



WTE15-P2411

W15

CYLINDRICAL PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
WTE15-P2411	1043314

Other models and accessories → www.sick.com/W15

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Energetic
Dimensions (W x H x D)	16.2 mm x 48.5 mm x 31.9 mm
Housing design (light emission)	Hybrid
Thread diameter (housing)	M18 x 1
Sensing range max.	10 mm ... 350 mm ¹⁾
Sensing range	10 mm ... 250 mm
Focus	4.5°
Type of light	Infrared light
Light source	LED ²⁾
Light spot size (distance)	Ø 50 mm (350 mm)
Angle of dispersion	4.5°
Wave length	950 nm
Adjustment	Potentiometer, 5 turns (Sensing range) Potentiometer, 5 rotations

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

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

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Current consumption	30 mA ³⁾
Switching output	PNP
Output function	Complementary
Switching mode	Light/dark switching
Output current I_{max}	≤ 100 mA
Response time	≤ 1.25 ms ⁴⁾
Switching frequency	400 Hz ⁵⁾
Connection type	Male connector M12, 4-pin
Circuit protection	A ⁶⁾ B ⁷⁾ D ⁸⁾
Protection class	II ⁹⁾
Weight	10 g
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67
Items supplied	Snap-ring and M18 nut
Ambient operating temperature	-25 °C ... +55 °C
Ambient temperature, storage	-25 °C ... +70 °C
UL File No.	NRKH.E189383 & NRKH7.E189383

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⁾ A = V_S connections reverse-polarity protected.

⁷⁾ B = inputs and output reverse-polarity protected.

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

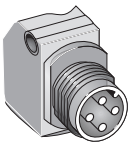
⁹⁾ Reference voltage: 50 V DC.

Classifications

eCl@ss 5.0	27270903
eCl@ss 5.1.4	27270903
eCl@ss 6.0	27270903
eCl@ss 6.2	27270903
eCl@ss 7.0	27270903
eCl@ss 8.0	27270903
eCl@ss 8.1	27270903
eCl@ss 9.0	27270903
eCl@ss 10.0	27270904
eCl@ss 11.0	27270904

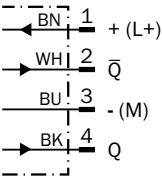
eCl@ss 12.0	27270903
ETIM 5.0	EC001821
ETIM 6.0	EC001821
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

Connection type



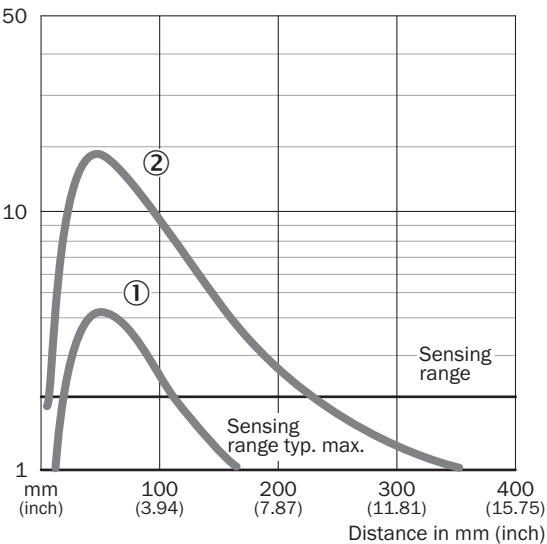
Connection diagram

Cd-083



Characteristic curve

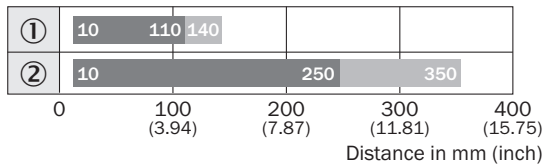
WTE15



- ① Sensing range on gray, 18 % remission
- ② Sensing range on white, 90% remission

Sensing range diagram

WTE15

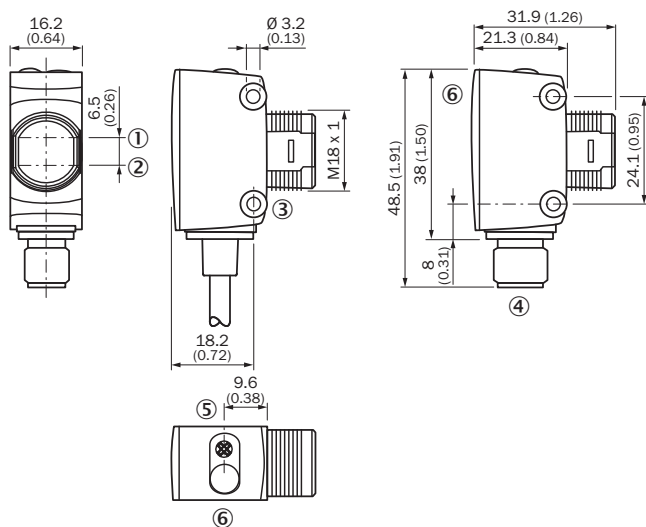


■ Sensing range ■ Sensing range max.

- ① Sensing range on gray, 18 % remission
② Sensing range on white, 90% remission

Dimensional drawing (Dimensions in mm (inch))


WTE15, WTB15




- ① Optical axis, receiver
② Optical axis, sender
③ Mounting hole, Ø 3.2 mm
④ M12 male device connector, 4-pin
⑤ Potentiometer
⑥ LED indicator green: power; yellow: output

Recommended accessories

Other models and accessories → www.sick.com/W15

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A14-050VB3XLEAX	2096235

	Brief description	Type	Part no.
	Head A: male connector, M12, 4-pin, straight Cable: unshielded	STE-1204-G	6009932

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