

SEN01-LAS

Sensor



Product Description



Product Features

- Robust stainless steel housing for use in the Transportation and Logistics industry
- Resistant to high-pressure cleaning with aggressive cleaning agents
- High protection rating for the requirements of harsh industrial environments
- Intuitive setting of range and output function
- Particularly compact housing for use where space is restricted
- Range is independent of the object color

Available sensor model is a diffuse reflection type, the photoelectric sensors in the design offer an outstanding optical performance at a competitive price. The clearly defined consistent light spot ensures precise object detection. There is no scattered light which could interfere with other photoelectric sensors in close vicinity.

Diffuse reflection sensors provide interference immune background suppression even in case of highly reflective backgrounds such as moving machine parts. Units with visible red light facilitate installation and set-up. Where objects are to be detected, e.g. in trailer or container applications, visible light is often not wanted. This is a perfect field of application for sensor versions with non-visible infrared light. The range can be set intuitively via potentiometer. Light-on / dark-on mode is selected via rotary switch. The transmitter and receiver in a diffuse sensor is located in the same housing.

The transmitted light reflects back to the sensor from the target and the receiver evaluates it. It is important to carefully consider the characteristics of the target and the background behind the target when selecting the correct solution for an application. Diffuse sensors have much less excess gain than thru-beam pairs, but typically more than polarized retroreflective types. The sensitivity of diffuse sensors is very high. Only 2% of the transmitted light energy reflected off the target will cause the output to switch.



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Product Specifications

General data

- Operating principle: Diffuse-reflection sensor
- Range max: 0.5 m
- Type: Rectangular
- Operating distance: 5-500 mm
- Type of light: Red light
- Wavelength: 633 nm
- Light spot: 15 (at sensing range mm) mm
- Adjustment: Knobs
- Function display: LED

Electrical data

- Operating voltage min: .10 V
- Operating voltage max: .30 V
- Type of voltage: DC
- Output: PNP
- Output function: Light-on/dark-on
- Output current max: .100 mA
- Switching frequency: 1000
- Short-circuit protection: Yes
- Reverse polarity protection: Yes

Mechanical data

- Size: 13 x 35 mm (0.11 x 1.37 in)
- Total length: 21 mm (0.82 in)
- Connection: 0.3 m PVC cable with M12 connector (rotatable)
- Housing material: V4A (1.4404)
- Material of the lens: PMM

Ambient conditions

- Ambient temperature: min .-25 °C
- Ambient temperature: max .80 °C
- Protection rating: IP67/IP68/IP69K
- Application: Transportation and Logistics industry

Further information

- Approval CE, cULus