



WT45-P200S03

W45

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
WT45-P200S03	1015316

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

Illustration may differ



Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	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 ... 1,000 mm ¹⁾
Sensing range	200 mm ... 1,000 mm
Type of light	Visible red light
Light source	LED ²⁾
Light spot size (distance)	Ø 35 mm (1,000 mm)
Adjustment	Potentiometer
Special features	For the detection of hot objects with surface temperatures of > 800 °C

¹⁾ Object with 90% remission (based on standard white, DIN 5033).

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

Mechanics/electronics

Supply voltage U_B	10 V DC ... 60 V DC ¹⁾
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¹⁾ Limit values.

²⁾ May not fall below or exceed U_V tolerances.

³⁾ Without load.

⁴⁾ Signal transit time with resistive load.

⁵⁾ With light/dark ratio 1:1.

⁶⁾ A = V_S connections reverse-polarity protected.

⁷⁾ C = interference suppression.

⁸⁾ D = outputs overcurrent and short-circuit protected.

⁹⁾ Reference voltage: 50 V DC.

¹⁰⁾ Up to 120 °C with cooling plates BEF-KP-W 45.

Ripple	< 5 V _{pp} ²⁾
Current consumption	50 mA ³⁾
Switching output	PNP
Output function	Complementary
Switching mode	Light/dark switching
Output current I_{max.}	≤ 200 mA
Response time	≤ 6 ms ⁴⁾
Switching frequency	50 Hz ⁵⁾
Connection type	Terminal connection with PG13,5, 6-pin
Circuit protection	A ⁶⁾ C ⁷⁾ D ⁸⁾
Protection class	I ⁹⁾
Weight	800 g
Special device	✓
Housing material	Metal
Enclosure rating	IP67
Items supplied	Cooling plate BEF-KP-W 45 and special protection hood OBS-W45-H not included in scope of delivery
Test input sender off	TE to 0 V
Ambient operating temperature	-25 °C ... +55 °C ¹⁰⁾
Ambient temperature, storage	-40 °C ... +70 °C

1) Limit values.

2) May not fall below or exceed U_y tolerances.

3) Without load.

4) Signal transit time with resistive load.

5) With light/dark ratio 1:1.

6) A = V_S connections reverse-polarity protected.

7) C = interference suppression.

8) D = outputs overcurrent and short-circuit protected.

9) Reference voltage: 50 V DC.

10) Up to 120 °C with cooling plates BEF-KP-W 45.

Safety-related parameters

MTTF_D	296 years
DC_{avg}	0 %

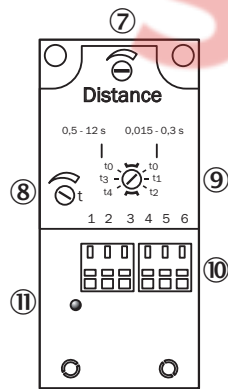
Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
Photobiological safety (DIN EN 62471) certificate	✓

Classifications

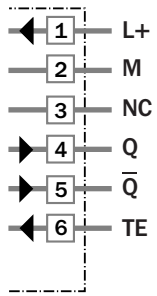
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ECLASS 6.0	27270904
ECLASS 6.2	27270904
ECLASS 7.0	27270904
ECLASS 8.0	27270904
ECLASS 8.1	27270904
ECLASS 9.0	27270904
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

Adjustments

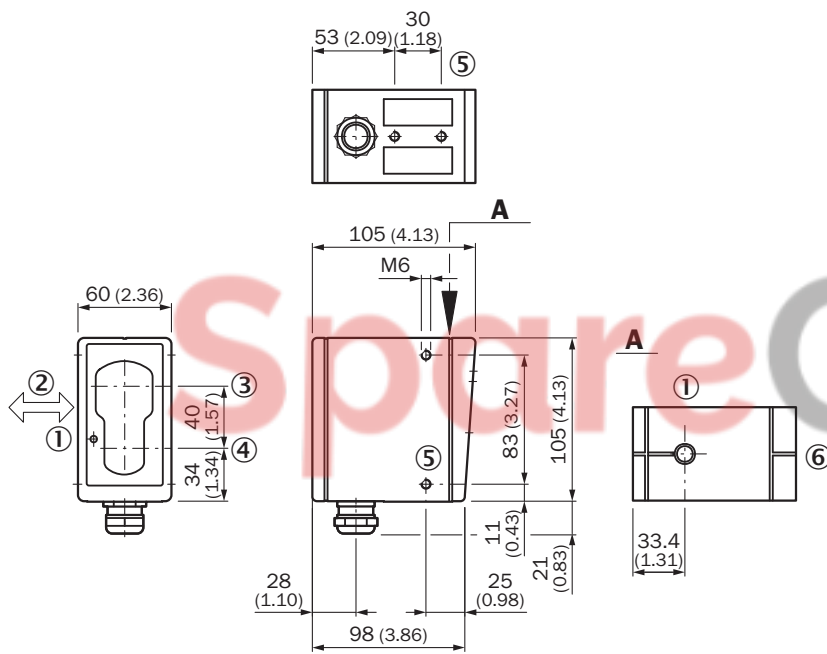


- ⑦ Adjustment of sensing range
- ⑧ Time control
- ⑨ time delay selector switch
- ⑩ terminal strip
- ⑪ Status indicator

Connection diagram



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

Recommended accessories

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

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none">• Description: Mounting bracket• Material: Steel• Details: Steel, zinc coated• Items supplied: Mounting hardware included	BEF-WN-W45	2011480

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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.”

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