



WLG190T-P410

W190 Laser High Grade Glass

SMALL PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
WLG190T-P410	6026538

Included in delivery: P250F (1)
Other models and accessories → 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.

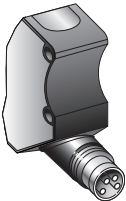
⁹⁾ Reference voltage: 50 V DC.

Classifications

eCI@ss 5.0	27270902
eCI@ss 5.1.4	27270902

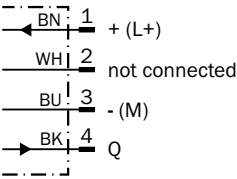
eCl@ss 6.0	27270902
eCl@ss 6.2	27270902
eCl@ss 7.0	27270902
eCl@ss 8.0	27270902
eCl@ss 8.1	27270902
eCl@ss 9.0	27270902
eCl@ss 10.0	27270902
eCl@ss 11.0	27270902
eCl@ss 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

Connection type



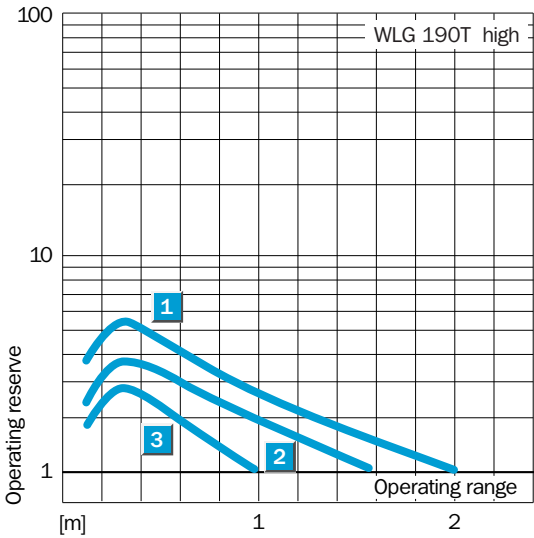
Connection diagram

Cd-066



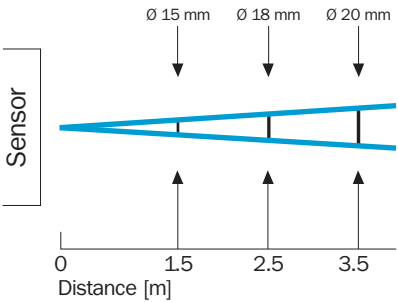
Characteristic curve

WLG190T, 1.8 m



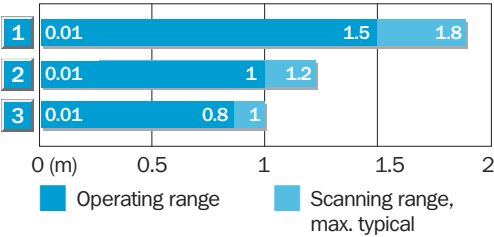
Light spot size

WLG190T



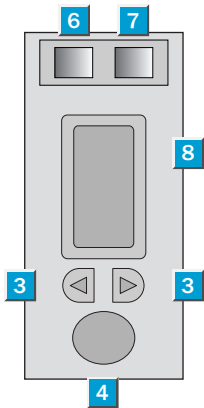
Sensing range diagram

WLG190T, 1.8 m



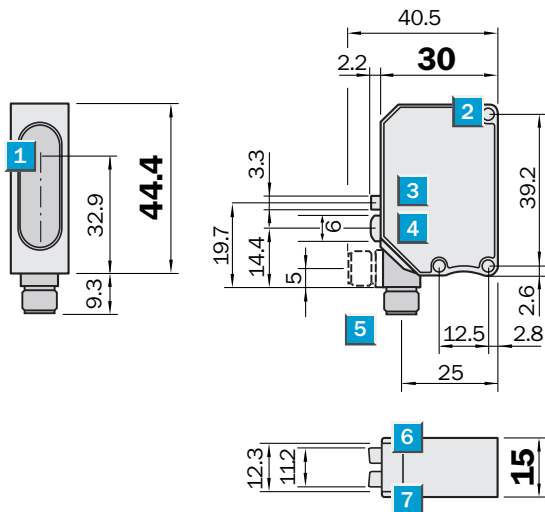
Reflector type	Operating range
1 PL 80 A	0.01 ... 1.5 m
2 P 250/PL 40 A/PL 50 A	0.01 ... 1 m
3 PL 30 A/PL 31 A	0.01 ... 0.8 m

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

Recommended accessories

Other models and accessories → www.sick.com/W190_Laser_High_Grade_Glass

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket, steel, zinc coated, mounting hardware included	BEF-W190	5311362
	Universal mounting bracket for reflectors, steel, zinc coated	BEF-WN-REFX	2064574
Plug connectors and cables			
	Head A: female connector, M8, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF8U14-050VA3XLEAX	2095889
	Head A: male connector, M8, 4-pin, straight Cable: unshielded	STE-0804-G	6037323
Reflectors			
	Rectangular, screw connection, 51 mm x 61 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812
	Fine triple reflector, screw connection, suitable for laser sensors, 52 mm x 62 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250F	5308843

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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.”

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