



Photoelectric sensors W190 Laser Standard, Through-beam photoelectric sensor

WS/WE190L-P132



Model Name > [WS/WE190L-P132](#)
Part No. > [6026561](#)



Illustration may differ

At a glance

- Laser LED, visible red light, class 2
- User-friendly sensor with simple alignment and adjustment
- Sensitivity setting via potentiometer
- Selectable output: light/dark switching

Your benefits

- Highly visible laser light spot provides simple alignment and adjustment
- Simple adjustment via potentiometer
- Flexible operation with two output functions in one device due to light/dark selector switch



Features

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	15 mm x 44.4 mm x 30 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 50 m
Type of light:	Visible red light
Light source:	Laser
Laser class:	2
Adjustment:	Potentiometer, 1-turn
Light spot size (distance):	Ø 40 mm (10 m)

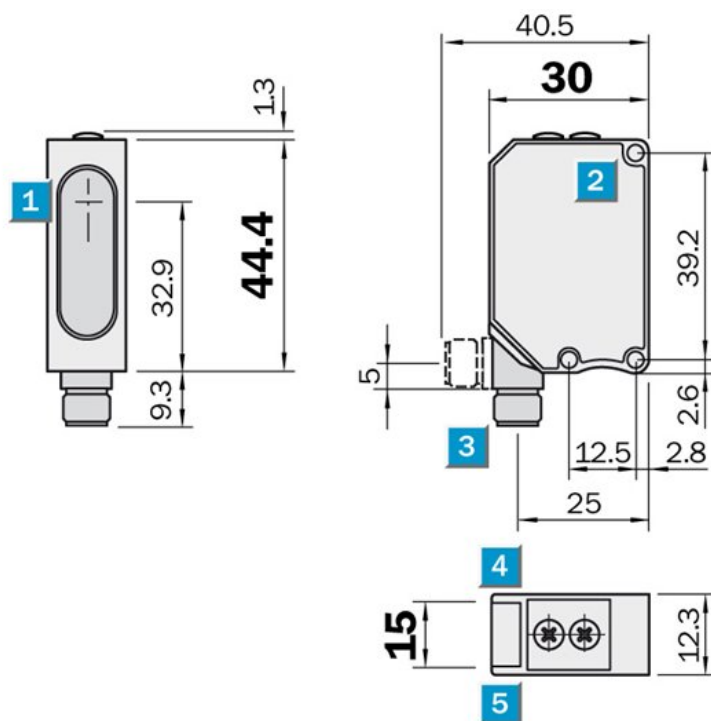
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	± 10 % ²⁾
Power consumption:	≤ 40 mA ³⁾
Output type:	PNP
Switching mode:	Light/dark-switching
Switching mode selector:	Manually selectable
Output current I _{max} ..:	< 100 mA
Response time:	0.5 ms ⁴⁾
Switching frequency:	1,000 Hz ⁵⁾
Connection type:	Cable, 3-wire, 2 m ⁶⁾
Conductor cross-section:	0.18 mm ²
Circuit protection::	A, D ^{7) 8)}
Protection class:	III ⁹⁾

Weight: 200 g
Housing material: ABS, Plastic
Optics material: PMMA
Enclosure rating: IP 67
Ambient operating temperature: -10 °C ... 40 °C
Ambient storage temperature: -20 °C ... 60 °C

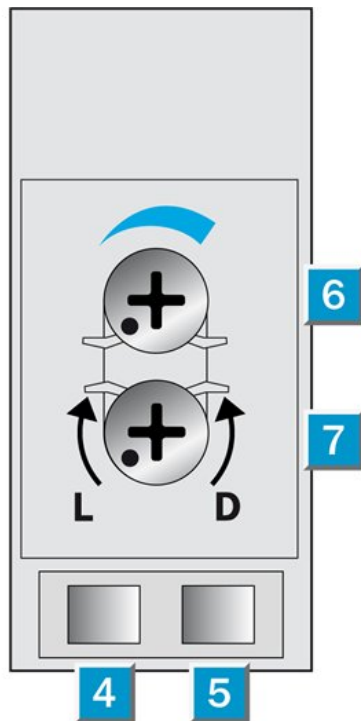
¹⁾ Limit values ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ Do not bend below 0 °C ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ D = outputs overcurrent and short-circuit protected ⁹⁾ Reference voltage 50 V DC

Dimensional drawing



- [1] Center of optical axis
- [2] Mounting hole, $\varnothing$ approx. 3.1 mm
- [3] Connector 4-pin, M8, 90° rotatable or cable 2 m, 3-wire
- [4] Status indicator LED, yellow: Output active
- [5] Status indicator LED, green: Laser on
- [6] Sensitivity adjustment
- [7] L.ON/ d.ON selection switch

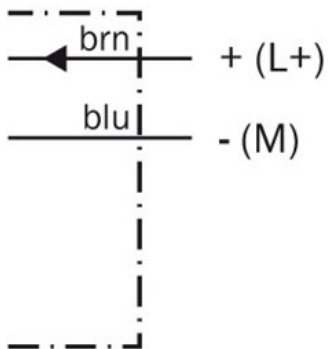
Adjustments possible



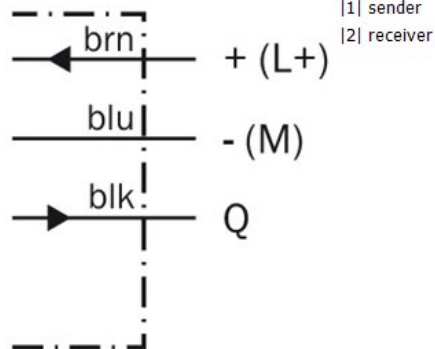
- [4] Status indicator LED, yellow: Output active
- [5] Status indicator LED, green: Laser on
- [6] Sensitivity control
- [7] L.ON/ d.ON selection switch

Connection diagram

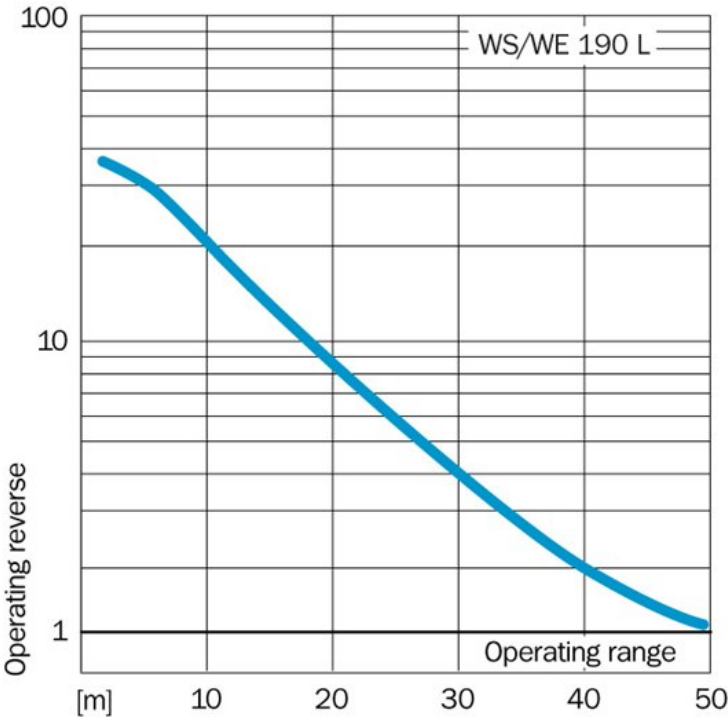
①



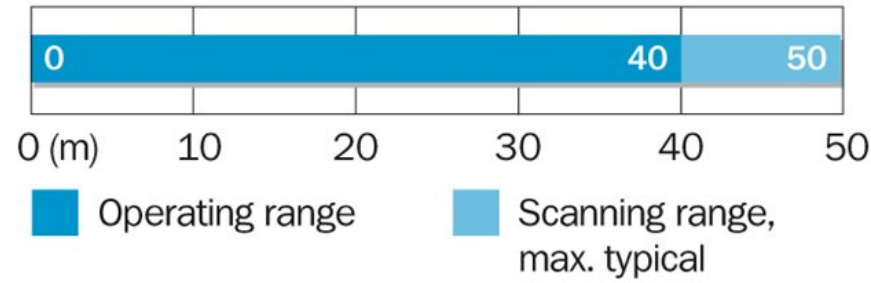
②



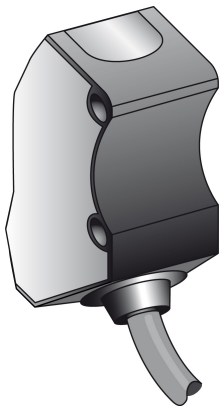
Characteristic curve



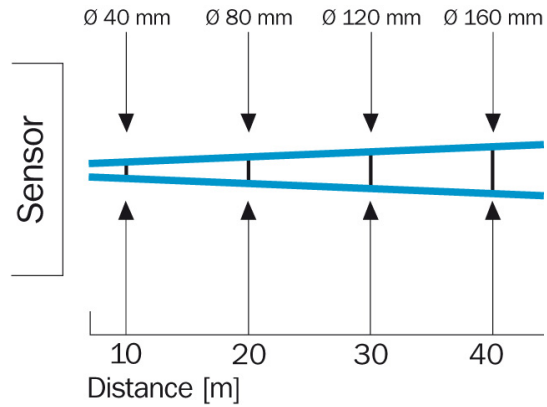
Sensing range diagram



Connection type



Light spot size



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