



# WTB140-P330

PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ

## Ordering information

Type	part no.
WTB140-P330	6012642

Other models and accessories → [www.sick.com/](http://www.sick.com/)

## Detailed technical data

### Features

<b>Functional principle</b>	Photoelectric proximity sensor
<b>Functional principle detail</b>	Background suppression
<b>Dimensions (W x H x D)</b>	11 mm x 31 mm x 20 mm
<b>Housing design (light emission)</b>	Rectangular
<b>Sensing range max.</b>	2 mm ... 500 mm <sup>1)</sup>
<b>Sensing range</b>	15 mm ... 500 mm <sup>1)</sup>
<b>Type of light</b>	Visible red light
<b>Light source</b>	LED
<b>Wave length</b>	680 nm

<sup>1)</sup> Object with 90% remission (based on standard white, DIN 5033).

### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Ripple</b>	± 10 %
<b>Current consumption</b>	30 mA <sup>1)</sup>
<b>Switching output</b>	PNP
<b>Switching mode</b>	Light/dark switching
<b>Switching mode selector</b>	Selectable via light/dark rotary switch
<b>Response time</b>	≤ 0.5 ms <sup>2)</sup>
<b>Connection type</b>	Connector M8, 3-pin
<b>Housing material</b>	Plastic, PBT
<b>Optics material</b>	Plastic, PC
<b>Enclosure rating</b>	IP67
<b>Ambient operating temperature</b>	-25 °C ... +55 °C
<b>Ambient temperature, storage</b>	-40 °C ... +70 °C

<sup>1)</sup> Without load.

<sup>2)</sup> Signal transit time with resistive load.

UL File No.	NRNT2.E128350 & NRNT8.E128350
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- 1) Without load.  
2) Signal transit time with resistive load.

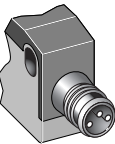
Safety-related parameters

MTTF <sub>D</sub>	711 years
DC <sub>avg</sub>	0 %

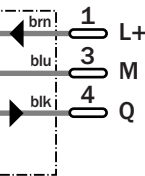
Classifications

ECLASS 5.0	27270903
ECLASS 5.1.4	27270903
ECLASS 6.0	27270903
ECLASS 6.2	27270903
ECLASS 7.0	27270903
ECLASS 8.0	27270903
ECLASS 8.1	27270903
ECLASS 9.0	27270903
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ETIM 5.0	EC001821
ETIM 6.0	EC001821
ETIM 7.0	EC002719
UNSPSC 16.0901	39121528

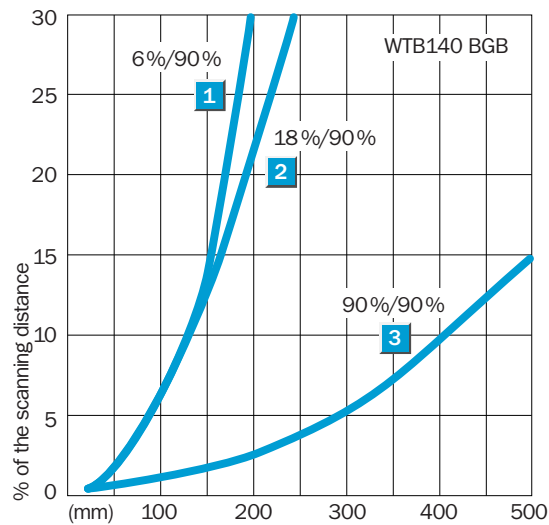
Connection type



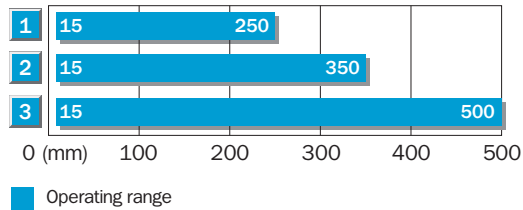
Connection diagram



### Characteristic curve

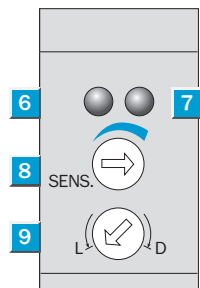


### Sensing range diagram



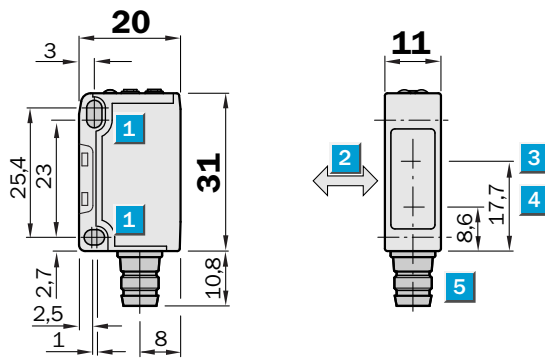
1	Scanning range on black, 6 % remission
2	Scanning range on gray, 18 % remission
3	Scanning range on white, 90 % remission

### Adjustments



- ⑥ Green LED indicator: light reception with operating reserve  $>1.1$  and  $<0.9$
- ⑦ Orange LED indicator : switching output active
- ⑧ Sensing range adjustment: potentiometer, 5 turns
- ⑨ Light/ dark rotary switch: L = light switching, D = dark switching

## Dimensional drawing



Dimensions in mm (inch)

- ① Mounting hole,  $\varnothing$  3.2 mm for M3
- ② Standard direction of the material being detected
- ③ Center of optical axis, receiver
- ④ Center of optical axis, sender
- ⑤ Connection

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

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