

WT45-R200S04

W45

COMPACT PHOTOELECTRIC SENSORS





Ordering information

Туре	Part no.
WT45-R200S04	1015317

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 $^{\circ}$ C Cable gland, for cross-section: 0,14 mm ² 2,5 mm ² , max. 16 A

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

Mechanics/electronics

Supply voltage U _B	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	2)

¹⁾ Limit values.

 $^{^{2)}}$ Average service life: 100,000 h at T_{U} = +25 °C.

 $^{^{\}rm 2)}$ Provide suitable spark suppression for inductive or capacitive loads.

 $^{^{}m 3)}$ With light/dark ratio 1:1.

 $^{^{\}rm 4)}$ A = V $_{\rm S}$ connections reverse-polarity protected.

⁵⁾ C = interference suppression.

 $^{^{6)}}$ Up to 120 $^{\circ}\text{C}$ with cooling plates BEF-KP-W 45.

Switching current (switching voltage) 4 A @ 250 V AC, 4 A @ 24 V DC, 0.125 A @ 120 V DC UL: 4 A @ 250 V AC, general purpose / 2 A @ 250 V AC, pilot duty Response time ≤ 20 ms Switching frequency 10 Hz ³) Connection type Terminal connection with PG13,5, 6-pin Circuit protection A ⁴) C ⁵) Protection class I 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 Ambient operating temperature -25 °C +55 °C ⁶⁾ Ambient temperature, storage -40 °C +70 °C UL File No. NRKH.E181493 & NRKH7.E181493		
Switching frequency Connection type Terminal connection with PG13,5, 6-pin A 4 4 C 5 5 C +70 ° C Terminal connection with PG13,5, 6-pin Terminal connection	Switching current (switching voltage)	
Connection type Terminal connection with PG13,5, 6-pin A 4) C 5) Protection class I Weight 800 g Special device Housing material Enclosure rating Items supplied Cooling plate BEF-KP-W 45 and special protection hood OBS-W45-H not included in scope of delivery Ambient operating temperature -25 °C +55 °C 6) -40 °C +70 °C	Response time	≤ 20 ms
Circuit protection A 4) C 5) Protection class I 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 Ambient operating temperature -25 °C +55 °C 6) -40 °C +70 °C	Switching frequency	10 Hz ³⁾
C 5) Protection class I Weight 800 g Special device Housing material Enclosure rating IP67 Items supplied Cooling plate BEF-KP-W 45 and special protection hood OBS-W45-H not included in scope of delivery Ambient operating temperature -25 °C +55 °C 6) -40 °C +70 °C	Connection type	Terminal connection with PG13,5, 6-pin
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 Ambient operating temperature -25 °C +55 °C 6) Ambient temperature, storage -40 °C +70 °C	Circuit protection	
Special device Housing material Metal Enclosure rating Items supplied Cooling plate BEF-KP-W 45 and special protection hood OBS-W45-H not included in scope of delivery Ambient operating temperature −25 °C +55 °C ⁶⁾ Ambient temperature, storage −40 °C +70 °C	Protection class	I
Housing material Enclosure rating IP67 Items supplied Cooling plate BEF-KP-W 45 and special protection hood OBS-W45-H not included in scope of delivery Ambient operating temperature -25 °C +55 °C ⁶⁾ Ambient temperature, storage -40 °C +70 °C	Weight	800 g
Enclosure rating IP67 Items supplied Cooling plate BEF-KP-W 45 and special protection hood OBS-W45-H not included in scope of delivery Ambient operating temperature -25 °C +55 °C ⁶⁾ Ambient temperature, storage -40 °C +70 °C	Special device	√
Cooling plate BEF-KP-W 45 and special protection hood OBS-W45-H not included in scope of delivery Ambient operating temperature -25 °C +55 °C ⁶⁾ Ambient temperature, storage -40 °C +70 °C	Housing material	Metal
delivery $-25 ^{\circ}\text{C} +55 ^{\circ}\text{C} ^{6)}$ Ambient temperature, storage $-40 ^{\circ}\text{C} +70 ^{\circ}\text{C}$	Enclosure rating	IP67
Ambient temperature, storage -40 °C +70 °C	Items supplied	
	Ambient operating temperature	-25 °C +55 °C ⁶⁾
UL File No. NRKH.E181493 & NRKH7.E181493	Ambient temperature, storage	-40 °C +70 °C
	UL File No.	NRKH.E181493 & NRKH7.E181493

¹⁾ Limit values

Classifications

ECLASS 5.0	27270904
ECLASS 5.1.4	27270904
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

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

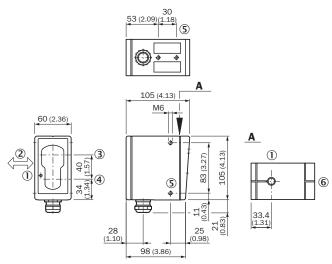
³⁾ With light/dark ratio 1:1.

 $^{^{4)}}$ A = V_S connections reverse-polarity protected.

⁵⁾ C = interference suppression.

⁶⁾ Up to 120 °C with cooling plates BEF-KP-W 45.

Dimensional drawing (Dimensions in mm (inch))



- ① LED signal strength indicator
- ② Standard direction of the material being detected③ Center of optical axis, receiver
- Center of transmitter's optical axis
- (5) M6 threaded mounting hole, 8 mm deep
- 6 Alignment sight

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