



Photoelectric sensors
W190 Laser High Grade Glass, Photoelectric
retro-reflective sensor, autocollimation

WLG190T-N420



Model Name > [WLG190T-N420](#)
Part No. > [6022826](#)



Illustration may differ

At a glance

- Configurable laser photoelectric sensor with display
- Continuous threshold adaption enables detection of transparent objects
- Precise autocollimation optics
- Programmable output: light/dark switching and switching delay

Your benefits

- Quick and easy alignment due to red light laser, class 2
- Fast configuration via display with menu navigation
- Easy-to-use setup options with a wide range of functions
- Simple sensing range adjustment via a teach-in pushbutton



Features

Sensor/detection principle:	Photoelectric retro-reflective sensor, 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 (distance):	15 mm (1 m)
Laser class:	2
Adjustment of operating distance:	Teach
Teach-in:	Single teach-in button, Menu-controlled
Time type:	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:
Display:	Sender power, reflectivity, switching threshold, distance, mode

¹⁾ P250F

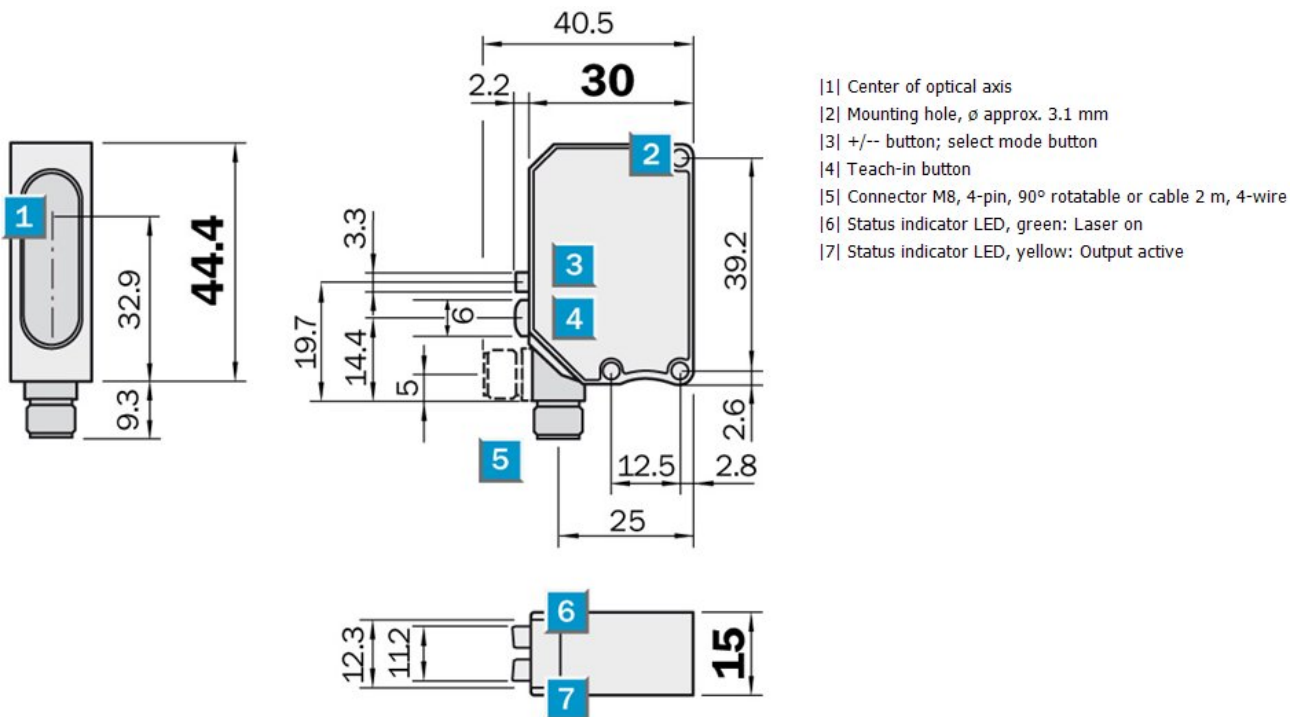
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	± 10 % ²⁾
Power consumption:	≤ 40 mA ³⁾

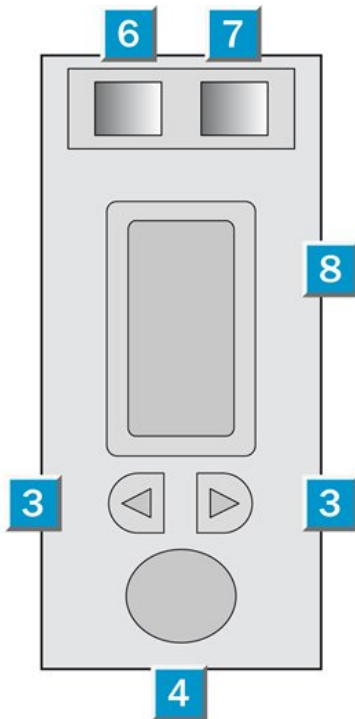
Output type:	NPN, Light/dark-switching, programmable
Output current I _{max} ::	< 100 mA
Response time::	0.7 ms 2 ms ^{4) 5)} 5 ms
Switching frequency::	700 Hz 200 Hz ^{6) 7)} 100 Hz
Connection type:	Connector M8, 4-pin
Circuit protection::	A, D ^{8) 9)}
Protection class:	III ¹⁰⁾
Weight:	120 g
Polarisation filter:	✓
Housing material:	ABS
Optics material:	PMMA
Enclosure rating:	IP 67
Items supplied:	Reflector P250F
Special feature:	For transparent objects
Ambient operating temperature:	-10 °C ... 40 °C
Ambient storage temperature:	-20 °C ... 60 °C

1) Limit values 2) May not exceed or fall short of V_S tolerances 3) Without load 4) Signal transit time with resistive load 5) 7) Programmable 6) With light/dark ratio
 1:1 ⁸⁾ A = V_S connections reverse-polarity protected ⁹⁾ D = outputs overcurrent and short-circuit protected ¹⁰⁾ Reference voltage 50 V DC

Dimensional drawing

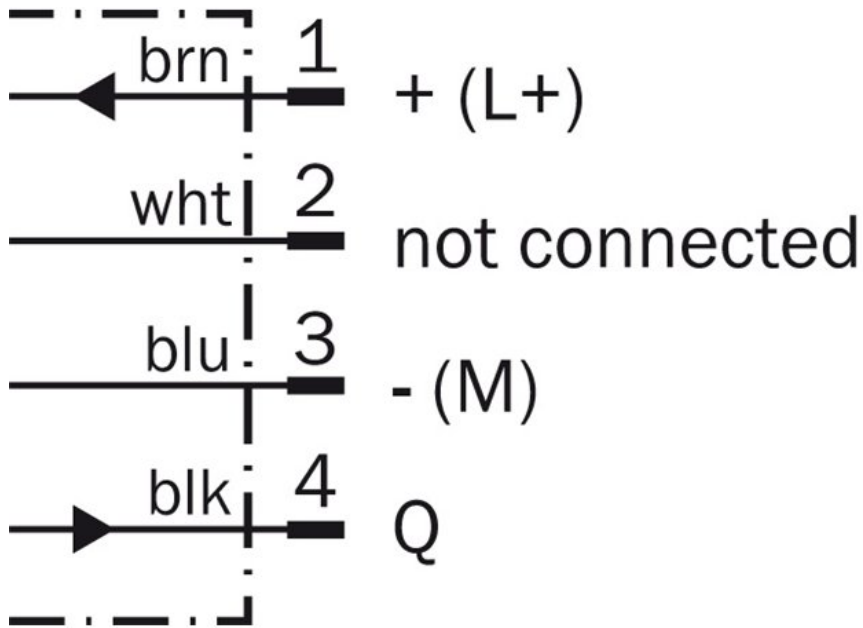


Adjustments possible

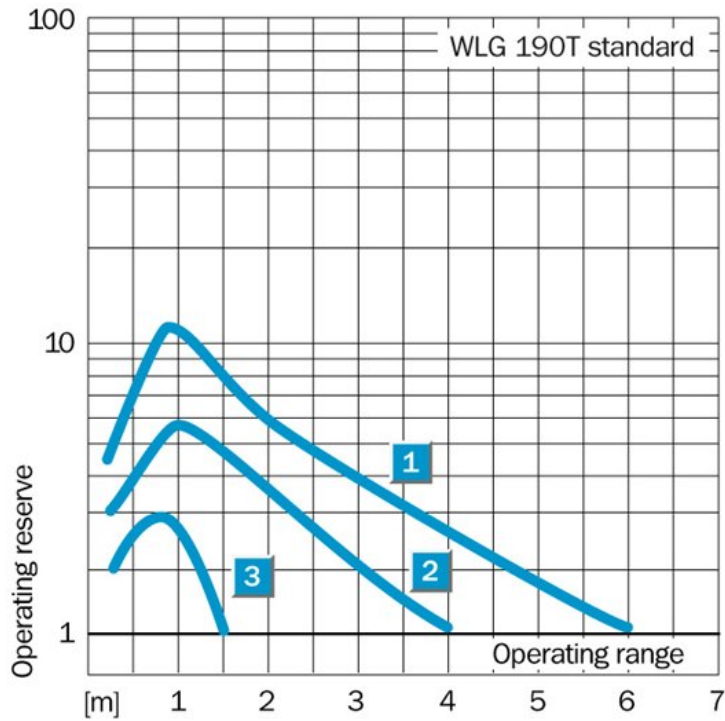


- |3| +/- button; select mode button
- |4| Teach-in button
- |6| Status indicator LED, green: Laser on
- |7| Status indicator LED, yellow: Output active
- |8| Numerical Display

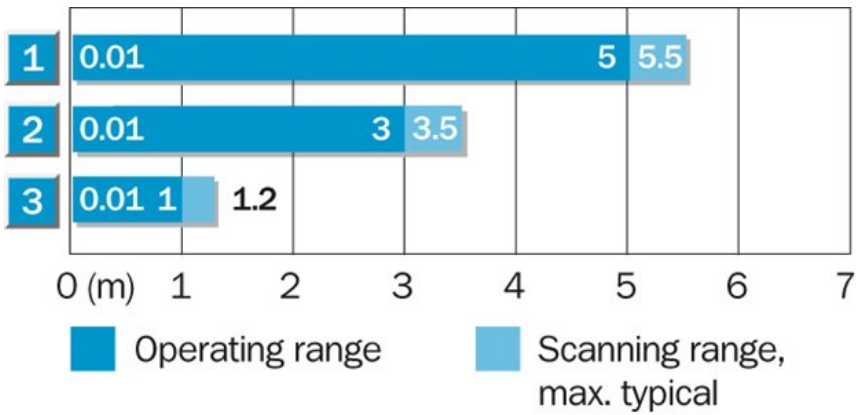
Connection diagram



Characteristic curve

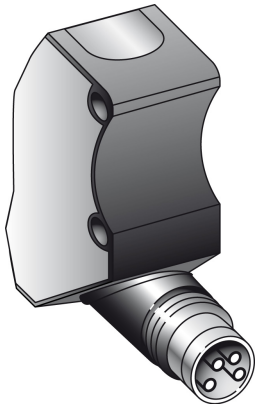


Sensing range diagram

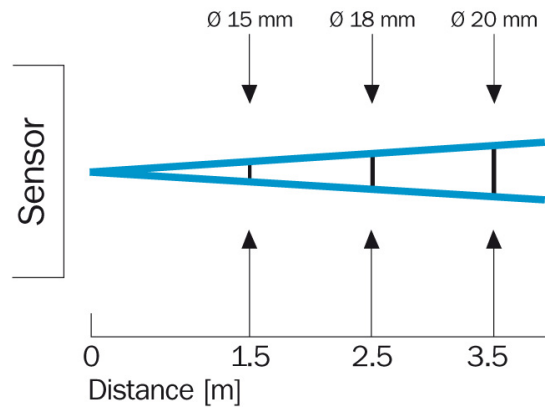


Reflector type	Operating range
1 P 250 F	0.01 ... 5 m
2 PL 20 F	0.01 ... 3 m
3 PL 10 F	0.01 ... 1 m

Connection type



Light spot size



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