



Photoelectric sensors W23-2, Photoelectric proximity sensor, energetic

WTE23-2P2412



Model Name > [WTE23-2P2412](#)
Part No. > [1027781](#)



Illustration may differ

At a glance

- WTE23-2 energetic photoelectric proximity with a sensing range up to 2,300 mm
- Teach-in pushbutton: teach and ready!
- IR LED for long sensing ranges
- 360° visibility of indicating LEDs

Your benefits

- Durable housing with reinforced mounting holes withstands harsh conditions
- Teach-in pushbutton enables quick sensing range adjustment
- 360° LEDs provide device status indication from multiple angles
- Less downtime due to ASIC chip technology by SICK
- High level of mechanical and electronic reliability in industrial environments



Features

Sensor/detection principle:	Photoelectric proximity sensor, energetic
Dimensions (W x H x D):	24.6 mm x 80.6 mm x 54 mm
Housing design (light emission):	Rectangular
Sensing range max.:	50 mm ... 2,300 mm ¹⁾
Sensing range:	30 mm ... 2,000 mm
Type of light:	Infrared light
Light source:	LED ²⁾
Wave length:	880 nm
Adjustment:	Teach-in: single-teach button
Light spot size (distance):	Ø 160 mm (2,000 mm)

¹⁾ Object with 90 % reflectance (referred to standard white DIN 5033) ²⁾ Average service life of 100,000 h at T_A = +25 °C

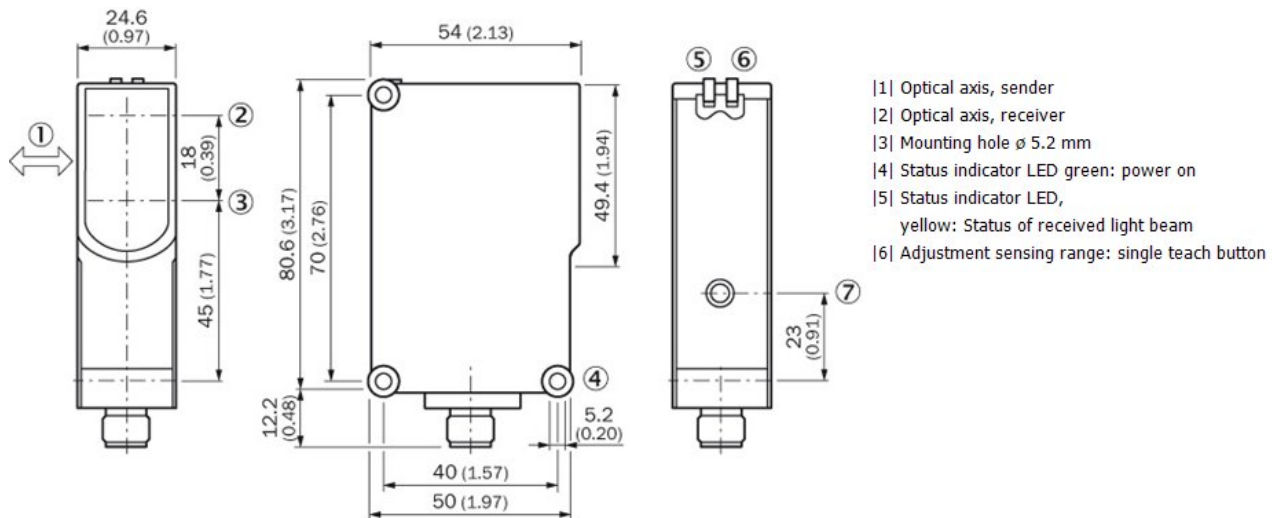
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Power consumption:	≤ 35 mA ²⁾
Output type:	PNP
Output function:	Complementary
Switching mode:	Light/dark-switching
Signal voltage PNP HIGH/LOW:	Approx. VS - 2.5 V / 0 V
Output current I _{max} :	≤ 100 mA
Response time:	≤ 2.5 ms ³⁾
Switching frequency:	± 200 Hz ⁴⁾

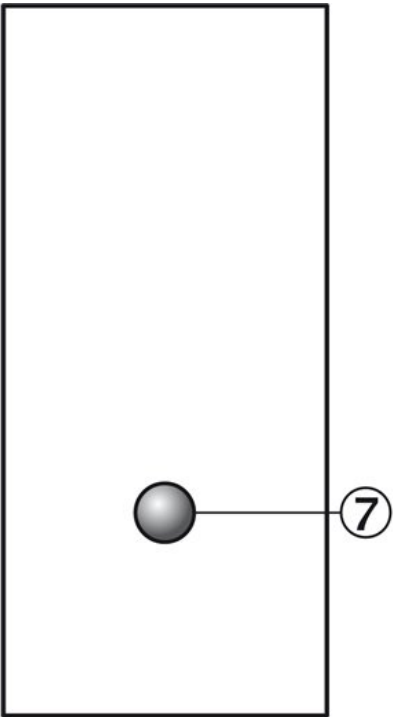
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, C, D ^{5) 6) 7)}
Protection class:	II ⁸⁾
Weight:	100 g
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67
Ambient operating temperature:	-25 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 70 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493

¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ Without load ³⁾ Signal transit time with resistive load ⁴⁾ With light/dark ratio 1:1 ⁵⁾ A = V_S
connections reverse-polarity protected ⁶⁾ C = interference suppression ⁷⁾ D = outputs overcurrent and short-circuit protected ⁸⁾ Reference voltage 50 V DC

Dimensional drawing

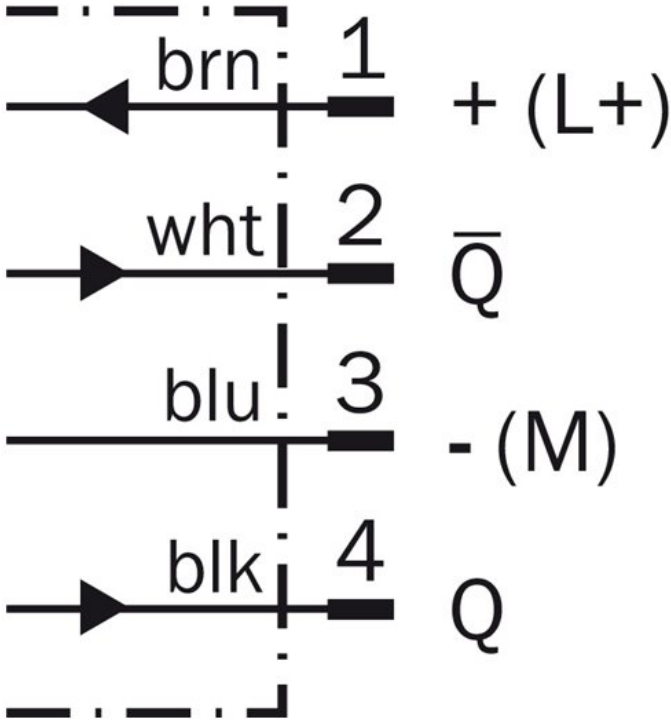


Adjustments possible

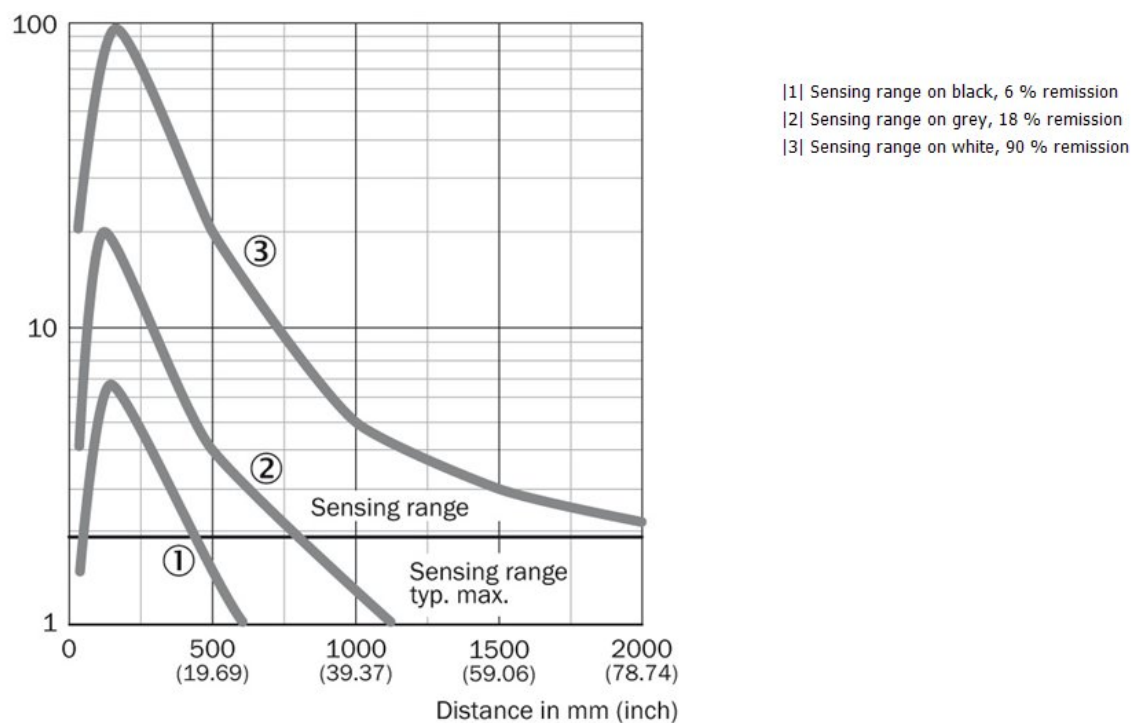


[1] Adjustment sensing range: single teach button

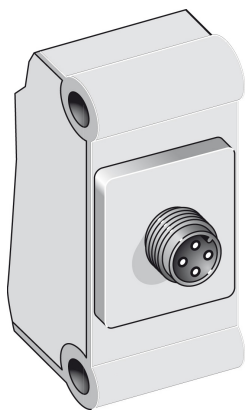
Connection diagram



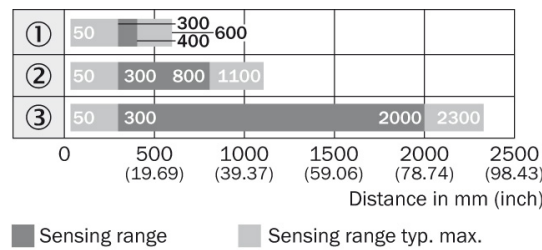
Characteristic curve



Connection type



Sensing range diagram



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

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