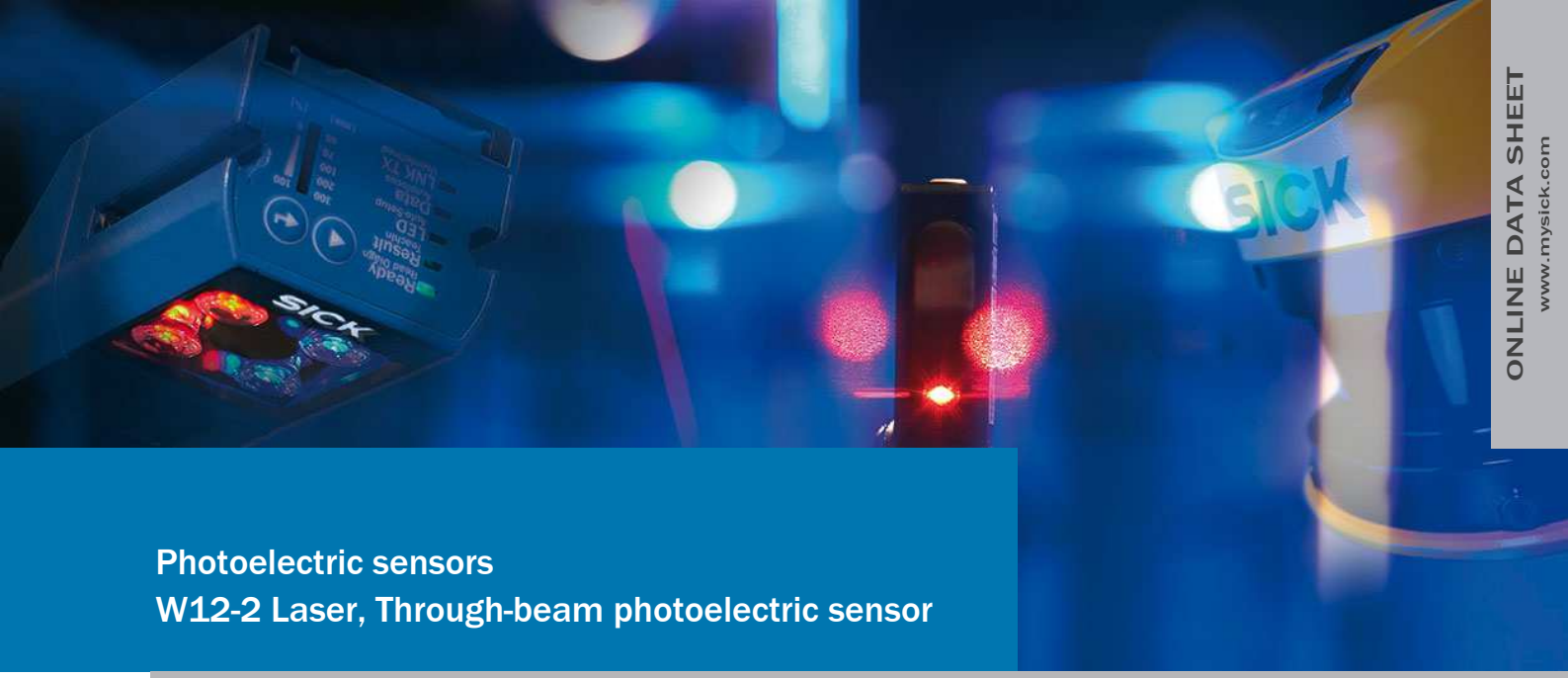


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Photoelectric sensors
W12-2 Laser, Through-beam photoelectric sensor

WS/WE12L-2N430A01



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Sensor Intelligence.

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Photoelectric sensors
W12-2 Laser, Through-beam photoelectric sensor

Model Name > WS/WE12L-2N430A01
Part No. > 1018478



Illustration may differ

At a glance

- Laser protection class 1 or 2
- Large sensing range and high levels of operating reserve
- Rugged sensors for industrial use
- Highly visible laser light spot for varying object detection
- Rugged die-cast zinc housing with optional Teflon® coating
- Versatile mounting options due to dovetail mounting - mounting holes and oblong holes
- Highly visible status LEDs
- Adjustable sensing range

Your benefits

High immunity to optical interference provides reliable object detection, large sensing ranges and high reserve levels

Highly visible laser light spot enables quick sensor alignment, excellent switching characteristics and high-quality detection

Rugged metal housing (optional Teflon® coating available) requires less maintenance due to its resistance to high-pressure cleaning environments

Highly visible status LEDs simplify commissioning and reduce installation time

Laser protection class 1 or 2 for eye safety

Easy installation using SICK accessories

Features

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	15 mm x 49 mm x 41.5 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 80 m
Type of light:	Visible red light
Light source:	Laser [1)]
Laser class:	II
Special features:	American version
Light spot size (distance):	Ø 150 mm (60 m)

[1)] Average service life 50,000 h at T_A = +25 °C

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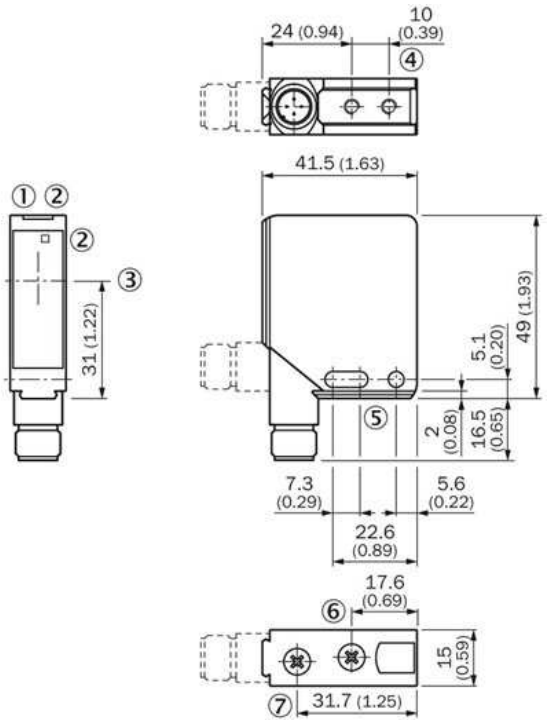
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC [1]
Ripple:	≤ 5 Vpp [2]
Power consumption, sender:	≤ 45 mA [3]
Power consumption, receiver:	≤ 15 mA [4]
Output type:	NPN
Output current Imax.:	100 mA
Response time:	≤ 200 µs [5]
Switching frequency:	2,500 Hz [6]
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, C, D [7] [8] [9]
Protection class:	II
Weight:	260 g
Housing material:	Metal
Enclosure rating:	IP 67 IP 69K
Ambient operating temperature:	-10 °C ... +50 °C
Ambient storage temperature:	-25 °C ... +75 °C
Signal voltage PNP HIGH/LOW:	Uv - < 2.9 V, Uv V / 0 V ≤ 1.5 V
Signal voltage NPN HIGH/LOW:	Uv - < 2.9 V, Uv V / 0 V ≤ 1.5 V

[1] Limit values, operation in short-circuit protected network max. 8 A [2] May not exceed or fall short of V_S tolerances [3] [4] Without load [5] Signal transit time with resistive load [6] With light/dark ratio 1:1 [7] A = V_S connections reverse-polarity protected [8] C = interference suppression [9] D = outputs overcurrent and short-circuit protected

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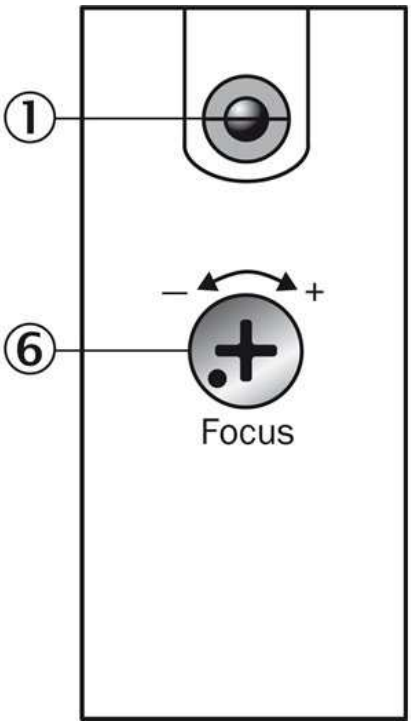
Dimensional drawing



|1| Operating indicator, green
|2| LED reception indicator, yellow
|3| Center of optical axis

|5| Mounting hole, Ø 4.2 mm
|6| Focal adjustment
|7| Sensitivity adjustment

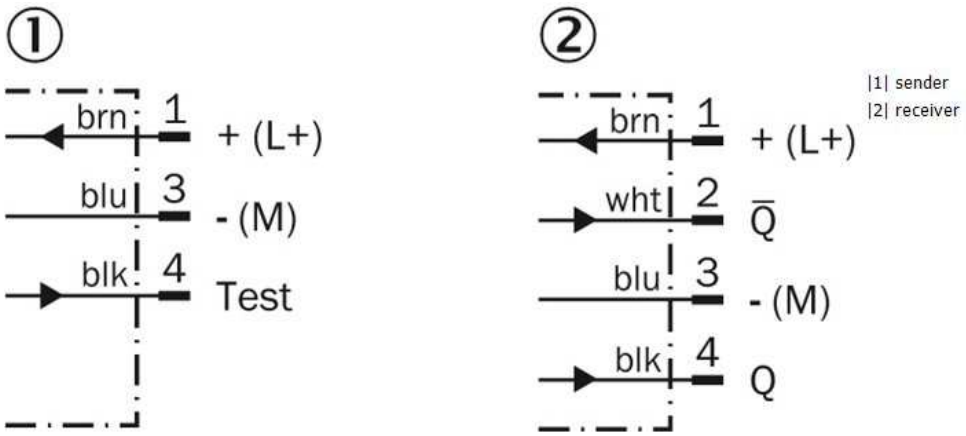
Adjustments possible



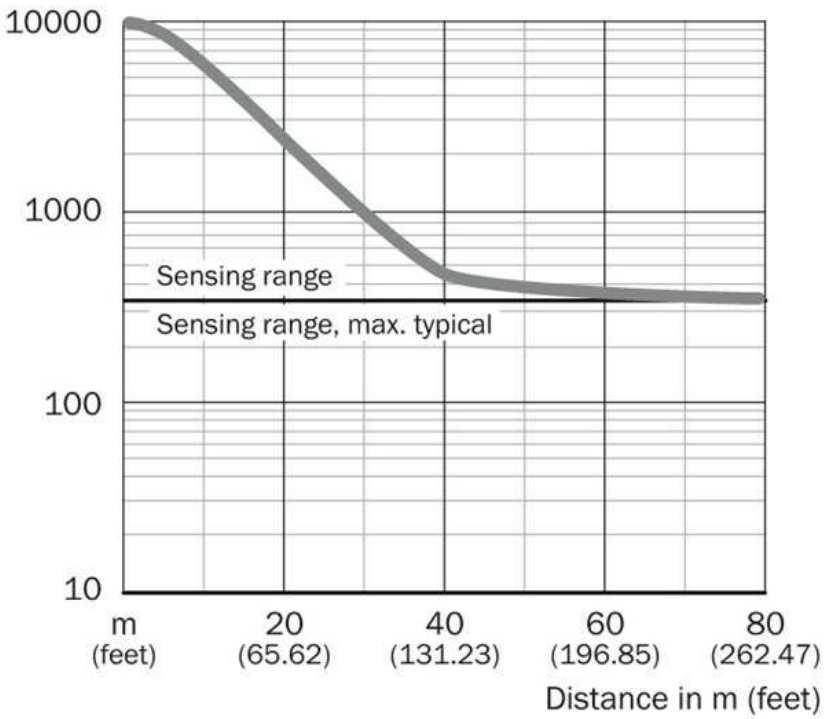
|1| Operating indicator (WS above only)
|6| Focal adjustment (WS)

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Connection diagram

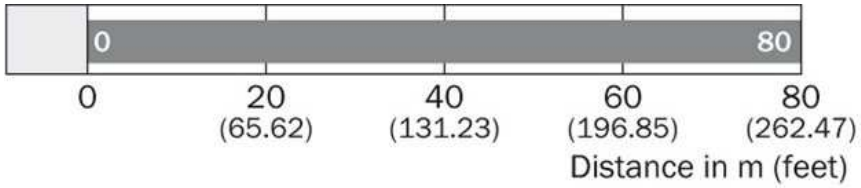


Characteristic curve



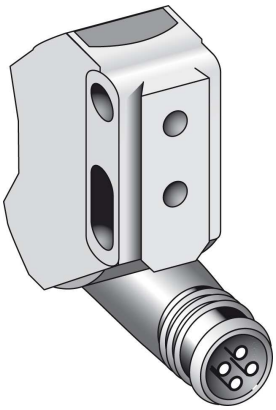
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Sensing range diagram



Sensing range/sensing range typ. max.

Connection type



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