



Photoelectric sensors  
W34, Through-beam photoelectric sensor

WS/WE34-R230



**Model Name** > [WS/WE34-R230](#)  
**Part No.** > [1019257](#)



*Illustration may differ*

**At a glance**

- High operating reserve at a long range
- Switch selectable PNP or NPN output and light/dark switching
- Versions with DC voltage (10...30V) or universal AC/DC voltage (12 ... 240 V DC / 24 ... 240 V AC)
- Optional test input, adjustable ON and OFF time delays, alarm output
- M12 or terminal chamber connection: 90° rotatable
- UL approval

**Your benefits**

- High operating reserve at a long range minimizes downtime
- Alarm output provides early warning that maintenance may be needed
- Test input allows users to validate that the sensor is operating as expected
- The sensor cover protects configuration components against environmental hazards
- Adjustable time delay, alarm output, test input, and universal AC/DC voltage provide additional flexibility and reduce the number of part numbers needed



**Features**

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	27 mm x 92 mm x 70 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 60 m
Sensing range:	0 m ... 60 m
Type of light:	Visible red light
Light source:	LED <sup>1)</sup>
Wave length:	660 nm
Angle of dispersion:	Ca. 1 °
Adjustment:	Potentiometer
Light spot size (distance):	Ø 700 mm (50 m)

<sup>1)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

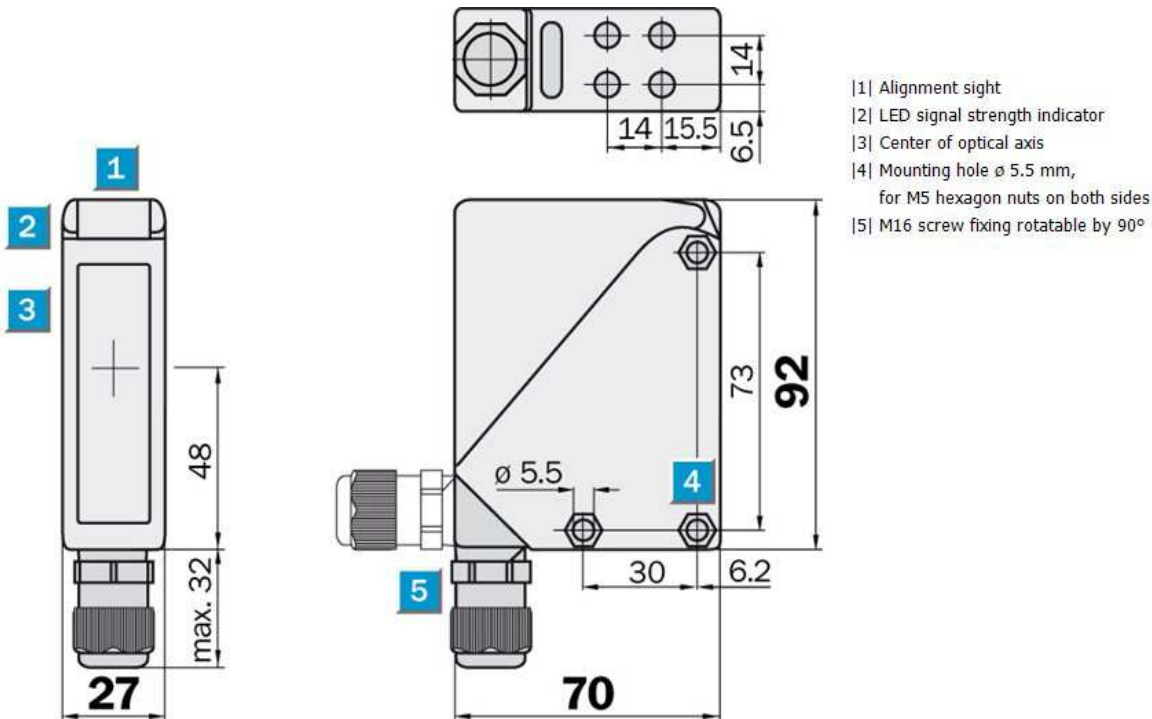
**Mechanics/electronics**

Supply voltage::	12 V DC ... 240 V DC, 24 ... 240 V AC <sup>1) 2)</sup>
Power consumption:	< 2 VA
Output type:	Relay, electrically isolated <sup>3)</sup>

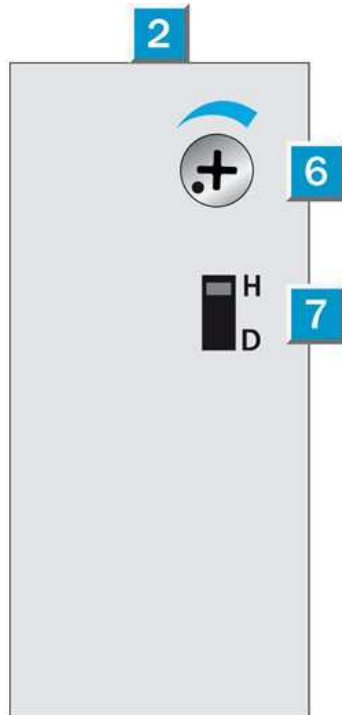
Output function:	Change-over contacts
Switching mode:	Dark switching, Light switching <sup>4)</sup>
Switching mode selector:	Selectable via light/dark selector
Switching current (switching voltage):	4 A (24 V DC), 4 A (250 V AC)
Response time:	≤ 10 ms
Switching frequency:	10 Hz <sup>5)</sup>
Angle of reception:	Ca. 2.5 °
Connection type:	Terminal connection with M16 gland <sup>6)</sup>
Circuit protection:	A, C <sup>7) 8)</sup>
Protection class:	II <sup>9)</sup>
Weight:	280 g
Housing material:	ABS, Plastic
Enclosure rating:	IP 67
Usage category:	AC-15, DC-13, According to EN 60947-1
Ambient operating temperature:	-40 °C ... +60 °C
Ambient storage temperature:	-40 °C ... +75 °C
Part number of individual components:	Receiver, WE34-R230, 2022815, Sender, WS34-U230, 2022823
UL File No.:	NRKH.E181493 & NRKH7.E181493

1) Limit values 2) ±10 % 3) 4) Provide suitable spark suppression for inductive or capacitive loads 5) With light/dark ratio 1:1 6) Connection rotatable by 90° 7) A = V<sub>S</sub>  
connections reverse-polarity protected 8) C = interference suppression 9) Rated voltage: 250 V AC/DC

### Dimensional drawing



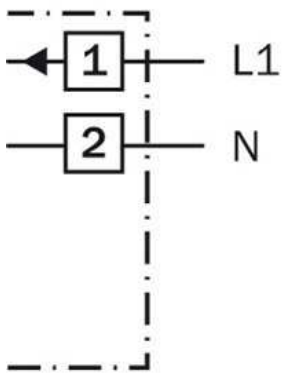
## Adjustments possible



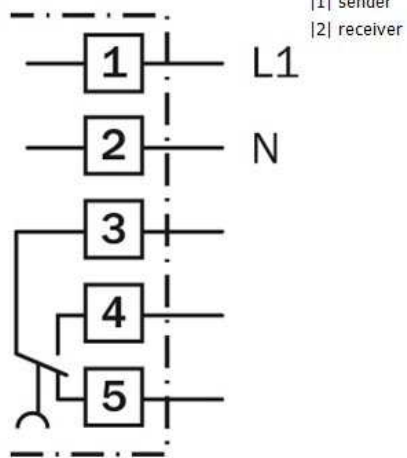
- |2| LED signal strength indicator
- |6| Sensitivity adjustment
- |7| Light/dark selector

## Connection diagram

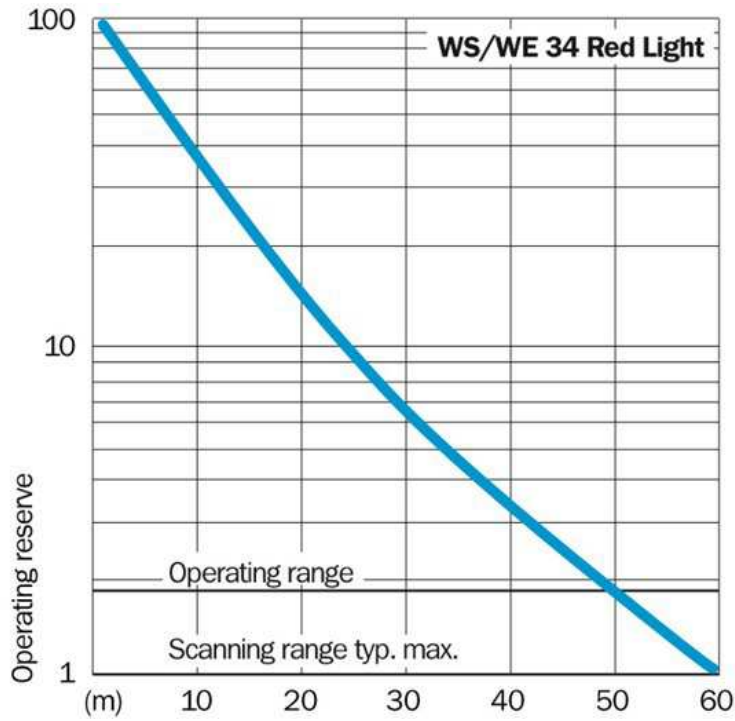
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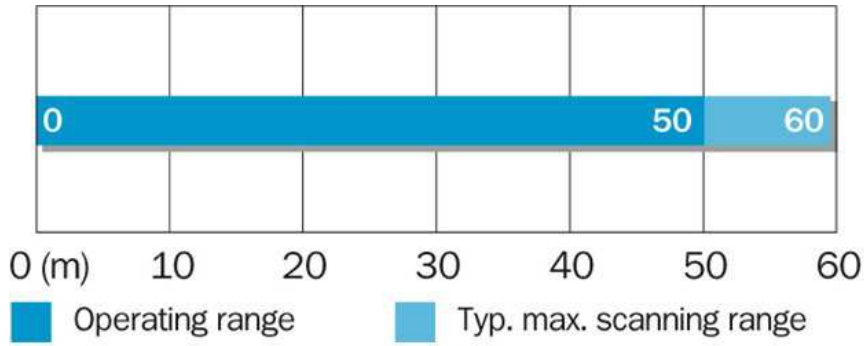
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### Characteristic curve

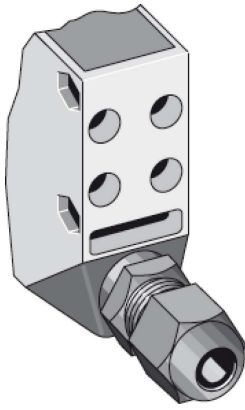


### Sensing range diagram



Connection type

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