

**OY380523**

**OPTICAL SENSORS • LUMINESCENCE DIFFUSE REFLECTION SENSORS**

Luminescence diffuse reflection sensors are optical sensors detecting luminophors in various materials by using UV light and thus trigger a switching operation. Luminophors are pigments, which are excited to emit light by UV light. This effect is used in various industrial applications. One example is the labeling of various materials such as bottles. Thereby, luminescence diffuse reflection sensors are used for detecting if there is a label on a bottle or not. Since paper contains luminophors, the sensor switches whenever there is a label within the UV light's detection range. If a bottle or any other product is not provided with a label, no switching operation is triggered, with the result that such products can be sorted out during an automated labelling.



**MECHANICAL DATA**

Ambient temperature (MAX)	60 °C
Ambient temperature (MIN)	-20 °C
Degree of protection (IP)	IP67
Housing design	Cuboid
Housing material	Metal
Material of optical surface	Glass
Sensor height	48 mm
Sensor length	38 mm
Sensor width	15 mm
With fiber optics connection	No
With interchangeable lens	No

**ELECTRICAL DATA**

Analogue output 0 mA ... 20 mA	No
Analogue output 0 V ... 10 V	No
Analogue output -10 V ... +10 V	No
Analogue output 4 mA ... 20 mA	No
Equipment protection class	Safety class 2
Max. output current	100 mA
No-load current	35 mA
Number of pins	5
Operating voltage (MAX)	30 V
Operating voltage (MIN)	10 V
Pulse length	10 µs
Readiness delay	100 ms
Reverse polarity protection	Yes
Sensing range (MAX)	300 mm
Setting procedure	Manual adjustment
Short-circuit-proof	Yes
Switching frequency	1500 Hz

**ELECTRICAL DATA**

Type of electrical connection	M12 connector, 5-pin
Type of frequency band of the receiving spectrum	Blue
Type of lamp	UV LED
Type of switching function	Normally closed contact/normally open contact
Type of switching output	PNP/NPN
Voltage type	DC
With blanking function	No
With LED display	Yes
With time function	No

**OPTICAL DATA**

Light source	Blue light
Light spot	380 mm <sup>2</sup>
Luminescence detection	All visible luminescence
Nominal sensing range	300 mm
Optical performance	0.75 mW

**OTHER DATA**

Average nominal service life	100000 h
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**DIMENSIONAL DRAWING**

**INSTALLATION**



Mounting / Installation may only be carried out by a qualified electrician!

**DISPOSAL**



**SAFETY WARNINGS**

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!

Never use these devices in applications where the safety of a person depends on their functionality.