



WS/WE34-R240

W34

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
WS/WE34-R240	1019258

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

Detailed technical data

Features

Device type	Photoelectric sensors
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
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Focus	Approx. 1°
Type of light	Visible red light
Light source	LED ¹⁾
Light spot size (distance)	Ø 700 mm (50 m)
Angle of dispersion	Approx. 1°
Wave length	660 nm
Adjustment	Potentiometer

¹⁾ Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage	20 V AC/DC ... 250 V AC/DC
Power consumption	< 2 VA
Switching output	Relay, electrically isolated ¹⁾
Output function	Change-over contacts
Switching mode	Light switching ¹⁾ Dark switching

¹⁾ Provide suitable spark suppression for inductive or capacitive loads.

²⁾ With light/dark ratio 1:1.

³⁾ A = V_S connections reverse-polarity protected.

⁴⁾ C = interference suppression.

⁵⁾ Rated voltage: 250 V AC/DC.

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 ²⁾
Angle of reception	Approx. 2.5 °
Time functions	Off delay On delay Adjustable
Delay time	Adjustable via time delay selector switch, 0.5 s ... 10 s
Connection type	Terminal connection with M16 gland
Circuit protection	A ³⁾ C ⁴⁾
Protection class	II ⁵⁾
Weight	280 g
Housing material	Plastic, ABS
Enclosure rating	IP67
Ambient operating temperature	-40 °C ... +60 °C
Ambient temperature, storage	-40 °C ... +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493
Part number of individual components	2022816 WE34-R240 2022824 WS34-U240

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Safety-related parameters

MTTF_D	314 years
DC_{avg}	0 %
B_{10d}	65,693 Switching cycles ¹⁾

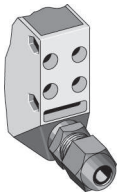
¹⁾ Only for devices containing electro-mechanical components. In this case, the MTTFD value of the entire device must be calculated from the given B_{10D} value, the number of switching cycles and the given MTTFD value.

Classifications

ECl@ss 5.0	27270901
ECl@ss 5.1.4	27270901
ECl@ss 6.0	27270901
ECl@ss 6.2	27270901
ECl@ss 7.0	27270901
ECl@ss 8.0	27270901
ECl@ss 8.1	27270901
ECl@ss 9.0	27270901
ECl@ss 10.0	27270901

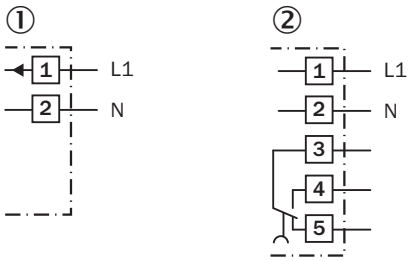
ECl@ss 11.0	27270901
ECl@ss 12.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

Connection type



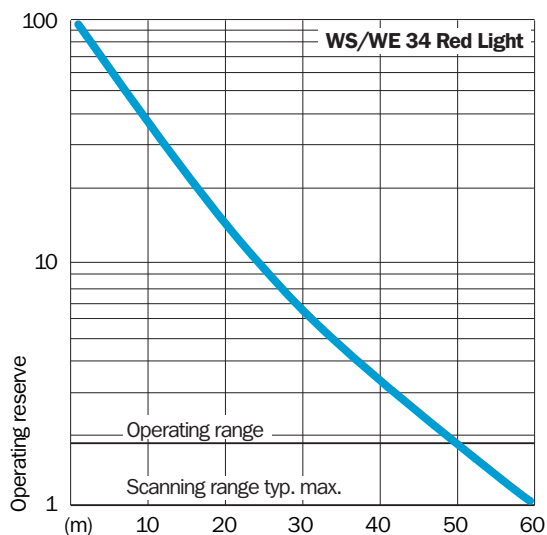
Connection diagram

Cd-127

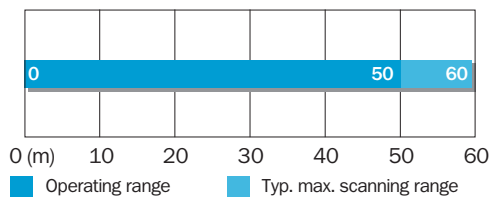


- ① Sender
- ② Receiver

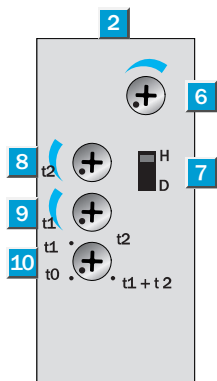
Characteristic curve



Sensing range diagram

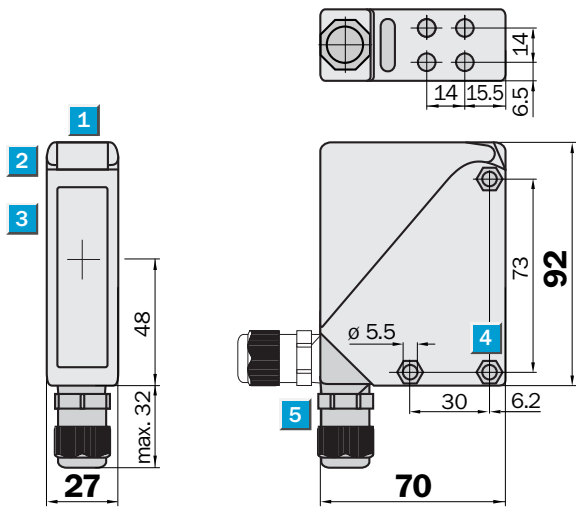


Adjustments



- ② LED signal strength indicator
- ⑥ Sensitivity control
- ⑦ Light/dark selector
- ⑧ Time control t₂= OFF delay
- ⑨ Time control t₁= ON delay
- ⑩ Time delay selector switch

Dimensional drawing (Dimensions in mm (inch))



- ① Alignment sight
- ② LED signal strength indicator
- ③ Center of optical axis
- ④ Mounting hole \varnothing 5.5 mm, for M5 hexagon nuts on both sides
- ⑤ 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			
	Mounting bracket, Stainless steel (1.4301), mounting hardware included	BEF-WN-W24	2015248

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