything kept simple – just one rack
- Remote maintenance – less cost, more uptime

“Sysmac Safety is a big advantage for packaging manufacturers like us because we have to personalize almost all our machines to our customers needs. Thanks to Sysmac Safety, we have all the machine control in one platform and the modifications are very easy.”

Joan Subirats
Technical Manager, Mespac



About Mespac

The horizontal form fill-seal pouch makers and stick pack machines are the core product lines of Mespac. Mespac is continuously expanding its machine range to the point that there is hardly any product which cannot be packed into a pouch made of flexible film. Solid, liquid, powder, granules, everything is possible on a Mespac machine which enables you to present your product in a most innovative shape and using latest techniques. The main areas of activity to host our machinery are food, pharmaceutical, chemical, confectionary, cosmetic and personal care sectors among others.

About Omron

Omron Industrial Automation is a leading manufacturer of high-tech products and solutions for industrial automation. The company is part of the Omron Corporation founded in 1933 in Kyoto, Japan, and employs more than 37,000 people worldwide. The wide product range includes control, drive and safety technology, image processing and sensor systems, as well as control and switching components. The aim is to provide mechanical engineers with demand-driven, integrated automation solutions from a single source. In addition, Omron offers its customers comprehensive application know-how, as well as region-wide on-site service. In Europe alone, Omron has 19 sales offices and operates its own production sites.