WS/WE150-S01

W150

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

Ordering information

Type	part no.
WS/WE150-S01	1018548

Included in delivery: BEF-W150-A (1)

Other models and accessories ➜ www.sick.com/W150

Detailed technical data

Features

Functional principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	10 mm x 28 mm x 17.5 mm
Housing design (light emission)	Rectangular
Sensing range max.	0 m ... 4.4 m
Sensing range	0 m ... 4 m
Focus	6°
Type of light	Visible red light
Light source	LED [1]
Angle of dispersion	6°
Adjustment	Potentiometer, 270°
Special features	Leads and end cap yellow

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

Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC [1]
Ripple	± 10 % [2]
Current consumption	15 mA, 20 mA [3] [4]
Angle of reception	15°
Connection type	Cable, 4-wire, 5 m [4]
Protection class	II
Special device	✓
Enclosure rating	IP67
Items supplied	BEF-W150-A mounting bracket

[1] Limit values.
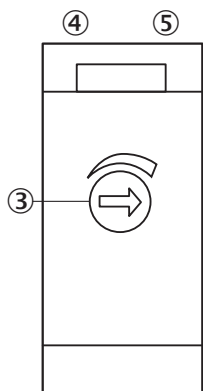[2] May not fall below or exceed U_V tolerances.
[3] Sender.
[4] Receiver.

Ambient operating temperature	−25 °C ... +55 °C
Ambient temperature, storage	−40 °C ... +75 °C

[1] Limit values.

[2] May not fall below or exceed U_V tolerances.
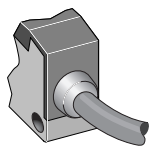
[3] Sender.

[4] Receiver.

Classifications

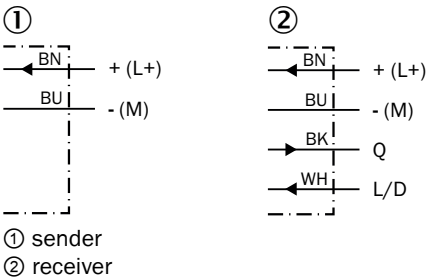| ECLASS 5.0	27270901
ECLASS 5.1.4	27270901
ECLASS 6.0	27270901
ECLASS 6.2	27270901
ECLASS 7.0	27270901
ECLASS 8.0	27270901
ECLASS 8.1	27270901
ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901
ECLASS 12.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

Adjustments

③ Sensitivity adjustment 270° (only WE)
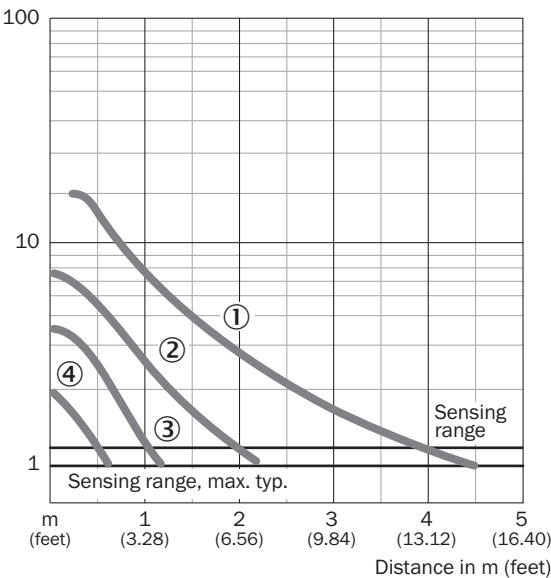④ green LED: stability indicator (WE only)
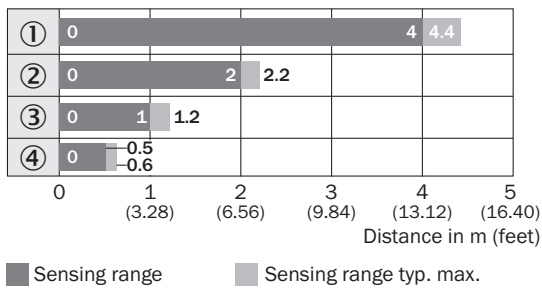⑤ orange LED: output active (WE only)
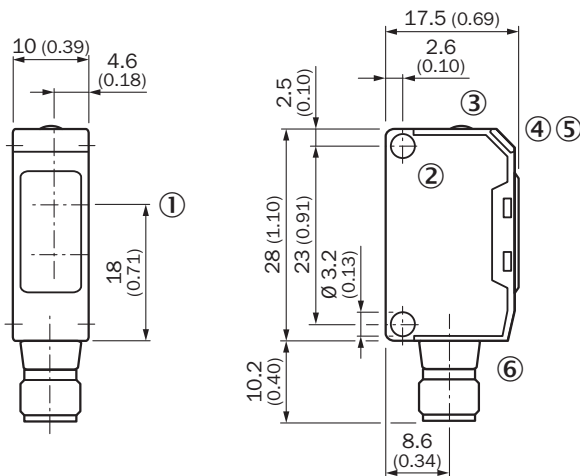
Connection type

Connection diagram Cd-058

① | ②

①		②	
BN	+ (L+)	BN	+ (L+)
BU	- (M)	BU	- (M)
		BK	Q
		WH	L/D

① sender
② receiver

Characteristic curve

X-axis: Distance in m (feet) — m (feet), 1 (3.28), 2 (6.56), 3 (9.84), 4 (13.12), 5 (16.40)

Curves: ①, ②, ③, ④

Sensing range

Sensing range, max. typ.

Sensing range diagram

①	0	4	4.4
②	0	2	2.2
③	0	1	1.2
④	0	0.5 / 0.6	

0   1 (3.28)   2 (6.56)   3 (9.84)   4 (13.12)   5 (16.40)
Distance in m (feet)

■ Sensing range   ■ Sensing range typ. max.

Reduction in sensing range with slotted masks
① Without slotted mask
② Mask aperture width 2.0 mm
③ Mask aperture width 1.0 mm
④ Mask aperture width 0.5 mm

Dimensional drawing

Dimensions in mm (inch)
① Center of optical axis
② Mounting hole, ø approx. 3.1 mm
③ Sensing range adjustment: potentiometer, 5 turns
④ LED indicator green: stability indicator
⑤ LED indicator orange: output active
⑥ Connection

Recommended accessories

Other models and accessories ➜ www.sick.com/W150

Brief description		Type	part no.
Mounting systems			
	• **Description:** Plate N08 for universal clamp bracket • **Material:** Steel, zinc diecast • **Details:** Zinc plated steel (sheet), Zinc die cast (clamping bracket) • **Items supplied:** Universal clamp (5322626), mounting hardware • **Usable for:** W100, W150, W4S, W4F, W8, W9-3, W8G, W8 Laser, W8 Inox, G6, W100 Laser, W100-2, W10, G6 Inox, RAY10, W4SLG-3, W9, GR18, MultiPulse, Reflex Array, MultiLine, LUT3, KT5, KT8, KT10, CS8	BEF-KHS-N08	2051607
	• **Description:** Plate N11N for universal clamp bracket • **Material:** Stainless steel • **Details:** Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp) • **Items supplied:** Universal clamp (5322627), mounting hardware • **Usable for:** DeltaPac, Glare, WTD20E	BEF-KHS-N11N	2071081
connectors and cables			
	• **Connection type head A:** Male connector, M8, 4-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** 0.14 mm² ... 0.5 mm²	STE-0804-G	6037323
	• **Connection type head A:** Male connector, M12, 4-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm²	STE-1204-G	6009932

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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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