

OT991326

OPTICAL SENSORS • DIFFUSE REFLECTION SENSORS WITH BACKGROUND SUPPRESSION

Optical sensors function contactlessly. They detect objects independent of their characteristics (e.g., shape, color, surface structure, material). The basic operating principle is based on the transmission and reception of light. There are three different versions: 1. The through-beam sensor consists of two separate devices, a transmitter and a receiver that are aligned with one another. If the light beam between the two devices is interrupted, the switching output integrated in the receiver changes its status. 2. With the retro-reflective sensor, the transmitter and receiver are located in one device. The emitted light beam is reflected back to the receiver by a reflector that is to be mounted opposite the device. As soon as the light beam is interrupted, the switching output integrated in the device changes its status. 3. With the diffuse reflection sensor, the transmitter and receiver are in one device. The emitted light beam is reflected by the object that is to be detected. As soon as the receiver detects the reflected light, the switching output integrated in the device changes its status.



MECHANICAL DATA

Ambient temperature	-20 °C ... 55 °C
Degree of protection (IP)	IP67
Housing design	Cuboid
Housing material	Plastic
Material of optical surface	Plastic
Number of wires	3
Reflector included in the scope of delivery	No
Sensor height	68 mm
Sensor length	40 mm
Sensor width	20 mm
Shock resistance	50 g
Storage temperature	70 °C
Storage temperature	-20 °C
Vibration resistance	55 Hz

ELECTRICAL DATA

Adjustment range	100 mm ... 2000 mm
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
Decay time	2 ms
Hysteresis	10 %
Interference suppression	Yes
IO-Link compatible	No
Max. output current	100 mA
Max. switching distance	2000 mm

ELECTRICAL DATA

No-load current	55 mA
Number of pins	3
Number of switching outputs	1
Operating voltage	10 V ... 30 V
Rated switching distance	2000 mm
Residual ripple	15 %
Response time	2 ms
Reverse polarity protection	Yes
Scanning function	Light-/dark-on mode
Sensing range	100 mm ... 2000 mm
Setting procedure	Manual adjustment
Short-circuit-proof	Yes
Switching frequency	250 Hz
Type of electrical connection	Connector M12
Type of switching function	Anticoincidence
Type of switching output	PNP
Voltage drop	1 V
Voltage type	DC
With LED display	Yes
With LED display (signal)	Yes
With other analog output	No

OPTICAL DATA

Background suppression	Yes
Light beam form	Point
Light source	Infrared light
Triangulation	Background suppression
Wavelength of the sensor	880 nm

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!

