



DATA SHEET

WLG190T-P410

W190 Laser High Grade Glass
Photoelectric sensors

SICK

Sensor Intelligence



Illustration may differ

PHOTOELECTRIC SENSORS

WLG190T-P410

ORDERING INFORMATION

Type	part no.
WLG190T-P410	6026538

Further device versions and accessories at www.sick.com/W190 Laser High Grade Glass



DETAILED TECHNICAL DATA

FEATURES

Functional principle	Photoelectric retro-reflective sensor
Functional principle detail	Autocollimation
Dimensions (W x H x D)	15 mm x 44.4 mm x 30 mm
Housing design (light emission)	Rectangular
Sensing range max.	0.01 m ... 1.8 m ¹⁾ 0.01 m ... 1.2 m ²⁾
Sensing range	²⁾
Type of light	Visible red light
Light source	Laser
Light spot size (distance)	Ø 15 mm (1 m)
Laser class	2
Adjustment	Menu-controlled Single teach-in button Teach-in
Display	Sender power, reflectivity, switching threshold, distance, mode
Special feature	Detecting transparent objects

¹⁾ Reflector PL80A.

²⁾ Reflector P250.

MECHANICS/ELECTRONICS

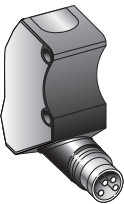
Supply voltage	10 V DC ... 30 V DC ¹⁾
Ripple	± 10 % ²⁾
Current consumption	40 mA ³⁾
Switching output	PNP
Switching mode	Light/dark switching
Switching mode selector	Programmable
Output current I _{max}	≤ 100 mA
Response time	0.7 ms ⁴⁾ 2 ms ⁵⁾ 5 ms
Switching frequency	700 Hz ⁶⁾ 200 Hz ⁵⁾ 100 Hz
Time functions	Programmable Programmable: 0 ... 10 s
Delay time	Nor: normal mode Ond: On delay mode, reactivation delay OFd: Off-delay mode, release delay OnE: One Shot Mode, ONE SHOT
Connection type	Male connector M8, 4-pin
Circuit protection	A ⁷⁾ D ⁸⁾
Protection class	III ⁹⁾
Weight	120 g
Polarisation filter	✓
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Tightening torque, max.	0.5 Nm
Enclosure rating	IP67
Items supplied	Reflector P250F
Special feature	Detecting transparent objects
Ambient operating temperature	-10 °C ... +40 °C
Ambient temperature, storage	-20 °C ... +60 °C

¹⁾ Limit values.²⁾ May not exceed or fall below U_v tolerances.³⁾ Without load.⁴⁾ Signal transit time with resistive load.⁵⁾ Programmable.⁶⁾ With light/dark ratio 1:1.⁷⁾ A = V_s connections reverse-polarity protected.⁸⁾ D = outputs overcurrent and short-circuit protected.⁹⁾ Reference voltage: 50 V DC.**CERTIFICATES**

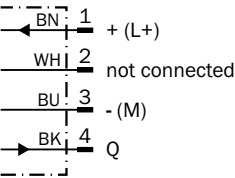
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓

Moroccan declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓
cRUus certificate	✓
Photobiological safety (DIN EN 62471) certificate	✓
Laser safety (IEC 60825-1) certificate	✓

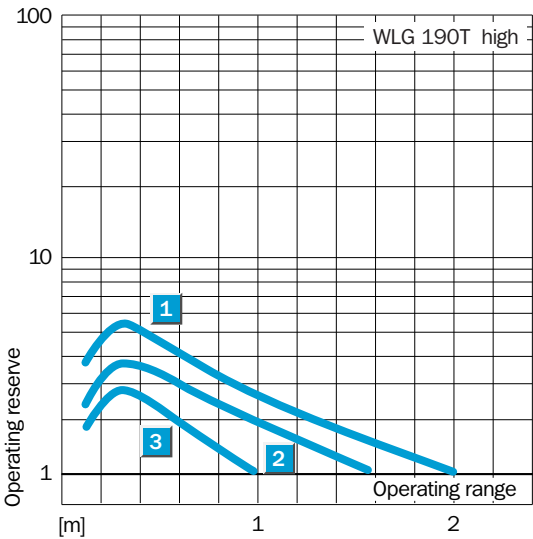
CONNECTION TYPE



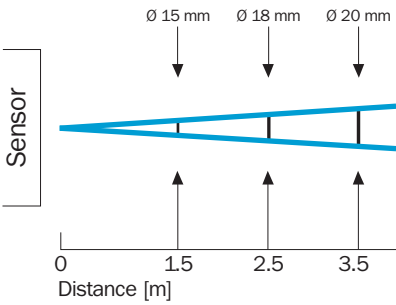
CONNECTION DIAGRAM CD-066



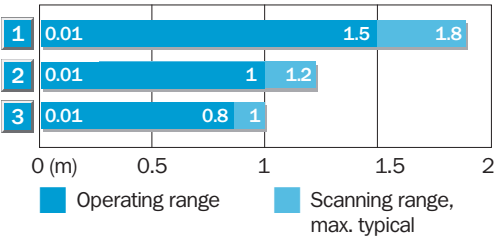
CHARACTERISTIC CURVE WLG190T, 1.8 M



LIGHT SPOT SIZE WLG190T

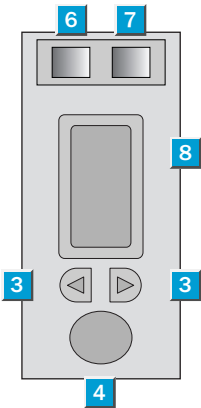


SENSING RANGE DIAGRAM WLG190T, 1.8 M



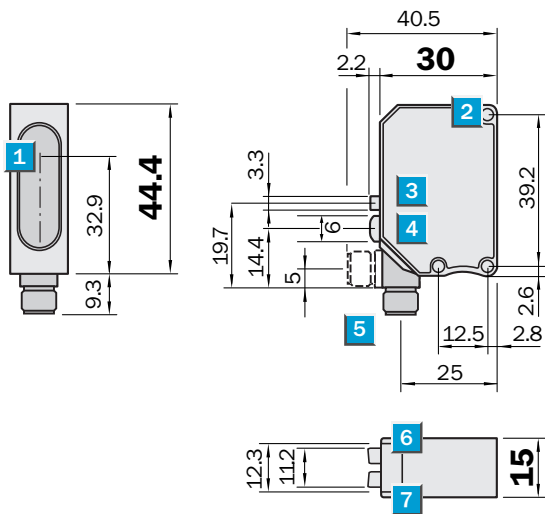
Reflector type	Operating range
1 PL 80 A	0.01 ... 1.5 m
2 P 250/PL 40 A/PL 50 A	0.01 ... 1 m
3 PL 30 A/PL 31 A	0.01 ... 0.8 m

ADJUSTMENTS



- ③ +/- button; select mode button
- ④ Teach-in button
- ⑥ Status indicator LED, green: Laser on
- ⑦ Status indicator LED, yellow: Output active
- ⑧ Numerical Display

DIMENSIONAL DRAWING



Dimensions in mm (inch)

- ① Center of optical axis
- ② Mounting hole, $\varnothing$ approx. 3.1 mm
- ③ +/- button; select mode button
- ④ Teach-in button
- ⑤ Connector M8, 4-pin, 90° rotatable or cable 2 m, 4-wire
- ⑥ Status indicator LED, green: Laser on
- ⑦ Status indicator LED, yellow: Output active

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6026538



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SICK AT A GLANCE

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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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