



Photoelectric sensors
W190 Laser Standard, Through-beam
photoelectric sensor

WS/WE190L-N430



Model Name > [WS/WE190L-N430](#)
Part No. > [6026560](#)



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 of operating distance:	Potentiometer, 1 revolution
Light spot size (distance):	Ø 40 mm (10 m)

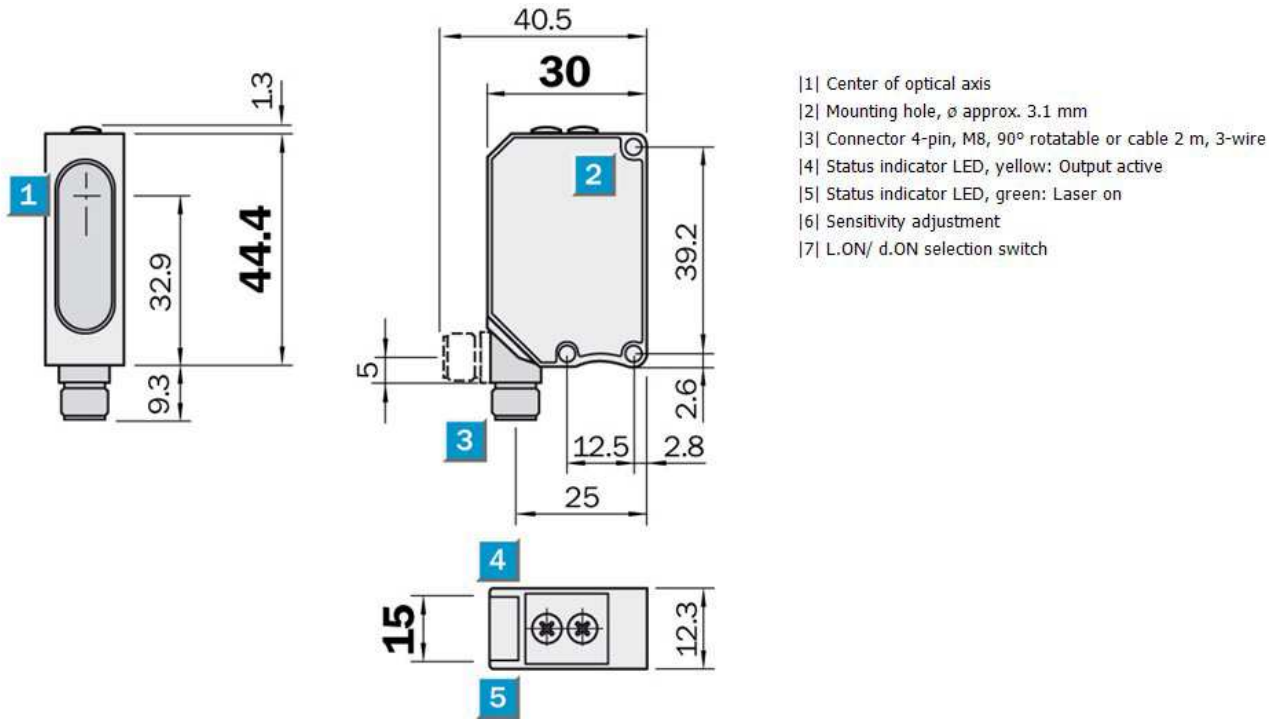
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Residual ripple:	± 10 % ²⁾
Power consumption:	≤ 40 mA ³⁾
Output type:	NPN
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⁾
Electrical connection:	Connector M8, 4-pin
Circuit protection::	A, D ^{6) 7)}
Protection class:	III ⁸⁾
Weight:	120 g

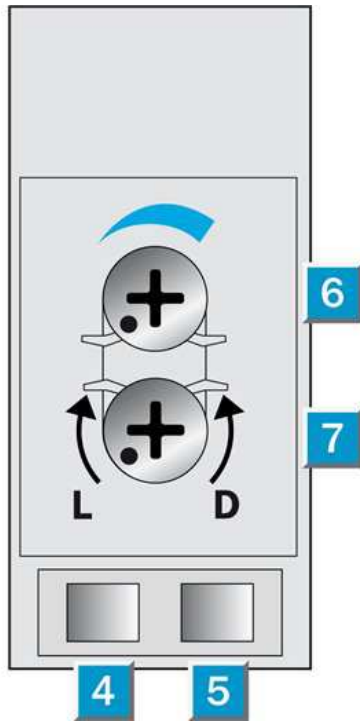
Housing material: ABS, Plastic
 Optics material: PMMA
 Enclosure rating: IP 67
 Ambient temperature operation: -10 °C ... 40 °C
 Ambient storage temperature: -20 °C ... 60 °C

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) $A = V_S$
 connections reverse-polarity protected 7) D = outputs overcurrent and short-circuit protected 8) Reference voltage 50 V DC

Dimensional drawing

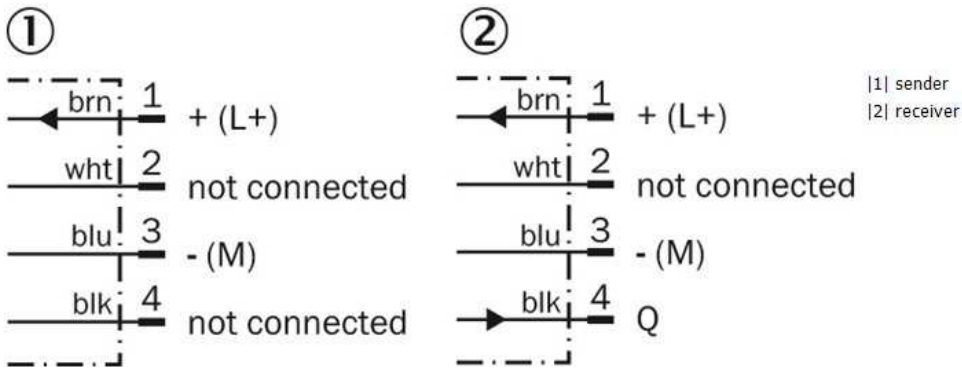


Adjustments possible

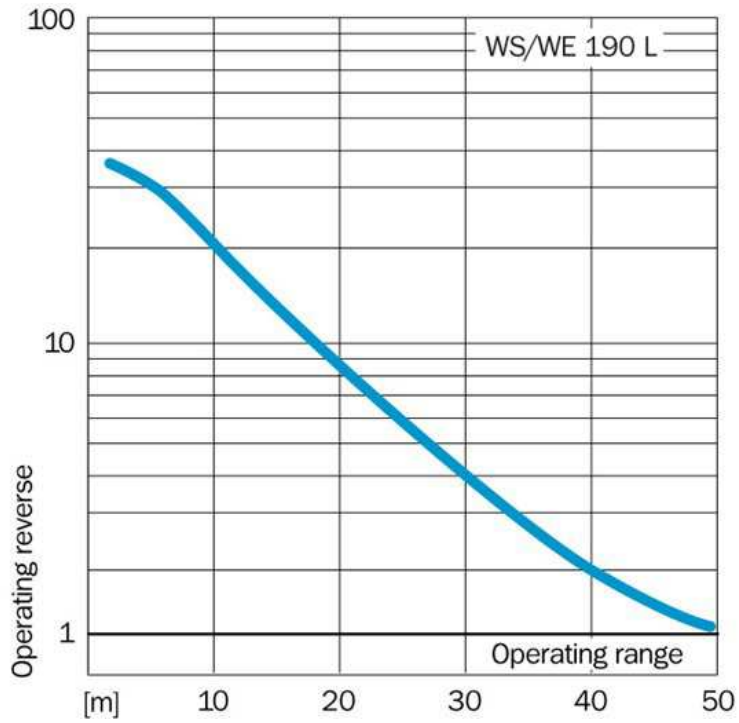


- [4] Status indicator LED, yellow: Output active
- [5] Status indicator LED, green: Laser on
- [6] Sensitivity control
- [7] L.ON/ d.ON selection switch

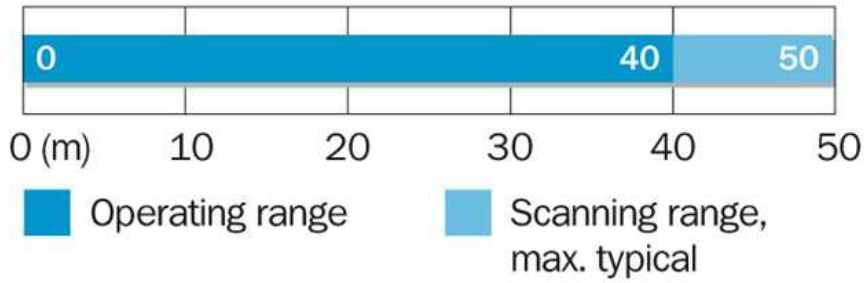
Connection diagram



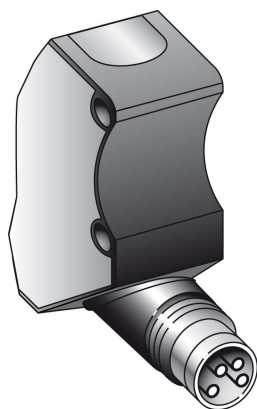
Characteristic curve



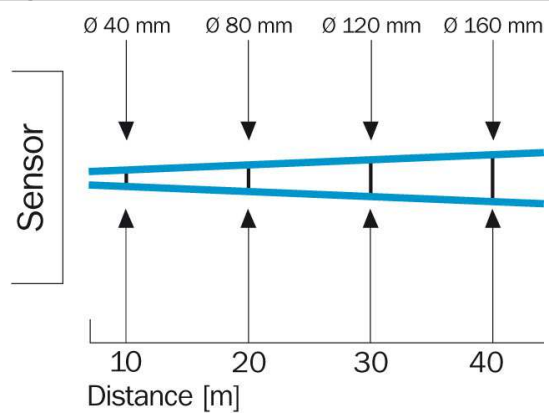
Sensing range diagram



Connection type



Light spot size



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