



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

WL34-V240



**Model Name** > [WL34-V240](#)  
**Part No.** > [1019244](#)



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 <sup>1)</sup>
Sensing range:	0.03 m ... 22 m <sup>2)</sup>
Type of light:	Visible red light
Light source:	LED <sup>3)</sup>
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)

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

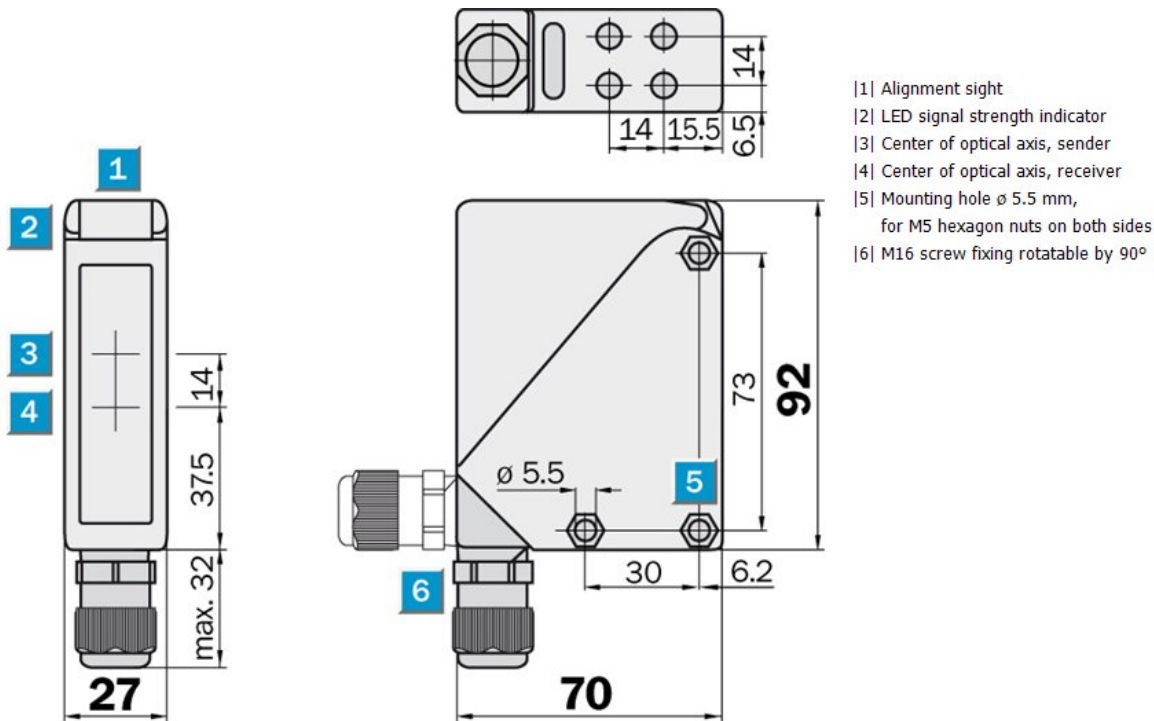
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
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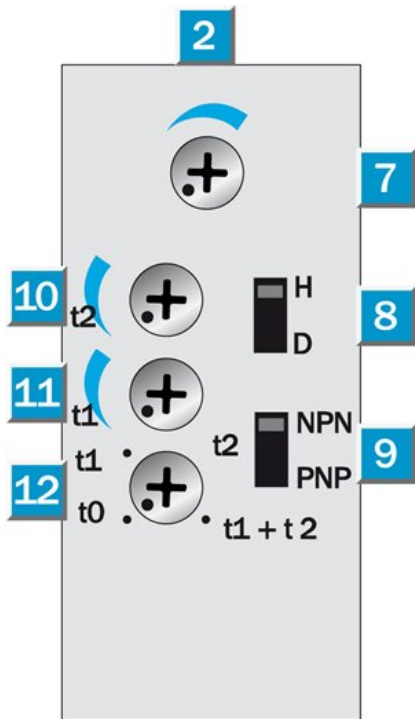
Ripple:	< 5 Vpp <sup>2)</sup>
Current consumption:	≤ 50 mA
Switching output:	NPN, PNP
Switching mode:	Dark-switching, Light switching
Switching mode selector:	Selectable via light/dark selector, Selectable via PNP/NPN selector
Output current I <sub>max</sub> ·:	100 mA
Response time:	≤ 500 μs <sup>3)</sup>
Switching frequency:	1,000 Hz <sup>4)</sup>
Connection type:	Terminal connection with M16 gland <sup>5)</sup>
Circuit protection:::	A, C, D <sup>6) 7) 8)</sup>
Protection class:	II <sup>9)</sup>
Weight:	140 g
Polarisation filter:	✓
Housing material:	ABS, Plastic
Enclosure rating:	IP 67
Test input sender off:	TE to 0 V
Ambient temperature operation:	-40 °C ... +60 °C
Ambient storage temperature:	-40 °C ... +75 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493

1) Limit values 2) May not exceed or fall short of V<sub>S</sub> tolerances 3) Signal transit time with resistive load 4) With light/dark ratio 1:1 5) Connection rotatable by 90° 6) A = V<sub>S</sub> connections reverse-polarity protected 7) C = interference suppression 8) D = outputs overcurrent and short-circuit protected 9) Reference voltage: 50 V DC

## Dimensional drawing

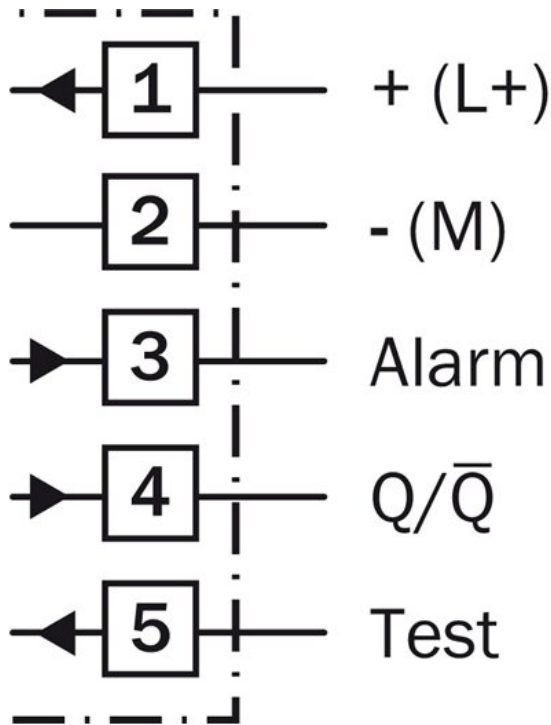


Adjustments possible

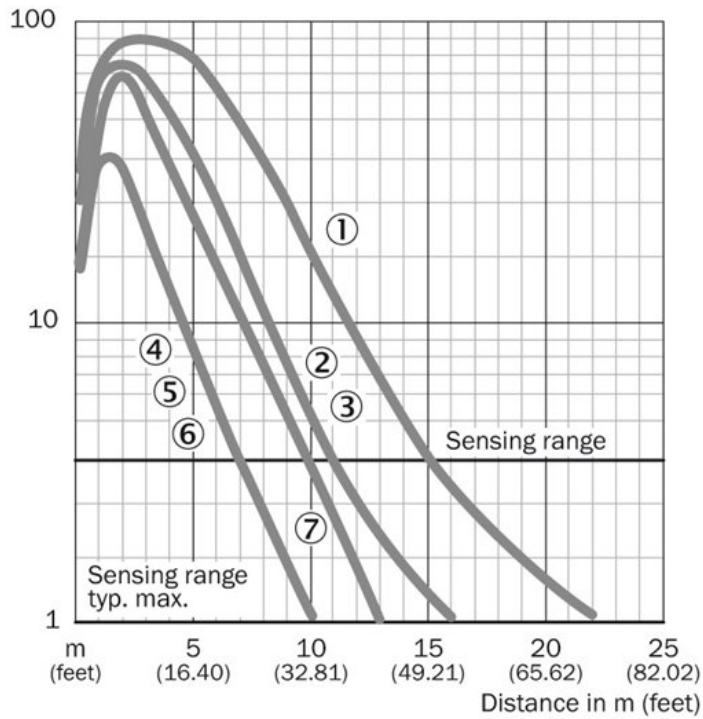


- |2| LED signal strength indicator
- |7| Sensitivity adjustment
- |8| Light/dark selector
- |9| NPN/ PNP selector
- |10| Time control t2=OFF-delay
- |11| Time control t1=ON-delay
- |12| time delay selector switch

Connection diagram

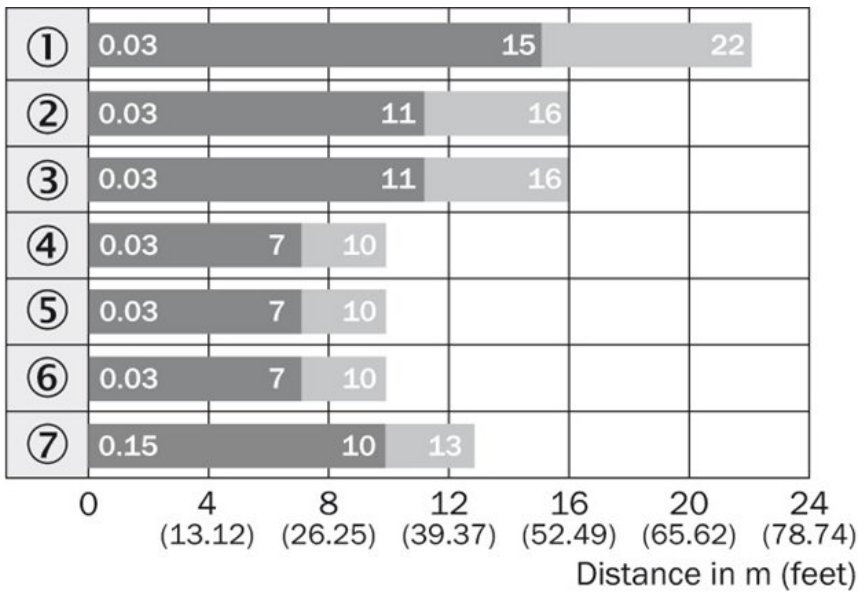


### Characteristic curve



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

### Sensing range diagram

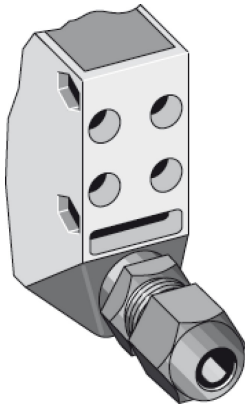


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- |6| Reflective tape Diamond Grade
- |7| C110A

■ Sensing range      ■ Sensing range max.

Connection type

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