OY98C886

OPTICAL SENSORS • THROUGH-BEAM SENSORS

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	-25 °C ... 55 °C
Cable length	2 m
Degree of protection (IP)	IP67
Housing coating	Nickel-plated
Housing design	Cylinder, screw-thread
Housing material	Polycarbonate
Material of cable sheath	PVC
Material of optical surface	Polycarbonate
Number of wires	3
Sensor length	14 mm
Shock resistance	50 g
Storage temperature	70 °C
Storage temperature	-30 °C
Thread length	7 mm
Thread pitch	0.7 mm
Thread size, metric	4
Vibration resistance	500 Hz
Wire cross section	0.1 mm²

ELECTRICAL DATA

Decay time	0.5 ms
IO-Link compatible	No
Max. output current	50 mA
Measuring range	0.5 m
No-load current, receiver	10 mA
No-load current, transmitter	10 mA
Operating voltage	12 V ... 24 V

ELECTRICAL DATA

Rated switching distance	500 mm
Relative repeat accuracy	50 µm
Residual ripple	10 %
Response time	0.5 ms
Reverse polarity protection	Yes
Setting procedure	Manual adjustment
Short-circuit-proof	Yes
Switching frequency	1000 Hz
Type of electrical connection	Cable
Type of input voltage	DC
Type of switching function	Breaker contact (NC)
Type of switching output	PNP
Voltage drop	2 V
Voltage type	DC
With LED display	Yes
With LED display (functional reserve)	Yes
With LED display (signal)	Yes
With time function	No

OPTICAL DATA

Light beam form	Point
Light source	Polarity free red light
Wavelength of the sensor	660 nm

OTHER DATA

Scope of delivery of the one-way system	Transmitter and receiver

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!

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