



WTB140-P430

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	part no.
WTB140-P430	6012643

Other models and accessories → www.sick.com/

Detailed technical data

Features

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

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

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	± 10 %
Current consumption	30 mA ¹⁾
Switching output	PNP
Switching mode	Light/dark switching
Switching mode selector	Selectable via light/dark rotary switch
Response time	≤ 0.5 ms ²⁾
Connection type	Male connector M8, 4-pin
Housing material	Plastic, PBT
Optics material	Plastic, PC
Enclosure rating	IP67
Ambient operating temperature	-25 °C ... +55 °C
Ambient temperature, storage	-40 °C ... +70 °C

¹⁾ Without load.

²⁾ 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.

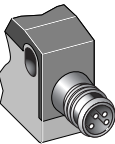
Safety-related parameters

MTTF _D	711 years
DC _{avg}	0 %

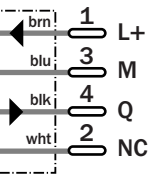
Classifications

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

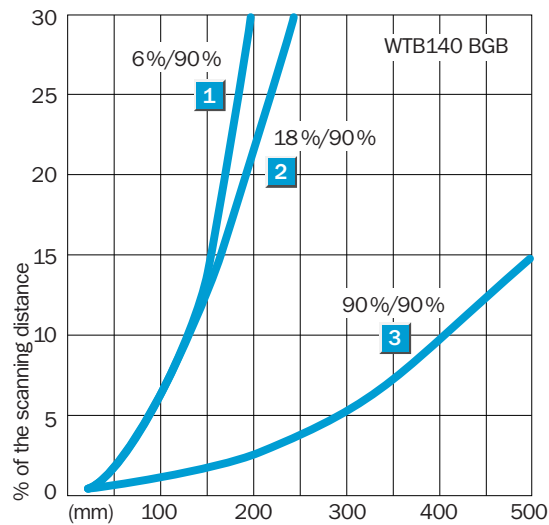
Connection type



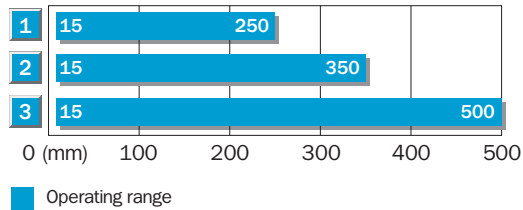
Connection diagram



Characteristic curve

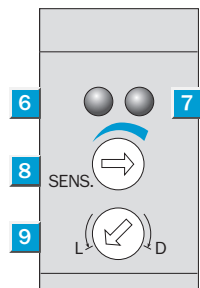


Sensing range diagram



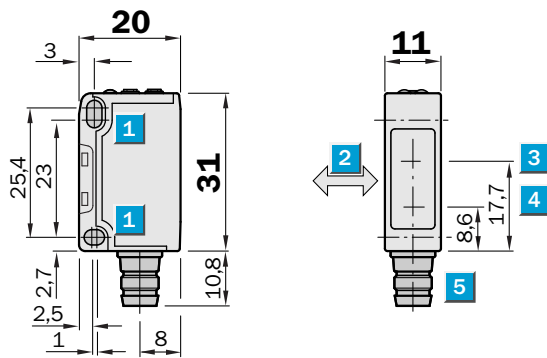
1	Scanning range on black, 6 % remission
2	Scanning range on gray, 18 % remission
3	Scanning range on white, 90 % remission

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:

Contacts and other locations –www.sick.com