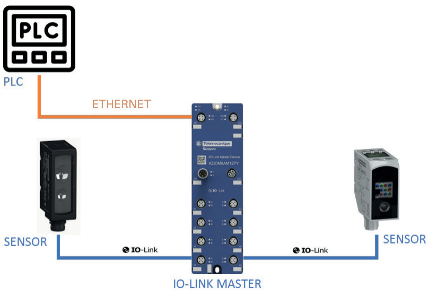
Sensor Solutions for Packaging Applications

YAGEO GROUP Brings you | Telemecanique Sensors

Packaging plays an important role in delivering products to consumers. From food and beverage to pharmaceuticals and cosmetics, the industry ensures that products are safely and securely transported from the manufacturer to the end-user. Since the last decade, the packaging industry is facing a new challenge as it strives to combine machine performance and safety while addressing the growing imperative for more sustainable packaging containers. Sensors used in packaging machinery contribute to meet these new challenges.

More packaging material detected

Following the regulations limiting the usage of single-use of plastics and promoting alternative sustainable packaging materials, machine design evolved to accept diverse type of packaging material. Sensors used shall be able to reliably detect existing plastic PE/PET packaging as well as new sustainable materials. Sensors connected through **IO-Link communication** protocol to the machine automation's architecture can be configured to allow a fast changeover depending on packaging's material, reducing machine interruption time. Our photoelectric solutions embed several technologies to reliably detect any kind of material.



Reduce waste during the packaging process

Waste of products have several causes:

• In primary packaging, inaccurate container forming lead to increased rejection rate of packed products. Machines need accurate and responsive sensors to process repetitive and fast container forming;

• During the filling process, inaccurate container positioning and/or wrong capping/sealing process lead to products' spread inside the machine, causing additional machine stoppage and increased need for machine cleaning impacting the line's productivity. Sensors enable a correct container positioning before the filling operations and monitor the correct capping/sealing process preventing the machine to stop and further non conformity ;

• For labelling machinery, sensors should be positioned at the edge of the label's positioning or synchronised to detect an existing mark on the container to prevent wrong labelling and reduce waste of labels when changing labelling series.

Secure process and people

Primary packaging shall be safe from any intrusion to prevent any contamination. Most of machines embed several doors or removable chassis protecting the process from operators' intrusion, as well as protecting them from any machine's movement which could injure them. Following the Machine safety directive ISO 13849-1, sensors are fitted on machines' doors, reaching a level SIL 3 and contributing to machine safety performance

Easy integration

Our sensors are designed to be easily integrated into your existing systems, ensuring a hassle-free and rapid process. This simplified integration not only saves you time but also makes our sensors the optimal choice for elevating the performance and functionality of your machinery to new heights.

Cost-effective

Our sensors empower companies to minimise waste and supercharge productivity, which translates into substantial cost savings. Our technology not only enhances the bottom line but also contributes to a sustainable and competitive advantage in the industry.

Quality control

Our sensors monitor the quality of the packaging and ensure that the products meet the desired standards. This helps to ensure that the products are safe for use and meet the regulatory requirements.

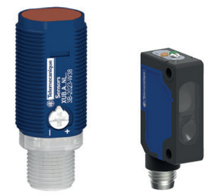
Customisable solutions

Telemecanique Sensors are available in a wide range of configurations and can be customised to meet specific packaging needs. This helps businesses optimise their packaging processes and achieve better results.

Our Sensors' solutions

Which material to detect for primary packaging?

On filling and sealing process, our wide technology range of photoelectric sensors can detect most of existing materials:

General use container made of carton, paper, plastic boxes	Photoelectric sensors reflex mode XUM9APXBM8* XUB9APXNM12*	
Sustainable material Biodegradable material	Photoelectric sensors BGS mode XUM8APXBM8 XUB8APXNM12*	
Transparent containers Glass bottles, PET jar, PE tray	Photoelectric sensors Reflex: XUMTARAYM8* BGS: XUM8ABAYM8*	
Dark or Black containers	Photoelectric sensors Blue light XUK8ABPXM12	
Thin objects Folded cartons	Photoelectric sensors laser Reflex : XUM9ALAYM8* BGS : XUM8ALAYM8*	
Color selective material	Photoelectric sensors multi color detection XUKCBLAYM12 XUMRACAYM8*	

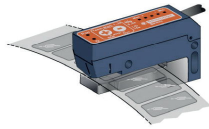
(*) available with IO-Link communication interface

ECOLAB
PROTECTING WHAT'S VITAL

IP69K

Optimize Label positioning and mark detection

Self-adhesive label roll with printed labels	Photoelectric fork XUVE04M3KSNM
Self-adhesive label roll with transparent labels	Ultrasonic fork XUVU04M3PM8*
Wet glue label in magazine	Photoelectric Diffuse XUM6APYBM8*
Marking on container detection	Contrast Photoelectric sensor RGB: XUMRAGAYM8* White: XUMRAWAYM8*

Ensuring Safety of People and operation

Monitoring doors	RFID Safety switches Daisy Chain XCSRM13M12
Locking doors and fences	Key operated switches with solenoid XCSLF2525312 (2 contacts) XCSLF3737312 (3 contacts)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To learn more about our solutions for packaging machinery, please visit

https://www.telemecaniquesensors.com/global/en/applications/packaging

Discover our complete range of sensors, visit us on www.tesensors.com

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