

PT70C812

LASER SENSORS • DISTANCE MEASUREMENT

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 ... 50 °C
Degree of protection (IP)	IP67
Housing design	Cuboid
Housing material	Zinc die-cast
Material of optical surface	Glass
Sensor height	90 mm
Sensor length	70 mm
Sensor width	30 mm
Storage temperature	-30 °C ... 70 °C

ELECTRICAL DATA

IO-Link compatible	No
Max. output current	100 mA
Measuring method for optical distance measurement	Light delay time
Measuring range length	300 mm ... 6000 mm
No-load current	150 mA
Number of pins	5
Number of switching outputs	1
Relative repeat accuracy	10 %
Reverse polarity protection	Yes
Scanning principle	Push button
Setting procedure	Teach-In
Short-circuit-proof	Yes
Supply voltage	18 V ... 30 V
Type of analog output	1 V ... 10 V
Type of electrical connection	Connector M12
Type of switching function	Push-pull

ELECTRICAL DATA

Type of switching output	PNP/NPN
Voltage type	DC
With LED display	Yes

OPTICAL DATA

Geometrical resolution	3 mm
Laser protection class	Class 2
Light beam form	Line
Light source	Laser diode, red light
Light spot range	49 mm ²
Light spot range	49 mm ²
Light spot, laser focus	49 mm ²
Relative measurement accuracy	1 %
Resolution	3 mm

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!