



Photoelectric sensors
W34, Photoelectric retro-reflective sensor,
Standard optics

WL34-R240



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



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:	Photoelectric retro-reflective sensor, Standard optics
Dimensions (W x H x D):	27 mm x 92 mm x 70 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0.03 m ... 22 m ¹⁾
Sensing range:	0.03 m ... 22 m ²⁾
Type of light:	Visible red light
Light source:	LED ³⁾
Wave length:	660 nm
Time type:	Time delay off, Switch on delay, Adjustable
Delay time:	Adjustable via time delay selector switch: 0.5 ... 10 s
Adjustment:	Potentiometer
Light spot size (distance):	Ø 250 mm (15 m)

^{1) 2)} PL80A ³⁾ Average service life of 100,000 h at T_A = +25 °C

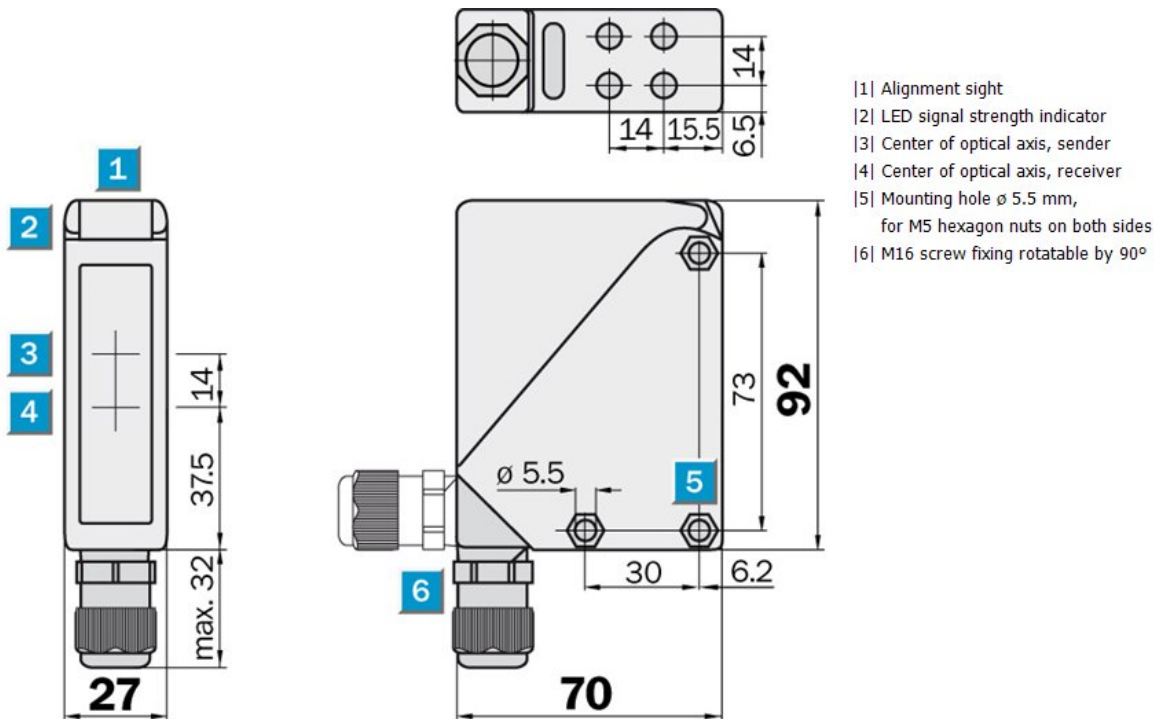
Mechanics/electronics

Supply voltage::	12 V DC ... 240 V DC, 24 ... 240 V AC ^{1) 2)}
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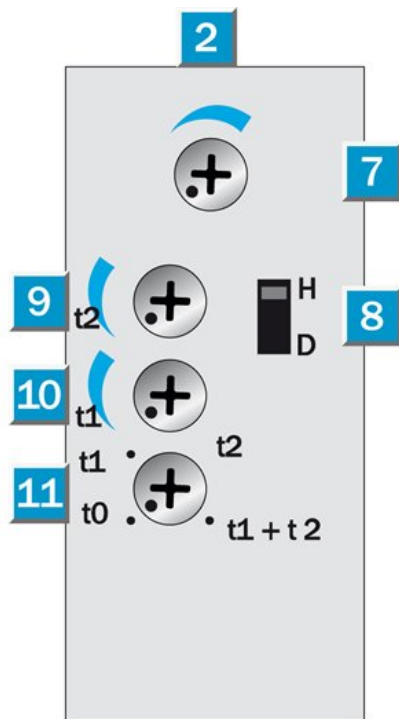
Power consumption:	< 2 VA
Output type:	Relay, electrically isolated ³⁾
Output function:	Change-over contacts
Switching mode:	Dark-switching, Light switching ⁴⁾
Switching mode selector:	Selectable via light/dark selector
Switching current (switching voltage):	4 A (24 V DC), 4 A (250 V AC)
Response time:	≤ 10 ms
Switching frequency:	10 Hz ⁵⁾
Connection type:	Terminal connection with M16 gland ⁶⁾
Circuit protection::	A, C ^{7) 8)}
Protection class:	II ⁹⁾
Weight:	140 g
Polarisation filter:	✓
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
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_S
connections reverse-polarity protected ⁸⁾ C = interference suppression ⁹⁾ Rated voltage: 250 V AC/DC

Dimensional drawing

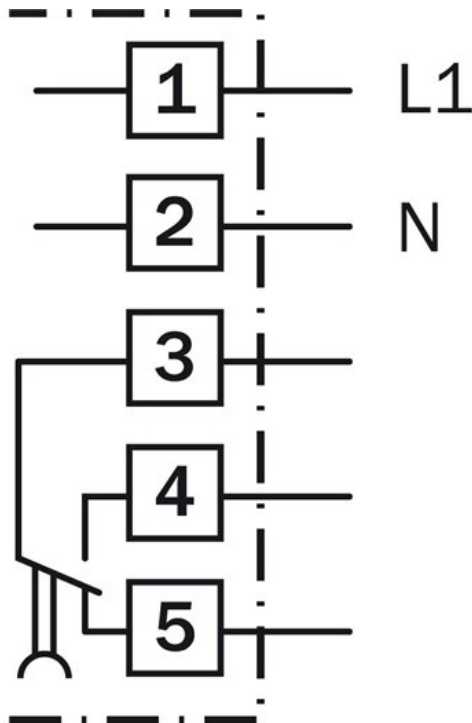


Adjustments possible

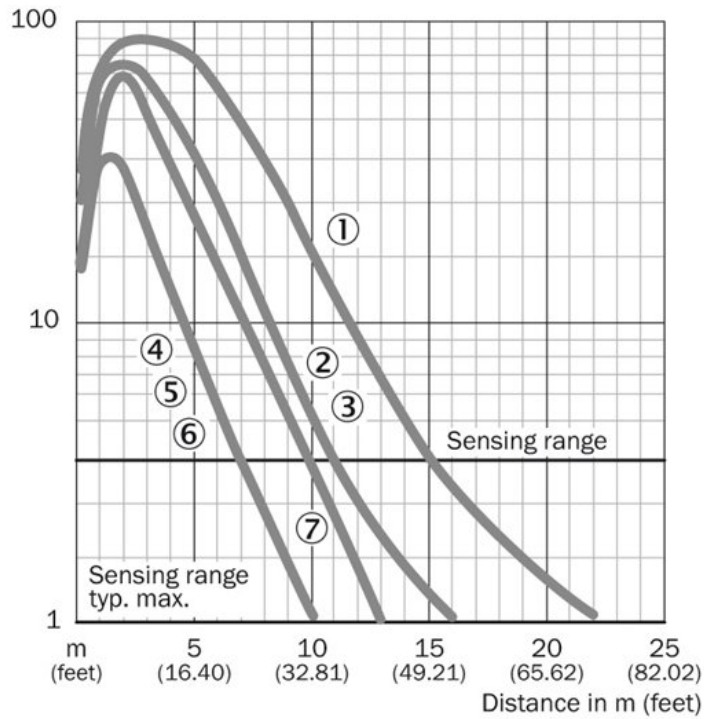


- |2| LED signal strength indicator
- |7| Sensitivity adjustment
- |8| Light/dark selector
- |9| Time control t2=OFF-delay
- |10| Time control t1=ON-delay
- |11| time delay selector switch

Connection diagram

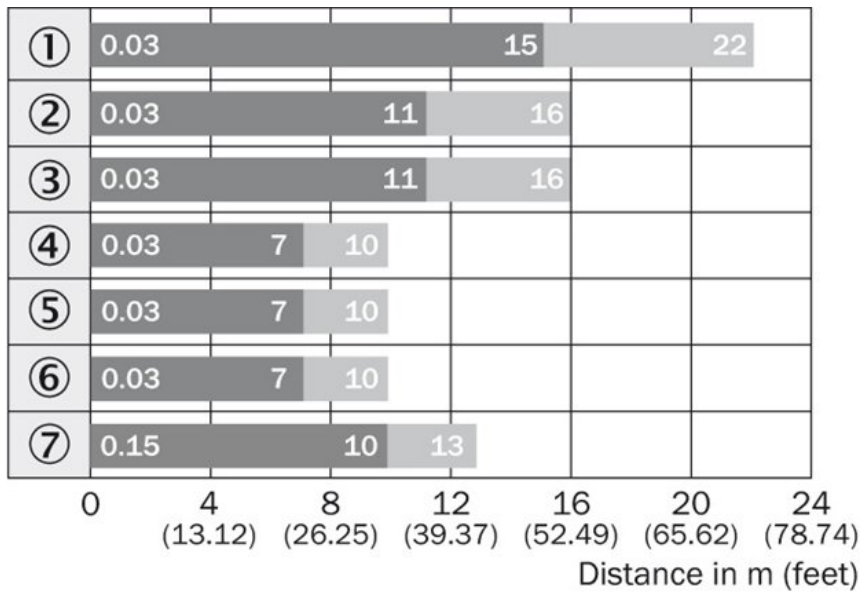


Characteristic curve



- |1| PL80A
- |2| PL50A
- |3| PL40A
- |4| PL30A
- |5| PL20A
- |6| Reflective tape Diamond Grade
- |7| C110A

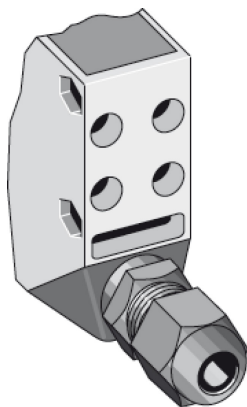
Sensing range diagram



- |1| PL80A
- |2| PL50A
- |3| PL40A
- |4| PL30A
- |5| PL20A
- |6| Reflective tape Diamond Grade
- |7| C110A

■ Sensing range ■ Sensing range max.

Connection type



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