



WS/WE250-N132

W250

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
WS/WE250-N132	6010597

Included in delivery: BEF-W250 (1)

Other models and accessories → www.sick.com/W250

Detailed technical data

Features

Sensor/ detection principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	20 mm x 65 mm x 43 mm
Housing design (light emission)	Rectangular
Sensing range max.	0 m ... 25 m
Sensing range	0 m ... 20 m
Type of light	Visible red light
Light source	LED ¹⁾
Light spot size (distance)	Ø 1.5 m (20 m)
Angle of dispersion	4°
Adjustment	Potentiometer, 2 turns ²⁾

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

²⁾ With position indicator.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC ¹⁾
Ripple	≤ 5 V _{pp} ²⁾

¹⁾ Limit values when operated in short-circuit protected network: max. 8 A.

²⁾ May not exceed or fall below U_V tolerances.

³⁾ Without load.

⁴⁾ Signal transit time with resistive load.

⁵⁾ With light/dark ratio 1:1.

⁶⁾ Do not bend below 0 °C.

⁷⁾ A = V_S connections reverse-polarity protected.

⁸⁾ B = inputs and output reverse-polarity protected.

⁹⁾ C = interference suppression.

¹⁰⁾ D = outputs overcurrent and short-circuit protected.

¹¹⁾ Reference voltage: 50 V DC.

Power consumption, sender	20 mA ³⁾
Power consumption, receiver	35 mA ³⁾
Switching output	NPN
Switching mode	Light/dark switching
Switching mode selector	Selectable via L/D control cable
Output current I_{max.}	100 mA
Response time	≤ 0.5 ms ⁴⁾
Switching frequency	1,000 Hz ⁵⁾
Angle of reception	20°
Connection type	Cable, 4-wire, 2 m ⁶⁾
Cable material	PVC
Conductor cross-section	0.18 mm ²
Cable diameter	Ø 3.8 mm
Circuit protection	A ⁷⁾ B ⁸⁾ C ⁹⁾ D ¹⁰⁾
Protection class	II ¹¹⁾
Weight	300 g
Housing material	Plastic, ABS
Optics material	Plastic, PC
Enclosure rating	IP67
Items supplied	BEF-W250 mounting bracket
Ambient operating temperature	-25 °C ... +55 °C
Ambient storage temperature	-40 °C ... +70 °C
UL File No.	NRNT2.E128350 & NRNT8.E128350

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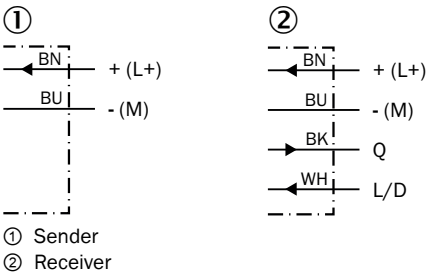
Classifications

ECI@ss 5.0	27270901
ECI@ss 5.1.4	27270901
ECI@ss 6.0	27270901
ECI@ss 6.2	27270901
ECI@ss 7.0	27270901

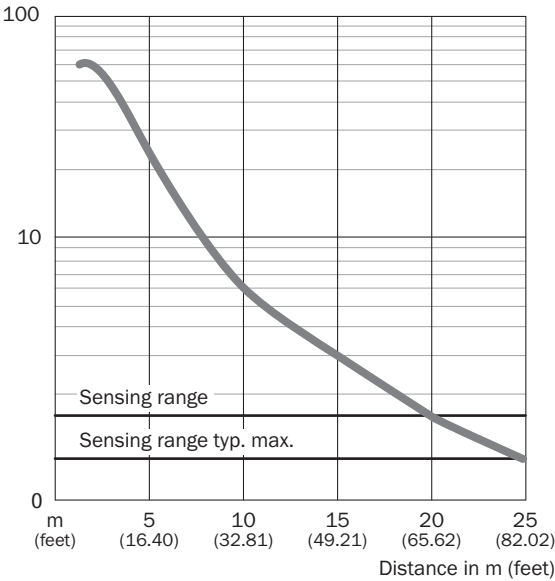
ECI@ss 8.0	27270901
ECI@ss 8.1	27270901
ECI@ss 9.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
UNSPSC 16.0901	39121528

Connection diagram

Cd-058



Characteristic curve



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:

Contacts and other locations –www.sick.com