



WT45-R660

W45

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
WT45-R660	1009112

Other models and accessories → www.sick.com/W45

Illustration may differ



Detailed technical data

Features

Sensor/ detection principle	Photoelectric proximity sensor, Background suppression
Dimensions (W x H x D)	60 mm x 105 mm x 105 mm
Housing design (light emission)	Rectangular
Sensing range max.	200 mm ... 2,000 mm ¹⁾
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Type of light	Infrared light
Light source	LED ²⁾
Light spot size (distance)	Ø 35 mm (2,000 mm)
Adjustment	PotentiometerPotentiometer
Time type	On delay Off delay ON and OFF delay
Delay time	Adjustable via time delay selector switch, 0.5 s, 12 s

¹⁾ Object with 90 % reflectance (referred to standard white, DIN 5033).

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

Mechanics/electronics

Supply voltage	20 V AC/DC ... 250 V AC/DC ¹⁾
Power consumption	≤ 3 VA
Switching output	Relay, electrically isolated ²⁾
Output function	Change-over contacts
Switching mode	Light/dark switching ²⁾

¹⁾ Limit values.

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⁾ Up to 140 °C with cooling plates (see accessories).

Switching mode selector	Selectable via time delay selector switch
Switching current (switching voltage)	4 A (240 V AC) 4 A (24 V DC)
Response time	≤ 20 ms
Switching frequency	10 Hz ³⁾
Connection type	Connector Hirschmann, 6-pin
Circuit protection	A ⁴⁾ C ⁵⁾
Protection class	I
Weight	800 g
Housing material	Metal
Enclosure rating	IP65
Usage category	AC-15, DC-13, according to EN 60947-1
Ambient operating temperature	-25 °C ... +55 °C ⁶⁾
Ambient storage temperature	-40 °C ... +70 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

1) Limit values.

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.

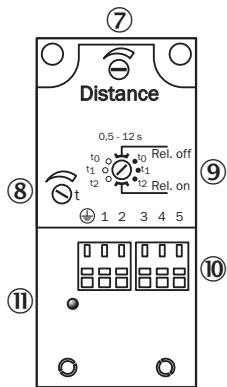
5) C = interference suppression.

6) Up to 140 °C with cooling plates (see accessories).

Classifications

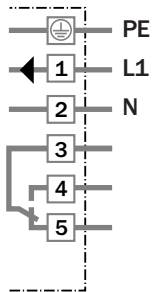
ECl@ss 5.0	27270904
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ECl@ss 6.2	27270904
ECl@ss 7.0	27270904
ECl@ss 8.0	27270904
ECl@ss 8.1	27270904
ECl@ss 9.0	27270904
ETIM 5.0	EC002719
ETIM 6.0	EC002719
UNSPSC 16.0901	39121528

Adjustments possible

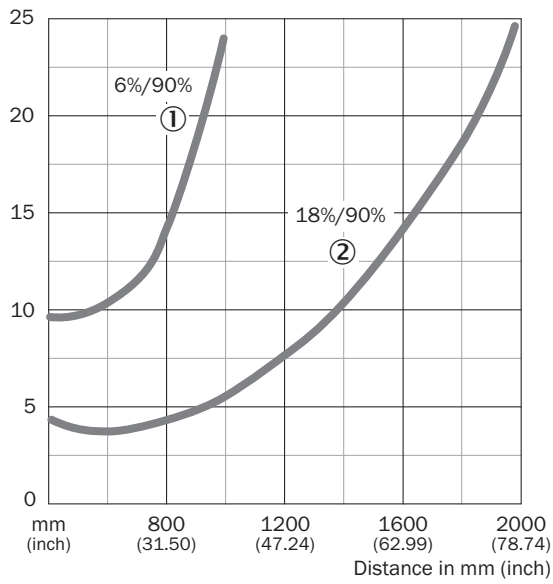


- ⑦ Adjustment of sensing range
- ⑧ Time control
- ⑨ Time delay selector switch
- ⑩ Terminal strip
- ⑪ Status indicator

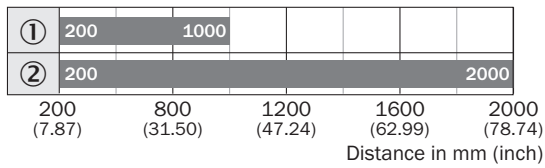
Connection diagram



Characteristic curve



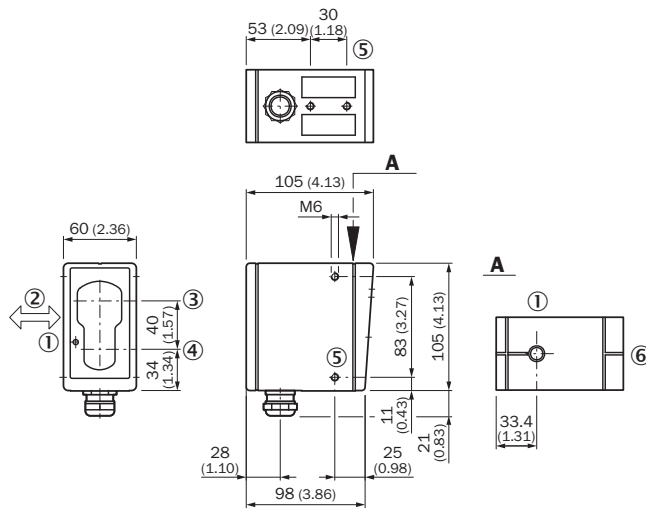
Sensing range diagram



■ Sensing range

- ① Sensing range on black, 6 % remission
- ② Sensing range on gray, 18 % remission

Dimensional drawing (Dimensions in mm (inch))



- ① LED signal strength indicator
- ② Standard direction of the material being detected
- ③ Center of optical axis, receiver
- ④ Center of transmitter's optical axis
- ⑤ M6 threaded mounting hole, 8 mm deep
- ⑥ Alignment sight

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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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