WLG190T-N122

W190 Laser High Grade Glass

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

WLG190T-N122 | W190 Laser High Grade Glass

PHOTOELECTRIC SENSORS

Illustration may differ

Ordering information

Type	part no.
WLG190T-N122	6022823

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 … 5.5 m [1]
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 P250F.

Mechanics/electronics

Supply voltage	10 V DC … 30 V DC [1]
Ripple	± 10 % [2]
Current consumption	40 mA [3]

[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] Do not bend below 0 °C.
[8] A = V_S connections reverse-polarity protected.
[9] D = outputs overcurrent and short-circuit protected.
[10] Reference voltage: 50 V DC.

Switching output	NPN
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	Cable, 4-wire, 2 m [7]
Conductor cross section	0.18 mm²
Circuit protection	A [8] D [9]
Protection class	III [10]
Weight	200 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] Do not bend below 0 °C.

[8] A = V$_S$ connections reverse-polarity protected.

[9] D = outputs overcurrent and short-circuit protected.
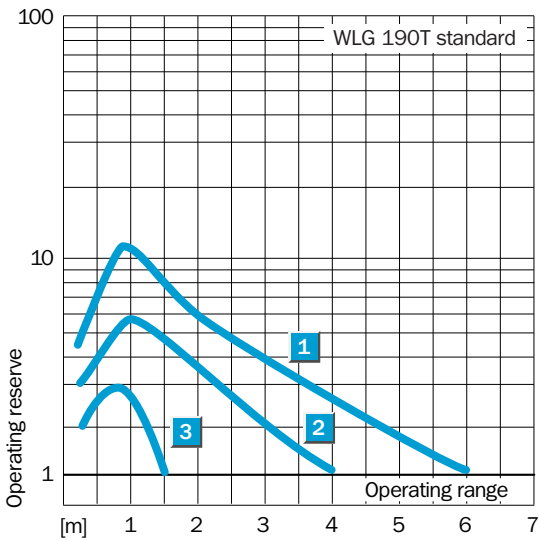
[10] Reference voltage: 50 V DC.

Classifications

ECLASS 5.0	27270902
ECLASS 5.1.4	27270902
ECLASS 6.0	27270902
ECLASS 6.2	27270902

ECLASS 7.0	27270902
ECLASS 8.0	27270902
ECLASS 8.1	27270902
ECLASS 9.0	27270902
ECLASS 10.0	27270902
ECLASS 11.0	27270902
ECLASS 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

Characteristic curve WLG190T, 5.5 m

Light spot size WLG190T

Ø 15 mm   Ø 18 mm   Ø 20 mm

Sensor

| 0 | 1.5 | 2.5 | 3.5 |

Distance [m]
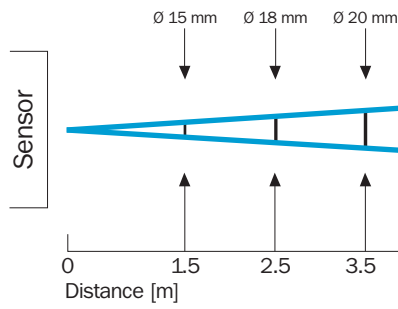
Sensing range diagram WLG190T, 5.5 m

1	0.01				5	5.5
2	0.01		3	3.5		
3	0.01	1	1.2			

0 (m) 1   2   3   4   5   6   7

■ Operating range   ■ Scanning range, max. typical
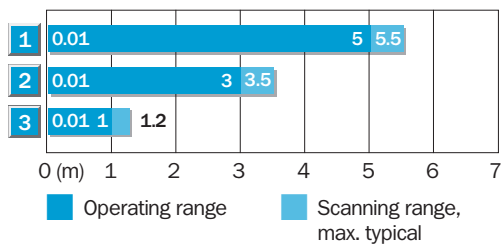
	Reflector type	Operating range
1	P 250 F	0.01 … 5 m
2	PL 20 F	0.01 … 3 m
3	PL 10 F	0.01 … 1 m

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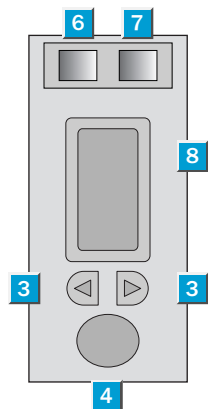
③ +/-- button; select mode button
④ Teach-in button
⑥ Status indicator LED, green: Laser on
⑦ Status indicator LED, yellow: Output active
⑧ Numerical Display

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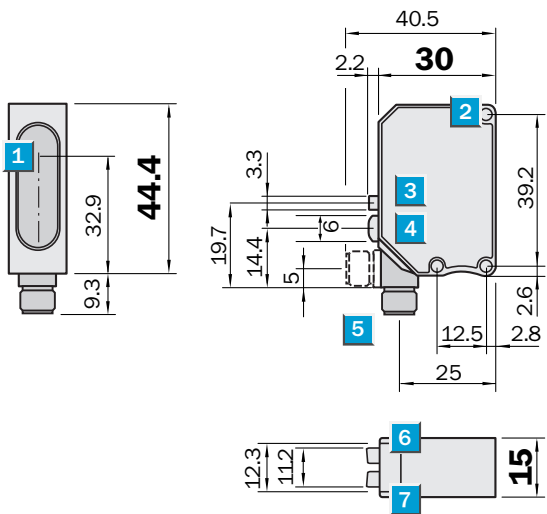
Dimensions in mm (inch)
① Center of optical axis
② Mounting hole, ø approx. 3.1 mm
③ +/-- button; select mode button
④ Teach-in button
⑤ Connector M8, 4-pin, 90° rotatable or cable 2 m, 4-wire
⑥ Status indicator LED, green: Laser on
⑦ Status indicator LED, yellow: Output active

Recommended accessories

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

Brief description	Type	part no.
reflectors and optics		
• **Description:** Rectangular, screw connection • **Dimensions:** 51 mm 61 mm • **Ambient operating temperature:** –30 °C ... +65 °C	P250	5304812
• **Description:** Fine triple reflector, screw connection, suitable for laser sensors • **Dimensions:** 52 mm 62 mm • **Ambient operating temperature:** –30 °C ... +65 °C	P250F	5308843

Brief description	Type	part no.
Mounting systems		
• **Description:** Universal mounting bracket for reflectors • **Dimensions (W x H x L):** 85 mm x 90 mm x 35 mm • **Material:** Steel • **Details:** Steel, zinc coated • **Suitable for:** C110A, P250, PL20, PL30A, PL40A, PL80A	BEF-WN-REFX	2064574
• **Description:** Mounting bracket • **Material:** Steel • **Details:** Steel, zinc coated • **Items supplied:** Mounting hardware included	BEF-W190	5311362
• **Description:** Plate N11N for universal clamp bracket • **Material:** Stainless steel • **Details:** Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp) • **Items supplied:** Universal clamp (5322627), mounting hardware • **Usable for:** DeltaPac, Glare, WTD20E	BEF-KHS-N11N	2071081
connectors and cables		
• **Connection type head A:** Male connector, M12, 4-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm²	STE-1204-G	6009932

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**

SICK AG | Waldkirch | Germany | www.sick.com

SICK
Sensor Intelligence.