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Photoelectric sensors
W12-3, Through-beam photoelectric sensor

WSE12-3P1111

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Model Name > WSE12-3P1111
Part No. > 1041464

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 ... 20 m
Sensing range:	0 m ... 15 m
Type of light:	Infrared light
Light source:	LED [1)]
Wave length:	850 nm
Angle of dispersion:	Ca. 1.5 °
Adjustment:	Potentiometer, 5 turns

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

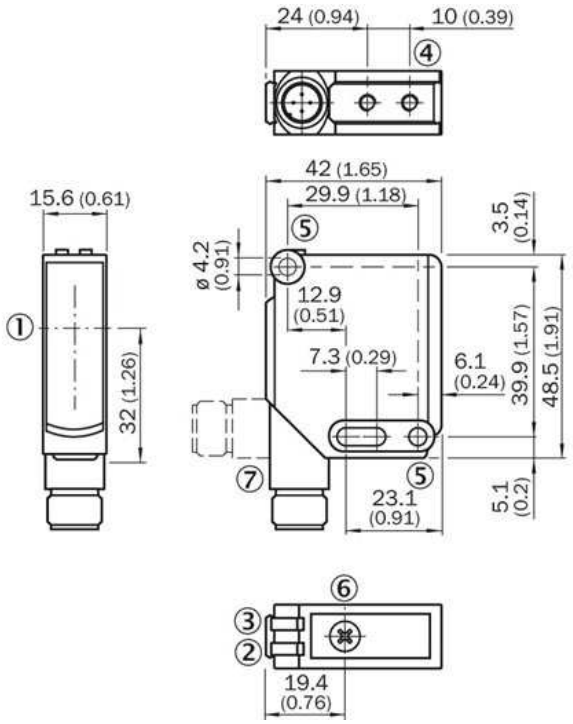
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC [1)]
Ripple:	≤ 5 Vpp [2)]
Power consumption, sender:	≤ 30 mA [3)]

Power consumption, receiver:	≤ 15 mA [4)]
Output type:	PNP
Output function:	Complementary
Switching mode:	Light/dark switching
Signal voltage PNP HIGH/LOW:	> Uv - 2,5 V/ca. 0 V
Output current Imax.:	100 mA
Response time:	≤ 330 µs [5)]
Switching frequency:	1,500 Hz [6)]
Connection type:	Cable, 4-wire, 2 m [7)]
Cable material:	PVC
Conductor cross-section:	0.25 mm²
Circuit protection:::	A, C, D [8) 9) 10)]
Protection class:	II
Weight:	200 g
Housing material:	Metal
Enclosure rating:	IP 66 IP 67 IP 69K
Test input 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, WE12-3P1111, 2046737Receiver, WE12-3P1111, 2046737, Sender, WS12-3D1110, 2046739Sender, WS12-3D1110, 2046739
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)] Do not bend below 0 °C [8)] A = V_S connections reverse-polarity protected [9)] C = interference suppression [10)] D = outputs overcurrent and short-circuit protected

Dimensional drawing

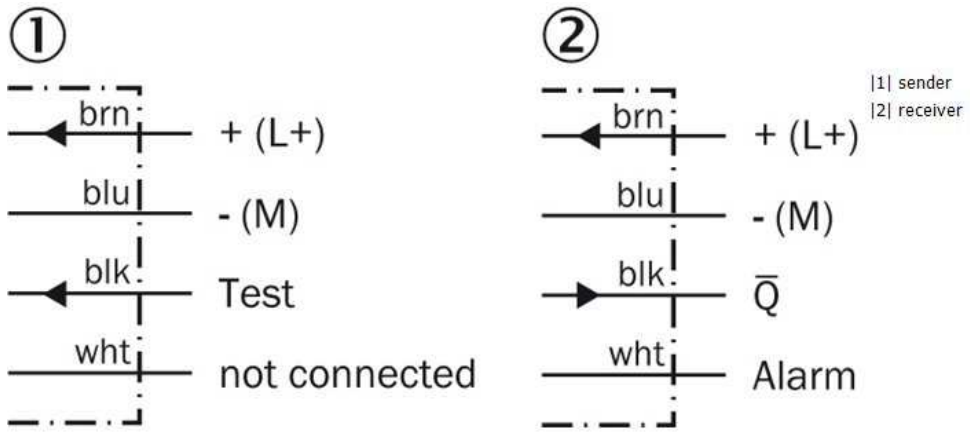


|1| Optical axis
|2| LED indicator yellow: Light received
|3| Green LED indicator: supply voltage active
|4| M4 threaded mounting hole, 4 mm deep
|5| Mounting hole, Ø 4.2 mm
|6| Sensitivity adjustment: poti
|7| Connection

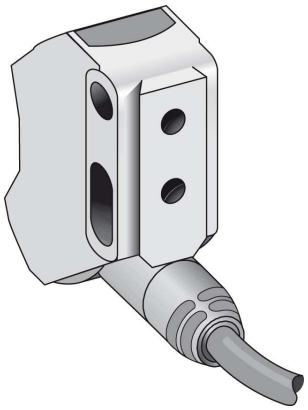
Adjustments possible

|2| LED indicator yellow: Light received
|3| Green LED indicator: supply voltage active
|6| Sensitivity adjustment: poti

Connection diagram



Connection type



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