



Photoelectric sensors  
W34, Photoelectric retro-reflective sensor

WL34-R240



**Model Name** > [WL34-R240](#)  
**Part No.** > [1019250](#)



Actual item 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**

Dimensions (W x H x D):	27 mm x 92 mm x 70 mm
Sensing range max.:	0.03 m ... 22 m <sup>1)</sup>
Sensing range:	0.03 m ... 22 m <sup>2)</sup>
Housing desig (light emission):	Cuboid
Light source:	LED <sup>3)</sup>
Type of light:	visible red light
Wave length:	660 nm
Sensitivity adjustment:	Potentiometer
Delay time:	Adjustable via time delay selector switch: 0.5 ... 10 s
Time type:	Time delay off switch on delay adjustable
Sensor/detection principle:	Photoelectric retro-reflective sensor
Light spot (distance):	250 mm (15 m)

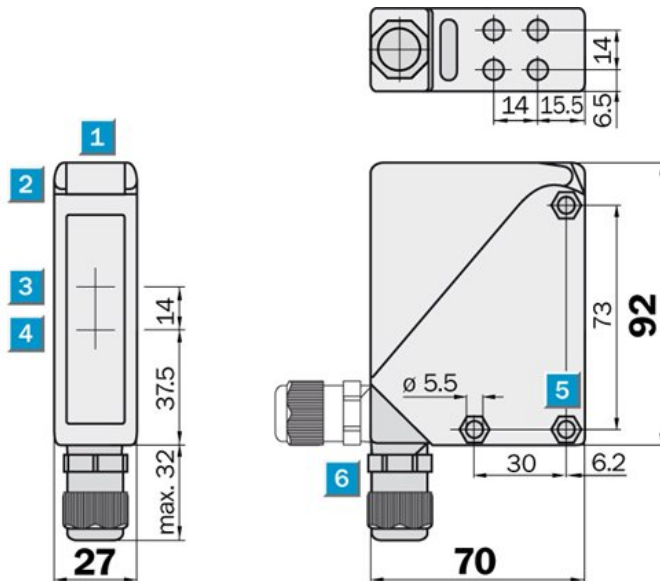
<sup>1) 2)</sup> PL80A <sup>3)</sup> Average service life 100,000 h at Ta = +25 °C

## Mechanics/electronics

Enclosure rating:	IP 67
Supply voltage:	12 V DC ... 240 V DC 24 ... 240 V AC <sup>1) 2)</sup>
Switching output:	Relay, light switching, selectable via light/dark selector, change-over contacts, electrically isolated 3) Dark-switching
Response time:	≤ 10 ms
Switching frequency:	10 Hz <sup>4)</sup>
Connection type:	Terminal connection with M16 gland <sup>5)</sup>
Protection class:	II <sup>6)</sup>
Circuit protection:	A C <sup>8)</sup>
Weight:	140 g
Housing material:	ABS
Ambient temperature, operation:	-40 °C ... 60 °C
Ambient temperature, storage:	-40 °C ... 75 °C
Polarisation filter:	✓
Power consumption:	< 2 VA
Switching current (switching voltage):	4 A (250 V AC) 4 A (24 V DC)
Usage category:	AC-15, DC-13, according to EN 60947-1

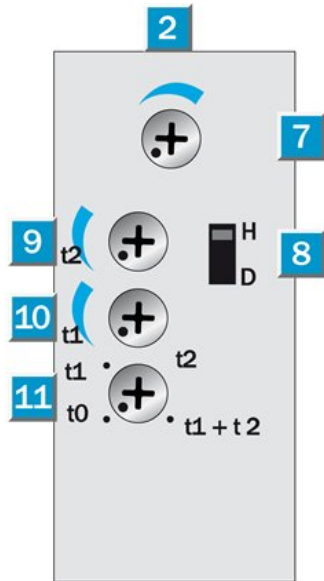
1) Limit values <sup>2)</sup> +10 % <sup>3)</sup> Provide suitable spark suppression for inductive or capacitive loads <sup>4)</sup> With light/dark ratio 1:1 <sup>5)</sup> Connection rotatable by 90° <sup>6)</sup> Rated voltage 250 V AC/DC <sup>7)</sup> A = V<sub>S</sub> connections reverse-polarity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

## Dimensional drawing



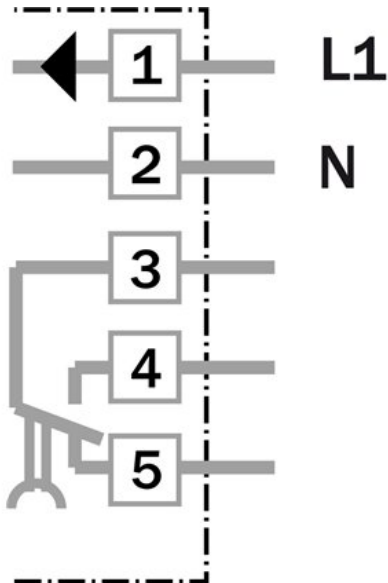
- [1] Alignment sight
- [2] LED signal strength indicator
- [3] Center of optical axis, sender
- [4] Center of optical axis, receiver
- [5] Mounting hole  $\varnothing$  5.5 mm,  
for M5 hexagon nuts on both sides
- [6] M16 screw fixing rotatable by 90°

## Einstell-Möglichkeiten

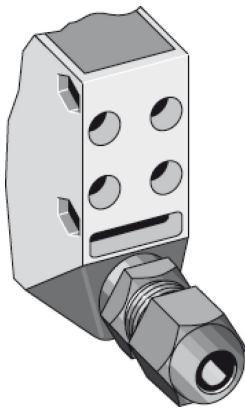


- |2| LED signal strength indicator
- |7| Sensitivity adjustment
- |8| Light/ dark selector
- |9| Time control t2=OFF-delay
- |10| Time control t1=ON-delay
- |11| time delay selector switch

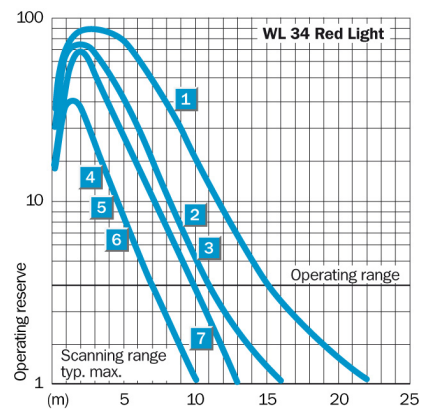
## Connection diagram



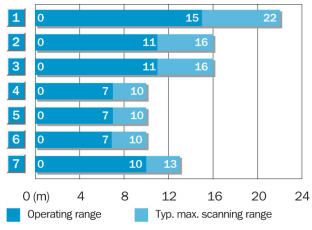
## Connection type



## Characteristic curve



## Sensing range diagram



Reflector type	Operating range
1	PL 80 A 0 to 15 m
2	PL 50 A 0 to 11 m
3	PL 40 A 0 to 11 m
4	PL 30 A 0 to 7 m
5	PL 20 A 0 to 7 m
6	Diamond Grade (20 cm x 20 cm) 0 to 7 m
7	C 110 0 to 10 m

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