



WT12L-2B550A01

W12-2 Laser

SMALL PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
WT12L-2B550A01	1018473

Other models and accessories → www.sick.com/W12-2_Laser

Illustration may differ



Detailed technical data

Features

Sensor/ detection principle	Photoelectric proximity sensor
Dimensions (W x H x D)	15 mm x 49 mm x 41.5 mm
Housing design (light emission)	Rectangular
Sensing range max.	30 mm ... 200 mm ¹⁾
Focus	100 mm
Type of light	Visible red light
Light source	Laser ²⁾
Light spot size (distance)	Ø 0.2 mm (100 mm)
Wave length	650 nm
Laser class	2 (EN 60825-1:2014, IEC 60825-1:2007) ³⁾
Adjustment	Potentiometer

¹⁾ Object with 18 % reflectance.

²⁾ Average service life: 50,000 h at T_U = +25 °C.

³⁾ Pulse length 4 µs, max. pulse power < 5,0 mW.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC ¹⁾
Ripple	≤ 5 V _{pp} ²⁾
Power consumption	55 mA ³⁾
Switching output	PNP ⁴⁾

¹⁾ Limit values when operated in short-circuit protected network: max. 8 A.

²⁾ May not exceed or fall below U_v tolerances.

³⁾ Without load.

⁴⁾ 0 V or not connected, light switching.

⁵⁾ U_v, dark switching.

	NPN ⁵⁾
Switching mode	Light switching ⁴⁾ Dark switching ⁵⁾
Connection type	Male connector M12, 5-pin
Protection class	II
Weight	130 g
Housing material	Metal
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	-10 °C ... +50 °C
Ambient storage temperature	-25 °C ... +75 °C

1) Limit values when operated in short-circuit protected network: max. 8 A.

2) May not exceed or fall below U_v tolerances.

3) Without load.

4) 0 V or not connected, light switching.

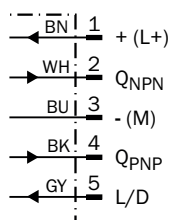
5) U_v , dark switching.

Classifications

ECl@ss 5.0	27270902
ECl@ss 5.1.4	27270902
ECl@ss 6.0	27270902
ECl@ss 6.2	27270902
ECl@ss 7.0	27270902
ECl@ss 8.0	27270902
ECl@ss 8.1	27270902
ECl@ss 9.0	27270902
ECl@ss 10.0	27270902
ECl@ss 11.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
UNSPSC 16.0901	39121528

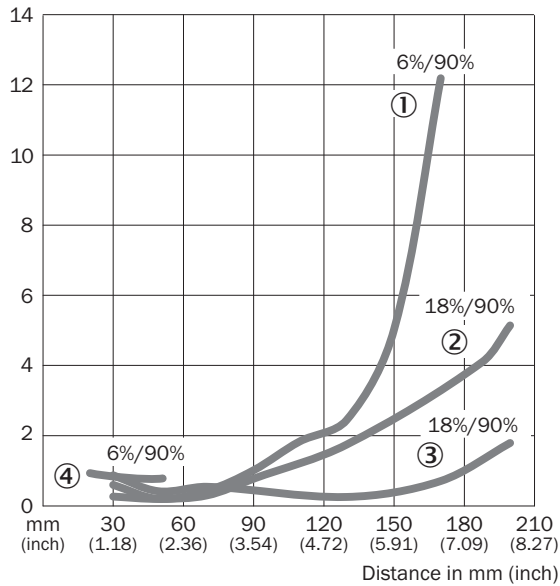
Connection diagram

Cd-145



Characteristic curve

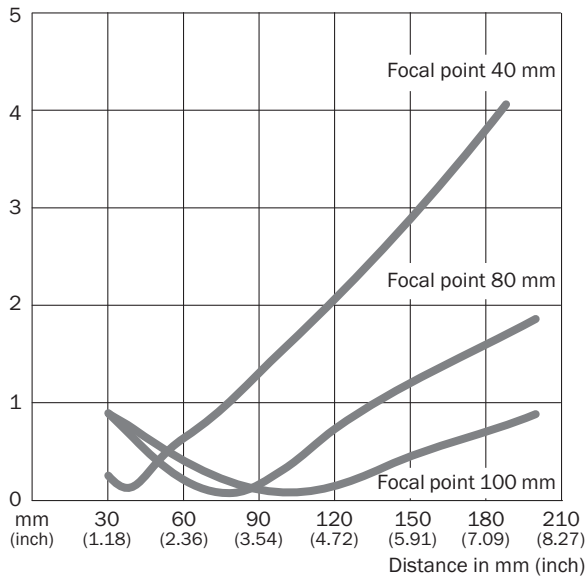
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- ① Sensing range on black, 6% remission
- ② Sensing range on gray, 18 % remission
- ③ Sensing range on white, 90% remission
- ④ Sensing range on black, 6 % remission, fix

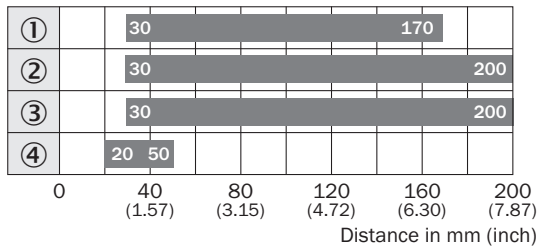
Light spot size

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Sensing range diagram

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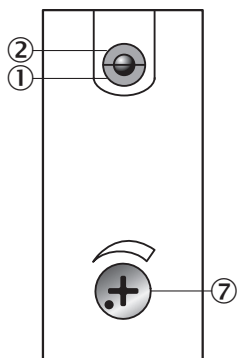


■ Sensing range

- ① Sensing range on black, 6% remission
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- ④ Sensing range on black, 6% remission, fix

Adjustments possible

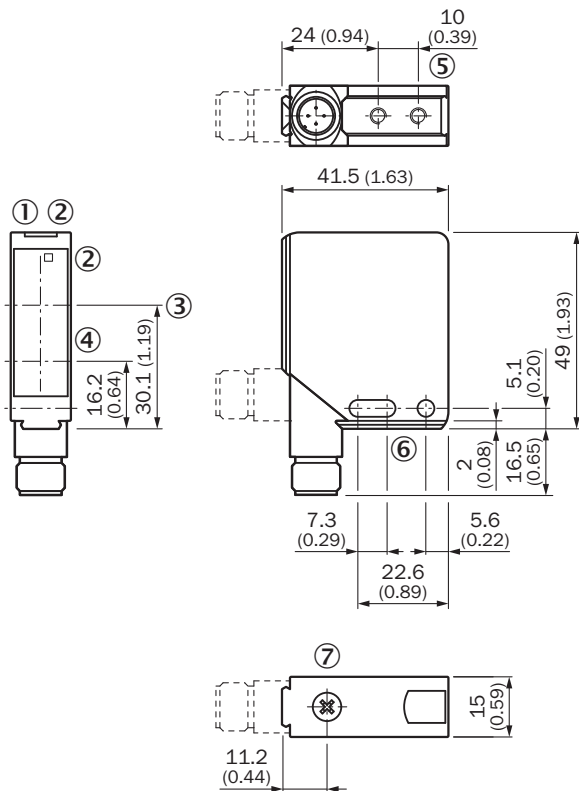
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- ① Operating indicator, green
- ② LED reception indicator, yellow
- ⑦ Adjustment of sensing range

Dimensional drawing (Dimensions in mm (inch))

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- ① Operating indicator, green
- ② LED reception indicator, yellow
- ③ Optical axis, receiver
- ④ Optical axis, sender
- ⑤ M4 threaded mounting hole - 4 mm deep
- ⑥ Mounting hole, Ø 4.2 mm
- ⑦ Adjustment of sensing range

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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