



WL34-R240

W34

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
WL34-R240	1019250

Other models and accessories → www.sick.com/W34

Illustration may differ



Detailed technical data

Features

Sensor/ detection principle	Photoelectric retro-reflective sensor, Dual lens
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⁾
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Type of light	Visible red light
Light source	LED ²⁾
Light spot size (distance)	Ø 250 mm (15 m)
Wave length	660 nm
Adjustment	Potentiometer
Time type	Off delay On delay Adjustable
Time functions	Adjustable via time delay selector switch: 0.5 ... 10 s

¹⁾ Reflector PL80A.

²⁾ Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage	20 V AC/DC ... 250 V AC/DC ¹⁾
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¹⁾ Limit values; permitted cross-section: 0.14 ... 1.5 mm².

²⁾ Provide suitable spark suppression for inductive or capacitive loads.

³⁾ With light/dark ratio 1:1.

⁴⁾ A = V_S connections reverse-polarity protected.

⁵⁾ C = interference suppression.

⁶⁾ Rated voltage: 250 V AC/DC.

Power consumption	< 2 VA
Switching output	Relay, electrically isolated ²⁾
Output function	Change-over contacts
Switching mode	Light switching, Dark switching ²⁾
Switching mode selector	Selectable via light/dark selector
Switching current (switching voltage)	4 A @ 250 V AC, 4 A @ 24 V DC, 0.125 A @ 250 V DC UL: 4 A @ 250 V AC, general use / 4 A @ 250 V AC, resistive (NO) / 3 A @ 250 V AC, resistive (NC) / 4 A @ 24 V DC, NO, general use / 3 A @ 24 V DC, NC, general use / R300 / B300 (NO contacts only)
Response time	≤ 10 ms
Switching frequency	10 Hz ³⁾
Connection type	Terminal connection with M16 gland
Circuit protection	A ⁴⁾ C ⁵⁾
Protection class	II ⁶⁾
Weight	140 g
Polarisation filter	✓
Housing material	Plastic, ABS
Enclosure rating	IP67
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

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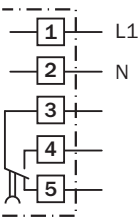
⁶⁾ Rated voltage: 250 V AC/DC.

Classifications

ECI@ss 5.0	27270902
ECI@ss 5.1.4	27270902
ECI@ss 6.0	27270902
ECI@ss 6.2	27270902
ECI@ss 7.0	27270902
ECI@ss 8.0	27270902
ECI@ss 8.1	27270902
ECI@ss 9.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
UNSPSC 16.0901	39121528

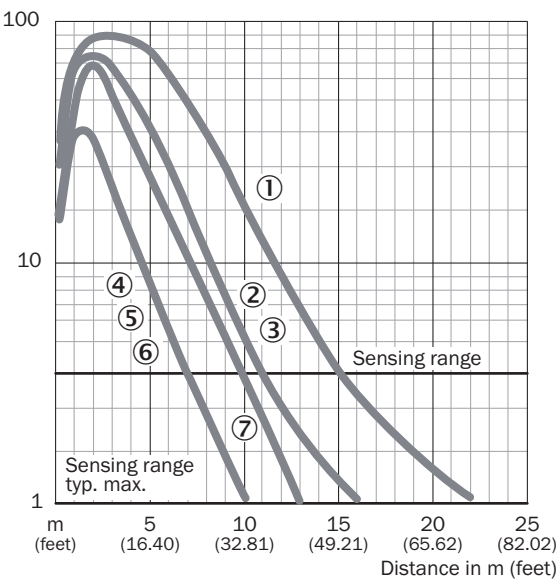
Connection diagram

Cd-167



Characteristic curve

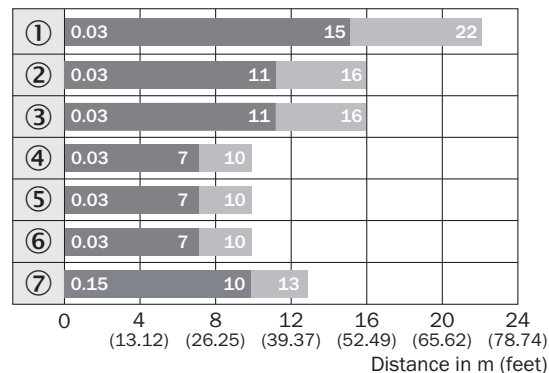
WL24-2



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

Sensing range diagram

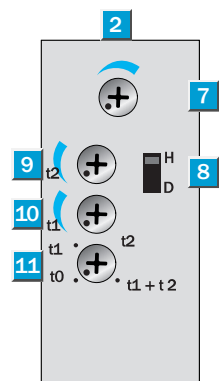
WL24-2



■ Sensing range ■ Sensing range max.

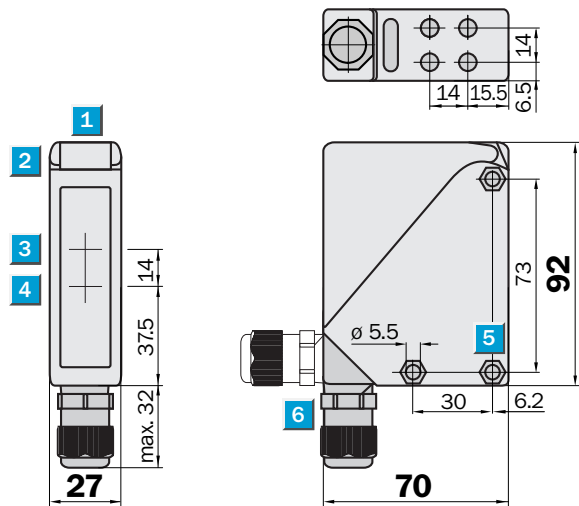
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Adjustments possible



- ② LED signal strength indicator
- ⑦ Sensitivity control
- ⑧ Light/dark selector
- ⑨ Time control t_2 = OFF delay
- ⑩ Time control t_1 = ON delay
- ⑪ Time delay selector switch




Dimensional drawing (Dimensions in mm (inch))



- 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°

Recommended accessories

Other models and accessories → www.sick.com/W34

	Brief description	Type	Part no.
Mounting brackets and plates			
	Universal mounting bracket for reflectors, steel, zinc coated	BEF-WN-REFX	2064574
	Mounting bracket, Stainless steel (1.4301), mounting hardware included	BEF-WN-W24	2015248
Reflectors			
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

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