



Photoelectric sensors
W12-3, Through-beam photoelectric sensor

WSE12-3N2411S37



Model Name > [WSE12-3N2411S37](#)
Part No. > [1045357](#)



Illustration may differ

At a glance

- Through-beam variant
- Rugged die-cast zinc housing optional Teflon® coating
- PinPoint LED technology with highly visible light spot
- Chemically, thermally and mechanically resistant metal housing
- Dovetail mounting - mounting holes and oblong holes
- Highly visible status LEDs
- Operating range up to 20 m

Your benefits

- Outstanding sensor performance in small housings
- Reliable object detection of difficult targets using best-in-class technology
- A wide range of different sensor housings and connection systems ensures optimal integration of sensors in the system
- Many options for protective housings - super tough VISTAL™, metal or highly resistant plastic, ensures that the sensor can be installed without damage
- Wide range of accessories ensures easy installation, quick commissioning and maximum sensor performance for varying application needs



Features

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	15.6 mm x 48.5 mm x 42 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 5 m
Sensing range:	0 m ... 4 m
Type of light:	Infrared light
Light source:	LED ¹⁾
Wave length:	850 nm
Angle of dispersion:	Ca. 4 °
Adjustment:	Potentiometer, 5 turns
Light spot size (distance):	Ø 750 mm (5 m)

¹⁾ Average service life of 100,000 h at T_A = +25 °C

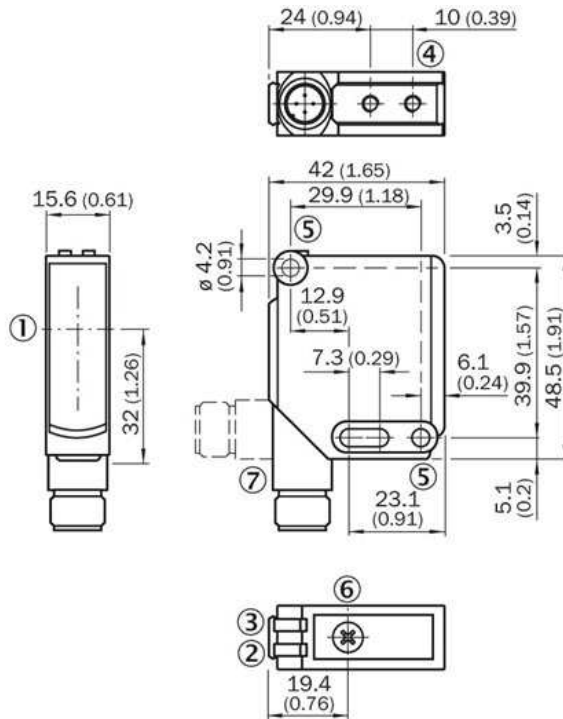
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 5 Vpp ²⁾

Power consumption, sender:	≤ 30 mA ³⁾
Power consumption, receiver:	≤ 25 mA ⁴⁾
Output type:	NPN
Output function:	Complementary
Switching mode:	Light/dark switching
Signal voltage NPN HIGH/LOW:	Approx. $V_S / < 2.5 V$
Output current I _{max.} :	100 mA
Response time:	≤ 5,000 μs ⁵⁾
Switching frequency:	100 Hz ⁶⁾
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, C, D ^{7) 8) 9)}
Protection class:	II
Weight:	120 g
Special device:	✓
Housing material:	Metal
Enclosure rating:	IP 66 IP 67 IP 69K
Test input sender off:	Sender off, TE to 0 V
Ambient operating temperature:	-40 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 75 °C
Part number of individual components:	Receiver, WE12-3N2411S37, 2056043Receiver, WE12-3N2411S37, 2056043, Sender, WS12-3D2410S36, 2046741Sender, WS12- 3D2410S36, 2046741
UL File No.:	NRKH.E181493 & NRKH7.E181493

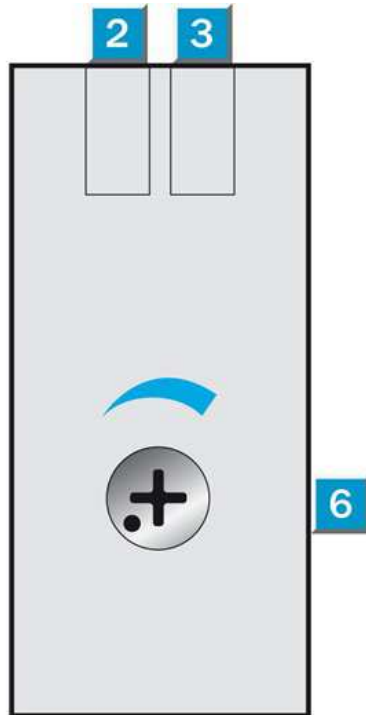
¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S tolerances ^{3) 4)} Without load ⁵⁾ Signal transit time with resistive load ⁶⁾ With light/dark ratio 1:1 ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ C = interference suppression ⁹⁾ D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

Dimensional drawing



- |1| Optical axis
- |2| LED indicator yellow: Light received
- |3| Green LED indicator: supply voltage active
- |4| M4 threaded mounting hole, 4 mm deep
- |5| Mounting hole, \varnothing 4.2 mm
- |6| Sensitivity adjustment: poti
- |7| Connection

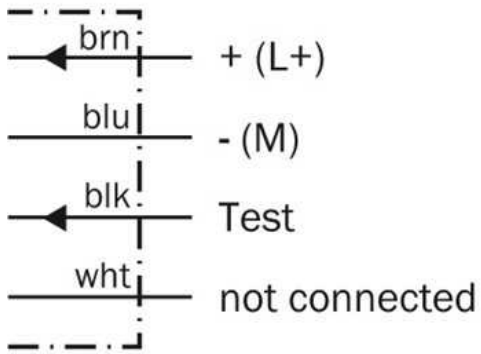
Adjustments possible



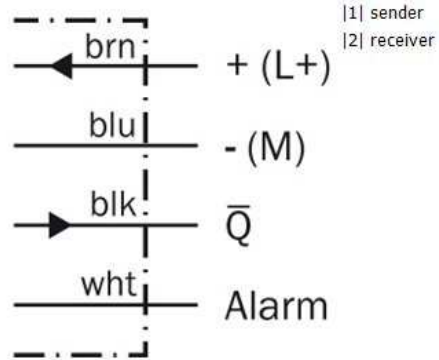
- |2| LED indicator yellow: Light received
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Connection diagram

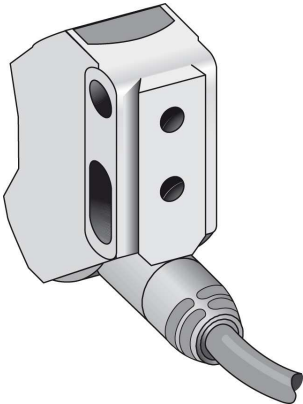
①



②



Connection type



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