Transparent

Fast object detection

Unveil the unseen and detect the essence of transparency!

XUM & XUT: Make the invisible visible

Transparent object detection with or without reflector

When it comes to transparent packaging, we don't want to miss a single detail, do we?

By providing object detection with transparency, **we offer our customers a unique opportunity to showcase their products in the best possible light**. We understand that the visual appeal and clarity of packaging can make a significant impact on consumer perception and purchasing decisions. Therefore, we leave no stone unturned in ensuring that our transparent packaging is of the highest quality, durability, and aesthetic appeal.

The **XUT Blue Light sensors** are an excellent choice for detecting transparent objects at high speed. With their advanced technology and **high sensitivity**, these sensors can detect even the most transparent objects without reflectors. The XUM polarized reflex sensors, as a second choice, are providing a higher sensing distance while keeping a high precision in tranparent object detection.

Each sensor is also designed for easy installation, and can be set up quickly using the teach button or **IO-Link**. Two format sizes, miniature and sub-miniature make them ideal. For applications where space is limited, such as in packaging or assembly lines. With it's IP69K, it is resistant to water and dust ingress, ensuring reliable operation in harsh environments. the sensors are also Ecolab certified.

This technology easily integrates the perfect **LED emitter**, **optics**, and signal processing, resulting in superior performance. The Blue Light sensors are highly reliable due to their high-precision background suppression capabilities. Even in the presence of intense or reflective backgrounds, such as reflections from metal machine parts, the detection process remains unaffected. Notably, the Blue Light series offers a compact sensor that stands out in the market for its unique feature: the ability to adjust background suppression using a potentiometer. This feature sets it apart as the only Blue Light sensor with this functionality.

XUM

XUT

ECOLAB **IO**-Link

IP69K Dust tight • High pressure jets

IP67K Dust tight • Imm. short periods

Simply easy!

tesensors.com

Telemecanique
Sensors

Benefits

Blue Light sensors are a game-changer when it comes to unveiling the invisible. With their versatile object detection capabilities, they can effortlessly detect a wide range of objects, including **deep black**, reflective, curved, angled, shiny, and even transparent ones.

These sensors are especially ideal for installations in tight spaces, thanks to their performance even with challenging angles.

What sets Blue Light sensors apart is their **process reliability**, achieved through precise transmitting and receiving technology. Thi sreliability surpasses that of red-light sensors, ensuring seamless and dependable operation.

Telemecanique Sensors still offers reflective light technologies, which serve as a perfect complement for matte and low-reflective surfaces. These technologies are ideal for detecting fast-moving objects, thanks to their long wavelength and intensity.

These capabilities are especially advantageous in applications requiring extended sensing distances, particularly when **transparent boxes,** such as those used for packaging fruits, need to be accurately detected. These technologies excel in handling intricate object shapes and irregular surfaces, delivering reliable detection even on grooved surfaces. A polarized reflex mode significantly enhances light immunity, providing robust protection against environmental factors and minimizing interference from signals emitted by other sensors.

Transparent sensors – Red light

Nominal sensing distance	Switching frequency	Degree of protection	Connector type	Part number IO-Link
2000 mm / 78.74 in.	1000 Hz	IP67 / IP69K	M8 connector Metal	XUMTARAYM8
2000 mm / 78.74 in.	1000 Hz	IP67 / IP69K	Cable, 2 m, 4-wires	XUMTARAYL2
2000 mm / 78.74 in.	1000 Hz	IP67 / IP69K	Pigtail, 200 mm M8	XUMTARAYP015

Transparent sensors – Fixed Blue Light

Nominal sensing distance	Switching frequency	Degree of protection	Connector type	Part number
80mm / 3.15 in.	1000 Hz	IP67 / IP69K	Cable, 2 m, 4-wires	XUM7ABPXL2
80mm / 3.15 in.	1000 Hz	IP67 / IP69K	M8 connector	XUM7ABPXM8
50mm / 1.96 in.	1000 Hz	IP67	Cable, 2 m, 4-wires	XUT7ABPXL2
50mm / 1.96 in.	1000 Hz	IP67	Pigtail 200 mm M8	XUT7ABPXP02

Transparent sensors – Adjustable (teach button) Blue Light sensors

Nominal sensing distance	Switching frequency	Degree of protection	Connector type	Part number IO-Link
80mm / 3.15 in.	≤ 700 Hz	IP67 / IP69K	M8 Connector Metal	XUM8ABAYM8
80mm / 3.15 in.	≤ 700 Hz	IP67 / IP69K	Pigtail 150 mm M12	XUM8ABAYP015
50mm / 1.96 in.	≤ 700 Hz	IP67	Cable, 2 m, 4 pins	XUT8ABAYL2
50mm / 1.96 in.	≤ 700 Hz	IP67	Pigtail 200 mm M8	XUT8ABAYP02

Transparent sensors – Adjustable (potentiometer) Blue Light sensors

Nominal sensing distance	Switching frequency	Degree of protection	Connector type	Part number
1200mm / 47.24 in.	600 Hz	IP67 / IP69K	M12 connector / 4 pins	XUK8ABPXM12

Transparent sensors - Plastic cylindrical

Nominal sensing distance	Switching frequency	Degree of protection	Connector type	Part number
1400mm / 55.11 in.	1000 Hz	IP65 / IP67K	Cable, 2 m	XUBTAPSNL2
1400mm / 55.11 in.	1000 Hz	IP67 / IP67K	M12 connector	XUBTAPSNM12

Transparent sensors - Stainless steel cylindrical

Nominal sensing distance	Switching frequency	Degree of protection	Connector type	Part number
1400mm / 55.11 in.	1000 Hz	IP65 / IP67K	Cable, 2 m	XUBTSPSNL2
1400mm / 55.11 in.	1000 Hz	IP67 / IP67K	M12 connector	XUBTSPSNM12

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