

OLC-401 SAFETY LIGHT CURTAIN

OPTONOM

Scientific Instruments

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Turkey

Discover
the potential

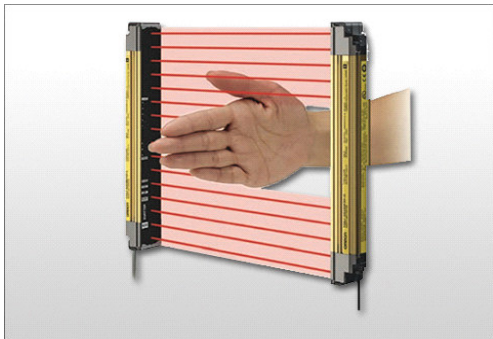


SAFETY LIGHT CURTAIN

1. General Information

As the manufacturing world becomes more and more automated, industrial sensors have become the key to increasing both productivity and safety. Industrial sensors are the eyes and ears of the new factory floor, and they come in all sizes, shapes, and technologies.

Optonom OLC-401 Safety Light Curtain is a device that detects a change in light intensity. Optonom OLC-401 simply made up an emitting element and a receiving element. The optical signal transmitted from the emitting part of the sensor is modified by sensing object and is then detected by the receiving part to generate corresponding output signal.



Optonom OLC-401 Safety Light Curtain offers many advantages when compared to other technologies. Sensing ranges for photoelectric sensors far surpass the inductive, capacitive, magnetic, and ultrasonic technologies. Their small size versus sensing range and a unique variety of housings makes them a perfect fit for almost any application. Finally, with continual advances in technology, photoelectric sensors are price competitive with other sensing technologies.

Features:

Non contact: Detects an object without contact. Non-contact sensing ensures longer life for the sensor and absolutely no damage to the object

Long sensing range: The long sensing range make the sensors suitable for a variety of applications. The thru-beam type with a maximum sensing range of 20 m.

Short response time: The use of an optical beam for detection and complete electronic circuitry makes the sensors respond so quickly that they can be easily used on a high-speed production line.

High accuracy detection: Advanced optical system and electronic circuit technology have achieved a high sensing accuracy.

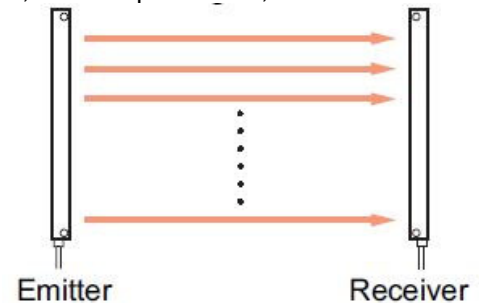
Various object detect: The sensors can detect objects of any material provided they affect the optical beam.

2. Types Of Sensors

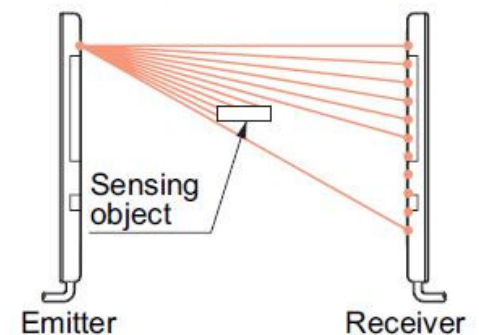
True-beam

Light curtain or area sensor is made up of arrayed emitting and receiving elements.

- Object is detectable as long as it is anywhere in the defined sensing area
- Not affected by shape, color or material of sensing objects (opaque)
- Resistant to dirt and dust on the lenses
- Thin objects, such as post-cards, can be detected



* Cross-beam scanning



Classification by output circuit

Relay Contact

- Drives AC load or DC load
- Large switching capacity (A few ampere)
- Delayed response compared to non-contact output

NPN open-collector transistor

- Able to drive a relay, PLC, TTL, logic circuit, etc.
- A separate power supply can be used for the load.
- Long life
- High-speed response
- Commonly used in North America or Japan



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PNP open-collector transistor

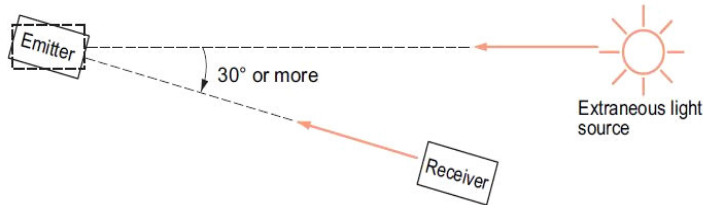
- Commonly used output circuit in Europe
- Power supply is not required for the load.
- Long life
- High-speed response

3. Precautions for Proper Use

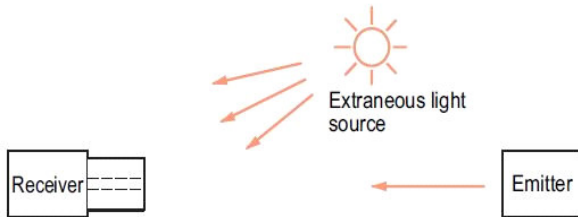
Influence of extraneous light

Intense light or light from inverter fluorescent lamps may affect the sensor operation. In any ambient light situation that affect the proper operation of sensor, the following solutions are necessary to prevent it.

Solution 1: Tilt the beam axis so that the receiver is not directly facing the extraneous light source.



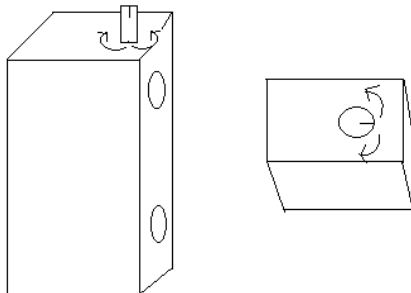
Solution 2: Attach a hood on the receiver.



*The maximum ambient light intensity that does not cause sensor malfunction

Sensitivity adjustment

As the ambient light getting intense or darker turn the sensitivity trimmer clockwise or anti-clockwise according to your needs.



Other precautions

- The setting distance must be equal to or less than the specified sensing range.
- In a dirty or dusty environment, operation of sensor may affect. If the lens surface is covered with dust or dirt and light transmission is obstructed, detection may not be possible.
- Verify that the supply voltage variation is within the rating.
- Take care that the sensor does not come in direct contact with water, oil, grease or organic solvents, such as, thinner, etc.



SAFETY LIGHT CURTAIN

OLC-401 Light Curtain Technical Specifications	
Model	OLC-401
Type	Security Light Curtain Laser Sensor
Control	PLC, IoT Devices, Logic Circuit etc.
Minimum Sensing Object	1 cm
Sensing Range	20m
Temperature Range	-10 °C to 50 °C
Detection Type	Non contact
Supply Voltage	5 V DC, 220V AC, 24V DC

