



WT2S-P111

W2

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
WT2S-P111	1022660

Other models and accessories → www.sick.com/W2

Illustration may differ

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Background suppression
Dimensions (W x H x D)	7.6 mm x 25.1 mm x 12.5 mm
Housing design (light emission)	Rectangular
Sensing range max.	1 mm ... 15 mm ¹⁾
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Focus	7 mm
Type of light	Visible red light
Light source	PinPoint LED ²⁾
Light spot size (distance)	Ø 1.5 mm (7 mm)
Wave length	660 nm
Adjustment	None

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

²⁾ Average service life: 75,000 h at TU = +25 °C.

Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Switching output	PNP
Switching mode	Light switching
Output current $I_{max.}$	≤ 50 mA

¹⁾ Limit values.

²⁾ May not fall below or exceed U_B tolerances.

³⁾ Signal transit time with resistive load.

⁴⁾ With light/dark ratio 1:1.

⁵⁾ Do not bend below 0 °C.

⁶⁾ $A = V_S$ connections reverse-polarity protected.

⁷⁾ C = interference suppression.

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

Response time	< 0.6 ms ³⁾
Switching frequency	800 Hz ⁴⁾
Connection type	Cable, 3-wire, 2 m ⁵⁾
Cable material	Plastic, PVC
Cable diameter	Ø 2.4 mm
Circuit protection	A ⁶⁾ C ⁷⁾ D ⁸⁾
Weight	18 g
Reverse polarity protection	✓
Short-circuit protection	✓
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67 IP69K
Ambient operating temperature	-20 °C ... +50 °C
Ambient temperature, storage	-40 °C ... +75 °C

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²⁾ May not fall below or exceed U_y tolerances.

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Safety-related parameters

MTTF_D	1,495 years
DC_{avg}	0 %

Classifications

ECLASS 5.0	27270903
ECLASS 5.1.4	27270903
ECLASS 6.0	27270903
ECLASS 6.2	27270903
ECLASS 7.0	27270903
ECLASS 8.0	27270903
ECLASS 8.1	27270903
ECLASS 9.0	27270903
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC001821
ETIM 6.0	EC001821
ETIM 7.0	EC002719

ETIM 8.0

EC002719

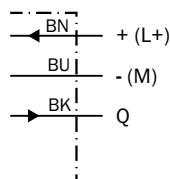
UNSPSC 16.0901

39121528

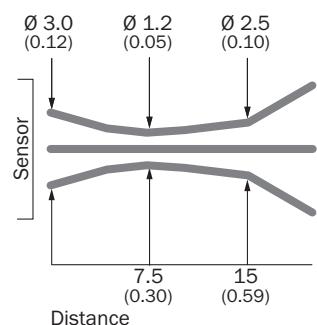
Connection type Wx2S-x1xx



Connection diagram Cd-043

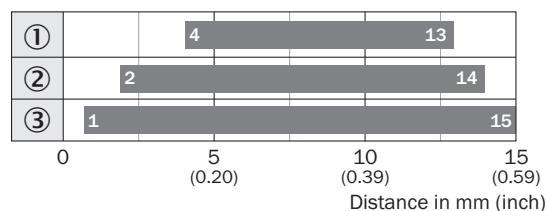


Light spot size WT2S, 15 mm



All dimensions in mm (inch)

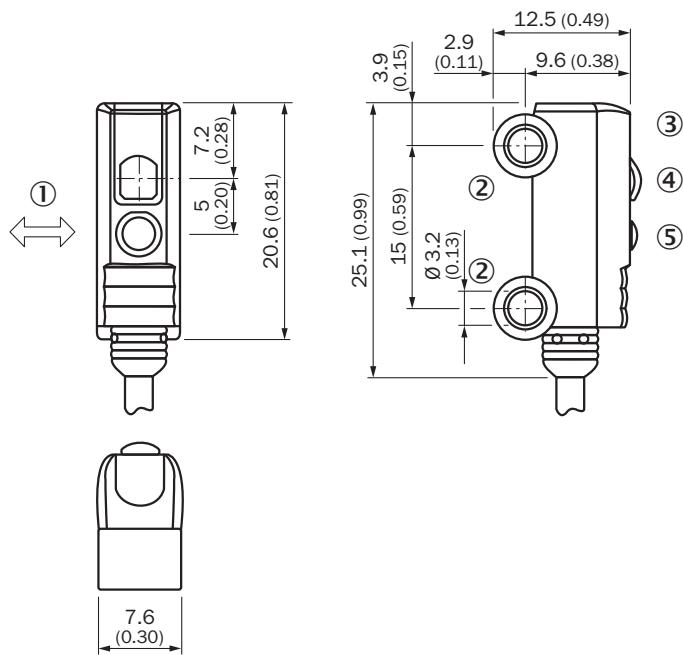
Sensing range diagram WT2S, 15 mm



■ Sensing range

- ① Sensing range on black, 6% remission factor
- ② Sensing range on gray, 18% remission factor
- ③ Sensing range on white, 90% remission factor

Dimensional drawing WT2S, background suppression



Dimensions in mm (inch)

- ① Standard direction of the material being detected
- ② Mounting hole, Ø approx. 3.1 mm
- ③ Receive indicator
- ④ optical axis, receiver
- ⑤ Optical axis, sender

Recommended accessories

Other models and accessories → www.sick.com/W2

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> • Description: Mounting bracket for floor mounting • Material: Steel • Details: Steel, zinc coated • Items supplied: Without mounting hardware • Suitable for: W2S-2 	BEF-W2S-A	4034748
	<ul style="list-style-type: none"> • 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

	Brief description	Type	part no.
connectors and cables	 <ul style="list-style-type: none">Connection type head A: Male connector, M8, 3-pin, straight, A-codedDescription: UnshieldedConnection systems: Screw-type terminalsPermitted cross-section: 0.14 mm² ... 0.5 mm²	STE-0803-G	6037322

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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.

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Contacts and other locations www.sick.com